POWERING A RESILIENT AND SUSTAINABLE ENERGY FUTURE

sarawak energy

Annual and Sustainability Report 2020

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POWERING A RESILIENT AND SUSTAINABLE ENERGY FUTURE

The year 2020 marks a decade of exceptional growth for our company and our journey is highlighted in this year's Annual and Sustainability Report, reflecting Sarawak Energy's commitment to continue lighting up and powering the growth of Sarawak and its people despite the unprecedented challenges of COVID-19.

Guided by a holistic energy development strategy and sustainability principles, and enabled by technology, digitalisation and an agile workforce, we are dedicated to ensuring energy security, reliability and affordability for the long run, powering a resilient and sustainable energy future.

SUSTAINABILITY REPORT

102-40, 102-42, 102-46, 102-50, 102-54

ABOUT THIS REPORT

Building upon our one-hundred-year history, Sarawak Energy's current success is driven by both robust corporate strategies and the trust of our shareholders and stakeholders. To honour this trust and in line with our commitment to good corporate governance practices, we continue to voluntarily disclose updates on how we have performed through our annual reports, even though it is not mand atory for non-public-listed companies.

This is the second year that we have combined our formerly separate annual and sustainability reports into one Sarawak Energy Annual and Sustainability Report (ASR) 2020, for a holistic and comprehensive overview of the Company's activities and performance in 2020.

At the beginning of 2020, it was unimaginable how the year would unfold as a result of the disruptions caused by the global COVID-19 pandemic. Our ASR 2020 is a particularly important document that will provide insights on how Sarawak Energy remains resilient and continues to capture growth while navigating the evolving business landscape.

REPORTING STANDARDS

Our annual report is guided by local and global best practices in corporate statutory reporting with Bursa Malaysia Securities Berhad Listing Requirements and the Malaysian Code on Corporate Governance serving as our primary guidelines. We have also met the standards set by the Australasian Reporting Awards (ARA), earning silver for our 2018 report.

For sustainability reporting, we comply with the GRI Standards, adopting the GRI Standards core option. The full list of Sarawak Energy's GRI disclosures and relevant references are available on page 170 of this report. Our sustainability report also incorporates recommendations from the Task Force on Climate-related Financial Disclosures (TCFD) since 2019 to provide consistent, comparable, reliable, clear and efficient climate-related financial disclosures to enable informed decision-making among our investors and stakeholders.

Sarawak Energy will continue to work towards improving the standard of our reporting and expanding the scope of our disclosures.

REPORTING SCOPE AND BOUNDARY

The ASR 2020 provides stakeholders with a comprehensive overview of the Company's activities and performance for the period from 1 January to 31 December 2020.

It contains concise information on our leadership, corporate strategies and commitments, corporate governance and performance report card as well as sustainability approaches, responsibilities and highlights. This report also captures the accomplishments, challenges, risks and opportunities within the year under review and our way forward so that stakeholders have insights into our future plans, goals and objectives.

This report was developed in consideration of the feedback received from Sarawak Energy's stakeholders and based on the assessment of our operations against developments in the economy and the local and global energy industry.

ASSESSMENT OF MATERIAL MATTERS

Based on the assessment of matters that are of most pressing importance to Sarawak Energy and our stakeholders, our Materiality Issues and Materiality Matrix are presented on page 93 of this report.

ASSURANCE

The Sarawak Energy ASR 2020 has been assured by an independent third party and the assurance statement is available on page 165 of this report.

FEEDBACK

We welcome feedback, comments and enquiries via the following:

Corporate-related Enquiries:
corpcomm@sarawakenergy.com

Sustainability-related Enquiries:
sustainability@sarawakenergy.com

STATEMENT OF THE BOARD OF DIRECTORS OF SARAWAK ENERGY BERHAD

The Board is pleased to present the Sarawak Energy Annual and Sustainability Report 2020 with confidence that it is a fair representation of Sarawak Energy's performance throughout the year 2020.

Approved by the Board of Directors and signed on behalf of the Board.

Datuk Amar Abdul Hamed Sepawi
Chairman

Datu Haji Sharbini Suhaili
Group Chief Executive Officer

Note:
Photos in this report includes those that were taken before the COVID-19 pandemic.

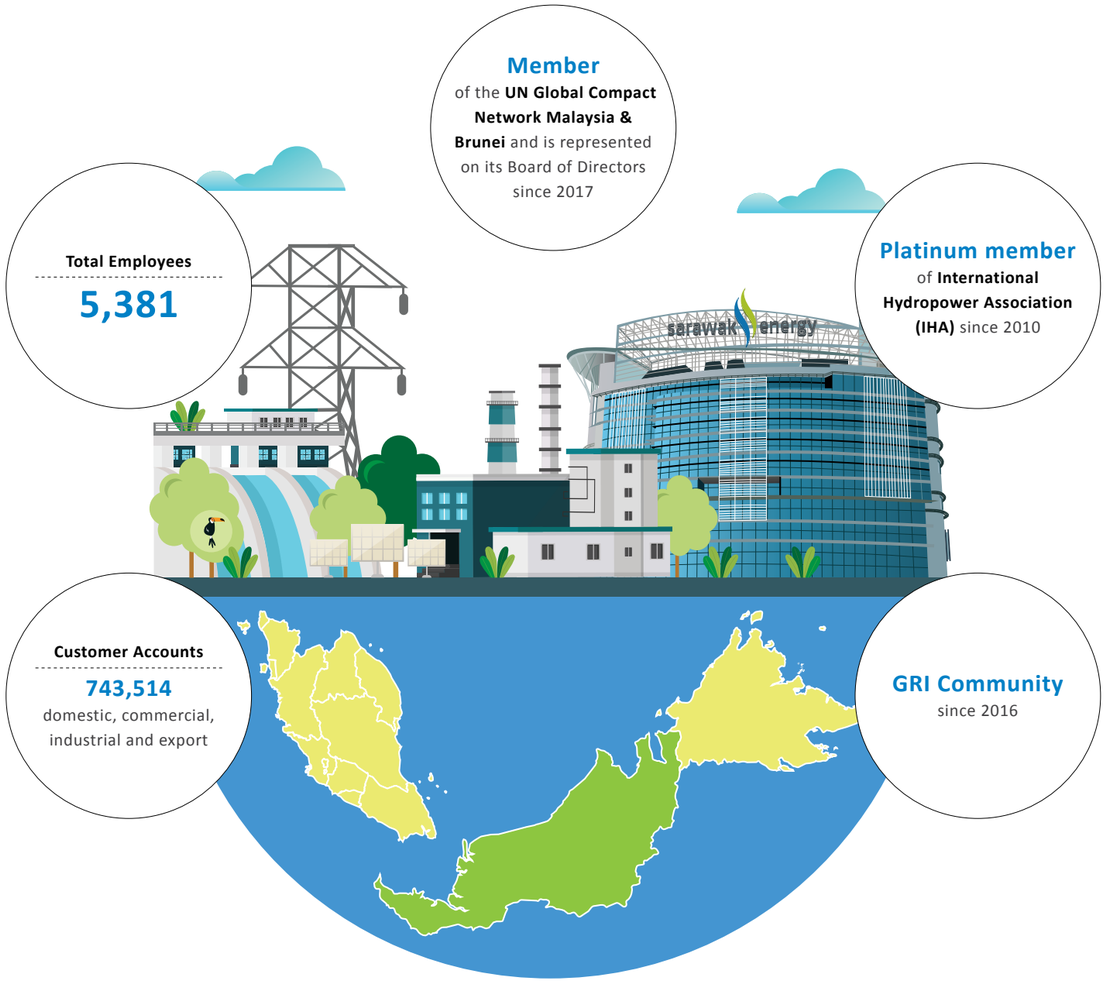
102-2, 102-6, 102-7, 102-9, 102-13, 103-1

ABOUT SARAWAK ENERGY

Sarawak Energy is a vertically integrated power utility and energy development company wholly-owned by the Sarawak Government. Our business includes the generation, transmission, distribution, retail and export of electricity.

With a generation mix that is predominantly clean and renewable hydropower complemented by thermal power from indigenous natural resources of coal and gas, we provide reliable and affordable electricity supply to our population of almost three million across Sarawak and in parts of West Kalimantan, Indonesia.

Our ambition is to continue to grow into the leading renewable energy provider of the region in Borneo and beyond, as we progress our aspiration to be a regional powerhouse.



Building on a strong foundation of 100 years as the primary provider of electricity in Sarawak, Sarawak Energy continues to power the sustainable and continuous growth for Sarawak.

102-7, 103-2, EU26, EU29

2010-2020: A DECADE OF GROWTH & TRANSFORMATION

The last decade has been a period of major transformation for Sarawak Energy. The launch of the Sarawak Corridor of Renewable Energy (SCORE) in 2008 to accelerate Sarawak's economic transformation presented Sarawak Energy with tremendous growth opportunities to support Sarawak's development agenda and ambition to reach developed status by 2030.

As the primary electricity provider in Sarawak, we took on the role of a catalyst for SCORE by developing and harnessing our renewable hydropower resources to offer globally competitive tariffs, to attract investment and power socio-economic development.

We experienced significant growth and transformed from a traditional utility into a modern energy development company and power provider with a strong domestic, commercial, industrial and export customer base.

Our generation capacity has grown almost four-fold from **1,347MW** to **5,223MW**

Our generation mix has shifted from being predominantly fossil fuel to **primarily clean and renewable hydropower**

Our revenue base has more **than tripled**

Our workforce strength more than doubled from 2,500 people to **almost 5,400**

Our customer account holder base has **grown by 41%** and our bulk-power SCORE customers today contribute the bulk of our revenue

Our growth and improvements since 2010

Sarawak's rural electrification coverage increased from 56% at the beginning of 2010 to **95^%** at the end of 2020

Our customers experienced 285 minutes of interruption on average in 2010 and less than **79[1] minutes** in 2020

We **strengthened** our sustainability strategies and **improved** our Environmental, Social and Governance (ESG) performance

We greatly **improved** corporate governance and internal processes to maintain business resilience

Moving forward, we are investing and accelerating efforts in our corporate growth strategies to:

- Progress the Borneo Grid and regional expansion;
- Drive innovation and investment across Borneo and the region;
- Grow as a regional leader in clean, renewable energy and technology;
- Become a Digital Utility by 2025.

As part of our broader roles and responsibilities, we continue to support Sarawak in its vision to achieve high-income status by 2030 by powering the following initiatives:

- Deliver the Accelerated Rural Electrification Masterplan under the Ministry of Utilities Sarawak to achieve 100% electrification rate in Sarawak by 2025.
- Lead research in green hydrogen production and hydrogen fuel cell application under the Green Energy Agenda to drive a low carbon economy in Sarawak.
- Promote the use of electric and hydrogen fuel cell vehicles to support green transportation in Sarawak.
- Drive enterprise-wide digital transformation in support of Sarawak's Digital Economy Agenda.
- Lead the Sarawak Economic Action Council's (SEAC) renewable energy workstream to formulate related strategies to drive economic development post COVID-19.
- Facilitate the development of a sustainable hydrogen economy for Sarawak through our role in the Sarawak Hydrogen Association pro-tem committee.

In anticipation of future growth in organic, industrial and export demand for electricity, Sarawak Energy will continue to expand its renewable capacity to power development, benefitting our stakeholders and the people of Sarawak.

Notes:

[1] Include generation, transmission and distribution.

^ This rural electrification coverage data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.

102-16

VISION, MISSION AND LIVING OUR VALUES

VISION

Sustainable growth and prosperity for Sarawak by meeting the region's need for reliable, renewable energy

MISSION

To realise our vision, we will

- Pursue opportunities for growth by fully developing the Sarawak Government's Sarawak Corridor of Renewable Energy (SCORE) agenda
- Ensure our own safety and the safety of others, with a commitment to do 'no harm to anyone at any time'
- Provide a reliable supply of clean, competitively-priced energy to support the economic and social development of Sarawak and our partners in the region
- Operate as a business based on principles that reward our owners and employees, and delight our customers
- Honour the trust placed in us by the people of Sarawak, by acknowledging and respecting them and contributing to their wellbeing
- Set and achieve high ethical and corporate standards that are a source of pride for our employees, customers and owners
- Develop our people, leadership and teamwork to build an agile, open and customer-focused culture that responds to challenges and the need for change with innovation and cooperation
- Harness and utilise natural resources in a sustainable and responsible way
- Achieve operational excellence through a commitment to continual improvement and best practices

102-16

OUR CORE VALUES

Demonstrating Our Core Values and Winning Behaviours towards a High Performance Culture

COURAGE	UNITY	RESPECT	INTEGRITY	ACCOUNTABILITY
We dare to do what is right and in the best interests of our Company and the community, even when it is not easy to do so.	We collaborate and work together to deliver our business objectives.	We value differences, include and acknowledge different points of view and listen well in all situations.	We are honest and can be trusted by people to do what is right.	We work hard and are responsible for delivering our promises to the highest standards.
Attributes				
• Dare to speak one's mind • Dare to share different viewpoints • Dare to intervene to right the wrong • Dare to take risks in decision-making	• Purposeful collaboration • Enterprise – first mindset • We before me • Synergy and teamwork	• Value differences • Be inclusive • Listen • Be humble	• Professionalism • Honesty • Trustworthy • Do the right thing	• Ownership • Commitment • Delivery on promises • Do things right/ professionalism

WINNING BEHAVIOURS

1 Proactive on health, safety, security and environment	2 Value and bottom line driven with strong cost discipline	3 Trusted to deliver on our promises	4 Precise and speed conscious
5 Conducting our business with integrity	6 Focusing on team work and integration	7 Working across functional and organisational boundaries	8 Proud of Sarawak Energy and will do our best
9 Open and adaptable to leverage technology for solutions	10 Learning from our experiences and mistakes	11 Employees of choice, working for the employer of choice	12 Respectful of our people and the law of the land

102-6, 102-9, 103-1, 103-3, 203-1, 305-4, EU3, EU26

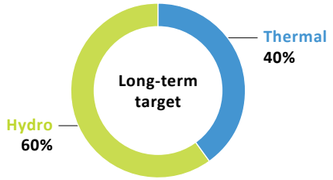
RENEWABLE ENERGY FOR SARAWAK & BEYOND

To ensure reliable electricity supply, Sarawak Energy adopts a holistic view of power development by balancing energy security, sustainability and affordability for the sustainable socio-economic transformation of Sarawak and the region.

In pursuing this, we are committed to sustainable development and our business strategies are aligned with United Nations Sustainable Development Goals (UN SDGs), with a focus on six goals that enable value creation and sustainable growth.

A BALANCED GENERATION MIX

Sarawak's generation mix is predominantly renewable hydropower complemented by indigenous gas and coal for energy security and diversity.



CARBON FOOTPRINT

- Carbon intensity for electricity supply decreased by **71%** from 2011 to 2020.
- Our total main grid emissions this year was 5.60 million tCO_2eq, a 12% reduction from 2019.
- Our emissions intensity, of 0.203* tCO_2eq/MWh, continues to be one of the lowest when benchmarked against other power utility companies globally.

ELECTRICITY TARIFF

Stable, competitively priced and amongst lowest average unsubsidised electricity tariffs in the region.

LIGHTING UP COMMUNITIES

Having lit up another **2%** or around 6,600 more rural households in 2020, we are well on our way to achieve 100% electrification rate in Sarawak by 2025 or earlier.

OUR CUSTOMER ACCOUNTS

SCORE	Domestic	Commercial	Industry
15[1]	621,989	108,661	1,083

Notes:
[1] Based on Power Purchase Agreements (PPA) with Sarawak Energy.
** This main grid CO_2 emission intensity data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

102-9, 103-1, 103-3, 203-1, EU10

RENEWABLE ENERGY FOR SARAWAK & BEYOND

CAPTURING GROWTH – SCORE

Renewable hydropower offers investors reliable, renewable and affordable energy as well as the option to green their operations.

> 2,500MW of energy has been committed to SCORE

Creating business and employment opportunities through bulk-power customer investments.

GOING GREEN

Green Building
Menara Sarawak Energy is the first building in East Malaysia to achieve a Green Building Index and has been rated Silver since 2013.

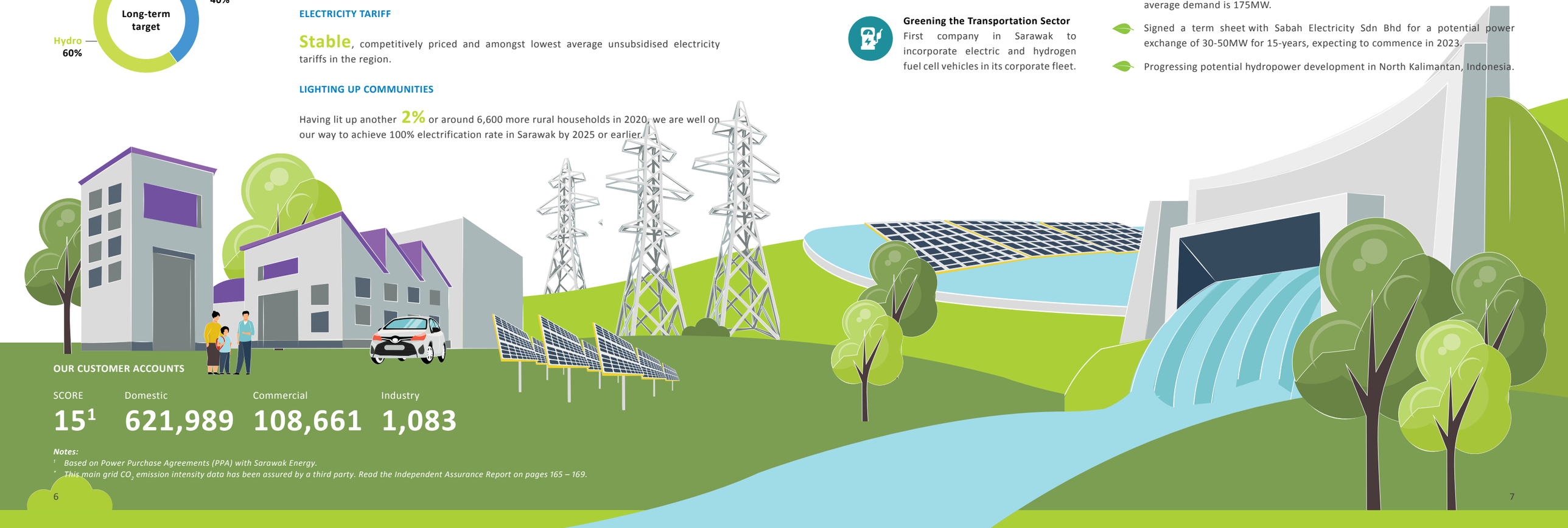
Greening the Transportation Sector
First company in Sarawak to incorporate electric and hydrogen fuel cell vehicles in its corporate fleet.

A MORE SUSTAINABLE ENERGY FUTURE

- First corporate body in Malaysia to pledge for the "Business Ambition for 1.5°Celsius". We commit to contribute towards climate action through science-based targets.
- Partnered with United Nations Global Compact Malaysia & Brunei and launched the Sustainability Toolkit for Small and Medium Enterprises.
- Developing a 50MW floating solar project at the reservoir of Batang Ai Hydroelectric Plant (HEP) to increase the share of alternative energy in Sarawak's generation mix.
- Working with industrial players in the region to decarbonise their operation. Supplying 100% renewable energy via renewable energy certificate (REC) mechanism to offset carbon emission associated to their electricity consumption.
- First utility company in Malaysia to qualify for CIMB's Sustainability Linked Loan.

BECOMING A REGIONAL POWERHOUSE

- Exports up to 308MW of renewable energy to West Kalimantan, Indonesia at peak through Sarawak's first transboundary interconnection since 2016. The average demand is 175MW.
- Signed a term sheet with Sabah Electricity Sdn Bhd for a potential power exchange of 30-50MW for 15-years, expecting to commence in 2023.
- Progressing potential hydropower development in North Kalimantan, Indonesia.



102-2, 103-1, 103-2, 103-3, 203-1, EU1

ENERGY FOR SARAWAK

The 108MW Batang Ai HEP commissioned in 1985 is our first hydropower facility and is the site for our first floating solar project currently in development.

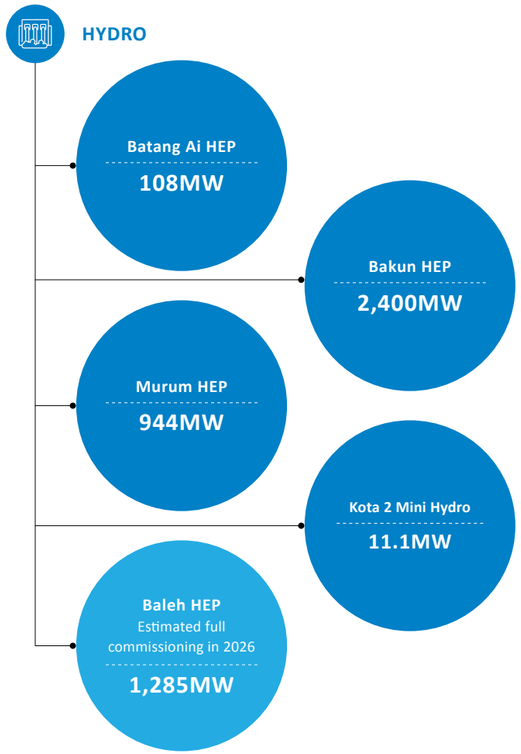
Sarawak is on an accelerated growth trajectory and fundamental to this is the need for reliable and affordable, regionally competitive energy. As the primary energy provider in Sarawak, we harness our natural resources sustainably and responsibly to power development, driving the state's socio-economic transformation.

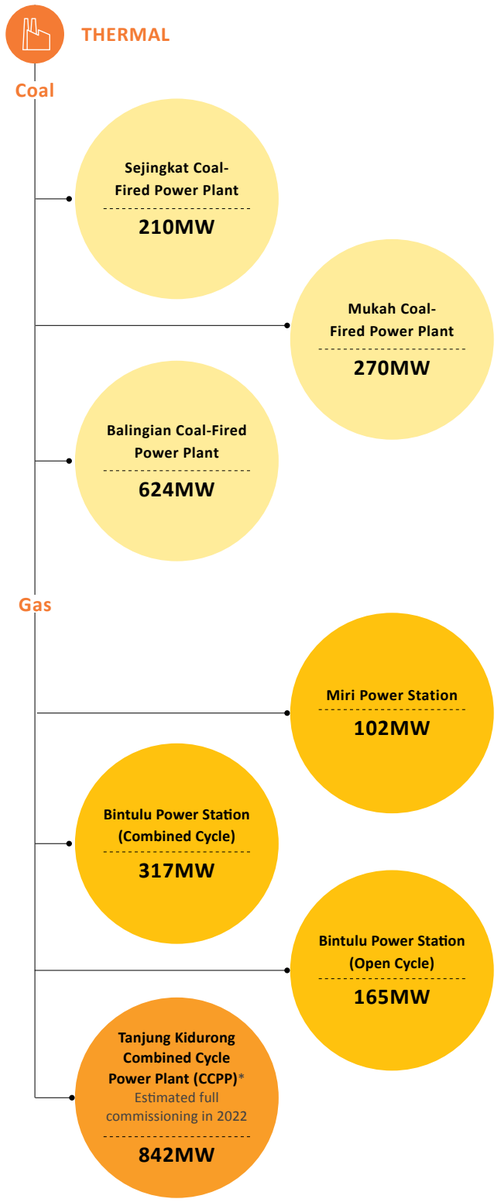
Sarawak's generation mix is predominantly renewable hydropower complemented by thermal resources of indigenous coal and gas. In 2020, alternative energy contributed about 1% to Sarawak's generation mix and by 2030, it is expected that large scale solar will contribute to about 4% of the generation mix.

Currently, Sarawak's installed capacity including alternative energy such as mini hydro and solar hybrid is 5,223MW.

Renewable hydropower contributes 3,452MW – allowing us to offer electricity at globally competitive prices to attract energy-intensive customers to Sarawak, creating business and employment opportunities. Energy generated from renewable hydropower is also an added value proposition for investors looking to 'green' their operations.

Sarawak has sufficient available capacity to meet the demand for residential, commercial, industrial, SCORE and export customers. Our net energy generation for the year was around 27,000GWh while total energy sold including export was around 26,000GWh.





RENEWABLE HYDROPOWER DEVELOPMENT

The development of hydropower has enabled Sarawak to enjoy the lowest average unsubsidised electricity tariffs in Malaysia and amongst the most competitive tariffs in the region.

As the common owner and operator of the Murum and Bakun HEPs, Sarawak Energy now has the capacity to manage the facilities as an integrated operation under what is Malaysia's first cascading HEP dams. Progressing towards SDG 7 of ensuring access to affordable, reliable, sustainable and modern energy for all, our fourth hydroelectric plant, Baleh HEP is under construction and on track with major milestones to achieve its planned completion in 2026 despite the setbacks caused by the COVID-19 pandemic.

An artist impression of our 1,285MW Baleh HEP.

Located on the Baleh River, about 105km upstream from its confluence with the Rajang River, the 188m-high Concrete Faced Rockfill Dam (CFRD) is one of Sarawak's largest State infrastructure projects. Adding another 1,285MW of renewable energy to the Grid once fully commissioned, Baleh HEP is set to meet the anticipated rising energy demand, especially from Bintulu's Samalaju Industrial Park catering for energy-intensive industries within SCORE – the Sarawak Government's strategic initiative to drive development through hydro-industrialisation.

102-2, 103-1, 103-2, 203-1

ENERGY FOR SARAWAK

The 842MW Tanjung Kidurong CCPP Project

THERMAL POWER DEVELOPMENT

Our generation mix will continue to be dominated by renewable hydropower with thermal power from our indigenous coal and gas providing security of supply. Our 624MW Balingian Coal-fired Power Plant utilises local coal and it is the last coal-fired power plant to be built and commissioned by Sarawak Energy.

Our 842MW Tanjung Kidurong CCPP project is an extension of the existing Kidurong Power Station in Bintulu and is set to be one of the world's most efficient combined cycle power plants for its class once completed.

We hope to achieve the 'First Firing of Gas Turbine' in Q4 2021 to mark the beginning of the commissioning phase for the second CCPP Block.

SECURING UPSTREAM RESOURCES

Despite the challenges of COVID-19 this year, we were able to achieve reliable supply of coal from Sarawak's central region, fulfilling the coal requirements of Balingian Power Plant and Sejingkat Power Plant while meeting coal quality specifications.

An aerial view of our 624MW Balingian Coal-fired Power Plant and the coal processing facilities and stockpile area.

STRENGTHENING THE RELIABILITY OF OUR SYSTEM

Sarawak Energy continues to invest in a strong and reliable transmission system to strengthen our network in Sarawak and enable export potential.

102-2, 103-1, 103-2, 203-1, EU29

ENERGY FOR SARAWAK

500kV Backbone Transmission Grid

The 500kV Backbone involves the construction of 1,182 transmission towers stretching 516km from Similajau in Bintulu to Tondong in Kuching. It enhances system security and reliability by providing additional two circuits on top of the 275kV transmission grid from Miri to Kuching. The project is benefitting customers in load centres like Sibu and Kuching who are experiencing fewer major outages.

Critical issues faced in this project in terms of securing rights-of-way for the transmission line route involve the main routes of Package A (Similajau to Mapai), Package B (Mapai to Lachau), and Package C (Lachau to Tondong). The Lachau to Tondong line is underway with expected completion in Q3 2022.

Another 500kV transmission line in the project funnel will connect Baleh HEP to the 500kV Mapai substation, targeted for completion in Q4 2024. The primary objective of the Baleh-Mapai 500kV Transmission Line is for the power evacuation of Baleh HEP, which serves as the expansion plan for generation capacity due to the demand of energy-intensive industries in SCORE.

Northern Grid Extension Project

For customers in northern Sarawak, we are progressing major project work packages to further modernise and reinforce Sarawak's power system and meet growing demand in this developing region and our neighbours beyond.

The Northern Grid will expand the State Grid to the whole length of Sarawak, enabling us to reach more remote areas such as Limbang and Lawas. It will also advance power security and reliability in Miri through a second injection to support future load growth.

The Northern Grid is also key to our climate action efforts, as it will allow us to decommission Miri's Pujut Gas Power Station and the diesel power stations in Limbang and Lawas. The Rural Electrification Scheme will also benefit from the Grid, as it will facilitate the connection of numerous villages surrounding the Bunut, Batu Danau, Ulu Mendamit, Ba'kelalan and Bario areas.

It is also an essential component of our ambition to position Sarawak as the battery of ASEAN, as the grid caters to future power exports to Sabah, Brunei and North Kalimantan. Furthermore, the grid will provide the infrastructure necessary for future integration of our Limbang, Trusan and Lawas hydro schemes.

These projects have improved our System Average Interruption Duration Index (SAIDI) for generation, transmission and distribution so that our customers can enjoy greater reliability of supply and less inconvenience from supply interruption in a given year. We aspire to achieve a SAIDI target of below 60 minutes by 2022.

103-2, 103-3, 307-1, EU12, EU26, EU28, EU29

102-2, 102-16, 102-43, 103-2, 103-3

2020 YEAR IN REVIEW

A GENERATIVE HSSE CULTURE

Launched the **Zero Leak Drive** campaign to promote process safety management and equipment integrity at power stations

Launched the **Sarawak Energy Access, Comply & Empower** (SEACE) application for the implementation of HSE compliance programmes & management systems, data analytics and visualisation through a digital platform

Established the **Corporate Security Elite Squad** to protect our people and assets

Achieved **100% Environmental Regulatory Compliance** at all our main power stations

Thursday is **designated Exercise Day** with close of business at 4.00pm to allow time for fitness activities

Employee Assistance Programme (EAP) provides employees with professional psychological support

TOWARDS FULL ELECTRIFICATION BY 2025

Achieved **95*%** rural electrification coverage in 2020

Lit up **135,000** households through various rural electrification strategies since 2009

Newly supplied **6,600** households in 2020

OPERATIONAL AND SERVICE EXCELLENCE

Customer Satisfaction Index of **95.20%**

Achieved overall SAIDI of **78.6[1] minutes** in 2020 and SAIFI of **1.08[1] times**

Reduced non-technical losses, contributing to savings of **468.54GWh**

GROWING LOCAL CONTENT

Local content requirements are part of our Corporate Key Performance Indicator (KPI)

Sarawak Energy Vendor Appraisal & Awards (SEVAA) 2020 to recognise vendors for excellence in contract delivery

Memorandum of Understanding (MoU) between Sarawak Energy and Sarawak Based Manufacturers

DIGITALISING OUR BUSINESS FOR OPERATIONAL EXCELLENCE

SEB cares mobile app users increased to **221,447** in 2020

Procurement digitalisation enables more efficient procurement processes with minimal disruption to procurement activities due to COVID-19

Setting up of **Generation Control Centre (GCC)** enabling remote automation of our plants and workforce optimisation

Rolled out **Sarawak Energy Digital Acculturation Programme** to empower our workforce with digital capabilities

Developing the **Remote Monitoring & Diagnostic (RM&D)** centre which will serve as a one stop centre to connect all power stations and enable plants to reach peak performance

Dynamic Water and Dispatch Management integrates data on weather and inflow forecasts to optimise the operations of our hydroelectric plants

Incorporation of virtual reality (VR) technology for technical training and VR tours of physical sites

Rolled out **Sarawak Energy Digital Acculturation Programme** to empower our workforce with digital capabilities

PROGRESSING OUR REGIONAL POWERHOUSE AMBITION

Signed a term sheet with Sabah Electricity Sdn Bhd for potential power export to Sabah for **15 years**

Exploring the potential of developing hydropower in Kalimantan Utara, Indonesia

MAKING SARAWAK ENERGY A GREAT PLACE TO WORK

100% participation in the annual Sarawak Energy Employee Survey (SEES)

88% score for employee engagement

HR Asia Awards
Best Companies to Work for in Asia Award 2020

Most Caring Companies Award 2020

HRD Asia Employer of Choice Award 2020

First corporate entity in Sarawak to provide a **childcare facility** in a remote area such as Bakun HEP

STEPPING UP ON PROJECT DELIVERY FOR SUSTAINABLE GROWTH

Safe and on schedule completion of the river diversion and closure at Kapit for Baleh HEP

Fully commissioned **six (6)** transmission substations & lines

Four (4) transmission substations completed

Two (2) last mile connection projects completed

GROWING SARAWAK TALENT

Sarawak Energy Educational Excellence Awards **64 new scholarships**

MoU signing to engage higher learning institutions in our **Campus Ambassador Programme**, which also serves as one of our talent recruitment initiatives

Collaboration with UNITEN to offer 30 SPM school leavers a chance to pursue a **Diploma in Electrical Engineering**

Sarawak Energy Junior Badminton Championship 2020

Our first **Virtual Sarawak Community Innovation Engineering Competition Exhibition (SCIENCE)** to continue progressing Science, Technology, Engineering & Mathematics

DRIVING A SUSTAINABLE ENERGY FUTURE

First corporate organisation in the country to pledge our support to the **"Business Ambition for 1.5° Celsius" target**

First East Malaysian company and the first utility company in the country to secure a **Sustainability-Linked Loan (SLL)** from CIMB Bank Berhad in the form of a RM100 million revolving credit facility

Launched **SME Toolkit** in collaboration with UN Global Compact Network Malaysia & Brunei

Collaboration on **Green Hydrogen Production** with PETRONAS

STRENGTHENING CORPORATE GOVERNANCE

Launched revised **Code of Ethics and Sarawak Energy Manual of Authority** at Good Corporate Governance Day (GCGD) 2020

Rolled out mandatory **Anti Bribery and Corruption Training** for employees

100% of employees committed to Sarawak Energy Integrity Pledge

Notes:

[1] *Include generation, transmission and distribution.*

* *This rural electrification coverage data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

102-2, 102-11, 102-14, 102-16, 103-2

CHAIRMAN'S STATEMENT

"On behalf of the Board of Directors, I am pleased to present Sarawak Energy Berhad's combined Annual and Sustainability Report (ASR) for the financial year ended 31 December 2020."

DATUK AMAR ABDUL HAMED SEPAWI
Chairman

DEAR SHAREHOLDERS,

The year 2020 has been the most challenging period in recent history due to the impact of the global COVID-19 pandemic – not just on us but across the country and the world. Despite that, we still recorded a year of exceptional performance, delivering on many promises despite the challenges and restrictions brought about by the pandemic. This reflects the continued success of our structure, strategy, culture and mindset driven by a strong management team and workforce that is demonstrably resilient, agile and adaptable. Through creative solutions, strong discipline, and in the spirit of cooperation and collaboration with our stakeholders, we were able to persevere and resolve many major issues.

The pandemic was and continues to be a great test that has challenged our business in various ways, but also presented us with opportunities to strengthen our strategies in progressing our vision and journey towards becoming a regional powerhouse while fulfilling our mission to light up Sarawak.

When it became clear that it was not going to be business as usual, the company developed clear guiding principles on navigating through this prolonged crisis. We focused on the health and safety of our people and business continuity through practical and robust operating procedures and principles, while continuing to pursue regional and renewable energy development opportunities. Sarawak Energy also adopted a cautious approach to resource management and allocation, which was augmented by the acceleration of our digitalisation initiatives. These approaches coupled with the agility of our workforce in adapting to new ways of working were key to Sarawak Energy's continued business resilience and sustainability in 2020.

Sarawak Energy was able to progress in our goal of providing full access to reliable electricity throughout Sarawak while growing our leadership position in renewable energy development and expanding our regional presence while contributing to the global fight against climate change. We also continued to press ahead with our commitments to society during these challenging times, as we eased the burden of the communities around us through a variety of initiatives, together with the Sarawak and Federal governments.

As Sarawak Energy looks forward to marking its 100th anniversary in 2021, it is heartening to note that the resilience, commitment and pursuit of sustainable growth that we have carefully nurtured will continue to serve as a strong foundation for the next one hundred years.

NAVIGATING COVID-19: BUSINESS RESILIENCE IN THE NEW NORMAL

Sarawak Energy has placed great emphasis on business resilience and sustainability, and it was this focus that allowed us to steadily navigate the turbulence of 2020. The disruptions caused swift transformative changes in the way we worked, but the priority was clear – keep our people safe and keep the lights on for Sarawak and its people.

The Board of Directors and the Group Executive Committee, led by the Group Chief Executive Officer Datu Haji Sharbini Suhaili, worked closely to identify and implement measures to protect our people and business.

Our Group Crisis Management Team and Business Continuity Plan were activated, resulting in the first step of planning and implementing pre-emptive measures to protect the health and safety of our staff and customers through the roll-out of our New Working Arrangement and the mandatory Group COVID-19 Standard Operating Procedure (SOP).

To maintain revenue and financial stability, many of our business transactions migrated to online platforms and the Cash Conservation and Management Office was established to put in place cost containment measures.

Our consistent and continued investments in our digital infrastructure and improvements to work processes to support business strategies meant that we were able to meet evolving business requirements with quicker responses, enhanced productivity, more enjoyable customer experiences and stronger customer engagement. We succeeded in protecting our business and people, maintaining our financial performance while capturing opportunities to expand Sarawak Energy's business.

For instance, in October 2020, we signed a term sheet with Sabah Electricity for a potential power exchange for 15 years beginning 2023, bringing us closer to realising an interconnected Borneo Grid. We are also steadily advancing in our bid to secure the proposed 1,375MW Mentarang Induk Hydroelectric Project in North Kalimantan which, once confirmed, will be our first joint venture project outside of Sarawak.

The agility, sustainability and resilience of our organisation are built upon the combined efforts of value-driven leadership, hard-working employees and supportive communities and stakeholders as well as our customers who have placed their trust in the Sarawak Energy brand.

Sarawak Energy continues to stay focused on delivery and progressing our major projects and initiatives despite the COVID-19 pandemic.

102-2, 102-11, 102-12, 102-14, 103-2

CHAIRMAN'S STATEMENT

Sarawak Energy and PETRONAS inked a Memorandum of Understanding for greater collaboration in hydrogen production exploration.

TOWARDS A SUSTAINABLE ENERGY FUTURE

Our strategic shift to renewable hydropower continues to yield many benefits to Sarawak and its people. As COVID-19 hit our shores, renewable hydropower proved to be vital in providing reliable electricity supply to support Sarawak's public health system, powering essential operations and enabling the provision of digital services.

Furthermore, there have been growing expectations for governments and businesses to address climate and economic crises which puts renewable energy at centre stage. Renewable and green energy will be a key driver in accelerating the post-COVID-19 recovery in building a resilient and sustainable energy future. This will also help drive Sarawak Energy's integrated campaign for large hydropower to be recognised as a renewable energy resource by the Federal government.

The Sarawak Economic Action Council (SEAC) was formed by the state government in May 2020 to develop sustainable strategies and policies to ensure the state's achievement of high income status by 2030. As one of the sectors identified by SEAC, renewable energy will accelerate Sarawak's economic growth and enable long-term focus on clean energy transitions in the region. Datu Haji Sharbini represents Sarawak Energy in its role as the primary energy provider for Sarawak, chairing the renewable energy workstream in SEAC.

Recognising that hydropower supports the diverse application of other renewables, our strategic business focus is to leverage on this so we can explore alternative green energy applications such as hydrogen and solar photovoltaic, supporting Sarawak's Green Energy Agenda and low-carbon economy efforts.

STRENGTHENING OUR COMMITMENT TO SUSTAINABILITY

As the largest producer of renewable energy in Malaysia, sustainability is a core component of Sarawak Energy's identity and long-term business strategy. We incorporate global sustainability best practices into our business operations to maximise the positive and minimise the negative impacts of our projects on communities.

Although COVID-19 presented its own share of challenges, it allowed us to reassess the business risks and opportunities involved in running a resilient and sustainable business through multiple lenses, in line with the UN SDGs.

Conscious that "Sustainability" and "Environmental, Social, and Governance (ESG)" topics are increasingly crucial aspects in guiding investment decisions, we continue to embed and accelerate sustainability in all our operations. In the year under review, we have reaffirmed our commitment to sustainability and ESG by becoming the first corporate body in Malaysia to pledge our support for the "Business Ambition for 1.5°Celsius". By signing this pledge, we are committed to set a science-based emission reduction target across relevant scopes, joining a global movement of leading companies in aligning our business with the Paris Agreement to limit global temperature rise to 1.5°C by 2030 and hit net-zero emissions by 2050.

We also became the first East Malaysian company and the first utility company in the country to secure a Sustainability-Linked Loan (SLL) from CIMB Bank Berhad – a loan linked to measurable sustainability performance targets, in the form of a RM100 million revolving credit facility. With a business model that supports sustainability, Sarawak Energy is confident that we can comply with these targets, as we seek to boost our sustainability credentials further. Details on the key issues that determine our sustainability strategies are available in the later part of this report. (Page 93 - 106)

102-2, 102-11, 102-12, 102-14, 103-2
CHAIRMAN'S STATEMENT

Sarawak Energy contributes personal protective equipment to help frontliners go to work and go home safely.

SUPPORTING OUR COMMUNITY

The pandemic may have brought about challenges to our organisation but it did not hamper our longstanding commitment to supporting our communities.

To ease the people's economic burden during the Movement Control Order, together with Sarawak's Ministry of Utilities, we supported the Sarawak and Federal governments electricity bill discounts initiatives that were announced under various assistance and stimulus packages. Relief assistance was also delivered to affected communities.

In appreciation of the extraordinary dedication and effort of Sarawak's medical and health frontliners in fighting the COVID-19 outbreak, Sarawak Energy contributed personal protective equipment for the protection of the healthcare community who put themselves at risk every day in their line of work.

As one of the biggest companies in Sarawak, we are cognisant of the important role we play in supporting the state's economy and its people, and thus we are committed to providing local businesses with greater opportunities to participate in our projects and activities across our supply chain. For example, we inked a Memorandum of Understanding with Sarawak-based strategic manufacturers to develop mutually beneficial future collaborations, encourage knowledge sharing and foster innovation. We also continue to encourage local and Bumiputera participation in our projects and across our supply chain.

BOARD MATTERS

There were no changes in the Board of Directors in 2020.

PROSPECTS FOR 2021

The past year has challenged the global community to be vigilant and resourceful in combating the direct and indirect effects of the COVID-19 pandemic. For Sarawak Energy, agility, rigorous planning and persistent efforts at all levels were key success factors.

While we were able to avoid drastic cost cutting measures that many other companies have had to resort to in 2020, we recognise that we cannot be complacent and must continue striving to deliver on all that we have set out to do.

The most noteworthy development for the year ahead is that 2021 marks Sarawak Energy's 100th year of powering Sarawak. Built on a strong foundation of almost 100 years of experience as the single provider of electricity in the state, we are dedicated to our commitment to meet the region's need for reliable, sustainable energy to achieve sustainable growth and prosperity for Sarawak for generations to come.

We enter 2021 in excellent shape and with strong growth momentum for the next 100 years of powering Sarawak.

ACKNOWLEDGEMENTS

My gratitude is extended to the management and staff for persevering through the challenges of 2020, especially to our frontliners who have kept the lights on for Sarawak at great personal risk. Allow me to take this opportunity to extend my thoughts and prayers to those who have been affected since the pandemic began.

I would also like to applaud Group Chief Executive Officer, Datu Haji Sharbini Suhaili for his leadership during this turbulent year and to congratulate him on being awarded the Platinum award under 'The Best Chief Executive Officer' category at the 12th Annual Global Corporate Social Responsibility (CSR) Awards and Good Governance Awards 2020.

On behalf of the Board of Sarawak Energy, I would like to thank all our stakeholders, shareholders, partners and customers for their ongoing support and in particular the Sarawak Ministry of Utilities for guiding and supporting Sarawak Energy in our endeavours.

I also extend our appreciation to the Chief Minister of Sarawak, Yang Amat Berhormat Datuk Patinggi Abang Haji Abdul Rahman Zohari bin Tun Abang Haji Openg for leading Sarawak towards sustainable development and inclusive growth.

DATUK AMAR ABDUL HAMED SEPAWI
Chairman

102-2, 102-11, 102-15, 102-16, 103-2

GROUP CHIEF EXECUTIVE OFFICER'S STATEMENT

"Our ambition and journey towards becoming a top quartile utility has not been derailed and we took the COVID-19 challenges in stride. We remained resolute to achieve our strategic roadmap and targets of our key focus areas to capture growth opportunities."

DATU HAJI SHARBINI SUHAILI
Group Chief Executive Officer

This year marks the end of a decade of tremendous growth and transformation for Sarawak Energy, from a traditional utility into a modern, agile energy developer and provider.

When I introduced the Sarawak Energy Excellence 2020 roadmap and five key focus areas of excellence in HSSE, Operations, Project Delivery, Talent Management and Corporate Culture in 2017, its purpose was to consolidate our resources and sustain and protect the significant value created over the past decade while laying a strong foundation for our future growth.

To continue supporting this transformation, we rolled out the Sarawak Energy Excellence 2022 roadmap this year with the aim of capturing growth through Continuous Improvement to realise our Vision 2022 goal of moving from good to great as we advance our regional powerhouse ambition.

This will involve increasing our generation capacity, bolstering our transmission reliability and accelerating company-wide digitalisation as well as innovation across our entire value chain, which are all crucial ingredients to building a more sustainable and resilient organisation.

However, the headwinds from the ongoing COVID-19 pandemic in 2020 required us to rapidly make adjustments in our approach to achieving these targets.

MITIGATING THE IMPACT OF COVID-19

We began preparing for a possible pandemic in late January and over February by establishing and strengthening our contact with the State Disaster Management Committee (SDMC), and activating our crisis management team to look at strategies that would help break the COVID-19 transmission.

Our principles were straightforward:

- **Care for our people** by ensuring we had the necessary work arrangements and Standard Operating Procedures (SOPs) to keep our people safe as they met their commitments to keep the lights on for Sarawak.
- **Comply with all Government directives** to make sure we contributed to Government's efforts to keep the situation under control.

102-2, 102-11, 102-15, 102-16, 103-1, 103-2

We took immediate measures to keep our people, customers and stakeholders safe and informed of the pandemic, stepping up on our internal and external communication to ensure all credible information was disseminated as quickly, accurately, widely and simply as possible. We covered measures regarding COVID-19, updates in our policies and also aimed to support employees as they made the transition to working from home. It also enabled our workforce to be agile by aligning them with the Company's strategy during the pandemic.

Our early investment into digitalisation and enterprise modernisation were invaluable during this time of transition to new work arrangements and in facilitating effective communication.

We also kept our customers updated on our operations and supported the communication of our governments' care packages, including electricity bill discounts ranging from 5% to 25% under the Sarawak Government's care package of Bantuan Khas Sarawakku Sayang (BKSS) and the Federal Government's Economic Stimulus Package (PRIHATIN), to ease the economic burden of the people.

A NEW WAY OF WORKING & ACCELERATED DIGITAL TRANSFORMATION

The pandemic has clearly accelerated our plan to become a digital utility by 2025. With robust digital infrastructure in place, we were able to seamlessly bring planned meetings, seminars, training and corporate events online while business activities transitioned to virtual environments, therefore saving time and reducing cost while keeping everyone safe.

These transformative changes enabled us to remain efficient by learning to achieve a lot more with the same amount of resources and to capture opportunities from managing the crisis. The greatest opportunity that we took advantage of was to accelerate our transition into flexible work arrangements as a way to future proof our organisation.

Other changes that arose during this time included greater digital adoption by society as the pandemic created new norms in how people carried out their day-to-day affairs. With increased transactions and interactions over digital platforms, it was an opportune time to strengthen our cyber security to enable a safe cyber environment for those working remotely, to protect our company's assets from cyber security incidents. Cyber security awareness and education programmes were rolled out for employees as the first line of defence against cyber security threats.

As a strong supporter of the Sarawak Government's Digital Economy Agenda, in January, we launched an internal campaign to encourage Sarawak Energy employees to subscribe to the Sarawak Pay e-wallet service and saw the registration of 85% (4,568) of our employees.

85%
of Sarawak Energy's employees registered for the Sarawak Pay e-wallet service

102-2, 102-9, 102-11, 102-15, 102-16, 103-2, 103-3

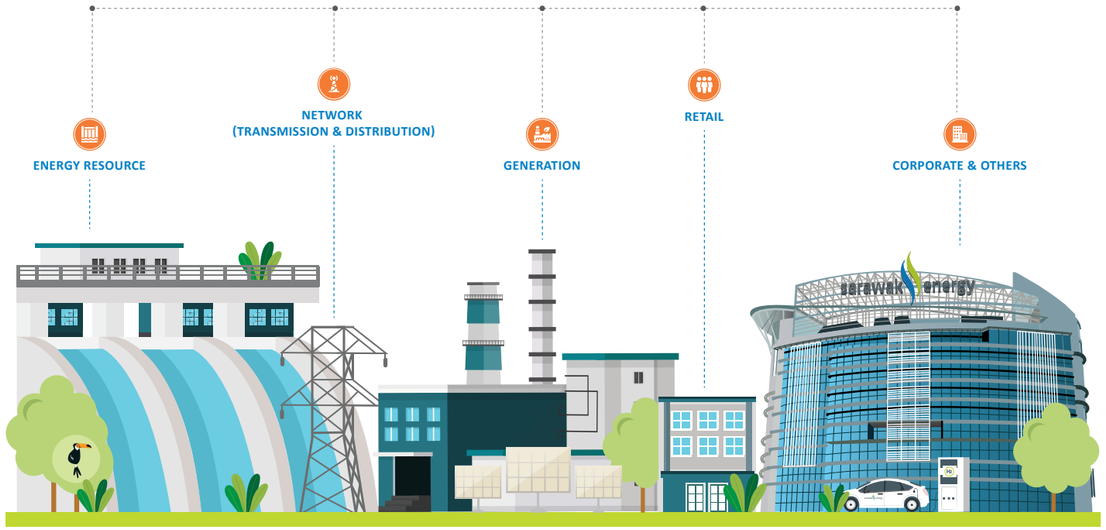
GROUP CHIEF EXECUTIVE OFFICER'S STATEMENT

VISION 2022: GOOD TO GREAT

Our Vision 2022 goals express our strong desire to move our company from good to great. Enabled by a professional and competent workforce, our focus is to be the best operator and regional powerhouse by capturing growth through Continuous Improvement (CI) and leveraging on technology and digitalisation.

This focus on CI and digitalisation proved to be essential in improving our continued success in the COVID-19 pandemic.

We are adopting the zero-based principles to further examine and improve practice, process and procedure, policy and guideline as well as our people with the ultimate aim of improving our bottom line and to work towards adopting a CI mindset. We are already seeing several CI successes within the organisation which are making our processes faster and better through automation and digitalisation as well as standardisation and simplification.

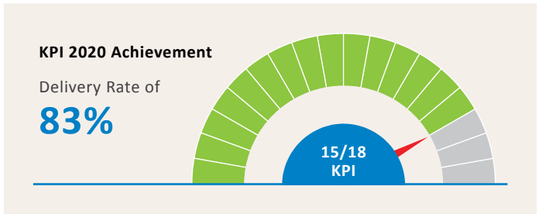


We are leveraging digitalisation and technology to drive CI across our business chain.

2020 KEY PERFORMANCE INDICATORS (KPIs)

Achieving the Group's KPIs are vital to the health and success of Sarawak Energy and keeps us focused on accomplishing our business objectives for the benefit of the company, our people, stakeholders and Sarawak.

We achieved 15 of the 18 KPIs that we set for ourselves in 2020, which translates to an 83% delivery rate. We are committed to finding and leveraging on new technologies, processes and methods to meet even more of our KPIs.



102-2, 102-11, 102-15, 102-16, 103-2, 103-3

GROUP CHIEF EXECUTIVE OFFICER'S STATEMENT

HEALTH, SAFETY, SECURITY AND ENVIRONMENTAL (HSSE) EXCELLENCE

Recognising that a healthy workforce is vital for productivity, Healthy Living was incorporated as one of our focus areas for this year and greater emphasis was placed on healthy eating, physical activities, weight management and stress management.

In the year under review, we introduced a special benefit that allows employees to be reimbursed up to RM500 per year for the cost of health and fitness activities. To ensure our employees have the time to exercise or play sports, we now allow employees to leave work an hour earlier every Thursday. Currently, 80% of our workforce have achieved our fitness target of reaching a body-mass index (BMI) of below 30 and we look forward to increasing this percentage to 90% by 2022 as we guide our employees to making health and fitness a priority for themselves.

The transition to working from home, while delivering many benefits, has also been a challenge to many employees. As a result, our occupational health and safety initiatives were broadened to also account for employees' wellbeing in a remote work environment. We rolled out digital wellness education programmes to address topics centred on mental and physical wellbeing, ergonomics and chronic diseases. We also set up the Employee Assistance Programme, supporting employees who need consultation on mental wellbeing issues by providing easy access to a panel of counsellors.

INCULCATING A GENERATIVE HSSE CULTURE

We continued our efforts to cultivate a generative HSSE culture in Sarawak Energy in 2020, with focus on goals for Zero Harm to People, Zero Harm to Asset and Zero Harm to Environment.

On the safety front, we are making progress as exemplified by the downward trend of our accident statistics.

Beyond this, Sarawak Energy achieved 100% compliance with environmental regulations at all our major power stations and formed a Corporate Security Elite Squad comprising 60 shortlisted candidates from our Auxiliary Police teams to better secure our people and assets.

We have continued to amplify our HSSE narratives and messages across the organisation at all levels. Safety leadership is also now more prominent across our business as visibly demonstrated by the efforts of the line management who conduct regular HSE walkabouts.

In 2020, we adopted the HSSE Management Systems or HSSEMS towards becoming best-in-class in HSSE, with the aim of achieving greater efficiency in information management and the integration of HSSE-related governance with existing HSSE frameworks. Action plans and various initiatives were implemented, effectively facilitating continuous improvement and several key achievements in HSSE.

Our investments in HSSE Excellence also ensured that we were well equipped to protect all our employees from the COVID-19 crisis, as the Company introduced a New Working Arrangement (NWA), mandatory Group SOP and Workplace Specific SOPs to limit the number of people working on site and make our workplaces as safe as possible for those required to work in person.

We also established a COVID-19 emergency response team and have made it mandatory to provide temporary quarantine areas near our workstations.

102-2, 102-11, 102-15, 102-16, 103-2, 103-3, EU12, EU28, EU29, EU30

GROUP CHIEF EXECUTIVE OFFICER'S STATEMENT

TOWARDS OPERATIONAL EXCELLENCE

We measure the reliability of our facilities according to Equivalent Availability Factor (EAF) and Forced Outage Rate (FOR). In 2020, we succeeded in achieving an EAF of over 90% from Balingian Power Generation, Bakun HEP, Batang Ai HEP and Murum HEP as well as a FOR of under 0.5% from Batang Ai HEP and Bakun HEP. With our hydropower plants performing well against these benchmarks, our efforts in improving the EAF and FOR of our gas and coal generation facilities are ongoing.

In terms of our customer service delivery, our overall System Average Interruption Duration Index (SAIDI) numbers have improved by 68% since 2016 and reached a new record low of 78.6[1] minutes in 2020. We have a SAIFI of 1.08[1] times which is a 62% decrease from our SAIFI of 2.84 in 2016.

To effectively manage customer service during the MCO and provide a seamless and convenient experiences, more digital customer touchpoints, initiatives and apps were introduced and our Customer Satisfaction Index continued to increase over the past decade, reaching a peak of 95.20% customer satisfaction on 31 December 2020.

To ensure reliable supply of electricity and to prevent losses, we have been actively combating power and cable theft by working with the Ministry of Utilities, Royal Malaysia Police and State Attorney's Office to prosecute high profile cases as a deterrence to potential fraudsters. Our overall Non-Technical Losses (NTL) have significantly improved by 8.22% since 2010, resulting in savings of almost 468.54GWh valued at RM147.96 million.

PROJECT DELIVERY EXCELLENCE

Despite the massive challenges posed by COVID-19 to all our projects, we have successfully achieved critical milestones on many of our ongoing projects, including transmission lines, substations and our current hydropower development at Baleh.

We completed the diversion tunnel and river closing works at the Baleh HEP, facilitating the construction of the main dam. All operations were conducted with full compliance to the requirements of the Sarawak River Board and local authorities. We also implemented measures such as river bypass facilities to preserve the livelihood of project-affected communities.

Additionally, with the support from the Sarawak Government and the Chief Minister of Sarawak and our Board led by Chairman Datuk Amar Abdul Hamed Sepawi, we resolved a blockade by timber licensors in the Baleh project. The resolution of this blockade will greatly contribute to the timely execution of our project works.

For our transmission system, we have fully commissioned six transmission substations and lines, completed construction of four transmission substations, and completed the Malaysian Phosphate Additives Sarawak (MPAS) and Press Metal Bhd (PMB) 3 Last Mile connection projects.

In line with our Project Delivery Transformation initiative to achieve world-class project delivery standards, an Independent Project Analysis at the end of 2020 validated that Sarawak Energy is well on target to achieve first quartile performance in project delivery by 2023. To help us achieve this, we have enhanced capability development within our Project Delivery Department, with the launch of the PD Academy towards the end of the year to facilitate in-house training and sharing of best practices and lessons learnt.

The successful commissioning of 275kV, 132kV and 33kV Serudit substation and associated line turn-in works provide a modern and reliable supply system to customers in the Betong Division.

The Marudi Junction 132kV Substation was safely commissioned in February. The substation, built within the existing Marudi Junction 275kV Substation is a part of the Miri transmission development plan to reinforce the reliability of its 132kV power transmission network.

Note:

[1] *Include generation, transmission and distribution.*

102-2, 102-11, 102-15, 102-16, 102-43, 103-2, 103-3, EU26

GROUP CHIEF EXECUTIVE OFFICER'S STATEMENT

TALENT MANAGEMENT EXCELLENCE & A HIGH-PERFORMANCE CULTURE

As a growing organisation with regional aspirations, we ensure that our people are competent functionally and take great interest in sharpening their leadership skills. We have adopted new strategies to continue with our Talent Management Framework including acquiring, developing and deployment (ADD) of our talents during the pandemic.

Many of these processes have moved into the virtual environment and we stepped up on employee engagement with greater emphasis on inculcating diversity and inclusion at work, leading to higher productivity, work quality and retention.

To ensure the functionality of our strategies, we implemented a pulse survey on our NWA initiative and received full participation from our employees in the annual Sarawak Energy Employee Survey. Results from these surveys were used to identify gaps in the ongoing effort to make Sarawak Energy a great place to work.

Over 2020, our people continued to push themselves through the challenges and demonstrated full dedication, unity and support. Our people's collective efforts, strong discipline and focus has clearly resulted in Sarawak Energy being able to mitigate the more severe effects of the COVID-19 pandemic on our operations.

LIGHTING UP SARAWAK

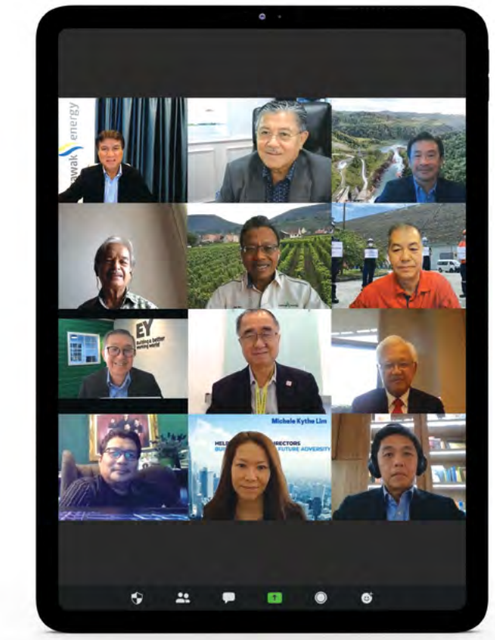
As the implementing agency for the Ministry of Utilities, Sarawak Energy continued to work towards the Government's aspiration to achieve full electrification for Sarawak by 2025. Through the Accelerated Rural Electrification Masterplan utilising grid and off-grid solutions, we electrified 6,600 rural household this year, increasing rural electrification coverage to 95*% and achieving 98*% overall domestic coverage.

In line with the UN SDG7 to ensure access to affordable and clean energy for all, Sarawak Energy is committed to accelerate efforts to light up the remaining 5% or 15,000 rural households with reliable and renewable electricity.

STRENGTHENING CORPORATE GOVERNANCE

In building a progressive and high performance corporate culture, Sarawak Energy is committed to instilling good corporate governance practices in Sarawak Energy. An important component of this is to nurture a workforce that upholds the highest levels of integrity and who have zero tolerance to fraud and corruption.

In this context, this year we rolled out a number of initiatives to ensure strong corporate governance including a new Group Manual of Authority (MoA), revised Code of Ethics (CoE), Policies, Procedures & Guidelines (PPG) and a mandatory online Anti-Bribery and Corruption (ABC) learning programme for employees.



Employees join Sarawak Energy's Board of Directors in a fireside chat to discuss good governance & sustainability in driving the organisation's future growth.

Note:

* *These Sarawak electrification coverage and rural electrification coverage data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

102-2, 102-11, 102-15, 102-16, 103-2

GROUP CHIEF EXECUTIVE OFFICER'S STATEMENT

GROWING OUR BRAND PRESENCE

Sarawak Energy proactively searches for opportunities to grow our presence as the region's renewable energy leader. During the year, we shared our journey at regional and international conferences or summits which had shifted to virtual platforms due to the pandemic, and were therefore also able to accommodate larger audiences.

Key conferences with a high level of participation included the GOESG ASEAN 2020, Singapore International Energy Week (SIEW) 2020, International Greentech & Eco Products Exhibition & Conference Malaysia (IGEM) 2020 and Fireside Chat at The Cooler Earth Sustainability Summit 2020.

Sarawak Energy was also invited to share our communication rebranding experience during the pandemic as part of CNBC's 'CMO Now: The Road Ahead' Series; PR Beyond 2020 ASEAN Series and Kuala Lumpur International PR Conference 2020 (KLIP 2020) as well as HSSE efforts and safety leadership at the Safety and Quality Forum.

With digital platforms, there were cross-collaboration with organisations such as Global Compact Network Malaysia & Brunei and LeadWomen for forums, launching of toolkits and other focused discussion.

We continue to fulfil our social obligation with a special focus on education and learning by introducing programmes such as the Powering Young Minds with SCIENCE programme that cultivates interest and innovative thinking in science, technology, engineering and mathematics. We also offer scholarships, bursaries and support other educational development programmes as we strongly believe that education is key to a brighter future for our youth.

SENIOR LEADERSHIP APPOINTMENT

This year, we welcomed Jacob James Paul as the new Senior Vice President of Legal, Land and Company Secretary in December, succeeding Nooruddin Bin Abdullah. James Paul is from Sarawak and has over 21 years of experience in legal counsel, spending a majority of his career in a multinational company. He brings with him extensive experience in leadership roles in legal, secretarial, managing counsel and ethics and compliance.

On behalf of Sarawak Energy, we thank Nooruddin for his many contributions in leading the Legal & Enterprise Risk Department during his tenure with us since 2017.

ACKNOWLEDGEMENTS

I would like to take a moment to spare a thought for the many people who have been affected by the pandemic and to extend our heartfelt appreciation to the State Disaster Management Committee for their guidance and steer to all of Sarawak over 2020 to manage the pandemic situation.

A very special thanks to frontliners who served with dedication in providing medical, security and other essential services during this unprecedented time. This includes our colleagues who have been operating from the workplace and on-site to keep the lights on for Sarawak, and all our support teams who continue to deliver on our promises.

I would like to thank all our employees, stakeholders, partners, customers and leaders who placed a high level of trust in Sarawak Energy's ability and continued to support the transformations within the company.

My appreciation to our Chairman Datuk Amar Abdul Hamed Sepawi and the Board of Directors for the foresight and seasoned judgment that were crucial in navigating us through the increasingly volatile business environment.

Our thanks is also extended to Dato Sri Dr Stephen Rundi Utom, Minister for Utilities Sarawak and his Ministry for the invaluable advice and support.

Lastly, I would like to extend our gratitude to the Chief Minister of Sarawak, Yang Amat Berhormat Datuk Patinggi Abang Haji Abdul Rahman Zohari bin Tun Abang Haji Openg for his wisdom and leadership, demonstrated through his pragmatic and caring approach in protecting Sarawak and its people from the economic impact of COVID-19.

While 2020 has proven to be a challenging year, it was also an exciting period where we saw major transformation. Sarawak Energy will continue to focus on our vision and deliver on our promise to keep the lights on for Sarawak while we contribute to uplifting the standard of living for the people of Sarawak and beyond. With a century of growth behind us, we look forward to another hundred years of powering Sarawak and beyond.

