

SINGLE BUYER

WATT UP ("what's up") ELECTRIFYING THE FUTURE

REMARKS FROM

CEO

SINGLE BUYER

I am delighted to present the second edition of WattsUp for 2019. The first quarter has just ended and Single Buyer (SB) is already on its way to achieve all the milestones targeted for this year.

Peninsular Malaysia's peak demand continues to increase in the first quarter of this year, with a new peak demand of 18,566 MW recorded on 18 April 2019. This is contributed by the weak El Nino phenomenon, which our country is currently experiencing and is expected to prolong until August.

Recognising the importance of weather as a major demand driver, SB has recently organised an internal workshop on "Understanding of Peninsular Malaysia Weather and Climate Change". This workshop has provided us with a better understanding on basic hydrology, climate patterns and various weather phenomena.

SB has also recently completed its study on the "Review and Enhancement of Short Term Load Forecast Model and Methodology". This study, which was conducted together with Itron, aims to improve the accuracy of SB's short term load forecast models by incorporating the impact of solar and additional weather variables.

The third round of the Large Scale Solar (LSS3) competitive bidding exercise was announced by Suruhanjaya Tenaga (ST) in February 2019, with a total allocation of 500MW. In this LSS3 scheme, the quota offered to each developer has been increased to 100MW from 30MW previously.

With Ramadhan just around the corner, I would like to take this opportunity to wish all of our Muslim friends Ramadhan Kareem! May this blessed month bring us more success in navigating through the evolution of MESI. 🌟

Charanjit Singh Gill

**Chief Executive Officer
Single Buyer**

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NEDA

VIABILITY STUDY

This is the first out of several series of articles on the NEDA Viability Study, which was recently completed by SB. In this column, we discuss on the study objectives and the current challenges in NEDA

Objectives

The study is aimed at determining and recommending solutions to **make NEDA attractive** to the generators, that is suitable to be implemented for Malaysia Electricity Supply Industry (MESI) while:

- ✓ adhering to NEDA's objectives (in the short term); and
- ✓ aligning to the MESI roadmap (in the long term)



Current Challenges in NEDA

1

Surplus PPA capacity and high reserve margin. Estimated reserve margin levels according to year:

2018: 33%

2024: 31%

2028: 26%

2

PPA generators have **no incentive to participate in NEDA** as long as they receive capacity payments and energy payments under the PPA

3

Ex-PPA has little or no incentive to participate in the market due to **insufficient revenue** and the **dominance of PPA capacity**

4

Merchant generators have difficulty to enter the market since it is **unlikely to obtain financing** without mechanism for recovery of fixed costs

5

Differential gas pricing adversely affects merchant generators and price takers

6

Objective to Increase NEDA participation while reducing total generation cost and to maintain the target energy mix in the short term **may not be feasible**

In conclusion, Malaysia's PPA mechanism provides strong incentives for generators to stay online and receive capacity payments throughout the term of the PPA, regardless of their relative efficiency. The results of the study will be elaborated in the next issue of WattsUp. 🌟

NEDA

ENGAGEMENT ACTIVITIES

01 MEETING WITH MUTIARA RENEWABLE ENERGY SDN BHD

17 January 2019, Bangsar | A general briefing session on NEDA was conducted by SB for representatives from Mutiara Renewable Energy Sdn Bhd. Mutiara RE is planning to build a waste to energy power plant located in Perak and intends to sell their generated electricity through NEDA. Mutiara RE works in collaboration with a European Consortium of highly experienced and qualified professionals, EPC contractors, solution provider and manufacturer.



02 MEETING WITH TNB SEPANG SOLAR SDN BHD

29 January 2019, Bangsar | A meeting with representatives from TNB Sepang Solar Sdn. Bhd. was held in SB office to explore its potential participation in NEDA. TNB Sepang Solar Sdn. Bhd. currently owns the largest solar farm in the country with a capacity of 50 MWac. The company is exploring the opportunity to sell its excess capacity through NEDA.



03 DISCUSSION WITH MCKINSEY AND COMPANY

28 February 2019, Bangsar | A session with consultants from McKinsey was held in SB office to discuss on current issues and future expectations of NEDA. McKinsey is currently working with TNB on the MESI 2.0 project.



04 MEETING WITH CYPARK RENEWABLE ENERGY SDN. BHD.

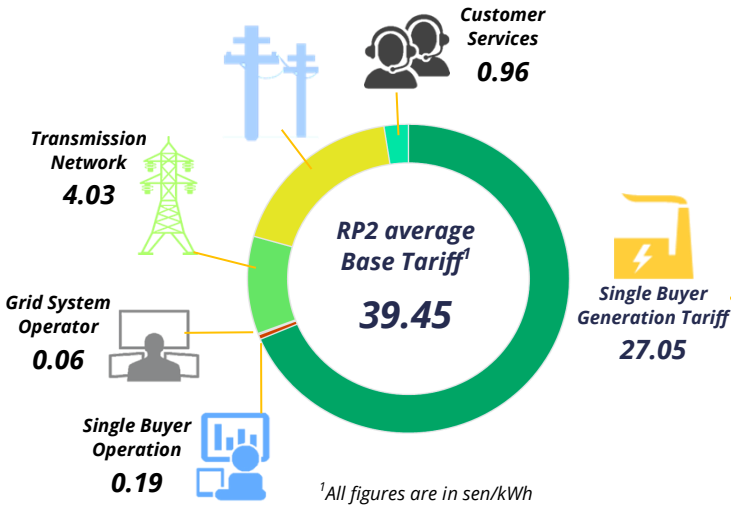
11 March 2019, Bangsar | A meeting with representatives from Cypark Renewable Energy Sdn. Bhd. was held to explore its potential participation in NEDA. This active RE developer will be participating in the bidding exercise for the Large Scale Solar 3 scheme and is looking for opportunities to sell excess capacity through NEDA.

