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**UNITED NATIONS DEVELOPMENT PROGRAMME  
COUNTRY: MALAYSIA  
PROJECT DOCUMENT**

<b>Project Title</b>	Preliminary Study on Demand Side Management (DSM) Project
<b>UNDAF Outcome(s):</b>	Non Applicable – Malaysia does not have UNDAF
<b>Expected CP Outcome(s):</b>	Priority 2: Sustainable and resilient development: Implementation of a national development agenda that enables green growth through climate-resilient measures, sustainable management of energy and natural resources, and improved risk governance
<b>Expected Output(s):</b>	Priority 2a: Enhancing national resiliency to climate variability and change. Innovative mitigation actions which promote the use of clean technology for energy generation, including the extension of basic services for the underserved population adopted. Related to Indicator 1.1: Number of climate change mitigation actions which are funded and implemented in line with United Nations Framework Convention of Climate Change (UNFCCC)
<b>Implementing Partner:</b>	Economic Planning Unit (Energy Section)

**Brief Description**

*In this box, briefly describe the overall development challenge and expected results of the project.*

The objective of this preliminary study is to support the DSM implementation as stated in the 11 Malaysia Plan. The project helps to determine the scope of work, identify focus areas and set the boundaries for before embarking into a comprehensive demand side management study to be undertaken in the period of 2018 – 2020.


The key outcomes of the preliminary project shall be as follows:

- Outcome 1: Baseline Studies on DSM related initiatives
- Outcome 2: Identification of Focus and Boundary Setting
- Outcome 3: Results Framework and Activities for Full Study


**UNDP Strategic Plan Output:** Outcome 1 - Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded

Atlas Project ID: 000  
Start Date: June 2016  
End Date: May 2017  
PAC Meeting Date: 2 July 2015

<b>Total resources required:</b>	<b>USD 480,000</b>
Total allocated resources:	
• Regular:	0
• Government Cost Sharing (inclusive GMS):	USD 480,000
• Others (inclusive GMS):	0
<i>GMS is at 6% of USD 480,000 which is USD 28,800</i>	
In-Kind Contributions (Implementing Partner):	USD100,000

Agreed by (Economic Planning Unit):  **DATUK SERI DR. RAHAMAT BIVI YUSOF**  
Director General  
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PRIME MINISTER'S DEPARTMENT

**25 MAY 2016**

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## ABBREVIATIONS

APR	Annual Progress Report
AWP	Annual Work Plan
CPAP	Country Programme Action Plan
EPU	Economic Planning Unit
FACE	Funding Authorisation and Certificate of Expenditures
GCS	Government Cost sharing
HACT	Harmonized Approach to Cash Transfer
NPD	National Project Director
NSC	National Steering Committee
11MP	11 <sup>th</sup> Malaysia Plan (2016-2020)
TWC	Technical Working Committee
SBAA	Standard Basic Assistance Agreement
TRAC	Target for Resource Assignment from the Core
UNDP	United Nations Development Programme

## 1. DEVELOPMENT CHALLENGE

### Introduction

At the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties - 15 (COP15) in Copenhagen, Malaysia has pledged to voluntarily reduce carbon dioxide (CO<sub>2</sub>) emission intensity of Gross Domestic Product (GDP) up to 40% by 2020 as compared to 2005 levels, conditional on financial and technological assistance from developed countries. In line with this pledge, the Government has introduced many green and energy efficiency initiatives, while enhancing the nation's energy security and sustainability.

### Challenges in Demand Side Management

The current practice of implementing ad-hoc basis of EE initiatives unable to reduce energy usage in a holistic manner. A robust approach is needed to sustainably reduce energy consumption that cut across the entire energy spectrum.

The total energy demand is escalating (Table 1) every year and the Government is finding all means to increase the supply as a way to match the demand. This leads to planting up of new power plants in order to meet the continuous demand. Thus, DSM is a better tool to control the rising demand of energy, delay the construction of new power plants, reduce GHG emission and prolong the depleting period of the countries' resources. In future, Malaysia is anticipated to be a net importer of gas and oil and DSM can delay such situation.

Table 1: Final Energy Demand by Sectors, 2010 – 2015

Sector	Kilo Tonne of Oil Equivalent (ktoe)		
	2010	2013	2015*
Transport	16,828	22,522	23,535
Industrial	12,928	13,384	13,367
Residential and Commercial	6,951	7,378	10,339
Non-Energy	3,696	9,111	8,968
Agriculture and Forestry	1,074	827	914
Total	41,476	53,222	57,123

Source: ST

In transport sector, the energy demand is increasing from 16,828 kilo tonnes of oil equivalent (ktoe) in 2010 to 22,522 ktoe in 2013. Currently, the share of energy demand by the transport sector is more than 40% of the total energy demand. In order to ensure adequate energy supply for other economic sectors, Malaysia needs to study the demand for, among others, the transport, electrical and industrial sector.

Efficient allocation of resources in driving the economy will result in better value added activities and supports the environment in line with Malaysia's commitment to international conventions. All policies that have an impact on energy supply and consumption need to be analysed in formulating the preliminary study.