Thank you and stay safe.

Datu Haji Sharbini Suhaili
Group Chief Executive Officer

102-15, 103-2, 103-3, EU26

MANAGEMENT DISCUSSION & ANALYSIS

Over the course of the past decade, Sarawak Energy has experienced exponential growth and delivered robust and resilient annual results. This year, we have continued to chart a good set of financial, project, operational and corporate results, despite the challenges brought about by the pandemic.

In line with our Sarawak Energy Excellence 2022 strategic roadmap and five key focus areas, we are committed to achieving excellence in our health, safety, security and environment (HSSE); operations; project delivery and talent management enabled by a high-performance corporate culture.

To ensure our business activities also contribute towards the UN SDGs, we have aligned our business to international sustainability good and best practices.

We are constantly looking for opportunities to improve our business performance to deliver targets we have set and remain agile and resilient amid a rapidly changing business landscape

MEETING OUR OBLIGATIONS

7 AFFORDABLE AND CLEAN ENERGY

Sarawak Energy has continued to make great progress in our journey towards full electrification by 2025 in line with UN SDG 7 to ensure access to affordable, reliable, sustainable and modern energy for all. We attained a 95*% rural electrification rate and 98*% domestic electrification rate in 2020 through the Accelerated Rural Electrification Master Plan which includes the Sarawak Alternative Rural Electrification Scheme (SARES), a government-community partnership programme that utilises standalone renewable solar systems to light up Sarawak's most remote communities.

MANAGING FINANCIAL PERFORMANCE

Even as we navigated the challenges COVID-19 presented to our financial performance, Sarawak Energy was able to maintain positive cash flow which was further supported by an AAA rating from RAM Ratings. Our ability to stay cash flow positive was because of the establishment of our Cash Conservation & Management Office (CCMO) in May 2020, which helped conserve and manage the Group's cashflow during the Movement Control Order (MCO). We optimised the use of cash through measures such as deferring CAPEX for non-committed projects, and deferring and stopping non-essential spending. Management was also more selective and financially disciplined in our investment decisions to ensure our resources are optimally allocated to achieve maximum returns.

Note:

* *These Sarawak electrification coverage and rural electrification coverage data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

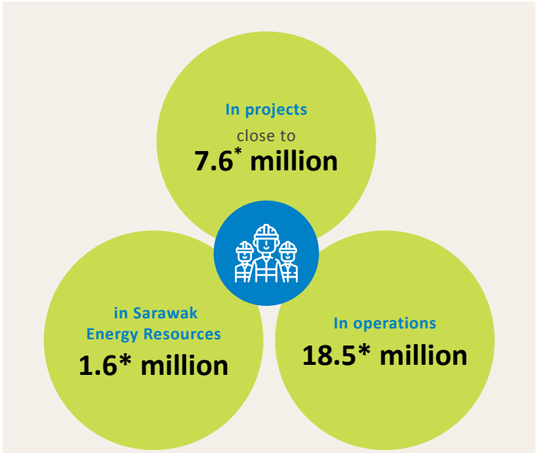
102-15, 103-2, 103-3, 403-9

MANAGEMENT DISCUSSION & ANALYSIS

SAFETY IS OUR TOP PRIORITY

In 2020, we saw a decline in the number of workplace accidents by 34.8% compared to the year before. We recorded Lost Time Injury Frequency Rate or LTIFR of 0.66* for projects and 0.27* for operations, contributing to an overall corporate LTIFR of 0.36* and we are determined to reduce this number to zero in line with our goal to do no harm to people.

We have recorded close to 7.6* million (7,595,258*) man-hours worked in our projects, 18.5* million (18,473,587*) in our operations and 1.6* million (1,571,614*) in Sarawak Energy Resources (SER).



Tragically, Sarawak Energy recorded one fatality involving a contractor in 2020. We recognise that more needs to be done to achieve our Zero Lost Time Injury and Zero Fatality goals. In line with this, we will intensify our safety initiatives within the organisation and among our contractors by reinforcing our safety culture transformation efforts to cultivate a generative HSSE culture, embed safety best practices and equip employees and contractors with the necessary knowledge and competencies through learning opportunities.

We will also commit ourselves to only engaging contractors who will comply with our HSSE practices and Environmental Impact Assessment or EIA standards.

Note:

* *These lost time injury frequency rate and total man-hours data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

TOWARDS WORLD-CLASS PROJECT DELIVERY

Sarawak Energy aims to keep our projects on schedule and on budget under our project delivery excellence key focus area.

Aside from successfully achieving the critical milestones on the Baleh HEP, we are also focused on completing Unit 2 of the Kota 2 Mini Hydro in Lawas which will supplement Units 1 and 3 that were commissioned in 2019. Once all units are running, a total of 11.1MW installed capacity will be added to Lawas Grid.

In July, the Tanjung Kidurong CCPP's steam turbine was synchronised to the state grid at a loading of 6MW. The facility's first Combined Cycle Gas Turbine also successfully completed its reliability run in December to ensure that the power plant can operate reliably and safely when it is commissioned.

To modernise and reinforce Sarawak's power system, we are progressing the Northern Grid Extension project to connect areas north of Miri to the State Power Grid. This is also to support power export to our northern neighbours.

Although we delivered several successful project milestones this year, we had to contend with various challenges and difficulties, key among them being COVID-19, which resulted in delays and increased costs. We were however able to continue working on certain critical projects during the MCO through close cooperation and engagement with the State Disaster Management Committee (SDMC) and other relevant authorities as well as stringent on-site Standard Operating Procedures (SOPs).

Disputes and blockades by land claimants remains another key issue for project delivery in 2020, leading to delays and cost escalation. We took a focused approach to resolving land and wayleave difficulties by acquiring easement and developing a 10-year look ahead plan for transmission system projects.

Our contractors have also stepped-up efforts to significantly recover their respective projects. However, manpower shortages are unavoidable due to the entry restrictions imposed on foreign workers - limiting our progress in some planned projects.

103-2, 103-3

MANAGEMENT DISCUSSION & ANALYSIS

TOWARDS OPERATIONAL EXCELLENCE

We benchmark against the best-in-class utilities in our region by continuously improving our technologies, systems and processes. This commitment to Continuous Improvement is supplemented by comparing our performance metrics with other top quartile performers to identify and resolve any gaps in our performance delivery.

Sarawak Energy leveraged on technologies to continue the downward trend of our SAIDI and SAIFI numbers over the past several years.

Mobile Field Force Automation
which allows us to dispatch field crews to
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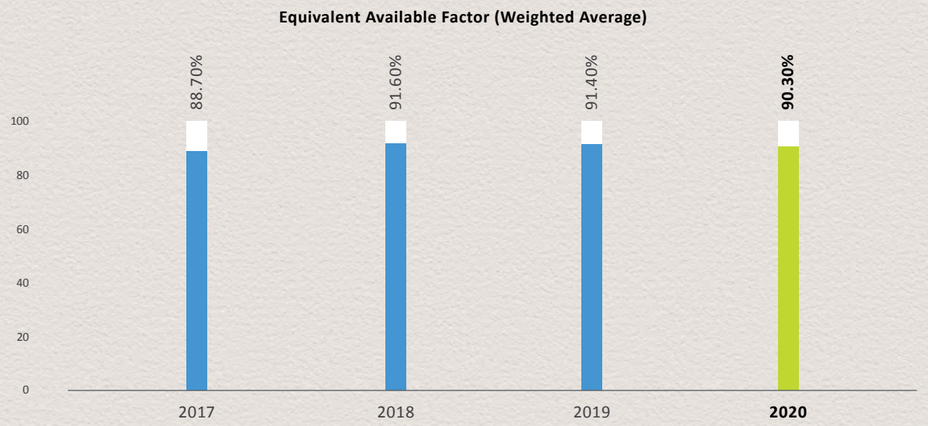
and repair

OUR REPORT CARD 2020

103-3, EU30

GENERATION EXCELLENCE



Plant		2017	2018	2019	2020
Coal	EAF	84%	83.4%	77.49%	**82.07%**
	FOR	1.94%	2.06%	10.53%	**2.94%**
Gas	EAF	83.6%	88.46%	91.06%	**79.23%**
	FOR	1.52%	2.91%	0.38%	**1.14%**
Hydro	EAF	95.14%	93.28%	93.41%	**94.74%**
	FOR	0.14%	0.42%	1.28%	**0.49%**

Notes:
Equivalent Available Factor (EAF) is weighted; 2020 is 12 months rolling average up to December.
Forced Outage Rate (FOR) is simple average; 2020 is average January to December.

102-15, 103-2, 103-3, 403-9

MANAGEMENT DISCUSSION & ANALYSIS

SAFETY IS OUR TOP PRIORITY

In 2020, we saw a decline in the number of workplace accidents by 34.8% compared to the year before. We recorded Lost Time Injury Frequency Rate or LTIFR of 0.66* for projects and 0.27* for operations, contributing to an overall corporate LTIFR of 0.36* and we are determined to reduce this number to zero in line with our goal to do no harm to people.

We have recorded close to 7.6* million (7,595,258*) man-hours worked in our projects, 18.5* million (18,473,587*) in our operations and 1.6* million (1,571,614*) in Sarawak Energy Resources (SER).

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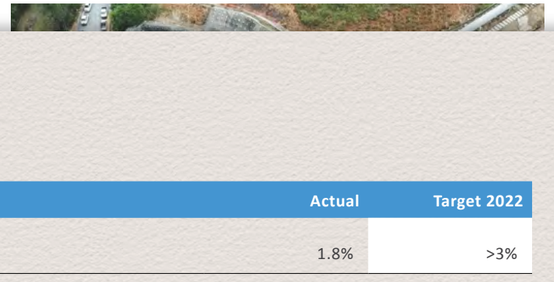
Note:

* *These lost tim
by a third pa*

TOWARDS WORLD-CLASS PROJECT DELIVERY

Sarawak Energy aims to keep our projects on schedule and on budget under our project delivery excellence key focus area.

Aside from successfully achieving the critical milestones on the Baleh HEP, we are also focused on completing Unit 2 of the Kota 2 Mini Hydro in Lawas which will supplement Units 1 and 3 that were commissioned in 2019. Once all units are running, a total of 11.1MW installed capacity will be added to Lawas Grid.



103-3, EU12, EU28, EU29

VALUE OPTIMISATION

	Actual	Target 2022
Return on Assets	1.8%	>3%

NETWORK AND CUSTOMER SERVICE EXCELLENCE

Indicator	Actual	Target 2020	Target 2022
System Average Interruption Duration Index (SAIDI)	78.60 mins	≤ 98 mins	60 mins
System Average Interruption Frequency Index (SAIFI)	1.08 time	≤ 1.48 time	1 time
Age of Debtors > 42 days	29.33%	≤ 30%	< 20%
Non-Technical Losses	4.05%	≤ 3.91%	< 2%
Street Lighting Repair	95.60% ≤ 24 hours	92% ≤ 24 hours	90% < 24 hours
Release of Connection Charges	94.50% ≤ 14 days	92% ≤ 14 days	90% < 14 days
Service Call Attendance	82.40% ≤ 45 mins	90% ≤ 45 mins	90% < 45 mins
Service Line Installation	98.70% ≤ 7 days	95% ≤ 7 days	90% < 7 days
Service Cable Installation	99.10% ≤ 7 days	70% ≤ 7 days	90% < 7 days
Customer Satisfaction Index	95.20%	≥ 90%	> 90%

HIGH PERFORMANCE CULTURE

Sarawak Energy Employee Survey (SEES) – employee engagement score was 88% in 2020 against target score of 80%.

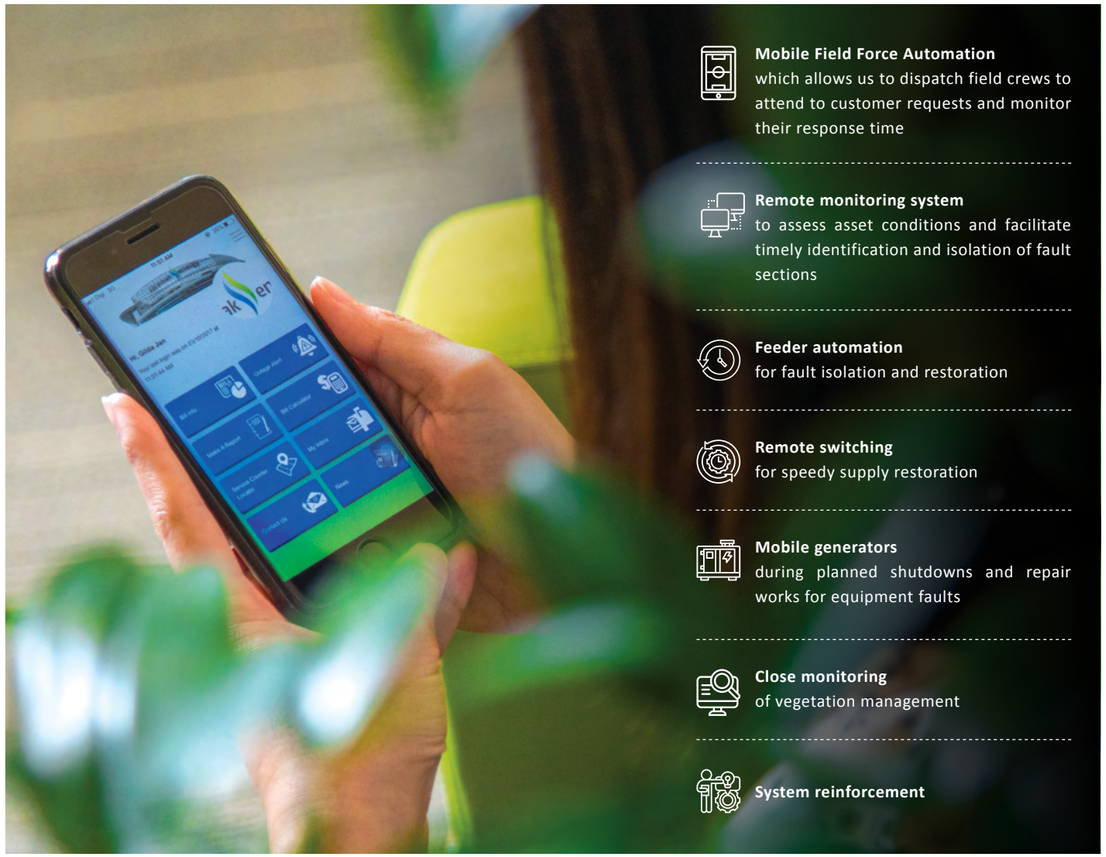
103-2, 103-3

MANAGEMENT DISCUSSION & ANALYSIS

TOWARDS OPERATIONAL EXCELLENCE

We benchmark against the best-in-class utilities in our region by continuously improving our technologies, systems and processes. This commitment to Continuous Improvement is supplemented by comparing our performance metrics with other top quartile performers to identify and resolve any gaps in our performance delivery.

Sarawak Energy leveraged on technologies to continue the downward trend of our SAIDI and SAIFI numbers over the past several years.



Our investments in digitalisation and commitment to Operational Excellence have translated into good Customer Satisfaction Index (CSI) score for 2020.

ACCELERATING OUR DIGITAL UTILITY ASPIRATION

We made great strides in our digitalisation journey in 2020 with the COVID-19 pandemic accelerating our digitalisation and enterprise modernisation. This was reflected in the launch of the Sarawak Energy Digitalisation Wave 2.0 blueprint to remain relevant in an increasingly unstable and changing business landscape. We continue to move forward with greater emphasis on the role of digitalisation in our business to realise our ambition of becoming a digital utility by 2025.

In addition, we strengthened our Information Technology and Operational Technology infrastructures in 2020 by:

01 Upgrading our fibre backbone to **100Gbps**

02 **Enhancing** our network and hosting services

03 **Initiating** efforts on securing the business through the ThinkSecure campaign

04 **Cultivating** a modern remote working environment by replacing desktops with laptops and implementing e-signature across the organisation

To ensure that our people can adapt to these new technologies and methodologies, we have launched several programmes to enhance their digital knowledge including, but not limited to, the Sarawak Energy Digital Acculturation Programme (SEDAP) and Virtual Technology Day.

MAKING SARAWAK ENERGY A GREAT PLACE TO WORK

Sarawak Energy remains committed to cultivating a positive, productive and respectful working environment that appreciates the unique needs and perspectives of our people in alignment with UN SDG 8 to provide decent work for all. We respect and recognise the diverse perspectives and contributions of our workforce to Sarawak Energy and consistently seek to empower and develop them, which is key to attracting and retaining talents.

In line with UN SDG 5 on Gender Equality, Sarawak Energy Leading Women Network (SELWN) continued to empower and develop more women leaders in Sarawak Energy to support Malaysia's target of having 30% women in top leadership roles. In 2020, women make up 22% of our overall workforce. At the executive level, women comprise 38%.

As a result of our targeted and ongoing campaign to raise engagement levels across the Company, the Sarawak Energy Employee Survey (SEES) yielded a score of 83% in 2020. The survey enables us to understand and respond to the needs of our people, contributing to the continuous improvement of our workplace.

Sarawak Energy Employee Survey (SEES)

83% in 2020

These efforts were validated by a number of reputable organisations in 2020 with the following awards: '2020 HRD Asia Employer of Choice Award by Human Resources Director (HRD), Asia'; 'HR Asia Best Companies to Work for in Asia Award 2020 by HR Asia Magazine'; and 'HR Asia Most Caring Companies Award 2020 by HR Asia Magazine'.

Scan here to read more on Sarawak Energy's feature in HR Asia magazine.

SUSTAINABILITY AND SARAWAK ENERGY

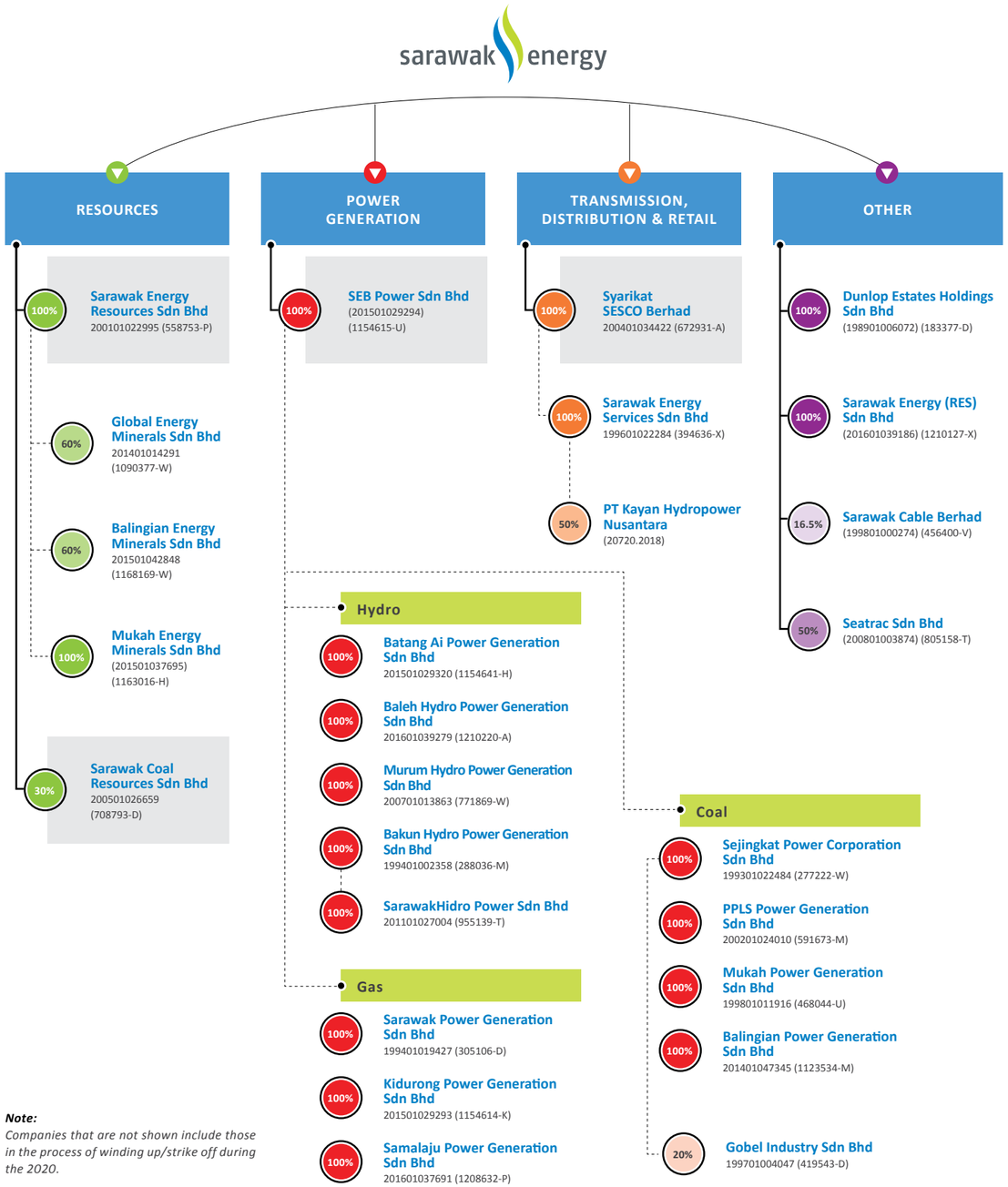
We continued to build resilience and contribute to the global fight against climate change by leveraging renewable energy and sustainable hydropower to reduce our carbon footprint and Sarawak's carbon emissions. With our focus on hydropower as a renewable energy source that provides clean, reliable and affordable energy, we are helping to meet Sarawak's targets of economic and social development, energy security, and affordable and sustainable energy. This included lighting up the most remote areas, reaching out to the underprivileged and marginalised, and prioritising our employees' safety and wellbeing.

We believe the way forward is through co-reliance on the Sustainability community, where sharing good practices and developing strategic alliances amongst organisations will help to progress sustainability.

At Sarawak Energy, we believe in building strategic partnerships with the community and stakeholders to create space for growth and earn our license to operate. This builds trust and confidence amongst our stakeholders and customers while simultaneously elevating our brand equity and reputation. These collaborations also facilitate knowledge and resource sharing, better equipping us to provide quality products and services for the benefit of all.

102-2, 102-5, 102-7, 102-10, 102-45

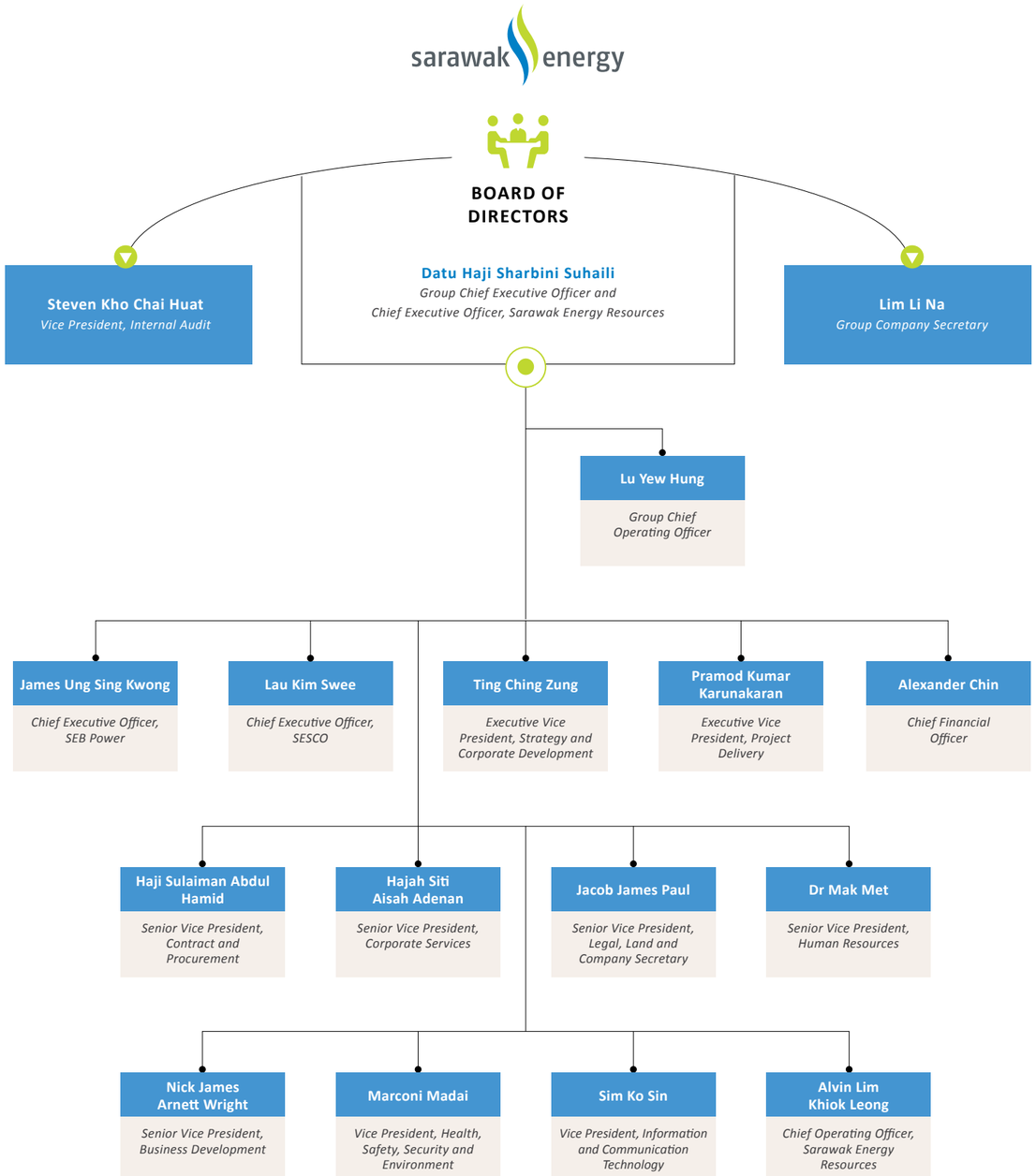
OUR CORPORATE STRUCTURE



Note:
Companies that are not shown include those in the process of winding up/strike off during the 2020.

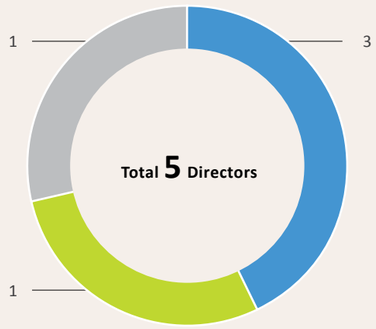
102-18

GROUP ORGANISATION STRUCTURE

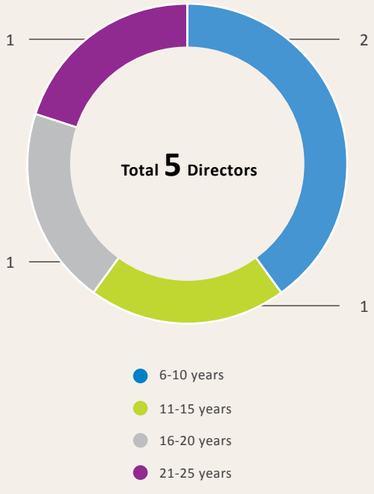


BOARD OF DIRECTORS PROFILE

BOARD COMPOSITION:



TENURE:



YBHG DATUK AMAR ABDUL HAMED SEPAWI

Chairman of Sarawak Energy
Non-Independent, Non-Executive Director

Aged 71 | ♂ | Malaysian

Yang Berbahagia Datuk Amar Abdul Hamed Sepawi joined the Board of Sarawak Energy and was appointed Chairman of the Company on 27 June 2005. He attended all Board meetings held in 2020.

Datuk Amar Abdul Hamed is a trained forester, corporate management strategist and industrialist in the timber, food and beverages, and energy industries.

He graduated with a Bachelor of Science degree from University of Malaya in 1971 and pursued his undergraduate studies in Forestry at the Australian National University from 1974 to 1975. He also holds a Master's degree in Forest Products Utilisation from Oregon State University, USA.

He was conferred the Panglima Gemilang Bintang Kenyalang in 1999 and the Datuk Amar Bintang Kenyalang in 2012. He received the Sarawak Entrepreneur of the Year 2004 award and The BrandLaureate's prestigious 'Man of the Year' Brand Icon Leadership Award 2015.

He also serves as Chairman of Syarikat SESCO Berhad and Naim Holdings Berhad, Executive Chairman of Ta Ann Holdings Berhad and Sarawak Plantation Berhad.

BOARD MEETING ATTENDANCE:

= 8/8

YBHG TAN SRI DATUK AMAR HAJI MOHAMAD MORSHIDI BIN HAJI ABDUL GHANI

Non-Independent, Non-Executive Director

Aged 64 | ♂ | Malaysian

Yang Berbahagia Tan Sri Datuk Amar Haji Mohamad Morshidi Bin Haji Abdul Ghani joined the Board of Sarawak Energy on 26 May 2010. He is a Non-Independent Non-Executive Director and attended all Board meetings held in 2020.

Tan Sri Datuk Amar Haji Mohamad Morshidi graduated with a Bachelor of Economics from Universiti Kebangsaan Malaysia and has a Master of Science in Human Resource Administration from the University of Scranton, Pennsylvania, USA. He was a Management Executive with PETRONAS from 1980 to 1988, and Director of Kuching North City Hall from 1989 to 1998. He held a number of senior positions in the Chief Minister's Department before being appointed Permanent Secretary in the Ministry of Social Development and Urbanisation in 2001. He was Director of the State Planning Unit in the Chief Minister's Department prior to his appointment as the Deputy State Secretary of Sarawak in 2006 and later, the State Secretary of Sarawak from August 2009 to August 2019.

Tan Sri Datuk Amar Haji Mohamad Morshidi sits on the board of Syarikat SESCO Berhad and several other private limited companies.

BOARD MEETING ATTENDANCE:

= 8/8

YBHG TAN SRI DATO SRI MOHD HASSAN BIN MARICAN

Independent, Non-Executive Director

Aged 68 | ♂ | Malaysian

Yang Berbahagia Tan Sri Dato Sri Mohd Hassan Bin Marican joined the Board of Sarawak Energy on 9 June 2010. He is an Independent Non-Executive Director and has attended seven out of eight Board meetings held in 2020.

Tan Sri Dato Sri Mohd Hassan is a Fellow of The Institute of Chartered Accountants in England and Wales (ICAEW), and a member of the Malaysian Institute of Accountants (MIA) and the Malaysian Institute of Certified Public Accountants (MICPA). He began his professional career in 1972 at Touche Ross & Co., London, and subsequently became a Partner at Hanafiah Raslan & Mohamad/Touche Ross & Co. in 1981. He was appointed PETRONAS Senior Vice President of Finance in February 1989, its President and Chief Executive Officer from February 1995 to February 2010, and the Acting Chairman from July 2004 to February 2010.

Tan Sri Dato Sri Mohd Hassan also serves as a board member on several other private limited companies.

BOARD MEETING ATTENDANCE:

= 7/8

BOARD OF DIRECTORS PROFILE

YBHG DATO SRI FONG JOO CHUNG
Non-Independent, Non-Executive Director

Aged 71 | ♂ | Malaysian

Yang Berbahagia Dato Sri Fong Joo Chung joined the Board of Sarawak Energy on 31 January 1996. He is a Non-Independent Non-Executive Director and has attended all Board meetings held in 2020.

Dato Sri Fong received his LLB (Hons) from the University of Bristol, U.K., in June 1971. He was subsequently called to the Bar at Lincoln's Inn, London, in November of the same year. In 1972, he began his professional career at Reddi & Co. Advocates in Kuching. He was appointed the State Attorney-General, Sarawak in August 1992. He officially retired on 31 December 2007 but was retained by the Sarawak Government as the State Legal Counsel. He also served as Councillor with the Kuching Municipal Council and Council of Kuching City South. He is a founding member and past President of the Advocates' Association of Sarawak.

Dato Sri Fong was conferred the award of Panglima Jasa Negara (PJN) by the Yang di-Pertuan Agong, Malaysia in 1999 and Panglima Gemilang Bintang Kenyalang (PGBK) by the Yang di-Pertua Negeri, Sarawak in 1994.

He was conferred the Panglima Negara Bintang Sarawak (PNBS) in 2017.

Dato Sri Fong sits on the boards of several other subsidiaries of the Sarawak Energy Group besides holding directorships in Bintulu Port Holdings Berhad and Sarawak Cable Berhad.

BOARD MEETING ATTENDANCE:

= 8/8

YB DATO' HAJI IDRIS BIN HAJI BUANG
Non-Independent, Non-Executive Director

Aged 66 | ♂ | Malaysian

Yang Berhormat Dato' Haji Idris Bin Haji Buang joined the Board of Sarawak Energy on 24 June 2000. He is a Non-Independent Non-Executive Director and has attended all Board meetings held in 2020.

Dato' Haji Idris graduated with LLB (Hons) from the University of Buckingham, and was subsequently called to the Bar and qualified as a Barrister at Lincoln's Inn, London, U.K. He is the proprietor of Idris-Buang & Associates (since 1985), a legal firm located in Kuching, Sarawak. He was formerly the Chief Political Secretary to the YAB Chief Minister of Sarawak, a position he held from August 2000 to August 2006. He was appointed Senator of the Dewan Negara on 28 November 2005 and was reappointed to another three-year term on 29 November 2008.

He was elected as a State Legislative Assemblyman in 2016.

Dato' Haji Idris also sits on the boards of several other subsidiaries of the Sarawak Energy Group besides holding directorships in Amanah Saham Sarawak Berhad and Hock Seng Lee Berhad as well as other private limited companies.

BOARD MEETING ATTENDANCE:

= 8/8

OUR MANAGEMENT TEAM

Datu Haji Sharbini Suhaili
Group Chief Executive Officer

Datu Haji Sharbini Suhaili is Group CEO of Sarawak Energy. Under Datu Haji Sharbini's stewardship, Sarawak Energy continues to advance hydropower which predominantly contributes to the installed generation capacity in Sarawak, powering residential, commercial and industrial activities, and supporting the government's economic growth strategy. In accelerating rural electrification, Sarawak Energy is delivering on Sarawak's mission to achieve 100% electrification coverage by 2025, together with the Ministry of Utilities.

Datu Haji Sharbini is strongly committed to managing Sarawak Energy's business to minimise any negative impact of its operations and maximise the positive impact of what it does for the community, as a socially responsible corporate citizen. Datu Haji Sharbini is also a strong advocate of safety as a key focus area for the corporation.

Sarawak Energy has been an International Hydropower Association (IHA) platinum member and sustainability partner since 2010. On the IHA Board since 2017, Datu Haji Sharbini is also a director of Petros, a wholly government-owned petroleum company. In 2018, he was conferred the Darjah Jasa Bakti Sarawak (D.J.B.S) which carries the title Datu, on the occasion of His Excellency the Governor of Sarawak's birthday.

Datu Haji Sharbini holds a Bachelor of Engineering (Hons) from University of Leeds, UK, and a Masters in Business Administration (MBA) from Henley Management College, UK.

Lu Yew Hung
Group Chief Operating Officer

Lu Yew Hung is the Group Chief Operating Officer of Sarawak Energy, a position he was appointed to in 2013. In his current role, Lu is responsible for establishing the vision and strategy to lead the Group's operational units in the execution of critical and transformative operational strategic initiatives, including asset management, infrastructure upgrades, and technology improvements while maintaining engineering and operational excellence.

Starting as an electrical engineer, in 1980 he joined Sarawak Electricity Supply Corporation (SESCO), now a wholly-owned subsidiary of Sarawak Energy Group.

Lu holds a Bachelor's Degree in Electrical and Electronics Engineering from the University of Dundee in the U.K. He was a Class 1 Switching Engineer up to 275kV before relinquishing his switching duties to assume leadership positions. Since 1988, he has been a professional engineer and also a Corporate Member of the Institution of Engineers, Malaysia (IEM). Since 1996, he has also served as a principal interviewer with the IEM.

James Ung Sing Kwong
Chief Executive Officer, SEB Power

James Ung, formerly Senior Vice President, Thermal, is Chief Executive Officer of SEB Power and oversees Sarawak Energy's power generation business.

He joined Sarawak Electricity Supply Corporation (SESCO) in 1990, now a wholly owned subsidiary of Sarawak Energy Group, and has more than 25 years of experience in the power generation business and project management in power plant construction. He served as General Manager of Sejingkat Power Plant and led the Mukah Coal Power Plant project to its successful commissioning in December 2008.

James holds a Bachelor's Degree in Mechanical Engineering from the University of South Alabama in the USA.

OUR MANAGEMENT TEAM

Lau Kim Swee
Chief Executive Officer, SESCO

Lau Kim Swee is Chief Executive Officer of SESCO and is responsible for the reliability and security of the power system as well as oversight of end-user customer care.

Lau has served with Sarawak Energy for almost 30 years in various roles. Prior to his last appointment as Senior Vice President, Distribution, he held the retail portfolio and was responsible for the Company's significant success in combatting power theft, saving the Company RM40 million and winning Sarawak Energy the first prize in the 2012 Key Focus Award from the Sarawak Government. Lau also brought visible change to the Company's customer service approach, spearheading Sarawak Energy's 24-7 Customer Care Centre in 2013 and other customer-oriented initiatives.

Born and raised in Kuching, Lau holds a Bachelor's Degree in Electrical and Computer Systems Engineering from Monash University in Melbourne, Australia.

Ting Ching Zung
Executive Vice President, Strategy and Corporate Development

Ting Ching Zung is the Executive Vice President of Strategy and Corporate Development, a position he was appointed to in May 2015. In his current position, he leads the development strategies for sustainable business growth and heads the implementation of strategic plans to achieve the Group's overall goals.

Ting has extensive experience in major corporate restructuring and rationalisation exercises, financial planning and analysis, and profit-and-loss leadership. Before joining Sarawak Energy, he was the Chief Executive Officer of Trienekens (Sarawak) Sdn. Bhd., a waste management company which handles scheduled waste throughout East Malaysia and municipal waste in Sarawak's major cities. Prior to that, he held various leadership positions in the finance and accountancy sector in the East Asia region.

Ting is a Chartered Accountant of Chartered Accountants Australia and New Zealand and holds a Bachelor's Degree in Accountancy from the University of Otago, New Zealand.

Alexander Chin
Chief Financial Officer

Appointed Chief Financial Officer in January 2014, Alexander Chin oversees Sarawak Energy's financial risk management, a portfolio which supports the development of the Group's financial and strategic plan as well as the use of financial metrics to drive the Group's performance. Alexander also holds responsibility for developing and monitoring the financial control systems designed to preserve the Group's assets and for ensuring that financial results are reported accurately, timely and in compliance with the relevant regulations.

Before joining Sarawak Energy, Alexander held a range of responsibilities with one of Malaysia's Big 4 assurance companies – in 2007 as a Partner in its East Malaysia office, responsible for audit clients from the manufacturing, construction, banking, mining, telecommunications and palm oil industries, and from 2010 to 2014 as Partner-in-Charge of its Advisory and Risk Services. In this role, he led teams which carried out strategic planning and business performance improvement services as well as corporate governance reviews, risk management implementation and internal audits for clients from both the public and private sectors.

Alexander is a Fellow of the Association of Chartered Certified Accountants (U.K.) and a Member of the Malaysian Institute of Accountants and the Chartered Tax Institute of Malaysia.

OUR MANAGEMENT TEAM

Pramod Kumar Karunakaran
Executive Vice President, Project Delivery

Pramod Kumar Karunakaran joined Sarawak Energy as the Executive Vice President for Project Delivery in July 2018.

Pramod has 33 years of experience in oil and gas major project management and development, covering all phases of projects from initiation, concept development to operational readiness and commissioning, through to delivery of commercial operations.

He has managed oil and gas downstream infrastructure and power generation projects (including downstream gas and power asset) and operations. Prior to joining Sarawak Energy, he was responsible for the delivery of the multi-billion Ringgit PETRONAS Pengerang Gas & Power Project.

Tuan Haji Sulaiman Bin Haji Abdul Hamid
Senior Vice President, Contract and Procurement

Haji Sulaiman Bin Haji Abdul Hamid has 30 years of experience with Sarawak Energy, joining SESCO in 1988.

Haji Sulaiman has held the positions of Consumer Accountant, SESCO Regional Accountant (Western Region), Senior Accountant (Management Accounting), Manager Internal Audit, Manager Corporate Finance and Head of Finance.

He is also actively involved in social initiatives both within Sarawak Energy and externally, notably with the Sarawak Orphanage Association and as Chairman of the Sports Club.

Haji Sulaiman holds a Diploma in Accounting from Universiti Teknologi MARA, a Bachelor's in Accounting from Universiti Kebangsaan Malaysia and an Executive MBA from Ohio University in the USA. He is also a Certified Accountant of the Malaysian Institute of Accountants.

Dr. Mak Met
Senior Vice President, Human Resources

Dr. Mak Met joined Sarawak Energy from Shell Malaysia Exploration and Production where he headed Human Resources for Shell's upstream businesses in Malaysia. Dr. Mak has a background in mechanical engineering and served in SESCO for five years before moving to Shell in the 1990s.

With over 30 years of experience and a Doctorate in Human Resources, he brings to Sarawak Energy a strong understanding of people and leadership development, in-depth knowledge of the HR function, frameworks and processes of a company that serves as a global benchmark for talent development and a passion for building Sarawakian talent.

Dr. Mak works with the Group Executive Committee and Human Resources team to build and develop the talent pipeline, ensure the Company attracts and retains the best talents, and resource and develop people so that the organisation is ready to face Sarawak Energy's current and future challenges.

OUR MANAGEMENT TEAM

Hajah Siti Aisah Adenan
Senior Vice President, Corporate Services

Hajah Siti joined Sarawak Energy as an electrical engineer in 1990 under the operating arm, Sarawak Electricity Supply Corporation (SESCO). In her 30 years of service, she has undertaken diverse roles in technical and non-technical fields including stints as Regional Manager for Sibu and Bintulu; Vice President of People & Leadership Development and Vice President for Distribution – the first woman to hold this key technical position.

Her diverse career experience has allowed her to grow her knowledge as a technical specialist and broaden her management and leadership skills.

In Hajah Siti's current role, she leads the support functions of Sarawak Energy overseeing Corporate Administration; Corporate Communication; Corporate Social Responsibility & Sustainability; Government Relations, Event Management and Protocol; Buildings, Facilities and Infrastructure; Integrated Quality Management System and Fleet Management & Logistics.

She is also the Executive Champion for the Sarawak Energy Leading Women Network (SELWN), playing an active role in the network's activities including as a pioneer in the Women Mentoring Women programme.

Hajah Siti graduated from George Washington University, Washington DC with a Degree in Electrical Engineering.

Nick James Arnett Wright
Senior Vice President, Business Development

Nick Wright joined Sarawak Energy in June 2010. As Senior Vice President of Business Development, he led the negotiation of the Power Exchange Agreement with Indonesian national utility Perusahaan Listrik Negara (PLN) governing the interconnection between Sarawak and West Kalimantan, which commenced operation in early 2016.

He is also leading the negotiation of similar agreements for Sarawak to export power to Brunei and Sabah and secured a deal with Malaysia's national oil company PETRONAS to supply 250 million standard cubic feet a day of natural gas to Sarawak.

For the four years prior to joining Sarawak Energy, Nick was the Senior Advisor for Energy, Water and Mining to the Minister for Energy and Resources, Tasmania.

Nick holds a Master of Business Administration (MBA) from the Graduate School of Business, University of New England. He also has a Bachelor of Arts (with First Class Honours) in Government and Economic Policy, as well as a Bachelor of Laws, from the University of Tasmania.

Jacob James Paul
Senior Vice President, Legal, Land and Company Secretary

James Paul joined Sarawak Energy as Senior Vice President, Legal, Land and Company Secretary in December 2020. In this role, James Paul leads the functions of Legal, Land and Wayleave, and Company Secretary, and is a member of the Group Executive Committee.

James has over 21 years of experience in legal counsel, with a major part of his career spent in a multinational company. He brings with him broad and deep experience in leadership roles in legal, secretarial, managing counsel and ethics and compliance.

OUR MANAGEMENT TEAM

Marconi Madai
Vice President, Health, Safety, Security and Environment

Marconi Madai is the Vice President of Health, Safety, Security and Environment, a position he was appointed to in September 2011. He leads a multi-disciplinary team to drive excellence in health, safety and environment in Sarawak Energy as well as ensure business continuity management in line with the Group's business objectives.

Marconi has extensive industry experience, having served in management positions in the chemical industry in Malaysia, where he developed standard operating procedures, oversaw compliance to standards, managed business risks and drove initiatives on human resources and CSR.

Marconi graduated with a Bachelor of Science degree in Chemical Engineering from the University of Utah, Salt Lake City in the USA in 1997.

Sim Ko Sin
Vice President, Information and Communication Technology

Sim Ko Sin joined Sarawak Energy as the Vice President for Information and Communication Technology in April 2018.

In line with the increased importance of information and communications technology as an enabler for the business, Sim is responsible for driving Sarawak Energy's ICT functions. These include ICT Strategy and Planning, Applications, Telecommunications and IT Infrastructure, Information Management, Operations, as well as Information Security and Risk Management.

Sim has worked in the energy industry for 23 years and has extensive international experience, particularly in the Asia-Pacific, U.K. and China. She has well-rounded industrial experience and knowledge as well as IT services management expertise.

Sim has a Bachelor's Degree in Computer and Mathematical Sciences from the University of Western Australia and an MBA from Imperial College London. She is also a certified project management professional.

Alvin Lim Khiok Leong
Chief Operating Officer, Sarawak Energy Resources

Alvin Lim is Chief Operating Officer of Sarawak Energy Resources and is responsible for consolidating Sarawak Energy's upstream resource activities.

Alvin has served with Sarawak Energy for close to 25 years in various roles ranging from technical to corporate management positions. Starting as an electrical engineer, he joined Sarawak Electricity Supply Corporation (SESCO), now a wholly-owned subsidiary of Sarawak Energy Group.

Prior to his appointment as Vice President of Coal Resources, Alvin served as General Manager for Planning and Strategy, which was during a time the Company was experiencing significant growth. He led the Group's development strategies in areas such as system planning, key accounts and corporate development.

Born and raised in Kuching, Alvin holds a Bachelor's Degree in Electrical and Electronics Engineering (Hons) from the University of Tasmania, Australia.

102-16, 103-2, 103-3

STATEMENT OF CORPORATE GOVERNANCE

The Sarawak Energy Berhad Board of Directors ("Board") is committed to ensure that the highest standard of corporate governance is practised throughout the Group with the objective of strengthening the Group's growth and corporate accountability while safeguarding the interests of the stakeholders.

The Board is pleased to present a statement to the Shareholders on how the Group has applied the principles of good governance and compliance with the best practices set out in the Malaysian Code of Corporate Governance.

THE BOARD OF DIRECTORS

The Board's principal responsibilities for corporate governance are to set out the strategic direction of the Group and establish the objectives and the achievements of the objectives and goals.

The current Board consists of five (5) members, whereby four (4) of the members are Non-Independent Non-Executive Directors and one (1) member is an Independent Non-Executive Director. The Directors collectively have a wide range of experience and expertise drawn from the area of business, accounting, economics, legal as well as public administration. Their expertise, experience and background are vital for the strategic direction of the Group. The profiles of the Directors are set out on pages 34 to 36 of the Annual & Sustainability Report.

The Chairman's responsibility is to ensure the effectiveness and efficiency of the Board meetings and their conduct, whereas the role of the Independent Non-Executive Director is to ensure that the views provided are professional and independent and that the advice and judgment made on issues and decisions are in the best interest of the stakeholders and the Group.

The Group has put in place the Sarawak Energy Berhad Group Manual of Authority, which provides a consistent and formal framework for approving matters throughout the Group. It sets out clear lines of accountability and responsibility as to the matters over which the Sarawak Energy Berhad's Board of Directors reserves authority and those which it has delegated to management.

The Board meets at least four (4) times in a year, with additional meetings held as and when required. There were eight (8) Board meetings held during the financial year ended 31 December 2020. A summary of the attendance of each Director at the Board meetings in 2020 is as follows:

Datuk Amar Abdul Hamed bin Sepawi
Non-Independent, Non-Executive Chairman
Meetings Attended 8/8
% of Attendance: **100%**

Tan Sri Datuk Amar Haji Mohamad Morshidi bin Haji Abdul Ghani
Non-Independent, Non-Executive Director
Meetings Attended 8/8
% of Attendance: **100%**

Dato' Haji Idris Bin Haji Buang
Non-Independent, Non-Executive Director
Meetings Attended 8/8
% of Attendance: **100%**

Dato Sri Fong Joo Chung
Non-Independent, Non-Executive Director
Meetings Attended 8/8
% of Attendance: **100%**

Tan Sri Dato Sri Mohd Hassan Bin Marican
Independent, Non-Executive Director
Meetings Attended 7/8
% of Attendance: **88%**

SUPPLY OF INFORMATION

The Board and its Committees have full and unrestricted access to all information within Sarawak Energy pertaining to the Group's business and affairs.

All the Directors are to be notified of the Board meetings within a stipulated time prior to the date of the meetings. The Directors will also be provided with an agenda and a set of Board papers prior to each Board meeting to enable them to gain information, insights and to be properly briefed before the meeting.

In most instances, the Senior Management of the Group as well as external advisors may be invited to attend the Board meetings, to provide further information and to clarify issues that may be raised by the Board.

Board members also have access to the Company Secretary to obtain any further details they may require. Directors may also seek independent professional advice on any matter connected with the discharge of their responsibilities if deemed necessary and appropriate, whether as a full board or in their individual capacities, at the Company's expense.

RE-ELECTION OF DIRECTORS

In accordance with the Company's Articles of Association, all Directors appointed by the Board are subject to election by Shareholders at the first Annual General Meeting after their appointment. One-third of the remaining Directors are required to submit themselves for re-election by rotation at each Annual General Meeting thereafter. All Directors must submit themselves for re-election at least once every three years.

DIRECTORS' TRAINING

The Directors have the option to attend various accredited programmes organised by various course leaders to enhance their knowledge and skills to enable them to carry out their role as Directors effectively. The Company arranges for Directors to attend such courses to provide them with current updates and information so that they are equipped with the skills in good governance required to act as effective Directors of the Company.

BOARD COMMITTEES

The following Committees have been established to assist the Board in the execution of its responsibilities. These Committees have written terms of reference which have been approved by the Board and sets out their authority and duties.

1. Board Audit and Risk Committee (BARC)

The BARC plays an important role in reviewing the Group's financial management as well as reporting and assessing the integrity of the Group's accounting procedures and financial control. The BARC is responsible for the review of accounting policy and the presentation of external financial reporting including the Group's interim results and its disclosures. They also oversee the activities of the internal audit function and ensure an objective and professional relationship is maintained with the External Auditors and that conflicts of interest, if any, are avoided. The BARC has full access to both Internal and External auditors, who in turn, have access to the Chairman of the BARC at all times.

The BARC strives to ensure that it keeps abreast of all material developments in regulations and best practices in its area of responsibility.

The report of the BARC, including their attendance at the Committee meetings, is set out on page 52 of this Annual & Sustainability Report.

2. Governance, Nomination and Remuneration Committee (GNRC)

The responsibilities of the GNRC are to identify potential candidates for Directorships to the Board and make recommendations for all new or re-appointments of members of the Board. Further, the GNRC also makes recommendations on the Company's framework for remuneration and its cost as well as to determine specific remuneration packages on behalf of the Board and the terms and conditions of employment for the Group's employees.

The GNRC's additional duties are to provide remuneration input on contracts of employment with executive directors, determine the terms of any compensation in the event of early termination of the employment contracts, make recommendations on human resource policies from time to time and discuss and approve the revision of the Group's organisation structure as and when needed.

The GNRC also acts as a disciplinary committee to decide and recommend disciplinary action for senior staff misconduct to the Board for approval.

STATEMENT OF CORPORATE GOVERNANCE

The composition of the GNRC members for the financial year ended 31 December 2020 is as follows:

i) **Tan Sri Datuk Amar Haji Mohamad Morshidi bin Haji Abdul Ghani**
(Non-Executive Director) - Chairman

ii) **Tan Sri Dato Sri Mohd Hassan bin Marican**
(Non-Executive Director)

iii) **Dato Sri Fong Joo Chung**
(Non-Executive Director)

iv) **Dato' Haji Idris bin Haji Buang**
(Non-Executive Director)

The GNRC held five (5) meetings during the financial year ended 31 December 2020.

The attendance record of the members is as follows:

Directors	Meetings Attended	% of Attendance
Tan Sri Datuk Amar Haji Mohamad Morshidi bin Haji Abdul Ghani *Non-Independent Non-Executive Director*	5/5	100
Tan Sri Dato Sri Mohd Hassan bin Marican *Non-Independent Non-Executive Director*	4/5	80
Dato' Haji Idris bin Haji Buang *Non-Independent Non-Executive Director*	5/5	100
Dato Sri Fong Joo Chung *Non-Independent Non-Executive Director*	5/5	100

3. Bumiputera Participation Board Committee (BPBC)

The responsibility of the BPBC is to ensure participation of local and vendors in Sarawak Energy's contract and procurement activities in line with the State government's vision to maximise local participation in contract and procurement in Sarawak.

The composition of the BPBC members for the financial year ended 31 December 2020 is as follows:

i) **Dato' Haji Idris bin Haji Buang**
(Non-Executive Director) - Chairman

ii) **Dzulkornain bin Masron**
(Public Sector) - Member

iii) **Dato Ir. Abang Jemat bin Abang Bujang**
(Professional & Entrepreneurial Group) - Member

iv) **Datu Haji Wan Kassim bin Tuanku Zubir**
(Professional & Entrepreneurial Group) - Member

v) **Dr. Simon Sinang Bada**
(Professional & Entrepreneurial Group) - Member

vi) **Ir. Haji Zawawi bin Haji Embong**
(Professional & Entrepreneurial Group) - Member

vii) **Stell Sindau**
(Professional & Entrepreneurial Group) - Member

viii) **Datu Haji Abang Helmi bin Tan Sri Ikhwan**
(Local Business Chambers) - Member

ix) **Datuk Mutang Tagal**
(Local Business Chambers) - Member
(appointed with effect from 31 January 2020)

x) **Dato Allan Keripin Nangkai**
(Local Business Chambers) - Member

The BPBC held four (4) meetings during the financial year ended 31 December 2020.

STATEMENT OF CORPORATE GOVERNANCE

MANAGEMENT COMMITTEE

The Group Executive Committee ("GEC") is established to provide a meeting and decision-making forum on specific matters with the view of reporting, information sharing, establishing cooperation or collaboration amongst the various departments or cross functions and finding resolutions to the issue or matter at hand as the case may be.

The GEC shall also function as the Executive Risk Committee ("ERC") for the Group, to promote risk discussion at the top management level.

The GEC has written terms of reference which have been approved by the Board, and their authority and duties are set out as follows:-

a) Monitor and evaluate political, economic and business conditions and formulate measures to ensure that any potential material impact is identified and managed;

b) Review, decide, endorse on strategic decisions and policy discussions or such other matters that require submission to, or further deliberation on a decision from, the Board of Directors, Board Committees or Subsidiary Company Boards;

c) Review, decide or endorse on strategic directions of the Sarawak Energy Group, including Decision Gates on projects, new business directions and the likes;

d) Review, decide or endorse on strategic directions and policies relevant to the Sarawak Energy Group (such as Human Resources and leadership development, implementation of management leadership, change management and continuous improvements programmes and initiatives for the Sarawak Energy Group);

e) Review, decide or endorse on strategic directions and policies for Key Performance Indicators ("KPIs") for the Sarawak Energy Group;

f) Review, decide, endorse or share issues of timely importance to the Sarawak Energy Group (such as Corporate Risk, Health, Safety, Security and Environment, Customer related issues, land access concerns and the likes);

g) Manage and regularly review the operational and financial performance of the Sarawak Energy Group;

h) Optimise and allocate the Sarawak Energy Group's resources;

i) Discuss and debate Sarawak Energy Group corporate culture and set ways forward to address any issues or encourage beneficial developments;

j) Consider other matters as required by the Board;

k) Oversees the establishment, implementation and consistent adoption and communication of the Group's risk management framework, which includes policies, processes and procedures to identify, analyse, evaluate, monitor and report on significant financial and non-financial risks, and is responsive to changes in the Group's internal and external environment;

l) Endorses any changes to the Group's Risk Management Framework to Board Audit and Risk Committee and Sarawak Energy Board for approval;

m) Sets the risk appetite within which the Board expects Management to operate and ensures that actions are taken in a timely manner when risks are outside acceptable tolerance ranges;

n) Monitors risk exposure against risk appetite tolerance ranges;

o) Deliberate and provide directives, where applicable, on risk appetite metrics and tolerance ranges, portfolio of key risks and risk issues highlighted to the ERC, through regular reports;

p) Ensures that controls are in place to mitigate and manage the key risks of the Group; and

q) Provides reasonable assurance that any adverse impact arising from a foreseeable future event or situation on the Group's objectives is mitigated and managed.

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STATEMENT OF CORPORATE GOVERNANCE

As of 31 December 2020, the GEC comprises the following members:-

i) **Datu Haji Sharbini Bin Suhaili**
(Group Chief Executive Officer) - Chairman

ii) **Lu Yew Hung @ Lu Yew Hong**
(Group Chief Operating Officer)

iii) **Lau Kim Swee**
(Chief Executive Officer, Syarikat SESCO Berhad)

iv) **Ung Sing Kwong, James**
(Chief Executive Officer, SEB Power Sdn. Bhd.)

v) **Ting Ching Zung**
(Executive Vice President, Strategy & Corporate Development)

vi) **Pramod Kumar Karunakaran**
(Executive Vice President, Project Delivery)

vii) **Alexander Chin**
(Chief Financial Officer)

viii) **Haji Sulaiman bin Haji Abdul Hamid**
(Senior Vice President, Contract & Procurement)

ix) **Dr Mak Anak Met**
(Senior Vice President, Human Resources)

x) **Nooruddin Bin Abdullah @ Liew Sze Hoon**
(Senior Vice President, Legal & Enterprise Risk)
(contract ceased with effect from 31 October 2020)

xi) **James Paul**
(Senior Vice President, Legal, Land & Company Secretary)
(appointed with effect from 1 December 2020)

xii) **Hajah Siti Aisah Bt. Adenan**
(Senior Vice President, Corporate Services)

xiii) **Nick Wright**
(Senior Vice President, Business Development)

xiv) **Sim Ko Sin**
(Vice President, Information & Communication Technology)

xv) **Marconi Madai**
(Vice President, Health, Safety, Security & Environment)

xvi) **Alvin Lim Khiok Leong**
[Chief Operating Officer, SER (COO SER)/
Vice President, Coal Resources (VP CS)]

There were nineteen (19) GEC meetings, fourteen (14) Special GEC meetings, two (2) GEC Technology Council meetings, three (3) Group Digital Council meetings, and three (3) GEC HSSE Council meetings held during the financial year ended 31 December 2020.

TENDER COMMITTEES

Tender committees are established to approve the award of tenders in line with Procurement Limits of Authority that was approved by the Board.

CONFIDENTIALITY OF INFORMATION

Under the Company's Information Governance guidelines, documents are to be classified. For documents classified as Confidential, Secret or High Secret, there are stipulated guidelines to be adhered to.

Staff or external parties privy to information or documents classified as "Confidential" or higher are required to sign a Secrecy Oath or Confidentiality Agreement.

STATEMENT OF CORPORATE GOVERNANCE

ACCOUNTABILITY AND AUDIT

Financial Reporting

The Directors are responsible for ensuring that the annual financial statements of the Group are drawn up in accordance with the applicable approved accounting standards in Malaysia and the provisions of the Companies Act, 2016.

The Board aims to provide and present a balanced and meaningful assessment of the Group's financial performance and prospects, primarily through the annual financial statements and quarterly financial results as well as the Chairman's Statement and Review of Operations in the Annual & Sustainability Report. The Board is assisted by the Board Audit & Risk Committee in overseeing the Group's financial reporting processes and the quality of its financial reporting.

Relationship with Auditors

Through the BARC, the Board has established a formal, transparent and appropriate relationship with the Group's Auditors, both External and Internal. The BARC meets regularly with External and Internal Auditors to discuss the yearly audit plan, quarterly financial results, annual financial statements and internal audit reports, and at every Board meeting convened, the Chairman of the BARC briefs the Board on significant matters discussed and deliberated at each BARC meeting and makes recommendations for the Board's approval and endorsement.

Internal Controls

Information of the Group's internal controls system is presented in the Statement of Risk Management and Internal Control as set out on pages 48 to 51 of this Annual & Sustainability Report.

DIRECTORS' RESPONSIBILITY STATEMENT

The Board is responsible to ensure that the financial statements are prepared in accordance with the Companies Act, 2016 and the applicable approved accounting standards set by the Malaysian Accounting Standards Board to present a true and fair, balanced and understandable assessment of the Group's financial position and results. In this Annual & Sustainability Report, an assessment is provided in the Directors' Report of the Audited Accounts.

The BARC reviews the statutory compliance and scrutinises the financial aspects of the Audited Accounts prior to deliberation at the Board level.

ADDITIONAL COMPLIANCE INFORMATION

To the best of the Directors' knowledge:

- **Material Contracts**
  Neither the Company nor its Subsidiaries entered into any material contracts not in the ordinary course of business during the financial year ended 31 December 2020.

- **Sanctions/Penalties**
  There were no material sanctions and/or penalties imposed on the Company and its subsidiaries, Directors or Management by any relevant regulatory authorities during the financial year ended 31 December 2020.

- **Revaluation Policy on Landed Properties**
  The Group did not adopt any revaluation policy on landed properties during the financial year ended 31 December 2020.

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STATEMENT ON RISK MANAGEMENT AND INTERNAL CONTROL

As part of our commitment to good corporate governance, Sarawak Energy has voluntarily adopted the best practices for Sarawak Energy's Board of Directors (Board) to provide a statement in its Annual & Sustainability Report on the state of risk management and internal control as a Group.

Sarawak Energy's Board is pleased to present the following statement that has been prepared in accordance with the best practices recommended by the Statement on Risk Management and Internal Control: Guidelines for Directors of Listed Issuers (2012). This Statement outlines the nature and scope of the risk management and internal control systems within the Group during the year under review.

The Board is committed to its responsibility of maintaining a sound risk management framework and system of internal control, covering financial and operating activities to safeguard Shareholders' investment, the Group's assets and customers' interests. This Statement on Risk Management and Internal Control outlines the processes that have been implemented to ensure the adequacy, effectiveness and integrity of the risk management framework and system of internal control of Sarawak Energy Group during the financial year ended 31 December 2020.

The Group's risk management framework and system of internal control apply to Sarawak Energy and its subsidiaries. Associated companies and joint ventures are excluded because the Group does not have full management control over them.

BOARD RESPONSIBILITY

The Board has an overall responsibility for the Group's risk management framework and system of internal control to provide reasonable assurance of efficient operations, effective internal checks and compliance with laws and regulations.

The ongoing process for identifying, evaluating, monitoring and managing the significant risks faced by the Group is periodically reviewed by the Board during the financial year under review. However, the Board recognises that the Group's system of internal control is designed to manage rather than eliminate the risk of failure to achieve its objectives, hence it can only provide reasonable but not absolute assurance against material misstatement, fraud or loss.

The Board is assisted by the Management in the implementation of the approved policies and procedures on risks and controls, in which the Management identifies and assesses the risks faced as well as implements and monitors appropriate control measures to mitigate and control these risks.

Further, the Board is assisted by the Board Audit and Risk Committee (BARC) to review the adequacy and effectiveness of the system of internal controls in the Group as part of the governance and risk management processes.

ENTERPRISE RISK MANAGEMENT (ERM)

The Board acknowledges that effective risk management is part of good business practices and recognises the need for a sound system of internal control capable of managing the significant risks of the Group.

In addition to discharging its duties and responsibilities in maintaining a robust and sound system of internal control, the Board has also formalised and implemented an ERM Framework for the Group to provide guidance relating to the implementation of enterprise risk oversight and management processes. This framework incorporates identification, assessment, mitigation and control, monitoring and reviewing processes especially relating to significant risks and their trends.