INDUSTRY REGULATORY FRAMEWORK

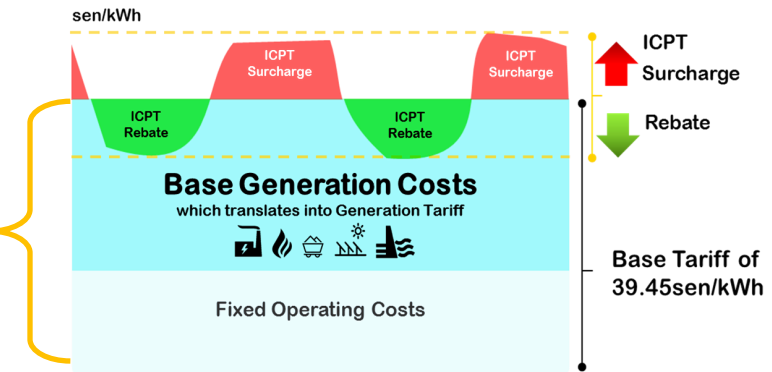
1 What is Imbalance Cost Pass Through (ICPT) ?

ICPT is a mechanism under the IBR framework that allows for **changes** in:

- fuel costs (either **increase** or **decrease**), and
- other **generation-related costs** to be reflected in the electricity tariff every **6 months**



One of the key components in the Incentive Based Regulation (IBR) framework is the Imbalance Cost Pass Through (ICPT) mechanism. In this first of many series, let's dive into the important aspects of ICPT



What are the components in ICPT?

2

1 Fuel Cost Pass Through (FCPT)

FCPT captures changes in fuel costs specific to:

- Natural gas: Piped gas and LNG
- Coal

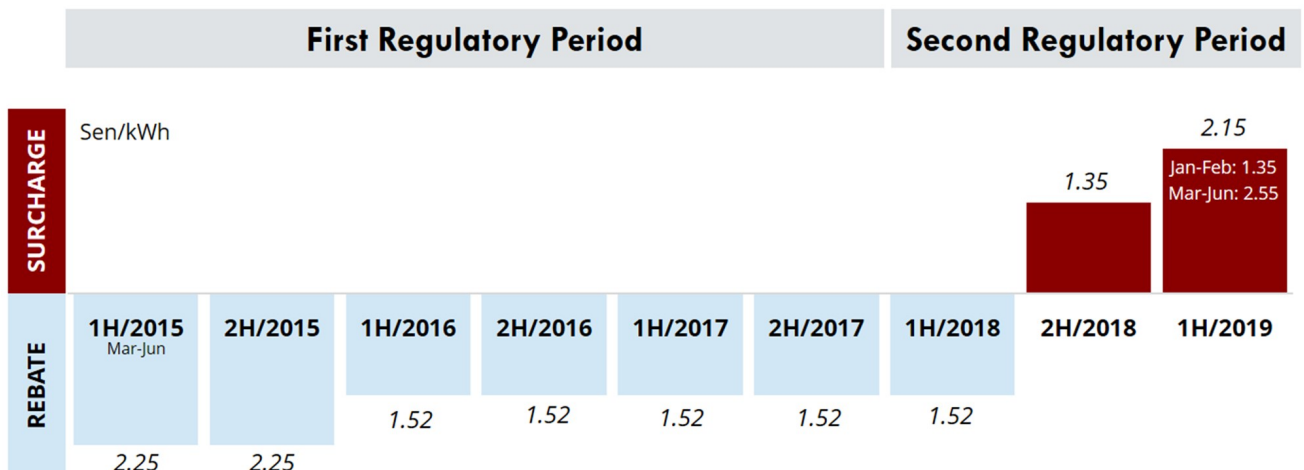
PPA: Power Purchase Agreement | SLA: Service Level Agreement | CSTA: Coal Supply & Transportation Agreement | CPC: Coal Purchase Contract | GSA: Gas Supply Agreement | GFA: Gas Framework Agreement | FIT: Feed-in-Tariff

2 Generation Specific Cost Pass Through (GSCPT)

GSCPT captures changes in non-fuel costs related to:

- Other fuel costs (distillate or fuel oil)
- Power purchase agreement (PPA, SLA, etc.)
- Fuel procurement contracts (CSTA, CPC, GSA, GFA, etc.)
- Renewable energy

3 How much Rebate and Surcharge have been passed through so far?



Note:
All surcharges are applicable only to non-domestic customers
Total Rebate: RM6.33 Billion
Total Surcharge: RM1.65 Billion

4

What are the benchmark Fuel Prices in the Base Tariff for RP2 (effective 1st Jan 2018)?



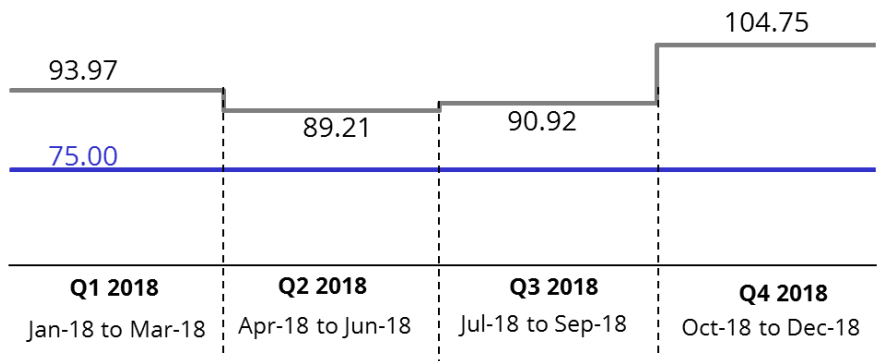
COAL

USD75/MT

RM315.90/MT (4.212/USD) or
RM14.417/mmBTU

— Base Price
— Applicable Coal Price

USD/MT



● Applicable Coal Price (ACP) is approved by *Jawatankuasa Pemantauan Harga and Kos Arang Batu* on quarterly basis.