### Stock Taking of Initiatives

Apparently, Malaysia's energy policies have evolved over the years since the 1973 oil crisis. There are many energy-related policies have been formulated since then until the most recent in Tenth Malaysia Plan, which was the Energy Policy for Malaysia (2012 - 2050). Some policies have mentioned about DSM but it is not a comprehensive action-oriented mitigation plan.

Despite lack of demand side holistic approach, there are several EE / Demand-Side Management initiatives that have been undertaken as below:

No	Initiatives	Description	Period	Implemented by	Key Results / Achievement
<b>Commercial and Residential Sector</b>					
1	Energy Performance Contracting (EPC)	Implementation of Energy Performance Contracting (EPC) concept through Energy Service Company (ESCO) has helped building owners to use the energy efficiently, and eventually reduce utility bills; and	2011-2020	KeTTHA & JKR	50 active Energy Service Companies (ESCOs) in the country 70 ESCOs by 2020 EPC concept will be used to retrofit 100 government buildings by 2020
2	Retrofitting of Government Buildings	Retrofitting measures for government buildings to be energy efficient. Amongst the retrofitted government buildings are the EPU and the Ministry of Finance buildings which have return of investments (ROIs) of 1.6 and 4.7 years respectively. After the ROI years, all savings will be deemed profit for the owner of the buildings.	2011-2020	KeTTHA & JKR	Retrofitting of four existing government buildings (EPU, MAMPU, MOF, NRE) resulted in reduction of electricity use ranging from 4% to 19% monthly, equivalent to RM7,000 to RM130,000 savings
3	MS1525	Voluntary implementation of MS1525 (Code of Practice on Energy Efficiency and Use of Renewable Energy for Non-Residential Buildings) through Uniform Building By-Law (UBBL) has created awareness on EE buildings;	2011-2020	JKR & KPKT	Uniform Building By-Law (UBBL), 1984 was revised in 2012 to incorporate the Malaysian Standard: Code of Practice on Energy Efficiency and Renewable Energy for Non-Residential Buildings (MS1525) Selangor and Terengganu state governments have incorporated MS1525 into their state UBBL
4	Sustainability Achieved via Energy Efficiency (SAVE)	(Sustainability Achieved via Energy Efficiency (SAVE) programme, which gave rebates to buy new efficient refrigerators/air conditions for domestic and chillers for industry;	2011-2013	SEDA	reduction of domestic electricity consumption of 306.9 gigawatt hour savings of RM78.4 million GHGs emission reduction of 208.7 tonnes carbon dioxide equivalent (tCO <sub>2</sub> eq)
5	MEPS	Minimum Energy Performance Standard (MEPS) and labelling programmes were introduced to promote energy efficient domestic products. Energy Commission (EC) certifies selected products, which are rated from 1-5 stars as per its energy efficiency features;	2011-2020	ST	MEPS and energy labelling were completed for five products through the Electricity Regulation 1994 (Amendment 2013) 14 appliances will be labelled under MEPS & the scope of MEPS for air-conditioner and refrigerator will be expanded by 2020
6	Green Building Index (GBI)	A green building certification programme led by professionals to encourage building owners and developers to utilize resources (energy, water and materials) efficiently. For buildings and township.	Since 2007	Professionals	Recommend possible domestic or supported NAMAs from the building and township sector Scientific and analytical inputs to GHG inventory and its reduction potential
7	Green PASS for buildings	A government-led mandatory rating that measures the actual impact of the quantity of greenhouse gas (GHG) by released by building during construction phase and operational phase of the building.	2012 onwards	CIDB and JKR	Recommend possible domestic or supported NAMAs from the building sector Scientific and analytical inputs to GHG inventory and its reduction potential