The ERM framework ensures that significant risks are continuously identified and that instituted controls are efficaciously applied by the management to manage risk exposure at levels that are tolerable and acceptable to the Group, consistent with its risk appetite and risk management practices. Through the ERM framework, the Group's risk appetite statements and profiles are established, monitored and reported on a quarterly basis to the Group Executive Committee (GEC), BARC and the Board:

- Sarawak Energy's Risk Appetite Statements (RAS) articulates the type of risks that the Group is willing to accept as well as the tolerance and threshold levels to guide strategic decisions
- The Risk Profiles consist of strategic risks with the corresponding risk mitigations and key risk indicators established, where relevant. This allows actions to be taken to ensure that key risks are being effectively managed within the tolerance and threshold levels across the Group

Continuous risk awareness and education programmes are conducted for employees including through the on-boarding programme for new recruits with the ultimate aim of inculcating a risk-conscious culture within the Group.

In 2020, the unprecedented COVID-19 pandemic brought about new uncertainties and risks to the Group's operations and financials. In response to the pandemic, an assessment of the Group's resilience and business continuity has been carried out, and the following mitigating actions have been put in place to manage the risks:

- Established the Cash Conservation and Management Office to conserve the Group's cashflow and building liquidity buffers;
- Activated the Group Crisis Management Team and established the COVID-19 Contingency Plans which have been rolled out across the Group;
- Proactively work with the State Immigration Department and State Disaster Management Committee, in light of project and operational disruptions in delivery of materials and immigration restrictions of foreign workers during the Movement Control Order period;
- Introduced the Group New Work Arrangement as a preventative measure to reduce the risk of workplace transmission. The Group Standard Operating Procedures and Workplace Specific Standard Operating Procedures were established to reinforce the objectives of the New Work Arrangement as well as to continue the flexibility of working remotely, while minimising disruption to work; and
- Ongoing enhancement of the use of information and communication technology by extending secure remote working enablement, implementing additional information security controls, and the implementation of an ongoing digital literacy and comprehensive cyber security awareness campaign aimed at developing employees' digital capabilities and competencies.

BUSINESS CONTINUITY MANAGEMENT (BCM)

The Board acknowledges the significance of instituting a holistic BCM Framework and Crisis Management Plan for the Group to build and enhance organisational resilience with the capability and capacity to create an effective response that safeguards the interests of its key stakeholders, reputation, and value-creating activities.

The Group has implemented the BCM Framework, Crisis Management Plan and continues its rollout of the BCM implementation roadmap and related programmes.

In addition, Crisis Simulation Exercises, BCM Awareness & Refresher training as well as Business Impact Analysis/Business Continuity Plan documentation review workshops were conducted to enhance business resiliency by building organisational capability and capacity for effective emergency responses and systematic recovery strategies to maintain business continuity.

SYSTEM OF INTERNAL CONTROLS

Some of the key elements of the Group's System of Internal Control are as follows:

- The Group's Organisational and Management Structure formally defines the line of responsibility for all aspects of the Group's affairs which is aligned to its strategic and operational requirements. The structure will be reviewed and updated as and when needed to reflect the changing business environment and operating activities within the Group.
- Senior Management prepares and presents the business plans and budgets to the Board annually for approval and updates on the progress on a quarterly basis.
- Measurement of performance is regularly monitored through reports incorporating key project progress, financial and operational key performance indicators and departmental initiatives by the Group Chief Executive Officer to the Board.
- The BARC reviews the statutory annual financial statements and the quarterly group management reports and recommends to the Board for approval.
- The Sarawak Energy Berhad Group Manual of Authority has been formalised and rolled out in 2020, as a means of governing and safeguarding the Group in key approval matters for strategic and critical financial and non-financial matters as well as sets a sound framework of authority and accountability to facilitate timely, effective and quality decision-making.
- Under the custody of the Governance and Compliance Unit of the Legal Division, the Sarawak Energy Group Policy Central was established as a centralised portal for the Group's Policies, Procedures and Guidelines. These documents are consistently reviewed and enhanced when necessary to ensure continued relevance and effectiveness.

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STATEMENT ON RISK MANAGEMENT AND INTERNAL CONTROL

- Finance Policies and Procedures covering key processes, including Invoice to Pay, Record to Report, Planning, Budgeting & Forecasting, Order to Cash, Taxation, Treasury, Corporate Finance & Investor Relations, have been reviewed and enhanced to ensure compliance and control.
- Procurement Policies and Procedures were updated and in place to govern the procurement activities within the Group.
- Major capital project investments will be subject to Sarawak Energy's Project Model (SPM). The SPM is a stage-gated decision process to systematically progress the development and implementation of capital investment projects. This will allow consistency in the assessment of investment opportunities as well as effect discipline and efficiency in the management of the invested capital in order to achieve business goals.
- The suite of Human Resources Policies, Procedures and Guidelines encompasses areas of human resources management such as recruitment, onboarding, employee development, benefits and remuneration among others and is supported by the promotion of a high performance culture to enable Sarawak Energy to achieve its strategic goals and objectives.
- The Group strives to implement best practices, some of which have been recognised and awarded with International Organisation for Standardisation (ISO) Management System certifications. ISO internal audits are conducted at planned intervals by the Integrated Quality Management System (IQMS) Division to ensure compliance with ISO27001 and internal requirements, as well as effectiveness of implementation.
- Assessment of the adequacy of insurance coverage for employees and assets are conducted annually to safeguard against any contingent incidents that could result in material losses.
- Significant contracts and legally enforceable agreements are reviewed by the Legal Division prior to finalisation and execution.
- All regulatory non-compliance or breach of laws and regulations are reported to the BARC on a quarterly basis.

INTERNAL AUDIT FUNCTION

The BARC, assisted by the Group Internal Audit (GIA), provides the Board with the assurance it requires on the adequacy and effectiveness of the system of internal controls. The BARC has an oversight function of all activities carried out by the GIA.

The GIA adopts a risk-based approach in preparing its audit strategy and annual plan. The GIA independently reviews the risk exposures and control processes implemented by the Management and conducts assignments that cover auditing and review of critical areas within the Group, including financial, operations, projects and IT/information systems. The internal audit functions and activities are guided by its internal audit charter and annual audit plan which are approved by the BARC and the internal audit reports are tabled at the BARC meetings for review and deliberation.

Further, the GIA engages in regular communication with the senior management team and various departments within the Group related to internal audit activities and efforts for continuous improvement in operations and systems. External auditors' recommendations for improvements noted during their audit, if any, are also closely monitored and followed up to ensure that they are promptly implemented.

INTEGRITY & FRAUD CONTROL FUNCTION

In 2020, the Integrity and Fraud Control Unit was established under the GIA. The Group appointed a Chief Integrity and Fraud Control Officer whose key role is independent oversight of integrity and fraud control in the Group.

The Management of the Group has implemented the following key initiatives, which demonstrates Sarawak Energy's commitment to integrity and zero tolerance to fraud, as well as a step in its journey towards meeting the Adequate Procedures requirement of Section 17A of the MACC (Amendment) Act 2018:

- Reviewed and enhanced the Code of Ethics to include the revised Code on conflict of interest, corporate gifts, entertainment and corporate hospitality among others;
- All employees are required to sign the Sarawak Energy Corporate Integrity Pledge, including new recruits with effect from August 2020 as part of its recruitment and onboarding process;
- Online Anti-Bribery and Corruption Training is mandatory;
- Revision of the Fraud Risk Management Framework; and
- Integrity survey with 100% participation from Sarawak Energy employees.

The Group also continues to implement the Fraud Risk Management Framework roadmap, which comprises Fraud Control Policy and Plan as well as fraud awareness training, reporting procedures and related programmes.

CONCLUSION

The Board has obtained assurances from the GEC that to the best of their knowledge and belief, the Group's risk management and internal control system is operating adequately and effectively, in all material aspects. Where weaknesses are identified, rectification steps have been put in place.

To the best of their knowledge and belief, the Board is of the view that the risk management and internal control system in place for the year under review and up to the date of approval of this statement for inclusion into the Annual & Sustainability Report, is adequate and effective to safeguard shareholders' investment, the interests of customers, regulators and employees, and the Group's assets.

REVIEW OF THE STATEMENT BY EXTERNAL AUDITOR

The external auditors have reviewed this Statement on Risk Management and Internal Control pursuant to the scope set out in Audit and Assurance Practice Guide 3, Guidance for Auditors on Engagements to Report on the Statement on Risk Management and Internal Control included in the Annual Report (AAPG3) issued by the Malaysian Institute of Accountants (MIA) for inclusion in the Sarawak Energy Annual & Sustainability Report for the year ended 31 December 2020, and reported to the Board that nothing has come to their attention that causes them to believe that the statement intended to be included in the Annual & Sustainability Report is not prepared, in all material respects, in accordance with the principle disclosures required by paragraphs 41 and 42 of the Statement on Risk Management and Internal Control: Guidelines for Directors of Listed Issuers nor is the Statement factually inaccurate.

AAPG3 does not require the external auditors to consider whether the Directors' Statement on Risk Management and Internal Control covers all risks and controls, or to form an opinion on the adequacy and effectiveness of the Group's risk management and internal control system including the assessment and opinion by the Directors and management thereon.

The report from the external auditors was made solely for and directed solely to the Board in connection with their voluntary adoption of the best practices recommended by the Statement on Risk Management and Internal Control: Guidelines for Directors of Listed Issuers (2012) which is for the Board to make a statement in its Annual & Sustainability Report about the state of risk management and internal control as a Group and for no other purpose or parties. The external auditors do not assume responsibility to any person other than the Board in respect of any aspect of this report.

This statement is made in accordance with the resolution of the Board dated 28 April 2021.

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BOARD AUDIT AND RISK COMMITTEE REPORT

MEMBERSHIP AND MEETINGS

The Board Audit and Risk Committee ("BARC") members are appointed by the Board from amongst its non-executive members. The BARC comprises one independent non-executive director and two non-independent non-executive directors of the Board as set out in the table below.

YBhg Tan Sri Dato Sri Mohd Hassan Bin Marican is a Fellow of the Institute of Chartered Accountants in England and Wales, a Member of Malaysian Institute of Accountants and Malaysia Institute of Certified Public Accountants.

During the financial year under review, the BARC convened (4) four meetings. The attendance record of the members is as follows:

YBhg Tan Sri Dato Sri Mohd Hassan Bin Marican
Member
Meetings Attended 4/4
% of Attendance: **100%**

YBhg Tan Sri Datuk Sri Amar Haji Mohamad Morshidi bin Haji Abdul Ghani
Member
Meetings Attended 4/4
% of Attendance: **100%**

YB Dato' Haji Idris bin Haji Buang
Member
Meetings Attended 4/4
% of Attendance: **100%**

The Vice President/Head of Internal Audit and the Group Company Secretary, being Secretary of the BARC were present at all the meetings. Upon invitation, representatives from the External Auditors, Group Chief Executive Officer, Chief Financial Officer and other members of senior management and external parties also attend specific meetings whenever required.

SUMMARY OF ACTIVITIES OF THE BARC

During the financial year, the BARC carried out the following main activities as set out in its terms of reference:

- Reviewed and recommended the Quarterly Group Management Reports and Audited Financial Statements of the Company to the Board for approval.
- Reviewed and endorsed the External Auditors Audit Plan, Scope of Work and Fees for the Company and recommended the same for approval by the Board.
- Reviewed and recommended the Quarterly Enterprise Risk Management Report – Updates on Sarawak Energy Berhad's Risk Profiles, Key Strategic and High Risks and Key Mitigation Actions taken by the Management to address the risks.
- Reviewed and noted the strategic risk for SCORE and Export Customers' demand.
- Reviewed and approved the enhancement to Sarawak Energy Berhad's Risk Management Frameworks with regards to risk appetite and risk organisation.
- Reviewed and endorsed the BARC Reports, Statement on Risk Management & Internal Controls and Corporate Governance Statement for inclusion in Sarawak Energy Berhad Annual Reports.
- Reviewed and discussed Sarawak Energy Berhad Group Annual Revenue and Capital Budget & Year End Estimates and recommended the same for submission to the Board.
- Reviewed and endorsed the Report of Sarawak Energy Forex Hedging Committee on the hedging activities transacted during the year.
- Reviewed and noted on the status updates on the Sarawak Energy's insurance services and initiatives.
- Reviewed and approved/noted the Group Internal Audit Plans, KPIs Achievement and Quarterly Internal Audit Update Reports.
- Reviewed and deliberated reports issued by the External Auditors and Group Internal Audit on significant findings and remedial actions taken by the Management to address the issues raised.
- Reported to the Board on its activities and any significant issues and remedial actions taken by the Management arising from the audits undertaken by the External and Internal Auditors on specific areas and reports/papers presented by the Management at each BARC meeting.

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OUR STRATEGIC ROADMAP

PAST (2017 - 2019)

SUSTAINING VALUE & CONTINUOUS GROWTH

- Capture growth: **579MW PPA** signed (~RM900 million p.a.)
- **Bakun HEP acquisition** & generation capacity **> 5,000MW**
- Secured **upstream** fuel resources (Gas & Coal)
- Energised **500kV transmission backbone**

PRESENT (2020 - 2022)

BEST OPERATOR & CAPTURE GROWTH THROUGH CONTINOUS IMPROVEMENT

- Continuous improvement & innovation across value chain
- Strengthen corporate governance & compliance
- Attract premium customers and interconnections
- Maximise returns on invested assets
- Increase renewable energy footprint
- Accelerate state grid & rural electrification

FUTURE (2023 & Beyond)

REGIONAL POWERHOUSE

- Digital Utility
- Borneo Grid & regional expansion
- Driving innovation and investment across Borneo & the region
- Regional leader in clean, renewable energy and technology

Building on the successes of our Sarawak Energy Excellence (SEE) 2017 journey, in 2020, we concluded what we had set out to accomplish under the SEE 2020 Strategic Roadmap. To enhance our ability to sustain value creation and drive continuous growth that we experienced over the course of SEE 2020, we embarked on SEE 2022 to become the best operator and capture growth through continuous improvement. This next phase of our strategic roadmap will pave the way for us to achieve our regional powerhouse ambition by 2023 and beyond, by guiding and focusing the Company to work towards a common goal.

Anchored on five Key Focus Areas in Health, Safety, Security and Environment (HSSE), Operational, Project Delivery and Talent Management Excellence, underpinned by a Progressive Corporate Culture, Sarawak Energy is committed to deliver on our promises and improve our business operations at all levels in order to build and retain trust from our stakeholders and the communities we support.

102-15, 103-1, 103-2, 103-3

OUR STRATEGIC ROADMAP

SARAWAK ENERGY EXCELLENCE (SEE) 2022

Our SEE 2022 journey aspires to take us from good to great, with the roadmap being enabled by a mindset of continuous improvement to achieve the targets outlined under our five key focus areas as well as our regional goals.

Since the inception of our HSSE Transformation Journey in 2017, we have achieved several major milestones including significant decrease in work-related accidents, contributing to a safer workplace. To sustain this performance, we have embarked on a cultural transformation programme within the organisation to ensure all employees and stakeholders continue to embed a strong HSSE culture and make safety a top priority and shared responsibility.

To achieve Operational Excellence, we are driving continuous improvement across our value chain to maximise operational efficiency and output. A strong and determined focus on digitalisation, technology and innovative thinking have enabled us to deliver on our promises during COVID-19. Digital transformation continues to play a central role in driving Operational Excellence and our objectives remain centred on ensuring customer satisfaction by supplying safe and reliable power at all times.

For Sarawak Energy's sustainable growth, all our projects must be delivered safely, within costs, on schedule and with a strict adherence to quality standards. Since the implementation of our Project Delivery Transformation initiative in 2018, we have made tremendous progress in our approach to project delivery excellence which includes advancements to our systems, processes, people capabilities and networks. Backed by external benchmarking against other top quartile utilities, we are confident of our progress in achieving world-class project delivery capabilities by 2023.

Our holistic people strategy of 'Let's ADD (Acquire, Develop, and Deploy) our talent' has enabled us to successfully attract, retain, nurture and grow our talent. Our Talent Management Excellence Framework effectively guides Sarawak Energy's talent development programmes to help our people grow in their career while preparing them for critical positions and succession plans. As an employer of choice, we also benchmark ourselves against international and regional companies in terms of infrastructure and incentives to make sure we offer the best benefits to our people - Sarawak Energy's greatest asset.

A progressive, resilient and high-performing corporate culture is essential to ensure the delivery of targets and excellence in the key focus areas. Thus, we strive to imbue our people with Sarawak Energy's winning behaviours by assigning them to roles that maximise their potential. Leveraging on our collective strengths to achieve greater heights of excellence for Sarawak Energy, we encourage our people to conduct themselves according to our core values of courage, unity, respect, integrity and accountability.

This year marks the first year of our SEE 2022 roadmap and I am confident that it will be invaluable in guiding us towards delivering on our regional expansion ambitions and becoming a best-in-class utility. Our exceptional team synergy, investments into digitalisation, commitment to delivering on our targets and strong support for one another will continue to empower us to produce sustainable and resilient results in the years ahead.

Datu Haji Sharbini Suhaili
Group Chief Executive Officer

103-3, 307-1, 403-9, EU12, EU28, EU29, EU30

DELIVERING ON OUR STRATEGY

SARAWAK ENERGY EXCELLENCE 2022 AND FIVE KEY FOCUS AREAS TARGETS

Health

90%

employees with Body Mass Index (BMI) **< 30**

Safety

ZERO

Loss Time Injury (LTI) | Fatality

Security

ZERO

intrusion at all guarded power stations, substations and offices

Environment

100% COMPLIANCE

compliance with environmental regulatory laws

Generation Excellence

Coal		Gas		Hydro	
EAF	FOR	EAF	FOR	EAF	FOR
≥87%	≤2%	≥89%	≤2%	≥93%	≤1

Notes:
- *EAF – Equivalent Availability Factor*
- *FOR – Forced Outage Rate*

Value Optimisation

Return on Asset (ROA) **≥ 3%**

Network & Customer Service Excellence

SAIDI <60 min	**90%** Resolution of Key Services
SAIFI <1 time	**Street Lighting Repair** <24 hours
Customer Satisfaction Index >90%	**Service Call** <45 mins
Non-Technical Losses <2%	**Connection Charge** <14 days
Age of Debtors >42 days <20%	**Service Line/Cable Installation** <7 days

102-43, 103-3, 404-3

DELIVERING ON OUR STRATEGY

SARAWAK ENERGY EXCELLENCE 2022 AND FIVE KEY FOCUS AREAS TARGETS

Timely Completion

70%

of projects are completed on time

Cost Discipline

Within 1st Quartile Benchmark

CAPEX Execution within
≥90% and ≤105%

Quality

No malfunction/major equipment failure during defect liability period

Conformance to Quality Audit Criteria
80%

Audit Non-conformance closeout
80%

Sustainable Talent Bench Strength

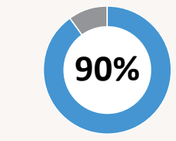
2 "Ready Now" & 2 "Ready Later" successors for critical positions **100%**

Individual Development Plan (IDP)

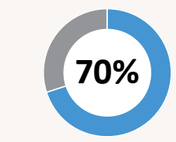
For every employee

100%

Competent Assurance Framework (CAF)



Self-assessment



SME assessment

We know that Sarawak Energy is a great place to work in when:

Our people demonstrate Winning Behaviours

Culture enables the delivery of aspirational targets for all Key Focus Areas

Employees share their positive experiences as indicated by Sarawak Energy Employee Survey (SEES) scores

Score target above
80%
Employee Engagement
Continuous Improvement
Diversity & Inclusiveness

Receive external recognition

102-15, 103-2, 103-3

COVID-19 & OUR RESPONSE

Sarawak Energy strongly commends and supports the efforts of the State Disaster Management Committee (SDMC), National Security Council (NSC) and the Ministry of Health Malaysia to collectively break the chain of COVID-19 transmissions in Sarawak. Below is a summary of how we protected our people and communities, as well as the steps taken to ensure business continuity during the pandemic.

Our People

1. Frequent and regular communication to keep people informed and remind them to follow government and company COVID-19 SOPs.
2. Imposed travel restrictions.
3. Temporarily halted the recruitment of foreign workers.
4. Implemented New Working Arrangement. Non-Essential Services employees work from home.
5. Rolled out mandatory Group and Workplace Specific SOPs.
6. Fumigated and sanitised all Sarawak Energy premises.
7. Extended Healthy Living Benefits to cover COVID-19 - related purchases such as face masks and hand sanitisers.
8. Supplied personal protective equipment.
9. Supplied meals to employees who work on site to reduce movement and dry rations to employees who work at our rural stations.

Our Community

1. Temporarily suspended meter reading and bill delivery services to keep everyone safe.
2. Amplified communication to promote safe transactions.
3. Ensured reliable electricity supply especially for medical facilities attending to COVID-19 patients.
4. Kept things bright for Sarawak's police and army frontliners by lighting up makeshift stations or rest stops for frontliners manning roadblocks and conducting mobile patrols.
5. Continued power theft operations to ensure public safety from unsafe wiring.
6. Donated PPE comprising over 1 million disposable surgical masks, 20,000 KN95 respirators, 20,000 units of medical protective clothing, 20,000 goggles and 1,000,000 disposable gloves to medical frontliners through SDMC.
7. Delivered food aid and essential supplies to communities surrounding our project areas who were affected by MCO.
8. Implemented special discounts under both the Economic Stimulus Package (PRIHATIN) of the Federal Government and Sarawakku Sayang Special Assistance Package of the Sarawak Government.

Our Business

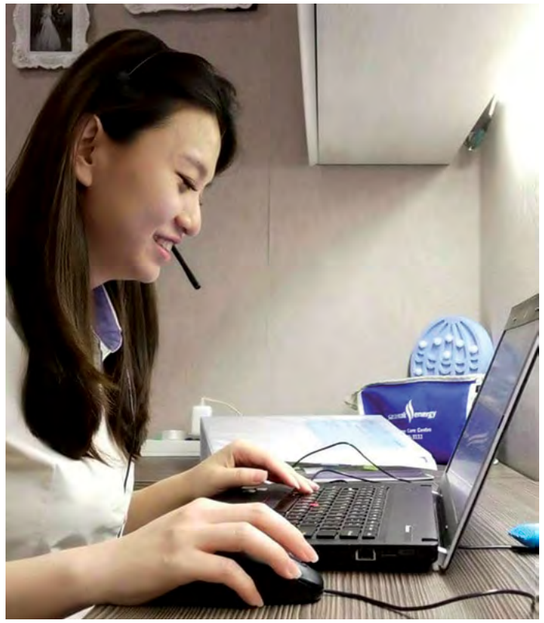
1. Activated Crisis Management Team and Business Continuity Plan in February.
2. Established Cash Conservation Management Office to help manage Sarawak Energy's cash flow.
3. Provided multiple touchpoints for customers to reach us, including our mobile app "SEB cares", our 24/7 Customer Care Centre, chatbot – 'Carina' to handle technical, billing and other related queries.
4. Encouraged customers to go digital and use online platforms to perform transactions to minimise face-to-face transactions at all customer service counters.
5. Strengthened digital infrastructure and cyber security to enable smooth and safe business transactions.

102-7, 102-16, 103-1, 103-2

OUR PEOPLE

103-2

OUR PEOPLE



In the face of the COVID-19 pandemic, our people quickly adapted to new way of doing things and continue to deliver positive performance.

The pressures and challenges of an increasingly uncertain business landscape necessitate a competent and capable workforce to ensure Sarawak Energy remains adaptive and agile in how we conduct our business.

This was evident when the Movement Control Order (MCO) was declared in March which required us to quickly institute our New Working Arrangement (NWA), where non-essential staff were asked to work from home while employees performing essential services worked on premise but on a rotational basis.

In this new working environment, our people have demonstrated a high level of independence, agility and adaptability in discharging their duties and learning new skills, especially in relation to digital platforms as they thrived amid an evolving work environment and changing expectations.

A RESILIENT WORKFORCE

This year, our people have shown great strength and grit in overcoming the difficulties posed by the COVID-19 pandemic. Despite the complexity of managing large numbers of employees working from home with limited resources, the Company has discovered the resilience of the workforce, especially in their ability to navigate and adapt effectively to the new ways of working.

Groups of individuals within different functions in the Company have emerged and risen above challenges, going the extra mile to deliver excellent performance while supporting their colleagues and demonstrating the Company's five core values of Courage, Unity, Respect, Integrity and Accountability (CURIA) in the process.

Having CURIA embedded within the Company's operations as well as a high performance culture has made Sarawak Energy a progressive organisation that is:

- Delivering on its promises
- Conducting business with the highest level of integrity
- Creating value for stakeholders

DOING THINGS DIGITALLY

Sarawak Energy continued to focus on progressing growth and did not neglect the needs of our people. Our early investments in digital transformation and infrastructure have empowered the workforce, enabling us to continue delivering on our key activities that contributes to our Key Focus Area targets. This was how we ensured business resilience during the pandemic and exemplifies the importance of digitalisation as a key enabler for business continuity.

Manual processes are also increasingly being digitalised or automated, making them easily accessible and more sustainable. This action has contributed to improved efficiency, reduced operating costs and, most importantly, enabled greater physical distancing to keep our people safe from the risk of COVID-19 infection.

A SUSTAINABLE TALENT BENCH STRENGTH

Having maintained a healthy talent bench strength, we continued with focused recruitment to secure the best candidates for the organisation. Against the backdrop of the pandemic where many companies have frozen recruitment, our workforce has instead grown in strength with an increase of 3.34% from 5,207 individuals in 2019 to 5,381 individuals in 2020.

Our People Strategy Priorities

An integrated onboarding programme has been put in place to ensure that recently hired talents will be productive and fulfilled in their roles. For the pre-hiring stage, we have adopted full paperless transactions, an onboarding portal as well as a workplace buddy system to enhance the experience of our new hires from the outset.

Our approach to cultivating our people's talents and retaining them in the workforce is centred also on leadership and career development, which is based on succession planning and the Individual Development Plan (IDP). Our talents have the option to pursue development in a generalist ladder by broadening their business skills or the specialist ladder which enables an employee to deepen technical skills.

In line with strengthening our talent bench strength in 2020, 584 employee experienced career progression while 430 employees were appointed as Subject Matter Experts to beef up the capabilities of our talents. Both executive and non-executive staff were involved in this process.

CULTIVATING COMPETENT PEOPLE

To ensure our people's capability development and career growth would not be hindered by the pandemic, learning and talent development initiatives were shifted from conventional face-to-face classes to online sessions. We even successfully launched our online Sarawak Energy Mentoring Programme in July 2020 and it was inspiring to see how quickly mentors and mentees adapted to their virtual mentoring sessions. As at the end of 2020, there are 65 in-house mentors and 213 mentees enrolled in the programme. This programme aims to provide junior employees with the opportunities to learn from leaders within the organisation while offering them a networking platform.

The roll-out of our Online Learning Resource Portal is encouraging Sarawak Energy employees to engage in online self-study and upskilling. Staff can access the latest curated learning materials, resources and events that fit their learning needs. These online materials include managing change and crisis, leadership, digital literacy, team, and individual effectiveness to name a few.

In line with our commitment to developing our people's technical competencies, Sarawak Energy has invested in department-led skill training initiatives to enable excellence in our project delivery and operations. One such initiative is our Project Delivery (PD) Academy, which was officially launched in December 2020 to facilitate in-house training as well as sharing of best practices and lessons learned in project management. The training is delivered by our Subject Matter Experts (SMEs) and targets key personnel who are involved in different stages of the project life cycle.

The primary objective of the PD Academy is to drive Sarawak Energy's world class project delivery aspirations to support our regional growth ambitions. The primary drivers for this are improving the front-end design and engineering of our capital projects and developing competent engineers and project managers who will be able to deliver projects safely, reliably and at competitive cost.

The PD Academy also aims to establish a pool of internal specialists for Sarawak Energy projects in all relevant disciplines, minimising reliance on external consultants which will contribute to our target of reducing consultancy service costs by 50% in 2023. Conversely, our engineers will also be expected to provide consulting services within and outside Sarawak Energy.

With an increasingly digital workspace, cultivating Digital People's Culture, Experience, Leadership and Literature (C.E.L.L.) has become vital for a high performance workforce. The Sarawak Energy Digital Acculturation Programme or SEDAP is speeding up learning and digital acculturation of the workforce through fun and interactive activities and virtual clinics to train the workforce to effectively utilise collaborative digital tools. These efforts are curated to empower our workforce with digital competencies and shape our people's mindset and behaviour towards fully embracing 'digital' as second nature.

To prepare our people for critical positions and help them grow in their career, we invest in learning opportunities that build on their professional skills and strength in leading themselves, others and the business.

Aligning ourselves with UN SDG 5 on 'Gender Equality' and in support of the national target of 30% women representation in top leadership positions, the Sarawak Energy Leading Women Network's (SELWN) Women Mentoring Women programme is providing focused platforms for young female talent in the organisation to grow their leadership capabilities. This programme was introduced in 2019 and is growing from strength to strength. To provide our women leaders with opportunities to learn and exchange knowledge with internal and external experts, we partnered with LeadWomen to introduce the SELWN Empowering Women Series.

Our collaboration with the Melbourne Business School for the Sarawak Energy Executive Leadership Programme continues to develop effective leadership skills and qualities of leadership candidates within the organisation to inspire and enable our workforce towards achieving our regional ambitions. In 2020, two cohorts consisting of 50 participants completed this nine-month interactive leadership programme.

A knowledgeable, skilled and competent workforce will enable us to achieve our vision of sustainable growth and prosperity for Sarawak and we encourage our employees to pursue their tertiary education by providing financial support through the annual Sarawak Energy Scholarship Programme. This year we awarded scholarships to 11 employees and two staff dependants. Since it was first introduced in 2014, the scholarship programme has benefitted 96 employees.

HEALTHY LIVING

We pay great attention to the health and wellbeing of our people by ensuring comprehensive medical and health benefits are available to them. This year, we leveraged on digitalisation to modernise the administration of our medical services through the usage of MediExpress mobile app and web portal. This has simplified our medical service processes and enhanced the user experience when seeking medical treatment, benefitting 15,000 staff, retirees and their eligible dependants.

Employees experience more efficient medical services via the use of MediExpress mobile app and web portal as well as the availability of its 24/7 call centre.

Through our Employee Preventative Health Screening Programme, all employees can undergo health screenings for chronic non-communicable diseases such as hypertension, diabetes, heart diseases and cancer at our panel medical providers in Sarawak on a biennial basis. This aligns with Sarawak Energy's commitment to maintaining a healthy and productive workforce under our Corporate Healthy Lifestyle initiatives.

Considering the pandemic situation, we have also extended the list of our annual healthy living benefits for employees to include COVID-19 related purchases such as face masks, hand sanitisers and Vitamin C, in addition to health and fitness related expenses such as gymnasium subscription fees.

To safeguard our staff's mental and emotional wellbeing, we have in place the Employee Assistance Programme, offering professional consultation services platforms for employees seeking counselling.

AN ETHICAL AND HIGH PERFORMANCE WORKFORCE

This year, we revised and strengthened our Code of Ethics to include additional important policies. The Code of Ethics sets the standards of conduct for our people, serving as a guide for ethical behaviours and actions to promote consistency in our working relationship based on our CURIA core values and to prevent misconduct at the workplace. This ensures a progressive and high performance corporate culture that strengthens our stakeholders' confidence in us and places Sarawak Energy in a position to respond to the rapidly changing external environment.

In ensuring Sarawak Energy is a great place to work, we have zero tolerance for unethical behaviour and corrupt practices. In line with this, the Anti-Bribery and Corruption (ABC) Learning Programme has been rolled out to all Sarawak Energy employees. The programme aims to educate staff to recognise situations involving bribery and corruption risks through case study scenarios and explain what we must do in those situations, thus further embedding integrity in Sarawak Energy.

SARAWAK ENERGY – A GREAT PLACE TO WORK

We aim to be an employer of choice for the employee of choice and invest in efforts to provide a diverse and inclusive, conducive, nurturing and productive work environment, accompanied by a high performance and progressive corporate culture to make Sarawak Energy a great place to work.

We place great importance on employee engagement and gauging feedback from our staff. In line with this, we have numerous avenues for our people to share their feedback with the Company, with our Sarawak Energy Employee Survey being the most prominent of these. This year, we had a 100% participation rate for this survey and the employee engagement component in particular saw a 3% increase from 2019 to 2020, going from 85% to 88%.

Although we expected our 2020 survey results to be impacted due to the COVID-19 pandemic, engagement scores were actually more favourable than previous years. These scores were the result of our focus on creating a sense of belonging and connection between management and staff, established through regular employee engagement events such as Townhalls, Turun Padang, Teh Tarik sessions and annual Talent Management Lab.

COVID-19 RELATED SURVEYS

Following the implementation of the New Work Arrangement, we engaged selected employees in a pilot Remote Working Survey to understand the different experiences, issues and challenges faced by our people. This was to align corporate decisions with the interests of our people while increasing employees' morale and positive experiences in Sarawak Energy.

We also carried out a COVID-19 internal communication survey to measure the effectiveness of our communication methods in helping our people continue to thrive in the pandemic.

Group CEO Turun Padang in February: An opportunity for leaders to cascade high-level corporate wide initiatives to our people and discuss their workplace needs to help guide management's decision making.

103-2, 103-3, 404-2

OUR PEOPLE

DIVERSITY & INCLUSIVENESS

Our people are our greatest asset and their performance, wellbeing and knowledge have a significant impact on our brand and performance. Providing a safe and respectful environment through diversity and inclusiveness encourages honest discussions, constructive feedback and innovation that provide unique perspectives to the organisation. Creating such a conducive environment will help to improve creativity and decision-making, which are among the increasingly vital factors in attracting and retaining talents.

In supporting young executives with space to grow and network within the organisation, our Young Professional Programme (YPP) assists new hires in their learning process, educating them on their roles, workplace policies, procedures and expectations. This empowers them to rapidly integrate with the workforce and perform their duties more effectively.

The YPP is supplemented by other structured development programmes such as our Advanced Professional Programme and Sarawak Energy Technician Foundation Programme. The former aims to support executives to develop functional and personal competencies for readiness to perform independently at senior executive level, while the latter provides new technician recruits with an opportunity to acquire the knowledge and skills required to perform their routine responsibilities from their respective line supervisors.

SELWN continues to be an effective platform between women employees and the management to address the needs of our talents in the organisation. To provide employees with additional support in managing work and personal responsibilities, we launched our second 'Little Power Genius' Childcare Centre in Bakun in March following the success of our first centre in Menara Sarawak Energy the year before. This has provided our people who are working parents with more flexibility and convenience.

Students from LPG Bakun performing during the grand opening of the centre in March 2020.

To cultivate a strong culture of diversity and inclusiveness at work, commitment from the top and senior leadership levels is vital and we have been engaging with learning resource experts and institutions through learning series to enhance our knowledge and strengthen our people strategies. This year, we partnered with the Melbourne Business School to dive in and critically discuss this topic in the Diversity and Inclusiveness Webinar.

RECOGNISING OUR PEOPLE

Our people have shown exceptional performance and went beyond the call of duty, embodied our high performance corporate culture and made a significant impact on our business during the pandemic. This period also unexpectedly surfaced many talents with extraordinary abilities whom we celebrated through the Sarawak Energy Hall of Fame and Operational Excellence Awards.

We also continued to reward our employees with annual salary increments and bonuses in recognition of their performances and contributions to the Company.

Our Talent Management Excellence efforts have also resulted in the Company being recognised externally through the 2020 HRD Asia Employer of Choice Award, HR Asia Best Companies to Work for in Asia Award 2020 and HR Asia Most Caring Companies Award 2020. We are honoured to be among the winners for these awards as they indicate that we are moving towards realising our aim of making Sarawak Energy a great place to work, where people care for people.

HR Asia BEST COMPANIES TO WORK FOR IN ASIA 2020

WeCare HR ASIA MOST CARING COMPANIES AWARD 2020

WINNER HRD EMPLOYER OF CHOICE 2020

The pandemic has been a real test for us on many fronts. During this time, what enabled us to transcend the challenges of the pandemic was the ability of our people to quickly adapt to new ways of working. They accelerated and pushed themselves to learn new skills, demonstrated great resilience under pressure and produced sustainable results. The inherent strength and learning capabilities of our people, together with the committed leadership of our board members, management and key stakeholders, will continue to hold us in good stead as we deliver on our five key focus areas and fulfil our regional ambition.

102-16, 103-1, 103-2

A SAFE AND HEALTHY WORKPLACE

At Sarawak Energy, we believe that everyone must uphold and comply with the health, safety, security and environment (HSSE) principles at all times. In our journey to become a top-quartile corporation and regional powerhouse, we aim to establish a best-in-class HSSE culture.

We have progressed our HSSE transformation with substantial improvements in the last three years and moved up the HSSE culture ladder. HSSE leadership and values have become more visible and now drive continuous improvement in the organisation.

To achieve best-in-class HSSE performance and enable business delivery, continuous growth, value protection as well as maintain our social license to operate, our efforts are anchored on the following five value drivers:

Value Drivers

- Leadership, Behaviour and Culture
- System and Structure
- Competency
- Stakeholder Engagement
- Performance Measurement

To cultivate a generative HSSE culture, we are guided by the HSSE key focus area and our commitment to achieving the following:

Zero Harm
to People by achieving zero fatality, zero LTI and zero injury

Zero Harm
to the Environment by achieving **100% compliance** to internal and external environmental regulatory frameworks and laws

Zero Intrusion
at all guarded power stations, substations and offices

Have **90%**
of our employees with a body mass index below 30 to cultivate a healthy and productive workforce

103-1, 103-2, 403-2, 403-3, 403-5, 403-6, 403-7, 403-10

A SAFE AND HEALTHY WORKPLACE

Ensuring A Safe Workplace: Safety walkabout conducted to check on workplace preparedness to receive employees returning to the office.

BROADENED ROLES OF HSSE DURING COVID-19

The COVID-19 pandemic has expanded Sarawak Energy's scope for HSSE to include remote working and alternative working arrangements, in addition to ensuring safety at company premises.

These new concerns required a relook at HSSE through several lenses, by way of experiencing different issues and factors throughout the year to enable us to develop management of safety risks with timely project delivery. By striking this balance, we were able to sustain growth during this challenging period while keeping our people safe from the risk of COVID-19 transmission.

Even before the first cases of COVID-19 were reported in Sarawak, we were proactive in our approach to protecting our people. We began monitoring the situation as soon as the virus was discovered and announced in public, and were in constant communication with relevant authorities via the SDMC to stay up-to-date with the latest information.

The Company also introduced other safety measures to our premises, including work-related travel restrictions and temperature screening for visitors.

When the nationwide MCO was declared, we transitioned our non-essential services employees to remote working, enabled by our earlier investments in digitalisation and enterprise modernisation, and instituted more measures and precautions at our corporate premises to protect our essential services staff as they discharged their duties.

The NWA and mandatory Group SOPs were developed and implemented, and temporary quarantine areas were erected at our workstations. We were determined to meet our work commitments while ensuring the safety of our employees and contractors.

As we continue to contend with the COVID-19 pandemic, we will remain vigilant in safeguarding our people from the threat of this crisis. As a responsible corporate citizen, Sarawak Energy recognises that safety is a top priority and shared responsibility. We will continue doing our part to overcome the COVID-19 crisis.

CORPORATE HSSE INITIATIVES

Maintaining A Healthy Workforce

Sarawak Energy takes our employees' health and wellbeing seriously. We have implemented a number of occupational health programmes and initiatives to safeguard our employees' physical and psychological wellbeing and emphasise workplace safety and hygiene. Additionally, we regularly conduct pre-placement testing to ensure that our employees are fit to discharge their duties.

In addition to these, Healthy Living was introduced this year as an additional focus area under our SEE 2022 strategic roadmap to promote an active lifestyle, healthy eating and good mental wellbeing. This supports our effort to enable a healthy and high performing workforce, and continues to be an important focus area, especially during a pandemic.

One of the major changes that came with the introduction of Healthy Living was the declaration that Thursdays would be the Company's weekly 'Exercise Day', which meant that employees can stop work activities an hour earlier to join sports and other forms of physical activity. There is also a greater emphasis on healthy eating habits.

Occupational Health Initiatives

- Launched a corporate-wide BMI monitoring programme to track our performance in having a healthier workforce with 90% of BMI below 30
- Rolled out Digital Wellness Education Programme to educate our people on mental and physical wellbeing, ergonomics and chronic diseases
- Established Employee Assistance Programme to provide support for employees seeking consultation on mental wellbeing issues with a platform to engage with a panel of professional counsellors
- Hearing conservation programmes and audiometric screenings for employees working in the power plants
- Handling of personal protective equipment training for our Emergency Response Team
- Improved management and administration of medical services for the organisation
- Improved workplace hygiene and safety measures in line with curbing the transmission of COVID-19
- Rolled out policies, procedures and guidelines on Sarawak Energy's occupational health governance

103-1, 103-2, 103-3, 403-2, 403-6, 403-7

A SAFE AND HEALTHY WORKPLACE

Safety is Our Top Priority

In recognition of safety as a top priority and shared responsibility, Sarawak Energy strives to ensure that everyone goes home safely. Our facilities and projects comply with all relevant legal requirements and standard best practices to minimise the risk of unwanted disruptions at the workplace. A lapse in safety compliance can have far and long reaching consequences for everybody involved. To prevent this, we take a zero-tolerance position regarding unsafe acts and unsafe conditions for both our employees and contractors.

We are taking a structured approach to managing safety, supported by holistic policies, frameworks and initiatives that leverage on digitalisation to encourage safety leadership and ownership at every level.

One of the primary examples of this is the launch of our Sarawak Energy ACE (Assess, Comply and Empower) – HSE Solutions application, which streamlines incident management for reporting of an Unsafe Act Unsafe Condition (UAUC). It also enables us to record and assign any planned activities or programmes that will be carried out, to monitor and track our air compliance, scheduled waste and water quality as well as to manage health, safety and environmental concerns, among others.

SEACE HSE Solutions

SEACE - Sarawak Energy Assess, Comply, Empower

Occupational and Technical Safety Initiatives

- Established a COVID-19 emergency response team and erected temporary quarantine areas at our workstations
- Conducted walkabouts and HSSE compliance assessments at Sarawak Energy offices and worksites state-wide
- Implemented "Half Day With HSE" programme with 99% participation by Sarawak Energy's workforce
- Implemented Zero Leak Drive: A Process Safety initiative by Technical Safety Division to focus on operational and maintenance issues involving system leakages that contain water, oil, steam, dust and more. Leakages are indicators of deficiencies that will directly affect the performance of our equipment, machinery and processes
- Introduced Process Safety Management (PSM) via conducting PSM awareness sessions and development of PSM General Requirement Guideline
- Implemented Contractor Transformation Programme (CTP) to coach and educate our contactors on our HSE requirements and to be in line with the National OSH Masterplan
- Empowered the Sarawak Energy Life-Saving Rules from Culture of Commitment to Ownership in order to improve and support HSE Culture programme and HSE compliance- empowering all levels of employees to stop work in unsafe acts and conditions
- Introduced Safety Starter Kit for new hires into the organisation
- Rolled out a drug screening programme in collaboration with the National Anti-Drug Agency (NADA)
- Organised annual HSSE Week to raise awareness amongst employees and contractors on the importance of the Company's HSE values with the slogan "Saving Lives, Raising Standards, and Nurturing Culture
- Organised routine OSH audit and inspection to ensure we comply with OSH requirements in line with our ISO 45001 and MSOSH certifications

103-3

A SAFE AND HEALTHY WORKPLACE

HSSE Events in 2020

Baleh HEP HSSE Week

Our HSSE week is a platform to assert the importance of cultivating a generative HSSE culture among Sarawak Energy employees and contractors. Everybody who works with Sarawak Energy must comply with our Life-Saving Rules so that everybody goes home safely every day.

The Half Day with HSE Programme was rolled out in August 2020 to advocate a strong HSE culture in the organisation and as at December 2020, 99% or 5,321 out of 5,381 our staff have attended the programme. This programme emphasised our HSSE vision, mission and excellence for 2020 and beyond, Sarawak Energy HSE Culture, Sarawak Energy Life-Saving Rules and Stop Work Authority.

Sarawak Energy strongly advocates a culture of HSSE Excellence which is fundamental to excellence in all other key focus areas.

Our observation of World Environment Day 2020 served as a reminder of the commitment we made to conserve, regenerate and sustain the environment. We support environmental management and conservation initiatives in line with the UN SDGs and adopt a sustainability mindset and practise good habits in our daily lives such as 3Rs (reduce, reuse & recycle).

The annual Contractor EIA Compliance Awards (CECA): Recognising our contractors' contributions to advancing a strong Health, Safety, Security & Environmental (HSSE) Excellence culture in Sarawak Energy.

The Zero Leak Drive initiative aims at gradually resolving equipment leakage issues involving oil, water and energy via continuous collaboration with station personnel, constant monitoring and proper management of corrective actions.

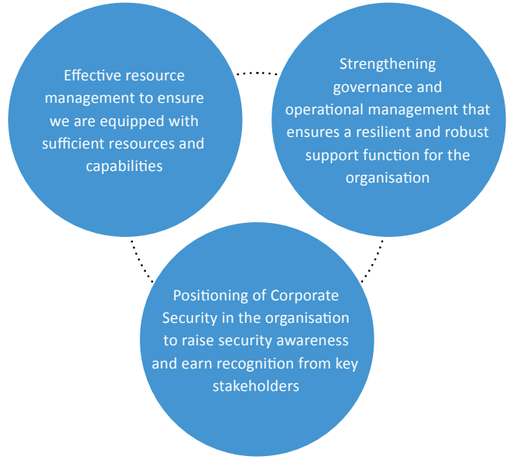
Corporate Security Day 2020: Announcement of enhanced roles within the division to expand safety and security across more areas of our business with modernised security systems and structures.

Transforming Corporate Security

As the role of security in Sarawak Energy continues to evolve and change, we place greater emphasis on ensuring overall corporate resilience above mere traditional security roles. We have a clear strategic direction for Corporate Security to realise its vision of achieving Security Excellence. This entails Zero Intrusion at all guarded power stations, substations and offices which is a key performance indicator for Corporate Security.

We have made great progress in our efforts to achieve Zero Intrusions, as exemplified by the 9% drop in overall intrusion cases from 2019 to 2020. Intrusions at unguarded stations also decreased by 32% during the same time span.

To strengthen Corporate Security, our priorities comprise:



Corporate Security Initiatives

- Established a COVID-19 emergency response team and erected temporary quarantine areas at our workstations
- Awarded our Response Team with the Sarawak Energy Hall of Fame (SEHOF) 2020 award for their successes in special operations to combat metal thefts, intrusions and vandalisms
- Conducted periodic gap analyses to identify our security staff's competency level and develop level of competencies through professional development programmes
- Established Elite Squad teams with a security intelligence mindset in each region to protect all Sarawak Energy premises from threats that may risk Sarawak Energy's interest and reputation
- Leveraged on technology to introduce new centralised, intelligent remote monitoring for real-time guarding of substations
- Implemented Real-Time Guard Tour System at Tudan Substation and Murum HEP while the implementation of the system for other critical stations is being planned
- Conducted Security Risk Assessment (SeRA) at Sarawak Energy's premises. Since 2018, SeRA has been conducted at 10 Sarawak Energy power stations, 37 EHV stations and 13 offices throughout the region
- Engagement with Jawatankuasa Perancang Gerakan Negeri (JPGN) to discuss Sarawak's past, current and future security matters, including the proposed Bakun forward operating base
- Engagement with Deputy Director General for Putrajaya and State CGSO Director to discuss Sarawak Energy's Key Installation areas
- Collaboration with Angkatan Tentera Malaysia (ATM) on drone surveillance training
- Engagement with Control Risk to detail out security risk mitigation issues in Bakun HEP

103-2, 103-3, 307-1

A SAFE AND HEALTHY WORKPLACE

Leader in Environmental Stewardship

In line with our ambition to become a sustainability leader in the region, Sarawak Energy believes that protecting the environment is a responsibility, not a choice. We are committed to achieving and sustaining 100% environmental regulatory compliance in all our operations.

This requires both employees and contractors to collaborate and account for environmental sustainability when carrying out their work. To this end, we engage both parties through initiatives and learning opportunities to help them adopt environmental best practices, enabling us to maximise the positive and minimise the negative impacts of our projects on the environment and surrounding communities.

Our success in 2020 includes:

Zero fine/penalty/compound from environmental authorities (DOE/NREB) recorded for all Sarawak Energy power project development (13 EIA Projects)

Achieved 100% environmental regulatory compliance in 2020 for the first time for main stations

Environmental efforts recognised at the national-level Prime Minister's Hibiscus Award (PMHA) 2019/2020 for Notable Achievements in Environmental Performance at our Mukah Power Generation, Murum and Bakun hydroelectric plants

Received recognition for environmental stewardship at the 9th Sarawak Chief Minister's Environmental Awards 2019/2020 winning Champion, Gold and Merit Awards for six of our power plant facilities

Environmental Initiatives

- Rolled out the Environmental Management Guidelines for Construction Site
- Organised environmental training and workshops on erosion and sedimentation control and scheduled waste management for project teams
- Jointly organised the Save Ozone Virtual Ride and Enviro Virtual Run 2020 programmes, themed 'Environment, Our Shared Responsibility', with the state Department of Environment (DOE), in conjunction with the State Level Ozone Day and Environment Day 2020
- Development of the Centre of Environmental Excellence to provide inhouse services on environmental permitting and the preparation and submission of Environmental Management Plan (EMP) as part of DOE Malaysia's terms of condition
- Implementation of the Contractor EIA Compliance Award (CECA) to encourage environmental compliance among our contractors when working at our projects

Best Practices in Corporate HSE

The main role of the HSE Governance and Strategy division in Sarawak Energy is to establish clear and structured guidelines of HSE processes via an integrated management system and governance to be applied in the organisation. Since November 2019, this division has been responsible in closing HSSE gaps by reviewing, developing and cascading corporate HSSE policies, procedures and guidelines (PPGs) in collaboration within HSSE Department and/or with other business units in Sarawak Energy.

Subsequently, this has led to the establishment of HSE Management System Manual, Journey Management Guideline, Unannounced Planned Visit Guideline, Operational Permit-to-Work Guideline and further development of Corporate Emergency Preparedness & Response Guideline and other relevant PPGs for continual improvement.

By raising the standards and the Company's aspiration towards digitalisation, Governance & Strategy in collaboration with ICT is progressively embarking towards electronic permit-to-work system with the go-live targeted by the second half of 2022.

Stakeholder engagement is one of our key value drivers to create HSE awareness and for our employees, we conduct cascading sessions. Increased efficiency is crucial for Sarawak Energy, thus activities aligning to this aim are in the pipeline to ensure smooth understanding of work, skill development and preparedness for employees to perform efficiently.

HSE Governance & Strategy Initiatives

- Established the Unannounced Planned Visit Guideline (UPV).
- Organised awareness sessions on HSSE Positive Intervention Culture (PIC) for HSSE Department.
- Initiated the Permit-to-Work (PTW) engagement sessions with stakeholders to gain insights and inputs on current processes and practices towards the development of the Operational PTW Guideline.
- Development of the HSE Management System and Journey Management Guideline which are expected to roll out in 2021.

102-12, 102-16, 103-2

DELIVERING SUSTAINABLE GROWTH

The 1,285 MW Baleh HEP's completed diversion tunnels.

Sarawak Energy's current portfolio of projects comprises 61 projects with a value of RM35 billion. We are committed to delivering these projects safely, within cost, on schedule and with quality by adopting industry best practices in line with responsible and sustainable project delivery. Our aspiration is to achieve world-class project delivery performance by 2023.

Customers and stakeholders have much higher expectations and standards for energy security and sustainability today, especially in relation to climate change and affordability. With the world turning to sustainability and renewables as the drivers of a post-COVID-19 recovery, our prospects have further strengthened.

Sarawak's strategic pivot to renewable hydropower development to power growth has enabled us to shift from our former reliance on fossil fuels, decreasing the carbon intensity of our electricity supply. The lower levelised cost of energy (LCOE) of hydropower also offers competitively priced electricity tariffs, benefitting Sarawak and attracting energy-intensive investors who are looking to green their operations.

With our predominantly renewable generation mix, we are contributing to Malaysia's Paris COP 21 target commitment and goal to reduce greenhouse gas emissions by 35 to 40% come 2030.

In line with global energy transition trends, renewable hydropower will continue to be a key contributor to Sarawak Energy's sustainable growth.

RENEWABLE HYDROPOWER DEVELOPMENT

All of Sarawak Energy's hydropower dams are designed and constructed according to stringent guidelines set by the International Commission on Large Dams (ICOLD) to withstand extreme flood events. They also comply with guidelines set by the Hydropower Sustainability Assessment Protocol (HSAP) of the International Hydropower Association.

The HSAP is a globally recognised framework used to holistically assess hydropower projects against social, environmental, technical and economic considerations. Sarawak Energy has adopted HSAP within our processes and implemented our internal HSAP governing structure since 2014.

Baleh HEP

The Baleh HEP is our second hydropower development project under the SCORE initiative after Murum HEP and will be the largest HEP developed by the Company. Full commissioning of Baleh HEP is expected to be completed in 2026; adding 1,285MW of renewable energy to the grid, increasing our generation capacity to around 7,000MW.

Baleh HEP is opening up the more remote parts of the Kapit Division of Sarawak, connecting villages via accelerated infrastructure development to the main town. Four bridges will link Kapit town to the project site in Putai, providing direct access to the dam site to benefit villages located along the route when the spur roads are completed.

Currently, 45% of the manpower at Baleh HEP is locally sourced and approximately 3,000 jobs will be created at the peak of the project's development. We aim to maximise local employment through the training of workers for the various skills needed for the project.

Scan here to read more on Baleh HEP.

102-43, 103-2, 103-3

DELIVERING SUSTAINABLE GROWTH

The completion of Baleh's river closure and diversion works.

Despite the various disruptions and challenges of COVID-19, we achieved a critical milestone at Baleh HEP by successfully completing the diversion tunnel and closing the Baleh River in 2020, enabling us to proceed with the construction of the main dam. We are still on track for project completion by 2026.

To ensure we are effectively and proactively managing concerns on the ground, especially due to the scale of the project, we intensified our Baleh community engagement initiatives and established a comprehensive grievance mechanism for the community to report their grievances, if any. The surrounding communities will benefit from infrastructure development for the project as well as sustainable livelihood programmes in various fields, including capability building, entrepreneurial development, agriculture, indigenous fisheries, education and more.

To mitigate the impact of our river diversion activities, we implemented river bypass facilities to ensure our neighbours in the community were able to continue with their upstream activities.

Mentarang Induk HEP

We continued our partnership with PT Kayan Patria Pratama (PT KPP) through our joint-venture (JV) company, PT Kayan Hydropower Nusantara (PT KHN) for the potential Mentarang Induk HEP, located 35 kilometres upstream of Kota Malinau in Indonesia's Northern Province of Kalimantan (KALTARA). This HEP is set to generate an installed generation capacity of 1,375MW, geared towards providing a sustainable supply of clean and more affordable power in North Kalimantan, in line with the Government of Indonesia's Renewable Energy-Based Industrial Development (REBID) agenda.

We hosted officials and community leaders from the Malinau Dayak community, Malinau Regency, North Kalimantan (KALTARA) visited Sarawak in Q1 for a study tour to gain a first-hand view of hydropower development and hydro-industrialisation in Sarawak.

In the first quarter of the year, Sarawak Energy hosted a study tour for a group of 44 officials and community leaders from the Malinau Regency, North Kalimantan led by the Sekretaris Daerah of the Malinau Regency Government. This tour provided the community with a first-hand view of hydropower development and hydro-industrialisation in Sarawak. The group visited Bintulu's Samalaju Industrial Park, Murum HEP and local communities in Sungai Asap and Tegulang that were affected by hydropower projects to see for themselves how Sarawak is harnessing its abundant renewable hydropower resources to benefit the state and the communities in terms of social and economic impact. This also reflected how responsible hydropower development implemented in consultation with affected communities can provide sustainable solutions for progress while strengthening indigenous cultural identity.

In December 2020, a Hydropower Sustainability ESG Gap Analysis Tool (HESG) assessment of Mentarang Induk HEP was conducted by to identify gaps in preparation for a planned official HESG assessment in 2021. The assessment aims to measure and benchmark the project's sustainability performance against international good practices. This internal assessment also precedes our planned subsequent workshops to develop action plans to mitigate issues that have been identified in the areas of environmental and social management and governance.

These efforts are concurrent with our continued collaboration with authorities and local communities to mitigate short-term negative impacts and maximise positive benefits of the project in line with the Good International Industry Practice (GIIB).

Annual and Sustainability Report 2020
Our Performance

102-2, 103-2

DELIVERING SUSTAINABLE GROWTH

In December 2020, PT KHN signed an MoU with PT INALUM (Persero) to conduct a Joint-Study for Electricity Supply from Mentarang Induk HEP to Inalum's proposed Integrated Aluminum Smelter in the Tanah Kuning industrial area. The hydropower plant and the smelter have a total potential investment value of up to USD5.5 billion for North Kalimantan to support the National Strategic Project at KIPI Tanah Kuning.

Dam construction of the Mentarang Induk HEP is planned to commence in 2023 and expected to deliver first power by end of 2029. The project is currently at the pre-engineering phase and being evaluated under the Integrated ESIA-AMDAL study or *Analisis Mengenai Dampak Lingkungan*, which is the Indonesian social and environmental approval process to meet Indonesian legal requirements, and the Environmental and Social Impact Assessment (ESIA) which is required by international lenders.

Thermal Plant Development

The Tanjung Kidurong CCPP is an extension of our existing Kidurong Power Station and it will add a total of 842MW generating capacity once completed. We delivered the first block of Tanjung Kidurong CCPP this year, successfully completing the Reliability Run Test in December which ensured that the block could be operated safely and reliably. The take-over of the first Tanjung Kidurong CCPP block is targeted for January 2021.

Alternative Energy Development

Recognising that renewable and affordable hydropower supports the diverse application of other renewables and in line with our commitment to UN SDGs 11 on 'Sustainable Cities and Communities' and 13 on 'Climate Action', Sarawak Energy invests in exploring new energy sources to expand our renewable energy footprint and build a low carbon economy.

In 2020, alternative energy contributed about 1% to Sarawak's generation mix and by 2030, large-scale solar will contribute to about 4% of the generation mix. We are continuing to explore technological advances in alternative and renewable energy sources to light up Sarawak sustainably and cost-effectively.

Hydrogen Fuel Cell Research

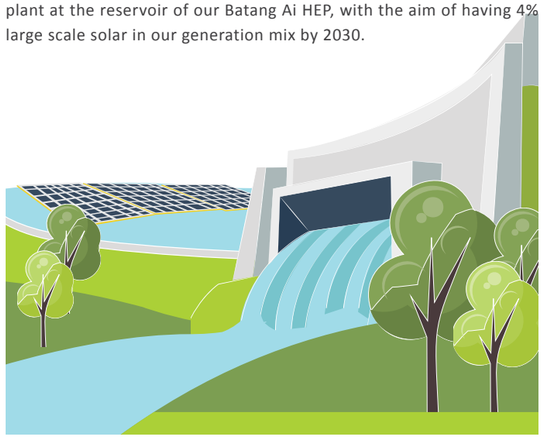
With the emergence of a global hydrogen economy and developments in hydrogen production, logistics and distribution, producing hydrogen in Sarawak from the grid would be less fossil-fuel intensive as we leverage Sarawak's generation mix of primarily renewable hydropower. Recognising this huge potential, the Sarawak Government has embarked on hydrogen fuel cell application research and is enabling multiple platforms while supporting multi-sector partnerships to realise the vision of a hydrogen economy in Sarawak.

As the agency that the Sarawak Government has entrusted to spearhead hydrogen research, Sarawak Energy inked a memorandum of understanding with PETRONAS to jointly explore the potential of hydrogen as an energy source. This collaboration reflects our shared ambition to scale up and venture into energy export with hydrogen as an energy carrier to meet global clean energy demand and position Sarawak as the hub for the hydrogen value chain.

The collective expertise of our partners will supplement our knowledge and empower us to further develop research capabilities, contributing to the progression of hydrogen development in this early stage. These benefits will be vital in our ongoing efforts to participate in hydrogen value chain activities and cultivate a sustainable energy future for Sarawak and its people.

Floating Solar

We have also committed ourselves to expanding alternative energy and are progressing plans to develop the first floating solar power plant at the reservoir of our Batang Ai HEP, with the aim of having 4% large scale solar in our generation mix by 2030.



102-2, 103-2, 103-3, EU26

DELIVERING SUSTAINABLE GROWTH

Strategising for Full Rural Electrification Coverage

A decade ago, the rural population in Sarawak with access to reliable 24/7 electricity supply stood at 56%. Towards the end of 2020, the coverage has grown to 95*% despite the government-enforced COVID-19 Movement Control Order. Sarawak Energy is moving forward in reaching its final mile to light up Sarawak and meet full electrification by 2025.

7 AFFORDABLE AND CLEAN ENERGY

In line with UN SDG 7 to provide affordable and clean energy for all, Sarawak Energy works closely with the Ministry of Utilities to implement the rural electrification plan to supply electricity to the rural and remote areas of Sarawak through the Accelerated Rural Electrification Masterplan.

The Masterplan entails key programmes comprising:

Rural Electrification Scheme (RES)
extends existing grid line into the interior

Rural Power Supply Scheme (RPSS)
complements RES by introducing new transmission lines and substations into rural areas

Sarawak Alternative Rural Electrification Scheme (SARES)
is a fast track solution provide remote households with the standalone solar power system

Solar Hybrid Project
utilises solar technologies combined with diesel-generator sets to provide reliable electricity supply to remote rural villages

SARES – Reaching Remote Communities

The SARES handover ceremony at Long Pilah, Baram to celebrate the commissioning of the SARES project in 13 villages in Telang Usan, benefitting 725 households. This project is our largest SARES station to date.

The off-grid standalone SARES system mobilises government machinery and agencies to help villages build, own and operate more sustainable and affordable electricity generating systems.

SARES replaces noisy and pollution-producing generators that can only provide limited hours of reliable electricity supply for each household's needs. Since the SARES project began, more than 398 villages comprising about 10,500 households have gained access to 24/7 reliable electricity supply.

Sarawak Energy continues to provide technical support to the villagers where needed.

Standalone Solar Hybrid Power Stations

In the remote interior of Sarawak where grid solutions are not viable, Sarawak Energy utilises off-grid utility scale project with two generation sources to power up a sizeable settlement. To date, there are 34 solar hybrid power stations and one micro-hydro hybrid power station in operation. Three more stations are in various stages of implementation and are expected to be commissioned by the end of 2021. Sarawak Energy undertakes the operation and maintenance of these solar hybrid power stations after completion.

Rural School Electricity Supply

The Rural School Electricity Supply initiative aims to extend the grid or provide renewable solar systems to 369 schools under a partnership among the Federal Ministry of Education, Ministry of Utilities Sarawak, Sarawak Education Department, Sarawak Public Works Department and Sarawak Energy.

In 2020, an estimated 21 schools received access to secure and reliable 24-hour electricity supply, displacing diesel generators that the schools previously depended on, to create a more conducive learning and working environment for students and staff. In the pipeline are efforts to ensure that another 348 rural schools will have access to reliable round-the-clock electricity supply in 2021.

Note:

* *This rural electrification coverage data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

103-2, 203-2

POWERING OUR COMMUNITY

Sarawak Energy's corporate philosophy on social responsibility and commitment to the social wellbeing of the people we serve in Sarawak is delivered through annual social investment programmes. While the priority is to ensure that these programmes benefit communities that are impacted by our projects and operations, we also reach out to other groups that may require assistance. Our programmes are focused on education and young people; culture and heritage; community development and entrepreneurship; and environmental management and conservation, with an emphasis on health and safety.

To ensure maximum benefit, our programmes are implemented in close collaboration with the community, leading to a greater partnership in achieving common goals.

HEALTH AND SAFETY OF THE PEOPLE

A major part of our efforts in 2020 was to support stakeholders and communities to mitigate the health and social impact of the COVID-19 pandemic.

Supporting our Medical Frontliners

When supplies were hard to secure in the earlier days of the pandemic, we organised the sourcing and logistics for over 1,000,000 units of disposable surgical masks; 20,000 units of KN95 respirators; 20,000 units of full-body medical protective clothing; 20,000 units of goggles and 1,000,000 units of disposable gloves directly from the country of origin and handed the personal protective equipment to the Sarawak Disaster Management Committee (SDMC) for distribution to medical frontliners across Sarawak.

Supporting MCO Affected Rural Communities

During the Movement Control Order (MCO), we supported rural communities with food aid and essential items for 11,319 households in Bakun, Belaga, Murum, Batang Ai, Balingian as well as hotspot areas in the suburbs of Kuching and Petra Jaya.

