



# Power to Grow

## Sustainable Energy Development and a Reliable, Secure Power System for Sarawak

Energy development in Sarawak is undertaken holistically, balancing energy security, sustainability and affordability to meet current and forecast demand. Each project is undertaken to deliver the ultimate objective - ensure full access to reliable 24-hour supply for everyone in Sarawak and power the State ambition to become a developed state by 2030 under the Sarawak Corridor of Renewable Energy (SCORE).

Wholly State-owned Sarawak Energy and its subsidiaries are responsible for delivering this and are entrusted with securing upstream resources, as well as planning and building the infrastructure required for the overall generation, transmission, distribution and retail of electricity, under the guidance of the State Government within the regulatory framework of Ministry of Utilities.

Leading the effort is a strong management team and multi-disciplinary workforce committed to delivering reliable, renewable and affordable energy to power Sarawak. The workforce is gearing up for an increasingly diverse portfolio in support of Sarawak's efforts to build a digital economy and its ongoing regional expansion as the ASEAN Powerhouse, following first export of power to West Kalimantan in 2016.

To keep ahead with a changing world and increasing expectations, Sarawak Energy has embarked on a massive upgrade of Sarawak's electricity infrastructure to modernise the power supply system. It has also continuously adapted, transforming from its origins as a local Kuching-based power unit in the 1920s to become an energy development company and a vertically integrated electricity utility with international customers and partnerships over the last century of its operations.

As a modern and progressive flag bearer for Sarawak, its transformation continues as it focuses on achieving excellence in health, safety and environment; generation and operations as well as talent management underpinned by a progressive corporate culture.

Despite the massive expansion efforts, Sarawak Energy's customers continue to enjoy the lowest average electricity tariffs in Malaysia and amongst the lowest in South East Asia. This is a direct result of the farsighted focus on renewable and affordable hydropower as the predominant part of Sarawak's generation mix. Thermal sources continue to form part of the generation mix to provide security of supply.



Minister for Utilities YB Dato Sri Dr Stephen Rundi declared open the 275kV Murum Junction Substation in September this year. Also seen in the picture are Datuk Liwan Lagang, Assistant Minister of Water Supply; Dr Abdul Rahman Junaidi, Assistant Minister of Rural Electricity and Dato Alice Jawan, Permanent Secretary to the Ministry of Utilities.

## Reliable, Affordable, Renewable and Sustainable Energy for Sarawak and Beyond

The committed demand for energy from Sarawak Energy's domestic, commercial and industrial customers has grown from just about 1,000MW in 2009 to almost 3,500MW today. This is largely SCORE driven, with more than 2,000MW of committed demand from SCORE agreements with local and international customers.

Projections indicate that by 2020, Sarawak's energy demand will increase to 4,100MW, rising further to 5,600MW by 2026. Total electricity demand is expected to rise to 6,000 MW by 2030 as the state's GDP expands 5-fold, with approximately 1.6 million new jobs created when SCORE is fully operational.

Fortunately, Sarawak is blessed with abundant resources, enabling it to meet growing demand by harnessing the state's hydro, coal and gas resources, guided by international best practices.

Leveraging on Sarawak's fossil fuel resources, work is continuing on the 600MW Balingian Coal-Fired Power Plant and the expansion of Bintulu's Tanjung Kidurong Power Station with the addition of a 2x400MW Combined Cycle Gas Plant.

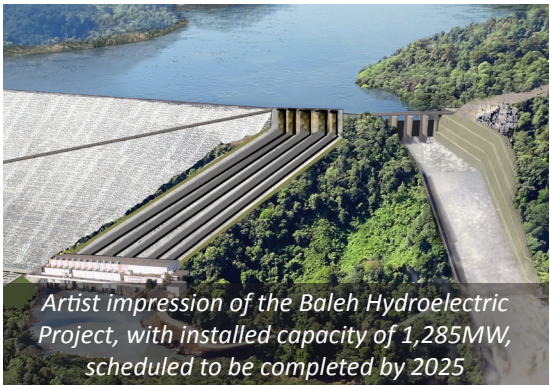


## Looking Back at 2017

Led by new Group Chief Executive Officer Sharbini Suhaili, 2017 saw landmark achievements with Sarawak Energy acquiring Bakun Hydroelectric Plant; grow its customer base to 650,000 accounts; expand its staff strength to 5,000 people and help the government to expand Sarawak's electrification rate to 95%.

