



PRESS RELEASE

S.A. 2020/05/34 (HQ)

TNB SUBSIDIARY IN PARTNERSHIP WITH ENVISION DIGITAL TO DIGITIALISE OPERATIONS OF ITS LARGEST SOLAR POWER PROJECT IN MALAYSIA

TNB Renewables Sdn. Bhd. ("TRe"), a wholly-owned subsidiary of Tenaga Nasional Berhad ("TNB"), the national electricity utility company, has appointed Envision Digital International Pte Ltd ("Envision Digital") to deploy big data analytics applications in its large scale solar (LSS) farm in Sepang, Selangor in Malaysia to improve energy productivity and operational efficiency.

The 50 megawatts (MW) solar farm is one of the largest in Malaysia with 238,140 solar panels generating more than 110,000 megawatt-hour (MWh) of energy in its first year of operation in 2019.

The project with Singapore-based Envision Digital will involve the deployment of its cloud-based digital analytics applications, including EnlightTM Solar, EnsightTM Solar, and Forecaster. Powered by Envision Digital's AloT (Artificial Intelligence of Things) operating system, EnOSTM, the applications will strengthen TRe's ability to actively contribute to the growth and use of renewable energy sources across the company's portfolio of energy assets.

EnsightTM Solar monitoring will enable TRe's operations team to have quick access to the farm's real-time operation status, thus improving the its operational and maintenance efficiency.

The advanced analytics software, EnsightTM Solar, will provide detailed insights into the solar farm's generation performance. Meanwhile, the built-in machine learning and artificial intelligence (AI) enabled Forecaster software will help provide accurate forecasts of weather conditions and power output, to ensure that TNB manages grid supply and demand effectively.

Mohd Yusrizal, Managing Director of TNB Renewables said: "We constantly seek innovative technology solutions that will help accelerate our growth in the renewable energy sector.

"The solar farm in Sepang is our first large scale solar project in Malaysia. By adopting cloud-based solutions, we can monitor and analyse the solar farm's performance remotely and achieve better returns on investment.

"TRe is also committed in adopting innovative solutions in building up our capability towards becoming a leading RE asset developer and asset manager within Malaysia and the region."



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Sylvie Ouziel, International President of Envision Digital said: "As Malaysia strives to achieve 20% renewable energy capacity by 2025, projects such as this, which help improve the productivity of existing renewable energy assets through the application of AloT technology are vital.

"Wider adoption of AloT in the renewable energy sector can hopefully in time amplify the benefits of this. We are delighted to strengthen our relationship with TNB Renewables Sdn. Bhd. on this project and to be playing a role in building a more sustainable energy sector and future for all Malaysians."

Since the beginning of this project in March 2019, both organizations begins to collaborate on multiple initiatives revolving around new energy and digital transformation. Eventually, TRe will build a digital renewable energy platform leveraging Envision's EnOS AloT Operating System, to connect various renewables assets and applications, such as biogas, biomass and mini hydro. The platform will not only provide asset operation and performance visibility to TRe, but also allow the integration and synergized operation among various renewables energies.

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About TNB Renewables Sdn Bhd

TNB Renewables Sdn Bhd (TRe) – a wholly-owned subsidiary of Tenaga Nasional Berhad (TNB) – was established in 2018 to grow the renewable energy (RE) business for TNB. Since then, TRe has grown its domestic RE installed capacity to 97MW and developed capabilities to manage RE assets profitably.

From the total installed capacity, 65% of it is in solar, 17% in biomass/biogas and the remaining in mini-hydro.

TRe will focus on securing RE projects through cost optimisation and strengthening its asset management capability, capitalising on its existing local assets. TRe focuses on doing the right thing first in the development of RE projects and creating values during the asset management stage.

About Tenaga Nasional Berhad

TNB's core activities are in the generation, transmission, and distribution of electricity. In addition to being the nation's primary electricity generation enterprise, TNB also transmits and distributes electricity to about 9.8 million customers in Peninsular Malaysia, Sabah and Federal Territory of Labuan.

About Envision Digital

Envision Digital is a global AIoT technology leader headquartered in Singapore with over 500 employees across ten offices in China, France, Norway, the Netherlands, the United Kingdom and the United States.



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Envision Digital owns EnOS™ – the world-class AloT operating system which currently connects and manages over 63 million smart devices and 120GW of energy assets globally. Its monitoring, advanced analytics, forecasting and optimising applications provide insights to help clients better manage their assets and portfolio performance. Its offering extends to Smart Renewables (Solar, Wind); Smart Cities; Connected Energy; and Smart Plants; partnering companies and governments in their digital transformation journey.

As a major player in AloT operating systems, Envision Digital is growing an ecosystem of partners to enable energy and digital transformation globally. Its growing list of over 250 customers and partners spans across ten industries and includes: Accenture, Amazon Web Services, GovTech Singapore, Keppel, Microsoft, Nissan, PSA International, PTT, Sonnen, Tableau and Total.

For more information, visit <u>www.envision-digital.com</u>

Caption:



A staff of the large scale solar farm in Sepang is attentively checking the solar panels, capable of generating up to 50 megawatt (MW). TNB appoints Envision Digital to deploy big data analytics applications in its large scale solar (LSS) farm in Sepang, Selangor in Malaysia to improve energy productivity and operational efficiency.



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Tenaga Nasional Berhad's (TNB) larga scale solar projek in Sepang, Selangor is equipped with 238,140 solar panels with generation capacity up to 50 megawatt (MW).