No	Initiatives	Description	Period	Implemented by	Key Results / Achievement
8	Building Sector Energy Efficiency Project (BSEEP)	It is a GEF-supported project and focuses on EE for new and existing buildings. It is also a capacity building project for the government and the private sectors. The project shall develop/support necessary rating tools and standards and build capacity of public and private developers on building EE design and retrofitting.	2010 – 2015	UNDP, GEF and PWD	Recommend possible domestic or supported NAMAs from the building sector Work hand-in-hand using building design simulation model such as IES. Policy inputs related to building sectors as part of the national mitigation actions Scientific and analytical inputs to GHG inventory and its reduction potential
<b>Cities and Transportation Sector</b>					
9	B7 Biodiesel	Biodiesel B7 (7% of palm biodiesel with 93% petroleum diesel) an environment friendly energy source was introduced in December 2014 which will mitigate Green House Gas (GHG) emission and consequently reduce dependence on petroleum diesel;	2015	MPIC	Used in land transport and fisheries sector Will use about 576,000 tonnes of palm biodiesel a year Will save 159.4 million litres of diesel A two-pronged strategy in reducing greenhouse gas emissions which contribute to a cleaner environment as well as stabilizing palm oil prices
10	Green Technology Application for development of the Low Carbon Cities (GTALCC)	It is a GEF-supported project to promote widespread use of green technology applications, EE and RE in the cities. It plans to build capacities of town/city planners in adopting green technologies to mitigate GHG (technical, financing and awareness). It will also focus on transport sector such as the Bus Rapid Transit and Electric-vehicle (EV).	2014-2019	UNDP, GEF and MEGTW	Assist in the development of Low Emission Development Strategies (LEDS) for cities / township Recommend possible city-level supported NAMAs (and its associated MRV) such as waste-to-energy, electric-vehicle and building energy efficiency. Policy inputs related to city level initiatives as part of the national mitigation actions Scientific and analytical inputs to GHG inventory and its reduction potential
11	Low Carbon Society (LCS)	The project is supported by the Japanese government to develop pilot research studies on low carbon society for Iskandar Malaysia. It utilizes scenario planning and modelling approach to low carbon cities and build capacity of policy makers in prioritizing EE and RE measures.	2010 -2013	JICA, EPU and Iskandar Malaysia	Recommend possible domestic or supported NAMAs from the township (Iskandar Malaysia), building sector, and transport and WTE plants. Policy inputs related to city sector as part of the national mitigation actions Scientific and analytical inputs to GHG inventory and its reduction potential
12	Green Township (and Low Carbon Cities Framework (LCCF))	It is an ongoing initiatives undertaken in supporting the national green technology policy. It focuses on a 10% saving in energy usage, development of the Green Township Guideline and Green Rating System. The Low Carbon Cities Framework (LCCF) has been currently established as voluntary guidelines for cities in reducing GHG emission. LCCF consists of passive and active measures including green initiatives such as 3R and composting.	2010 – 2015	MEGTW	Assist in the development of Low Emission Development Strategies (LEDS) for cities / township Recommend possible city-level supported NAMAs (and its associated MRV) such as waste-to-energy, electric-vehicle and building energy efficiency. Scientific and analytical inputs to GHG inventory and its reduction potential

No	Initiatives	Description	Period	Implemented by	Key Results / Achievement
<b>Industrial Sectors</b>					
13	Solar Thermal for Industrial and Heating application	The project is supported by GEF with UNIDO to promote the use of solar thermal for industrial use. It will develop standard and guidelines and build stakeholder's capacities in understanding solar thermal technology	2015-2018	UNIDO and MIGHT	Assist in the development of Low Emission Development Strategies (LEDS) for industrial heating sectors Recommend NAMAs (and its associated MRVs) such as solar drying technology for industrial processes. Scientific and analytical inputs to GHG inventory and its reduction potential
14	Industrial Energy Efficiency for Malaysian Manufacturing Sector (IEEMS)	A GEF-supported projects to promote the use of ISO50000 Energy Management System, to build capacity of SME in managing energy usage and develop guidelines and standards for industrial equipment.	2012 - 2017	UNIDO, GEF and SMIDEC	Recommend possible domestic or supported NAMAs from the industrial (SME) sector Policy inputs related to industrial EE and ISO 50000 as part of the national mitigation actions Scientific and analytical inputs to GHG inventory and its reduction potential
<b>Cross Cutting Sectors / Capacity Building / Studies</b>					
15	Low Emission Capacity Building Project (LECB)	The project is to support Malaysia's mitigation actions in line with the UNFCCC outcome	2013-2015	UNDP and NRE	GHG inventory component related to industry mitigation actions Potential NAMAs which will have sufficient scientific information in updating of GHG Inventory Produce potential mitigation actions from various sectors as proposed during consultations
16	Economics of Climate Change Study	An initiative to build national capacity in developing necessary costing for CC mitigation and adaptation measures. It will harmonize necessary modelling tools for policy makers to be used in the national planning exercise.	2011- 2013	UNDP and EPU	Assist in the development of Low Emission Development Strategies (LEDS) for energy, agriculture and water sectors. Recommend possible domestic or supported NAMAs from mitigation recommendation list. Utilize expertise on using energy modelling tools such as LEAP and macro-economic modelling such as AIM and GCE. Policy inputs related to various economic sectors sector as part of the national mitigation and adaptation actions Scientific and analytical inputs to GHG inventory and its reduction potential