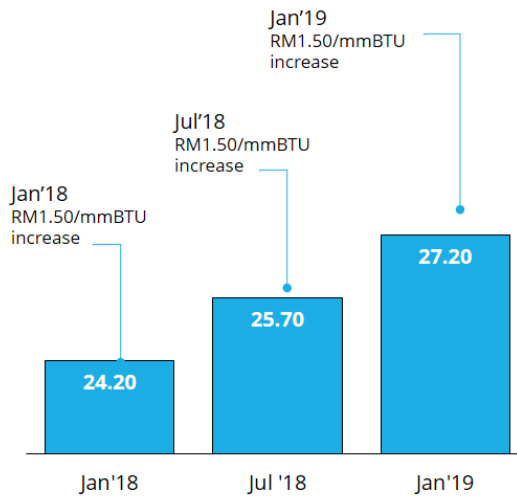


REGULATED GAS

RM24.20/mmBTU ~
RM27.20/mmBTU

■ Base and Actual price

RM/mmBTU



● Regulated gas price **increases RM1.50/mmBTU every 6 months** until Jan 2019 where it remains at RM27.20/mmBTU until Dec 2020

● Regulated gas price is only applicable for gas consumption ≤ 1,000 mmscf per day. Consumption beyond 1,000 mmscf per day will be priced at LNG price

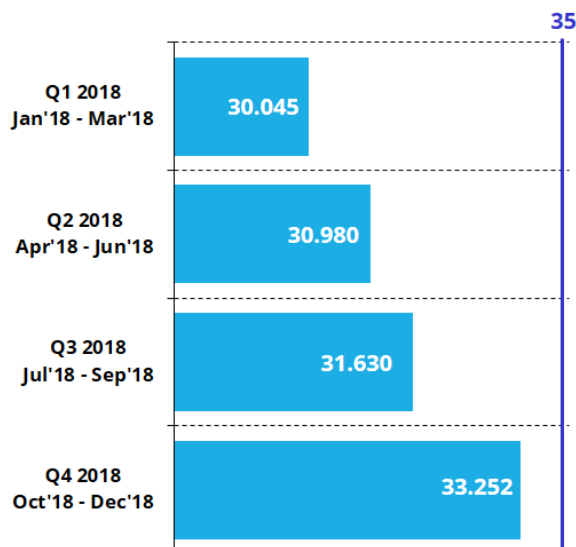


LIQUIFIED
NATURAL GAS

RM35/mmBTU

— Base Price
■ Actual price billed by PETRONAS

RM/mmBTU



● Gas consumption beyond 1,000 mmscf per day will be priced at LNG price

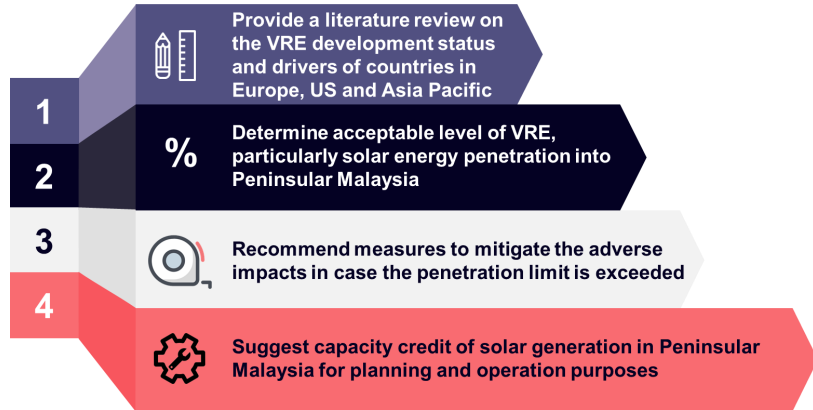
RENEWABLE ENERGY PENETRATION STUDY

The Government has announced various initiatives to address climate change and sustainability issues. Among the initiatives introduced for the power sector are: Feed-In-Tariff (FIT), Net Energy Metering (NEM) and Large Scale Solar (LSS) programs which aim to promote the deployment of RE in the country. With these numerous initiatives in place, it is important for SB to study the acceptable RE penetration limit for Peninsular Malaysia system.

Study Background

SB, ST, Grid System Operator (GSO) and TNB Grid Planning (GP) have jointly embarked on a full-fledged study to understand the impact and limit of Renewable Energy (RE) penetration in the Peninsular system. This study was conducted between January 2018 and August 2018 by DNV GL Singapore Pte. Ltd., which has vast experience in conducting similar studies in other countries with high penetration of RE such as in Europe, Australia and the US. The study was focused on the Variable Renewable Energy (VRE), which specifically refers to photovoltaic solar plants in the Malaysian context.

Study Objectives



Key Study Methodology

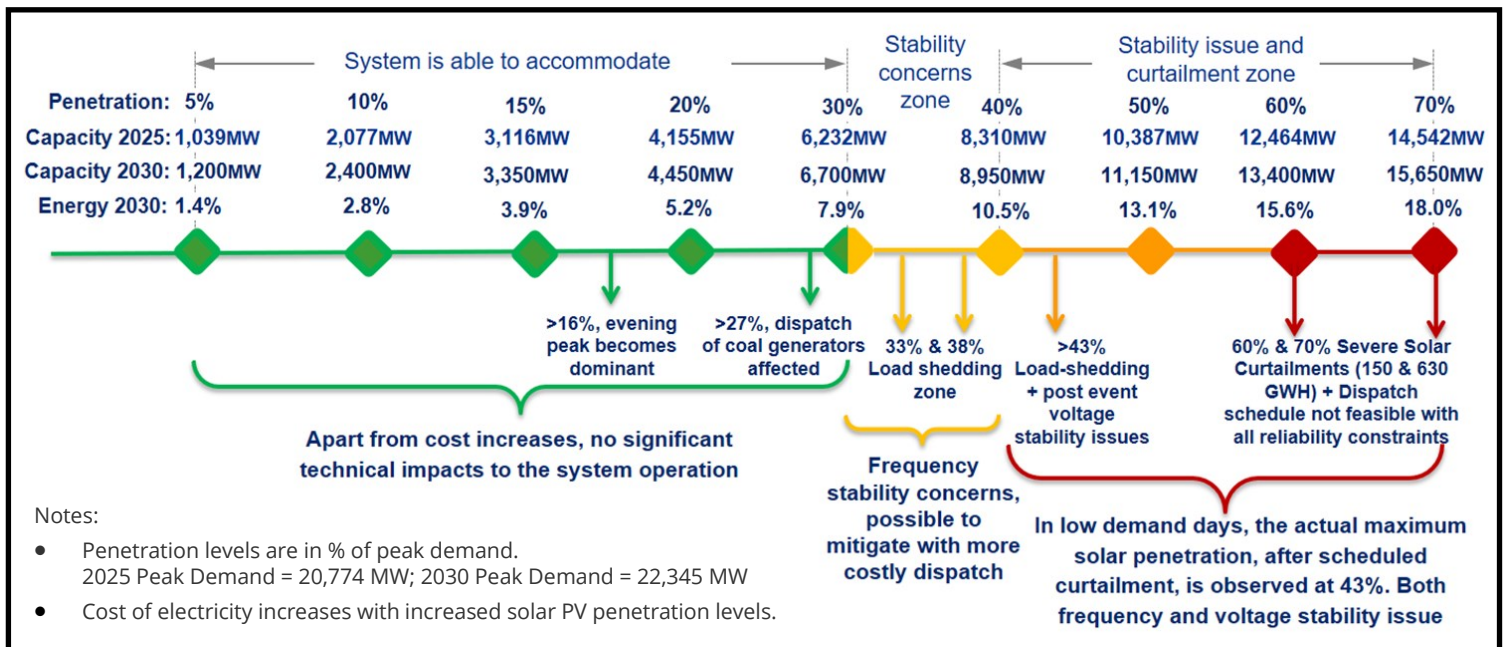
DNV GL performed comprehensive analysis to investigate the impact of solar penetration with tested scenarios of solar penetration of between 5% to 70% of peak demand, based on Peninsular's economic dispatch and grid system model.