The critical portions of the second backbone 500kV transmission project have largely been completed minimising the risk of major power interruptions to Sarawak's more densely populated south.

Baleh Hydroelectric Project is going into construction and the company is spearheading research efforts into the application of hydrogen and fuel cells for public transport as well as exploring ways to enhance the state's digital infrastructure as part of the drive towards a Digital Economy.



Artist impression of the Baleh Hydroelectric Project, with installed capacity of 1,285MW, scheduled to be completed by 2025



The Murum Junction Substation facilitates and integrates supply from Murum and Bakun into the State Grid



The 600MW Balingian Coal-Fired Power Plant expected to be commissioned in 2018



Powering up energy intensive industries in Samalaju Industrial Park

## Transmission & Distribution

To ensure the power is delivered to customers reliably and continuously, Sarawak Energy has invested significantly in transmission and distribution projects.

This includes one of the most important State Grid infrastructure projects ever undertaken – the RM2.7billion 500kV second backbone to provide Sarawak with a second transmission grid.

This new grid helps to transmit electricity supply from major generation power plants in northern Sarawak to load centres where SCORE customers are located as well as the densely populated southern cities of Kuching and Sibu.

About RM300million is spent annually to reinforce and strengthen the distribution system which transforms high voltage energy from the State Grid into medium to low voltage energy at substations before being distributed to individual consumers.

Of the total, RM50million is spent to maintain the basic substation and overhead line as well as to clear the vegetation near all these facilities. The rest of the allocation is used to build new distribution substations, new lines and to upgrade heavily loaded transformers and overhead lines.

**Power to Grow**  
[www.sarawakenergy.com.my](http://www.sarawakenergy.com.my)



## Key Achievement



### Advancing Hydropower

Hydropower development has accelerated infrastructure development in rural areas such as Ulu Belaga and Batang Ai with better road networks improving access to amenities and urban centres for formerly remote local communities.

Sarawak Energy now has a total of three major hydroelectric plants (HEP) with the acquisition of the 2,400MW Bakun Hydroelectric Plant. This will grow to four with completion of 1,285MW Baleh Hydroelectric Plant by 2025.

The acquisition of Bakun HEP will enable the Sarawak State Government and Sarawak Energy to have full ownership of all electricity generation facilities in Sarawak, improve Sarawak's capacity to maintain power security and reliability, and enable operational efficiency through better integration of the Bakun and Murum HEPs.





## Key Achievement



### 500kV Second Transmission Backbone

Sarawak Energy's drive to modernise Sarawak's power system has passed a significant milestone with the commissioning and energisation of the Similajau to Mapai portion and the Mapai to Entinggan portion of the 500kV transmission backbone on 30 June and 28 August respectively this year.

These new transmission lines will reinforce the State Grid, enhancing system supply especially in southern Sarawak.