Disaster Relief Aid for Flood Victims

Working with our contractors to support the Kapit District Disaster Relief Committee, we provided relief aid to flood-affected communities in Kapit and Belaga. We delivered food rations to communities and schools alongside our contractors who helped repair a standby genset and water pump which was damaged by the flooding. We also erected a site clinic and kitchen to cater to community emergencies.

Our HSSE personnel were present to ensure compliance with safety and COVID-19 precautions during this operation. In total, we have provided relief aid to 10 longhouses and five schools in the project-affected area surrounding Baleh HEP.

Caring for Fire Victims

Financial support, food rations and essential supplies were given to families affected by fires at Uma Aging, Belaga and Kampung Muara Tebas, Kuching.

EDUCATION AND YOUNG PEOPLE

In the belief that education is the key to a brighter future, Sarawak Energy is playing our part to power young minds in the state through a wide range of education programmes, funding, scholarship and bursaries.

Sarawak Energy Scholarship 2020

As part of our ongoing efforts to help Sarawak talent reach their potential, this year we awarded scholarships to 53 outstanding students and 11 employees to continue their education in various fields of study. The external scholars were selected from over 340 applications in 2020 after undergoing a rigorous and structured assessment process. The applicants were shortlisted based on their academic and extra-curricular achievements and leadership potential.

Annually, we allocate RM8 million to provide educational funding for students who excel in their studies and members of communities near our projects and operations who may need additional assistance as well as employees who want to develop themselves.

In-House Electrical Engineering Diploma Programme

This year, we worked with Universiti Tenaga Nasional (UNITEN) to launch an In-House Electrical Engineering Diploma Programme for 30 selected Sarawakian SPM school leavers. This two-and-a-half-year programme offers them an opportunity to gain knowledge and hands-on technical skills in a safe and conducive working environment.

103-2, 203-2, 413-1

POWERING OUR COMMUNITY

Powering Young Minds with SCIENCE 2020 by Sarawak Energy took place on the Minecraft platform.

Powering Young Minds with SCIENCE

Sarawak Energy continues to power young minds by cultivating greater interest and innovative thinking in science, technology, engineering and mathematics (STEM) while encouraging creativity among youths in daily applications through the annual Sarawak Community Innovation Engineering Competition Exhibition (SCIENCE).

This year, our SCIENCE event was theme "Education in the New Normal" and participants' projects were showcased via the virtual gaming platform, Minecraft.

CULTURE AND HERITAGE

Aligned with our mission of honouring the trust placed in us by Sarawak's people, we have made consistent efforts to preserve and showcase our local culture and heritage. By providing platforms to exhibit Sarawak's unique cultural identity, we are supporting initiatives that will help to ensure our indigenous culture knowledge and practises will continue to last.

01 **Cultural Ceremonies:**
Sarawak Energy has been working together with the Murum Penan Development Committee (MPDC) to organise the annual Batu Tungun Blessing Ceremony performed according to Bungan rites since 2008.

02 **Respecting Local Traditions:**
We supported a Miring ceremony with Kapit community leaders and contractors to mark the safe completion of the Baleh HEP's river diversion and closure works.

03 **Cultivating Interest in Traditional Music:**
We are working with the Baram community to promote traditional music and the development of young *sape* players through the Warisan *Sape* Telang Usan initiative and are extending this to Belaga.

COMMUNITY DEVELOPMENT AND ENTREPRENEURSHIP

To maximise the positives and minimise the negatives of our operations, Sarawak Energy has established partnerships with project-affected communities to enable them to participate in and benefit from the social and economic developments that our projects bring. We provide them with job opportunities and assist them in developing entrepreneurial skills to help elevate standards of living.

Employment Opportunities

To maximise local participation for the Baleh HEP, Sarawak Energy and our contractors actively support local recruitment by aligning skill requirements with the needs of our construction sites. The contractors have also collaborated with the Labour Department and PERKESO for a series of career fairs to ensure that information regarding available job opportunities reach the local communities.

We expect around 2,500 job opportunities at our project sites to become available in 2022 and have taken steps to highlight these future vacancies to our local communities. Contractors have advertised the job opportunities while Sarawak Energy has integrated local employment and training into our community engagement efforts. A key example of this is our Baleh Youth Skills and Training Programme, which was first established in 2018 and empowers locals to learn skills that will enable them to be employed in ongoing and future projects.

Better Infrastructure

Through our Longhouse Adoption Programme, we are improving infrastructure for our project areas based on their needs and engaging local contractors to invest in the communities.

Sustainable Livelihood Opportunities

We supported the participation of eight handicraft artisans from Murum and Baleh at Hari Kraf Kebangsaan Kuala Lumpur. Their handicraft products were well received while the artisans had direct first-hand exposure to current market trends and were able to benefit from the exchange of knowledge with other craft practitioners.

ENVIRONMENTAL MANAGEMENT AND CONSERVATION

As a strong advocate of sustainable hydropower development and in line with UN SDG 15 'Life on Land', we collaborate with various state agencies, higher learning institutions, local communities and stakeholder groups to manage and conserve the environment.

River Rehabilitation

We launched the Empurau Fish Conservation Project at Sungai Murum to conserve and replenish its empurau population and promote the sustainable use of freshwater ecosystem. A total of 2,000 empurau fish fries were released into a floating fish cage to be released closer to the main Murum river.

SARAWAK ENERGY COMMUNITY VOLUNTEER PROGRAMME (CVP)

The Sarawak Energy Community Volunteer Programme (CVP) is a platform to encourage employees to contribute to the communities beyond project-affected areas and promote inclusiveness and respect. Employees are provided with funding up to RM5,000 for charitable causes as well as social or environmental related initiatives.

Our CVP Activities

- Painting and cleaning programme to enhance the appearance of Pusat Jagaan Nur Murni, a charitable home for the needy and orphaned children in Kuching
- Gotong-royong at Semenggoh Wildlife Centre to rehabilitate the park's infrastructure and participate in tree planting
- Tree planting programme themed "Energising Urban Green Spaces" at Sama Jaya Nature Reserve which also included contributing signages to help educate the public about the various species of flora at the reserve area
- Beach cleaning activity at Sematan Palm Beach entailing a removal of rubbish including fishing nets, plastic straws and polystyrene containers to prevent the rubbish from reaching our oceans and harming the marine ecosystem

102-43

CORPORATE HIGHLIGHTS

EVENTS

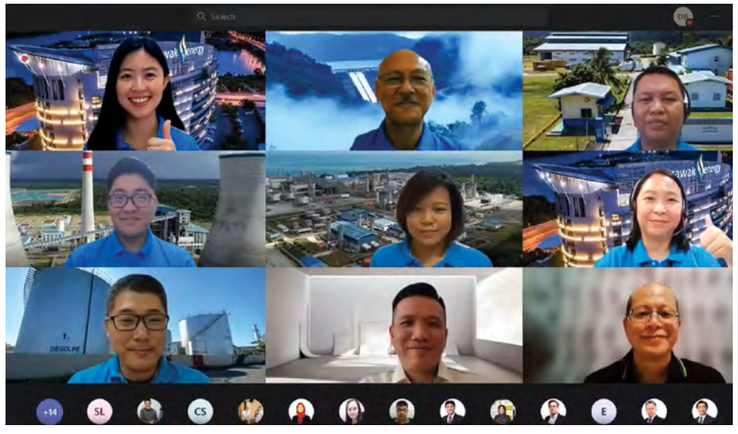
Townhall 2020

- *Group CEO connected with colleagues throughout Sarawak through virtual tools during the annual Group CEO Townhall 2020 in January. The Sarawak Energy Excellence 2022 roadmap was launched at this event.*

Legal and Enterprise Risk Day

- *This event was a corporate initiative to emphasise the importance of embedding a risk-conscious and security-aware business culture in line with upholding our core value of integrity. It also provided an avenue to update employees on the changes in corporate governance regulations and policies.*

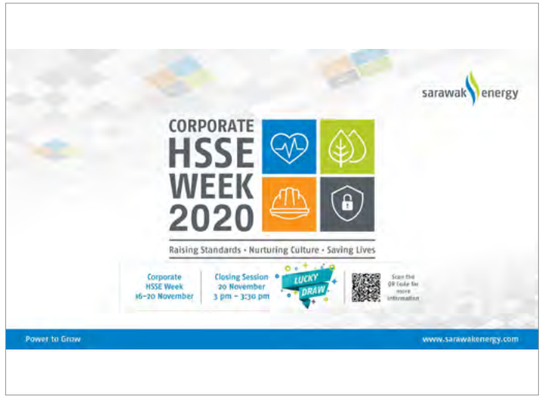
Virtual Generation Day 2020



- *The Virtual Generation Day by our generation arm, SEB Power, to share knowledge and enhance familiarity between business units and departments and promote effective cross-functional collaborations in Sarawak Energy.*

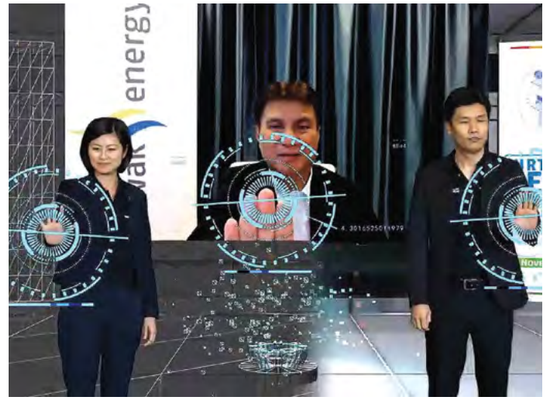
EVENTS

Corporate HSSE Week



- *Our annual Corporate HSSE Week emphasises the importance of caring for our physical and mental health in line with our Healthy Living Key Focus Area for 2020. The event also stressed the necessity of exercising empathy and kindness during the pandemic.*

Virtual Technology Day (VTD) 2020



- *VTD 2020 highlighted the centrality of digitalisation and technological innovation to our Vision 2020 aspiration of moving from good to great.*

Sarawak Energy Vendor Appraisal & Awards (SEVAA) 2020

- *SEVAA 2020 was held to recognise and reward vendors who provided us with exceptional service and contributed to our Contract & Procurement operations in line with our Key Focus Areas of excellence in Project Delivery, Operations, HSSE, Talent Management and High Performance Culture.*

PROJECT

Samalaju B – MPA 275kV Transmission Line Energised

- *The Samalaju B – MPA 275kV Transmission Line Project was completed and energised on 11 June. The Malaysia Phosphate Additives Sarawak (MPAS) plant in Samalaju Industrial Park is now connected to our Samalaju B 275kV Substation.*

  This transmission line project comprises 21 steel lattice towers and covers a distance of approximately 7km.

Commissioning of Darul Hana 33/11kV Indoor Substation

- *The RM13.32 million Darul Hana 33/11kV Indoor Substation caters to the future demands of Darul Hana Smart City and system reliability in Petra Jaya and its surrounding areas as demand grows.*

Allamanda 33/11kV Substation in Bintulu Commissioned

- *The Allamanda substation was successfully commissioned and is ready to cater for increasing load demand in Bintulu. With the commissioning of the RM15.3 million substation, it will be able to relieve the highly loaded substations Town 33/11kV and Medan Jaya 33/11kV, which will improve supply reliability for Jalan North-South Sibiyu and its surrounding areas.*

CORPORATE HIGHLIGHTS

PROJECT

Safe Commissioning of 275kv and 33kV Serudit Substations & Associated Line Turn-in Works

- *The successful and safe commissioning of the 275kV and 33kV Serudit Substations upon completion of the Engkilili-Serudit line turn-in work strengthens our current supply network by reinforcing the distribution system for Betong, Pusa, Saratok and Spaoh, and also serves as a 132kV transmission injection point into Sri Aman in the future.*

Completion/Commissioning of Samalaju B to PMB3 275kV Transmission Line Project

- *The Samalaju B to the new Press Metal plant (PMB3) 275kV Transmission Line 1 and 2 was successfully commissioned on 11 December as part of ongoing efforts to provide reliable electricity supply to our customer. The 10km line route project is a dedicated 275kV transmission line from the existing Samalaju B 275/132/33kV GIS Substation to PMB3.*

Niah 33/11kV Substation Successfully Commissioned

- *Our Distribution Department successfully commissioned the Niah 33/11kV Substation towards the end of the year. Tapping the supply source from Marudi Junction 33kV Substation, this new substation serves as additional reinforcement for the growing supply needs in Niah and its surrounding areas.*

Commissioning of Sebauh 33/11kV Substation in Bintulu

- *The Sebauh substation was successfully commissioned via connection of 33kV cables to existing overhead lines from Similajau Substation. This RM12.7 million project is part of the RES project delivered with the Ministry of Utilities to accelerate rural electrification in Sarawak.*

CORPORATE HIGHLIGHTS

PROJECT

● *Despite the Movement Control Order implemented to curb the COVID-19 transmission, our Rural Electrification Scheme team successfully handed over several SARES project to the communities this year. Amongs the completed projects which were handed over were Song, Nanga Merit, Telang Usan, Bukit Mabong, Bintulu, Marudi, Belaga, Sarikei and Baram.*

● *Sarawak's Chief Minister YAB Datuk Patinggi Abang Abdul Rahman Zohari Tun Abang Haji Openg officiated the earth breaking of the 132kV Kanowit Substation project under Projek Utiliti Rakyat on 11 January. The substation will see the grid extended into Kanowit's interior areas under the Rural Power Supply Scheme, lighting up more rural communities in the Central Region.*

HEALTHY LIVING

● *Interdepartmental friendly games are held as part of our healthy living initiatives as well as for employees to strengthen bonds and enhance bilateral relationships between departments.*

● *Project Delivery (PD) Walk Day organised by PD department to promote healthy living and networking between employees.*

CORPORATE HIGHLIGHTS

WORKPLACE SAFETY

● *Sarawak Energy and its contractors contributed surgical masks in April to our medical frontliners who are at a higher risk of contracting COVID-19 while carrying out their duties. The masks were handed over to Sarawak Disaster Management Committee for distribution.*

● *In our continuous effort to inculcate HSSE Excellence especially workplace safety, SESCO Management Committee members conducted a walkabout at the Metrocity 33kV Substation on 26 February.*

● *In keeping our people and customer safe from the COVID-19 transmission, Sarawak Energy fumigated and sanitised all its premises frequently including customer service counters, offices and power stations. We took the precautionary measures since March when Sarawak began to see an increase in COVID-19 cases.*

● *In line with our commitment to provide first-rate health care and medical services at our project site and to ensure everybody goes home safely, the first air medical evacuation drill was conducted at the Baleh HEP site to identify gaps and areas for continuous improvement and ensure actual medical evacuation by helicopter can be implemented.*

HIGH PERFORMANCE CULTURE

Women colleagues from the corporate and regional offices network and engage with each other during the SELWN New Year Gathering in January.

Promoting unity and diversity, employees welcomed and enjoyed a lively traditional lion dance performance to usher in the Lunar New Year.

Recognising our high performing workforce through internal awards and appreciations.

The Talent Management Excellence 2.0 Lab for the senior management to chart a roadmap in steering the Company towards achieving Sarawak Energy Excellence 2022 goals.

In line with our Talent Management Excellence KFA to develop the capability of our workforce, the Sarawak Energy Young Professional Network was officially launched on 26 February. The platform is for young executives to expand their network, develop their soft skills and integrate themselves within the Company.

PARTNERSHIPS

Campus Ambassadorship Programme Collaboration with Universiti Teknologi Mara (UiTM)

Our Campus Ambassador Programme is a platform to establish collaborations with higher learning institutions in the area of employment opportunities, scholarship, student sponsorship and internship. To formalise this collaboration, this year, we signed a Memorandum of Understanding with UiTM Kota Samarahan and the University College of Technology Sarawak.

Memorandum of Understanding (MoU) Signing Ceremony between Sarawak Energy and Sarawak-Based Manufacturers

The signing signifies our interest in developing mutually-beneficial collaborations between Sarawak Energy and Sarawak-based manufacturers in the future, with a focus on knowledge sharing, fostering innovation and supporting the participation of Sarawakian businesses.

Formal Collaboration on Green Hydrogen Production with PETRONAS

To progress Sarawak's Hydrogen Agenda and to support and grow the State as the hub for the hydrogen value chain, Sarawak Energy signed a Memorandum of Understanding with PETRONAS to jointly explore the commercial production of green hydrogen and its value chain in Asia, strengthening Sarawak's overall research capabilities and broaden our knowledge of hydrogen-related technology and development.

The MOU signing ceremony was witnessed by Sarawak Chief Minister YAB Datuk Patinggi Abang Haji Abdul Rahman Zohari bin Tun Datuk Abang Haji Openg.

CORPORATE HIGHLIGHTS

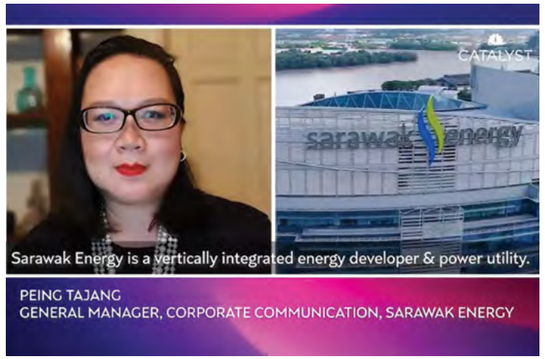
BRAND AND MEDIA PARTNERSHIP

SME-SDG Toolkit Launch at Virtual GOESG ASEAN 2020

Scan here to watch the launching of the SME-SDG Toolkit at Virtual GOESG ASEAN 2020.

- *As part of our sustainability partnership with UN Global Compact Network Malaysia and Brunei, we jointly developed and launched a step-by-step guide for SMEs to support small and medium enterprises in incorporating sustainability practices into their business.*

CNBC Catalyst's 'CMO Now' Feature Interview



Scan here to watch our featured video in CNBC Catalyst's 'CMO Now'.

- *Peing Tajang, General Manager for Corporate Communication shared her insights with CNBC Catalyst on making actionable change and cultivating positivity when pivoting through a time of uncertainty.*

  This was part of CNBC Catalyst's 'CMO Now: The Road Ahead' series, where a select group of Chief Marketing/Communication Officers from leading organisations from different industries were invited to share their stories on how the COVID-19 pandemic has evolved their brand identities.

Sarawak Energy Media Update 2020

- *Our annual media update enables our leadership team to engage with media practitioners, a key stakeholder.*

CORPORATE HIGHLIGHTS

BRAND AND MEDIA PARTNERSHIPS

Kenyalang Journalism Awards 2020

- *As part of our ongoing efforts to strengthen relationships with the media fraternity and recognise their contributions to Sarawak Energy's growth, we continue to support the Federation of Sarawak Journalists Association (FSJA) in organising the annual Kenyalang Journalism Awards and the Malaysian Press Institute for the Malaysia Journalism Night.*

Malam Wartawan Malaysia

- *A handover of sponsorship from Sarawak Energy for 'Malam Wartawan Malaysia 2020' organised by the Malaysian Press Institute to recognise and support the media fraternity in Malaysia.*

CORPORATE HIGHLIGHTS

REGIONAL PRESENCE

CIMB Cooler Earth Sustainability Summit

Scan here to watch the Fireside Chat with Datu Haji Sharbini Suhaili at the CIMB Cooler Earth Sustainability Summit.

- *Datu Haji Sharbini was interviewed in a Fireside Chat at the Cooler Earth Sustainability Summit 2020. He discussed Sarawak Energy's sustainability journey and how Environmental, Social and Governance (ESG) Financing, such as Sustainability-Linked Loans (SLL), is vital in supporting the transition towards sustainable development.*

  During the SLL acceptance ceremony, Datuk Amar Hamed also noted that the SLL validated our efforts surrounding sustainability, highlighting its dual benefits to the environment and business.

Singapore International Energy Week (SIEW) 2020

- *Datu Haji Sharbini spoke at the '2nd Global Ministerial Conference on System Integration of Renewables' held in conjunction with SIEW 2020. Datu Haji Sharbini shared his views on the importance of multi-sector collaboration and how we can continue to promote the uptake of renewable energy in the wake of the COVID-19 pandemic.*

CORPORATE HIGHLIGHTS

REGIONAL PRESENCE

GOESG ASEAN 2020

- *Datu Haji Sharbini shared Sarawak Energy's commitment towards sustainability, our hydropower development journey and our regional aspirations at a panel session titled 'Corporate Leadership for the ASEAN We Want'.*

Scan here to watch the Hydrogen Economy Forum at IGEM 2020.

- *At the International Greentech & Eco Products Exhibition & Conference Malaysia (IGEM) 2020, Datu Haji Sharbini was a featured panellist during the 'Hydrogen Economy Forum' to discuss Sarawak's potential to become a significant hydrogen player in the global hydrogen value chain.*

AWARDS & ACCOLADES

Double Platinum at 12th Global CSR Summit & Awards and Global Good Governance Award 2020

- *Left:*
  Our Belaga Penan Education Fund initiative was awarded platinum in the 'Excellence in Provision for Literacy & Education Award' category under the Global CSR Summit & Awards. Datu Haji Sharbini was also the platinum award recipient in the Global Good Governance Award for 'The Best Chief Executive Officer' category.

  Right:
  Sarawak Energy was awarded the Sustainability & Corporate Social Responsibility (CSR) Malaysia Award (Utilities & Energy Category) for our CSR Solar Project for Rumah Bada 2019. The project for Rumah Bada, Nanga Talong in Batang Ai was one of our many efforts to provide electrification to off-grid rural communities located surrounding our facilities.

HR Asia Most Caring Companies Award 2020 by HR Asia Magazine

WeCare
HR ASIA MOST CARING COMPANIES AWARD 2020

- *Sarawak Energy's efforts in cultivating a culture of empathy and care for our people and stakeholders, especially during the COVID-19 pandemic, earned us this acknowledgment.*

  Based on employees' rating, this award is a reflection of how the Company has touched the hearts and minds of our people during this unprecedented time.

HR Asia Best Companies to Work for in Asia Award 2020 by HR Asia Magazine

Scan here to watch the ceremony for HR Asia Best Companies to Work for in Asia 2020.

- *Sarawak Energy is recognised as one of the 'Best Companies to Work for in Asia' at HR Asia Awards Malaysia 2020 for the second consecutive year, testament to the collective efforts and investment we have made in our people to make Sarawak Energy a great, safe and healthy place to work.*

CORPORATE HIGHLIGHTS

AWARDS & ACCOLADES

Sarawak Civil Service Innovation Convention Awards (SCSICA) 2020

- *Sarawak Energy's Gamang Karan Innovative and Creative Cycle Team from Pakan Station, Sarikei Distribution Office was selected as a finalist at the SCSICA 2020. Our team's innovative product, the Gamang Buster 1.0 is an environmentally-friendly device that mitigates the problem of hornet nests usually faced by rural stations.*

Silver Australasian Reporting Awards (ARA) Annual Report 2018 & Sustainability Report 2018

- *Our Annual Report 2018 and Sustainability Report 2018 received silver awards at the ARA 2020 Virtual Awards Presentation. We were among the companies which met the demanding ARA criteria to provide quality coverage, adequate disclosure for key aspects of the core business and to address the latest regulatory requirements in our reports.*

2020 Malaysia Enterprise Innovation Awards

- *Sarawak Energy received the 2020 Malaysia Enterprise Innovation Awards in recognition of our efforts to drive our digital transformation with the 2020 Malaysia Enterprise Innovation Award.*

Prime Minister's Hibiscus Award (PMHA) 2019/2020

- *Three of our generation facilities – Mukah Power Generation, Murum HEP and Bakun HEP – were recognised for Notable Achievements in Environmental Performance at the Prime Minister's Hibiscus Award for 2019/2020, signifying our progress towards achieving HSSE Excellence and sustainability goals of doing no harm to the environment in all our operations.*

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SUSTAINABILITY REPORT

Menara Sarawak Energy.

204-1, 305-4, EU29

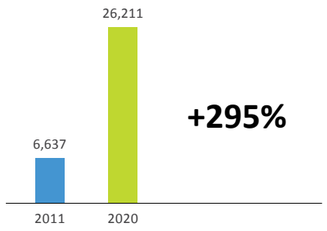
SUSTAINABILITY KEY HIGHLIGHTS

PERFORMANCE AT A GLANCE

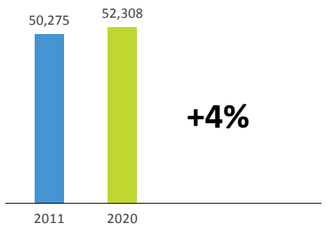
To provide reliable, affordable and renewable energy for our customers, we endeavour to create long-lasting value and positive impacts along our journey, seeking opportunities for the sustainable growth of our business as well as for Sarawak. Our aim is to meet energy needs while preserving the environment and empowering our society, even as we generate resilient financial growth. To ensure we meet our goals, we benchmark our performance against the three pillars of sustainable development – Economic, Environment and Social.

Our performance in 2020 is presented against the baseline year of 2011 in the following graphs:

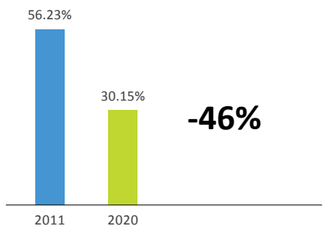
Total Electricity Sales (GWh)



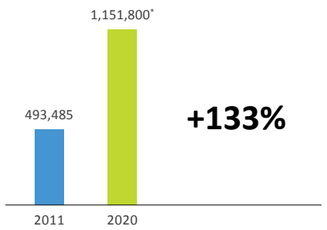
Total Hours of Training (Hours)



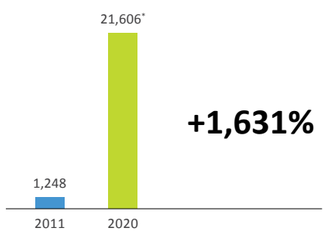
Operating Expenses Ratio (%)



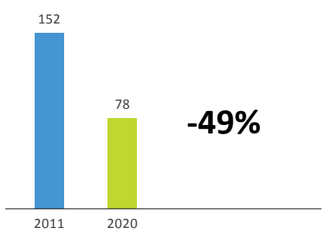
Tenders Awarded to Local Sarawakian Companies (RM'000)



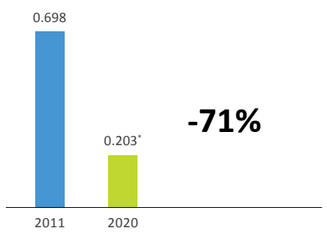
Renewable Energy Generated – Main Grid (GWh)



SAIDI – Distribution (Minutes per Customer)



Emissions Intensity – Main Grid (tCO_2eq/MWh)



Note:

* *These main grid CO_2 emissions intensity, net energy generated and total value of tenders awarded to local Sarawakian companies' data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

102-42, 102-43, 102-44, 102-47, 102-49

MATERIALITY ISSUES

Identifying material issues is integral to our sustainability journey. Apart from allowing us to focus on matters that are most important to our business and stakeholders, it also enables us to anticipate the risks and opportunities of each material issue.

We identify our material issues from various sources including stakeholder feedback, surveys, thought leader perspectives and social media coverage. Our materiality assessment is guided by GRI Standards and the last materiality assessment was conducted in 2017, where 32 material issues were identified based on the pillars of – Economic, Environment and Social.

Processes of Materiality Assessment

1 Review of Material Issues

Reviewing and updating material issues that are in line with any development in:

- Business landscape
- Internal policies
- Key Performance Indicators (KPIs)
- Local and global trends
- Regulatory requirements
- Stakeholder feedback

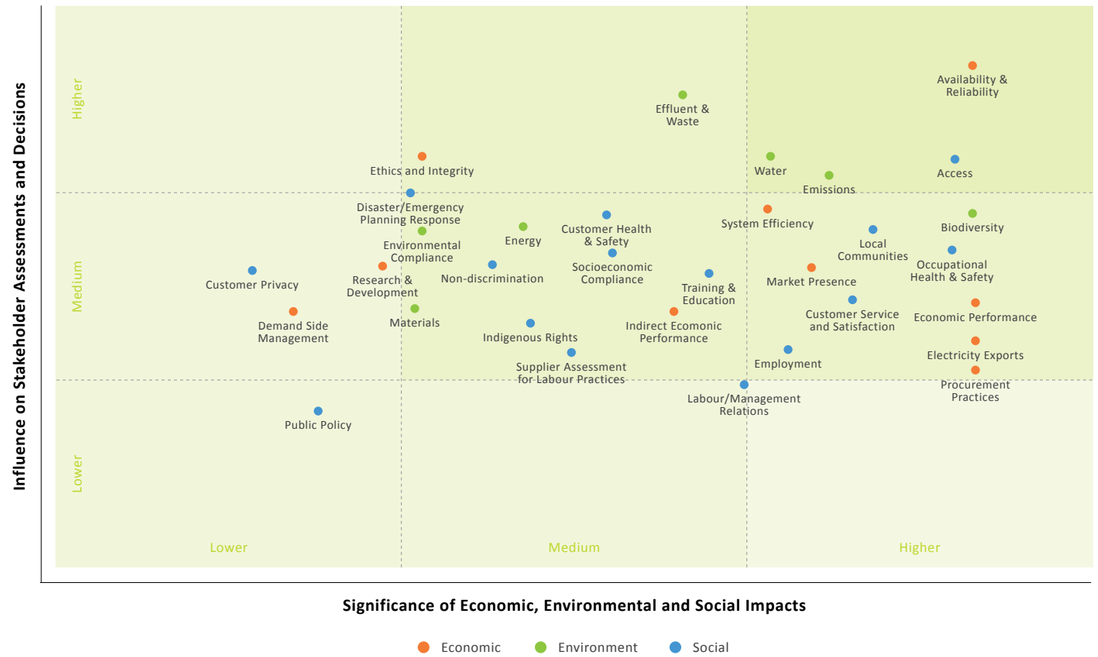
2 Stakeholder Engagement

Prioritising and engaging with stakeholders through continuous dialogue for insights to meet the needs of stakeholders and develop strategies and initiatives.

3 Prioritising Material Issues

Identifying material issues before prioritising the issues that are in line with the Company's business needs.

Our materiality matrix is shown below:



EU4, EU26, EU29, EU30

305-4, 305-5

INTERNALISING THE GLOBAL AGENDA (UN SDGs)

The United Nations Sustainable Development Goals (UN SDGs) are a set of 17 global goals agreed by the UN member states in 2015. The aim is to create a sustainable future for the world by 2030 through contributions from the member states to end poverty, fight inequality and address climate change.

As Malaysia's largest provider of renewable energy, we are committed to accelerating the global goals to achieve sustainability and prosperity for Sarawak. Part of our climate action plans is to further explore disruptive technology concepts and leverage innovative technology to minimise negative environmental impacts. Among the concepts we have adopted are solar hybrid, solar rooftop and smart technologies.

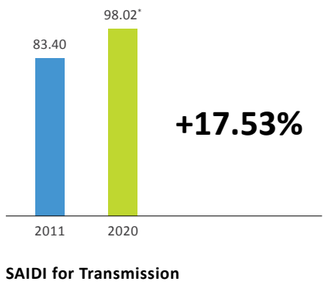
We collaborated with UN Global Compact Malaysia & Brunei (UNGCMYB) to launch the SME-SDG Toolkit during the GO ESG ASEAN Corporate Sustainability Virtual Summit 2020.

The free-for-use online toolkit was developed in partnership with UN Global Compact Network Malaysia & Brunei as a step-by-step guide for small and medium enterprises (SMEs) to incorporate sustainability practices into their business. The toolkit has been designed to promote the United Nations Sustainable Development Goals (UN SDGs) 2030 and was developed around a fit-for-purpose MAJU (Advance) framework to enable SMEs to create their own unique sustainability roadmaps. The MAJU framework is a four-step process encompassing (M)ission, (A)ctivity, (J)ustifying and (U)pgrading components designed as a complete Sustainability Management suite for SME development in Malaysia as well as our supply chain.

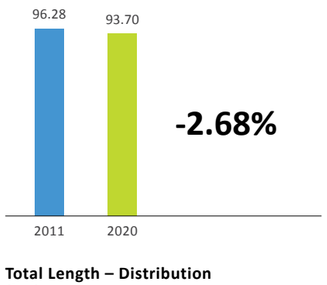
We continue to contribute to the UN SDGs by aligning our initiatives with six prioritised global goals that are within our capacity. Our contributions to the global goals are illustrated in the following graphs:

SDG 7: Affordable and Clean Energy

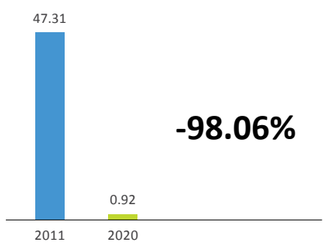
Sarawak Electricity Coverage (%)



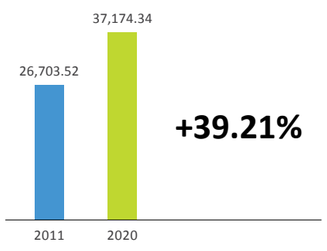
Hydropower Average Availability Factor (%)



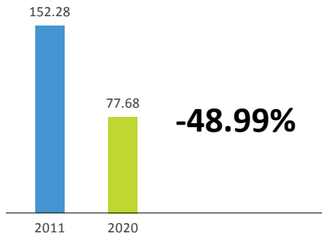
SAIDI for Transmission (min/customer)



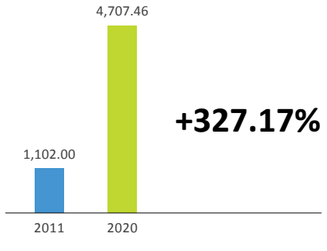
Total Length – Distribution (km)



SAIDI for Distribution (min/customer)



Total Length – Transmission (km)

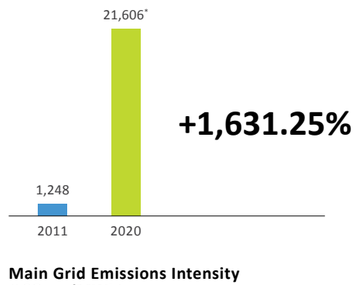


Note:

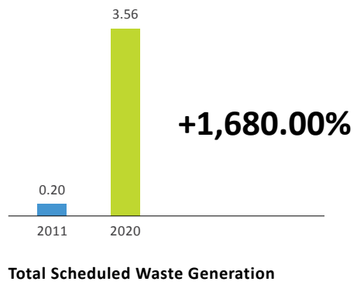
* *This Sarawak electrification coverage data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

SDG 13: Climate Action

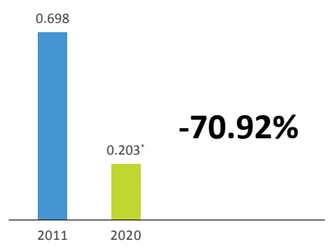
Renewable Energy Generated (GWh) (%)



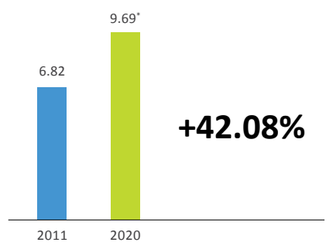
Renewable Energy to Non-renewable Energy Generated Ratio



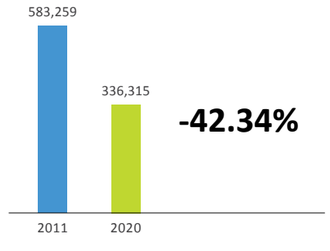
Main Grid Emissions Intensity (tCO_2eq/MWh)



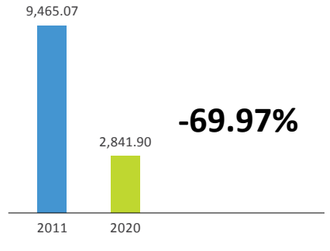
Total Scheduled Waste Generation Intensity (Tonne/MWh)



Total CO_2 Emissions Reduction (tCO_2eq) – Thermal Plants



Total Fuel Consumption Intensity (MJ/MWh)

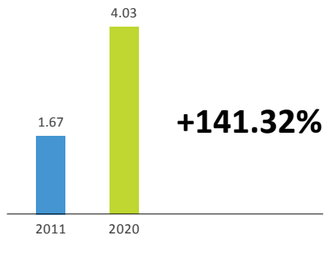


Note:

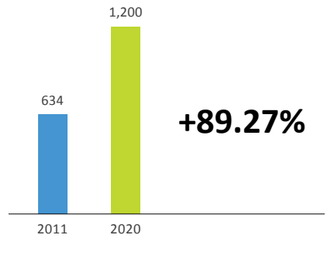
* *These net energy generated, main grid CO_2 emissions intensity and scheduled waste generation intensity data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

SDG 8: Decent Work & Economic Growth

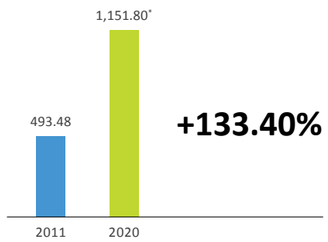
Electricity Sales/GDP[1] (%)



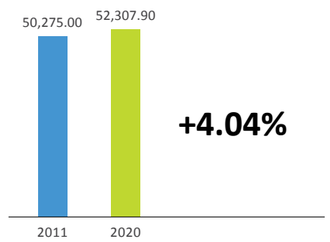
Total Number of Women in Our Workforce



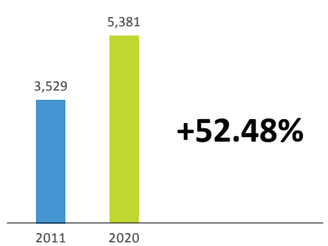
Tenders Awarded to Local Sarawakian Companies (RM million)



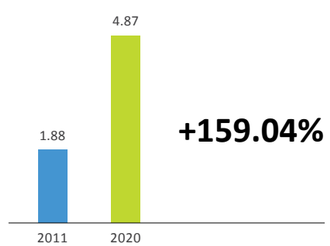
Total Training Hours Provided



Total Number of Employees



Electricity Sales/ Number of Employees (GWh/ Staff)



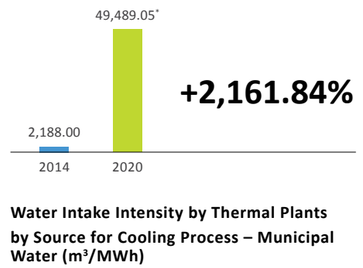
Notes:

[1] *GDP for State of Sarawak in 2020 based on current prices.*

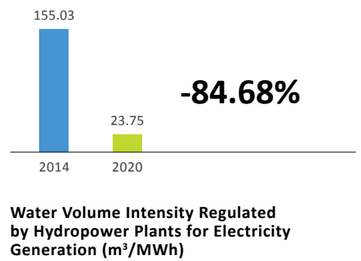
* *This total value of tenders awarded to local Sarawakian companies' data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

SDG 6: Clean Water and Sanitation

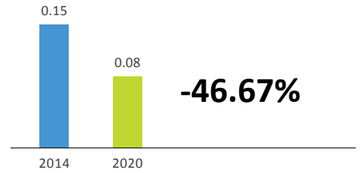
Water Volume Regulated by Hydropower Plants for Electricity Generation (million m³)



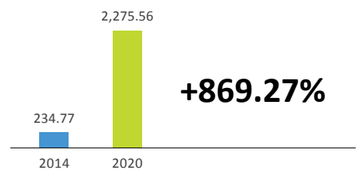
Water Intake Intensity by Thermal Plants by Source for Cooling Process – Seawater or Other Natural Water Source (m³/MWh)



Water Intake Intensity by Thermal Plants by Source for Cooling Process – Municipal Water (m³/MWh)



Water Volume Intensity Regulated by Hydropower Plants for Electricity Generation (m³/MWh)



We are a member of the state's Integrated Watershed Management Committee that supports and contributes to the development of state policy, procedures and guidelines for Integrated Watershed Management.

SDG 15: Life on Land

- Supported the Heart of Borneo (HoB) Initiative which seeks to protect and conserve the biodiversity and ecology of water bodies in Sarawak
- 66,721 ha of Baleh National Park gazetted on 21 September 2017
- Conducted various workshops on watershed management
- Nurtured Flora Conservation Garden
- Batang Ai Enrichment Planting

SDG 17: Partnerships for the Goals

- Partnership in conservation and protection of HoB areas
- Collaboration with government agencies, NGOs such as WWF and universities in developing an Integrated Catchment Management Policy, Procedures, Guidelines and Plan
- Collaboration with local universities on our Environmental Sustainability Programme
- Partnership with IHA, UNGC Network Malaysia & Brunei and GRI to champion sustainability global agenda in local context

Note:

* *This annual water volume for electricity generation data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

103-2, 301-1, 303-3

CREATING LONG-TERM VALUE

103-3, 204-1, 305-4, 401-1

In all that we do, we place sustainability at the core of our business activities to ensure long-term value creation. We strive to uphold the interests of our stakeholders as we seek to optimise opportunities and mitigate risks across our value chain. This includes leveraging local resources and smart technology to reduce our carbon footprint and adapt to climate change to generate sustainable growth and prosperity for Sarawak.

INPUT

Powering the Economy

Fuel Consumption by type:

Natural Gas
33,066,287.95* MMBtu

Diesel
24,301,619.57* litres

Coal
2,684,065.69* tonnes

Hydro – Water Volume Regulated for Electricity Generation:
49,489.05* million m³

Thermal – Water Utilisation
674* million m³
(Cooling process)

Empowering Our People

2019	5,207
2020	5,381

Total Workforce (People): +3.34%

Note:
* *These fuel consumption, annual water volume for electricity generation and total water withdrawn by source data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

VALUE TO OUR STAKEHOLDERS

SUSTAINABLE DEVELOPMENT GOALS

Key Trends
We put local resources and the production of clean energy first to unlock returns throughout our value chain

- **SDG 06** CLEAN WATER AND SANITATION
- **SDG 07** AFFORDABLE AND CLEAN ENERGY
- **SDG 08** DECENT WORK AND ECONOMIC GROWTH
- **SDG 11** SUSTAINABLE CITIES AND COMMUNITIES
- **SDG 13** CLIMATE ACTION
- **SDG 17** PARTNERSHIPS FOR THE GOALS

VALUE CREATION PROCESS

1 Contributing to Economic Development

2 Generating Positive Impact

3 Safeguarding Natural Resources

4 Nurturing Our Workforce

- Investors
- Employees
- Society at Large

OUTPUT

Contributing to Economic Development

- Operating Expenses Ratio - **30%**
- Economic Value Retained (RM Million) - **RM2,162***
- Payments to the Government (RM Million) - **RM163**
- Employee Remuneration (RM Million) - **RM541**
- Electricity Sales - **26,211GWh**

Generating Positive Impact

- Total Assets (RM Million) - **RM39,157**
- Operating Costs (RM Million) - **RM1,704**
- Tenders Awarded to Local Sarawakian Companies (RM Million) - **RM1,152***
- Sarawak's Rural Electrification Coverage Raised - **95*%**
- Benefitted at least **130,673 rural households since 2009**

Safeguarding Natural Resources

- Grid Emissions Intensity (Main Grid) - **0.203* tCO_2eq/MWh**
- Grid Emissions Intensity (Main Grid) - **9% (Decreased from 2019)**

Nurturing Our Workforce

Human Capital Development
- Total Training Hours - **52,308 hrs**
- Employee New Hires - **350**

Note:
* *These economic value retained, main grid CO_2 emissions intensity, total value of tenders awarded to local Sarawakian companies and rural electrification coverage data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

305-1, 305-4, 305-5

CLIMATE ACTION THROUGH RENEWABLE ENERGY

Emissions Intensity (Main Grid)
0.203* tCO_2eq/MWh

Emissions Intensity (Northern Grid)
0.607* tCO_2eq/MWh

Total CO_2 Emissions (Main Grid)
5.60 million tCO_2eq

Total CO_2 Reductions from Clean Development Mechanism Projects:
336,315 tCO_2

Notes:
1. *Emissions in CO_2eq include Direct Scope 1 emissions from CO_2, CH_4 and N_2O.*
* *These main grid CO_2 emissions intensity and northern grid CO_2 emissions intensity data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

● *Bakun HEP.*

103-2, 103-3, 305-4

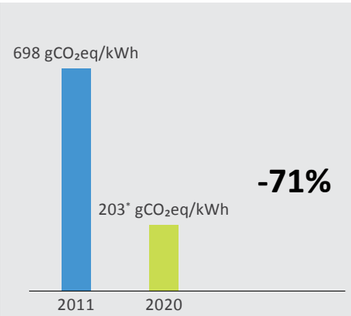
CLIMATE ACTION THROUGH RENEWABLE ENERGY

Climate change is one of the biggest global challenges, causing disruptions in daily lives and business operations due to extreme weather conditions. With world leaders calling for industries to actively combat climate change, Sarawak Energy is committed to lowering its carbon footprint and Sarawak's carbon emissions. We are committed to the Paris Agreement made at the United Nations Framework Convention on Climate Change, which aims to substantially limit global temperature rise to well below 2° Celsius above pre-industrial levels.

Our journey in transitioning to a renewable energy developer and power utility has played a vital role in and contributed significantly to lowering Sarawak's carbon emissions intensity. This result has been largely attributable to our focus on hydropower as a renewable energy source that provides clean, reliable and affordable energy to meet Sarawak's targets of economic and social development, energy security and affordable and sustainable energy.

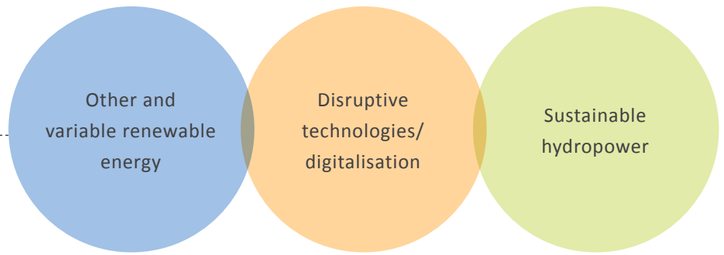
Since 2011, renewable energy share in Sarawak's generation mix has grown remarkably by 1,631%, from 1,248 GWh in 2011 to 21,606* GWh in 2020. This has led to a 71% reduction in Sarawak's main grid CO_2 emissions intensity, which is 54% lower than the global average of 450 gCO_2eq/kWh.

Note:
* *This net energy generated data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

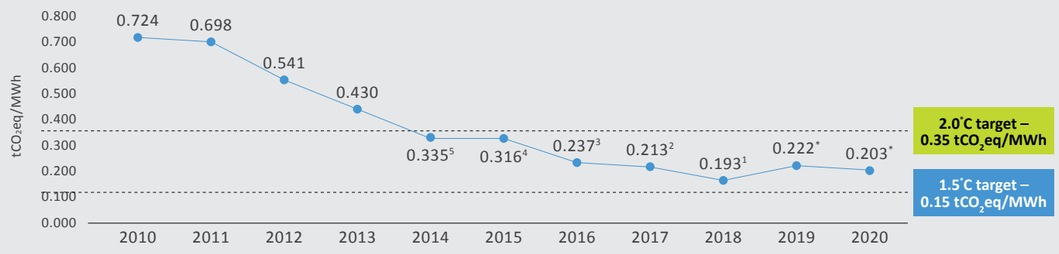


Note:
* *This main grid CO_2 emissions intensity data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

Building resilience towards climate change:



Scope 1 Main Grid CO_2 Emissions Intensity Within the 2°C and 1.5°C Targets in Accordance with the Paris Agreement

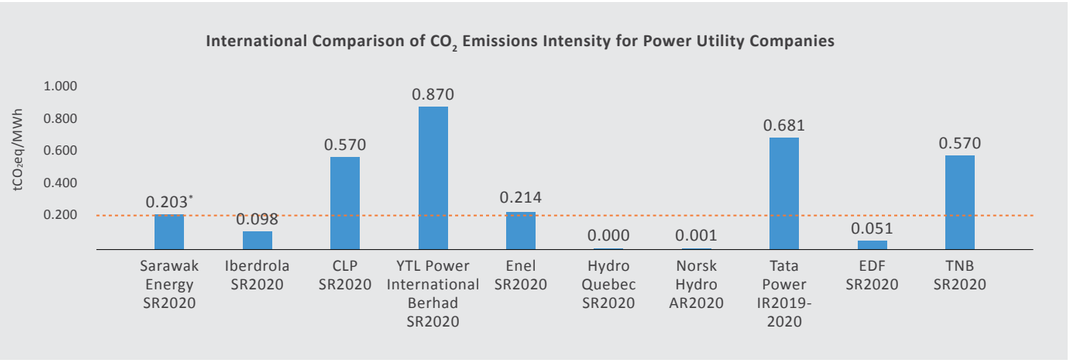


Notes:
1 *This main grid CO_2 emissions intensity data has been assured by a third party for Sustainability Report 2018.*
2 *This main grid CO_2 emissions intensity data has been assured by a third party for Sustainability Report 2017.*
3 *This main grid CO_2 emissions intensity data has been assured by a third party for Sustainability Report 2016.*
4 *This main grid CO_2 emissions intensity data has been assured by a third party for Sustainability Report 2015.*
5 *This main grid CO_2 emissions intensity data has been assured by a third party for Sustainability Report 2014.*
* *This main grid CO_2 emissions intensity data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

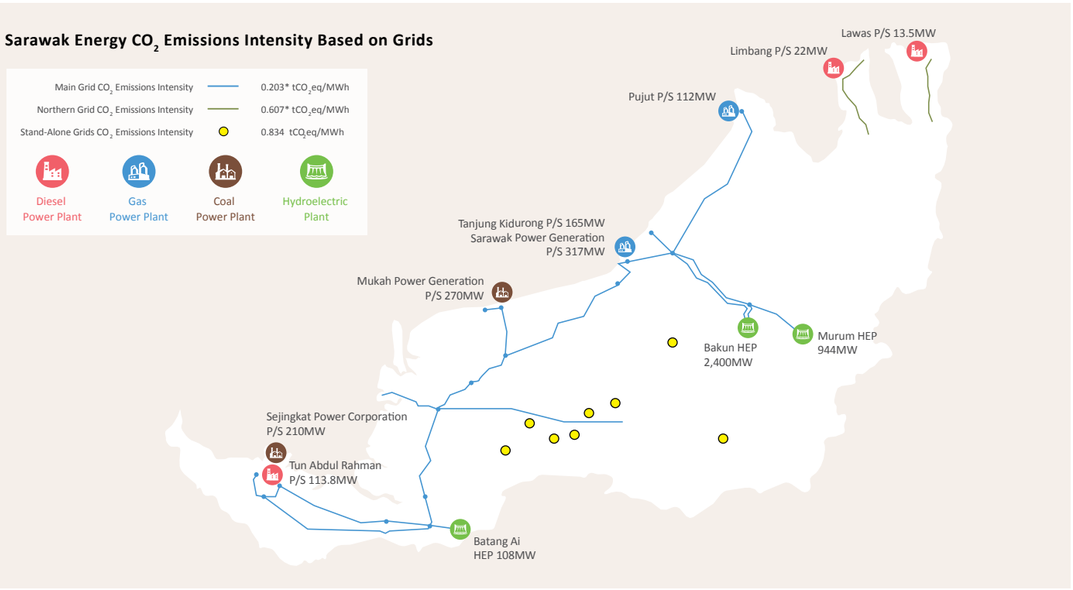
103-3, 305-1, 305-4

CLIMATE ACTION THROUGH RENEWABLE ENERGY

For the year under review, our total main grid emissions were 5.60 million tCO_2eq, which was a 12% reduction from 2019. Our emissions intensity, of 0.203* tCO_2eq/MWh, continues to be one of the lowest when benchmarked against other power utility companies globally.



Note:
Published Annual, Sustainability & Integrated Reports 2020.



Note:
* *These main grid CO_2 emissions intensity and northern grid CO_2 emissions intensity data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

103-2, EU2

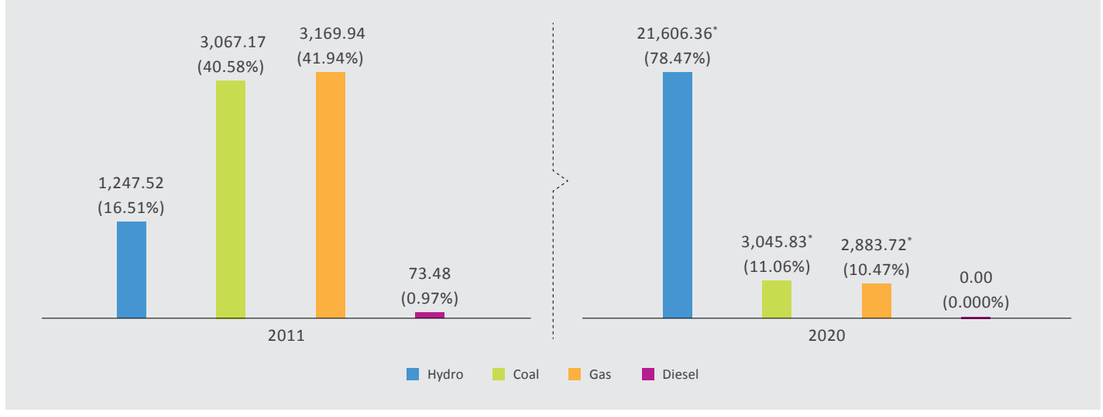
CLIMATE ACTION THROUGH RENEWABLE ENERGY

REDUCING SARAWAK'S CARBON FOOTPRINT

Sarawak Energy has been transforming into a renewable energy developer and power utility by diversifying its generation mix through increased hydropower expansion since 2011. Our commitment to the energy transition has helped the state to meet the Paris Agreement goal. We are cognisant of our responsibility of harnessing the state's resources sustainably and responsibly, while creating value such as new opportunities for Sarawak and its stakeholders.

	Year 2019		Year 2020	
Energy Generated[2] / Energy Source	GWh	%	GWh	%
Hydro	21,503.25[1]	75.31	21,606.36*	78.47
Coal	3,790.28[1]	13.28	3,045.83*	11.06
Gas	3,257.09[1]	11.41	2,883.72*	10.47
Diesel	0.89[1]	0.003	0.00*	0.000
Total	28,551.51[1]	100	27,535.91*	100

Sarawak Energy's generation mix by category has evolved as follows:



Notes:
1 *This net energy generated data has been assured by a third party for Sustainability Report 2019.*
2 *Net energy generation.*
* *This net energy generated data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

103-1, 103-2, 303-1

CLIMATE ACTION THROUGH RENEWABLE ENERGY

Climate Change Resilience

Sarawak Energy is cognisant of the energy sector's significant role in climate change and is committed to mitigating and minimising the effects of the sector on climate change. Our hydropower facilities help to mitigate the impacts of climate change by decarbonising the power system.

To ensure a resilient hydropower resource, we strive to protect our upstream water catchment and ensure adequate and good-quality water supply for rising energy demand while delivering environmental services for downstream needs. Identifying real risks and opportunities from hydropower development and operation will also bolster our hydropower resources. This requires collaboration between various stakeholders to resolve interdependent issues through a holistic catchment management plan.

We recognise the importance of taking a proactive approach in advocating good catchment management practices. Sarawak Energy is currently a member of Sarawak's Integrated Watershed Management Committee, which contributes to the development of state policy, procedures and guidelines for integrated watershed management.

Greenhouse Gas (GHG) Research Programme

Our GHG Research Programme was developed to support our vision of being a regional hydropower expert that operates in accordance with international sustainability standards. The programme aims to understand the biogeochemical cycles that occur within the hydropower reservoir to enable us to develop specific mitigation and management measures.

In 2020, Sarawak Energy conducted internal studies using the GHG Reservoir Tool (G-res Tool), which is a web-based tool developed by the International Hydropower Association (IHA) in collaboration with the UNESCO Chair for Global Environmental Change. The G-res tool was developed as a means to assess, validate and report the carbon footprint of a reservoir. We submitted data on Baleh HEP on the topic of Climate Change and Resilience in the implementation stage and it is currently being independently validated by the IHA G-res team.

Our GHG & H_2S team also used the tool to estimate the GHG emissions for Bakun and Murum hydropower reservoirs in an attempt to further improve our understanding. In addition, since the protocol for GHG Measurement Guidelines for Freshwater Reservoirs was published in 2010 by UNESCO/IHA, Sarawak Energy has conducted numerous post-impoundment field campaigns for Bakun and Murum. In 2020, one campaign was carried out for each reservoir.

Over the past few years, Sarawak Energy has been involved in a collaborative project with Université du Québec à Montréal (UQAM), Canada to study carbon and methane emissions from the Batang Ai Reservoir.

Power density is calculated using the average reservoir area (the area of flooded land, net of the pre-impoundment water body) and the capacity of the power facilities in the project fed by this water body. It is a predictor of the emissions intensity of a hydropower project. Our hydropower projects' power density are as shown in the table below:

Hydropower Project	Installed Capacity (MW)	Reservoir Surface Area (km^2)	Power Density (W/m^2)
Bakun	2,400	695	3.5
Murum	944	245	3.9
Baleh	1,285	588	2.2
Batang Ai	108	90	1.2
Mentarang Induk	1,375	202	6.8

103-1, 103-2, 305-1, 305-4

CLIMATE ACTION THROUGH RENEWABLE ENERGY

Renewable Energy Certificate

Sarawak Energy launched its first Renewable Energy Certificate (REC) in 2019, which promotes traceability and serves as proof that the energy is generated from renewable sources. A registry was also established to provide best practice guidelines and Carbon Disclosure Project standards for tracking and reporting of RECs, assuring buyers of the integrity of each REC transaction.

Individuals or corporates who want to commit to renewables can:

- Purchase an equal number of RECs to apply against their electricity consumption. The REC represents the environmental benefits of that megawatt-hour of renewable energy.
- For each megawatt-hour of renewable energy produced, one REC is issued and uniquely numbered and tracked. It enables the consumer to claim the associated environmental benefits and validate their commitment to decarbonising their energy consumption.

Residual Mix Emission Rate

A residual mix emission rate helps to ensure credible and reliable disclosure of electricity consumption, preventing double counting of environmental attributes from renewable power generation. It is an adjusted emission rate that removes all REC-certified energy sales in a grid and sets out the emission rates from the proportion of electricity that remains in the power grid after all certified renewable electricity is accounted for.

Sarawak's residual mix emission rate is as shown in the table below. The rate was assessed using REC sales data collected from the REC tracking registry, Sarawak Energy's annual power generation data and emission rates for the publication period.

CO_2eq emissions (Tonne)	Net Generation (MWh)	Emission Rate (tCO_2eq/MWh)	Voluntary RE (MWh)	Residual mix emission rate (tCO_2eq/MWh)
5,600,892.97	27,535,129	0.203*	43,250	0.204

The residual mix emission rate was calculated using the following formula

$$\text{Residual mix emission rate} = \frac{\text{(Total amount of } CO_2\text{eq emissions)}}{\text{(Total amount of electricity generation – RECs)}}$$

Notes:

1. The residual mix emission rate is only applicable for the Sarawak main grid.

** This main grid CO_2 emissions intensity data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

103-1, 103-2

CLIMATE ACTION THROUGH RENEWABLE ENERGY

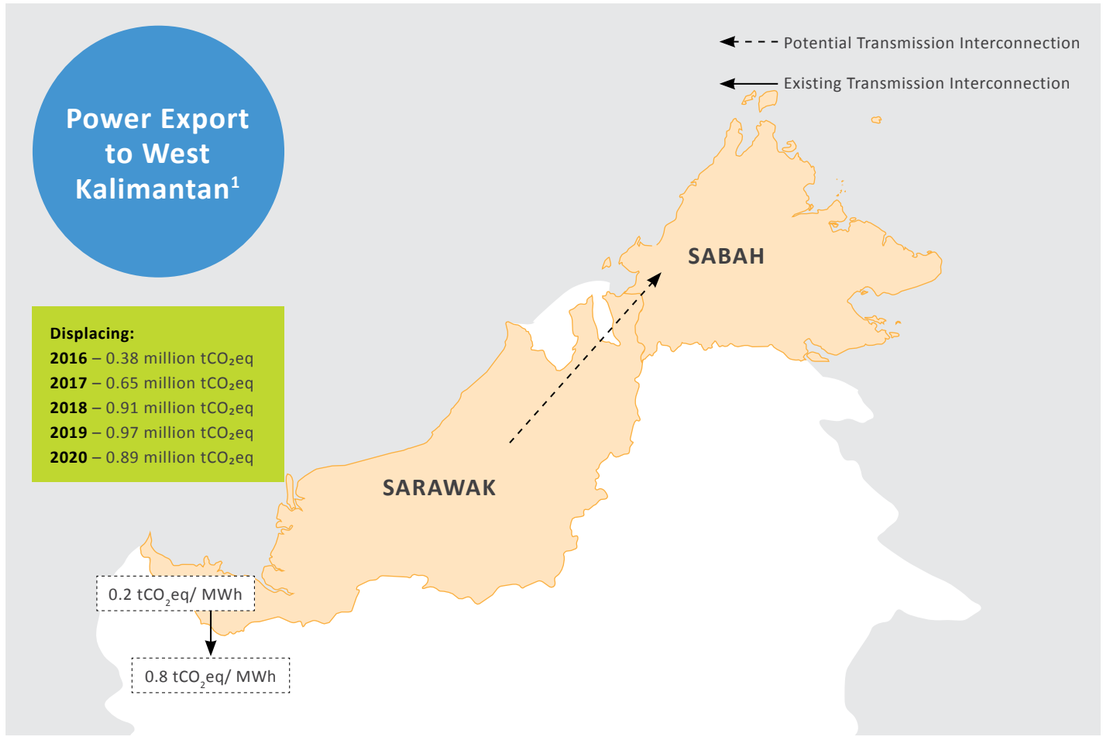
SUPPLYING CLEAN ENERGY BEYOND SARAWAK

Sarawak Energy is set to lower GHG emissions across the Borneo region by decarbonising its energy sources beyond Sarawak, in tandem with its goal of becoming a regional powerhouse providing renewable energy for the ASEAN region.

The Company took its first steps towards becoming a regional powerhouse in 2016 through the Sarawak-West Kalimantan Interconnection, a cross-border HVAC link connecting the Mambong 275 kV substation in Sarawak to the Bengkayang 275 kV substation in West Kalimantan. Since then, it has exported an average of 190 MW to 200 MW of power to Indonesia's national utility, Perusahaan Listrik Negara (PLN).

Since 2016, the Company has exported 6,510 GWh of energy to West Kalimantan, achieving a displacement of 3.80 million tCO_2eq, equivalent to sequestration of 10,712 ha of tropical forest.

Moving forward, Sarawak Energy plans to establish more interconnection projects with the vision of building the ASEAN Power Grid for a shared sustainable energy future.

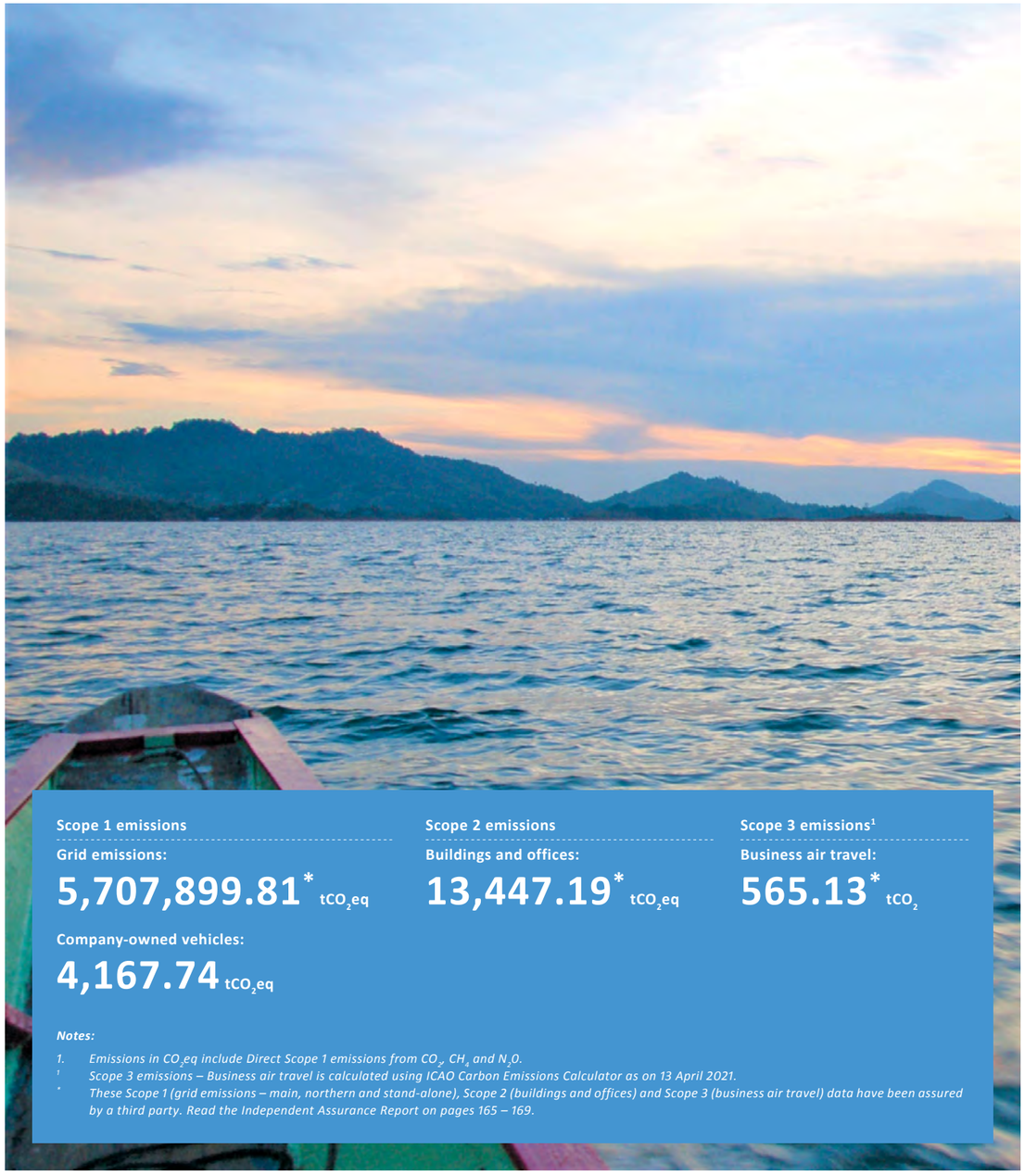


Note:

[1] West Kalimantan grid – using conservative estimation based on diesel emission factor of 0.8 tCO_2eq/MWh (IPCC 2016).