No	Initiatives	Description	Period	Implemented by	Key Results / Achievement
17	National Corporate GHG Reporting Programme (NCGRP) Project	The project is formulating the necessary building blocks for voluntary emission reduction programme in Malaysia. Malaysia's NCGRP invite private sectors to support national CC initiatives by disclosing their CC mitigation actions.	2013-2015	UNDP and NRE	Assist government in providing potential domestic supported NAMAs from private sectors. Policy inputs related to corporate sector as part of the voluntary national mitigation actions Scientific and analytical inputs to GHG inventory and its reduction potential
18	Sustainable Consumption and Production (SCP)	Provide inputs for the formulation of the next Malaysia Plan towards achieving an inclusive, sustainable and high-income developed nation by 2020. Focus on areas of resource efficiency and green growth and climate change.	2012 - 2015	EU and EPU	Assist in the development of Low Emission Development Strategies (LEDS) for energy sectors Policy inputs related to consumption and production sectors as part of the national mitigation actions Scientific and analytical inputs to GHG inventory and its reduction potential
19	Roadmap on Reduction of Carbon Intensity in Malaysia	Finalize and streamline national mitigation actions in relation to PM's pledge in Copenhagen of 40% carbon intensity reduction conditional upon transfer of technology and financing from the developed countries	2012-2013	NRE and UNITEN	Assist in the development of Low Emission Development Strategies (LEDS) for energy, industrial, building and other GHG emitting sectors. Recommend possible domestic or supported NAMAs from mitigation recommendation list. Utilize expertise on using energy modelling tools such as LEAP and MARKAL. Policy inputs related to key mitigation sectors sector as part of the national mitigation actions Scientific and analytical inputs to GHG inventory and its reduction potential
20	Entry Point Projects (Energy, O&G) EPP 9 (Energy Efficiency) and EPP 10 (Renewable Energy and Solar PV)	EPP 9 focuses on five relevant levers to improve EE : to lead by example on energy-efficiency practices and philosophy, to stimulate sales of energy-efficient appliances, the Government will work with TNB to make co-generation economically viable, to regulate better insulated buildings and to stimulate the sale of energy-efficient vehicles.  EPP10 promotes the wide-spread use of grid-connected solar PV. The Feed-in-Tariff (Fit) as the driver to achieve 65MW grid-connected solar PV capacity by 2015	2011-2015	PEMANDU and MEGTW	Recommend possible domestic NAMAs from the energy efficiency and Solar PV grid-connected projects Policy inputs related to city sector as part of the national mitigation actions Scientific and analytical inputs to GHG inventory and its reduction potential

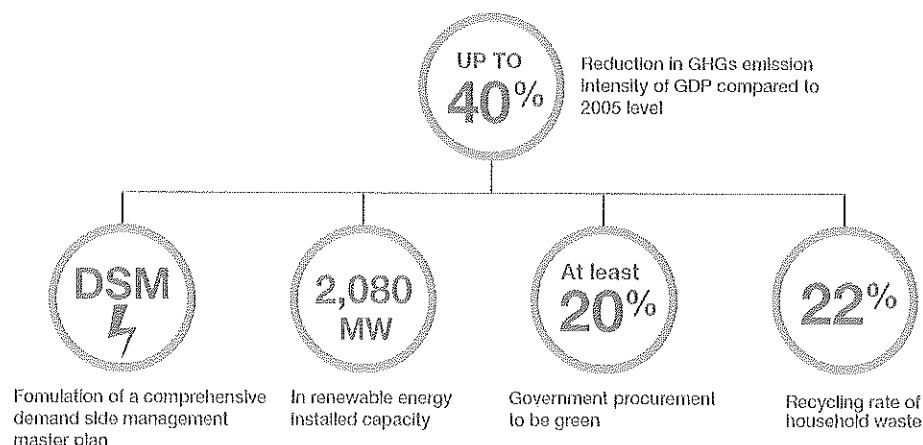


No	Initiatives	Description	Period	Implemented by	Key Results / Achievement
21	Entry Point Projects on Palm Oil Industries: EPP5 (RE and biogas) and EPP 7 (RE and 2nd gen biofuels)	<p>EPP5 Focus on the utilization of biogas resources in the palm oil sector. Target to gradually build biogas facilities across 400 mills by 2020</p> <p>EPP7 Fast-track the commercialization of 2nd generation biofuels to leverage the biomass generated in the industry. As the technology becomes available in the next few years, Bio Oil can be converted into transportation fuels like diesel</p>	2011-2015	PEMANDU, MPIC and MPOB	Recommend possible domestic and supported NAMAs from the biogas plants and the use of 2nd generation bio-fuel
22	Entry Point Projects on Electrical & Electronic: EPP6 (solar manufacturing)	To increase production capacity of solar wafers and cells by 10 fold from 2.4GW to 23.3GW in 2020	2011-2015	PEMANDU and MITI	Recommend possible domestic and supported NAMAs from the manufacturing solar PV and cells for domestic use.

## 2. STRATEGY

### Project Rationale

The project will support the country's long-term efforts on energy demand which will include electricity and thermal energy sectors by developing the DSM masterplan as stated in the 11 Malaysia Plan. DSM has been identified as one of the SCP strategies (Strategy B3) and assist Malaysia in achieving the 40% reduction in GHG emission intensity of GDP compared to 2005 level.<sup>1</sup>



Under the 11MP, EPU will initiate a study on DSM masterplan which covers the whole spectrum of the energy sector. DSM is a vital tool to reduce peak electricity demand impacting the overall load on an electricity network. This will have beneficial effects including mitigating electrical system emergencies and increasing system reliability. It will also result in less dependence on expensive imports of fuel, reducing peak power demand and minimising harmful emissions to the environment. The scope of the new DSM master plan will include the electric and thermal energy, including usage in the transport sector. During the Eleventh Plan, measures will be taken to identify potential improvements and appropriate approaches to ensure efficient use of energy in buildings, industries and households. These measures include increasing competencies of energy service providers, especially Registered Electrical Energy Managers, and promoting the implementation of Energy Performance Contracting for government buildings. User awareness will be enhanced on energy labelling and the availability of standards such as ISO 50001 for buildings and MEPS for appliances will be promoted. Other specific measures will include introduction of Enhanced Time of Use (EToU) tariff scheme and gradual abolishment of the Special Industrial Tariff for energy intensive industries. Infrastructure related initiatives such as implementation of smart grids and highly efficient co-generation technologies for combined heat and power system will be promoted.