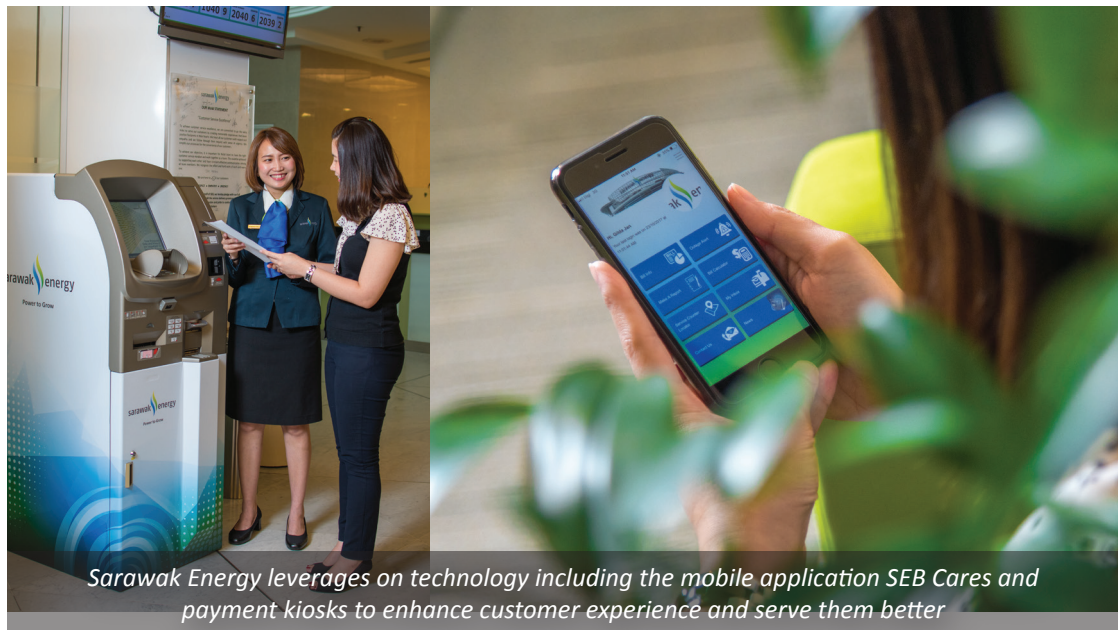
Despite considerable public good, the project has encountered delays due to wayleave and land claim issues amongst other factors although multi-party cooperation has seen some resolution.

## Enhancing Customer Experience

Sarawak Energy's customers are benefiting from technology innovations and digitalisation efforts to further enhance customer experience and to cater for diverse preferences at key touchpoints. SEB Cares provides a one-stop solution mobile application for customers to interface with Sarawak Energy via their mobile phone. The app enables customers to lodge complaints, receive notifications, inquire on billings and make payments.

Payment kiosks are available at some service outlets to ease congestion at payment counters. Sarawak Energy also has a Customer Care Centre that operates 24/7 and 365 days a year in two locations (Kuching and Miri), to respond to customers' calls promptly. Sarawak Energy service centres in the state are also located at Urban Transformation Centres (UTCs).

Sarawak Energy is also on call round the clock to ensure quick restoration during any power interruption. Mobile Field Force Automation (MFFA) monitor and track response time of technical field crews in attending to customer complaints related to outages and malfunctioning of street lightings. Operation and maintenance works are often carried out in hazardous and severe weather conditions while prioritising the safety of the workforce.



Sarawak Energy leverages on technology including the mobile application SEB Cares and payment kiosks to enhance customer experience and serve them better

## Sustainability

Sarawak Energy is mindful of the impact of its projects and assets on the people and the surrounding areas, and aims to maximise the positive benefits while mitigating potential negative impacts. Programmes are developed together with project affected communities to optimise social and economic opportunities focused on educational funding and skills training to enhance livelihood opportunities.

Sarawak Energy taps into and contributes to global expertise and best practice through international partnerships which include:

- Platinum Member of the International Hydropower Association (IHA) and an elected member of the Board - hydropower projects are guided by and in accordance with the International Hydropower Association Sustainability Assessment Protocols as well as the United Nations Declaration of the Indigenous People.
- Member of the UN Global Compact Network Malaysia (2017) and an advisory board member.
- Gold Member of the Global Reporting Initiative (GRI)

Sustainability Report 2016 was endorsed by GRI on the accuracy of UN Sustainable Development Goals linkage to relevant indicators and verified by a third party.



Sarawak Energy Executive Vice President for Corporate Services Aisah Eden and Manager for Sustainability Mohamad Irwan Aman in front of the UN Headquarters in New York, USA attending the UN Global Compact Leaders Summit 2017

## MAKING AN IMPACT



SUSTAINABILITY REPORT 2016

## Sarawak Energy Excellence 2020 Key Focus Areas



The Chief Minister of Sarawak together with Deputy Chief Minister 1 and Minister for Utilities declare open the solar power station at Rumah Irai along Sungai Binyo, Sebauh under SARES



Solar Home Systems light up the communities in Batang Ai as part of Sarawak Energy CSR programmes

## Electrification Goals

Sarawak aims to reach 100 percent electrification for its 2.6million population by 2025. This is challenging given that about 45% of Sarawak's people live in rural areas dispersed sparsely across the state's mountainous interior and winding rivers and headwaters.