305-1, 305-2, 305-3

CLIMATE ACTION AT THE FOREFRONT



Scope 1 emissions

Grid emissions:

5,707,899.81* tCO_2eq

Company-owned vehicles:

4,167.74 tCO_2eq

Scope 2 emissions

Buildings and offices:

13,447.19* tCO_2eq

Scope 3 emissions[1]

Business air travel:

565.13* tCO_2

Notes:

1. Emissions in CO_2eq include Direct Scope 1 emissions from CO_2, CH_4 and N_2O.

[1] Scope 3 emissions – Business air travel is calculated using ICAO Carbon Emissions Calculator as on 13 April 2021.

** These Scope 1 (grid emissions – main, northern and stand-alone), Scope 2 (buildings and offices) and Scope 3 (business air travel) data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

Scenic view at Batang Ai reservoir.

INCORPORATING CLIMATE ACTION INTO OUR BUSINESS STRATEGY

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

As a forward-looking sustainable energy provider, Sarawak Energy is cognisant of the adverse effects climate change can have on our business growth, supply chain, stakeholders and the prosperity of the state in the long term. We continue to focus on energy transition by incorporating climate action into our business strategy to mitigate negative impacts and minimise risks while generating long-lasting positive impacts for future generations.

We are committed to developing full-fledged Task Force on Climate-Related Financial Disclosures (TCFD) recommendations based on four thematic areas that represent core elements of how Sarawak Energy operates:

Governance

- Describing the Board's oversight of climate-related risks and opportunities
- Describing management's role in assessing and managing risks and opportunities

Strategy

- Describing the climate-related risks and opportunities the organisation has identified over the short, medium and long term
- Describing the impact of climate-related risks and opportunities on the organisation's businesses, strategy and financial planning
- Describing the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario

Risk management

- Describing the organisation's processes for identifying and assessing climate-related risks
- Describing the organisation's processes for managing climate-related risks
- Describing how processes for identifying, assessing and managing climate-related risks are integrated into the organisation's overall risk management

Metrics and targets

- Disclosing the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process
- Disclosing Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks
- Describing the targets used by the organisation to manage climate-related risks and opportunities and performance against the targets

GOVERNANCE

SUSTAINABILITY GOVERNANCE

A DEDICATED DIVISION TO DRIVE SUSTAINABILITY BEST PRACTICES

Since 2012, Sarawak Energy's sustainability efforts have been overseen and guided by a dedicated Sustainability Division. The division was incorporated with the purpose of progressively integrating the principles of sustainability into the strategic objectives of the Company.

Since its establishment, the division has introduced various processes to enable the effective implementation of sustainability initiatives across the Company and is responsible for the measurement and verification of our sustainability performance.

The division is responsible for following through with the TCFD and strategies to address climate-related risk, although currently the Company has not yet established a TCFD Steering Committee or a Board Committee that oversees climate change governance.

Reporting Structure of Sustainability Division

SUSTAINABILITY DIVISION ▶ CSR & SUSTAINABILITY DEPARTMENT ▶ CORPORATE SERVICES ▶ GROUP EXECUTIVE COMMITTEE ▶ SARAWAK ENERGY BOARD

ADOPTING INTERNATIONAL SUSTAINABILITY ASSSESSMENT TOOL – HYDROPOWER SUSTAINABILITY ASSESSMENT PROTOCOL (HSAP)

We began adopting the Hydropower Sustainability Assessment Protocol (HSAP) within our processes in stages in 2012 and we reinforced our approach in 2014 by establishing an internal HSAP governing structure.

The HSAP is a leading internationally recognised assessment framework used to holistically assess hydropower projects against social, environmental, technical and economic considerations.

The HSAP goes beyond being an assessment tool; it creates distinct values for the Company by:

- Addressing project risks
- Serving as a platform to access finance
- Meeting future bank requirements
- Enabling independent assessment and review
- Maintaining our licence to operate
- Benchmarking with international best practices
- Serving as a communication and engagement platform

Piloting our sustainability agenda.

Leveraging our adoption of the protocol and the internal HSAP governing structure, we holistically assess our hydropower projects with reference to these topics, thereby firmly integrating sustainability best practices into our hydropower development and operation processes.

Sarawak Energy's alignment with HSAP practices has provided the Company with a platform to enable it to strive towards attaining sustainable development within its hydropower projects. It continues to provide a valuable framework within which the Company is able to fulfil its sustainability agenda.

102-18

CLIMATE ACTION AT THE FOREFRONT

Looking ahead, the Sustainability Division will persist in spearheading the integration of sustainability practices within Sarawak Energy's hydropower projects, with special focus on the following objectives:

Benchmarking our internal practices/ processes against global best practices and processes	Enhancing the adoption of HSAP practices at the project and corporate levels	Enhancing the technical capabilities of Sarawak Energy's Internal Assessment Team
Developing the HSAP proficiencies	Identifying areas for future improvement	Sustaining our efforts to embed sustainability practices
		Preparing projects for official assessment

ROLES & RESPONSIBILITIES

HSAP Sponsor Head of Corporate Services	HSAP Focal Point of Contact Head of Sustainability	Lead Assessors (Various Departments)	Internal Assessors (Various Departments)
Authorise responsibility for the internal assessment programme	Manage the internal assessment exercise	Act as a reference point for other internal assessors	Conduct assessments
Act as a sponsor for proposals related to the internal assessment programme and embedding process	Manage, monitor and review the assessment and improvement programme	Oversee the process of evidence collection and evaluate data to determine the extent of conformity	Ensure independent reviews of documents and processes to determine the extent of conformity with HSAP
Provide support in getting necessary resources for the internal assessment programme	Improve the competency of the internal IHA assessment team	Lead the closing meeting of the assessment and preparation of the assessment reports	Prepare assessment reports
Provide a measurement of effectiveness of the management system to top management	Keep appropriate assessment records to monitor and review the assessment programme		
	Define audit objectives, scopes, criteria		

102-15, 103-2, 103-3

CLIMATE ACTION AT THE FOREFRONT

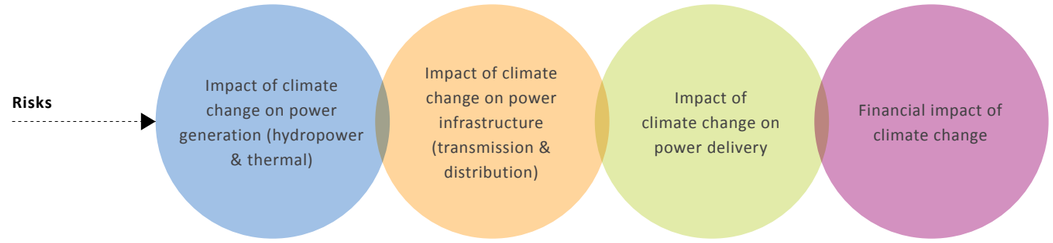
Climate Action as an Integral Part of Sarawak Energy

With increasing investor interest in sustainable and responsible investment, there is growing pressure from financial institutions to better understand our climate change risk management. Physical impacts due to extreme climate events are expected to increase in the future, driving regulatory changes and stakeholder expectations towards a low-carbon economy.

In 2020, we continued to embark on climate-related financial disclosures by adopting recommendations from TCFD to strengthen our climate-related risk data management. This included improving our risk measurement and evaluation, as well as identifying opportunities to better adapt to climate change.

We became the first company in Malaysia to sign the UNGC's 'Business Ambition for 1.5°Celsius' pledge. Through this pledge, we are committed to setting a science-based emissions reduction target across relevant scopes, in line with the Paris Agreement to limit global temperature increase to 1.5°C above pre-industrial levels by 2030.

Based on our evaluation, climate change could impact our power generation, power infrastructure, power delivery and financial resilience. The following infographic illustrates the high-level strategic risks and opportunities that could arise from climate change:



Opportunities

1. Clear approach and planning towards GHG reduction, mitigation and adaptation
2. Fostering the adoption of low-carbon technology (technical & policy)
3. Increasing the adoption of disruptive technologies
4. Improving the resilience of electricity infrastructure
5. Increasing the integration of other renewable energy sources with hydropower
6. Increasing other green generation
7. GHG mitigation and adaption beyond the power sector

Table 1: *High-Level Strategic Risks and Opportunities Arising from Climate Change*

STRATEGY

Climate Action Strategy

Having a well-planned climate action strategy is pivotal in minimising risks in our transition to renewable energy to achieve a low-carbon economy. We strive to address the risks associated with the physical impacts of climate change, including rising temperatures, changes in weather patterns and increasing frequency and severity of extreme weather events. We have also identified the opportunities in adaptation to climate change issues over the long term. To this end, we have formed a comprehensive five-pronged strategy that addresses the key areas of our business operations, as shown in the table below. We aim to minimise greenhouse gas (GHG) emissions while accelerating economic development in Sarawak.

Strategy				
Developing a holistic approach and plan towards GHG mitigation and adaption for the power sector in Sarawak	Exploring other renewable energy sources	Developing an integrated approach in improving resilience of power generation to climate change	Assessment and planning on disruptive technology in enhancing the adoption of low-carbon technology	Supporting climate action beyond the power sector that is aligned with energy sector directions
Key Areas				
GHG mitigation and adaptation for the power sector in Sarawak				
Integration of other renewable energy sources (renewable and variable renewable energy)				
Small- and large-scale green hydrogen production				
Innovative energy extraction for future energy resources (renewable and alternative energy)				
State-wide flood modelling – adaptation to climate change				
River Basin Management – Adaptation to climate change for hydropower & water resources				
Greenhouse gas (GHG) emissions' measurement from large-scale hydropower reservoirs				
Improving the accuracy and method of GHG emissions' estimation				
Integration of disruptive technology				
Guidelines and policies on interconnection within the distributed resources into the local system				
Establishing energy efficiency and energy management				
Enhancing the energy sector's role in the adoption of low-carbon/smart/green city framework & circular economy				
Conservation and protection of catchment/operation areas via integrated catchment management and carbon sequestration				

Table 2: *High-Level Strategy for Climate Action – GHG Mitigation & Adaptation for the Power Sector in Sarawak*

Upstream view of Bakun catchment area.

RISK MANAGEMENT

Climate Scenario Analysis

To further understand the physical impacts of climate risks on our business growth, we conducted a climate scenario analysis for Sarawak based on the World Bank's Climate Change Knowledge Portal in 2019. We analysed four climate scenarios that covered average daily temperatures and precipitation levels in four probable conditions (low, medium-low, medium-high and high) and four time periods (short, medium-short, medium-long and long).

We discovered that between now and 2030, Sarawak's average annual air temperature may increase, and the state will most likely have a higher amount of rainfall. Maximum sea levels are also expected to rise while dry spells are projected to occur between 2045 and 2055[1].

Parameter	Observed (1970 - 2000)	Projected for 2030	Projected for 2050
Average Annual Temperature	24.8 - 26.2^{0}C	25.6 - 26.8^{0}C (0.6 to 0.8^{0}C increase)	26.4 - 27.5^{0}C (1.3 to 1.6^{0}C increase)
Average Annual Rainfall	3,551 - 3,907 mm	3,597 - 4,144 mm (1 to 6% increase)	3,574 - 4,124 mm (1 to 5% increase)

Parameter	Observed Rate (1993 - 2010)	Projected for 2030	Projected for 2050
Sea Level Rise	3.82 - 5.11 mm/year	0.04 - 0.12 m	0.15 - 0.22 m

Table 3: *Observed and Projected Climate Change and Sea Level Rise in Sarawak*

Note:
[1] *Source: Malaysia Third National Communication and Second Biennial Update Report to the UNFCCC.*

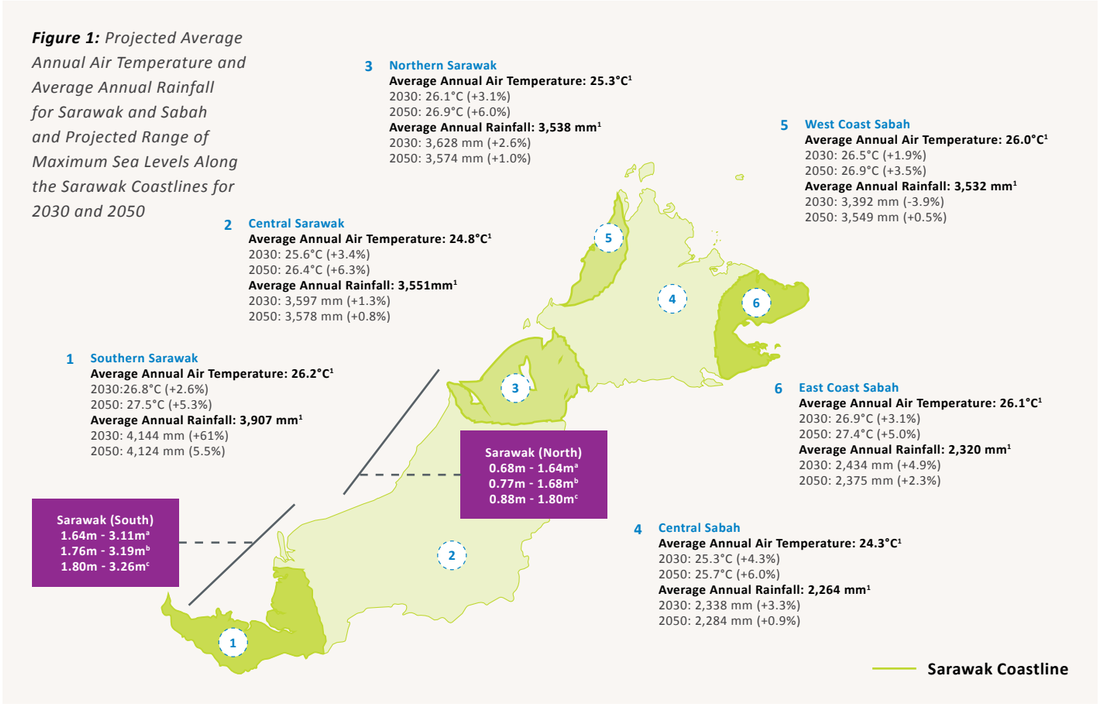


Figure 1: *Projected Average Annual Air Temperature and Average Annual Rainfall for Sarawak and Sabah and Projected Range of Maximum Sea Levels Along the Sarawak Coastlines for 2030 and 2050*

Notes:
[1] *Historical data (average annual air temperature & average annual rainfall: year 1970 - 2000).*
[a] *Current (year 2016) sea level;* [b] *year 2030 sea level;* [c] *year 2050 sea level.*
Source: Malaysia's Third National Communication and Second Biennial Update Report to the UNFCCC.

Period		1986 - 2005	2020 - 2039				2040 - 2059				2060 - 2079				2080 - 2099			
Scenario		Historical	RCP 2.6	RCP 4.5	RCP 6.0	RCP 8.5	RCP 2.6	RCP 4.5	RCP 6.0	RCP 8.5	RCP 2.6	RCP 4.5	RCP 6.0	RCP 8.5	RCP 2.6	RCP 4.5	RCP 6.0	RCP 8.5
Average Daily [°C]	Minimum	25.32	25.95	25.74	25.92	25.97	25.95	25.95	26.18	26.45	25.93	26.26	26.55	27.13	25.91	26.41	26.95	27.76
	Median	25.48	26.13	26.21	26.11	26.31	26.29	26.67	26.53	27.07	26.30	26.97	27.03	28.03	26.31	27.02	27.61	29.06
	Maximum	25.55	26.56	26.73	26.55	26.72	26.79	27.29	26.97	27.71	27.04	27.76	27.64	28.83	27.10	27.95	28.29	29.98
25-yr return level of 5-day precipitation [mm]	Minimum	148.20	150.48	153.03	146.99	150.05	152.26	154.22	148.20	154.83	151.69	158.43	153.30	151.30	151.04	156.61	148.68	148.38
	Median	253.01	262.23	267.59	281.87	251.53	284.11	249.02	295.46	243.69	267.03	260.07	311.60	255.15	256.58	272.11	320.49	279.99
	Maximum	574.62	561.20	602.69	541.35	609.76	551.78	604.01	579.26	694.44	571.82	651.63	645.51	717.07	575.02	646.80	631.05	866.56
10-yr return level of 5-day precipitation [mm]	Minimum	131.25	133.21	135.39	130.10	132.76	134.78	136.49	131.13	137.07	134.28	140.11	135.64	133.97	133.68	138.57	131.66	131.25
	Median	206.36	213.87	218.08	233.44	207.95	232.34	213.76	249.21	207.32	217.53	217.86	255.43	219.75	214.14	224.84	263.53	236.51
	Maximum	429.32	445.07	447.07	433.59	456.49	437.62	477.14	455.40	533.55	456.44	514.06	496.09	542.53	451.60	507.33	488.84	644.32

Table 4: *Sarawak Climate Scenario Based on World Bank Climate Change Knowledge Portal (WBCCKP)*

102-15, 103-2, 103-3
CLIMATE ACTION AT THE FOREFRONT

The climate scenario analysis has enabled us to identify transitional physical risks and opportunities related to the Company's assets and services in Generation, Transmission, Distribution and Retail over the short, medium and medium-to-long terms. The following table explains our risks and opportunities and the impacts on our business strategy and financial planning.

Transition – Risks & Opportunities			
Timescale	**Type of Risks**	**Strategy Response**	
		Risks & Opportunities	**Impacts on Business Strategy and Financial Planning**
Short to Medium Term (1 - 5 years)	Transition Risks	**Corporate** 1. Enhancing carbon inventory (Scope 1, 2, 3)[1] for better access to relevant data in managing climate-related risks for effectively measuring and evaluating the climate-related risks 2. Quantifying the climate change impact risks 3. Enhancing carbon emissions reporting, structure and governance of climate-related risks and climate-related financial disclosure 4. Renewable energy incentives 5. Access to new financing platforms 6. Regulatory and policy frameworks to drive climate-related initiatives 7. Stringent legal/market requirements on climate change (cost of carbon) 8. Cost to transition to low-carbon technology **Generation** Hydropower & Thermal Generation (Development & Operation) 9. Embedding climate change risks in hydropower development at design stage 10. Understanding and quantifying the risks of climate change 11. Clear & practical approach and planning towards mitigation of and adaptation to climate risks 12. Technology advancement – efficiency improvement **Other Renewable Energy Sources** 13. Integration of other renewable energy sources with hydropower generation 14. Aligning with global, national and state goals and targets in GHG emissions reduction **Transmission & Distribution** 15. Assessment of climate change risks in hydropower development at design stage 16. Climate change impacts on electricity infrastructure and delivery	1. Better assessment, reporting and governance of climate change risks 2. Detached from non-renewable generation sources 3. Integrated approach in improving the resilience of electricity assets and infrastructure to climate change risks (including upstream resources) 4. Holistic and consolidated approach to investment in energy efficiency improvement and adoption of low-carbon technology that is aligned with longer-term emissions reduction initiatives 5. Resilience of electricity delivery system via efficient, smart & flexible system infrastructure 6. Advancement in development of flexible system infrastructure as platform for integrating other new renewable energy capacity 7. Advocating best practices in managing climate risks - ahead of the regulatory frameworks 8. Meeting the growing expectations of stakeholders (e.g. shareholders, financial institutions, customers and general public)

Table 5: *Climate-Related Transition Risks & Opportunities and Impacts on Business Strategy and Financial Planning*

Note:
[1] *Guided by Task Force on Climate-related Financial Disclosures (TCFD) and Science Based Targets initiative (SBTi) standards & requirements.*

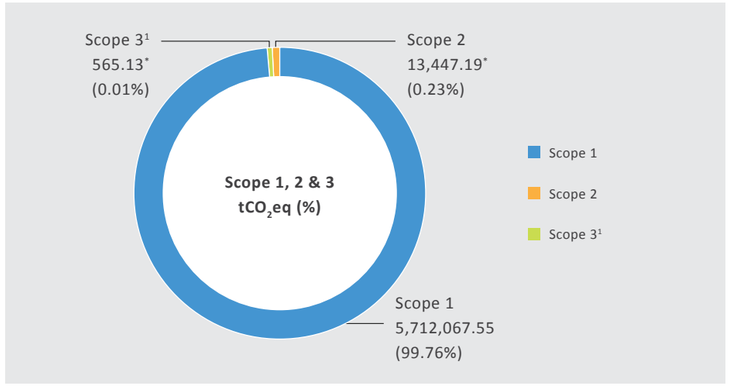
Physical – Risks & Opportunities			
Timescale	**Type of Risks**	**Strategy Response**	
		Risks & Opportunities	**Planning & Response**
Long Term (> 5 years)	Physical Risks	**Corporate** 1. Stringent legal/market requirements on climate change (cost of carbon) **Generation** 1. Extreme weather events impacting generation assets 2. Extreme weather events impacting hydropower generation 3. Rising sea levels impacting power assets and infrastructure 4. Rising of mean temperatures impacting plant efficiency & reliability **Transmission & Distribution** 1. Extreme weather events impacting electricity delivery, system reliability and efficiency 2. Rising mean temperatures impacting the power delivery efficiency **Customer Services** 1. Shift in consumer preferences	1. Improving the resilience of electricity assets, infrastructure and upstream resources 2. Increasing the resilience of electricity delivery system to climate change 3. Integrating other new renewable energy capacity 4. Detailed climate modelling studies to assess vulnerability of specific resilience-improvement plans 5. Enhancing demand side management to better understand changes in demand patterns 6. Establishing a clear linkage between financial planning and carbon intensity 9. Establishing of solid governance of climate change issues 10. Climate change as one of the core elements in corporate planning

Table 6: *Climate-Related Physical Risks & Opportunities and Strategic Response*

METRICS AND TARGETS

Carbon Inventory

We continually monitor our metrics and targets to effectively manage our carbon footprint and demonstrate our commitment to the Paris Agreement. Our main aim is to reduce our GHG emissions as we continue to focus on generating renewable energy from hydropower to reduce the state's carbon emissions.

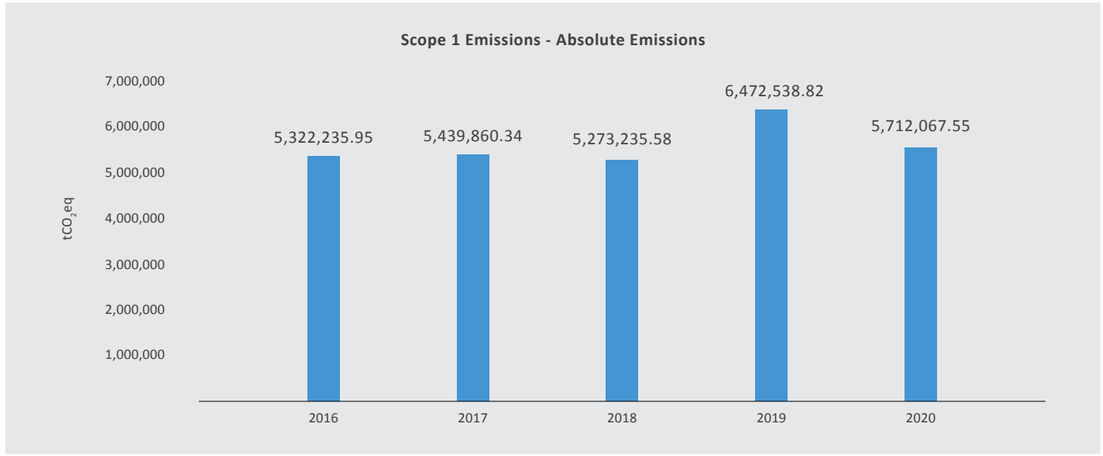


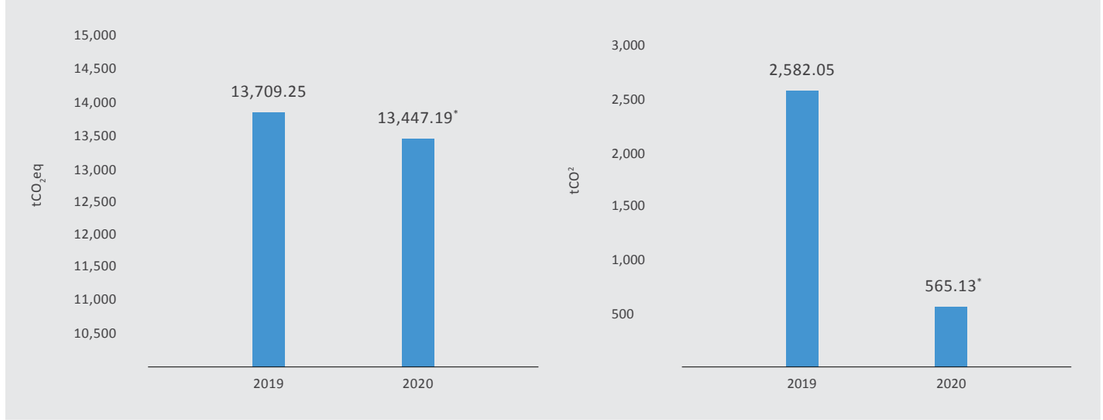
Notes:

1 Emissions in CO_2eq include Direct Scope 1 emissions from CO_2, CH_4 and N_2O.

† Scope 3 emissions – Business air travel is calculated using ICAO Carbon Emissions Calculator as on 13 April 2021.

** These Scope 1 (grid emissions – main, northern and stand-alone), Scope 2 (buildings and offices) and Scope 3 (business air travel) data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*





Note:

Emissions in CO_2eq include Direct Scope 1 emissions from CO_2, CH_4 and N_2O.

102-15, 103-2, 103-3, 301-1, 303-3, 305-1, 305-2, 305-3, 306-1, 306-3

CLIMATE ACTION AT THE FOREFRONT

Input:

Fuel Consumption	Unit	2019	2020
Coal Consumption	Tonne	3,064,825.62[1]	2,684,065.69*
Natural Gas Consumption	MMBtu	36,756,369.74[1]	33,066,287.95*
Diesel Consumption	Litre	53,544,416.55[1]	24,301,619.57*

Fuel Consumption Intensity	Unit	2019	2020
Coal Consumption Intensity	MJ/MWh	1,707.36	1,531.23
Natural Gas Consumption Intensity	MJ/MWh	1,317.98	1,228.44
Diesel Consumption Intensity	MJ/MWh	67.54	82.23
Total Fuel Consumption Intensity	MJ/MWh	3,092.88	2,841.90

Water Withdrawal Intensity by Source	Unit	2019	2020
Municipal Water Withdrawal Intensity	m^3/MWh	0.09	0.08
Seawater or Other Natural Water Source Withdrawal Intensity	m^3/MWh	33.04	23.87

Water Regulated Intensity for Hydropower	Unit	2019	2020
Water Volume Regulated by Hydropower Plants for Electricity Generation	m^3/MWh	2,271.48	2,275.56

Scheduled Waste Generation			
Type of Waste	**Unit**	**2019**	**2020**
Fly Ash	Tonne	80,394.56[1]	78,183.21*
Bottom Ash	Tonne	78,636.51[1]	194,414.13*
Others (Used Oil, Contaminated Items, E-Waste, Gas Condensate, Contaminated Soil and Chemicals)	Tonne	473.72[1]	320.27*
Total Scheduled Waste Generation	Tonne	159,504.78[1]	272,917.61*

102-15, 103-2, 103-3, 301-1, 303-3, 305-1, 305-2, 305-3, 305-4, 306-1, 306-3, EU2

CLIMATE ACTION AT THE FOREFRONT

Output:

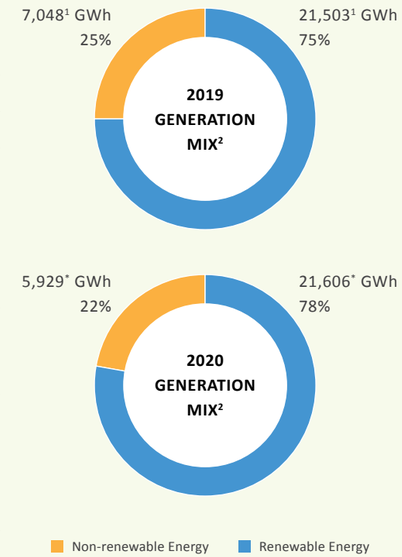
Scope 1 Emissions	Unit	2019	2020
Main Grid	tCO_2eq	6,348,254.39*	5,600,892.97*
Northern Grid	tCO_2eq	104,477.64*	97,829.99*
Stand-alone Grid	tCO_2eq	14,453.34	9,176.85*
Company-owned Vehicles	tCO_2eq	5,353.45	4,167.74
TOTAL	tCO_2eq	6,472,538.82	5,712,067.55*

Scope 2 Emissions	Unit	2019	2020
Buildings & Offices	tCO_2eq	13,709.25	13,447.19*

Scope 3 Emissions	Unit	2019	2020
Business Air Travel	tCO^2	2,582.05	565.13*

Scope 1 and Scope 2 Emissions Intensity	Unit	2019	2020
Scope 1 Emissions Intensity (normalised by gross energy)	tCO_2eq/MWh	0.220[3]	0.201
Scope 1 Emissions Intensity (normalised by net energy)	tCO_2eq/MWh	0.225[3]	0.206
Scope 2 Emissions Intensity (normalised by gross energy)	tCO_2eq/MWh	0.000466	0.000474
Scope 2 Emissions Intensity (normalised by net energy)	tCO_2eq/MWh	0.000477	0.000485

Scheduled Waste Generation Intensity			
Type of Waste	**Unit**	**2019**	**2020**
Fly Ash	Tonne/GWh	2.89	2.77
Bottom Ash	Tonne/GWh	2.82	6.90
Others (Used Oil, Contaminated Items, E-Waste, Gas Condensate, Contaminated Soil and Chemicals)	Tonne/GWh	0.02	0.01
Total Scheduled Waste Generation Intensity	Tonne/GWh	5.72[1]	9.69*



Notes:

1. *Scope 3 emissions (business air travel) are calculated using ICAO Carbon Emissions Calculator as on 13 April 2021.*
2. *Emissions in CO_2eq include Direct Scope 1 emissions from CO_2, CH_4 and N_2O.*

[1] *These fuel consumption, volume of waste generated, scheduled waste generation intensity and net energy generated data have been assured by a third party for Sustainability Report 2019.*

[2] *Net energy generation.*

[3] *This Scope 1 emissions intensity (normalised by gross and net energy) for year 2019 figure has been corrected from the Sarawak Energy Sustainability Report 2019.*

* *These fuel consumption, Scope 1 (grid emissions – main, northern and stand-alone), Scope 2 (buildings and offices), Scope 3 (business air travel), volume of waste generated, scheduled waste generation intensity and net energy generated data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

201-1

DRIVING SUSTAINABLE GROWTH

Operating Expenses Ratio
30%

Renewable Energy Generated
21,606* GWh

Economic Value Distributed
RM3,490 million

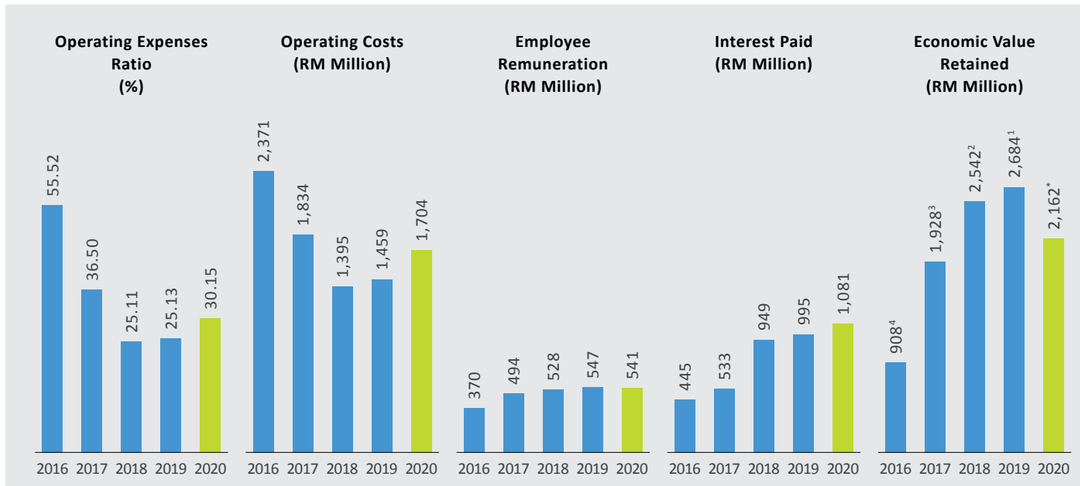
Note:
* *This net energy generated data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

● *Darul Hana Bridge at Kuching City Waterfront.*

Creating Sustainable Value for Sarawak

Sarawak Energy's ability to generate sustainable economic activity across its supply chain continues to create positive impacts for the State of Sarawak and its people.

● *View of Kuching City Waterfront with Sarawak State Legislative Assembly Building.*

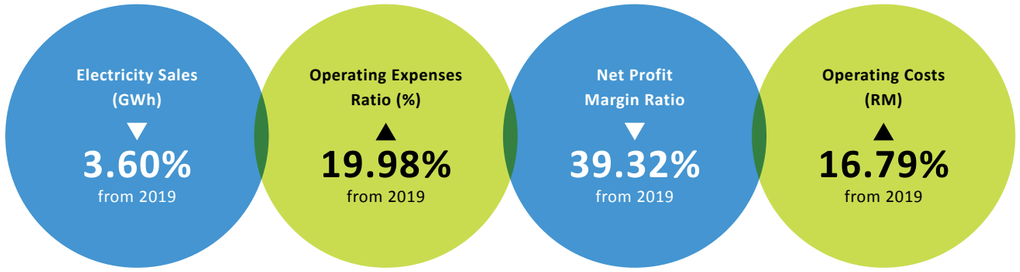


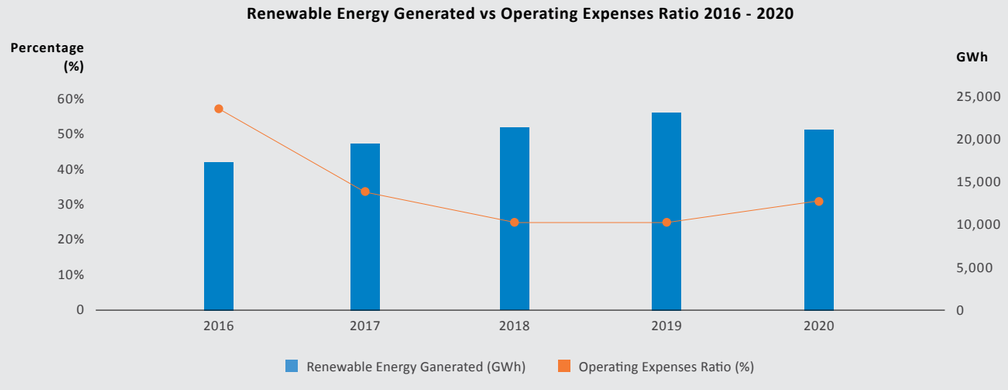
Notes:
[1] *This economic value retained data has been assured by a third party for Sustainability Report 2019.*
[2] *This economic value retained data has been assured by a third party for Sustainability Report 2018.*
[3] *This economic value retained data has been assured by a third party for Sustainability Report 2017.*
[4] *This economic value retained data has been assured by a third party for Sustainability Report 2016.*
* *This economic value retained data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

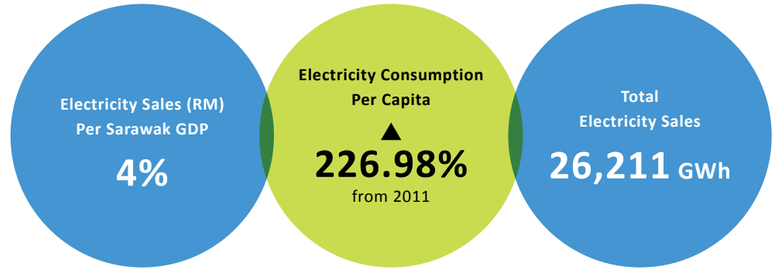
During the year, RM3.49 billion was distributed through operating costs, employee remuneration, interest paid and taxes. This resulted in RM2.16 billion in economic value retained compared to RM2.68 billion in 2019.

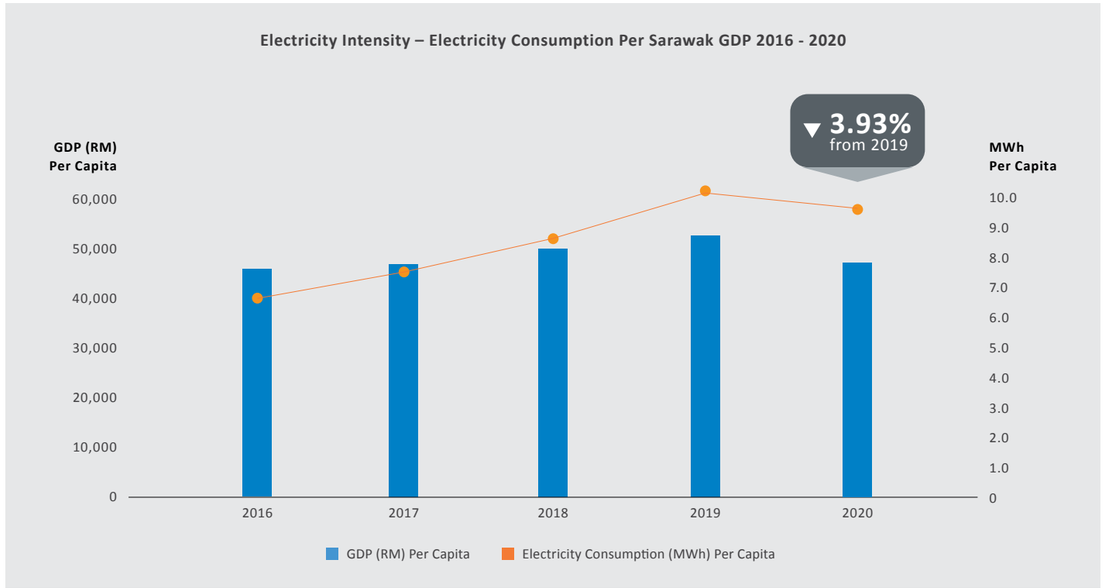
	2016	2017	2018	2019	2020
Economic Value Distributed (RM Million)					
Operating costs	2,370.70	1,834.20	1,394.50	1,459.20	1,704.20
Employee remuneration	369.90	494.40	527.80	547.00	541.30
Payment to capital providers					
Dividends paid	-	-	-	-	-
Interest paid	445.30	532.50	949.30	995.10	1,081.20
Payments to government					
Income taxes paid (net of refunds)	175.80	236.10	140.70	121.80	162.80
Economic value retained	908.20[4]	1,928.20[3]	2,542.30[2]	2,683.70[1]	2,162.20[*]

Notes:
[1] *This economic value retained data has been assured by a third party for Sustainability Report 2019.*
[2] *This economic value retained data has been assured by a third party for Sustainability Report 2018.*
[3] *This economic value retained data has been assured by a third party for Sustainability Report 2017.*
[4] *This economic value retained data has been assured by a third party for Sustainability Report 2016.*
[*] *This economic value retained data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*









Sarawak's GDP declined by 8.91% in 2020 according to the Department of Statistics Malaysia, compared to a 2.8% increase in 2019. This was largely due to the lockdowns imposed by the government to contain the spread of the COVID-19 virus which also led to lower electricity consumption overall. However, hydropower-driven renewable energy remains a key enabler of Sarawak's economic growth and charted an average growth of 30.66% per annum from 2011 to 2020.

SUPPORTING LOCAL BUSINESSES

In our commitment to achieving sustainable growth and prosperity for Sarawak, we are cognisant of the important role we play in boosting the growth of local businesses. Supporting local suppliers and companies can potentially attract additional investment into the local economy and improve our relationship with the local communities. By 'local', we refer to Sarawakian and non-Sarawakian Malaysian companies.

Local companies continued to win the largest percentage of the Company's total projects awarded in 2020 by garnering 89% of the projects, valued at RM1,264.64 million. Sarawakian companies continued to command the largest share of the Company's tenders, winning 81% of the overall total of RM1,421 million worth of projects. The Company's overall total value of projects decreased in 2020 as the bulk of main contracts were awarded in 2019.

2019 vs 2020

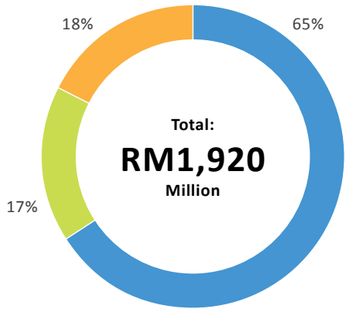
Status	2019	2020
Sarawakian	1,238,701,902.57[1]	1,151,800,210.86*
Malaysian (Non-Sarawakian)	328,819,029.00	112,843,633.26
International	352,144,759.00	156,363,049.30
Overall Total	**1,919,665,690.57**	**1,421,006,893.42**

Notes:

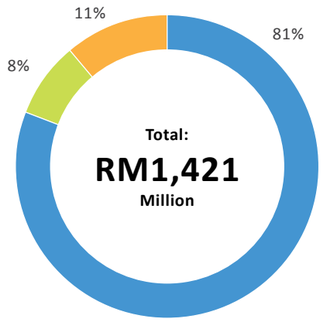
[1] This total value of tenders awarded to local Sarawakian companies' data has been assured by a third party for Sustainability Report 2019.

** This total value of tenders awarded to local Sarawakian companies' data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

Total Tenders Awarded by Category in 2019



Total Tenders Awarded by Category in 2020



The Impact of COVID-19 on Procurement

The disruptions caused by the COVID-19 pandemic affected Sarawak Energy's procurement process, as processes and procedures had to be adapted and adjusted to comply with SOPs and movement restrictions. Sarawak Energy was fortunate that we were able to mitigate most of the disruptions due to the timely implementation of the Sarawak Energy e-Procurement (SEPRO) platform in 2019 which ensured that the tender process was able to keep moving forward. Despite the tender process being executed virtually in most instances, the team was still able to ensure strict confidentiality while meeting the prescribed timelines, demonstrating our agility in adapting to the new norm and commitment to creating value despite facing unprecedented challenges.

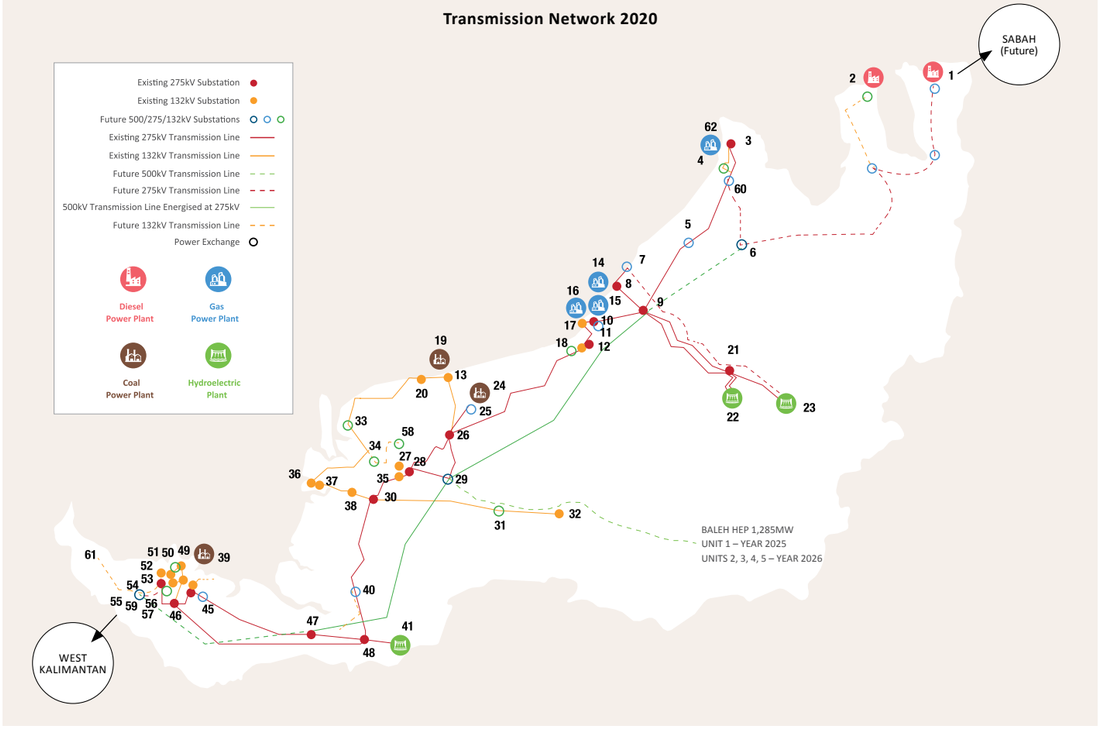
Kuching City.

MEETING SARAWAK'S ENERGY NEEDS DURING THE PANDEMIC

Overall energy demand from Sarawak Energy declined by 3.6% in 2020 to 26,211 GWh compared to 27,189 GWh in 2019, mainly due to a reduction in demand from our bulk, industrial and commercial customers as they were affected by the Movement Control Order (MCO) which was implemented in March 2020. As a result, existing bulk customers reduced their operations, while industrial customers who were looking to expand their activities had to delay their plans. The decline in demand from our business customers was, however, partly mitigated by the increase in demand from retail customers who had to stay home during the MCO. To navigate this, Sarawak Energy rationalised and reoptimised our generation despatch to manage the demand reduction. The Company committed to delivering a total of 3,918 MW to both organic and bulk customers during the year.

The Company's total electricity sales by customer category for the year was as follows:

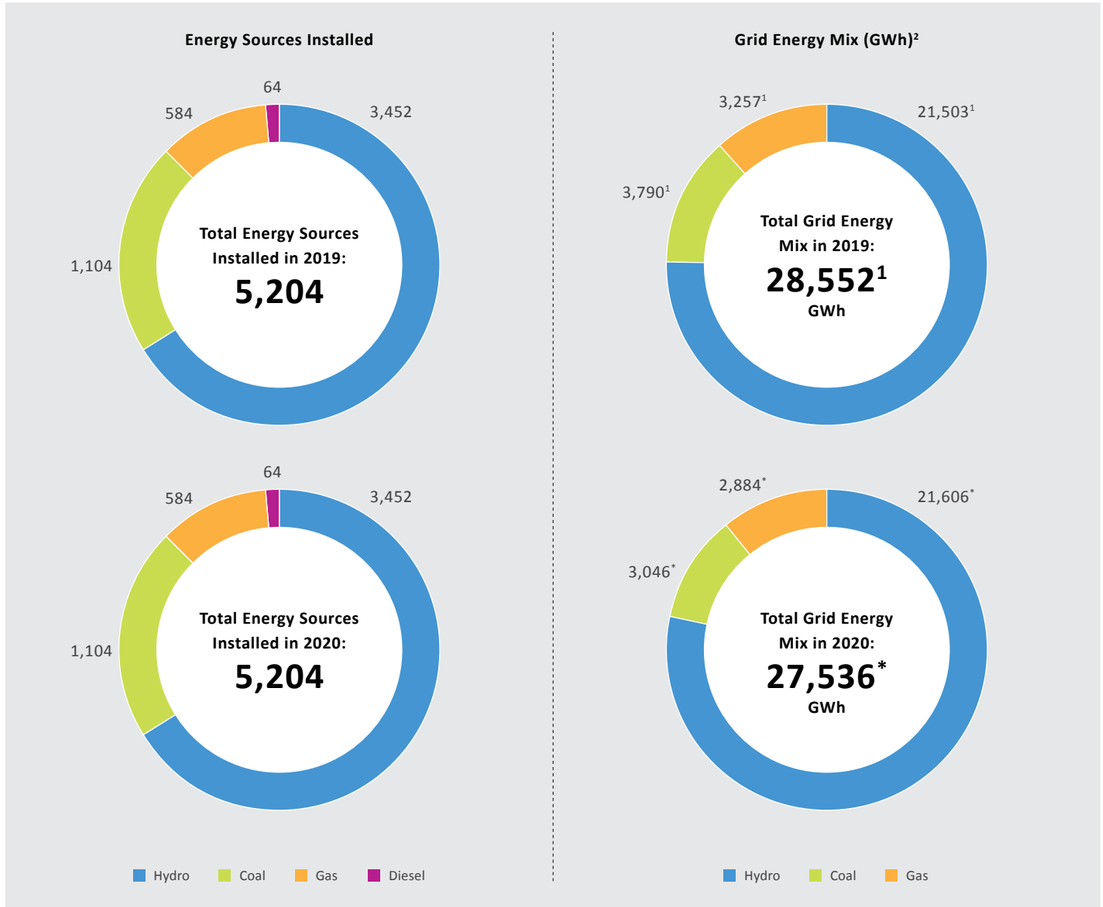
Electricity Sales (GWh) – by Customer Type	2016	2017	2018	2019	2020
Domestic	2,102	2,149	2,368	2,401	2,620
Commercial	2,512	2,575	2,857	2,767	2,584
Industrial	1,871	2,027	2,367	2,297	2,329
Public Lighting	77	88	110	104	109
Bulk Customers	14,065	16,836	18,123	19,620	18,569
Total Electricity Sales	**20,627**	**23,675**	**25,825**	**27,189**	**26,211**



1. Lawas 275/33kV S/S
2. Limbang Town 132/33kV S/S
3. Tudan 275/132/33kV S/S
4. Eastwood 132/33kV S/S
5. Niah 275/33kV S/S
6. Bunut 500/275/33kV S/S
7. Samalaju B 275/132/33kV S/S
8. Samalaju 275/132/33kV S/S
9. Similajau 500/275/33kV S/S
10. Bintulu 275/132kV S/S
11. Bintulu B 275/132kV S/S
12. Kemena 275/33kV S/S
13. Matadeng 132/33kV S/S
14. Bintulu Open Cycle P/S 165MW
15. Tanjung Kidurong CCGT P/S 842MW (Future)
16. Sarawak Power Generation P/S 317MW
17. Tanjung Kidurong 132/33/11kV S/S
18. Sibiyu 132/33/11kV S/S
19. Mukah Power Generation P/S 270MW
20. Petian 132/33kV S/S
21. Murum Junction 275/33kV S/S
22. Bakun HEP 2,400MW
23. Murum HEP 944MW
24. Balingian P/S 624MW
25. Balingian 275/33kV
26. Selangau 275/132/33kV S/S
27. Deshon 132/33kV S/S
28. Oya 275/132/33/11kV S/S
29. Mapai 500/275/33kV S/S
30. Kemantan 275/132/33/11kV S/S
31. Song 132/33/11kV S/S
32. Kapit 132/33/11kV S/S
33. Daro 132/33kV S/S
34. Sg Maaw 132/33kV S/S
35. Salim 132/33kV S/S
36. Tanjung Manis B 132/33/11kV S/S
37. Tanjung Manis 132/33/11kV S/S
38. Sarikei 132/33/11kV S/S
39. Sejingkat Power Corporation P/S 210MW
40. Serudit 275/132/33kV S/S
41. Batang Ai HEP 108MW
42. Muara Tabuan 132/33kV S/S
43. Samajaya 132/33kV S/S
44. Entinggan 275/132/33kV S/S
45. Entinggan 3rd 275/132/33kV TRX
46. Mambong 275/132/33kV S/S
47. Lachau 275/33kV S/S
48. Engkilili 275/33/11KV S/S
49. Sejingkat 132/33kV S/S
50. Astana 132/33kV S/S
51. Semariang 132kV S/S
52. Mendu 132/33kV S/S
53. Matang 275/132/33kV S/S
54. Transmitting 132/33kV S/S
55. Tondong 500/275kV S/S
56. Semenggo 132/33kV S/S
57. Stakan 132/33kV S/S
58. Sungai Merah 132/33kV S/S
59. MJC 132/33kV S/S
60. Marudi Junction 275/33kV S/S
61. Lundu 132/33kV S/S
62. Pujut Open Cycle 101.6MW

GRID CONNECTED POWER PLANT CAPACITY (MW) – BY ENERGY SOURCE

The Company's grid connected power plant capacity remained unchanged with total installed capacity at 5,204 MW in 2020. Firm capacity saw an increase to 4,227 MW compared to 4,083 MW in 2019.



Notes:

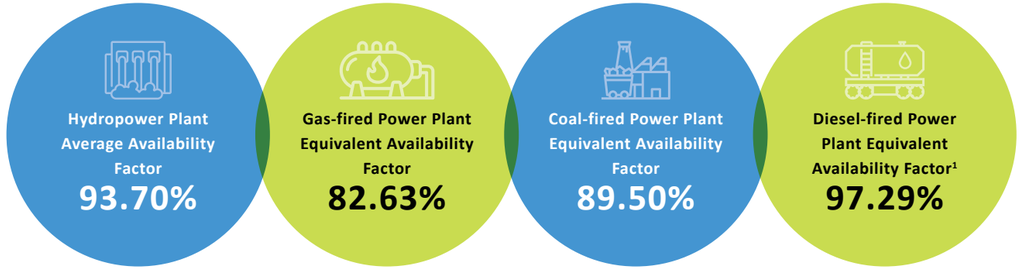
[1] *This net energy generated data has been assured by a third party for Sustainability Report 2019.*

[2] *Net energy generation.*

* *This net energy generated data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

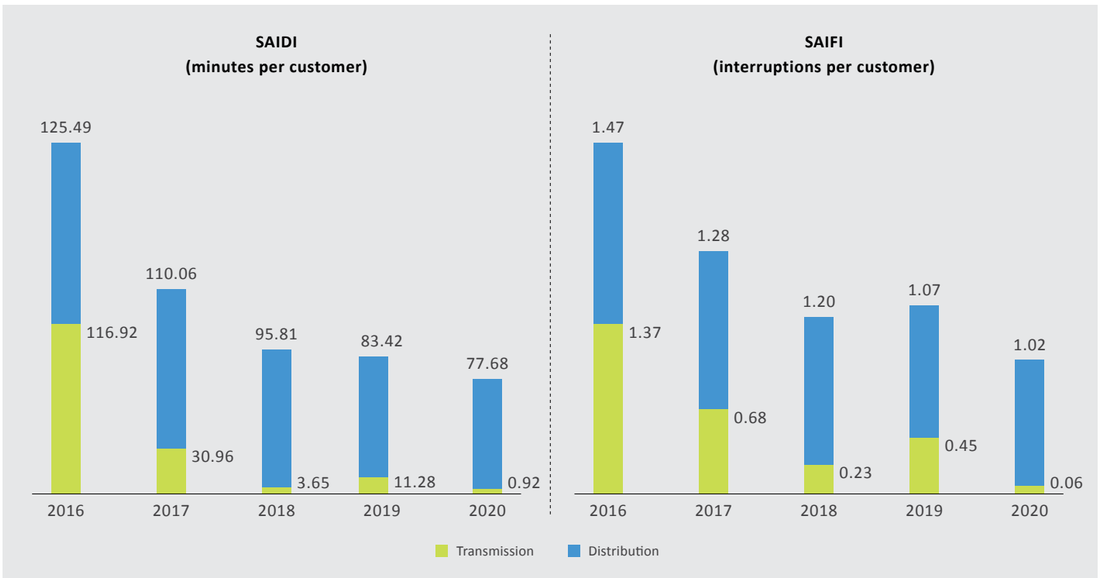
IMPROVING RELIABILITY AND RESILIENCE

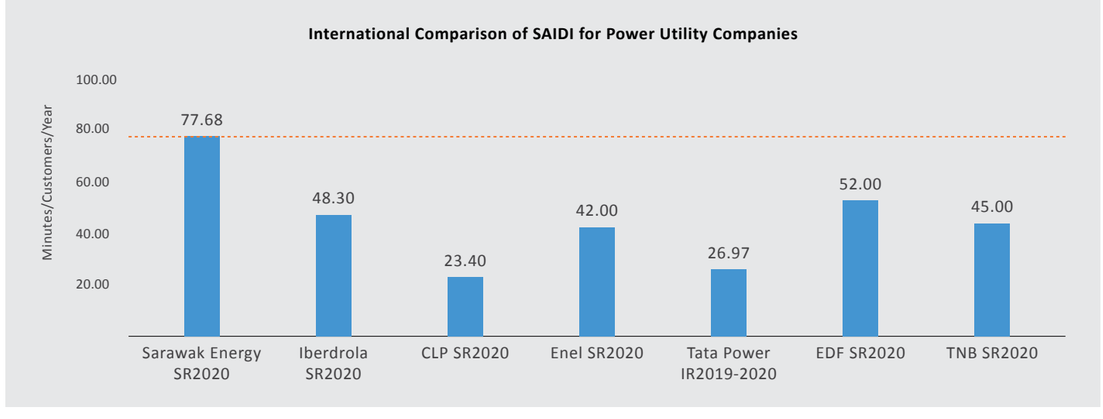
The Company remains a reliable supplier of energy, recording strong and consistent availability of power at the power plant, transmission and distribution stages. Sarawak Energy continues to provide excellent service to our customers and in tandem with this, we have seen consistently improving reliability metrics over the past few years.



Note:
[1] *Consists of Sg. Biawak, Limbang & Lawas Diesel-Fired Power Plants.*

To help speed up service restoration, we commissioned 10 motorised Ring Main Units (RMU) in March 2020 that can be controlled remotely to isolate faults rapidly. Five critical feeders were identified for this motorised RMU project in the Kuching area.





Note:
Published Annual, Sustainability & Integrated Reports 2020.

TRANSMISSION AND DISTRIBUTION LOSSES

Transmission and Distribution losses remained largely stable during the year as the Company continued to implement system efficiency improvement initiatives as well as enforcement activity to detect and prevent power theft. Some of our efficiency improvements included the use of energy-efficient amorphous transformers, reinstating capacitor banks, upgrading and replacing transmission lines and transformers and introducing new injection points.

In 2020, the task of enforcement became more challenging due to the new SOPs that had to be observed during the pandemic. Given that we had to minimise close contact with customers, we focused instead on:

Inspecting meters at gate poles and centralised meter cabinets	Conducting surveillance to detect illegal reconnection or direct tapping	Replacing meters for street lighting with automatic meter readers

Although non-technical losses declined from 4.41% in 2019 to 4.05% in 2020, a new trend that our enforcement team detected was the growth of cryptocurrency mining activities in Sarawak, where 25 mining operators were found to have tampered with their wiring systems, which led to losses for Sarawak Energy.

To further combat power thefts, we are:

- Collaborating with China Light Power (Hong Kong) to embark on a fraud analytics model to identify and detect potential tampering, as well as sharing knowledge with meter inspection teams across the region.
- Working together with other government agencies such as PDRM and the MACC to support our executive action operations to minimise non-technical losses.

Total Number of Transmission Tripping and Tripping Intensity at Transmission:

	Year	2016	2017	2018	2019	2020
Number of Transmission Tripping	Substation	56	21	22	29	15
	Transmission	20	56	58	69	53
	Total	76	77	80	98	68
Transmission Tripping Intensity (Tripping/km)		**0.044**	**0.035**	**0.036**	**0.041**	**0.014**

Transmission & Distribution Losses

Description	2016	2017	2018	2019	2020
Transmission Losses (%)	1.95	1.99	1.99	2.17	2.32
Distribution Losses (Technical) (%)	10.87	6.33	6.33	6.43	6.59
Distribution Losses (Non-Technical) (%)	1.03	3.80	4.47	4.41	4.05

The Company recorded a significant reduction in account disconnections to 11,312 in 2020 for the Kuching, Sibu, Sarikei, Bintulu, Miri, Limbang and Lawas areas, valued at RM35.57 million, from 19,253 accounts valued at RM90.09 million in 2019. A total of 9,135 out of the 11,312 disconnected accounts were reconnected following the receipt of RM18.94 million in payments, of which electricity was restored within 24 hours of receiving payment for 9,047 accounts.

Year	<24 Hours	24 Hours – 1 Week	>1 Week
2020	9,047	891	89
2019	14,841	397	24
2018	19,304	348	32
2017	15,721	2,679	1,170

Continuously delivering reliable energy to our customers.

Year	Total Accounts Disconnected	Total Amount Disconnected (RM)	Total Accounts Reconnected	Total Amount Reconnected (RM)
2020	11,312	35,567,618.04	9,135	18,939,263.65
2019	19,253	90,094,268.16	15,309	55,427,122.74
2018	24,014	87,270,165.20	19,875	93,989,694.04
2017	28,586	75,414,881.61	19,576	60,091,606.54
2016	9,579	22,014,128.63	6,463	8,981,922.85

BUSINESS CONTINUITY MANAGEMENT

Since 2016, Sarawak Energy has established a Business Continuity Management (BCM) Framework to bolster organisational resilience and seek effective solutions to uphold the interests of key stakeholders, the Company's reputation and value-creating activities, as well as to collaborate with government agencies during crises or disasters. The framework is aligned with ISO 22301:2012, ISO22313:2012 and relevant Malaysian and international BCM standards and guidelines.

BCM Policy Statement

The Company's BCM policy statement highlights that the Company will maintain and ensure the continuity of its services to minimise the impact on its customers in the event of a service disruption.

To achieve this, the Company will:

i. Maintain a BCM Programme which ensures that Sarawak Energy has the ability to respond and recover appropriately in line with its vision and mission.

ii. Implement strategies for the resumption of business functions in line with recovery objectives.

iii. Ensure appropriate business continuity plans are in place and procedures are established to manage a disruptive incident and for Sarawak Energy to continue its business functions based on identified recovery priorities.

iv. Exercise and test Sarawak Energy's BCM Programme at defined intervals.

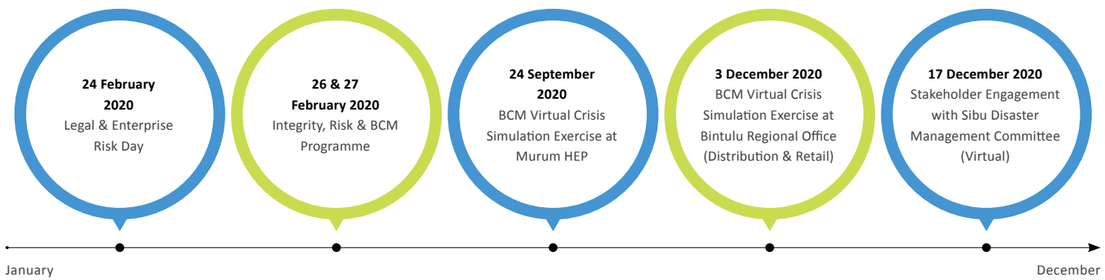
v. Monitor and review Sarawak Energy's BCM Programme at planned intervals to ensure its adequacy and effectiveness.

vi. Ensure BCM is embedded via effective communication and sustainable training activities.

vii. Remain aligned with relevant standards, best practices and policies in BCM to continuously improve the Programme.