### Project scope

In respond to this shortcoming, prior to EPU's comprehensive study on DSM, a preliminary study to investigate the current baselines (completed, on-going and planned initiatives) nationally and abroad, identify scope and the relevant areas and finally to develop the comprehensive terms of references and consultancy document in the form a complete tender document inline with the Government of Malaysia's format. The scope of the preliminary study are as below:

<sup>1</sup> 11 Malaysia Plan, May 2015

Type	Definition
Electrical Energy	Covers electricity consumption by commercial, residential and industrial sectors. (Activities not cover by NEEAP)
Thermal Sector	Primarily used by the industrial sector for manufacturing processes that requires in-house electricity generation and hot water production which utilises but not confined to boilers, generators and heat recovery systems.
Transport Sector	Covers land, water and air transport that may include public transport, mass transport, commercial transport (for freight and logistics) and private vehicles but these are by no means exhaustive.

Another possible combination can also be in the form of clustering of sectors as per the National Energy Balance (NEB) i.e. commercial (electricity, thermal and combined heat and power (CHP), industrial (electricity, thermal and CHP), residential (electricity-based consumption) and transport (which consumes electricity and petroleum products). Nevertheless, the final scoping of the preliminary DSM study will be explored further during the inception phase.

### Project objectives, outcomes and outputs/activities

The Project aims to provide baseline understanding of the current state of energy demand side of Malaysia. The outcome targeted is baseline studies on DSM initiatives, focus and boundary setting as well as framework activities for a full-fledged DSM study. There are 3 specific Outcomes as follows:

The following table shows the outcome, outputs and underlying activities of the proposed project:

Outcome	Output	Activities
Outcome 1: Baseline Studies on DSM related initiatives	<ul style="list-style-type: none"> <li>• Stocktake key findings and recommendations from past and existing studies, policies and roadmaps related to energy as well as energy policy planning and governance;</li> <li>• Analysis of Energy Demand and Supply;</li> <li>• Assess energy development in Malaysia through analysis on energy demand and supply by sectors and fuel type as well as other energy sources;</li> <li>• Review all existing national energy policies especially those with regards to DSM;</li> <li>• Review all existing national data monitoring, reporting and verification (MRV) system and identifying gaps for main DSM data requirements.</li> <li>• Support to the strengthening UN's SE4ALL and SDG7 agenda</li> </ul>	<ul style="list-style-type: none"> <li>• Workshops for the stock take and baseline setting and identifying current gaps and loopholes in policies and other existing energy related studies</li> <li>• Workshops for demand/supply trends and consumptions patterns</li> <li>• Workshops for data gathering</li> <li>• Individual resource persons data gathering activities and engagement with other stakeholders</li> <li>• Study visit to model countries including to Thailand, and Denmark</li> <li>• Workshop and review on UN's SE4ALL and SDG7 agenda (by UNDP)</li> </ul>
Outcome 2: Identification of Focus and Boundary Setting	<ul style="list-style-type: none"> <li>• Produce a preliminary study report that suggest scope of work in detail, disaggregated at the sectors and sub-sectors level</li> <li>• Identification of focus areas disaggregated at the sectors and sub-sectors level</li> <li>• and set the boundaries for a comprehensive Demand Side Management (DSM) study in Malaysia</li> </ul>	<ul style="list-style-type: none"> <li>• Workshops for the sectors / sub-sectors scope of work and focus areas</li> <li>• Identify areas with data issues</li> </ul>

Outcome	Output	Activities
Outcome 3: Results Framework and Activities for Full Study	<ul style="list-style-type: none"> <li>• Mechanism and TOR for full DSM study</li> <li>• List of key stakeholders for full study</li> <li>• Preliminary institutional framework for main demand side management study</li> <li>• Timeline and milestones of execution of the main study</li> <li>• Tender document for the main study</li> </ul>	Conduct workshops to: <ul style="list-style-type: none"> <li>• design the TOR, framework and milestones for the main DSM study</li> <li>• Identifying key stakeholders for the main DSM study</li> <li>• Prepare a proposed framework mechanism for the main DSM study</li> </ul>

### Country ownership

The Project is in line with the 11 Malaysia Plan, Chapter 6, Pursuing Green Growth. It specifies green growth as the one of the six strategic thrusts and also one of the six game changers. It is anticipated that Malaysia's green growth strategy will lead to better quality of growth, strengthened food, water and energy security, lower environmental risks and ecological scarcities, and ultimately better wellbeing and quality of life. It will mean significant reduction in greenhouse gas emissions and improved conservation of terrestrial and inland water, as well as coastal and marine areas including its ecosystems. Achieving these aspirations requires a fundamental shift away from a 'grow first, clean up later' development model towards one that views resilient, low-carbon, resource-efficient, and socially inclusive development as an upfront investment that will yield future gains over multiple generations to come. This requires fundamental changes across every major dimension including policy formulation, institutional strengthening, governance structure, and including continued awareness and education programme.