The studies investigated the aspects of long-term capacity planning, mid-term scheduling and short-term operations using the generation system model in PLEXOS; and the transmission system adequacy and grid stability using the grid model in PSS[®]E. The solar capacity credits are computed with load and solar profiles from 2025 to 2035 based on effective load carrying capacity method.

Key Findings Summary

The chart below summarises the overall findings of the study. Findings of the study shows that the system is technically capable to accommodate solar penetration levels of up to 30%. Up to this level, no significant technical impact is expected. Nevertheless an overall increase in system cost is observed.

Stability concerns may arise when solar penetration level exceeds 30%. Frequency and voltage issues, as well as possible curtailments may arise if the solar penetration level goes beyond 40%.

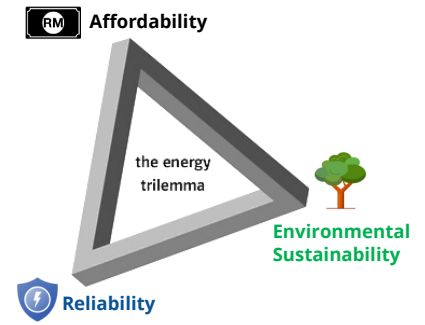


Study Recommendations

The study results were evaluated on the following dimensions:

- Reliability: system frequency stability with credible contingent events
- Affordability: incremental cost of electricity
- Environment Sustainability: contribution towards CO2 emission reduction

Considering all the three dimensions above, the VRE **penetration level of 20% brings the most benefits** to Peninsular Malaysia's system. The recommendation of this study has been adopted in JPPPET 1/2018, which is in line with the Government's target to reach 20% RE capacity mix by 2025.



Measures to Enable Higher VRE Penetration

1 Interconnection Standards (Grid Codes)

Extend the core technical requirements to small scale solar installations, including:

- low-voltage ride through
- reactive power range and voltage regulation support
- over-frequency response

2 Wider balance area with interconnection

Interconnection with neighbouring systems to enable:

- electricity trading to allow sufficient online units locally
- neighbouring generators to contribute to overall inertia and provide governor response during a contingent event

3 Operation improvement

Improvements in operations including:

- shorter dispatch interval to reduce the reserve requirement to mitigate "clear-sky ramps" and prediction errors
- higher renewable forecast system accuracy

4 Diversified renewable portfolio

Increase the diversity of renewable portfolio:

- to compensate for the low capacity factor of solar generation, which only contributes to renewable energy share during daytime
- to incorporate more dispatchable renewable generation, such as biomass, hydro, and biogas generators

Full report of this study can be found in www.singlebuyer.com.my

SINGLE BUYER RING FENCING

Single Buyer Oversight Panel

In this issue, we look into one of the governance arrangements which allows for an independent oversight of SB.

Membership

- Chaired by Suruhanjaya Tenaga (ST)
- Members shall be determined by ST by considering the following:
 - Requisite skills and qualification
 - Any conflict of interest that may arise

Functions

- Oversees the compliance of SB according to SB Market Rules
- Provides advice and issues guidance to SB and Market Participants to ensure compliance with SB Market Rules
- Reviews suggestions for amendments to the SB Market Rules as required by the Rule Change Panel or ST
- Recommends changes to procedures and the SB Market Rules to better facilitate the objectives of SB
- Assists ST in selecting and appointing an external auditor to assess SB's compliance with the SB Market Rules

Source: *Guideline for Single Buyer Market (Peninsular Malaysia)*

GENERATOR SETTLEMENT PROCESS



Settlement process occurs on a monthly basis based on what has taken place in operation such as dispatch, availability, outages and failures



SB manages and facilitates settlement processes for all power purchase contracts



The objective of settlement process is to ensure all settlements are managed in accordance to the agreements, codes and relevant acts and technical performance in a timely manner

1 GENERATORS

Generators submit all required inputs through OSSC



2 SB & GSO

Operation inputs; DASA, FR, Start-up, POS will be verified by GSO while Commercial inputs will be verified by SB

3 SB

SB processes the billing statements from Generators through the One Stop Settlement Centre (OSSC) platform (Refer Page 16 for OSSC process flow)

Payment to Generators must be remitted in 30 days from the receipt of the billing statements



4 TNB GROUP FINANCE

TNB Group Finance conducts payments to the Generators based on SB's advice letters

Failure by TNB to pay within the stipulated time will result in additional interest payment to the Generators as per the agreements

DID YOU KNOW?