Our Milestones in 2020

Despite the challenges presented by the pandemic, we continued to strengthen our preparedness to ensure our business activities would not be interrupted. Together with other departments in Sarawak Energy, we reviewed each business function's BCM documents and tailored them to respond to the pandemic situation. All activities, inclusive of Crisis Simulation Exercises, documentation review workshops and awareness and refresher training sessions were conducted in a fully virtual environment. Some of the major activities carried out in 2020 were as follows:

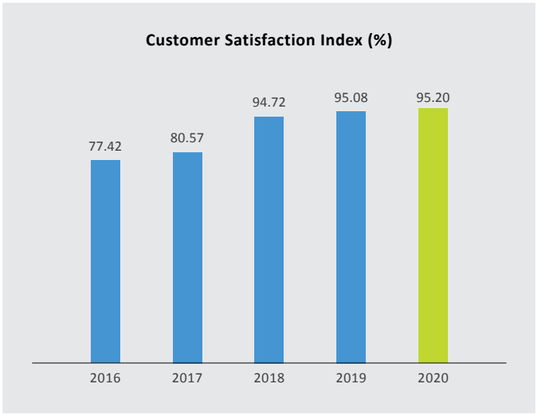


103-1, 103-2, 103-3

DRIVING SUSTAINABLE GROWTH

DRIVING SUSTAINABLE GROWTH

RESILIENT CUSTOMER SERVICE



The COVID-19 pandemic proved to be one of the most challenging times for our customer service teams as customer service counters were temporarily closed and meter reading and bill delivery services were suspended in compliance with the MCO. During this time, customers were encouraged to use the Sarawak Energy Cares web and mobile platforms for billing and meter reading, payments, enquiries and reporting of technical issues. Our Customer Care Centre (CCC), which was a critical component of our ability to service our customers, also remained open during this time.

As a result of our efforts, our Customer Satisfaction Index increased from 95.08% in 2019 to 95.20% in 2020.

Leveraging Digitalisation to Improve Customer Experience

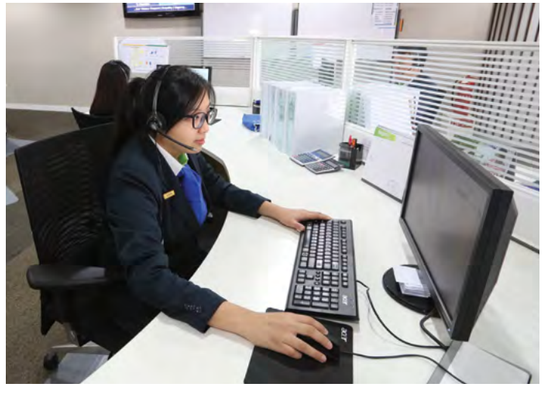
As part of Sarawak Energy's digitalisation journey, we developed the e-Customer Experience system for the online submission of electricity supply applications, which was partially launched and went live in June 2020. The e-Customer Experience (eCX) system aims to:

- Streamline, standardise, simplify and digitalise the manual application process.
- Improve transparency and create a contactless experience, ideal for the pandemic era.

In its current form, the eCX is utilised by electrical consultants and internal wiring contractors to submit bulk electricity supply applications, and we expect the full system, which can be used by retail customers, to be completed by the end of 2022.

Sarawak Energy also introduced other improvements such as:

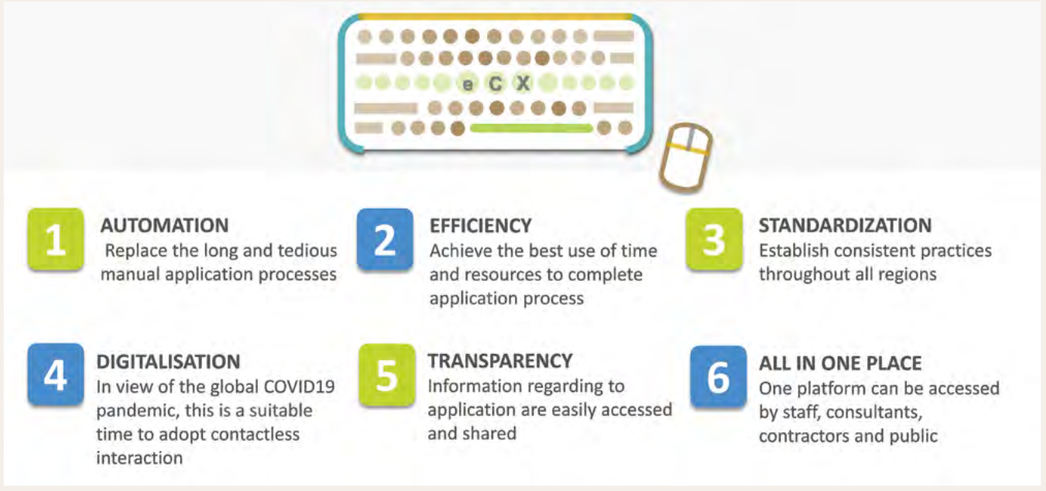
- The 'Carina' virtual customer service assistant, a chatbot that serves our customers on our corporate website and on the SEB Cares platform.
- A Go Paperless Campaign to promote the use of e-Bills and discontinue the use of paper bills. Participating customers can opt to join the campaign that began on 1 January 2021 and will end on 31 December 2021 through all our various customer service channels and will receive a RM2 rebate per month for a period of 12 months.
- With the implementation of the Salesforce CRM system, which consolidates customer data and case history from the Customer Care Centre, Technical Control Centre and counter staff, we can better track and manage customer records received through various channels including phone, email, SMS, mobile app and live chat services in a single, centralised database to ensure accurate and consistent feedback is given to customers.



Upholding service excellence culture.

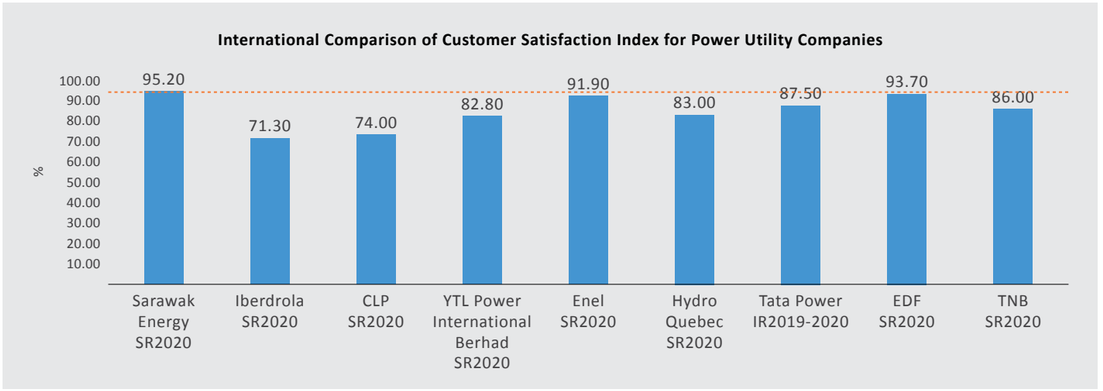
What is eCX?

Why eCX?



103-2, 103-3

DRIVING SUSTAINABLE GROWTH



Note:
Published Annual, Sustainability & Integrated Reports 2020.

In 2020, Sarawak Energy hosted a Dam Safety Emergency Plan (DSEP) drill at Batang Ai, Murum and Bakun HEPs. The annual event aims to ensure that station personnel are fully aware of the procedures and actions that need to be carried out during an emergency. The team was able to conduct physical drills while observing COVID-19 SOPs and tabletop exercises when mass gatherings were not permitted. In addition, we held Dam Safety Awareness meetings with government stakeholders in Bintulu and Sibu, and conducted a community engagement programme with the Nanga Pudai community (downstream of the Batang Ai HEP).

Asset Management Initiatives

Mobile Field Force Automation (MFFA)

The MFFA, which tracks and monitors the response time of technical field crews, was first introduced in 2016 and now covers Sarawak Energy's operational teams in Kuching, Sibu, Bintulu and Miri. In 2020, the focus shifted to auditing and performance monitoring and improvement. Moving forward, the plan is for the MFFA to also cover operational teams in Sri Aman, Sarikei, Mukah, Kapit, Limbang and Lawas.

Enterprise Management System

Sarawak Energy completed the roll-out of the Enterprise Asset Management (EAM) work order management and mobility system for transmission and distribution users in 2019. In 2020, we continued to enhance the EAM system while embarking on user engagement activities. Some recent updates related to the EAM include:

- As of December 2020, the EAM has recorded 55,845 work orders with 63.47% of these work orders being complete, which has demonstrated increased usage and proficiency by users.
- Customised reports have been developed to capture periodic maintenance progress, asset information, permit-related issues, and licence utilisation reports, which have led to cost savings of more than RM300,000.
- Moving forward, the EAM will be further promoted to ensure widespread usage for maintenance reporting and to make it the only point of reference for asset lifecycle documentation.

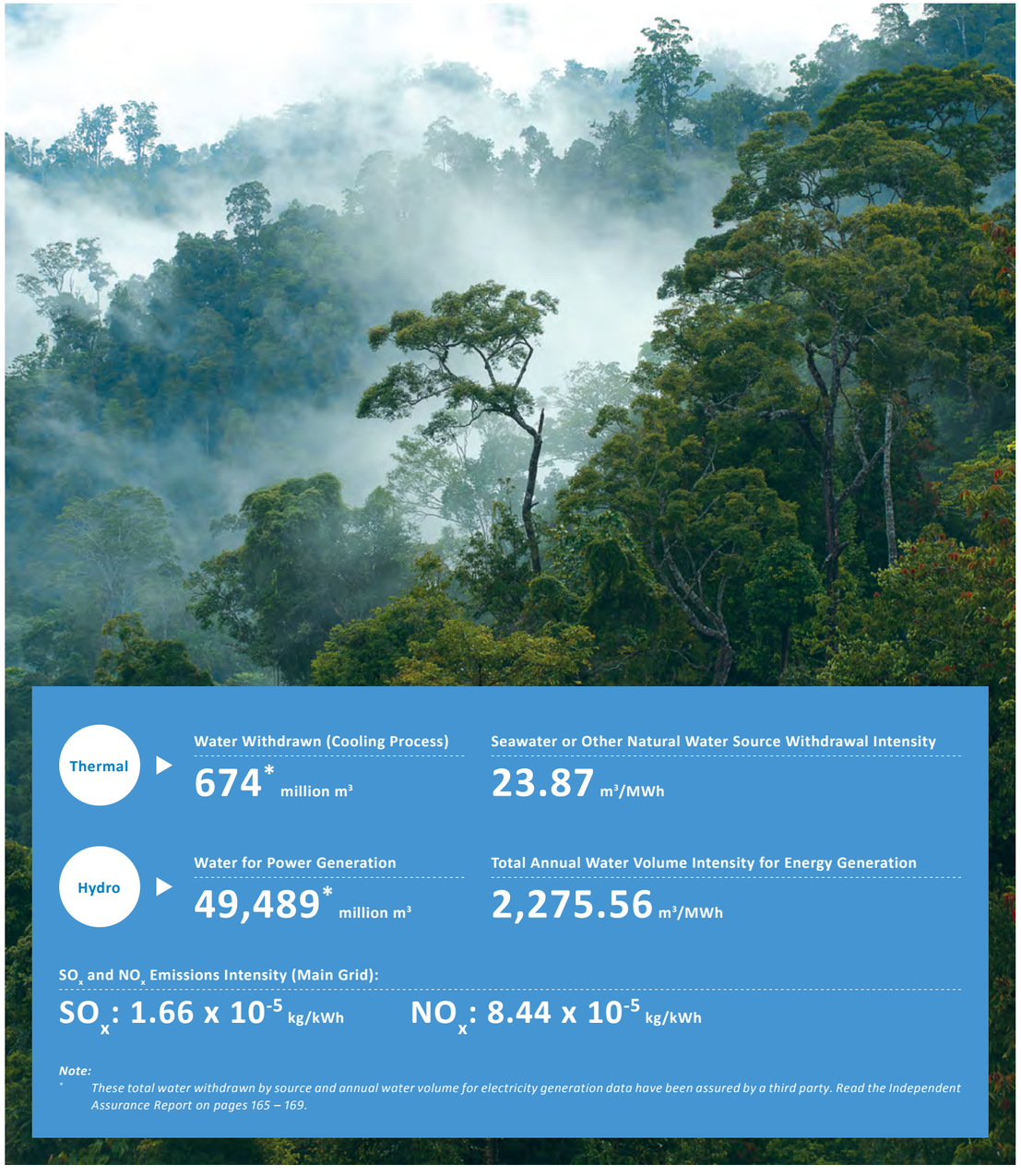
Geographical Information System (GIS)

Sarawak Energy continues to improve the management of its assets and has leveraged digitalisation to develop a GIS that helps us with mapping activities and network management. In 2020:

- We migrated the existing CAD-based data set to the GIS format to standardise and simplify the geospatial network data set which consists of the distribution of network assets and customer locations.
- This standardisation provides a uniform setup at all regional offices in managing the GIS data set for mapping activities and network management.
- By the end of Q4 2020, the GIS data set migration was completed at eight SESCO regional offices.
- Moving forward, we will continue to drive the GIS transformation journey throughout the Company to build a centralised GIS data repository which can also be displayed on the internet.

301-1, 303-3, 305-7

MANAGING OUR BUSINESS FOOTPRINT

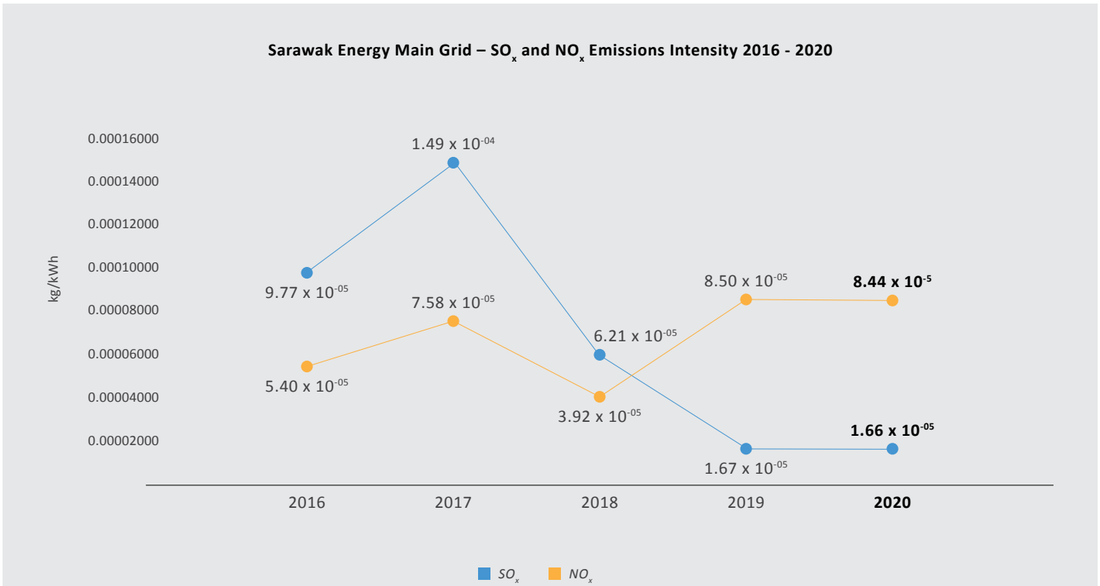


Note:
** These total water withdrawn by source and annual water volume for electricity generation data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

Conserving catchment areas for the sustainability of our HEPs' operations.

Sarawak Energy Main Grid – Total SO_x, NO_x Emissions

	Unit	2016	2017	2018	2019	2020
SO_x	Tonne	2,141.51	3,720.17	1,656.62	454.33	3,589.52
NO_x	Tonne	1,182.29	1,893.59	1,046.51	2,307.27	5,433.16



Notes:
- *For reporting purposes, CO_2 emissions are calculated based on the amount of fuel used. SO_x & NO_x emissions are calculated based on monthly Stack Emission Monitoring.*
- *Reports are conducted by third party consultants. In addition, these monthly stack emission reports will be used to verify the CEMS measurements.*
- *The Continuous Emission Monitoring System (CEMS) is only available at our SPC, PPLS, Bintulu, SPG and MPG power plants and the measurement results are directly connected to the Department of Environment.*

Waterfall in the Baleh National Park at Upper Baleh Catchment Area.

WATER MANAGEMENT

Water is a key resource across all our power plants. With our hydroelectric power plants, we need to ensure that there is a sustainable supply of water upstream. For our thermal power plants, water is a key component in the cooling processes. We are also cognisant of our impact on surrounding communities who depend on the natural water resources for their daily needs and are affected by our operations. We are committed to conserving our water resources for the sustainability of our operations and communities and have continued to engage with local authorities and communities to develop new ways of working together to protect this precious shared resource.

Water Withdrawal

The majority of the water withdrawn in our operations is from the sea and rivers and is used for the cooling processes in our thermal energy plants. The total water withdrawn in 2020 was 30% less than in 2019.

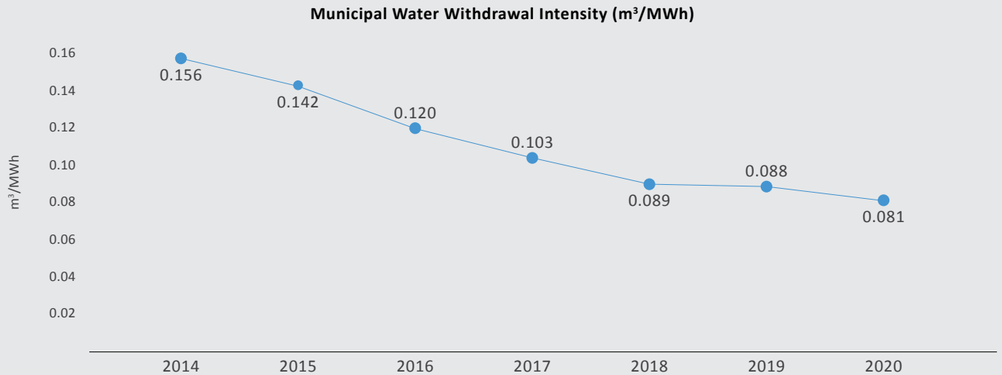
Total Water Withdrawal by Source

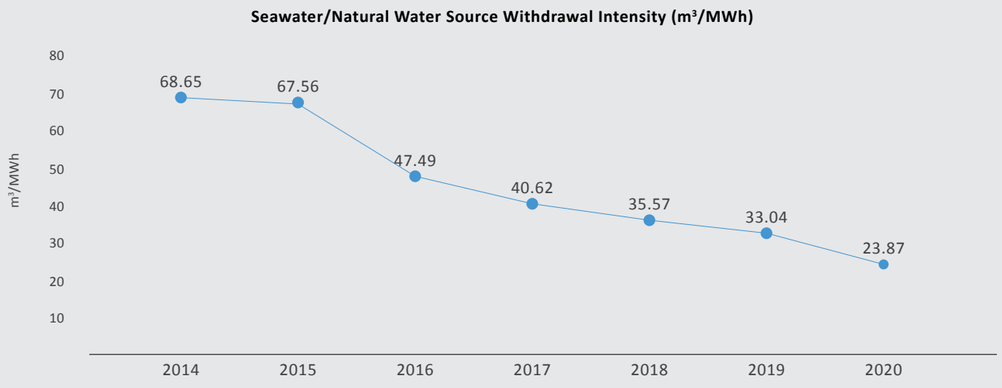
Plant Type	Source	Unit	2016	2017	2018	2019	2020
Coal	Municipal	m^3	2,525,529.00	2,457,930.00[3]	2,186,120.00[2]	2,204,029.00[1]	2,007,712.00*
	Seawater or other natural water source	m^3	812,784,320.00	820,813,896.00[3]	739,325,453.18[2]	724,178,991.74[1]	569,688,758.40*
Combined Cycle - Natural Gas	Municipal	m^3	132,442.00	157,777.00[3]	229,836.00[2]	353,319.00[1]	279,765.00*
	Seawater or other natural water source	m^3	249,789,230.68	212,876,380.80[3]	227,489,565.60[2]	241,935,030.72[1]	104,047,121.52*
Diesel	Municipal	m^3	22,402.14	21,192.00[3]	13,952.50[2]	6,896.13[1]	1,731.51*
	Seawater or other natural water source	m^3	2,143,090.00	1,171,360.00[3]	69,650.00[2]	-	-

Notes:
[1] *This total water withdrawn by source data has been assured by a third party for Sustainability Report 2019.*
[2] *This total water withdrawn by source data has been assured by a third party for Sustainability Report 2018.*
[3] *This total water withdrawn by source data has been assured by a third party for Sustainability Report 2017.*
* *This total water withdrawn by source data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

Water Withdrawal Intensity by Source (Thermal Plants)

Water Withdrawal Intensity by Source	Unit	2016	2017	2018	2019	2020
Municipal Water Withdrawal Intensity	m^3/MWh	0.120	0.103	0.089	0.088	0.081
Seawater or Other Natural Water Source Withdrawal Intensity	m^3/MWh	47.49	40.62	35.57	33.04	23.87





Integrated Watershed Management

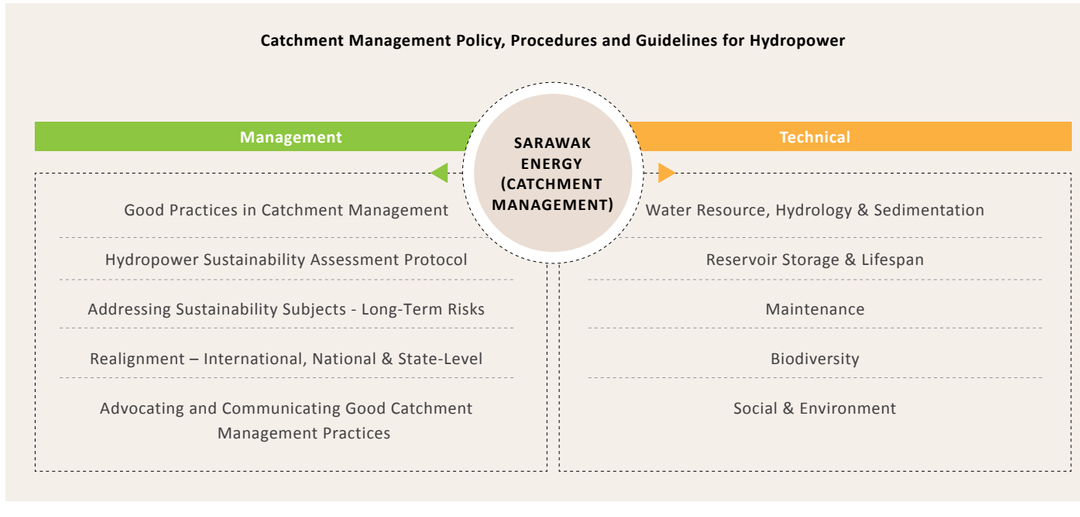
In 2019, we signed a memorandum of understanding (MOU) with the Forest Department Sarawak to collaborate on a three-year project to support biodiversity conservation as well as protect catchment areas and water resources.

The Baleh Watershed Wildlife Connectivity Project continues the important scientific work done during the Heart of Borneo (HoB) expedition in 2015, where 66,721 ha of the surveyed area was subsequently officially gazetted as Baleh National Park.

The Baleh Watershed Wildlife Connectivity Project invests in protecting the watershed area that has been identified as an important area for wildlife connectivity as it links the Hose Mountains in Sarawak to the Betung Kerihun National Park in Kalimantan, Indonesia.

Investing in the conservation of this area is also part of Sarawak Energy's long-term risk management to ensure that upstream water resources are protected for the sustainable operation of the Baleh HEP, which is currently under construction.

WHY SARAWAK ENERGY NEEDS TO BE INVOLVED

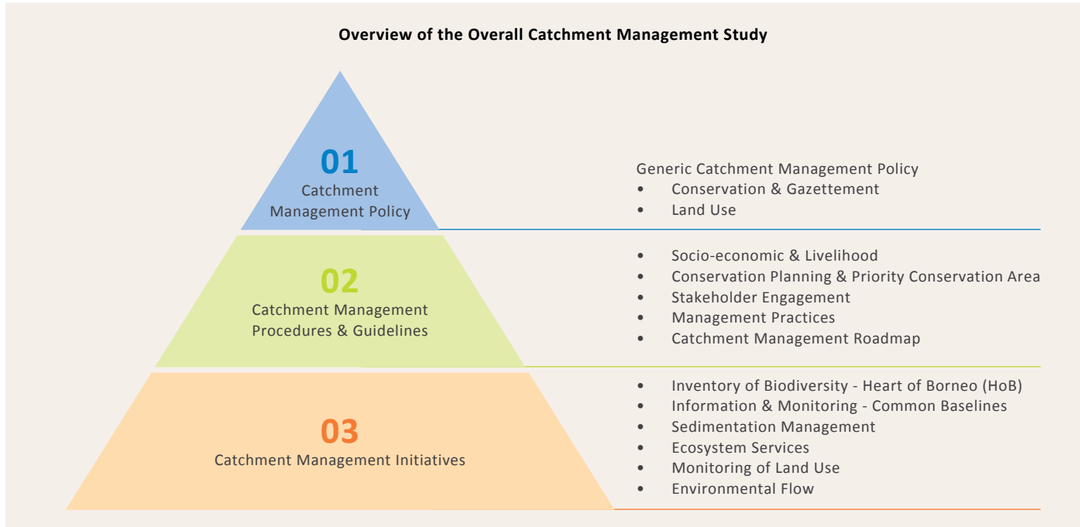


The proposed scope of work for the Catchment Management Study is divided into three main components:

1. Catchment Management Policy
2. Catchment Management Procedures & Guidelines
3. Catchment Management Initiatives

SAFEGUARDING UPSTREAM WATER RESOURCE SUPPLY

'Resilient Hydropower Resource'



Water Quality Monitoring

Sarawak Energy conducts quarterly water quality monitoring at the Batang Ai, Bakun and Murum HEP reservoirs as per NREB requirements. Dams can cause negative environmental impacts on the quality and flow of water which have a ripple effect on the ecosystem. As such, it is essential to monitor the water quality on a regular basis to ensure that any potential problems can be rectified.

Flood Warning System

In 2020, Sarawak Energy invested in the establishment of a new HAP Rapid Hydrometric Station at Bakun HEP as the existing station had been washed away. Hydrometric stations help to record important parameters such as water levels, river flow discharge, water quality and other meteorological data. The station was built and has been operational since 28 September 2020. In addition, three flood warning stations in Mejawab, Segaham and Lahanan were refurbished to integrate their systems with the new HAP Rapid Hydrometric Station. The flood warning stations will now automatically notify nearby communities if water levels reach danger levels so that early evacuation can take place in the event of a flood.

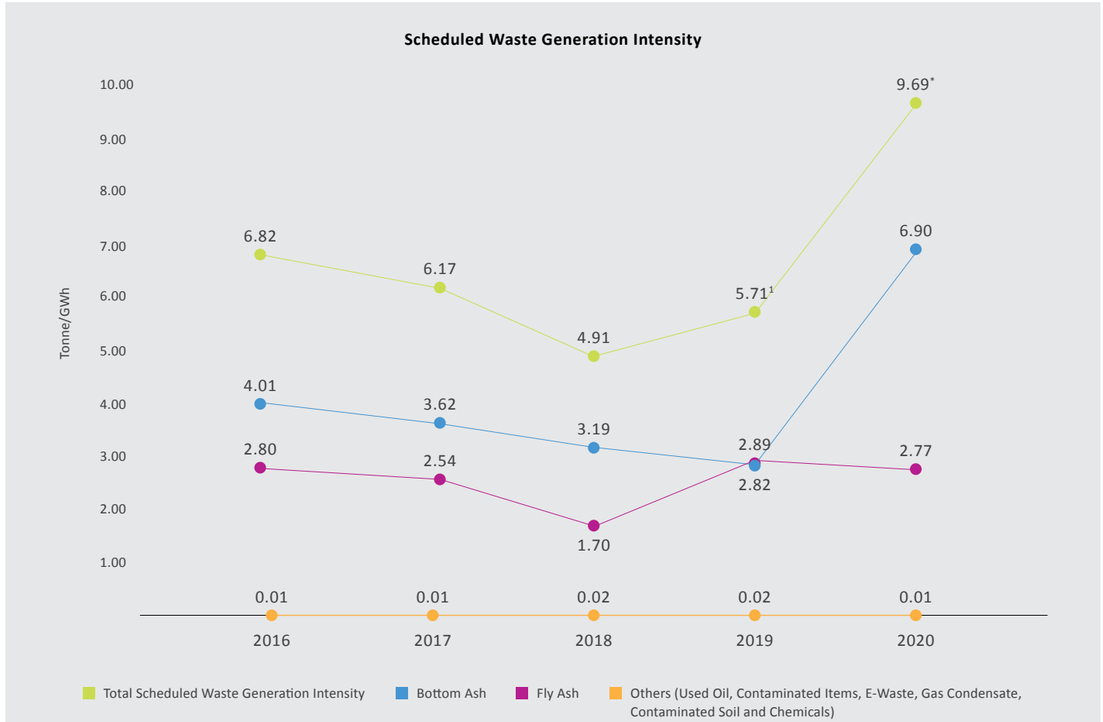
Annual Water Volume Intensity for Energy Generation

Hydro Plant	Data	Unit	2016	2017	2018	2019	2020
Batang Ai	Annual Inflow	million m^3	3,802.00	3,658.00	3,576.00	2,852.00	4,255.00
	Annual Water Volume for Energy Generation	million m^3	3,881.00	3,396.73[3]	3,646.50[2]	2,844.00[1]	3,974.38[*]
	Annual Energy Generated	GWh	445.00	442.32	481.00	391.00	518.00
Murum	Annual Inflow	million m^3	8,663.00	10,933.00	7,737.00	8,183.00	9,993.00
	Annual Water Volume for Energy Generation	million m^3	4,433.00	7,503.32	7,932.00	7,482.00	8,321.00
		million m^3 (including EPS)		7,567.19[3]	8,022.00[2]	7,532.00[1]	8,548.94[*]
	Annual Energy Generated	GWh	3,390.00	5,717.39	6,094.00	5,714.00	6,415.00
Bakun	Annual Inflow	million m^3		49,794.00	40,481.00	40,373.00	55,730.00
	Annual Water Volume for Energy Generation	million m^3		32,961.65[3]	36,148.11[2]	38,827.10[1]	36,965.72[*]
	Annual Energy Generated	GWh		13,078.27	14,482.00	15,544.00	14,803.00
Total Annual Water Volume for Energy Generation		million m^3	8,314.00	43,925.57[3]	47,816.61[2]	49,203.22[1]	49,489.05[*]
Total Annual Water Volume Intensity for Energy Generation (Hydro Main Grid Gross Energy)		m^3/MWh	513.65	2,266.64	2,273.42	2,271.48	2,275.56

Notes:
[1] *This annual water volume for electricity generation data has been assured by a third party for Sustainability Report 2019.*
[2] *This annual water volume for electricity generation data has been assured by a third party for Sustainability Report 2018.*
[3] *This annual water volume for electricity generation data has been assured by a third party for Sustainability Report 2017.*
[*] *This annual water volume for electricity generation data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

SCHEDULED WASTE MANAGEMENT

Scheduled waste management is vital to the operations of Sarawak Energy. We acknowledge that it is an offence under the Environmental Quality (Scheduled Wastes) Regulations 2005 for a waste generator to store scheduled waste for more than 180 days, or exceeding 20 tonnes, whichever comes first. To ensure regulatory compliance, we assist all our stations across Sarawak with scheduled waste management, especially in monthly inventory reporting and waste disposal. Sarawak Energy has appointed an external contractor to responsibly dispose of all our scheduled waste at our stations. The majority of scheduled waste continues to be bottom ash and fly ash from our coal plants.



Notes:
[1] *This scheduled waste generation intensity data has been assured by a third party for Sustainability Report 2019.*
[*] *This scheduled waste generation intensity data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

103-2, 103-3

MANAGING OUR BUSINESS FOOTPRINT

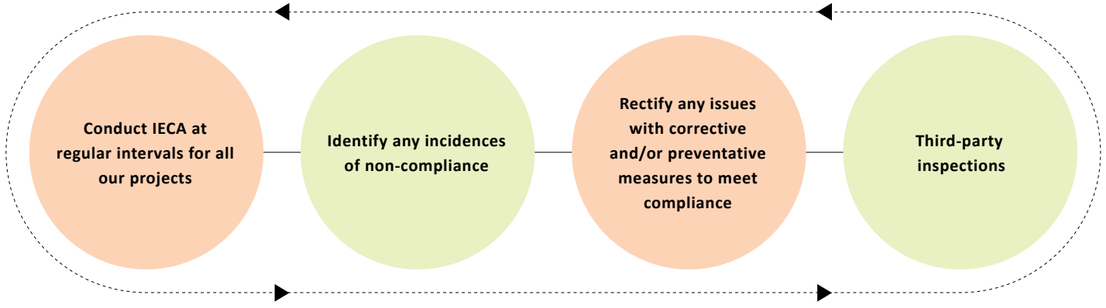
ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

In 2020, Sarawak Energy secured EIA/EMP approval for the following proposed projects:

No.	Project Title	Approval Authority	Approval Date
1.	EMP for the Proposed Bundwall-Haulage Road in Existing Energy Mineral (BEM) Coal Mining Operation at ML/1/12016/10D	Natural Resources and Environment Board (NREB)	15 October 2020
2.	EIA for the Proposed Batang Ai Floating Solar Farm Project	NREB	12 November 2020
3.	EIA Study for the Proposed Tondong – Lundu 132 kV Transmission Line Project	NREB	7 December 2020
4.	EMP for the Operation Stage of Bintulu Tanjung Kidurong Combined Cycle Power Plant, Bintulu Division, Sarawak	DOE	24 December 2020

Internal Environmental Compliance Audit (IECA)

To further our commitment to complying with EIA conditions and other environmental regulations, Sarawak Energy has initiated an Internal Environmental Compliance Audit (IECA) for all of its 13 major project developments with EIA / EMP approval. The IECA aims to strengthen our environmental management processes and systems through a self-regulatory process and achieve excellence in environmental management.



In 2020
all 13 projects
were found to be 100% compliant and recorded zero penalties or fines

Internal Environmental Compliance Audit (IECA) at Balingian Operator Village, July 2020.

103-2, 103-3

MANAGING OUR BUSINESS FOOTPRINT

Other key activities:

- In September 2020, we rolled out an Environmental Management Guideline for Construction Sites which provides guidance on legal and technical environmental management requirements.
- We conducted an Introduction to Hydropower Sustainability Assessment Protocol (HSAP) for Environmental Impact Assessment Consultants workshop for 20 EIA Consultants where we shared the importance of HSAP and Sarawak Energy's commitment to incorporating HSAP into future EIA or ESIA studies.
- In November 2020, we held an 'Erosion and Sediment Control (ESC)' talk during the Corporate Health, Safety, Security & Environmental (HSSE) Week for about 350 participants.

Contractor EIA Compliance Award (CECA) 2019

CECA was introduced in 2017 to encourage environmental compliance among our contractors who work on our projects. Since its inception, the awards have received an encouraging response and have motivated Sarawak Energy's contractors to show greater commitment towards environmental excellence.

In 2019, 15 contractors undertaking 11 thermal, hydro, transmission line and substation projects were assessed for CECA 2019 with 13 awards being presented this year. Compared to CECA 2018, we saw more contractors achieving a Bronze Award, which is a good improvement. Due to COVID-19 restrictions, we were not able to host an awards dinner and instead personally presented the award certficates to each contractor at their respective offices.

For more details on the winners, please see Sarawak Energy's website under the News and Updates section.

Mr Bhavin Rajnikant Doshi (left), Project Director from GE-Sinohydro Consortium, receiving certificate, plaque award and cheque from Mr. Lee Tiong Ho (centre).

BIODIVERSITY CONSERVATION

Sarawak is one of the most biodiverse areas in the world and we take great pride in our efforts to safeguard the important flora and fauna in our operational areas. We have two key projects that are ongoing and continue to invest in scientific research projects to better understand our impacts and contribute invaluable knowledge to the scientific community.

Murum Plant Conservation Garden Island

- Established a partnership with Sarawak Forestry Corporation in 2015 to maintain a conservation garden for various important plant species
- Plant survival rate assessment conducted in December 2020 found that 97% of the plants were growing well and reproducing
- 153 plants added in 2020

Types of plants	No. of plants as of Dec 2019	Targeted no. to plant in 2020	Actual no. planted in 2020	Current total
Gaharu (*Aquilaria spp.*)	263	20	23	286
Ensurai (*Dipterocarpus oblongifo-lius*)	70	50	55	125
Tongkat Ali	63	10	20	83
Orchids (*Orchidae*)	240	20	20	260
Ethno-botanical plants	124	10	10	134
Bamboo	188	20	25	213
TOTAL	**948**	**130**	**153**	**1,101**

One of the plant species found at Murum Plant Conservation Garden Island.

Community-based Sg. Lekasi Tagang System at Tegulang Murum Resettlement

- Local community self-manages the Tagang (controlled fishing) system
- Fish stock assessment conducted in November 2020 showed a good improvement in fish stock

Fish Stock Assessment 2020 Growth Rate Data

Species	Average Width (cm)		Average Length (cm)		Average Weight (gm)		Growth Rate (%) Based on 2019 Weight
	2019	2020	2019	2020	2019	2020	
Semah	20.25	29.00	25.25	35.60	334.00	440.00	31.70%
Kulong	15.25	21.60	18.63	28.30	76.00	162.30	113.00%
Adong	14.50	16.30	17.50	20.60	50.00	99.60	79.20%
Doeng	13.00	19.60	17.00	18.30	46.00	53.60	16.50%

Water quality analysis being conducted at Sg. Lekasi.

Fish caught and released by committee for stock assessment.

Recording of fish sample data.

Baleh HEP Wildlife Monitoring and Rescue (WiMoR) Plan Workshop

Held on 26 February 2020 to discuss the Catchment Management Plan, Biomass Removal Plan and WiMoR Plan.

Freshwater Fish Movement Study

- Pilot study with UNIMAS done in 2018.
- Fish Remote Monitoring Station (FRMS) successfully tested in R&D lab in March 2021.
- Once installed, the data will provide invaluable information on the movement of selected indigenous fish and habitat connectivity.

Biodiversity Surveys and Population Monitoring for the Baleh Water Skink and other Herpetofaunal Species

- Two-year collaborative research project with UNIMAS beginning in 2019
- Aims to understand the conservation requirements of herpetofauna of the Baleh HEP region, especially the:
  1) Newly described Baleh Water Skink (*Tropidophorus sebi*) – identified as top conservation priority since the species is only known to exist in one specific location, and
  2) Bornean Earless Monitor Lizard (*Lanthanotus borneensis*) – endemic to the island and listed as Totally Protected under the Wildlife Protection Ordinance, 1998.
- The study has provided vital knowledge about the biological requirements of the targeted herpetofaunal species and will prove invaluable in making future conservation decisions to ensure the survival of key species.

The Baleh Water Skink, Tropidophorus sebi, restricted to the Baleh region.

Environmental Flows in the Baleh River

- Three-year project with University of Nottingham Malaysia to understand downstream flow regimes in the Baleh River, before the 1,285 MW Baleh hydroelectric plant is built.
- Currently in the research and planning stage, the study will build our capacity to understand the ecological, physical and social interconnectivity of river flows and the delicate balance that is required to maintain a healthy river.
- Crucially, it will allow us to determine key aspects of the Baleh River's flow regime that are critical for the provision of 'good' aquatic habitats. The data will help us to schedule environmental flows into our operations in an effort to maintain aquatic habitats downstream.

Wild Orchids Book Publication

- Published a book titled 'Wild Orchids of Murum Dam, Sarawak' together with the Sarawak Forestry Corporation (SFC).
- The book provides illustrations of 110 species that were rescued from submerged areas in the Murum Dam area, including 30 species that are endemic to Borneo.

MANAGING OUR BUSINESS FOOTPRINT

ENVIRONMENTAL AWARENESS

Sarawak Energy Go Green Music Vibes Video Competition 2020

- Held In conjunction with Sarawak Energy Corporate HSSE Week 2020.
- Secondary students in Sarawak were asked to record a video of themselves performing a song using 'green' instruments made from recycled or used materials.

E-Waste Environmental Awareness Programme

- Held on 25 September 2020 together with the Bintulu District Education Office at SJK Sebiew Chinese Bintulu.
- An awareness programme for students on the responsible management and disposal of e-waste.
- Prizes given for winners of the E-Waste Logo Competition.

Prize-giving ceremony for E-Waste Environmental Awareness Programme at SJK Sebiew Chinese Bintulu.

'Think Before You Throw' Recycling Competition

- Held in collaboration with Pejabat Pendidikan Daerah (PPD) Lawas, at SK Long Tuma, Lawas, from 19 October to 13 November 2020.
- About 34 students and teachers participated in the recycling competition that encouraged them to find interesting ways to reuse plastic bottles.

Recycling of plastic bottles into decorative items.

102-7, 103-2, 103-3, 203-1, 203-2, 403-9, EU26

MANAGING OUR BUSINESS FOOTPRINT

AWARDS

9th Chief Minister's Environmental Awards (CMEA) 2019/2020

The theme for the 9th CMEA was 'Enhancing Environmental Stewardship'. The prestigious awards are jointly organised by NREB and Sarawak Business Foundation (SBF) to publicly recognise the organisations that demonstrate exceptional environmental performance and excellence.

Sarawak Energy was the overall winner while its subsidiaries also won Gold and Merit awards.

Champion
(for initiatives in environmental stewardship)
Mukah Power Generation Sdn Bhd (MPG)
Large Enterprises Category – Manufacturing sector

Gold
Murum Hydroelectric Plant
Large Enterprises Category – Manufacturing sector

Gold
Bakun Hydroelectric Plant
Large Enterprises Category – Manufacturing sector

Gold
Sejingkat Power Corporation
Large Enterprises Category – Manufacturing sector

Merit Award
Batang Ai Hydroelectric Plant

Merit Award
Tanjung Kidurong Combined Cycle Power Plant Project

SOCIAL INCLUSION

Total Training Hours	Total Electrification Coverage in 2020	Lost Time Injury Frequency Rate (Corporate)
52,308	98.2* %	0.362*
Total Number of Staff	**CSR Spending**	
5,381	RM23.09 million	

Note:
** These lost time injury frequency rate and Sarawak electrification coverage data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

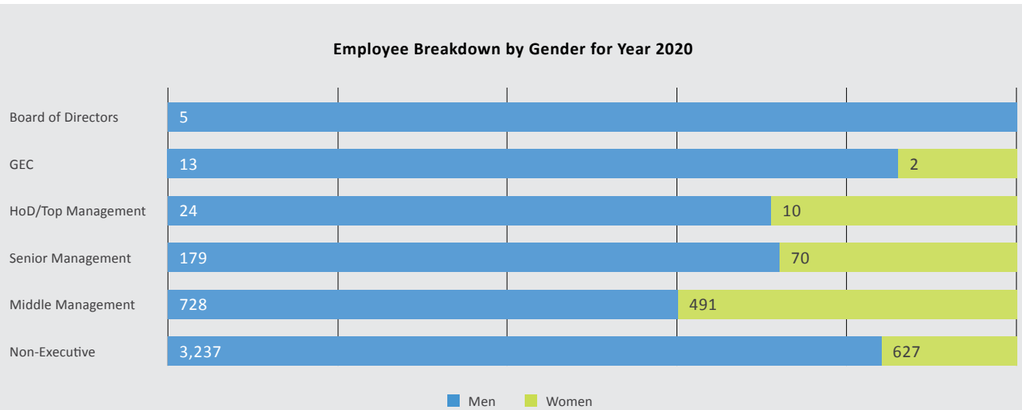
Leaving no one behind.

NURTURING OUR WORKFORCE

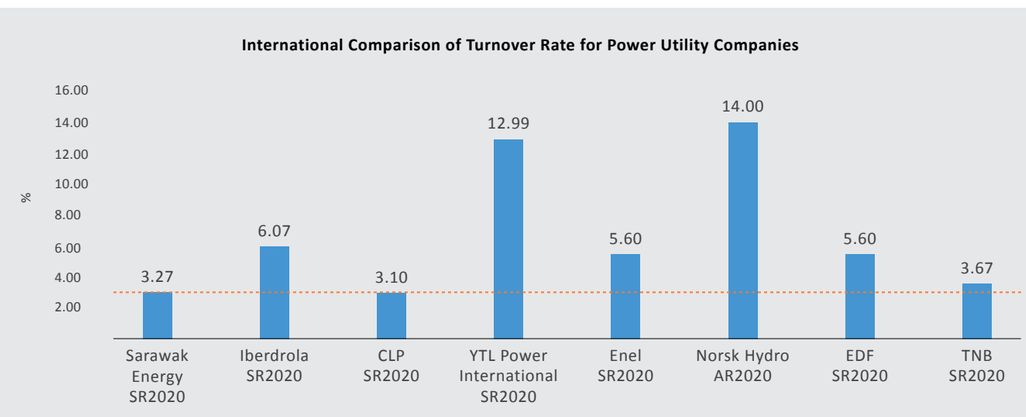
Sarawak Energy is committed to investing in people as we provide the power for the sustainable growth and prosperity of Sarawak. We continued to care for our employees' safety and wellbeing, lighting up the most remote areas in the state and reaching out to the marginalised even as we were faced with disruptions and challenges from the COVID-19 pandemic.

PROVIDING OPPORTUNITIES FOR ALL

Sarawak Energy continued to grow our staff strength in 2020 despite the pandemic. Employees in our diverse workforce increased from 5,207 in 2019 to 5,381 in 2020. The breakdown of our employees by gender and employment level is shown below:



The Company hired 350 new employees during the year, of whom 75 were women and 275 were men. The majority of these new hires were aged 30 years or younger and the total staff turnover for the year was 176. The detailed breakdown of new hires and staff turnover by gender and age can be found on pages 170 to 218 of the GRI Content Index.

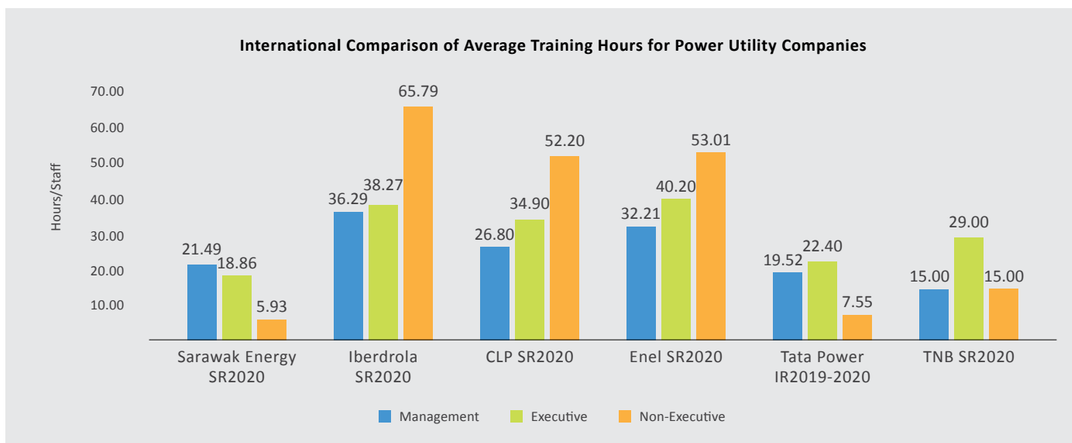


Note:
Published Annual, Sustainability & Integrated Reports 2020.

Training and Education

The total hours of training during the year reduced by about 42% due to disruptions from the COVID-19 pandemic. In 2020, we logged 52,308 hours compared to 90,065 hours in 2019. The total and average hours of training by employee category and gender are shown in the following table:

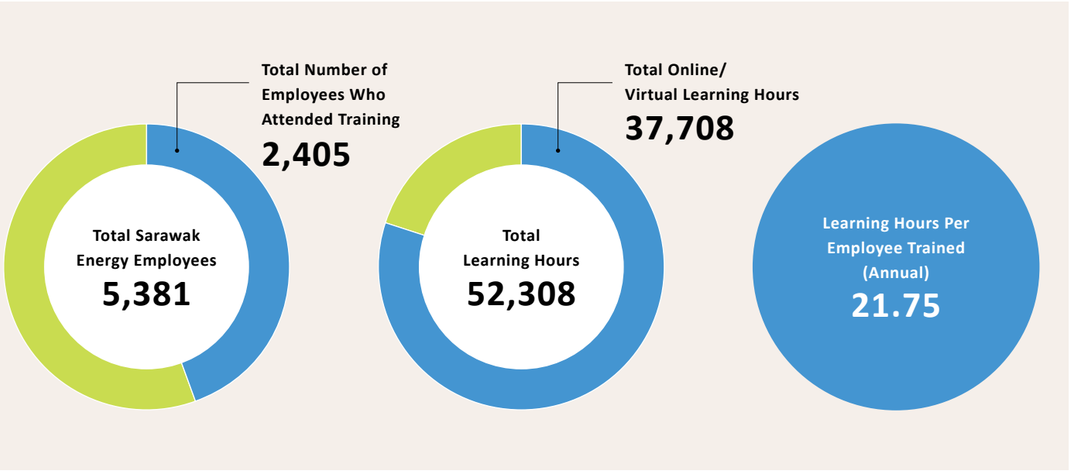
Year	2017			2018			2019			2020		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Total Number of Employees by Category												
Management	158	64	222	331	146	477	95	50	145	216	82	298
Executive	1,613	931	2,544	1,370	769	2,139	995	543	1,538	728	491	1,219
Non-Executive	4,424	705	5,129	4,782	643	5,425	2,933	405	3,338	3,240	624	3,864
Total Hours of Training by Category												
Management	673	283	956	5,607	2,387	7,994	1,713	1,556	3,269	4,194	2,209	6,403
Executive	19,040	10,514	29,554	20,608	10,865	31,473	19,219	9,713	28,932	12,769	10,224	22,993
Non-Executive	63,803	6,877	70,680	66,241	7,623	73,864	51,316	6,548	57,864	19,051	3,861	22,912
Average Hours of Training by Category												
Management	4.26	4.42	4.31	16.94	16.35	16.76	18.03	31.12	22.54	19.41	26.95	21.49
Executive	11.80	11.29	11.62	15.04	14.13	14.71	19.32	17.89	18.81	17.54	20.82	18.86
Non-Executive	14.42	9.75	13.78	13.85	11.85	13.62	17.50	16.17	17.33	5.88	6.19	5.93



Note:
Published Annual, Sustainability & Integrated Reports 2020.

103-1, 103-2, 404-2

SOCIAL INCLUSION



Development Programmes

Leadership and Technical Mentoring

The Sarawak Energy Mentoring Programme (SEMP) was launched in July 2020 after it was piloted in various departments and in the Sarawak Energy Leading Women Network (SELWN) over the last two years. The SEMP serves as a platform for:

- Leaders to develop leaders within the organisation
- Providing opportunities for young talents in Sarawak Energy to grow and network with leaders
- Preparing sustainable talent bench strength for the organisation
- Mentors to benefit from the programme by equipping themselves with essential coaching and mentoring skills as leaders who groom and develop talents from within.

Moving forward in 2021, the SEMP aims to maximise the potential of the programme by growing those who are keen to develop their expertise as Specialists through Technical Mentoring. Technical Mentoring will enable mentors who are subject matter experts (SMEs) to groom talents within their departments and across the organisation as future SMEs.

Technician Foundation Programme (TFP)

The Technician Foundation Programme (TFP) is a structured development programme for our incoming technicians in the executive and non-executive levels. It is based on a 70:20:10 model (on-the-job training, formal learning and EIU examination) to ensure that incoming technicians are fully onboarded and well-equipped for their roles in Sarawak Energy.

In addition, we provide short-term assignments to our employees at our best-in-class partners to expose them to best practices in the industry.

Executive Leadership Programme (ELP) – Melbourne Business School (MBS)

The Executive Leadership Programme (ELP) caters for senior leaders and selected managers. It is a customised leadership programme held in collaboration with the Melbourne Business School and designed to support the development of Sarawak Energy leaders.

This nine-month, mixed-mode, distance-learning programme emphasises thought leadership and innovation in its learning, thus helping upcoming leaders grow and break new ground.

103-1, 103-2, 403-1, 403-4

SOCIAL INCLUSION

OCCUPATIONAL SAFETY AND HEALTH

The health and safety of our people at Sarawak Energy is an uncompromised priority and an integral part of our corporate culture. We are committed to providing a safe and conducive working environment for our employees, contractors and other stakeholders by implementing measures and safeguards to prevent and reduce work-related accidents, injuries and illnesses. Our goal is to do no harm to people and to ensure that everybody goes home safely.

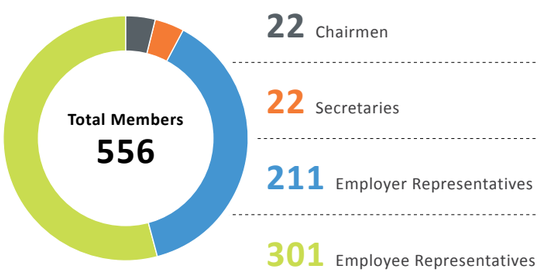
Everybody goes home safely.

Health and Safety Governance

The Health, Safety, Security and Environment (HSSE) of Sarawak Energy is governed by the Group Executive Committee (GEC) HSSE Council, which is chaired by our GCEO. The GEC HSSE Council holds the highest decision-making authority in HSE matters. At the working level, the health and safety of each workplace is governed by an Environment, Occupational Safety & Health Committee (EOSH) which is led by a chairman and a secretary and consists of employer and employee representatives. The structure is in compliance with the Occupational Safety and Health (Safety and Health Committee) Regulations 1996, Part II, regulation 5.

All our 10 regional offices and nine power stations including Kuching Central Store Centre, Sarawak Energy Resources, the Project Delivery Department and the new business unit SE(RES) – the Sarawak Energy (Rural Electrification Scheme) Project – have an EOSH Committee each to oversee and manage daily HSE matters at the workplace.

The total membership of the Environment, Occupational Safety & Health Committees in 2020 were as follows:



The Committee members' functions and roles are in accordance with the Occupational Safety and Health (Safety and Health Committee) Regulations 1996, Part III (Functions of Safety and Health Committee) under regulation 11, which stipulates that the safety and health committee shall:

(a) Assist in the development of safety and health rules and safe systems of work
(b) Review the effectiveness of safety and health programmes
(c) Carry out studies on the trends of any accident, near-miss accident, dangerous occurrence, occupational poisoning or occupational disease which occurs at the place of work, and shall report to the employer any unsafe or unhealthy condition or practices at the place of work together with recommendations for corrective action;
(d) Review the safety and health policies at the place of work and make recommendations to the employer for any revision of such policies.

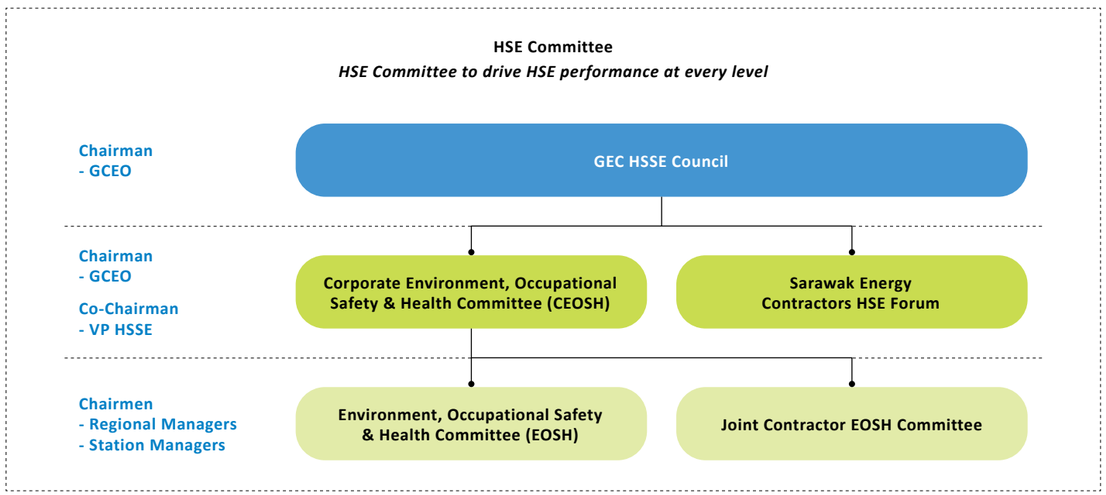
Other functions are:

- Inspection of place of work (regulation 12)
- Investigation into any accident (regulation 13)

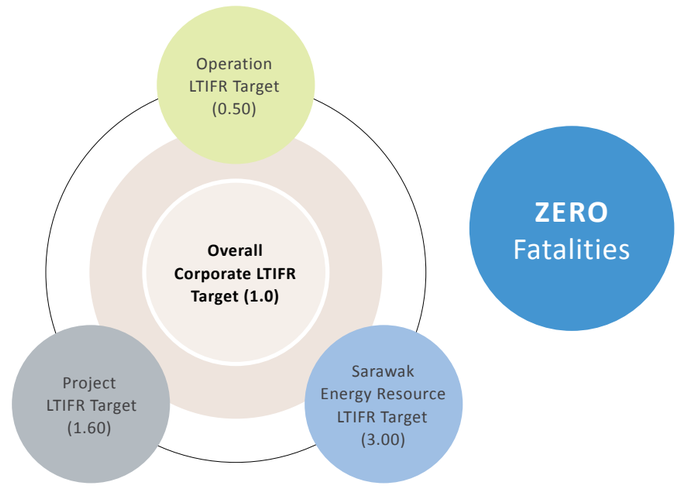
To comply with Part IV Occupational Safety and Health Regulations 1996 (Safety and Health Committee), regulation 21, the EOSH Committees meet as and when is needed but not less than once in three months. In 2020, most of the meetings were held virtually to curb the spread of the COVID-19 virus.

At the management level, the Corporate Environment & Occupational Safety and Health (CEOSH) Committee meets twice a year. The Committee:

- Consists of key personnel from various business units. The CEOSH meeting is chaired by the GCEO and co-chaired by the Vice-President of HSSE
- Discusses any major issues related to Health, Safety, Security and Environment (HSSE) of both the Company and the employees
- Deliberates on yearly HSSE programmes as well as KPIs with all chairmen and secretaries of the EOSH Committees to achieve the HSSE Excellent target and the Group's Vision and Mission.



Corporate KPI Target 2020 (Fatalities & LTIFR – Lost Time Injury Frequency Rate)



Lost time injury frequency rate (LTIFR) is the number of lost-time injuries per million hours worked and is the standard safety measure across various industries. During the year under review, we continued measuring our LTIFR in three categories:

Operation
(Covers the Company's overall operations from Corporate Functions (HR, HSSE, Finance, etc) to core business operations and projects from Generation (thermal and hydropower), Distribution, Transmission, Retail and SE(RES)).

Sarawak Energy Resources
(Covers coal mining operations)

Project Delivery
(Refers to any ongoing project)

Thus, the total LTIFR from all three categories represents the overall corporate LTIFR result for the Group.

- In 2020, we continued to improve on our LTIFR due to our commitment and unrelentless efforts in upholding occupational safety and health
- We achieved an overall corporate LTIFR of 0.36* (exclusive of fatalities), compared to the target of 1.0
- Total man-hours declined to 27,640,459* hours in 2020 from 29,917,472[1] hours in 2019 due to COVID-19 disruptions
- The most significant decline was in Project Delivery with man-hours falling from 10,189,251[1] hours in 2019 to 7,595,258* hours in 2020

We have set a stringent target of zero fatalities in 2020 and beyond. However, we regret to report that there was one fatality involving a contractor's worker. We take every injury incident seriously, especially fatalities, and will continue to ensure compliance with the highest levels of safety standards to prevent further loss of life.

Category	Operation	SER	Project Delivery Department	Corporate
Total man-hours (Employees only)	11,341,431*	96,778*	97,144*	11,535,353*
Total man-hours (Contractors only)	7,132,156*	1,474,836*	7,498,114*	16,105,106*
Total man-hours (Employees & Contractors)	18,473,587*	1,571,614*	7,595,258*	27,640,459*
Total LTI (without fatalities)	5*	0	5*	10*
LTIFR (without fatalities)	0.271*	0.000*	0.658*	0.362*
No. of fatalities	0	0	1	1

Notes:
[1] *This total man-hours data has been assured by a third party for Sustainability Report 2019.*
* *These lost time injury frequency rate, total lost time injury cases and total man-hours data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

103-2, 103-3, 403-2, 403-4, 403-10

SOCIAL INCLUSION

Embedding Occupational Health and Safety

Instilling the importance of health and safety is part of Sarawak Energy's corporate culture. Health and safety awareness campaigns and activities are conducted regularly to educate employees and contractors and to inculcate the Company's HSE values embedded in the slogan 'Saving Lives, Raising Standards, and Nurturing Culture'. Despite disruptions from the pandemic, we rolled out several impactful initiatives in 2020 to promote HSE awareness not only among Sarawak Energy employees and contractors but also among the local communities. We also achieved significant milestones and won awards for our efforts in 2020 as we endeavoured to uphold the health and safety of our stakeholders while preserving the environment.

Sarawak Energy ACE (SEACE) HSE Solutions

On 6 November 2020, we launched the Sarawak Energy ACE (SEACE) HSE Solutions – Sarawak Energy's first HSE software application for compliance programmes and management systems and data analytics and visualisation. This application will simplify our existing work processes and provide convenience for reporting an Unsafe Act Unsafe Condition (UAUC), including near misses, injury/illness, accidents and accidents or incidents.

Launched virtually by our GCEO, the SEACE application marks another milestone in our journey of HSSE Excellence, leveraging digitalisation. The application was named after the three core behaviours of HSE Culture: Assess, Comply and Empower (ACE). This is a new initiative building on our ongoing efforts towards HSSE Excellence and to establish a Best-in-Class HSSE culture in Sarawak Energy, further demonstrating our commitment to occupational health and safety.

Virtual Corporate HSSE Week 2020

In 2020, we continued with our annual Corporate HSSE Week virtually due to disruptions from the pandemic. Talks and exhibitions on HSE procedures and practices for daily activities, quizzes, virtual meet and greet sessions and lucky draws were conducted during the week-long campaign in addition to various independent HSE programmes held at regional offices, power stations and at the project delivery department. The campaign was launched by our GCEO and joined by more than 1,300 employees and guests from partner agencies and contractors across Sarawak.

In conjunction with the campaign, Corporate HSSE also organised two video competitions to further raise awareness about HSE. The first competition, Sarawak Energy Go Green Music Vibes, was for secondary schoolchildren to create a music video using 'green' instruments from recycled or reused materials.

The second competition, the Sarawak Energy HSE Excellence Short Video Competition, was aimed at promoting awareness on the Sarawak Energy Life-Saving Rules and Sarawak Energy HSE Culture (Assess, Comply and Empower) among employees.

Sarawak Energy Life-Saving Rules (SELSR)

The Sarawak Energy Life-Saving Rules (SELSR) is a set of mandatory safety rules for all employees of Sarawak Energy, its subsidiaries and its contractors to comply with whenever they are within Sarawak Energy's premises or representing the Company outside our premises. The rules are for creating a more focused approach towards achieving zero accidents, ensuring high-risk work is conducted safely and improving the safety performance of Sarawak Energy as a whole. In 2020, we aimed to instil a culture of ownership of the SELSR by improving our HSE Culture programme and HSE compliance.

102-43, 103-2, 103-3, 403-2, 403-4, 403-5, 403-6, 403-7, 403-10

SOCIAL INCLUSION

Routine Audits & Inspections

- To ensure all levels of Sarawak Energy's operations uphold the highest HSE standards and measure our safety performance at worksites, regularly planned HSE audits and inspections are conducted at all our regional offices, power stations, rural stations, projects and mining sites.
- The audits and inspections include:
  - Routine OSH audit and inspection
  - Contractor OSH audit and inspection
  - Plan Shutdown Switching Request (PSSR) inspection
  - ISO 45001 audit
  - MSOSH audit

Virtual Sarawak Energy Zero Leak Drive Launch

- The Zero Leak Drive is meant to resolve issues concerning leakage such as risk of electrical leakage and fire protection system through constant monitoring and proper management of corrective action.

Accident Investigation Training (Virtual) Using Tripod Beta Analysis

- To equip our team with new knowledge and skills in adopting Tripod Beta Analysis in our accident investigation and report preparation for higher management.
- 15 participants from the division attended the training that was held from 8 to 9 October 2020.