The Demand-Side Management (DSM) is a planned initiative under the 11 Malaysia Plan under the sustainable production and consumption under Strategy B3. It marks an important paradigm shift for Malaysia towards efficient management of energy resources where it will give due emphasis to the demand side for a balanced management of the entire energy spectrum. A preliminary study will be initiated in 2015 before the DSM master plan study takes place in 2016. It is anticipated that the scope of the new DSM master plan will include the electric and thermal energy, including usage of energy in the transport sector.

### 3. RESULTS AND PARTNERSHIP

#### Expected Results

In the national context of Malaysia, demand side management will lead to capturing the full potential for low carbon green growth where there is a need to use policies and actions across a wide range of areas to correct existing market and policy failures and gaps, particularly those arising from environmental externalities and inadequate incentives for innovation. The strategy of this Project is to apply the precautionary principle<sup>2</sup> within the energy industry where costs are relatively small and the likely benefits and risks avoided are significant. In preparing the preliminary DSM document, The Project will also strengthen the capacity of policy makers and technical know-how of stakeholders towards low carbon development whilst at the same time undertaking concrete actions that will deliver emission reductions during the life of the project.

The Project promotes inter-sectorial cooperation, to ensure effective engagement across services and technology areas and efficient use of national resources. In particular, planning of the main energy end-use sectors (transport, electricity, thermal users) requires good inter-sectorial cooperation if resource efficiencies are to be improved as stated in the 11 Malaysia Plan, as stated above. A full-fledged DSM project will lead to the efficient use of energy and promote energy efficiency which is in line with Country Programme Action Plan Priority 2a Enhancing national resilience to climate variability and change. The key focus will be on integrating sustainability principles, such as sustainable production and consumption and eco-efficiency in policy formulation and systems across various levels of government (federal, state and local authorities), in order to enhance resilience and increase policy coherence and coordination. The programme will also interlink policy on cross-sectoral climate change mitigation measures, such as pursuing low carbon cities, energy efficiency in building and industrial sectors.

#### Partnerships and Stakeholder Engagement

Selected key stakeholders are as below:

Stakeholders	Roles and responsibilities	Role in the project
Economic Planning Unit, Prime Minister's Department	<ul style="list-style-type: none"> <li>Overall policy direction on the implementation of National 5-year plan</li> <li>Recommend 5-year development budget to Ministry of Finance</li> <li>Facilitating adoption of national policies related to sustainable development and environment including outputs from the Project</li> </ul>	<ul style="list-style-type: none"> <li>Consultation &amp; baseline data provider.</li> <li>Cross-sectors policy convener</li> </ul>
Ministry of Energy, Green Technology and Water (MEGTW)	<ul style="list-style-type: none"> <li>Executer and guardian of the renewable energy, energy efficiency and green technology policies.</li> <li>Guardian of the RE Act.</li> <li>Responsible in promoting Low Carbon Cities Framework (LCCF) to the cities and local authorities.</li> </ul>	<ul style="list-style-type: none"> <li>Consultation &amp; baseline data provider.</li> <li>Source for aggregated energy data (National Energy Balance, national electricity supply and demand)</li> </ul>
Energy Commission (ST)	<ul style="list-style-type: none"> <li>Electricity energy regulator for Peninsular Malaysia and Sabah</li> <li>Promoting efficiency and economy in the generation, transmission, distribution, supply and use of electricity and in the reticulation and use of gas;</li> <li>Promoting and safeguarding competition;</li> <li>Enabling fair and efficient market conduct or, in the absence of a competitive market, to prevent the misuse of monopoly or market power in the electricity and piped gas industries</li> </ul>	<ul style="list-style-type: none"> <li>Consultation &amp; baseline data provider.</li> </ul>

<sup>2</sup> Principle 15, Rio Declaration of Environment and Development, 1992

Stakeholders	Roles and responsibilities	Role in the project
PETRONAS	<ul style="list-style-type: none"> <li>• A fully integrated energy company with a leading portfolio and wide network of operations around the world</li> <li>• The corporation is vested with the entire oil and gas resources in Malaysia and is entrusted with the responsibility of developing and adding value to these resources</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> </ul>
Tenaga Nasional Berhad (TNB)	<ul style="list-style-type: none"> <li>• Electricity utility company and responsible in generation, transmission and distribution of electricity in Peninsular Malaysia and Sabah. Other activities include repairing, testing and maintaining power plants, providing engineering, procurement and construction services for power plants related products, assembling and manufacturing high voltage switchgears, coal mining and trading</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> </ul>
Sarawak Energy Berhad	<ul style="list-style-type: none"> <li>• Responsible for the generation, transmission and distribution of electricity in Sarawak. It also conducts training and other related businesses in support of its core operations.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> </ul>
Sabah Electricity Sdn. Bhd. (SESB)	<ul style="list-style-type: none"> <li>• Responsible for the generation, transmission and distribution of electricity in Sarawak. It also conducts training and other related businesses in support of its core operations.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> </ul>
Sustainable Energy Development Authority (SEDA)	<ul style="list-style-type: none"> <li>• Coordination support, capacity development training and policy studies on renewable energy.</li> <li>• Administers and manages the implementation of the feed-in tariff mechanism which is mandated under the Renewable Energy Act 2011. SEDA is also responsible in the management and issuance of RE quotas under FiT.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider</li> </ul>
Ministry of Natural Resources and Environment	<ul style="list-style-type: none"> <li>• National Focal Points to the UNFCCC and GEF, leading the country's delegation to international negotiation and coordinating national initiatives on climate change;</li> <li>• Is the Designated National authority for CDM projects</li> <li>• Was the Implementing Agency for Initial National Communication, Second National Communication projects and currently the Third National Communications and Biennial Update Report to UNFCCC.</li> <li>• Lead partner, coordinator and facilitator for the Project</li> <li>• Recommend proposed policy tools for endorsement by the Government</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> <li>• Source for environment initiatives, CDM information, and aggregated GHG data</li> <li>• Source for Nationally Appropriate Mitigation Actions (NAMA) and its Measurement, Reporting and Verification (MRV) framework</li> </ul>