Malaysians produce waste at a staggering average of **30,000 tonnes daily**



Only **5%** of total waste is recycled



Selangor is the largest waste contributor ~ **7,000 tonnes daily**

Source: National Waste Management Conference 2018



10.4 mil tonnes of waste makes its way to **landfills** across the country **annually**

Is Waste to Energy (WtE) Plant the solution?

What is WtE ?

The process of **creating energy** in the form of electricity and/or heat from incineration of waste source or the processing of waste into a fuel source

What is the footprint of WtE plant?

Compared to landfills, WtE plants require **smaller footprints** (< 3 ha for 1,000 tonnes waste capacity daily)

How much waste is required to produce energy?

20 to 25 MW requires **1,200 tonnes** of waste/day

1 tonne of waste incinerated = **500 to 600 kWh** of electrical energy (~80% CF)

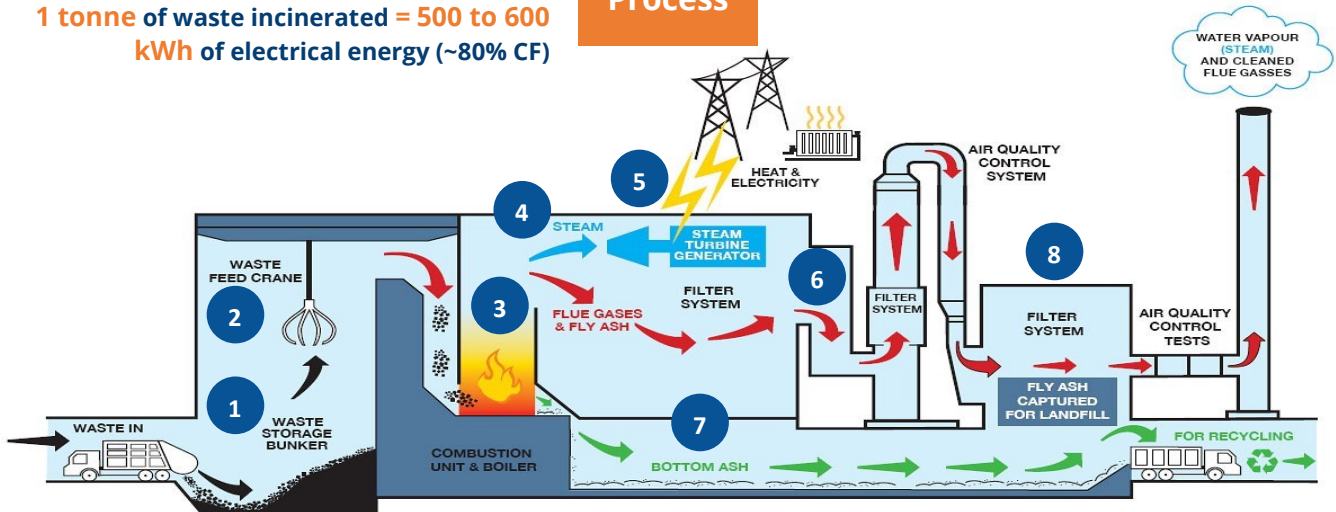
Why WtE ?

A **holistic** approach to address waste problem **vs. landfills and incinerators**

What makes it attractive over traditional power generation options?

1. May receive **"Tipping Fees"** [Tipping Fees: Revenue for receiving waste as an alternative to the cost of disposing waste in a landfill]
2. Hence, this will incur **"Negative" Fuel Cost**

WtE Process



- 1 As domestic waste is high in moisture content, it will be stored for 3-7 days and rotated repeatedly to ensure it is evenly scattered. Micro-organisms facilitate the fermentation of organic waste so it can be burned easily.
- 2 Waste is then carried out using a feed crane to the negative pressure incinerator - instead of air going out, air from the bunker where the waste is stored will be pumped into the burner and used for combustion to reduce the discharge of bad odours.
- 3 The burner reaches high temperatures of more than 850°C to incinerate the waste entirely.
- 4 Meanwhile, water is heated by the high temperatures to produce steam.

- 5 Steam drives a turbine to generate electricity.
- 6 Gas from the combustion which contains toxic matter including dioxin and furan, will be treated using an activated carbon injection system.
- 7 Two types of ashes form during the burning process:
 1. Bottom ash - Non-toxic, can be recycled for road construction or for making low quality bricks.
 2. Fly ash - Toxic, contains hazardous particles such as lead, mercury and sulphur dioxide. These acidic components will be neutralised using a scrubbing system. The ash is then encapsulated in cement and leaching tests are carried out before it is safe for deposit in the landfill.

WATT'S HAPPENING

JANUARY MARCH 2019



Back to School Shopping Day with Pn. Rosniza's kids

📍 Kajang, Selangor



5 January 2019 In conjunction with the start of school earlier this year, SB organised a "Back to School" shopping day with Pn. Rosniza's four schooling children. Her eldest daughter is currently in Form 2 and the second youngest is in kindergarten. The cost is fully funded from SB staff collection, which allowed them to buy new sets of uniform, shoes and school supplies. SB had the opportunity to conduct a CSR activity with Pn. Rosniza (a low income single mother) back in 2017 and since then has been keeping in touch with her family from time to time.



OSSC Training & Update 2.0 for TNB Manjung Five

📍 Manjung, Perak



23-24 January 2019 A biennial OSSC training was conducted at TNB Manjung Five Sdn. Bhd. (M5). The 1.5 days programme include a briefing on the system enhancements namely the operation and commercial data modules for operator and owner and a site visit of M5. The session was attended by representatives from M5 (owner), TNB Remaco (M5's plant operator), SB and GSO.



Site Visit to UiTM Solar Power & QSP Merchang

📍 Gambang, Pahang & Merchang, Terengganu



23-24 January 2019 SB recently organised a site visit to QSP Merchang (Terengganu) and UiTM Solar Power (Gambang). The objectives of this visit are to monitor project progress at their respective sites and also to gain better insights on solar PV technology. Both projects are scheduled to achieve Commercial Operation Date tentatively in the first half of 2019.