Mass Toolbox Talk Programme

- A toolbox talk is held every morning prior to the commencement of daily activities at worksites.
- The aim is to ensure our contractors are well-informed about HSE matters, especially regarding their job hazards and risks.
- The supervisor or client representative will also deliver any HSSE-related messages to continuously remind workers that safety is a shared responsibility which will lead to shared success.

Virtual Contractors Transformation Programme (CTP) Outreach Forum 2020

- The forum, with the topic 'COVID-19: Challenges and Opportunity', served as a platform to discuss current HSSE issues and challenges faced by contractors during the pandemic, as well as to seek solutions to overcome the challenges.
- More than 1,300 colleagues and guests from our partner agencies and contractors joined the forum that was held in conjunction with the Corporate HSSE Week 2020.

Drug Screening Programme in Collaboration with NADA

- Sarawak Energy has zero tolerance for the use of drugs at the workplace.
- Our HSSE and HR departments have been working closely with the National Anti-Drug Agency (AADK) to conduct random spot checks and drug tests at our regional offices and power plants.
- Any employee, contractor or third-party associate found to be using illegal drugs will be subject to dismissal. In 2020, we conducted drug screenings at:
  - Bintulu Regional Office
  - Bakun & Murum HEPs
  - Sg. Asap, Murum and Belaga

Safety Starter Kit

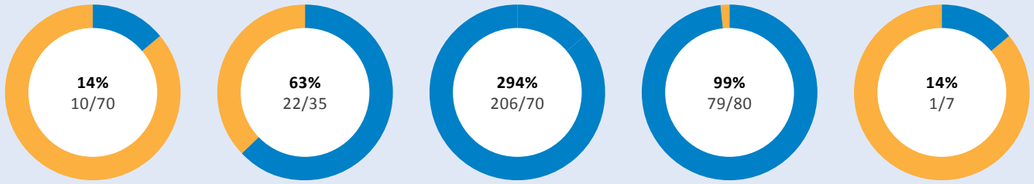
- A Safety Starter Kit was developed for newly hired employees of Sarawak Energy.
- The safety kit provides information on HSSE and a set of personal protective equipment (PPE).

102-43, 103-2, 103-3, 403-2, 403-3, 403-4, 403-6, 403-7, 403-10

SOCIAL INCLUSION

Public Safety

The year 2020 was a challenging one due to disruptions from the COVID-19 pandemic and the enforcement of the Movement Control Order (MCO). As a result, our targeted briefing plan for schools, longhouses and local lorry associations was affected. However, we managed to achieve our targeted briefings for our annual and subcontractors, government authorities, oil palm estates, public contractors and Pan Borneo contractors.



Health Programmes

We constantly communicate the importance of health and wellbeing to our employees and contractors through email, posters and educational talks, among others.

As part of our Occupational Health Governance, the Occupational Health Division developed five SOPs in 2020 as follows:

1. SOP for Employee Health Assessment & Fitness to Work Standards
2. SOP for Hearing Conservation Programme
3. SOP for Chemical Health Risk Management Programme
4. SOP for Workplace Ergonomic Management Programme
5. Guidelines on Office Ergonomics

Eight health messages were also published for Sarawak Energy employees through our various internal messaging communication platforms with awareness topics ranging from COVID-19, dengue, tuberculosis and HIV & AIDS to Working from Home, Staying Active & Mentally Fit and Flood Awareness.

Occupational Health/Industrial Hygiene Legal Compliance

- Regular talks were conducted to assist stakeholders in ensuring Sarawak Energy complies with all the relevant Occupational Health Legal Compliance requirements.
- Our efforts included conducting Hearing Booth Calibrations and Hearing Conservation Talks and providing advice on Chemical Health Risk Assessment, Noise Risk Assessment and Medical Surveillance.

Responding to COVID-19

- We ensured that there was a consistent supply of face masks to protect employees from the pandemic.
- A total of 15,300 boxes of face mask face masks s were distributed from May to December 2020.
- We purchased 46 units of mist blower machines for all our ERTs throughout the state to enable them to sanitise their workplaces immediately if there were any reported positive COVID-19 cases.
- All personnel from the Occupational Safety division were instructed to develop a COVID-19 Hazard Identification, Risk Assessment and Risk Control (HIRARC) system, brief and activate ERP/ERT teams (EOSH Committees) and conduct briefings for all staff and contractors on the COVID-19 NWA, SOPs, ERP, HIRARC and Guidelines.

OH&S-related Programmes/Initiatives in Year 2020 | Health-related Programmes/Initiatives in Year 2020

103-2, 103-3, 403-2, 403-4, 403-10

SOCIAL INCLUSION

Our HSSE personnel conducting an HSSE briefing at one of the project sites.

PROJECT DELIVERY

In 2020, the Project Delivery team worked closely with contractors to guide them in complying with our strictly enforced COVID-19 SOPs at offices and project sites. This was to ensure Sarawak Energy project teams and contractor personnel implemented control measures to prevent the spread of COVID-19 at project sites and fully complied with SOPs as per the instructions of the Ministry of Health (MOH), Construction Industry Development Board (CIDB), Ministry of International Trade and Industry (MITI), DOSH, Sarawak Disaster Management Committee (SDMC) and Contractual Provision of Sarawak Energy Berhad.

AWARDS

MSOSH OSH Virtual Award Ceremony (MOVAC) 2020

Sarawak Energy was recognised for its efforts in health and safety during the 38th Occupational Safety and Health Virtual Awards organised by the Malaysian Society for Occupational Safety and Health (MSOSH) on 26 November 2020. We bagged a total of eight awards, demonstrating the high standards of our commendable health and safety management system and putting us on par with developed and large corporations. In 2021, our team is encouraged to participate in more avenues to gain external recognition to raise our standards and move towards achieving our targets of zero fatalities and LTI.

Awards Won at the 38th Occupational Safety and Health Virtual Awards

2 Gold Merit Awards
Departments:
Mukah and Limbang Power Stations
(Won under the utilities sector for excellent performance)

4 Gold Class 1
Departments:
Bakun, Murum and Batang Ai HEPs and Miri Power Stations

4 Gold Class 2
Departments:
Bintulu and Lawas Power Stations
Bintulu and Miri regional offices
(Recognised for very good OSH performance)

ADVANCING SARAWAK'S RURAL ELECTRIFICATION AGENDA

As the primary provider of reliable, affordable and predominantly renewable energy for Sarawak, it is our goal to ensure that the whole state is electrified. As of 2020, we have provided electricity to 98*% of Sarawak, an improvement from 97*% in 2019, with rural electrification coverage rising to 95*% from 93*%.

Year	2016	2017	2018	2019	2020
Sarawak Electricity Coverage (%)	94.3	95.5	96.0	97.0*	98.0*
Urban (%)	100	100	100	100	100
Rural (%)	87.0	89.8	91.0	93.0*	95.3*

Note:

* *These Sarawak electrification coverage and rural electrification coverage data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

During the year under review, we continued to expand electricity coverage in the state, especially in rural areas where 6,610 rural households were electrified under the State Government's Projek Rakyat initiative. Under the Project Rakyat initiative, the Sarawak government allocated an additional RM2.37 billion in late 2018 to accelerate rural electrification towards 99% by 2020 and full electrification by 2025.

The electrified households in 2020 comprised 3,186 households connected to the grid and 3,424 households connected through off-grid solutions. Due to the pandemic and the consequent movement restrictions, the target number of households to be electrified was revised downwards from 9,000 to 6,400.

Sarawak Energy has also expanded its solar hybrid system and it now has a total capacity of 8,618.17 kW as at the end of 2020. Nanga Kain and Nanga Balang Hybrid stations were completed in 2020, while Nanga Ibun, Nanga Meluan, Nanga Bebangan and Nanga Arau hybrid stations are targeted to be completed in 2021.

Solar hybrid system installed at Long Selaton Dikan.

SARES Solar Project

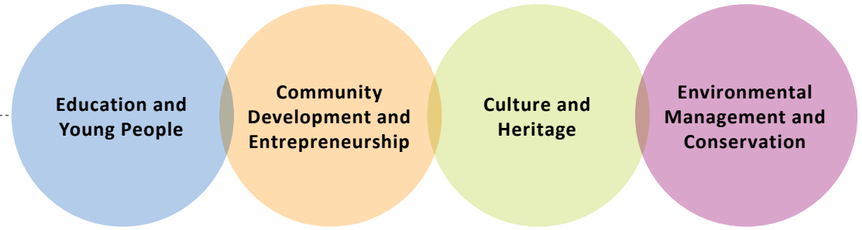
Year	2016 -2017 Phase 1	2017-2018 Phase 2	2018-2019 Phase 3	2019-2020 Phase 4	2020-2021 Phase 5*
Installed Capacity (kW)	1,434.87	1,619.69	1,990.65	2,280.06	3,355.11
Villages	58	59	75	74	99
Door	1,369	1,601	1,968	2,168	3,291

* *As of 31 December 2020. SARES Phase 5 is still in progress and expected to energise all the villages (131 villages and 4,022 hh) by April 2021.*

BUILDING AN INCLUSIVE SOCIETY

In 2020, Sarawak Energy continued to invest in communities and contribute to people's wellbeing despite challenges from the COVID-19 pandemic. We reached out to the remote communities of Sarawak and those whose incomes were affected by the health crisis. Beyond that, we continued to empower local communities through training and development programmes while nurturing future generations and creating awareness on environmental preservation. During the year, the Company invested RM23.09 million in corporate social responsibility, an important component of Sarawak Energy's operations that is vital for the state's sustainable growth.

Sarawak Energy's corporate social responsibility efforts are focused on:



EDUCATION AND YOUNG PEOPLE

Baleh Youth Capacity Development

Youths from Baleh and Kapit have continued to equip themselves with useful skills under Sarawak Energy's Baleh Skill Training Programme. To date, 759 individuals have enrolled in and attended training courses through the youth skill training programme, which was developed in 2016. This has helped to build capacity and prepare the local community for employment and economic opportunities, especially those created by the Baleh Hydroelectric Project (HEP). The courses include occupational safety and health, entrepreneurship, human resource management, heavy machinery operation, painting and metal blasting, as well as rigging and slinging.

The youths have completed a six-month Welding Technology (3G Plus) training course at the Centre of Technical Excellence Sarawak (CENTEXS) and are currently undergoing the advanced Welding Technology (6G) training course. In the year under review, eight of the youths graduated after successfully completing a three-month scaffolding training course at CENTEXS, and another four youths enrolled in a 28-month diploma course at Fajar International College, Miri.

The trainees were among 20 selected local youths under the youth skill training programme to have enrolled for a full-time diploma course since 2017. The first batch consisting of seven trainees completed the training in December 2019 and is now ready for employment. This is the fourth and last batch of youths who will undergo the Diploma in OSH, and they are expected to graduate by the end of 2022.

Supporting Belaga and Murum Communities

Sarawak Energy Supports UPSR 2019 Students from Belaga

Sarawak Energy rewarded 18 UPSR 2019 top-scoring students from Belaga with incentives at a ceremony held in Bintulu. Recipients were students from SK Abun Matu (4), SK Batu Keling (8), SK Long Gang (4), SK Punan Ba (1) and SK Uma Sambop (1). The incentives aim to encourage the students to continue to excel in their education at the secondary level. This ceremony marked our third year of presenting academic incentives to schools in the Belaga district to support the community's educational development.

UPSR top-scoring students from Belaga district receiving academic incentives at the ceremony held in Bintulu.

Health and Safety Awareness Programme at SK Lusong Laku in Belaga District

Sarawak Energy conducted a health and safety awareness programme at SK Lusong Laku in Belaga and contributed amenities to the school. The school received mattresses, pillows, bedsheets, sports equipment and stationery, as well as thermometers, hand sanitisers and face masks to adhere to the COVID-19 SOPs.

Sarawak Energy also delivered educational and HSE awareness talks while staff from the Murum Hydroelectric Plant conducted internal wiring inspections and replaced switches and bulbs. The programme benefitted 156 students from the Penan community and 13 teachers in the school.

Murum Students Receive Annual Schooling Aid

In line with our continuous support of project-affected communities in Murum, Sarawak Energy delivered school uniforms, bags, sports equipment, stationery, exercise books and shoes to 188 students at SK Tegulang and 197 students at SK Metalun.

Handing over school aid at SK Tegulang.

ENVIRONMENTAL MANAGEMENT AND CONSERVATION

CSR's Empurau Fish Conservation Project Launched for the Murum Community

In line with our Social Investment Pillar of 'Environmental Management & Conservation', the *Empurau* Fish Conservation Project was launched at Sungai Murum on 4 December 2020. The event saw the release of 2,000 *Empurau* fish fry into a newly constructed floating fish cage that would then be released into the main Murum river. This pilot project aims to protect, restore and promote the sustainable use of freshwater ecosystems with the primary aim of conserving the *Empurau* along Sungai Murum. This social investment initiative involves the resettled Murum community in the maintenance and monitoring of the project.

CULTURE AND HERITAGE

Murum and Baleh Artisans Participate in Hari Kraf Kebangsaan Kuala Lumpur

Sarawak Energy continued its efforts in preserving and promoting the cultural practices of the state's native communities. In 2020, our cultural heritage partners comprising artisans from Murum and Baleh participated at the Hari Kraf Kebangsaan Kuala Lumpur from 26 February to 9 March.

The artisans recorded their highest sales since participating in the exhibition in 2016 with a total of RM54,000 worth of indigenous Penan and Iban handicraft being sold. Among the most popular items sold were *pua' kumbu* (traditional Iban handwoven textile), *selampai*, kain burie, rattan mats, beaded accessories, rattan baskets and bags.

During the event, the artisans also demonstrated their craft-making skills and invited craft enthusiasts to try out rattan weaving and beading. They were also able to engage in knowledge exchange and share ideas with other craft exhibitors to inspire new designs and techniques. The artisans who participated were from Long Malim and Long Wat in Murum, and from Rumah Nabao, Rumah Laso, Rumah Tajai and Rumah Langga in Baleh.

Artisans from Baleh under the Handicraft Development Programme at the National Craft Day in Kuala Lumpur.

COMMUNITY DEVELOPMENT AND ENTREPRENEURSHIP

Relief Assistance: Delivering Essential Items During the Pandemic to Murum, Belaga, Baleh, Batang Ai, Balingian and Mukah Communities

In 2020, Sarawak Energy delivered food aid and essential items to communities who were affected by the COVID-19 Movement Control Order (MCO). In cooperation with the Sarawak Disaster Management Committee and relevant stakeholders, this initiative complemented the State Government's efforts to help stakeholder communities adjacent to our power plants, projects and operations. The relief assistance was provided to:

No	Area	Total Beneficiaries (Households)
1	Murum Resettlement Scheme	343
2	Murum Host Community	174
3	Bakun Resettlement Scheme	1,543
4	Belaga Downstream	157
5	Belaga District	2,243
6	Baleh PAC (Project Affected Communities)	273
7	Bukit Mabong	3,148
8	Batang Ai PAC	706
9	Batang Ai Host Community	205
10	Balingian	256
11	Mukah	98
12	Kuching	1,900
	Total	**11,046**

Sarawak Energy delivering Immediate Relief Assistance to our Bakun community.

Longhouse Adoption Programme and Land-Levelling Projects for Bakun Resettlement Community (BRS)

Sarawak Energy remains committed to aiding resettled communities and in 2020 we continued with our longhouse adoption programme for the Bakun community. Now in its second year, we moved on to adopting Uma Lesong, Uma Badeng and Uma Bawang following the adoption of Uma Ukit, Uma Penan Talun and Uma Lahanan in 2019.

This five-year community development project focuses on improving the longhouse environment through beautification on a *gotong-royong* basis while improving basic facilities and infrastructure, which also provides local contractors from the Belaga area with the opportunity to participate in our procurement activities. A total of RM4.5 million has been allocated to benefit all 15 longhouses that are part of the BRS.

In addition, we also implemented land-levelling for Uma Kulit to expand its grounds following an increase in its population. This was carried out in tandem with land-levelling to increase the space available for Uma Ukit and its communal cemetery.

Longhouse Adoption Programme site visit together with Bakun Resettlement Scheme stakeholders.

Relief Assistance for Victims of Rumah Naga Fire

Sarawak Energy delivered relief assistance to victims of a fire incident at Rumah Naga, Rasau, in Engkilili on 17 September, a longhouse located about 12 km away from the Batang Ai HEP. Staff from Batang Ai HEP delivered food and essential supplies, zinc roofing for their temporary shelter, school uniforms, shoes and other school supplies.

103-2, 103-3, 203-1, 203-2

SOCIAL INCLUSION

AWARDS AND RECOGNITION

Two Platinum Awards from the 12th Global CSR Summit & Awards and the Global Good Governance Awards 2020

Sarawak Energy's efforts in sustainability and community development earned us two platinum awards at the 12th Annual Global Corporate Social Responsibility (CSR) Awards and Good Governance Awards 2020. Our Belaga Penan Education Fund initiative was awarded platinum in the 'Excellence in Provision for Literacy & Education Award' category at the Global CSR Summit & Awards. Under the Global Good Governance Award for 'The Best Chief Executive Officer' category, Group CEO Datu Haji Sharbini Suhaili was the platinum award recipient.

Sarawak Energy's Batang Ai Solar Project Receives Sustainability & CSR Malaysia Award

A corporate social responsibility project carried out in 2019 that successfully supplied 31 households of Rumah Bada, Nanga Talong, at Batang Ai with 24-hour renewable solar power won Sarawak Energy the Sustainability & CSR Malaysia Award in December 2020. As the winning entry under the 'Utilities and Energy' category, it reflects our innovative efforts to provide electricity to the most remote communities in Sarawak, which are also virtually impossible to connect to the main grid.

Rumah Bada, with a population of 250 residents, is located 40 km away from the Batang Ai jetty at the end of the Engkari River on the Batang Ai HEP lake and can only be reached by boat, with the journey taking up to five hours.

Prior to the completion of the solar project, electricity was generated through individually owned diesel generators with high operating costs. Residents paid an average of RM260 to RM300 every month for fuel stocks. Coupled with logistical challenges, not all households were able to maintain regular electricity supply.

Since 2014, nine longhouses with a total of 172 households comprising a population of 873 in the Batang Ai area have benefitted from Sarawak Energy's CSR solar projects. The other longhouses are Rumah Manggat at Menyang Taih, Rumah Kino at Menyang Sedi, Rumah Griffin at Nanga Jengin, Rumah Jangong at Pala Taong, Rumah Ninting at Nanga Jambu, Rumah Brown at Nanga Stapang, Rumah Simon at Nanga Tutong and Rumah Andah at Nanga Jambu.

Aerial shot of CSR Solar Home Project at Rh. Bada, Nanga Talong, at Batang Ai.

Successful testing & commissioning of solar system at Rh Bada.

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INDEPENDENT THIRD PARTY ASSURANCE STATEMENT

Lloyd's Register

LR Independent Assurance Statement

Relating to Sarawak Energy Berhad's Mandatory Key Performance Indicators for Sustainability Reporting in 2019 and 2020

This Assurance Statement has been prepared for SEB (Sarawak Energy Berhad) in accordance with our contract.

Terms of Engagement

Lloyd's Register Quality Assurance (LR) was commissioned by Sarawak Energy Berhad (SEB) to provide independent assurance of its Sustainability Report Mandatory Key Performance Indicators (KPIs) ("the Report") for the 2019 and 2020 reporting periods against the assurance criteria below to a limited level of assurance and materiality of the professional judgement of the verifier using ISO 14064 - Part 3 for greenhouse gas emissions and LR's verification procedure for non-GHG data. LR's verification procedure is based on current best practise and is in accordance with ISAE 3000 and ISAE 3410.

Our assurance engagement covered SEB's operations and activities in Sarawak during the 2019 and 2020 calendar years, and specifically the following requirements:

- Verifying conformance with:
  - SEB's reporting methodologies for the selected datasets;
- Reviewing whether the Report has taken account of The Global Sustainability Standards Board (GSSB) Global Reporting Initiative (GRI) Standards and particularly Sections:
  - 101: Foundation (2016)
  - 305-4: GHG Emissions Intensity (2016)
  - 306-3: Waste Generated (2020)
  - 303-3a: Total Water Withdrawal (2018)
  - 301-1: Materials Used by Weight or Volume (2016)
  - 201-1: Direct Economic Value Generated and Distributed (2016)
  - 204-1a: Procurement Practices – Proportion of Spending on Local Suppliers (2016)
  - 403-9a. i, ii., v.; 403-9b. i., ii., v.: Occupational Health and Safety – Work-related Injuries (2018)
  - G4 Sector Disclosures – Electric Utilities EU26
  - 305-2a., c., e., g.: Energy Indirect (Scope 2) GHG Emissions (2016)
  - 305-3a., b., g.: Other Indirect (Scope 3) GHG Emissions (2016)
- Evaluating the accuracy and reliability of data and information for only the selected indicators and sub-indicators listed below:
  a. Main Grid Emission Intensity (tCO_2eq/MWh)
     - Fuel Consumption (Tonne, Litre, MMBtu)
     - Main Grid Net Energy Generated (MWh)
     - Net Calorific Value (KJ/kg, MJ/Litre, MJ/Nm^3)
  b. Northern Grid Emission Intensity (tCO_2eq/MWh)
     - Fuel Consumption (Litre)
     - Northern Grid Net Energy Generated (MWh)
     - Net Calorific Value (MJ/Litre)
  c. Scheduled Waste Generation Intensity (Tonne/GWh)
     - Volume of Waste Generated (Tonne)
     - Gross Electricity Generated (GWh)
  d. Total Water Withdrawal by Source from Main Grid Connected Power Plants (m^3)
     - Municipal Water (m^3)
     - Natural Water (m^3)
     - Operating Hours
  e. Annual Water Volume for Electricity Generation from Main Grid Connected Hydropower Plants (million m^3)
     - Operating Hours for Annual Water Volume for Electricity Generation
  f. Economic Value Retained (Million RM)

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INDEPENDENT THIRD PARTY ASSURANCE STATEMENT

Lloyd's Register

g. Total Value of Tenders Awarded to Local Sarawakian Companies (RM)
   - Operations (RM)
   - Capital Works (RM)
h. Lost Time Injury Frequency Rate (LTIFR) (Lost Time Injuries per Million Man Hours)[1]
   - Total Lost Time Injury Cases[3]
   - Total Man Hours
i. Sarawak Electrification Coverage (%)
   - Rural Electrification Coverage (%)
j. Scope 2 Emissions from Buildings and Office (tCO_2eq)
k. Scope 3 Emissions from Business Air Travel (tCO_2)

LR's responsibility is only to SEB. LR disclaims any liability or responsibility to others as explained in the end footnote. SEB's responsibility is for collecting, aggregating, analysing and presenting all the data and information within the Report and for maintaining effective internal controls over the systems from which the Report is derived. Ultimately, the Report has been approved by, and remains the responsibility of SEB.

LR's Opinion

Based on LR's approach, except for the effect of the matters described in the Basis for Qualified Opinion, nothing has come to our attention that would cause us to believe that SEB has not, in all material respects:

- Met the requirements of the criteria listed above; and
- Disclosed accurate and reliable performance data and information as summarized in Tables 1 and 2 below.

The opinion expressed is formed on the basis of a limited level of assurance[2] and at the materiality of the professional judgement of the verifier.

Basis for Qualified Opinion

- Mill and feeder issues at Mukah Power Generation resulted in minor inaccuracies in coal consumption data in March 2019. This is not material to the calculations of the Main Grid emission intensity metrics for 2019.
- SEB is missing data for water withdrawals at Balingian Power Generation for January – June 2020. This issue does not have a material impact on water withdrawals for 2020.
- In its calculation of the lost time injury frequency rate for 2020, SEB included vacation and holiday hours in its estimate of man-hours for employees in Operations. This does not have a material impact on the lost time injury frequency rate for 2020.

[1] Excludes fatalities
[2] The extent of evidence-gathering for a limited assurance engagement is less than for a reasonable assurance engagement. Limited assurance engagements focus on aggregated data rather than physically checking source data at sites. Consequently, the level of assurance obtained in a limited assurance engagement is lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Lloyd's Register

Table 1. Summary of SEB Key Data for Calendar Year 2019:

Key Performance Indicators and Sub-Indicators	Value	Units
a. Main Grid Emission Intensity	0.222	tCO_2eq/MWh
• Fuel Consumption		
• Coal	3,064,826	Tonne
• Diesel	12,585,000	Litres
• Natural Gas	36,756,370	MMBtu
• Net Energy Generated	28,551,509	MWh
• Net Calorific Value		
• Coal	16,391.51	KJ/Kg
• Diesel	35.89	MJ/Litre
• Natural Gas	39.30	MJ/Nm^3
b. Northern Grid Emission Intensity	0.670	tCO_2eq/MWh
• Fuel Consumption of Diesel	40,959,417	Litres
• Net Energy Generated	155,893	MWh
• Net Calorific Value of Diesel	35.10	MJ/Litre
i. Sarawak Electrification Coverage	97.00%	%
• Rural electrification coverage	92.96%	%

Table 2. Summary of SEB Key Data for Calendar Year 2020:

Key Performance Indicators and Sub-Indicators	Value	Units
a. Main Grid Emission Intensity	0.203	tCO_2eq/MWh
• Fuel Consumption		
• Coal	2,684,066	Tonne
• Diesel	24,301,620	Litres
• Natural Gas	33,066,288	MMBtu
• Net Energy Generated	27,535,129	MWh
• Net Calorific Value		
• Coal	16,201.46	KJ/Kg
• Diesel	35.90	MJ/Litre
• Natural Gas	38.88	MJ/Nm^3
b. Northern Grid Emission Intensity	0.607	tCO_2eq/MWh
• Fuel Consumption of Diesel	38,353,272	Litres
• Net Energy Generated	161,045	MWh
• Net Calorific Value of Diesel	35.10	MJ/Litre
c. Scheduled Waste Generation Intensity	9.69	Tonne/GWh
• Volume of Waste Generated	272,918	Tonne
• Gross Electricity Generated	28,176	GWh

INDEPENDENT THIRD PARTY ASSURANCE STATEMENT

Key Performance Indicators and Sub-Indicators	Value	Units
d. Total Water Withdrawal by Source from Main Grid Connected Power Plants		
• Municipal Water (3rd Party Water)	2,289,209	m^3
• Seawater	672,085,880	m^3
• Surface Water (River Water)	1,650,000	m^3
• Operating Hours	48,362	Hours (for all units)
e. Annual Water Volume for Electricity Generation from Main Grid Connected Hydropower Plants	49,489	million m^3
• Operating Hours	135,104	Hours (for all units)
f. Economic Value Retained	2,162.20	Million RM
g. Total Value of Tenders Awarded to Local Sarawakian Companies	1,151,800,210.86	RM
• Operations	1,037,245,113.37	RM
• Capital Works	114,555,097.49	RM
h. Lost Time Injury Frequency Rate (LTIFR) (excluding fatalities)	0.362	LTIs/million man hrs
Employees Only	0.000	LTIs/million man hrs
Contractors Only	0.621	LTIs/million man hrs
• Total Lost Time Injury Cases (excluding fatalities)	10	Number of injuries
Employees Only	0	Number of injuries
Contractors Only	10	Number of injuries
• Total Man Hours	27,640,459	Man hours
Employees Only	11,535,353	Man hours
Contractors Only	16,105,106	Man hours
i. Sarawak Electrification Coverage (%)	98.02%	%
• Rural Electrification Coverage (%)	95.28%	%
j. Scope 2 – Buildings & Offices	13,447	tCO_2eq
k. Scope 3 – Business Air Travel	565.13	tCO_2

LR's Approach

LR's assurance engagements are carried out in accordance with our verification procedure. The following tasks were undertaken as part of the evidence gathering process for this assurance engagement:

- performing a risk assessment and developing a Verification Plan and Sampling Plan.
- reviewing 2019 and 2020 data and records at an aggregated level.
- interviewing relevant employees of the organization responsible for managing GHG emissions data and records.
- assessing SEB's data management systems to confirm they are designed to prevent significant errors, omissions or misstatements in the Report. We did this by reviewing the effectiveness of data handling procedures, instructions and systems, including those for internal quality control.
- Reviewing a small sample of original data for KPIs identified as highest risk during the risk assessment.

Observations

Further observations and findings, made during the assurance engagement, are:

- For stakeholder transparency, make sure it is clear in the 2020 Sustainability Report for Main Grid and Northern Grid intensity Metrics that:
  - metrics are in units of tonne of CO_2eq/MWh (not tonne CO_2/MWh)
  - emissions in CO_2eq include Direct Scope 1 emissions from CO_2, CH_4, and N_2O
  - MWh include generation from both thermal and non-thermal (hydropower) facilities.
- Consider calculating the net calorific value of coal as a weighted rather than unweighted average.
- Due to limited data, the Sarawak Electrification Coverage estimations for 2019 and 2020 rely on numerous assumptions that cannot be verified. SEB should review estimates against 2020 census data when available. Additionally, SEB should examine why the Ministry of Utilities (MOU)-approved estimation methodology yielded a number of unelectrified households for 2019 that differed by 26.6% from the surveyed number. If appropriate, the estimation methodology, assumptions, and values should be updated with MOU approval to be more accurate.
- To more accurately report total water withdrawal, consider installing water flow meters at the two plants that withdraw the largest volumes of seawater (Sejingkat Power Corp + PPLS and Mukah Power Generation).

LR's Standards, Competence and Independence

LR implements and maintains a comprehensive management system that meets accreditation requirements for ISO 14065 *Greenhouse gases – Requirements for greenhouse gas validation and verification bodies for use in accreditation or other forms of recognition* and ISO/IEC 17021 *Conformity assessment – Requirements for bodies providing audit and certification of management systems* that are at least as demanding as the requirements of the International Standard on Quality Control 1 and comply with the *Code of Ethics for Professional Accountants* issued by the International Ethics Standards Board for Accountants.

LR ensures the selection of appropriately qualified individuals based on their qualifications, training and experience. The outcome of all verification and certification assessments is then internally reviewed by senior management to ensure that the approach applied is rigorous and transparent.

Signed Dated: October 06, 2021

Rachel Pelc
LR Lead Verifier
On behalf of Lloyd's Register of Shipping (M) Bhd.
Level 28, Tower A, Naza Tower Platinum Park
No. 10, Persiaran KLCC, 50088 Kuala Lumpur, Malaysia

LR reference: KLR00000592

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
GRI 101: Foundation 2016					
General Disclosures					
GRI 102: General Disclosures 2016					
Organizational Profile					
102-1	Name of the organization	Sarawak Energy Berhad (Sarawak Energy or the Company)			
102-2	Activities, brands, products, and services	About Sarawak Energy, p. 2; Energy for Sarawak, p. 8 - 11; 2020 Year in Review, p. 13; Chairman's Statement, p. 14 - 17; Group Chief Executive Officer's Statement, p. 18 - 24; Our Corporate Structure, p. 32; Delivering Sustainable Growth, p. 71 - 72			
102-3	Location of headquarters	Menara Sarawak Energy, No. 1, The Isthmus, 93050 Kuching, Sarawak.			
102-4	Location of operations	Sarawak, Malaysia			
102-5	Ownership and legal form	The principal activity of the Company is that of an investment holding company and information on the Company's structure can be found on p. 32			
102-6	Markets served	In general, the Company serves two types of customers: a) Organic – domestic, commercial, industrial and public lighting; b) Bulk – SCORE customers and interconnection About Sarawak Energy, p. 2; Renewable Energy for Sarawak & Beyond, p. 6			
102-7	Scale of the organisation	About Sarawak Energy, p. 2 - 3; Our Corporate Structure, p. 32; Our People, p. 58; Internalising the Global Agenda (UN SDGs), p. 96; Social Inclusion, p. 149 - 150			
102-8	Information on employees and other workers	Total number of permanent and contract employees by employment type and gender		No 8 - Promote inclusive and sustainable economic growth, employment and decent work for all	

Year	2019		2020	
Gender	**Male**	**Female**	**Male**	**Female**
Permanent	3,947	1,132	3,961	1,156
Contract	105	23	220	44

102-9	Supply chain	About Sarawak Energy, p. 2; Renewable Energy for Sarawak & Beyond, p. 6 - 7; Group Chief Executive Officer's Statement, p. 20			
102-10	Significant changes to the organization and its supply chain	Our Corporate Structure, p. 32			

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
102-11	Precautionary Principle or approach	Chairman's Statement, p. 14 - 17; Group Chief Executive Officer's Statement, p. 18 - 24;			
102-12	External initiatives	The following is a list of externally developed economic, environmental and social charters, principles or other initiatives to which the Company subscribes to or endorses: • Hydropower Sustainability Assessment Protocol (HSAP) • United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) • Global Reporting Initiative (GRI) • Equator Principles • International Finance Corporation (IFC) • UN Global Compact (UNGC) • World Commission on Dams • ISO14001 • OSHA Chairman's Statement, p. 16 - 17; Delivering Sustainable Growth, p. 69			
102-13	Membership of associations	As part of the Company's commitment towards sustainability, Sarawak Energy signed a "Sustainability Partnership" with the International Hydropower Association (IHA) in early 2011, which requires the company to use the Hydropower Sustainability Assessment Protocol as a tool to assess its performance against criteria concerning the project management of social, economic and environmental issues, as well as putting into place adequate and appropriate mitigation measures. Sarawak Energy is a GRI Community Member and also on the Board of Advisory for the UN Global Compact Network Malaysia. About Sarawak Energy, p. 2			
Strategy					
102-14	Statement from the most senior decision-maker	Chairman's Statement, p. 14 - 17			
102-15	Key impacts, risks, and opportunities	Group Chief Executive Officer's Statement, p. 18 - 24; Management Discussion and Analysis, p. 25 - 26; Statement on Risk Management and Internal Control, p. 48 - 51; Board Audit and Risk Committee Report, p. 52; Our Strategic Roadmap, p. 53 - 54; COVID-19 & Our Response, p. 57; Climate Action at the Forefront, p. 108, 111 - 119			

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Ethics And Integrity					
102-16	Values, principles, standards, and norms of behavior	Vision, Mission and Living Our Values, p. 4 - 5; 2020 Year in Review, p. 13; Chairman's Statement, p. 14; Group Chief Executive Officer's Statement, p. 18 - 24; Statement of Corporate Governance, p. 42 & 47; Our People, p. 58 & 61; A Safe and Healthy Workplace, p. 63; Delivering Sustainable Growth, p. 69		No 16 - Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
Governance					
102-18	Governance structure	Group Organisation Structure, p. 33; Climate Action at the Forefront, p. 109 - 110			
Stakeholder Engagement					
102-40	List of stakeholder groups	About This Report, p. 1			
102-41	Collective bargaining agreements	Terms as agreed in Collective Agreement are extended to all nonexecutive staff under Sarawak Energy Group (except for Bakun HEP – parented staff).		No 8 - Promote inclusive and sustainable economic growth, employment and decent work for all	
102-42	Identifying and selecting stakeholders	About This Report, p. 1; Materiality Issues, p. 93			
102-43	Approach to stakeholder engagement	2020 Year in Review, p. 13; Group Chief Executive Officer's Statement, p. 23; Sarawak Energy Excellence 2022 and Five Key Focus Areas Targets, p. 56; Our People, p. 61; Delivering Sustainable Growth, p. 70; Corporate Highlights, p. 76; Materiality Issues, p. 93; Social Inclusion, p. 157 - 158			
102-44	Key topics and concerns raised	Materiality Issues, p. 93			

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Reporting Practice					
102-45	Entities included in the consolidated financial statements	Our Corporate Structure, p. 32			
102-46	Defining report content and topic Boundaries	About This Report, p. 1			
102-47	List of material topics	Materiality Issues, p. 93			
102-48	Restatements of information	No restatements have been made.			
102-49	Changes in reporting	Materiality Issues, p. 93			
102-50	Reporting period	From 1 January 2020 until 31 December 2020. About This Report, p. 1			
102-51	Date of most recent report	The Company's 2019 Sustainability Report published on 8 June 2021.			
102-52	Reporting cycle	The Company plans to publish its Sustainability Report on an annual basis.			
102-53	Contact point for questions regarding the report	General questions regarding this report can be addressed to Corporate Communication Department and Sustainability Department at: Menara Sarawak Energy, Level 8, No. 1, The Isthmus, 93050 Kuching, Sarawak. Tel: 082-388 388 (ext. 8164/ 8165)			
102-54	Claims of reporting in accordance with the GRI Standards	This report has been prepared in accordance with the GRI Standards: Core option About This Report, p. 1			
102-55	GRI content index	See p. 170 - 218			
102-56	External assurance	Disclosures within this year's edition of the Sarawak Energy Sustainability Report that are subjected to external assurance are: (p. 165 - 169) • Main Grid CO_2 Emission Intensity • Northern Grid CO_2 Emission Intensity • Scheduled Waste Generation Intensity • Annual Water Volume for Electricity Generation • Total Water Withdrawal by Source • Economic Value Retained • Total Value of Tenders Awarded to Local Sarawakian Companies • Loss Time Injury Frequency Rate (LTIFR) • Sarawak Electrification Coverage • Scope 2 - Buildings & offices • Scope 3 - Business air travel	Yes		

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Material Topics					
Economic Performance					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Driving Sustainable Growth, p. 121 & 124 - 125			
103-2	The management approach and its components	Delivering Sustainable Growth, p. 69 - 72; Driving Sustainable Growth, p. 121, 124 - 125, 129, 131 - 132 & 134			
103-3	Evaluation of the management approach	Driving Sustainable Growth, p. 121, 124 - 125, 129, 132 & 134			
GRI 201: Economic Performance 2016					
201-1	Direct economic value generated and distributed	Driving Sustainable Growth, p. 120 - 122	Yes	No 2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture	
Indirect Economic Impacts					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Renewable Energy for Sarawak & Beyond, p. 6 - 7; Energy for Sarawak, p. 8 - 11; Social Inclusion, p. 160			
103-2	The management approach and its components	Energy for Sarawak, p. 8 - 11; Management Discussion and Analysis, p. 31; Powering our Community, p. 73 - 75; Social Inclusion, p. 149, 160 - 164			
103-3	Evaluation of the management approach	Renewable Energy for Sarawak & Beyond, p. 6 - 7; Social Inclusion, p. 149, 160 - 164			
GRI 203: Indirect Economic Impacts 2016					
203-1	Infrastructure investments and services supported	Average Tariff (cent/kWh) (Year 2016 – 2020) by Customer Type Renewable Energy for Sarawak & Beyond, p. 6 - 7; Energy for Sarawak, p. 8 - 11; Powering our Community, p. 75; Social Inclusion, p. 149, 160 - 164		No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all No 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation No 11 - Make cities and human settlements inclusive, safe, resilient and sustainable	

	Year 2016	Year 2017	Year 2018	Year 2019	Year 2020
Average Organic	28.20	28.04	27.96	28.22	28.22
Domestic	28.30	28.21	28.27	28.47	28.81
Commercial	30.53	30.54	30.50	30.65	30.70
Public Lighting	47.12	47.18	47.17	47.20	47.27
Industrial	24.15	23.86	23.69	24.16	23.89

Sarawak Energy Berhad
Annual and Sustainability Report 2020
GRI Content Index
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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
203-2	Significant indirect economic impacts	Powering Our Community, p. 73 - 75; Social Inclusion, p. 149, 160 - 164		No 1 - End poverty in all its forms everywhere No 2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture No 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all No 10 - Reduce inequality within and among countries No 17 - Strengthen the means of implementation and revitalize the global partnership for sustainable development	
Procurement Practices					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Driving Sustainable Growth, p. 124			
103-2	The management approach and its components	Driving Sustainable Growth, p. 124			
103-3	Evaluation of the management approach	Creating Long-Term Value, p. 99; Driving Sustainable Growth, p. 124			

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
GRI 204: Procurement Practices 2016					
204-1	Proportion of spending on local suppliers	Sustainability Key Highlights, p. 92; Internalising the Global Agenda (UN SDGs), p. 96; Creating Long-Term Value, p. 99; Driving Sustainable Growth, p. 124	Yes	No 12 - Ensure sustainable consumption and production patterns	

Tenders Awarded	Year	Status		
		Sarawakian	Malaysia (Non-Sarawakian)	International
Capital Works	2020	114,555,097.49*	44,542,098.60	117,782,423.00
	2019	416,366,166.99[1]	274,575,584.00	299,412,243.00
	2018	625,917,773.91[2]	266,245,214.38	1,095,210,392.28
	2017	1,620,376,421.35[3]	501,190,506.73	2,884,065,817.05
	2016	445,710,032.50	138,620,455.11	1,565,861,871.58
Operations and Maintenance	2020	1,037,245,113.37*	68,301,534.66	38,580,626.30
	2019	822,335,735.58[1]	54,243,444.92	52,732,516.13
	2018	564,066,169.62[2]	26,039,763.67	30,992,905.85
	2017	424,381,685.99[3]	60,255,353.33	67,673,539.04
	2016	576,656,517.32	83,265,176.00	86,858,228.00

Notes:
1. *This total value of tenders awarded to local Sarawakian companies' data has been assured by a third party for Sustainability Report 2019.*
2. *This total value of tenders awarded to local Sarawakian companies' data has been assured by a third party for Sustainability Report 2018.*
3. *This total value of tenders awarded to local Sarawakian companies' data has been assured by a third party for Sustainability Report 2017.*
* *This total value of tenders awarded to local Sarawakian companies' data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

Materials		
GRI 103: Management Approach 2016		
103-1	Explanation of the material topic and its Boundary	Managing Our Business Footprint, p. 136
103-2	The management approach and its components	Creating Long-Term Value, p. 98; Climate Action at the Forefront, p. 117 - 119; Managing Our Business Footprint, p. 140
103-3	Evaluation of the management approach	Climate Action at the Forefront, p. 117 - 119

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
GRI 301: Materials 2016					
301-1	Materials used by weight or volume	Internalising the Global Agenda (UN SDGs), p. 97 Creating Long-Term Value, p. 98; Climate Action at the Forefront, p. 118 - 119; Managing Our Business Footprint, p. 135 & 140	Yes	No 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all No 12 - Ensure sustainable consumption and production patterns	TCFD

Category: Non-Renewable Materials Used in 2020

Plant Type	Volume (Year 2016)	Volume (Year 2017)	Volume (Year 2018)	Volume (Year 2019)	Volume (Year 2020)	Unit
Coal	2,136,639.32	2,228,768.01	2,038,842.21[3]	3,064,825.62[1]	2,684,065.69*	Tonne
Diesel[3]	23,425,847.71	15,675,168.40	20,393,035.80[2]	12,584,999.55[1]	24,301,619.57*	Litre
Natural Gas	34,622,745.43	34,262,495.10	35,891,301.46[2]	36,756,369.74[1]	33,066,287.95*	MMBtu

Note:
[3] *Diesel – excluding Limbang & Lawas*

Category: Renewable Materials

Major Plant	Year	Annual Inflow (million m³) (annual inflow from catchment)	Annual water volume for energy generation (million m³)	Annual energy generated (GWh)	Annual water consumption (million m³) (Spillway discharge)
Batang Ai	2020	4,255	3,974*	518	-
	2019	2,852	2,844[1]	391	-
	2018	3,576	3,647[2]	481	-
	2017	3,658	3,397[3]	442	-
Murum	2020	9,993	8,549*	6,415	1,446
	2019	8,183	7,532[1]	5,714	-
	2018	7,737	8,022[2]	6,094	432
	2017	10,933	7,567[3]	5,717	3,588
Bakun	2020	55,730	36,966*	14,803	15,589
	2019	40,373	38,827[1]	15,544	-
	2018	40,481	36,148[2]	14,482	4,761
	2017	49,794	32,962[3]	13,078	16,948

Notes:
1. *This annual water volume for electricity generation data and fuel consumption have been assured by a third party for Sustainability Report 2019.*
2. *This annual water volume for electricity generation data and fuel consumption have been assured by a third party for Sustainability Report 2018.*
3. *This annual water volume for electricity generation data has been assured by a third party for Sustainability Report 2017.*
* *This annual water volume for electricity generation data and fuel consumption have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

Water and Effluents		
GRI 103: Management Approach 2016		
103-1	Explanation of the material topic and its Boundary	Managing Our Business Footprint, p. 138
103-2	The management approach and its components	Creating Long-Term Value, p. 98; Climate Action at the Forefront, p. 117 - 119; Managing Our Business Footprint, p. 137 - 138
103-3	Evaluation of the management approach	Climate Action at the Forefront, p. 117 - 119; Managing Our Business Footprint, p. 137 - 138

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
GRI 303: Water and Effluents 2018					
303-1	Interactions with water as a shared resource	Climate Action Through Renewable Energy, p. 104; Managing Our Business Footprint, p. 137 - 140		No 6 - Ensure availability and sustainable management of water and sanitation for all	
303-2	Management of water discharge-related impacts	Managing Our Business Footprint, p. 140		No 6 - Ensure availability and sustainable management of water and sanitation for all	
303-3	Water withdrawal	Creating Long-Term Value, p. 98 Climate Action at the Forefront, p. 118 - 119; Managing Our Business Footprint, p. 135, 137 - 138	Yes	No 6 - Ensure availability and sustainable management of water and sanitation for all	

Plant Type: Coal

Major Plant	Source	2020	2019	2018	2017	2016
		meter cubic (m³)				
Sejingkat Power Corp + PPLS	Municipal	1,265,838.00*	1,140,932.00[1]	1,386,373.00[2]	1,603,264.00[3]	1,750,284.00
	Seawater or other natural water source	348,383,088.00*	331,568,280.00[1]	353,454,413.18[2]	366,695,496.00[3]	416,275,200.00
Mukah Power Generation	Municipal	741,874.00*	1,063,097.00[1]	803,362.00[2]	854,666.00[3]	775,245.00
	Seawater or other natural water source	219,655,670.40*	392,610,711.74[1]	410,793,379.20[2]	454,118,400.00[1]	396,509,120.00
Balingian Power Generation	Municipal	N/A*	-	-	-	-
	Seawater or other natural water source	1,650,000.00*	-	-	-	-

Plant Type: Combined Cycle - Natural Gas

SPG + Bintulu SESCO	Municipal	250,223.00*	329,516.00[1]	220,611.00[2]	145,623.00[3]	122,406.00
	Seawater or other natural water source	104,047,121.52*	241,935,030.72[1]	227,489,565.60[2]	212,876,380.80[3]	249,789,230.68

Plant Type: Open Cycle - Natural Gas

Miri SESCO	Municipal	29,542.00*	23,803.00[1]	9,225.00[2]	12,154.00[3]	10,036.00
	Seawater or other natural water source	N/A*	N/A[1]	N/A[2]	N/A[3]	N/A

Plant Type: Diesel

Sg Biawak SESCO	Municipal	1,731.51*	6,896.13[1]	13,952.50[2]	21,192.00[3]	22,402.14
	Seawater or other natural water source	-*	-[1]	69,650.00[2]	1,171,360.00[3]	2,143,090.00
Non Grid - Limbang	Municipal	41,251.00	40,859.00	22,992.00	19.44	30.52
Non Grid - Lawas	Municipal	3,700.00	2,837.00	656.00	299.00	239.00

Notes:

[1] *This total water withdrawal by source data has been assured by a third party for Sustainability Report 2019.*
[2] *This total water withdrawal by source data has been assured by a third party for Sustainability Report 2018.*
[3] *This total water withdrawal by source data has been assured by a third party for Sustainability Report 2017.*
* *This total water withdrawal by source data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Biodiversity					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Managing Our Business Footprint, p. 138 & 144			
103-2	The management approach and its components	Managing Our Business Footprint, p. 138 - 140, 144 - 146			
103-3	Evaluation of the management approach	Managing Our Business Footprint, p. 138 & 144 - 146			
GRI 304: Biodiversity 2016					
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	Internalising the Global Agenda (UN SDGs), p. 97; Managing Our Business Footprint, p. 138 - 140, 144 - 146		No 6 - Ensure availability and sustainable management of water and sanitation for all No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development No 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
304-2	Significant impacts of activities, products, and services on biodiversity	Internalising the Global Agenda (UN SDGs), p. 97; Managing Our Business Footprint, p. 138 - 140, 144 - 146		No 6 - Ensure availability and sustainable management of water and sanitation for all No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development No 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	
Emissions					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Climate Action Through Renewable Energy, p. 104 - 106; Climate Action at the Forefront, p. 112; Managing Our Business Footprint, p. 136			
103-2	The management approach and its components	Climate Action Through Renewable Energy, p. 101, 103 - 106; Climate Action at the Forefront, p. 108, 111 - 119			
103-3	Evaluation of the management approach	Climate Action Through Renewable Energy, p. 101 - 102; Climate Action at the Forefront, p. 108, 111 - 119			

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
GRI 305: Emissions 2016					
305-1	Direct (Scope 1) GHG emissions	Climate Action Through Renewable Energy, p. 100, 102 & 105; Climate Action at the Forefront, p. 107, 116 - 119	Yes	No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 12 - Ensure sustainable consumption and production patterns No 13 - Take urgent action to combat climate change and its impacts No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development No 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	TCFD

Gross direct (Scope 1) GHG emissions in metric tonne of CO_2 equivalent

Grid	Total Emissions (tCO_2) (2016)	Total Emissions (tCO_2) (2017)	Total Emissions (tCO_2) (2018)	Total Emissions (tCO_2eq) (2019)	Total Emissions (tCO_2eq) (2020)
Main	5,203,104.32	5,325,836.68	5,151,395.75	6,348,254.39*	5,600,892.97*
Northern	103,730.92	98,042.77	102,837.43	104,477.64*	97,829.99*
Stand-Alone	11,285.76	11,033.58	13,812.44	14,453.34*	9,176.85*
Company-owned Vehicles	4,114.95	4,947.31	5,189.96	5,353.45	4,167.74
Total tCO_2eq Emission	**5,322,235.95**	**5,439,860.34**	**5,273,235.58**	**6,472,538.82**	**5,712,067.55**

Total CO_2 Emissions (Main Grid)

POWER STATION (MAIN GRID)	2016 (tCO_2)	2017 (tCO_2)	2018 (tCO_2)	2019 (tCO_2eq)	2020 (tCO_2eq)
PPLS Power Generation	828,257.76	848,625.75	707,251.87	697,347.40	650,276.32
Sejingkat Power Corp.	889,123.60	916,769.06	854,293.99	679,890.56	671,849.96
Mukah Power Sdn. Bhd.	1,572,390.67	1,658,355.86	1,609,253.91	1,585,818.75	871,167.29
Balingian Power Generation	-	-	-	1,423,412.27	1,605,680.74
Sarawak Power Generation	928,015.97	825,960.98	950,543.09	950,462.21	749,873.97
Kidurong Power Generation	-	-	-	-	103,455.03
Bintulu PS	407,590.29	526,667.34	545,729.43	520,329.19	520,956.75
Miri PS	547,229.20	533,748.96	483,172.32	488,542.53	427,168.65
Sg Biawak PS	30,496.82	15,708.73	1,151.14	2,451.47	464.25
Total tCO_2eq Emission (Main Grid)	**5,203,104.31**	**5,325,836.68**	**5,151,395.75**	**6,348,254.39**	**5,600,892.97**

Total CO_2 Emissions (Northern Grid)

POWER STATION (NORTHERN GRID)	2016 (tCO_2)	2017 (tCO_2)	2018 (tCO_2)	2019 (tCO_2eq)	2020 (tCO_2eq)
Limbang PS	63,859.92	61,989.99	64,433.37	63,744.59	64,646.28
Lawas PS	39,870.99	36,052.77	38,404.06	40,733.05	33,183.71
Total tCO_2eq Emission (Northern Grid)	**103,730.91**	**98,042.76**	**102,837.43**	**104,477.64**	**97,829.99**

Note:

1. *Emissions in CO_2eq include Direct Scope 1 emissions from CO_2, CH_4 and N_2O.*

* *This Scope 1 (grid emissions - main, northern and stand-alone) data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
		Total Net Energy Generated for Stand-Alone Grids	Yes		TCFD

POWER STATION (STAND-ALONE GRID)	2016 (tCO_2)	2017 (tCO_2)	2018 (tCO_2)	2019 (tCO_2eq)	2020 (tCO_2eq)
Kapit PS	55.35	30.09	119.98	0.00	0.00
Belaga PS	3,700.47	3,505.23	3,632.72	3,700.81	3,859.01
Song PS	0.00	0.00	3,066.06	4,742.08	0.00
Ng Mujong PS	220.55	218.59	221.73	157.66	0.00
Ng Ngungun PS	1,095.53	1,118.42	748.49	0.00	0.00
Ng Jagau PS	214.01	226.73	233.08	236.12	253.84
Ng Entawau PS	293.29	295.67	303.40	280.15	289.32
Mulu PS	2,111.50	2,033.42	1,671.70	1,524.01	1,005.82
Long Lama PS	2,721.80	2,762.67	2,933.86	2,927.26	2,848.51
Banting PS	246.50	264.05	288.33	298.80	297.26
Paloh PS	570.85	578.71	593.11	586.46	623.10
Kg Bruit PS	8.92	0.00	0.00	0.00	0.00
Kg Saai PS	1.82	0.00	0.00	0.00	0.00
Bakun - Sg Asap PS	45.18	0.00	0.00	0.00	0.00
Total tCO_2eq Emission (Stand-Alone Grid)	**11,285.77**	**11,033.58**	**13,812.44**	**14,453.34**	**9,176.85**

Total Net Energy Generated for Main Grids

Plant Type	POWER STATION	2016	2017	2018	2019	2020
Coal	PPLS Power Generation	722,881.10	673,687.00	614,127.50[2]	518,672.85[1]	516,329.80*
Coal	Sejingkat Power Corp.	720,113.20	684,111.00	593,489.90[2]	505,914.49[1]	494,902.10*
Coal	Mukah Power Sdn. Bhd.	1,328,886.32	1,494,404.00	1,401,963.65[2]	1,343,966.90[1]	770,626.40*
Coal	Balingian Power Generation	-	-	-	1,421,724.40[1]	1,263,976.37*
BTU-Combined Cycle	Sarawak Power Generation	2,088,595.82	1,738,199.00	2,023,026.02[2]	2,106,253.75[1]	1,594,561.40*
BTU-Combined Cycle	Kidurong Power Generation	-	-	-	-	212,114.57*
BTU-Open Cycle	Bintulu PS	405,355.13	614,311.00	661,306.76[2]	615,465.59[1]	608,672.49*
Miri-Open Cycle	Miri PS	562,562.83	516,563.00	487,506.50[2]	535,371.43[1]	468,368.98*
Diesel-Standby	Sg Biawak PS	33,584.08	16,183.00	-567.91[2]	887.78[1]	-787.57*
Total MWh		**5,861,978.48**	**5,737,458.00**	**5,780,852.42[2]**	**7,048,257.18[1]**	**5,928,764.54***

Plant Type	Plant	2016	2017	2018	2019	2020
Hydropower	Batang Ai	444,514.18	442,324.00	480,586.75[2]	386,993.39[1]	517,434.53*
Hydropower	Bakun	12,161,263.00	13,078,267.00	14,351,890.00[2]	15,424,402.00[1]	14,680,879.00*
Hydropower	Murum	3,437,479.87	5,717,385.00	6,053,056.70[2]	5,688,832.30[1]	6,406,413.20*
Hydropower	Lundu PS	3,236.00	2,618.21	2,852.54[2]	3,024.10[1]	1,637.74*
Total MWh		**16,046,493.05**	**19,240,594.21**	**20,888,385.98[2]**	**21,503,251.79[1]**	**21,606,364.48***

Notes:
[1] *This net energy generated data has been assured by a third party for Sustainability Report 2019.*
[2] *This net energy generated data has been assured by a third party for Sustainability Report 2018.*
* *This net energy generated data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
		Total Net Energy Generated for Stand-Alone Grids	Yes		TCFD

Plant Type	Plant	2016	2017	2018	2019	2020
Diesel	Kapit PS	-	-	96.78	-	-
Diesel	Belaga PS	4,144.13	3,969.62	4,238.20	4,256.13	4,519.19
Diesel	Song PS	-	-	3,816.98	6,222.96	-
Diesel	Ng Mujong PS	243.70	244.37	250.40	177.63	-
Diesel	Ng Ngungun PS	1,262.96	1,292.73	858.68	-	-
Diesel	Ng Jagau PS	155.97	210.12	210.37	218.24	232.60
Diesel	Ng Entawau PS	330.61	319.70	343.93	328.64	340.59
Diesel	Mulu PS	2,262.76	2,110.91	1,877.34	1,641.00	1,056.89
Diesel	Long Lama PS	3,301.29	3,283.94	3,519.90	3,628.99	3,778.73
Diesel	Banting PS	263.54	293.73	319.15	342.47	335.12
Diesel	Paloh PS	641.65	633.83	662.52	699.00	735.61
Diesel	Kg Bruit PS	5.56	-	-	-	-
Diesel	Kg Saai PS	-	-	-	-	-
Diesel	Bakun - Sg Asap PS	-	-	-	-	-
Total MWh		**12,612.17**	**12,358.95**	**16,194.25**	**17,515.05**	**10,998.73**

Total Net Energy Generated (Northern Grids)

Plant Type	Plant	2016	2017	2018	2019	2020
Diesel	Limbang PS	86,650.77	84,837.18	87,494.23[2]	90,569.93[1]	91,660.87*
Diesel	Lawas PS	53,624.09	48,472.29	52,043.58[2]	57,466.64[1]	46,662.14*
Total MWh		**140,274.86**	**133,309.47**	**139,537.81[2]**	**148,036.58[1]**	**138,323.01***

Plant Type	Plant	2016	2017	2018	2019	2020
Mini Hydro	Lawas M/H (Kalamuku)	2,388.01	2,378.72	2,549.86[2]	2,012.81[1]	1,603.95*
Mini Hydro	Lawas M/H (Sg.Kota)	4,698.30	8,916.80	8,508.60[2]	5,843.57[1]	21,118.39*
Mini Hydro	Sg. Kejin	0.02	-	-	-	
Total MWh		**7,086.33**	**11,295.52**	**11,058.46[2]**	**7,856.38[1]**	**22,722.34***

Notes:
[1] *This net energy generated data has been assured by a third party for Sustainability Report 2019.*
[2] *This net energy generated data has been assured by a third party for Sustainability Report 2018.*
* *This net energy generated data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

Data assumptions:
1. *Fuel consumption, fuel Calorific Value & fuel Specific Density (for CO_2 emission calculations) data obtained from OpX*
2. *Net Energy Generated for main grid connected power plants (using OpX data) – Request for both grid Thermal & Hydro (Batang Ai, Bakun & Murum)*
3. *Net Energy Generated for non-grid connected power plants (using Rural Operation data) – Request for both non grid Thermal & Mini hydro (Sg. Kejin)*

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
305-2	Energy indirect (Scope 2) GHG emissions	Climate Action at the Forefront, p. 107, 116 - 119	Yes	No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 12 - Ensure sustainable consumption and production patterns No 13 - Take urgent action to combat climate change and its Impacts No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development No 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	TCFD

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
305-3	Other indirect (Scope 3) GHG emissions	Climate Action at the Forefront, p. 107, 116 - 119	Yes	No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 12 - Ensure sustainable consumption and production patterns No 13 - Take urgent action to combat climate change and its Impacts No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development No 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	TCFD

GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
305-4	GHG emissions intensity	Renewable Energy for Sarawak & Beyond, p. 6; Sustainability Key Highlights, p. 92; Internalising the Global Agenda (UN SDGs), p. 95; Creating Long-Term Value, p. 99; Climate Action Through Renewable Energy, p. 100 - 102, 105; Climate Action at the Forefront, p. 119	Yes	No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 12 - Ensure sustainable consumption and production patterns No 13 - Take urgent action to combat climate change and its Impacts No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development No 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	TCFD

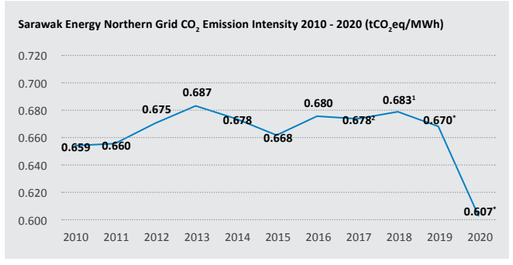
Scope 1 Emissions Intensity	Unit	2016	2017	2018	2019	2020
Normalised by Gross Energy	tCO_2eq/MWh	0.236	0.212	0.193	0.220[1]	0.201
Normalised by Net Energy	tCO_2eq/MWh	0.241	0.216	0.196	0.225[1]	0.206

Notes:
1. *Scope 1 emissions intensity normalised by gross and net energy include main, northern and stand-alone grid and company-owned vehicles.*
[1] *This Scope 1 emissions intensity (normalised by gross and net energy) for year 2019 figure has been corrected from the Sarawak Energy Sustainability Report 2019.*

Scope 2 Emissions Intensity	Unit	2019	2020
Normalised by Gross Energy	tCO_2eq/MWh	0.000466	0.000474
Normalised by Net Energy	tCO_2eq/MWh	0.000477	0.000485

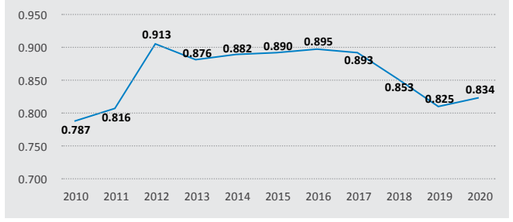
Note:
Scope 2 emissions intensity normalised by gross and net energy include buildings and offices.

