



Energy and Industry Department
Prime Minister's Office
Brunei Darussalam



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TOKYO, JAPAN

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Consumption by Sector



39%

HOUSING



27%

COMMERCIAL



18%

GOVERNMENT



16%

INDUSTRY (OIL & GAS)



Contents

- (1) EC Law, Regulation (Brunei Energy White Paper)
- (2) Energy Management System
- (3) Supporting Activities
- (4) Energy Manager Training and Certification Plan





1. Brunei Darussalam Energy White Paper

❑ **Brunei Energy White Paper was launched on the 24/03/2014**

and EEC falls under strategic goal 2

▪ **Key Performance Indicator (KPI) 5:**

✓ 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**

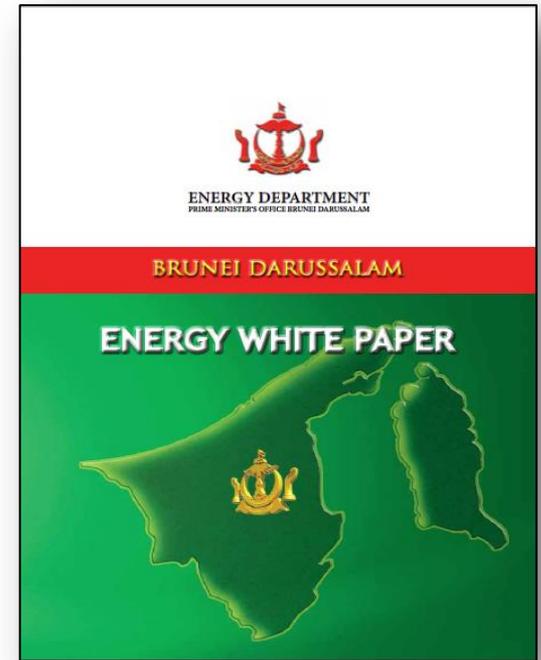
✓ Policy 3 – Standard & Labeling Order

✓ **Policy 4 – Energy Management**

✓ Policy 5 – Fuel Economy Regulation

✓ Policy 6 – Financial Incentives

✓ Policy 7 – Awareness Raising





2. Energy Efficiency Conservation Policy On Energy Management System

Policy 2: EEC BUILDING GUIDELINES FOR NON-RESIDENTIAL SECTOR

i. Background:-

- The guideline was launched on **May 14, 2015**.
- A collaboration work with the Ministry of Development via the ABCi and the DME.
- This guideline is mandatory to all government buildings and voluntary to all commercial buildings but later become mandatory as and when it is notified by the government authorities.

ii. Objective:-

- To promote the improvement of the energy management and performance of the government and commercial buildings.

iii. Challenges:-

- An absent of Energy Manager for each building to conduct energy audit and prepare recommendations on how to reduce energy consumption.





2. Energy Efficiency Conservation Policy On Energy Management System

Policy 4: DEVELOPMENT OF ENERGY MANAGEMENT POLICY.

i. Background:-

- Adopting the **ISO 50001**.
- Installation of Building Automation Systems (BAS), Controllers (i.e. demand controllers) and Building Energy Management Systems (BEMS).
- Establishment of the Energy Manager for all buildings in Brunei Darussalam.

ii. Heads-up:-

- Participation in an energy management pilot program in line with ISO 50001 criteria from government, commercial and industrial facilities.
- Sufficient number of qualified external auditors should be trained to conduct energy auditing and verification exercises.
- Seek assistant from international experts (ECCJ, Japan, ACE,AMS).
- The policy is expected to be implemented by 2019.





2. Energy Efficiency Conservation Policy On Energy Management System

Policy 4: DEVELOPMENT OF ENERGY MANAGEMENT POLICY.

STEP 1

Work with upper management to establish Energy Management Steering Committee with wide representation from across the organization

STEP 2

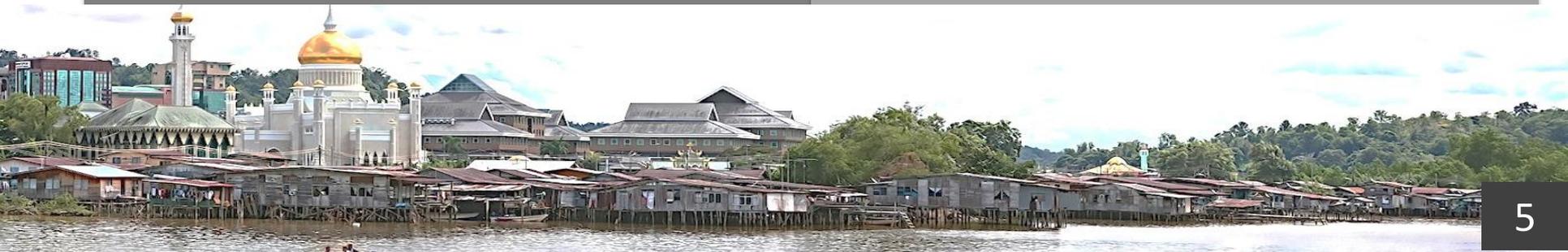
Help the committee develop a strategic plan and set goals in conjunction with building's primary mission and existing greening efforts.