Social Enterprise Innovation: The Picha Project

📍 Bangsar, Kuala Lumpur



21 February 2019 Picha Project is a social enterprise organisation that empowers refugee communities in Malaysia by creating a sustainable source of income through food. They specialise in catering delicacies from countries such as Syria, Iraq, Palestine and Afghanistan. To date, they have generated about RM1 million of income for the refugee community. SB was delighted to have Suzanne Ling, one of the three co-founders of the Picha Project, to share the story on how they started the business, with some Middle Eastern food on the table of course!



PLEXOS Advance Training and User Group Meeting

Sydney, Australia



19-22 February 2019 Two representatives from SB participated in the PLEXOS Advanced Training and User Group Meeting organised by Energy Exemplar in Sydney, Australia. Other participants from Malaysia include TNB and Suruhanjaya Tenaga. The training focused on the new release of PLEXOS 8 with enhanced features and functions besides covering key trend topics such as stochastic optimisation, battery storage integration and modeling, competition modeling, and market and portfolio optimisation. Experiences and feedback from participants were also discussed during the meeting for future improvement.



Sharing Session with TNB Retail

SB Office, Kuala Lumpur



12 March 2019 SB hosted a session with TNB Retail to share on SB's operation overview in general and specific topics such as energy procurement via PPA/SLA, NEDA and load forecast. The 25 representatives from TNB Retail was led by Head of Retail Operation, En. Ahmad Hushairi Ibrahim.



Round 3 Large Scale Solar (LSS3) Briefing

Putrajaya



20-23 March 2019 ST conducted a briefing on the highly anticipated Round 3 Large Scale Solar (LSS3) at Kompleks Perbadanan Putrajaya. Ir. Abdul Rahim Ibrahim, a senior director of ST, officiated the event followed by a briefing on the Request For Proposal (RFP) requirements by Pn. Ruzaida Daud from ST. Pn. Nazrina Hilmi of SB presented on the draft PPA for transmission-connected projects. Representatives from TNB Retail and TNB Grid Planning were also invited to present on distribution-connected LSS requirements and power system studies respectively.



2019 SB Business Plan Workshop

Bukit Tinggi, Pahang



18-19 March 2019 SB's management and senior officers convened to review and realign SB business plan for the next 5 years (2019-2023) taking into account the recent development in MESI. Potential initiatives identified during the previous business plan were also revisited and discussed.



Badminton Friendly Match between SB & PNS

Pantai Eco Park Bangsar



29 March 2019 A friendly badminton match was held between SB and Perbadanan Nasional Berhad (PNS), involving a total of 14 double teams. SB won the match with final score of 4-3.

LOAD FORECAST ENHANCEMENT INITIATIVES

1 UNDERSTANDING OF PENINSULAR MALAYSIA WEATHER AND CLIMATE WORKSHOP

On 23 January 2019, SB conducted a one-day workshop on “Understanding of Peninsular Malaysia Weather and Climate Change”. With weather being an important driver for electricity demand, this workshop aims to provide participants with knowledge about climate change, monsoon and natural disasters particularly for Peninsular Malaysia. The workshop was attended by SB and ST.

The speaker, Dr. Nurul Nadrah Aqilah from Universiti Malaysia Pahang started the day by giving a basic introduction on Malaysia’s weather, climate and monsoon, followed by basic hydrology terminologies. This is important to set a strong foundation in understanding their impacts on Malaysia’s temperature.

The day ended with applying the theories explained on real cases in Peninsular Malaysia. One of the cases specifically requested by SB is on El-Nino formation and prediction.

In summary, participants gained a better understanding on Peninsular Malaysia weather pattern which will enable more robust load forecast analysis and studies to be conducted by SB. ❄️



2 CONCLUDING WORKSHOP FOR SHORT TERM LOAD FORECAST MODEL ENHANCEMENT

SB embarked on a study in 2018 to enhance its Short Term Load Forecast (STLF) model. The project was completed in early 2019 and a workshop was conducted on 14-18 January 2019 to conclude the project. Representatives from SB involved in activities related to load forecast participated in the event. The workshop was conducted by the Principal Forecast consultant from Itron Inc., Mr. Mark Quan.

The key objectives of the workshop are to:

- present on project outcome, i.e. forecasting framework and the enhanced STLF model
- provide a hands-on training session on the STLF model which includes using key functionalities in the Metrix software
- discuss on future challenges and further improvements that can be implemented in the models

SB has since adopted the improved model particularly for short term load forecast. ❄️



InnCOP: Round One

On 1 March 2019, SB conducted its first round of its in-house customised innovation program named "InnCOP".

InnCOP, derived from the words **I**nnovation, **C**reativity and **O**peration, is an effort to instill innovation and creativity in SB that can create values for the organisation. There are no specific rules, hence participants are given the freedom to choose any topic as their project proposal.

Round 1 was conducted for the team to pitch their ideas to a panel of judges.

InnCOP in numbers:

- 2 rounds: Round 1 to pitch ideas and Round 2 to pitch prototype
- 8 teams from 29 personnel
- 8 projects: healthy lifestyle system, recycling system, central web-based knowledge repository, meeting room booking app, data centre, intelligent data dashboard, social app and procurement guidebook

Watch out for our article on Round 2 which will be conducted in July 2019! 📺



Panel of judges



Winner: u.SB
Kenekt - Social Application Platform



1st Runner Up: Whizdom
Centralised Knowledge Management System



Runner Up: Flab-U-Less
Healthy Lifestyle System



Watt Say You ?

Question: What is innovation to you? Why is it important to SB?



Wan Eric

Innovation is one broad concept and for me, it is to bring about something new that could increase the efficiency further. Innovation doesn't have to be big as long as it is impactful. The culture to innovate is important to SB

as we are among the forefronts of the industry which will always change from time to time. Only innovative minds could cope and quickly adapt to changes.



Fiza

Innovation for me is something that make my life easier and better. It is important to SB because it may help us to be more creative and efficient in doing our daily job.



Bryan

To me innovation is inventing or improving a product to ease the lives of society. Innovation can also mean taking two things that already exist and putting them in a new way.