Stakeholders	Roles and responsibilities	Role in the project
Jabatan Kerja Raya (JKR)	<ul style="list-style-type: none"> <li>• Create awareness of the importance of preservation and conservation of the environment to the public in general.</li> <li>• Reduce wasteful use of energy for PWD project.</li> <li>• Apply the concepts and features of the overall energy efficiency in the passive and active building design.</li> <li>• Responsible in the implementation of the national infrastructure projects, asset management, roads and maintenance as well as providing expertise and advisory on national physical development. PWD is currently executing the UNDP-GEF Buildings Sector Energy Efficiency Project in promoting wide-spread energy efficiency practices in the public and private building sectors.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> <li>• Source for building sector</li> </ul>
Ministry of Transport	<ul style="list-style-type: none"> <li>• Responsible for the formulation and implementation of national transportation policies/schemes.</li> <li>• Provide advice and assist the EPU Energy in enforcing various policies on sustainable urban transport and green mobility initiatives.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> <li>• Source for transport sector</li> </ul>
Department of Statistics Malaysia	<ul style="list-style-type: none"> <li>• Responsible in collecting, interpreting and disseminating latest and real time statistics in the monitoring of national economic performance and social development.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> <li>• Source for all types of energy related data</li> </ul>
Land Public Transport Commission (SPAD)	<ul style="list-style-type: none"> <li>• Drawing up policies, planning and regulating all aspects of train, bus and taxi services as well as road- and rail-based freight transport under one roof.</li> <li>• SPAD also has enforcement powers which it will carry out with close cooperation with other enforcement agencies such as the Royal Malaysian Police and the Road Transport Department.</li> <li>• Responsible for policies, planning and regulating all aspects of train, bus and taxi services as well as road- and rail-based freight transport. In the Project it will assist the Ministry of Transport in drafting and enforcement of policies related to integrated low emission transportation.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider for energy use in the land transport</li> </ul>

Stakeholders	Roles and responsibilities	Role in the project
Federal Department of Town and Country Planning (JBPD)	<ul style="list-style-type: none"> <li>• Advising the government on matters related to planning, management and development in line with the national physical planning</li> <li>• Responsible towards building a dynamic society through planning, coordinating and implementing comprehensive housing programs, uniformed development with integral infrastructure facilities, social and recreational services. MUWHLG provides guidance to local government and planning units</li> <li>• Responsible in ensuring buy-in and effective engagement from local authorities and cities on mainstreaming of low carbon development within national planning and development systems</li> <li>• Secretariat for the World Urban Forum 2018</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> </ul>
Ministry of International Trade and Industry	<ul style="list-style-type: none"> <li>• Advice and formulate policies and planning related to industry and international trade.</li> <li>• Advise and formulate policies related to the import and use of green technology equipment including the use electric and hybrid vehicles.</li> <li>• Guardian of the National Automotive policy</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> <li>• Source for AP and import/export of green technology equipment/ devices including on electric vehicle data</li> </ul>
Malaysian Green Technology Corporation	<ul style="list-style-type: none"> <li>• Coordination support, capacity development training and policy studies on green technology</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> <li>• Source for GHG data on energy, industry, buildings and CDM</li> </ul>
Malaysia Automotive Institute (MAI)	<ul style="list-style-type: none"> <li>• Acquiring and transferring technologies associated with automotive development</li> <li>• As information centre in advising the government on automotive related matters inclusive of policy and governance</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider</li> </ul>
Federal Manufacturers of Malaysia (FMM)	<ul style="list-style-type: none"> <li>• The voice of the Malaysian manufacturing industry. A key focal point for those seeking links with Malaysian manufacturers for investment, trade and services.</li> <li>• Has available and strong network with most manufacturers in Malaysia.</li> <li>• Has information on inputs and outputs of the manufacturing industries including use of the energy.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider</li> </ul>
Academic institutions	<ul style="list-style-type: none"> <li>• Policy research and studies to strengthen baseline data , impact analysis, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Consultation &amp; baseline data provider.</li> <li>• Source for primary and secondary data on energy (supply &amp; demand), GHG and waste (for RE)</li> </ul>