The State aims to provide greater access to 24-hour electricity for all Sarawakians through a mixture of strategies. These include via grid extension under the Rural Electrification Scheme or RES which extends distribution lines from the existing grid and Rural Power Supply Scheme or RPSS which builds new transmission lines and substations at strategic locations for rural grid extensions under RES. For the most remote villages, renewable alternative stand-alone systems such as solar or mini hydro under the Alternative Hybrid Rural Electrification Project (Hybrid) and Sarawak Alternative Rural Electrification Scheme (SARES) initiatives are being implemented.

### Partnering the State to Build a Better Tomorrow

As a committed partner in building a better tomorrow through the State's vision of a digital economy, Sarawak Energy is spearheading initiatives such as energy related research in hydrogen and fuel cells application for public transport in the state.

The digital revolution is also coming to Sarawak Energy's power utilities business with digital applications at various stages in generation, operations and retail arms. SEB Cares is a mobile application to enrich customer experience and smart meters are being piloted to reduce reliance on visual readings. Other potential applications include the smart grid and digital productivity tools for employees and automation of back office processes.



Chief Minister Datuk Patinggi Abang Haji Johari Tun Abang Haji Openg at the press conference to announce that Sarawak Energy has been entrusted to lead in research on hydrogen and fuel cell. Also seen in the picture are Tan Sri Datuk Amar Haji Mohamad Morshidi Bin Haji Abdul Ghani, State Secretary; Dato Sri Dr Stephen Rundi, Minister for Utilities; Datuk Amar Abdul Hamed Sepawi, Chairman of Sarawak Energy and Sharbini Suhaili, Group CEO of Sarawak Energy.



## Public Outreach

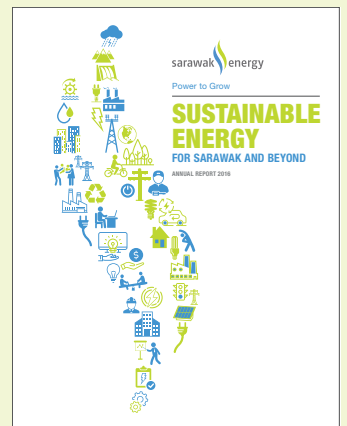
Sarawak Energy reaches out to the public and stakeholders through various platforms including traditional mass media as well as online and social media.

Facebook @SarawakEnergy  
Twitter @1SarawakEnergy  
Website: [www.sarawakenergy.com.my](http://www.sarawakenergy.com.my)

As a non-listed public entity, Sarawak Energy is not bound by the regulated disclosure requirements of the Securities Commission. However, corporate annual reports and sustainability reports are published on a voluntary basis to ensure transparency.

The Annual Report 2015 was awarded Bronze at the Australasian Reporting Awards (ARA) held in Melbourne in June this year - Sarawak Energy's first international recognition for its annual report.

The ARA provides organisations that produce annual reports the opportunity to benchmark their reports against world best practice. Sarawak Energy was amongst companies in the region who met demanding ARA criteria, while providing satisfactory coverage and presenting quality disclosures.



Alexander Chin, Chief Financial Officer receiving the award with Eric Yong, Senior Manager, Group Finance and Accounting at the even in Melbourne.

### Towards Sarawak Energy Excellence by 2020

#### – A Progressive Corporate Culture

To support the State's vision to be a developed and high income State by 2030 through SCORE and on a Digital Economy foundation, Sarawak Energy has transformed itself from a stable and traditional utility, to become an international, modern and agile corporation.

As part of the strategy roadmap for continuous and sustainable, Sarawak Energy is investing in its human capital, and embarking on the next phase of its growth strategy to consolidate and protect the value created over past years by focusing on the five Key Focus Areas of Excellence - Health, Safety and Environment, Operations, Project Delivery, Talent Management and High Performance Culture.