MEET THE PEOPLE BEHIND SB

SENIOR MANAGER
LEGAL MANAGEMENT

NAZRINA MOHD HILMI@HALMI

In this issue, we speak to our go to lawyer in SB, Nazrina Mohd Hilmi@Halimi about her background, roles in SB and her view of SB

01 WattsUp: Thank you for availing your time for this opportunity for us to get to know you better. Can you tell us a bit about your background?

Nazrina: I did my law degree in the UK. Upon graduation, I came back to Malaysia to do my Certificate in Legal Practice (CLP). I worked at various companies before joining TNB in 2007.

04 WattsUp: What do you love most about working in SB?

Nazrina: I love the fact that there is always an ability and opportunity to learn new things in SB. SB is also at a place where we are able to view the industry as a whole and as such, able to do what needs to be done to help consumers obtain value.

07 WattsUp: Do you have a life goal you would like to achieve?

Nazrina: Continuous self-improvement — in terms of my health, career and knowledge. I have been eating healthier since January this year and hope to be able to maintain the momentum.

08 WattsUp: What is your view on the journey towards the possibility of becoming an independent entity from legal perspective?

Nazrina: There are a number of things that needs to be done before SB be independent. SB will need the support from TNB, the Government and the Regulator to enable SB to add value to the idea of independence that has been mooted. I think SB-ians are agile and adaptive and will be able to embrace any development.

02 WattsUp: How and when did you first join SB?

Nazrina: When I first joined TNB, I was with the TNB Legal Services Department. Then an opportunity came in 2010 when there was a potential vacancy in the legal unit of the Energy Procurement Department (EPD). I decided to apply as I was always keen to learn different things and EPD at the time was the department handling the Power Purchase Agreements (PPA) for TNB. EPD then with several other departments in the Planning Division became what SB is today.

03 WattsUp: How does it feel to be managing Legal Management, the smallest unit in SB?

Nazrina: Exciting and challenging. Our unit previously focused on the regulatory and contractual aspects of power procurement-related matters like PPA/SLA operational issues, cross-border energy procurement, fuel supply issues, failed despatch instructions, etc. The scope of the legal unit has been expanded to support SB as a whole; for instance advising on NEDA and MESI 2.0.

05 WattsUp: What do you enjoy doing in your leisure time?

Nazrina: I like to do gardening when I have the time, reading thrillers, self improvement, management books; and watching movies, particularly where women portray strong characters.

06 WattsUp: How do you find time for your family and hobbies aside from work?

Nazrina: My garden is in a mess at the moment (laughs). I have not been able to garden or read as much but I do try to find pockets of time to do so. I try to be as productive as possible at work so that it doesn't eat into family time.

09 WattsUp: What advice would you give to the newcomers in SB??

Nazrina: My motto for this is to not be afraid. Do not be afraid to ask because you can never go wrong by asking. Know beyond your job scope and go beyond your comfort zone. You should always want to learn and develop yourself. 🌟

MARKET WATCH

HISTORICAL COAL PRICES 2014 TO 2019

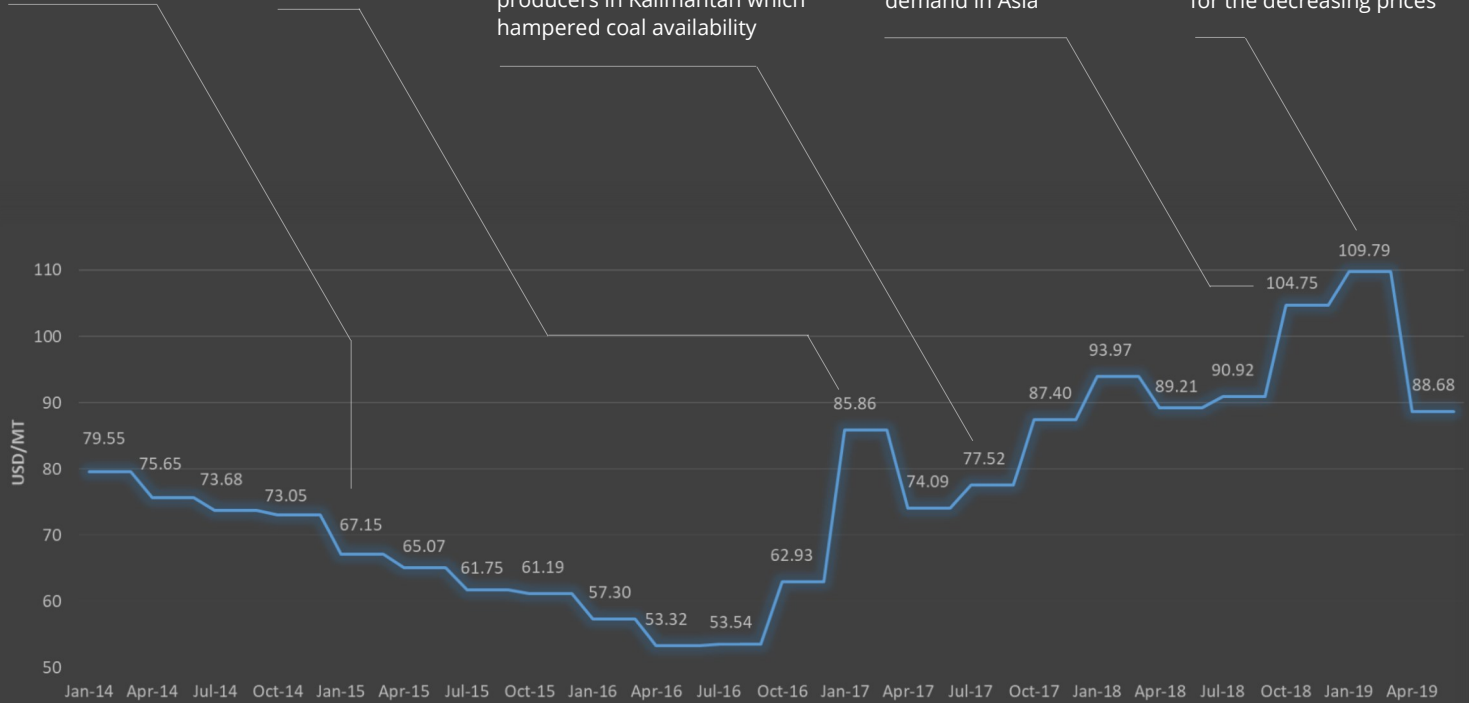
Coal price declined steadily since 2011 during China's economic slowdown