Sarawak Energy Northern Grid CO_2 Emission Intensity 2010 - 2020



Notes:
[1] *This northern grid CO_2 emission intensity data has been assured by a third party for Sustainability Report 2018.*
[2] *This northern grid CO_2 emission intensity data has been assured by a third party for Sustainability Report 2017.*
[*] *This northern grid CO_2 emission intensity data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

Sarawak Energy Stand Alone Grid CO_2 Emission Intensity 2010 - 2020 (tCO_2eq/MWh)



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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
		Plants CO_2 Intensity (tCO_2eq /MWh) - Main Grid	Yes		TCFD

Year	Plant (Main Grid)	Total CO_2 Emission (tCO_2eq)	Gross Energy Generated from Thermal (MWh)	CO_2 Intensity (tCO_2eq/ MWh)
2017	Sejingkat Power Corp	916,769.06	727,761.85	1.260
	PPLS	848,625.75	767,523.86	1.106
	MPG	1,658,355.86	1,666,942.34	0.995
	SPG	825,960.98	1,772,772.00	0.466
	Bintulu SESCO	526,667.34	621,355.60	0.848
	Miri SESCO	533,748.96	523,907.27	1.019
	Sg Biawak SESCO	15,708.73	18,255.47	0.860
2018	Sejingkat Power Corp	854,293.99	673,672.50	1.268
	PPLS	707,251.87	675,296.00	1.047
	MPG	1,609,253.91	1,573,521.05	1.023
	SPG	950,543.09	2,059,519.80	0.462
	Bintulu SESCO	545,729.43	670,339.06	0.814
	Miri SESCO	483,172.32	493,843.86	0.978
	Sg Biawak SESCO	1,151.14	1,044.31	1.102
2019	Sejingkat Power Corp	679,890.56	553,289.86	1.229
	PPLS	697,347.40	637,196.85	1.094
	MPG	1,585,818.75	1,515,106.28	1.047
	BPG	1,423,412.27	1,562,639.57	0.911
	SPG	950,462.21	2,145,919.00	0.443
	Bintulu SESCO	520,329.19	625,274.14	0.832
	Miri SESCO	488,542.53	541,988.30	0.901
	Sg Biawak SESCO	2,451.47	2,127.20	1.152
2020	Sejingkat Power Corp	671,849.96	505,307.39	1.330
	PPLS	650,276.32	634,529.00	1.025
	MPG	871,167.29	858,735.07	1.014
	BPG	1,605,680.74	1,532,546.58	1.048
	SPG	749,873.97	1,628,610.51	0.460
	KID1	103,455.03	222,919.67	0.464
	Bintulu SESCO	520,956.75	616,612.83	0.845
	Miri SESCO	427,168.65	474,195.11	0.901
	Sg Biawak SESCO	464.25	330.20	1.406

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Emissions					
GRI 305: Emissions 2016					
305-5	Reduction of GHG emissions	Internalising the Global Agenda (UN SDGs), p. 95; Climate Action Through Renewable Energy, p. 100		No 13 - Take urgent action to combat climate change and its impacts No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development No 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Managing Our Business Footprint, p. 135 - 136		No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 12 - Ensure sustainable consumption and production patterns No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development No 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	

Year	Plant (Main Grid)	Gross Energy Generated from Thermal (kWh)	Total SO_x Emission (kg)	Total NO_x Emission (kg)	SO_x Intensity ($kgSO_x$/kWh)	NO_x Intensity ($kgNO_x$/wkWh)
2017	Sejingkat Power Corp	727,761,852.00	1,267,457.84	250.19	1.74×10^{-3}	3.44×10^{-7}
	PPLS	767,523,858.00	763,044.42	225.21	9.94×10^{-4}	2.93×10^{-7}
	MPG	1,666,942,336.00	1,528,744.32	641.9	9.17×10^{-4}	3.85×10^{-7}
	SPG	1,772,772,000.00	3,299.93	1,841,892.01	1.86×10^{-6}	1.04×10^{-3}
	Bintulu SESCO	621,355,600.00	152,755.93	858.34	2.46×10^{-4}	1.38×10^{-6}
	Miri SESCO	523,907,270.00	4,446.65	49,716.17	8.49×10^{-6}	9.49×10^{-5}
	Sg Biawak SESCO	18,255,470.00	417.42	2.54	2.29×10^{-5}	1.39×10^{-7}
2018	Sejingkat Power Corp	673,672,500.00	614,470.31	259.67	9.12×10^{-4}	3.85×10^{-7}
	PPLS	675,296,000.00	479,441.87	234.42	7.10×10^{-4}	3.47×10^{-7}
	MPG	1,573,521,047.00	495,377.29	402.41	3.15×10^{-4}	2.56×10^{-7}
	SPG	2,059,519,800.00	35,473.30	1,036,442.01	1.72×10^{-5}	5.03×10^{-4}
	Bintulu SESCO	670,339,060.00	31,551.82	979.77	4.71 x 10-5	1.46×10^{-6}
	Miri SESCO	493,843,860.00	306.44	8,190.26	6.21×10^{-7}	1.66×10^{-5}
	Sg Biawak SESCO	1,044,310.00	0.00	0.00	0.00	0.00
2019	Sejingkat Power Corp	553,289,860.00	89,848.99	16.423	1.62×10^{-4}	2.97 x 10-8
	PPLS	637,196,850.00	91,591.63	440.51	1.44×10^{-4}	6.91×10^{-7}
	MPG	1,515,106,278.00	251,154.40	669.96	1.66×10^{-4}	4.42×10^{-7}
	SPG	2,145,919,000.00	8,765.45	2,305,925.09	4.08×10^{-6}	1.07×10^{-3}
	Bintulu SESCO	625,274,140.00	12,003.51	130.25	1.92×10^{-5}	2.08×10^{-7}
	Miri SESCO	541,988,300.00	965.92	83.38	1.78×10^{-6}	1.54×10^{-7}
	Sg Biawak SESCO	2,127,200.00	0.00	0.00	0.00	0.00
2020	Sejingkat Power Corp	505,307,390.00	378,491.95	359,136.25	7.49×10^{-4}	7.11×10^{-4}
	PPLS	634,529,000.00	735,016.78	904,654.39	1.16×10^{-3}	1.43×10^{-3}
	MPG	858,735,070.00	1,021,298.63	1,134,177.51	1.19×10^{-3}	1.32×10^{-3}
	BPG	1,532,546,582.00	416,981.70	363,580.35	2.72×10^{-4}	2.37×10^{-4}
	SPG	1,628,610,510.00	14,055.59	1,178,960.42	8.63×10^{-6}	7.24×10^{-4}
	Bintulu SESCO	616,612,830.00	1,023,678.72	1,384,977.34	1.66×10^{-3}	2.25×10^{-3}
	Miri SESCO	474,195,110.00	0.00	107,678.46	0.00	2.27×10^{-4}
	Sg Biawak SESCO	330,200.00	0.00	0.00	0.00	0.00

Waste					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Climate Action at the Forefront, p. 112			
103-2	The management approach and its components	Climate Action at the Forefront, p. 117 - 119; Managing Our Business Footprint, p. 141			
103-3	Evaluation of the management approach	Climate Action at the Forefront, p. 117 - 119; Managing Our Business Footprint, p. 141			

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
GRI 306: Waste 2020					
306-1	Waste generation and significant waste-related impacts	Climate Action at the Forefront, p. 118 – 119; Managing Our Business Footprint, p. 141		No 12 - Ensure sustainable consumption and production patterns	
306-2	Management of significant waste-related impacts	Managing Our Business Footprint, p. 141		No 12 - Ensure sustainable consumption and production patterns	
306-3	Waste generated	Climate Action at the Forefront, p. 118 - 119; Managing Our Business Footprint, p. 141	Yes	No 12 - Ensure sustainable consumption and production patterns	

Waste Volume Generated from Hydro Power Plants by Waste Category (Tonne)

Plant Type	Plant Name	Types of Waste	Waste Code	Source/Remark	2016	2017	2018	2019[1]	2020*
					Waste Quantity by Year (Tonne)				
Hydro	Bakun HEP	Used lubricating oil	SW 305	Turbine bearing and crane motor	1.30	8.20	1.40	19.80	0.20
		Used hyraulic oil	SW 306	Power intake and governor	0.00	0.00	37.60	28.40	12.60
		Spent mineral oil -water emulsion	SW 307	Dewatering pit - oil spill due to excursion from unit	0.20	3.80	6.00	11.80	1.38
				SUM	**1.50**	**12.00**	**45.00**	**60.00**	**14.18**
		Contaminated rags	SW 410	Maintenance activities	0.00	0.00	0.03	0.30	0.74
		Contaminated oil filter	SW 410	Maintenance activities	0.00	0.00	0.00	0.01	0.00
		Empty contaminated container	SW 409	Maintenance activities	0.00	0.00	0.00	0.02	0.36
				SUM	**0.00**	**0.00**	**0.03**	**0.33**	**1.10**
		Used florescent tube and bulbs	SW 109	Powerhouse and residential area	0.00	0.08	0.01	0.22	0.04
		Waste of batteries containing cadmium and nickel or mercury or lithium	SW 103	Battery room / UPS room	0.00	0.00	0.00	0.34	0.00
		Electrical and electronic waste	SW 110	Powerhouse and residential area	0.00	0.00	0.00	0.82	0.28
				SUM	**0.00**	**0.08**	**0.01**	**1.38**	**0.31**
		Contaminated soil disposed (if applicable)	-	-	0.00	0.00	0.00	0.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
		Chemical that are discarded or off-specification	SW 429	Chemical store	0.00	0.00	0.01	0.38	0.91
		Spent inorganic acids	SW 206	Battery room / UPS room	0.00	0.00	0.00	0.32	0.00
				SUM	**0.00**	**0.00**	**0.01**	**0.71**	**0.91**

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
306-3	Waste generated	**Waste Volume Generated from Hydro Power Plants by Waste Category (Tonne)**	Yes		

Plant Type	Plant Name	Types of Waste	Waste Code	Source/Remark	2016	2017	2018	2019[1]	2020*
					Waste Quantity by Year (Tonne)				
		Used lubricating oil	SW 305	Diesel genset	1.21	0.80	0.33	1.12	0.22
		Used hyraulic oil	SW 306	For hydraulic system, e.g., intake gate	2.13	1.00	2.30	31.69	25.00
		Oil water emulsion	SW 307	Lub oil contaminated with water through process (dewatering pit, lube oil contaminated with water during operation ie leak heat exchange tube)	0.00	0.20	0.37	3.58	9.20
		Dirty diesel	SW 311	Cleaning of bolts and nuts and parts of the turbine	0.00	0.70	0.00	0.03	0.00
		Used transformer oil	SW 327	-	0.19	0.00	0.00	0.00	0.00
				SUM	**3.53**	**2.70**	**3.00**	**36.42**	**34.42**
		Discarded Oxidant Media	SW 104	-	7.00	3.00	2.29	0.24	0.00
		Discarded media of air circulation unit (carb)	SW 104	-	0.00	0.00	0.56	0.00	0.00
		Discarded paint cans	SW 409	-	0.03	0.00	0.03	0.00	0.09
		Container contaminated with SW	SW 409	-	0.00	0.10	0.31	0.74	0.05
Hydro	Murum HEP	Used oil filter	SW 410	-	0.04	0.08	0.08	0.11	0.05
		Empty spray can	SW409	-	0.00	0.00	0.00	0.01	0.01
		Contaminated rags	SW 410	-	0.29	0.05	0.49	1.15	0.56
				SUM	**7.36**	**3.23**	**3.76**	**2.26**	**0.77**
		Discarded Light Bulb/ Tube	SW 109	Building maintenance	0.00	0.00	0.08	0.04	0.00
		E-Waste	SW 110	Electrical device	0.00	0.00	0.08	0.02	0.02
		Discarded of Battery	SW103	From DC supply	0.00	0.00	0.05	0.04	0.00
				SUM	**0.00**	**0.00**	**0.21**	**0.09**	**0.02**
		Contaminated soil disposed (if applicable)	-	-	0.00	0.00	0.00	0.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
		Spent sodium hydroxide	SW 206	-	0.00	0.00	0.05	0.00	0.00
		Spent of hydrochloric acid	SW 206	-	0.00	0.00	0.04	0.00	0.00
		Mixture of SW and non-SW (Paints, plant maintainence)	SW 422	-	0.00	0.05	0.00	0.03	0.00
		Obsolete labolatory chemical	SW 430	-	0.00	0.00	0.03	0.00	0.00
				SUM	**0.00**	**0.05**	**0.13**	**0.03**	**0.00**

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
306-3	Waste generated	**Waste Volume Generated from Hydro Power Plants by Waste Category (Tonne)**	Yes		

Plant Type	Plant Name	Types of Waste	Waste Code	Source/Remark	2016	2017	2018	2019[1]	2020*
					Waste Quantity by Year (Tonne)				
Hydro	Btg Ai HEP	Used lubricating oil	SW 305	Maintenance activities	1.78	1.08	7.74	8.60	5.23
		Used transformer oil	SW 327	Transformer oil maintenance	3.01	0.28	0.79	22.11	23.00
				SUM	**4.78**	**1.36**	**8.53**	**30.71**	**28.23**
		Disposed drums contaminated with chemicals	SW 409	-	0.00	0.00	0.40	0.00	0.24
		Disposed containers contaminated with chemicals	SW 409	-	0.00	0.00	0.32	2.13	0.12
		Contaminated rags	SW410	Maintenance activities	0.37	0.40	0.83	3.62	0.55
				SUM	**0.37**	**0.40**	**1.54**	**5.75**	**0.91**
		Discarded bulb	SW 109	-	0.00	0.00	0.17	0.30	0.56
				SUM	**0.00**	**0.00**	**0.17**	**0.30**	**0.56**
		Contaminated soil	SW 408	-	0.00	0.00	0.58	0.00	0.35
				SUM	**0.00**	**0.00**	**0.58**	**0.00**	**0.35**
		Chemicals disposed (if applicable)	SW 429	-	0.00	0.00	0.00	0.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
306-3	Waste generated	**Waste Volume Generated from Coal, Gas and Diesel Fired Power Plants by Waste Category (Tonne)**	Yes		

Plant Type	Plant Name	Types of Waste	Waste Code	Source/Remark	2016	2017	2018	2019[1]	2020*
					Waste Quantity by Year (Tonne)				
Coal	SPC	Used lubricating oil	SW 305	Machinery maintenance	6.05	13.04	14.54	24.19	4.39
		Used hydraulic oil	SW 306	Machinery maintenance	19.27	20.84	34.31	9.65	6.28
				SUM	**25.32**	**33.88**	**48.85**	**33.83**	**10.67**
		Disposed containers, bags or equipment contaminated with chemicals, pesticides, mineral oil or scheduled wastes	SW 409	-	3.26	3.86	3.59	4.00	2.41
		Contaminated rags	SW 410	Items used for maintenance work	2.74	12.55	20.68	18.05	14.79
				SUM	**6.00**	**16.41**	**24.27**	**22.05**	**17.20**
		Waste of lead acid batteries in whole or crushed form	SW 102	Machinery maintenance	0.19	0.76	0.26	0.27	0.21
		Waste of batteries containing cadmium and nickel or mercury or lithium	SW 103	Machinery maintenance	0.02	0.11	0.01	0.02	0.01
		E-waste	SW 110	Electrical & electronic maintenance	0.29	0.41	0.58	0.51	0.13
				SUM	**0.50**	**1.29**	**0.85**	**0.80**	**0.35**
		Contaminated soil, debris or matter resulting from cleaning-up of a spill of chemical, mineral oil or scheduled wastes	SW 408	-	3.45	2.99	2.68	3.73	3.70
				SUM	**3.45**	**2.99**	**2.68**	**3.73**	**3.70**
		Chemicals that are discarded or off-specification	SW 429	-	0.00	0.00	0.25	1.74	1.72
				SUM	**0.00**	**0.00**	**0.25**	**1.74**	**1.72**
		Fly Ash (Dry/fly ash is last produced in July 2017. Thus, smaller amount than 2016 total generation)	SW 104	Plant operation	2,782.00	1,391.00	0.00	0.00	3,529.47
		Bottom Ash (Wet/ bottom)	SW 104	Plant operation	84,521.06	86,340.52	0.00	0.00	63,652.00
		Wet Ash (Wet and dry ashes stored in ash pond)	SW 104	Plant operation	0.00	0.00	79,264.08	70,589.01	-
			Fly Ash	**SUM**	**2,782.00**	**1,391.00**	**0.00**	**0.00**	**3,529.47**
			Bottom Ash	**SUM**	**84,521.06**	**86,340.52**	**79,264.08**	**70,589.01**	**63,652.00**

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
306-3	Waste generated	**Waste Volume Generated from Coal, Gas and Diesel Fired Power Plants by Waste Category (Tonne)**	Yes		

Plant Type	Plant Name	Types of Waste	Waste Code	Source/Remark	2016	2017	2018	2019[1]	2020*
					Waste Quantity by Year (Tonne)				
Coal	MPG	Used lubricating oil	SW 305	From machine/ equipment during shutdown	28.76	16.53	39.79	11.44	21.18
		Used hydraulic oil	SW 306	Hydraulic system (e.g., for the torch system)	0.00	0.00	0.52	0.52	0.35
				SUM	**28.76**	**16.53**	**40.31**	**11.95**	**21.53**
		Contaminated empty drum	SW 409	From machine/ equipment during shutdown & service	3.42	1.17	2.76	0.00	0.78
		Contaminated rags	SW 410	Service & cleaning oil spillage	5.11	1.98	0.48	0.14	0.43
				SUM	**8.53**	**3.15**	**3.24**	**0.14**	**1.21**
		Used batteries	SW 102	From equipment,electrical & electronic part, for genset, double AA, torchlight, for testing equipment, auxilary equipment	0.30	0.00	0.29	0.00	0.00
		E-waste	SW 110	From machine/ equipment, lap top part, part of electrical (panel)	0.07	0.09	0.03	0.51	0.15
				SUM	**0.37**	**0.09**	**0.33**	**0.51**	**0.15**
		Contaminated soil disposed (if applicable)	-	-	0.00	0.00	0.00	0.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
		Discarded Chemical Waste	SW 429	Analysis and sampling, from lab	0.13	0.00	0.05	0.01	0.08
				SUM	**0.13**	**0.00**	**0.05**	**0.01**	**0.08**
		Fly Ash	SW 104	Plant operation	60,377.42	63,761.64	46,552.92	80,394.56	7,686.03
		Boiler Bottom Ash Hopper	SW 204	Plant operation	6,093.77	6,382.54	7,989.88	8,047.50	5,099.19
			Fly Ash	**SUM**	**60,377.42**	**63,761.64**	**46,552.92**	**80,394.56**	**7,686.03**
			Bottom Ash	**SUM**	**6,093.77**	**6,382.54**	**7,989.88**	**8,047.50**	**5,099.19**

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
306-3	Waste generated	**Waste Volume Generated from Coal, Gas and Diesel Fired Power Plants by Waste Category (Tonne)**	Yes		

Plant Type	Plant Name	Types of Waste	Waste Code	Source/Remark	2016	2017	2018	2019[1]	2020*
					Waste Quantity by Year (Tonne)				
Coal	BPG	Used lubricating oil	SW305	Machinery maintenance	-	-	-	-	1.90
		Used hydraulic oil	SW306	Machinery maintenance	-	-	-	-	0.00
		Oily residue from automotive workshop, service station, oil or grease interceptor	SW312	Machinery maintenance & operation	-	-	-	-	0.07
				SUM	**-**	**-**	**-**	**-**	**1.97**
		Disposed containers, bags or equipment contaminated with chemicals, pesticides, mineral oil or scheduled wastes	SW409	-	-	-	-	-	2.70
		Contaminated rags	SW410	Items used for maintenance work	-	-	-	-	0.54
				SUM	**-**	**-**	**-**	**-**	**3.24**
		Waste of lead acid batteries in whole or crushed form	SW102	Machinery maintenance	-	-	-	-	0.00
		Waste of batteries containing cadmium and nickel or mercury or lithium	SW103	Machinery maintenance	-	-	-	-	0.00
		E-waste	SW110	Electrical & electronic maintenance	-	-	-	-	0.00
				SUM	**-**	**-**	**-**	**-**	**0.00**
		Contaminated soil, debris or matter resulting from cleaning-up of a spill of chemical, mineral oil or scheduled wastes	SW408	-	-	-	-	-	7.00
				SUM	**-**	**-**	**-**	**-**	**7.00**
		Chemicals that are discarded or off-specification	SW429	-	-	-	-	-	0.00
				SUM	**-**	**-**	**-**	**-**	**0.00**
		Fly Ash (Dry/fly ash is last produced in July 2017. Thus, smaller amount than 2016 total generation)	SW 104	Plant operation	-	-	-	-	66,967.71
		Bottom Ash (Wet/ bottom)	SW 104	Plant operation	-	-	-	-	11,817.83
		Wet Ash (Wet and dry ashes stored in ash pond)	SW 104	Plant operation	-	-	-	-	113,845.11
			Fly Ash	**SUM**	**-**	**-**	**-**	**-**	**66,967.71**
			Bottom Ash	**SUM**	**-**	**-**	**-**	**-**	**125,662.94**

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
306-3	Waste generated	**Waste Volume Generated from Coal, Gas and Diesel Fired Power Plants by Waste Category (Tonne)**	Yes		

Plant Type	Plant Name	Types of Waste	Waste Code	Source/Remark	2016	2017	2018	2019[1]	2020*
					Waste Quantity by Year (Tonne)				
Natural Gas	Bintulu PS	Used lubricating oil	SW 305	Maintenance	0.00	28.20	32.90	28.20	35.20
		Dirty Diesel	SW 421	Diesel engine, sometimes used for engine cleaning.	1.20	1.40	2.60	2.60	3.97
				SUM	**1.20**	**29.60**	**35.50**	**30.80**	**39.17**
		Used Paint Can	SW 409	Maintenance	0.00	0.00	0.20	0.80	0.46
		Used Chemical Bottle	SW 409	Maintenance	0.00	0.00	0.10	0.80	0.08
		Contaminated rags	SW 410	Maintenance	0.60	0.50	2.60	4.21	0.20
		Used oil filter	SW 410	Maintenance	1.10	0.80	3.60	5.40	3.28
		Spent Silica Gel	SW 429	Maintenance	0.00	0.00	1.70	2.10	1.43
				SUM	**1.70**	**1.30**	**8.20**	**13.31**	**5.45**
		Used Cadmium Batteries	SW 103	From control system in MCR, gas turbine	0.00	8.50	5.09	0.00	0.00
		Chemical waste containing mercury	SW 109	Maintenance	0.01	0.00	0.00	0.00	0.00
		Used Bulbs	SW 110	Building Maintenance	0.01	0.00	0.00	0.11	0.21
		E-waste	SW 110	Building Maintenance	0.00	0.00	0.00	0.00	0.36
				SUM	**0.02**	**8.50**	**5.09**	**0.11**	**0.57**
		Contaminated soil disposed (if applicable)	-	-	0.00	0.00	0.00	0.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
		Mixed Chemicals	SW 429	Maintenance	0.00	0.00	0.00	0.20	0.06
		Sludge containing lead	SW 204	Maintenance	0.00	0.00	0.00	3.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**3.20**	**0.06**
		Gas condensate	SW 421	-	N/A	4.35	9.83	0.00	0.00
				SUM	**0.00**	**4.35**	**9.83**	**0.00**	**0.00**

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
306-3	Waste generated	**Waste Volume Generated from Coal, Gas and Diesel Fired Power Plants by Waste Category (Tonne)**	Yes		

Plant Type	Plant Name	Types of Waste	Waste Code	Source/Remark	2016	2017	2018	2019[1]	2020*
					Waste Quantity by Year (Tonne)				
Natural Gas	Miri PS	Used lubricating oil	SW 305	-	3.60	2.80	10.60	2.20	2.20
		Used transformer oil	SW 306	-	0.20	26.00	8.80	0.40	2.60
		Oil-water emulsion (dirty diesel, cleaning of engine, operation of gen set)	SW 307	-	2.00	0.00	0.00	0.00	0.00
		Sludge from mineral oil storage tank (sludge from the diesel storage tank)	SW 310	-	0.20	0.00	0.00	0.00	0.00
		Mixture scheduled waste (cleaning of gen set, collected by product)	SW 421	-	1.60	1.00	1.00	0.60	0.40
				SUM	**7.60**	**29.80**	**20.40**	**3.20**	**5.20**
		Contaminated drum	SW 409	-	0.32	0.36	0.20	0.04	0.03
		Contaminated rags	SW 410	-	0.90	1.60	1.30	0.70	0.80
		Used oil filter	SW 410	-	0.80	0.40	0.30	0.60	0.40
				SUM	**2.02**	**2.36**	**1.80**	**1.34**	**1.23**
		Used battery (gen set, acid battery)	SW 103	-	0.05	0.00	1.95	1.90	0.00
		Fluorescent tube lighting	SW 109	-	0.00	0.00	0.01	0.20	0.00
				SUM	**0.05**	**0.00**	**1.96**	**2.10**	**0.00**
		Contaminated soil disposed (if applicable)	SW 409	-	0.00	0.00	0.00	0.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
		Chemicals disposed (if applicable)	-	-	0.00	0.00	0.00	0.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
		Gas condensate	SW 421	-	2.20	4.00	5.80	3.40	2.40
				SUM	**2.20**	**4.00**	**5.80**	**3.40**	**2.40**

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
306-3	Waste generated	**Waste Volume Generated from Coal, Gas and Diesel Fired Power Plants by Waste Category (Tonne)**	Yes		

Plant Type	Plant Name	Types of Waste	Waste Code	Source/Remark	2016	2017	2018	2019[1]	2020*
					Waste Quantity by Year (Tonne)				
Diesel	Sg Biawak PS	Used lubricating oil	SW 305	From diesel engine (flushing of lube separators)	48.72	53.63	17.40	88.95	2.22
		Used hydraulic oil	SW 306	From transformer	0.00	0.00	0.00	17.81	0.00
				SUM	**48.72**	**53.63**	**17.40**	**106.75**	**2.22**
		Uncured Resin waste	SW 325	Termination insulation of transformer	0.27	0.00	0.10	0.00	0.00
		Contaminated empty drum	SW 409	-	1.20	1.54	1.00	0.18	0.00
		Discarded chemical bottles	SW 409	Laboratory	0.02	0.00	0.01	0.00	0.04
		Contaminated rags	SW 410	Cleaning of Diesel engine	0.10	0.30	0.05	0.01	0.03
		Used oil filter	SW 410	Diesel engine lube oil filter	0.01	0.02	0.00	0.00	0.00
				SUM	**1.59**	**1.86**	**1.16**	**0.19**	**0.07**
		Used battery acid plumbum	SW 102	From diesel fire pump (for starting)	0.47	0.14	0.08	0.00	0.00
		Waste containing mercury or its compound	SW 109	Flouresent tubes	0.03	0.00	0.05	0.04	0.00
				SUM	**0.50**	**0.14**	**0.13**	**0.04**	**0.00**
		Contaminated soil disposed (if applicable)	-	-	0.00	0.00	0.00	0.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
		Non-Halogenated organic solvent	SW 322	Laboratory	0.05	0.00	0.08	0.02	0.02
				SUM	**0.05**	**0.00**	**0.08**	**0.02**	**0.02**
Diesel	Limbang PS	Used lubricating oil	SW 305	Machinery maintenance	30.60	30.60	54.60	42.60	56.80
		Dirty Diesel	SW 421	Machinery maintenance	24.20	24.20	32.60	22.80	30.40
				SUM	**54.80**	**54.80**	**87.20**	**65.40**	**87.20**
		Contaminated Used Drum	SW 409	Machinery maintainance	3.18	1.06	4.42	2.24	1.84
		Contaminated Used Paint Can	SW 409	Machinery maintainance	0.00	0.05	0.40	0.40	0.15
		Contaminated rags	SW 410	Machinery maintainance	0.90	0.90	1.50	1.30	1.80
		Used oil filter	SW 410	Machinery maintainance	0.00	0.60	0.20	0.10	0.07
				SUM	**4.08**	**2.61**	**6.52**	**4.04**	**3.86**
		Lead Acid Battery	SW 102	From machine/ equipment (Fork lift, dari fire hydrant pump)	0.00	0.00	0.50	0.00	0.00
		Unused Air Conditioner (e-waste)	SW 110	From machine/ equipment	0.00	0.02	0.20	0.00	0.00
				SUM	0.00	0.02	0.70	0.00	0.00
		Contaminated Soil	SW 408	Machinery maintainance	0.00	0.00	0.10	0.00	0.00
				SUM	0.00	0.00	0.10	0.00	0.00
		Chemicals disposed (if applicable)	-	-	0.00	0.00	0.00	0.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
306-3	Waste generated	**Waste Volume Generated from Coal, Gas and Diesel Fired Power Plants by Waste Category (Tonne)**	Yes		

Plant Type	Plant Name	Types of Waste	Waste Code	Source/Remark	2016	2017	2018	2019[1]	2020*
					Waste Quantity by Year (Tonne)				
Diesel	Lawas PS	Used lubricating oil	SW 305	-	4.03	6.40	11.00	11.57	20.20
		Dirty Diesel	SW 421	-	9.65	8.39	14.20	12.49	0.00
				SUM	**13.68**	**14.78**	**25.20**	**24.06**	**20.20**
		Contaminated empty drum	SW 409	-	0.00	0.00	1.12	1.05	0.65
		Contaminated rags	SW 410	-	0.29	0.41	1.60	1.98	1.40
				SUM	**0.29**	**0.41**	**2.72**	**3.03**	**2.05**
		E-waste disposed (if applicable)	-	-	0.00	0.00	0.00	0.00	0.00
				SUM	0.00	0.00	0.00	0.00	0.00
		Contaminated soil	SW 108	-	0.80	0.98	0.00	0.00	0.00
				SUM	**0.80**	**0.98**	**0.00**	**0.00**	**0.00**
		Chemicals disposed (if applicable)	-	-	0.00	0.00	0.00	0.00	0.00
				SUM	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Type of Plant	Type of Waste	Waste Quantity by Year (Tonne)				
		2016	2017	2018	2019	2020
Hydro	Used Oil	9.81	16.06	56.53	127.13	76.83
	Contaminated Items	7.73	3.63	5.33	8.34	2.77
	E-Waste	-	0.08	0.38	1.77	0.89
	Contaminated Soil	0.00	0.00	0.58	0.00	0.35
	Chemicals	-	0.05	0.14	0.73	0.91
	Total	**17.54**	**19.82**	**62.96**	**137.981**	**81.75***
Thermal	Used Oil	180.08	233.01	274.86	276.00	188.16
	Fly Ash	63,159.42	65,152.64	46,552.92	80,394.56	78,183.21
	Bottom Ash	90,614.83	92,723.06	87,253.96	78,636.51	194,414.13
	Others (Contaminated Items, E-Waste, Gas Condensate, Contaminated Soil and Chemicals)	32.27	50.45	75.75	59.74	50.36
	Total	**153,986.60**	**158,159.16**	**134,157.49**	**159,366.81[1]**	**272,835.86***
	Grand Total	**154,004.14**	**158,178.98**	**134,220.46**	**159,504.78[1]**	**272,917.61***

Notes:

[1] *These volume of waste generated and scheduled waste generation intensity data have been assured by a third party for Sustainability Report 2019.*

* *These volume of waste generated and scheduled waste generation intensity data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Environmental Compliance					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	A Safe and Healthy Workplace, p. 65			
103-2	The management approach and its components	2020 Year in Review, p. 12; A Safe and Healthy Workplace, p. 68; Managing Our Business Footprint, p. 142 - 143			
103-3	Evaluation of the management approach	2020 Year in Review, p. 12; Sarawak Energy Excellence 2022 and Five Key Focus Areas Targets, p. 55; A Safe and Healthy Workplace, p. 68; Managing Our Business Footprint, p. 142 - 143			
GRI 307: Environmental Compliance 2016					
307-1	Non-compliance with environmental laws and regulations	2020 Year in Review, p. 12; Sarawak Energy Excellence 2022 and Five Key Focus Areas Targets, p. 55; A Safe and Healthy Workplace, p. 68 1. The company was fined RM 4,000 for 2 violations under Environmental Quality (Scheduled Wastes) Regulation 2005 in Sri Aman Regional Office 2. The company was fined RM 2,000 for violating Environmental Quality (Scheduled Wastes) Regulation 2005 in Long Lama Power Station 3. The company received a Notice for violating Environmental Quality (Scheduled Wastes) Regulation 2005 in Sri Aman Regional Office		No 16 - Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Employment					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Our People, p. 58; Social Inclusion, p. 150			
103-2	The management approach and its components	Management Discussion and Analysis, p. 30; Our People, p. 58; Social Inclusion, p. 149			
103-3	Evaluation of the management approach	Management Discussion and Analysis, p. 30; Social Inclusion, p. 149			
GRI 401: Employment 2016					
401-1	New employee hires and employee turnover	Creating Long-Term Value, p. 99; Social Inclusion, p. 150		No 5 - Achieve gender equality and empower all women and girls No 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	

New Hires and Turnover by Gender and Age

New Hires (by Gender)	2016			2017			2018			2019			2020		
	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL
Total number	190	68	258	278	70	348	227	77	304	258	110	368	275	75	350
By age, in numbers															
Up to 30 years old	167	56	223	244	59	303	158	58	216	159	67	226	222	53	275
Between 31 and 50 years old	20	12	32	20	10	30	51	17	68	99	43	142	45	22	67
Over 50 years old	3	0	3	14	1	15	18	2	20				8	0	8

Staff Turnover (by Gender)	2016			2017			2018			2019			2020		
	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL
Total number	86	28	114	95	42	137	128	32	160	147	26	173	146	30	176
By age, in numbers															
Up to 30 years old	25	16	41	28	21	49	18	19	37	76	23	99	18	10	28
Between 31 and 50 years old	34	10	44	19	8	27	21	7	28				22	6	28
Over 50 years old	27	2	29	48	13	61	89	6	95	71	3	74	106	14	120

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD

New Hires and Turnover by Company

New Hires (by Company)	2016			2017			2018			2019			2020		
	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL
Total number	190	68	258	278	70	348	227	77	304	258	110	368	275	75	350
By company, in numbers															
Sarawak Energy Berhad	82	37		254	61		227	77	304	258	110	368	275	75	350
Sejingkat Power	-	-		-	-										
Mukah Power	-	-		-	-										
SESCO Headquarters	51	21		1	4										
SESCO Kuching	3	4		10	1										
SESCO Sri Aman	1	0		0	2										
SESCO Sarikei	1	0		2	1										
SESCO Sibu	16	1		2	2										
SESCO Bintulu	23	1		-	-										
SESCO Miri	8	3		3	2										
Balingian Power Generation	5	1		1	2										
SarawakHidro Sdn Bhd	-	-		0	0										

Staff Turnover (by Company)	2016			2017			2018			2019			2020		
	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL
Total number	86	28	114	95	42	137	128	32	160	147	26	173	146	30	176
By company, in numbers															
Sarawak Energy Berhad	6	1		13	8		16	15		34	12	46	35	11	46
Sejingkat Power	3	1		2	0		3			11		11			
Mukah Power	4	0		2	0		2			3		3			
SESCO Headquarters	37	17		45	17		52	8		37	10	47	37	8	45
SESCO Kuching	13	3		11	9		18	2		14	1	15	36	4	40
SESCO Sri Aman	1	0		0	0		6			3		3			
SESCO Sarikei	3	1		2	0		2	1		11		11	4	1	5
SESCO Sibu	9	1		7	4		12	2		14		14	9	1	10
SESCO Bintulu	5	0		4	0		7	2		7	1	8	5	0	5
SESCO Miri	3	4		8	4		10	2		12	1	13	14	4	18
Balingian Power Generation	2	0		1	0		-	-			1	1			
SarawakHidro Power Sdn. Bhd.	-	-		0	0		40	15		1		1	2	0	2
Bakun Hydro Power Generation													4	1	5

% Turnover rate 2016 = 2.55%
% Turnover rate 2017 = 2.77%
% Turnover rate 2018 = 3.19%
% Turnover rate 2019 = 3.32%
% Turnover rate 2020 = 3.27%

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees			No 8 - Promote inclusive and sustainable economic growth, employment and decent work for all	

Types of Leave	Description	Remarks
Annual	Service below 10 years = 20 days per annum Service 10 years and above = 25 days per annum	All employees received same entitlement irrespective of salary grade
Maternity	90 calendar days	Limited to 5 surviving children
Nursing	Maximum 60 calendar days	Unpaid
Paternity	7 continuous calendar days	Limited to 5 occasions
Hajj	40 days	Granted only once; should serve for not less than 5 continuous years
Unrecorded	30 working days per annum - maximum	For the purpose of: • Armed Forces Training • Sporting & Cultural Activities • Koperasi SESCO • Examination • Deepavali – 1 day • Charity • Pilgrimage
Study	Subject to terms and conditions as determined by the Company	
Compassionate	Up to 4 working days	For purpose of attending the funeral of any one of the following relatives: • Spouse • Children who are natural, lawfully adopted or stepchildren • Parents • Parents in-law • Children's Spouse
Overtime	Maximum of 15 working days or 120 hours per year	For executive group E1-E4 only and valid per current year
Sick	Non-hospitalized = 22 days Hospitalized = 60 days	Aggregate 60 days paid leave per annum
Prolonged Illness	• On full salary for a maximum period of 6 consecutive months • On half salary for a further period of 6 consecutive months • Unpaid prolonged illness leave for a further period of 6 consecutive months	
Blood donors privilege	1 day	

Benefits

Type of Loan & Subsidies	Entitlement (RM)	Remarks
Housing (Interest Subsidy)	400,000.00	Same entitlement irrespective of salary grade
Car (Interest Subsidy)	170,000.00	Top Management (SG1 - SG5-B)
	130,000.00	Managers (E5 - E8)
	80,000.00	Executives (E1 - E4)
	50,000.00	Non-Executives (NE1 - NE6)
Motorcycle Loan	7,000.00	All Staff
Computer Loan	3,000.00	All Staff
House Moving Expenses Subsidy	1,500.00	Same entitlement irrespective of salary grade

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	**Welfare** Funeral Financial Assistance **Deceased Person** / **Rate (RM)** / **Remarks** Serving Employee – 3,000.00 Spouse & Children < 21 years old – 3,000.00 Parents – 3,000.00 Retiree – 3,000.00 – Employees joined employment on or after 1 September 2019 are not entitled **New Benefits** **Reimbursement** / **Subsidy Rate (RM)** Dental & Optical – 750.00 per year and per family Healthy Living – 500.00 per year and per family			
Occupational Health and Safety					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	A Safe and Healthy Workplace, p. 63 - 65; Social Inclusion, p. 153 - 155			
103-2	The management approach and its components	Chairman's Statement, p. 14 - 17; Group Chief Executive Officer's Statement, p. 18 - 24; Management Discussion and Analysis, p. 26; COVID-19 & Our Response, p. 57; Our People, p. 60 - 61; A Safe and Healthy Workplace, p. 63 - 65, 67 - 68; Social Inclusion, p. 153 - 159			
103-3	Evaluation of the management approach	Management Discussion and Analysis, p. 26; COVID-19 & Our Response, p. 57; Our People, p. 61; A Safe and Healthy Workplace, p. 65 - 68; Social Inclusion, p. 156 - 159			
GRI 403: Occupational Health and Safety 2018					
403-1	Occupational health and safety management system	Social Inclusion, p. 153 - 154		No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 8 - Promote inclusive and sustainable economic growth, employment and decent work for all	

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
403-2	Hazard identification, risk assessment, and incident investigation	A Safe and Healthy Workplace, p. 64 - 65; Social Inclusion, p. 156 - 159		No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 8 - Promote inclusive and sustainable economic growth, employment and decent work for all	
403-3	Occupational health services	A Safe and Healthy Workplace, p. 64; Social Inclusion, p. 158		No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 8 - Promote inclusive and sustainable economic growth, employment and decent work for all	
403-4	Worker participation, consultation, and communication on occupational health and safety	Social Inclusion, p. 153 - 154 & 156 - 159 **Environment & Occupational Health & Safety (EOSH) Members in 2019 & 2020:** **Members** / **Year 2019** / **Year 2020** Chairman – 21 – 22 Secretary – 21 – 22 Employer Representative – 133 – 211 Employees Representative – 213 – 301		No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 8 - Promote inclusive and sustainable economic growth, employment and decent work for all	
403-5	Worker training on occupational health and safety	A Safe and Healthy Workplace, p. 64; Social Inclusion, p. 157		No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 8 - Promote inclusive and sustainable economic growth, employment and decent work for all	
403-6	Promotion of worker health	A Safe and Healthy Workplace, p. 64 - 65; Social Inclusion, p. 157 - 158		No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 8 - Promote inclusive and sustainable economic growth, employment and decent work for all	

GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	A Safe and Healthy Workplace, p. 64 - 65; Social Inclusion, p. 157 - 158		No 3 - Ensure healthy lives and promote wellbeing for all at all ages No 8 - Promote inclusive and sustainable economic growth, employment and decent work for all	
403-9	Work-related injuries	Management Discussion and Analysis, p. 26; Sarawak Energy Excellence 2022 and Five Key Focus Areas Targets, p. 55; Social Inclusion, p. 149 & 155	Yes	No 3 - Ensure healthy lives and promote well-being for all at all ages No 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
403-10	Work-related ill health	A Safe and Healthy Workplace, p. 64; Social Inclusion, p. 156 - 159		No 3 - Ensure healthy lives and promote well-being for all at all ages No 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
Training and Education					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Social Inclusion, p. 150 - 152			
103-2	The management approach and its components	2020 Year in Review, p. 13; Our People, p. 59 & 62; Social Inclusion, p. 152			
103-3	Evaluation of the management approach	2020 Year in Review, p. 13; Sarawak Energy Excellence 2022 and Five Key Focus Areas Targets, p. 56; Our People, p. 62; Social Inclusion, p. 151			

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
GRI 404: Training and Education 2016					
404-1	Average hours of training per year per employee	Social Inclusion, p. 151 **Total and Average of Hours of Training Recorded by Category and Gender for 2016 - 2020**		No 4 - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all No 5 - Achieve gender equality and empower all women and girls No 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
404-2	Programs for upgrading employee skills and transition assistance programs	Our People, p. 62; Social Inclusion, p. 152		No 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
404-3	Percentage of employees receiving regular performance and career development reviews	100% Sarawak Energy Excellence 2022 and Five Key Focus Areas Targets, p. 56		No 5 - Achieve gender equality and empower all women and girls No 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment	
Indigenous Rights					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Social Inclusion, p. 161			
103-2	The management approach and its components	Social Inclusion (see Building an Inclusive Society), p. 161 (see Culture and Heritage), p. 162			
103-3	Evaluation of the management approach	Social Inclusion (see Building an Inclusive Society), p. 161 (see Culture and Heritage), p. 162			

Total and Average of Hours of Training Recorded by Category and Gender for 2016 - 2020

Year		2017	2018	2019	2020
Total Number of Employees by Category	Management	222	477	145	298
	Executive	2,554	2,139	1,538	1,219
	Non-executive	5,129	5,425	3,338	3,864
Total Hours of Training by Category	Management	956	7,994	3,269	6,403
	Executive	29,554	31,473	28,932	22,993
	Non-executive	70,680	73,864	57,864	22,912
Average Hours of Training by Category	Management	4.31	16.76	22.54	21.49
	Executive	11.62	14.71	18.81	18.86
	Non-executive	13.78	13.62	17.33	5.93

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
GRI 411: Rights of Indigenous Peoples 2016					
411-1	Incidents of violations involving rights of indigenous peoples	There were no identified incidents of violations involving the rights of indigenous peoples during the reporting period.		No 2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture	
Local Communities					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Social Inclusion, p. 161			
103-2	The management approach and its components	Social Inclusion, p. 161 - 164			
103-3	Evaluation of the management approach	Delivering Sustainable Growth, p. 70; Social Inclusion, p. 161 - 164			
GRI 413: Local Communities 2016					
413-1	Operations with local community engagement, impact assessments, and development programs	Powering Our Community, p. 74 - 75; Social Inclusion, p. 161 - 163 100% of Sarawak Energy's operations involves and includes local community engagement, impact assessments and development programs, particularly projects categorised under "prescribed activities" by the Natural Resources and Environment Board, Sarawak and Department of Environment.		No 16 - Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
Customer Privacy					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Driving Sustainable Growth, p. 132			
103-2	The management approach and its components	Driving Sustainable Growth, p. 132 & 134			
103-3	Evaluation of the management approach	Driving Sustainable Growth, p. 132 & 134			

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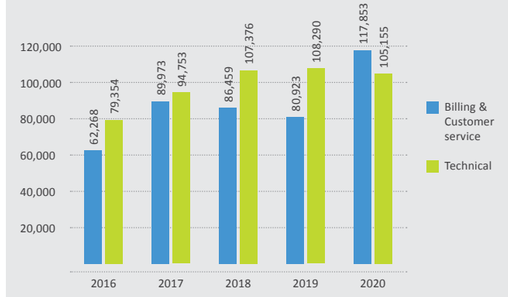
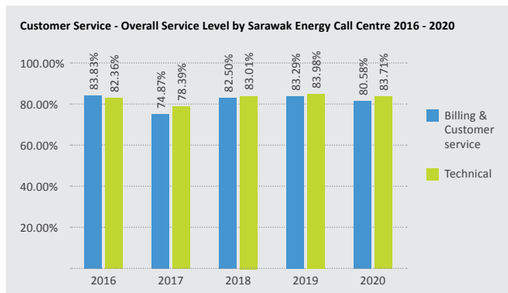
GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
GRI 418: Customer Privacy 2016					
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	There were no substantiated complaints regarding breaches of customer privacy and losses of customer data in 2020. **Number of Calls Handled by Sarawak Energy Call Centre and Overall Service Level by Sarawak Energy Call Centre** At Customer Care Centre, we aim to give our customers the optimal services that they may feel valued and fairly treated. In line with that, our executives are trained to handle both billing and technical enquiries that meet the various needs of our customers. In terms of billing, we offer assistance to customers that covers new applications, billing and meter related issues and general enquiries. Similarly, we also attend to technical enquiries such as outages, faulty streetlights and other technical issues.		No 16 - Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	

Customer Service - No. of Calls Handled by Sarawak Energy Call Centre 2016 - 2020



Customer Service - Overall Service Level by Sarawak Energy Call Centre 2016 - 2020



Notes:

1. *For Billing and Customer Service, our customer care executives offer assistance and handle enquiries associated with new applications, billing and meter related issues, as well as general enquires (office location, counter operating hours, tariff, etc).*

2. *For Technical, we primarily cover outages, streetlight and other technical issues such as vegetation clearing, voltage issue, slanting/broken pole or wire, vandalism etc.*

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Socioeconomic Compliance					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Group Chief Executive Officer's Statement, p. 19			
103-2	The management approach and its components	Group Chief Executive Officer's Statement, p. 19; Statement of Corporate Governance, p. 42 & 47; Statement on Risk Management and Internal Control, p. 48 - 51			
103-3	Evaluation of the management approach	Statement of Corporate Governance, p. 42 & 47; Statement on Risk Management and Internal Control, p. 48 - 51			
GRI 419: Socioeconomic Compliance 2016					
419-1	Non-compliance with laws and regulations in the social and economic area	During the year under review, Sarawak Energy did not incur any fines for non-compliance with: i. Products and services on information and labeling ii. Marketing communications including advertising, promotions and sponsorships		No 16 - Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
ELECTRIC UTILITIES SECTOR DISCLOSURES					
Organizational Profile					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	About Sarawak Energy, p. 2			
103-2	The management approach and its components	Energy for Sarawak, p. 8 - 11			
103-3	Evaluation of the management approach	Energy for Sarawak, p. 8			
Sector Disclosure: Organizational Profile					
EU1	Installed Capacity, Broken Down by Primary Energy Source and by Regulatory Regime	Energy for Sarawak, p. 8; Driving Sustainable Growth, p. 127		No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all	TCFD

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
EU2	Net Energy Output Broken Down by Primary Energy Source and by Regulatory Regime	Climate Action Through Renewable Energy, p. 103; Climate Action at the Forefront, p. 119; Driving Sustainable Growth, p. 127	Yes	No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development	TCFD

Major Grid Generation by Plants (GWh), by Energy Source	2017	2018	2019	2020
Hydro				
Batang Ai HEP	442.32	480.59[2]	386.99[1]	517.43*
Bakun HEP	13,078.27	14,351.89[2]	15,424.40[1]	14,680.88*
Murum HEP	5,717.39	6,053.06[2]	5,688.83[1]	6,406.41*
Lundu PS	2.62	2.85[2]	3.02[1]	1.64*
Coal				
Sejingkat Power Corp.	684.11	593.49[2]	505.91[1]	494.90*
PPLS Power Generation	673.69	614.13[2]	518.67[1]	516.33*
Mukah Power Sdn. Bhd.	1,494.40	1,401.96[2]	1,343.97[1]	770.63*
Balingian Power Generation	-	-	1,421.72[1]	1,263.98*
Gas				
Miri PS	516.56	487.51[2]	535.37[1]	468.37*
Bintulu PS	614.31	661.31[2]	615.47[1]	608.67*
Sarawak Power Generation	1,738.20	2,023.03[2]	2,106.25[1]	1,594.56*
Kidurong Power Generation	-	-	-	212.11*
Diesel				
Sg Biawak PS	16.18	-0.57[2]	0.89[1]	-0.79*
TOTAL ENERGY GENERATED	**24,978.05**	**26,669.24[2]**	**28,551.51[1]**	**27,535.13***

Notes:
[1] *This net energy generated data has been assured by a third party for Sustainability Report 2019.*
[2] *This net energy generated data has been assured by a third party for Sustainability Report 2018.*
* *This net energy generated data has been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

EU3	Number of Residential, Industrial, Institutional and Commercial Customer Accounts	Renewable Energy for Sarawak & Beyond, p. 6			

Grid / Non Grid	Tariff	No. of Active Customers' Account	No. of Inactive Customers' Account	Total No. of Customers' Account
Grid	C1	97,409	6,967	104,376
Grid	C2	19	1	20
Grid	C3	37	2	39
Grid	DOM	577,997	22,890	600,887
Grid	I1	911	24	935
Grid	I2	35	4	39
Grid	I3	83	3	86
Grid	I4	15	0	15
Grid	PL	11,191	279	11,470
Non Grid	C1	3,988	238	4,226
Non Grid	DOM	20,109	993	21,102
Non Grid	I1	23	0	23
Non Grid	PL	293	3	296
Grand Total		**712,110**	**31,404**	**743,514**

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
EU4	Length of Above and Underground Transmission and Distribution Lines by Regulatory Regime	Internalising the Global Agenda (UN SDGs), p. 94		No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all	

Distribution Lines

	Total Length of Distribution Lines in 2020					
	33kV Distribution		11kV Distribution		415V Distribution	
Region	O/H (km)	U/G (km)	O/H (km)	U/G (km)	O/H (km)	U/G (km)
WR Kuching	1,168.99	722.78	2,257.39	1,923.92	5,421.58	1,712.77
WR Sri Aman	869.66	65.76	1,589.59	181.75	1,434.45	99.96
CR Sarikei	304.06	72.79	656.28	103.99	1,277.10	122.64
CR Sibu	1,127.33	340.02	1,429.61	890.11	3,110.83	776.81
NR Bintulu	711.08	209.21	192.26	360.22	601.17	236.90
NR Miri	420.98	302.15	783.14	625.90	2,900.53	651.77
NR Limbang	109.77	20.60	690.09	80.16	578.24	40.04
Total	**4,711.86**	**1,733.31**	**7,598.34**	**4,166.04**	**15,323.90**	**3,640.89**

Transmission Lines

	Total Length of Transmission Lines in 2020			
	500kV energized at 275kV	275kV	132kV	Total
Overhead (km)	753.00	3,100.36	830.63	**4,683.99**
Underground (km)	0	0	23.47	**23.47**
Total (km)	**753.00**	**3,100.36**	**854.10**	**4,707.46**

Availability and Reliability					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Renewable Energy for Sarawak & Beyond, p. 7			
103-2	The management approach and its components	About Sarawak Energy, p. 3; Group Chief Executive Officer's Statement, p. 22; Management Discussion and Analysis, p. 29; Our Strategic Roadmap, p. 53 - 54			
103-3	Evaluation of the management approach	Renewable Energy for Sarawak & Beyond, p. 7; Our Strategic Roadmap, p. 53 - 54			

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Sector Disclosure: Availability & Reliability					
EU10	Planned capacity against projected electricity demand over the long term, broken down by energy source and regulatory regime	Renewable Energy for Sarawak & Beyond, p. 7; Driving Sustainable Growth, p. 127		No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all	
System Efficiency					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Our Strategic Roadmap, p. 54			
103-2	The management approach and its components	Our Strategic Roadmap, p. 54; Climate Action at the Forefront, p. 112 & 115			
103-3	Evaluation of the management approach	Our Strategic Roadmap, p. 54; Climate Action at the Forefront, p. 116			
Sector Disclosure: System Efficiency					
EU11	Average generation efficiency of thermal plants by energy source and by regulatory regime			No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all No 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all No 12 - Ensure sustainable consumption and production patterns No 13 - Take urgent action to combat climate change and its impacts No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development	

Plant Type	Major Plant	Total Average Energy Efficiency[1] (%) – Year 2017	Total Average Energy Efficiency[1] (%) – Year 2018	Total Average Energy Efficiency[1] (%) – Year 2019	Total Average Energy Efficiency[1] (%) – Year 2020
Coal	Sejingkat Power Corp	26.42%	26.39%	27.25%	25.11%
Coal	PPLS	30.19%	31.80%	30.72%	32.62%
Coal	MPG	33.49%	32.70%	31.90%	33.01%
Coal	BPG	-	-	35.58%	31.85%
Combined Cycle - Natural Gas	SPG	38.22%	38.59%	40.25%	38.68%
Open Cycle - Natural Gas	Bintulu SESCO	20.94%	21.70%	21.22%	21.03%
Open Cycle - Natural Gas	Miri SESCO	20.89%	21.89%	21.28%	21.44%
Diesel - Standby	Sg Biawak SESCO	31.19%	24.05%	22.14%	17.86%[2]
Diesel - Non Grid	Limbang SESCO	37.08%	34.88%	34.69%	34.58%
Diesel - Non Grid	Lawas SESCO	36.30%	34.69%	34.40%	34.37%

Notes:

[1] *Total average energy efficiency for Sarawak Energy thermal power plants connected to Main and Northern grids.*

[2] *Plant on standby mode.*

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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
EU12	Transmission and distribution losses as a percentage of total energy	2020 Year in Review, p. 12; Group Chief Executive Officer's Statement, p. 22; Value Optimisation, p. 28; Sarawak Energy Excellence 2022 and Five Key Focus Areas Targets, p. 55; Driving Sustainable Growth, p. 129 - 130		No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all No 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all No 12 - Ensure sustainable consumption and production patterns No 13 - Take urgent action to combat climate change and its impacts No 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development	

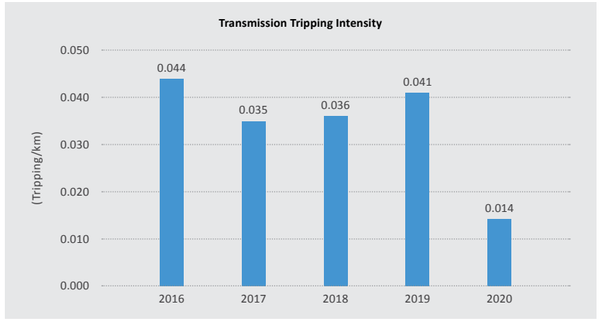
Total Number of Transmission Tripping and Tripping Intensity at Transmission (Year 2016 – 2020)

Total Distance of Distribution and Transmission lines:

Total Distance	2016	2017	2018	2019	2020
Distribution - 33kV, 11kV, 415kV (km)	32,802.64	34,421.06	35,095.00	35,948.05	37,174.33
Transmission (km)	1,743.90	2,187.59	2,224.80	2,404.76	4,707.46
TOTAL	**34,546.54**	**36,608.65**	**37,319.80**	**38,352.81**	**41,881.79**

Total Number of Transmission Tripping and Tripping Intensity at Transmission:

Total Distance	Year	2016	2017	2018	2019	2020
Number of Transmission Tripping	Substation	56	21	22	29	15
	Transmission	20	56	58	69	53
	Total	**76**	**77**	**80**	**98**	**68**
Transmission Tripping Intensity (Tripping/km)		**0.044**	**0.035**	**0.036**	**0.041**	**0.014**



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GRI CONTENT INDEX FOR 'IN ACCORDANCE' – CORE

Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Access					
GRI 103: Management Approach 2016					
103-1	Explanation of the material topic and its Boundary	Social Inclusion (see Advancing Sarawak's Rural Electrification Agenda), p. 160			
103-2	The management approach and its components	About Sarawak Energy, p. 3; Management Discussion and Analysis, p. 25; Social Inclusion (see Advancing Sarawak's Rural Electrification Agenda), p. 160			

Total Number of DRMS (Distribution Remote Monitoring System) substation installed in 2020 = 195 nos.

Description	Total Number Installed
DRMS Sub	695
RTU	705

Sensor	Telemetry Points
Photobeam	1
Street Light Aux. Cont.	41
Street Light Supply	84
Substation Building	27
Pillar Door	846
EFI	561
Transformer Loss of Supply	747
Main Gate	16
Total Points	**2,325**

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
103-3	Evaluation of the management approach	About Sarawak Energy, p. 3; Group Chief Executive Officer's Statement, p. 20 - 23; Management Discussion and Analysis, p. 25 & 29; Generation Excellence, p. 27; Value Optimisation, p. 28; Delivering Sustainable Growth, p. 72; Social Inclusion (see Advancing Sarawak's Rural Electrification Agenda), p. 160			
Sector Disclosure: Access					
EU26	Percentage of population unserved in licensed distribution or service areas	About Sarawak Energy, p. 3; Renewable Energy for Sarawak & Beyond, p. 6; 2020 Year in Review, p. 12; Group Chief Executive Officer's Statement, p. 23; Management Discussion and Analysis, p. 25; Delivering Sustainable Growth, p. 72; Internalising the Global Agenda (UN SDGs), p. 94; Social Inclusion, p. 149 & 160 • State electrification coverage – 98.02˚% • Rural electrification coverage – 95.28˚% (129,453 of rural households electrified since 2010)	Yes	No 1 - End poverty in all its forms everywhere No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all	

NEW HOUSEHOLDS CONNECTED					
YEAR	2016	2017	2018	2019	2020
Normal Rural Electrification Scheme (RES)	12,697	5,409	3,990	5,239	3,186
Hybrid Programmes	1,224	966	270	483	70
SARES	719	1,124	1,448	3,122	3,354
TOTAL	**14,640**	**7,499**	**5,748**	**8,844**	**6,610**

Note:
* *These Sarawak electrification coverage and rural electrification coverage data have been assured by a third party. Read the Independent Assurance Report on pages 165 – 169.*

EU27	Number of residential disconnections for non-payments, broken down by duration of disconnection and by regulatory regime	Driving Sustainable Growth, p. 130		No 1 - End poverty in all its forms everywhere No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all	
EU28	Power outage frequency	2020 Year in Review, p. 12; Group Chief Executive Officer's Statement, p. 22; Value Optimisation, p. 28; Sarawak Energy Excellence 2022 and Five Key Focus Areas Targets, p. 55; Driving Sustainable Growth, p. 128		No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all	
EU29	Average power outage duration	About Sarawak Energy, p. 3; Energy for Sarawak, p. 11; 2020 Year in Review, p. 12; Group Chief Executive Officer's Statement, p. 22; Value Optimisation, p. 28; Sarawak Energy Excellence 2022 and Five Key Focus Areas Targets, p. 55; Sustainability Key Highlights, p. 92; Internalising the Global Agenda (UN SDGs), p. 94; Driving Sustainable Growth, p. 128 - 129		No 1 - End poverty in all its forms everywhere No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all	

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
EU30	Average plant availability factor by energy source and by regulatory regime	Group Chief Executive Officer's Statement, p. 22; Generation Excellence, p. 27; Sarawak Energy Excellence 2022 and Five Key Focus Areas Targets, p. 55; Internalising the Global Agenda (UN SDGs), p. 94; Driving Sustainable Growth, p. 128		No 1 - End poverty in all its forms everywhere No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all	

Average plant equivalent availability factor (%) and Forced Outage (Hours) by energy source (Thermal Power Plants)

		Year 2017		Year 2018		Year 2019		Year 2020	
Plant Type	Major Plant	Equivalent Availability (%)	Forced Outage (Hours)	Equivalent Availability (%)	Forced Outage (Hours)	Equivalent Availability (%)	Forced Outage (Hours)	Equivalent Availability (%)	Forced Outage (Hours)
Coal	Sejingkat Power Corp	85.91	62.01	88.45	340.77	73.32	3,998.20	82.88	1,187.65
Coal	PPLS	90.48	217.80	88.63	433.95	89.56	1,191.70	90.34	400.93
Coal	MPG	80.63	784.57	79.33	547.42	75.43	519.98	87.73	220.67
Coal	BPG	-	-	-		41.48	5.88	97.04	182.72
Combined Cycle – Natural Gas	SPG	71.88	1,050.09	88.61	87.63	88.25	252.24	72.04	282.87
Open Cycle – Natural Gas	Bintulu SESCO	87.58	963.93	91.17	196.93	91.10	642.26	87.04	237.44
Open Cycle – Natural Gas	Miri SESCO	75.47	1,365.65	77.96	712.03	93.48	273.45	88.81	2,108.05
Diesel – Standby	Sg Biawak SESCO	92.24	992.93	87.12	4,106.30	99.06	32.29	98.79	0.00
Diesel – Non Grid	Limbang SESCO	97.87	145.50	95.08	1,336.00	97.05	221.00	97.48	120.00
Diesel – Non Grid	Lawas SESCO	72.30	29.00	76.26	0.00	74.57	1,560.00	95.59	114.00

		Year 2017		Year 2018		Year 2019		Year 2020	
Plant Type	Major Plant	Availability (%)	Forced Outage (Hours)	Availability (%)	Forced Outage (Hours)	Availability (%)	Forced Outage (Hours)	Availability (%)	Forced Outage (Hours)
Hydro	Batang Ai HEP	94.80	35.97	92.10	3.90	83.83	172.22	91.40	122.04
Hydro	Murum HEP	95.19	48.24	96.08	170.94	85.09	1,076.91	94.85	250.51
Hydro	Bakun HEP	93.56	1,662.82	92.23	23.37	97.13	482.17	94.84	284.22

Notes:
1. *Sarawak Energy Thermal Power Plants is using Equivalent Availability Factor (EAF).*
2. *Sarawak Energy Hydro operation is using Availability Factor (AF).*

Research and Development		
GRI 103: Management Approach 2016		
103-1	Explanation of the material topic and its Boundary	Social Inclusion, p. 160
103-2	The management approach and its components	Climate Action Through Renewable Energy, p. 104; Managing Our Business Footprint, p. 146; Social Inclusion, p. 160
103-3	Evaluation of the management approach	Managing Our Business Footprint, p. 146; Social Inclusion, p. 160

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Disclosure Number	Disclosure Title	Page/Direct Reference	External Assurance	SDG linkage to Disclosure	TCFD
Sector Disclosure: Research & Development					
(Former EU8)	Research and development activity and expenditure aimed at providing reliability electricity and promoting sustainable development	**Research and Development Projects for 2020** Name of Project 2020 / Approved Budget (RM) Semadang Microgrid Project – 3,600,000.00 Grid Connected Energy Storage System – 2,460,319.00 Solar-Hydrogen in Rural Electrification – 350,000.00 Development of AI Robotic System – 100,000.00 Integration of Smart and Low-Cost Sensor – 100,000.00 Development of 3D Printing System – 30,000.00		No 7 - Ensure access to affordable, reliable, sustainable and modern energy for all No 9 - Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation No 17 - Strengthen the means of implementation and revitalize the global partnership for sustainable development	

GLOSSARY

ABC	-	Anti-Bribery and Corruption
ADD	-	Acquire, Develop and Deploy
ASEAN	-	Association of Southeast Asian Nations
ASR	-	Annual and Sustainability Report
BARC	-	Board Audit and Risk Committee
BCM	-	Business Continuity Management
BMI	-	Body Mass Index
BPBC	-	Bumiputera Participation Board Committee
CCMO	-	Cash Conservation and Management Office
CCPP	-	Combined Cycle Power Plant
CI	-	Continuous Improvement
CoE	-	Code of Ethics
COVID-19	-	Coronavirus Disease 2019
CSR	-	Corporate Social Responsibility
CURIA	-	Courage, Utility, Respect, Integrity and Respect
DOE	-	Department of Environment
EAF	-	Equivalent Available Factor
EAP	-	Employee Assistance Programme
EIA	-	Environmental Impact Assessment
ERC	-	Executive Risk Committee
ERM	-	Enterprise Risk Management
ESG	-	Environmental, Social and Corporate Governance
EV	-	Electric Vehicle
FOR	-	Forced Outage Rate
GEC	-	Group Executive Committee
GHG	-	Greenhouse gas
GIA	-	Group Internal Audit
GNRC	-	Governance, Nomination and Remuneration Committee
GRI	-	Global Reporting Initiative
HEP	-	Hydroelectric Plant
HESG	-	Hydropower Sustainability ESG (Environmental, Social and Corporate Governance) Gap Analysis Tool
HRD	-	Human Resources Director
HSAP	-	Hydropower Sustainability Assessment Protocol
HSSE	-	Health, Safety, Security and Environment
IECA	-	Internal Environmental Compliance Audit
IHA	-	International Hydropower Association
KALTARA	-	Northern Province of Kalimantan
KPI	-	Key Performance Indicators
KPP	-	PT Kayan Patria Pratama Group
LTI	-	Lost Time Injury
LTIFR	-	Lost Time Injury Frequency Rate
MACC	-	Malaysian Anti-Corruption Commission
MCO	-	Movement Control Order
MOA	-	Manual of Authority
MoU	-	Memorandum of Understanding
NADA	-	National Anti-Drug Agency
NREB	-	Natural Resources and Environment Board
NWA	-	New Work Arrangement
PPA	-	Power Purchase Agreement
PPE	-	Personal Protective Equipment
PPG	-	Policies, Procedures & Guidelines
RAM	-	RAM Rating Services Berhad
REC	-	Renewable Energy Certificate
RES	-	Rural Electrification Scheme
ROA	-	Return of Asset
SAIDI	-	System Average Interruption Duration Index
SAIFI	-	System Average Interruption Frequency Index
SARES	-	Sarawak Alternative Rural Electrification Scheme
SCIENCE	-	Sarawak Community Innovation Engineering Competition Exhibition
SCORE	-	Sarawak Corridor of Renewable Energy
SDMC	-	State Disaster Management Committee
SEAC	-	Sarawak Economic Action Council
SEACE	-	Sarawak Energy Access, Comply & Empower
SEE	-	Sarawak Energy Excellence
SEES	-	Sarawak Energy Employee Survey
SELWN	-	Sarawak Energy Leading Women Network
SEVAA	-	Sarawak Energy Vendor Appraisal & Awards
SLL	-	Sustainability-Linked Loan
SME	-	Subject Matter Expert
SOP	-	Standard Operating Procedure
STEM	-	Science, Technology, Engineering and Mathematics
TCFD	-	Task Force on Climate-related Financial Disclosures
TME	-	Talent Management Excellence
UN	-	United Nations
UN SDGs	-	United Nations' Sustainable Development Goals

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