

ENERGY CONSERVATION WORKSHOP
UNDER ASEAN-JAPAN ENERGY EFFICIENCY PARTNERSHIP (ECAP-17)
5 – 9 November, 2018: Tokyo, Japan

Country Report – Brunei Darussalam



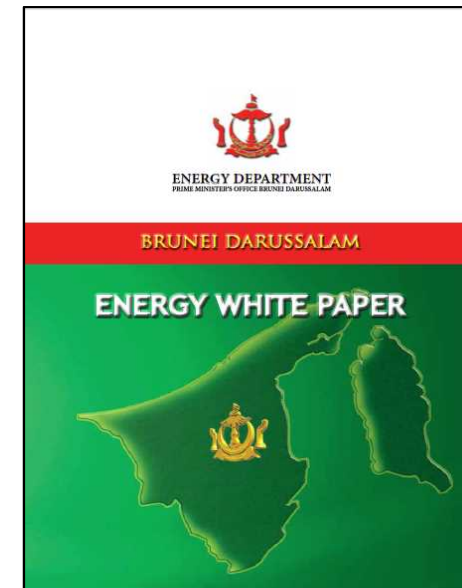
Ministry of Energy, Manpower and Industry (MEMI)
Brunei Darussalam

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BRUNEI DARUSSALAM ENERGY WHITE PAPER

- ❑ Brunei Energy White Paper was launched on the 24/03/2014 and EEC falls under strategic goal 2
 - Core Key Performance Indicator (KPI):
 - ✓ To reduce the energy intensity to 45% by 2035 through Energy Efficiency & Conservations (EEC) initiatives.
- ❑ Key Enabler
 - Implementation of a comprehensive set of supportive Policy and Regulatory Frameworks.
 - Policy 1 – Electricity Tariff Reform
 - Policy 2 – EEC Building Guideline
 - Policy 3 – Standard & Labeling Order
 - Policy 4 – Energy Management
 - Policy 5 – Fuel Economy Regulation
 - Policy 6 – Financial Incentives
 - Policy 7 – Awareness Raising





THREE (3) YEARS BUSINESS PLAN ON ENERGY EFFICIENCY & CONSERVATION FOR BRUNEI DARUSSALAM

| Years | 2018 | 2019 | 2020 | 2021 |
|---|------|------|------|------|
| Energy Efficiency & Conservation (EEC) | | | | |
| 1 Standard & Labeling Order | ■ | ■ | ■ | ■ |
| 2 Energy Management | ■ | ■ | ■ | ■ |
| 3 Awareness Raising Programme | ■ | ■ | ■ | ■ |

Energy Efficiency & Conservation (EEC)

Core KPI: To reduce the energy intensity down to 45% by 2035 through Energy Efficiency & Conservations (EEC) regulatory frameworks & initiatives.

Three (3) years BP:

- Focus more on the development of EEC regulatory frameworks.
- Implementation & enforcement of Standard and Labeling Order is the main priority.
- Preparatory works on the development of other important EEC legislative measures within 3 years BP.





STANDARD AND LABELING ORDER

Background

- ❑ Standard and Labeling is an effective strategy in promoting energy conservation by encouraging consumers to use energy efficient appliances.
- ❑ Embark on voluntary program for Standard & Labeling regulation.

Objectives:

- ❑ To promote and to educate consumers on the use of more energy efficient appliances/products.
- ❑ To encourage consumers to select the appliance that uses the least energy and which meets their energy needs.

Activities:

- ❑ Submission the final working paper to the Attorney General Chamber (AGC).
- ❑ Launching of voluntary program for Standard & Labeling by Q3, 2018.
- ❑ Expansion of the Standard & Labeling Order to other appliances ie, refrigerator & lighting system.

Deliverable

- ❑ Implement and enforce the Standard & Labeling Order by Q3, 2020.