China imposed a 276-day annual operating limit on coal mines

Tightness of supply from Australia and Indonesia due to labour strikes at Glencore's mines which hindered coal deliveries to the Newcastle port and longer than expected monsoon season affected coal producers in Kalimantan which hampered coal availability

Demand was robust due to strong industrial activity in China and hot weather, yet supply tightness remained amid strong seasonal demand in Asia

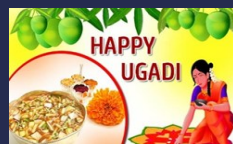
Lower overall demand, continued complications from Chinese import restrictions, low gas prices, high stockpiles and milder weather were the catalysts for the decreasing prices



Source: SB's database

SB CORNER

Recently, our Sikh and Tamil friends celebrated their New Year. Besides the well-known holiday of Deepavali, there are many other significant festivals across various ethnicities, as shared by our fellow SB-ians in this issue of SB Corner



Festival Name

Thamizh Puthandu

Greetings

"Iniya puttantu
nalvaittukkal!"

Date

14 April every year (first day of the Tamil month of Chithirai)

Ethnic

Tamil

Festival Name

Vishu

Greetings

"Vishu
Ashamsakal"

Date

The festival follows the solar cycle of the lunisolar as the first day of month called Medam. It normally falls in the middle of April every year

Ethnic

Malayalam

Festival Name

Ugadi

Greetings

"Ugadi
Subhaakankshalu"

Date

First day of the Hindu lunisolar calendar month of Chaitra. This typically falls in March or April

Ethnic

Telugu

Festival Name

Baisakhi / Vaisakhi

Greetings

"Vaisakhi Diyan Lakh
Lakh Vadhaiyan"

Date

Vaisakhi is traditionally observed on 13 or 14 April every year

Ethnic

Sikhs / Punjabi

WORDS OF WISDOM

Opportunities lie in the place where the complaints are.

- Jack Ma -

CONTACT US

We welcome any comments or content that you would like us to include in the upcoming editions of WattsUp.

Please email us at sbet@singlebuyer.com.my

DISCLAIMER

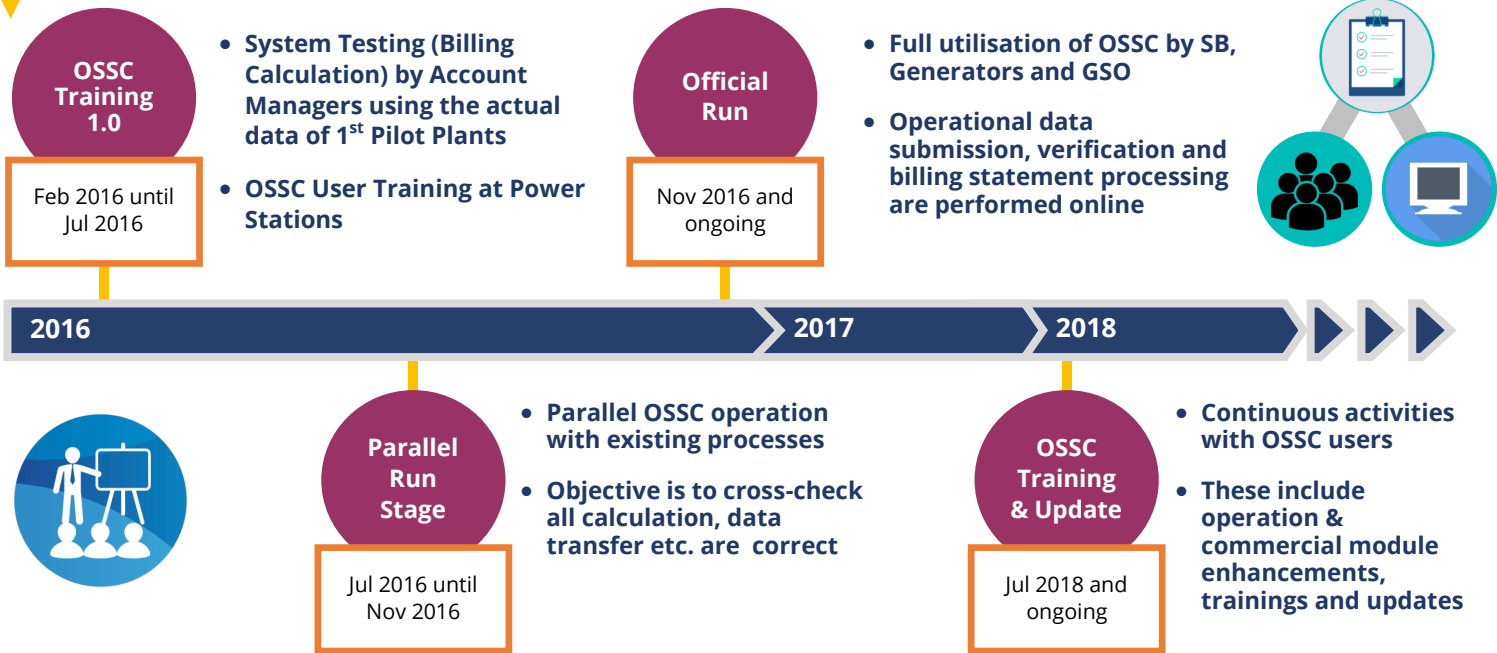
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ONE STOP SETTLEMENT CENTRE



The One Stop Settlement Centre (OSSC) is a platform to manage settlements for generators as well as to centralised generator's Operation and Commercial data. OSSC users are the key players in the Single Buyer Market, i.e. SB, Generators, Grid System Operator (GSO).

OSSC ON-GOING ACTIVITIES



OSSC WORKFLOW