STEP 3

Initiate, track and re-evaluate a comprehensive "whole building" energy management program, addressing all appropriate building systems.

STEP 4

Use integrated building design strategies in any future renovation or design projects.





3. Supporting Activities

A. REDUCTION OF ENERGY CONSUMPTION IN GOVERNMENT BUILDING.

i. Background:-

- This initiative started in Early 2016.
- All ministries were given directive to reduce energy consumption and ministries and departments are required to appoint energy focal point.

ii. 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
- The government aim to reduce electricity consumption.

iii. Results:-

- The government managed to achieve around **15%** reduction





3. Supporting Activities

B. STREET LIGHTING SAVING INITIATIVE.

i. Background:-

- This initiative started in February 2016.
- Consulting with Brunei National Traffic Committee.
- Focus on existing street lighting by switching off alternately
- A total of **39,766 street** lighting poles in Brunei Darussalam

ii. Objectives:-

- To reduce energy consumption for government sector

iii. Results:-

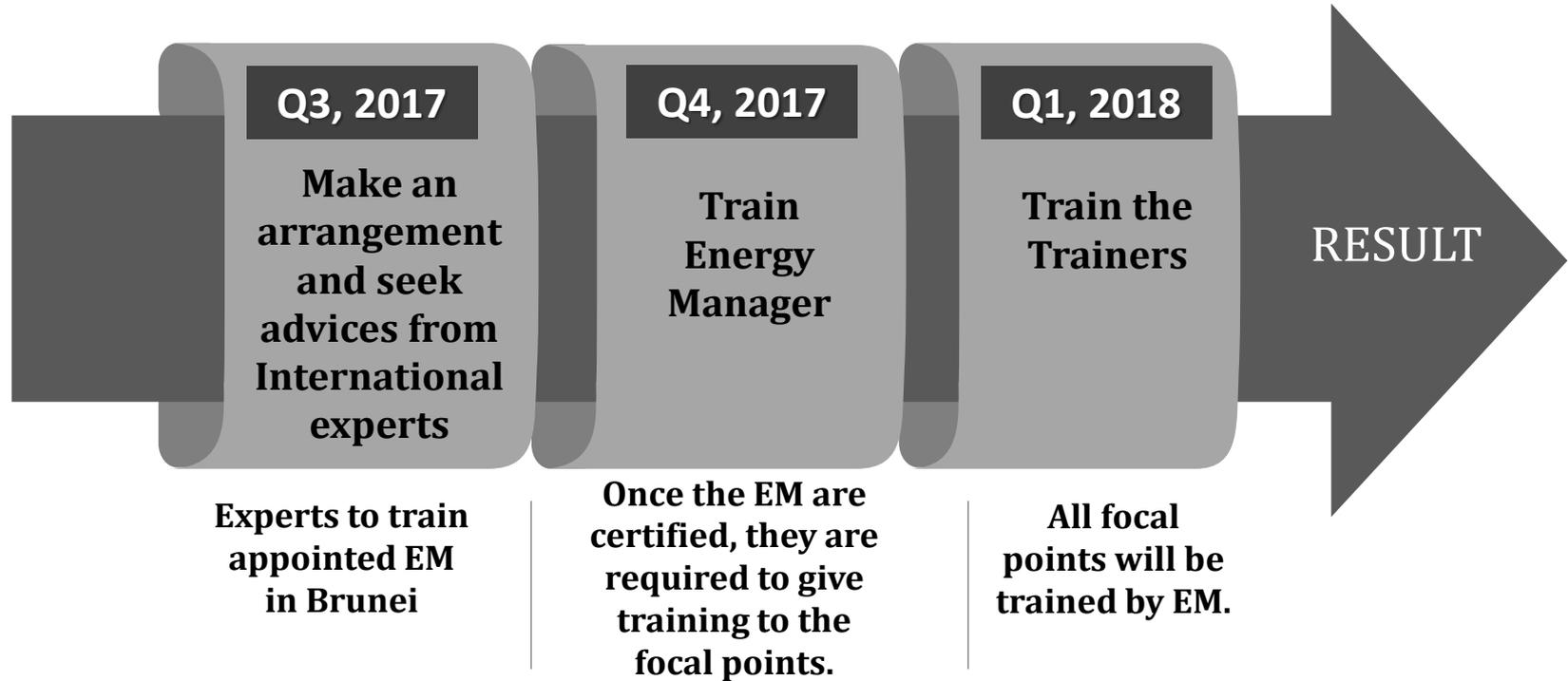
- Total saving in 2016 – **18 MWh (48%)** equivalent to **USD\$1.2 million**
(Government Tariff of 10 cents/kWh)





4. Energy Manager Training and Certification Plan

Energy Manager Training and Certification Plan



Type of training courses needed:

- *Introduction in the development, implementation and management based on ISO 50001*
- *Energy Auditor and Energy Manager plus Certification*



Thank you
for your kind attention



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