BUILDING RELATED REGULATION & GUIDELINES FOR BRUNEI DARUSSALAM

Significant Milestones

- ❑ Publication of the Brunei Darussalam Standard (PBD 12) on Building Guidelines and Requirement 1994. Undergone several revisions in 2008, 2009, and 2014.
- ❑ The establishment of Brunei Green Building Council (GBC) in May 2013 with an objective to drive Brunei Darussalam's construction industry towards more environmental-friendly buildings.
- ❑ The launching of EEC Building Guidelines for non-residential buildings in 2015. The EEC Building Guidelines are mandatory to all government buildings.
- ❑ The launching of green building rating system for Brunei Darussalam, 'Brunei Accredited Green Unified Seal' (BAGUS) in March 2016.
- ❑ Brunei Darussalam via the Authority of Building Control and Construction Industry (ABCI), Ministry of Development is currently in the process of developing the Different Abilities Design Guidelines for building.
- ❑ Regulatory role for buildings is under the purview of Ministry of Development (MOD). Meanwhile, the Ministry of Energy, Manpower and Industry is accountable to manage and coordinate all the key initiatives towards the development of Energy Efficiency in building





ENERGY EFFICIENCY IMPROVEMENT IN GOVERNMENT BUILDINGS

Background

- ❑ The electricity consumptions for government buildings have shown significant increase every year.
- ❑ All Ministries & Departments are required to appoint energy managers & focal points.

Objectives

- ❑ To increase awareness on the importance of energy saving for all government officers and staff.
- ❑ To share energy consumption pattern for government building to all officers and staff.
- ❑ To reduce energy consumption for government building.



Activities

- ❑ Conducting energy saving talks to all government officers and staffs.
- ❑ Monitor the electricity consumption for all government buildings.
- ❑ Providing advice and recommendations on how to reduce electricity consumption in building.

Results after 2 years

- ❑ The electricity consumption in government buildings has shown a significant reduction in comparison with 2015.
- ❑ A reduction of 6.9% in 2016 with a financial saving of B\$10.8 million. Further reduction of 7.1% in 2017 with another B\$11.2 million saving.
- ❑ Total cumulative saving in 2 years were B\$29.5 million including additional gas saving from every KWh of electricity consumption that were saved.
- ❑ We expect to see further reduction in the subsequent years.



DEVELOPMENT OF ENERGY MANAGEMENT POLICY IN BRUNEI DARUSSALAM

Background:-

- ❑ Brunei Darussalam is considering in adopting an Energy Management System that is compatible with the ISO 50001.
- ❑ Building owners will be encouraged to introduce management systems that include equipment to monitor energy consumption such as the Building Automation Systems (BAS), Controllers (i.e. demand controllers) and Building Energy Management Systems (BEMS).
- ❑ All Ministries & Departments are required to appoint energy managers & focal points.



Activities:-

- ❑ Conducting energy saving talks to all government officers and staffs.
- ❑ In support of the energy management law, a sufficient number of qualified external auditors should be trained to conduct monitoring and verification exercises to ensure compliance.
- ❑ Seek assistant from international experts (ECCJ, Japan, ACE, etc).
- ❑ The policy is expected to be implemented by 2023.





AWARENESS RAISING PROGRAMMES IN BRUNEI DARUSSALAM

Collaboration work with the Ministry of Education.

- ❑ The setting up of EEC curriculum in the National Education System.
- ❑ Establishment of Energy Clubs in Schools.
 - To inculcate the culture of energy efficiency and conservation at grassroots level (at schools) so that young people would become EEC ambassadors.
 - To create a platform for students to discuss and develop projects and/or ideas on energy saving.
- ❑ Conducting energy saving talk and seminars.
- ❑ Organising Energy Efficiency & Conservation events:-
 - Energy Week
 - Earth Hour
 - Energy Exhibition
- ❑ Energy Awards
 - EEC Initiative Awards
 - ASEAN Energy Awards



Thank you
for your kind attention



Ministry of Energy, Manpower and Industry
Brunei Darussalam