## **Mainstreaming Gender and Vulnerable Communities Issues**

The project shall endeavour to ensure women, children, indigenous and the under privileged communities will be consulted and participating actively in project activities, where relevant. EPU may seek advice from UNDP and other interest groups to ensure issues related to gender and vulnerable communities are included during formulation and implementation. Where applicable, gender and community issues will be considered throughout the project implementation, including at the Inception Phase as women and men, as well as vulnerable communities can exhibit distinct differences in their perspectives and priorities concerning environmental quality and impact as well as access to energy services. In this regard, gender and vulnerable community perspectives, will, when possible, be incorporated during policy formulation by ensuring consultative processes include women, children, indigenous and community organizations as well as gender and specific community subject matter experts.

The project will also, where possible, ensure the representation of women and vulnerable communities during workshops and trainings as well as public awareness programmes, as supporting their role in educational activities will help these groups access the knowledge and skills they require to be active participants in other initiatives which address climate change. Where possible, their engagement throughout the project should be reported to monitor that their perspectives have been included to achieve the outcome of the project.

## **South-South and Triangular Cooperation (SSC/TrC)**

Upon the successful implementation of the project, it helps in the promotion of success stories and best practices between South countries, where the project allows for the exchange knowledge, know-how and expertise between developing countries, communities, NGOs, businesses, academic and government institutions. Malaysia's development experiences and expertise in areas should be shared especially on areas where it has a comparative advantage. The project can also lead to transfer of south-south technologies on demand-side management related to electricity, thermal and transport sectors. Malaysia's lesson will lead to further strengthening South-south cooperation by broadening and intensifying its scope through enhanced regional and sub-regional cooperation, pooling of resources in joint collaborations thus, strengthening trade and investment as well as the position of the South in multilateral negotiations and organizations. Such partnership would then contribute to ensuring a more effective participation of South countries in the global economy and accelerate the pace towards the achievement of the Sustainable Development Goals (SDG)

## **Sustainability and Scaling-up**

The outcomes of the Project integrate specific activities that guarantee their replicability and/or sustainability. It will advance energy planning and management for energy security and mitigation of GHG emissions for Malaysia. It marks an important paradigm shift for Malaysia towards efficient management of energy resources. This initiative will give due emphasis to the demand side for a balanced management of the entire energy spectrum. The preliminary DSM study will move towards the implementation of the comprehensive DSM master plan by EPU where issues on policy framework, regulatory and sustainable financing will be also explored.

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## 4. PROJECT AND RISK MANAGEMENT

### Project Management

A Project Manager will be appointed to manage the overall day-to-day arrangement and the person will be reporting to the National Project Director (NPD) who is the Director of the Energy Section, EPU. EPU Energy as the implementing agency, will consult and seek guidance from other relevant ministries and agencies related to project. The Project team will be based at EPU Energy Section where the Deputy Director will be overseeing it on behalf of EPU Energy.

### Cost Efficiency and Effectiveness

The project is first of its kind in Malaysia as it promotes an integrated and holistic approach to use demand based energy used. The cost effectiveness of the project will be achieved via: a) its comprehensive approach - no previous climate change mitigation project in the country has taken the approach at this scale and scope; and b) the harmonization and enhancement of baseline activities and other project actions to promote integrated energy planning at the national level which shall lead to greater adoption of green technologies at various sectors. The project promotes integration across various resource systems (primary and secondary energy), across subsumed territorial boundaries, between ministries (i.e the case of energy use in the transportation sector) which has not previously been addressed in Malaysia in a harmonized and coordinated way. The Project will also broadly strengthen national energy planning systems and this is expected to bring economic benefits. The Project will boost investor confidence and generate lessons and knowledge on the promotion and application of green technologies, and integrated energy use which will catalyse further green technology investments and generate replication and indirect GHG emission reductions in Malaysia.

The full-fledged DSM project will lead to national saving in the longer run due to:

- Cost reduction: DSM and energy efficiency efforts have been introduced in the context of integrated resource planning and aimed at reducing total costs of meeting energy demand. It is also a hedge against planting up of new power plants.
- Environmental and social improvement: energy efficiency and DSM may be pursued to achieve environmental and/or social goals by reducing energy use leading to reduced greenhouse gas emissions.
- Reliability and network issues: ameliorating and/or averting problems in the electricity network through reducing demand in ways which maintain system reliability in the immediate term and over the longer term defer the need for network augmentation.
- Improved markets: short-term responses to electricity market conditions ("demand response"), particularly by reducing load during periods of high market prices caused by reduced generation or network capacity.

### Risk Management

It expected that project risks will be as below:

- The value of US Dollars foreign exchange against the Ringgit may reduce during the project cycle. There will be a need to regularly monitor the exchange rate to ensure that it does not affect the budget of the project. If there are major changes, the budget will be adjusted accordingly and approved by the NSC.
- Lack of awareness from the public and private sectors on DSM which lead to low buy-in during consultation process. Promotional exercise will be strengthened. Having a comprehensive visibility programme and by engaging a full-time project coordinator/project manager in the project will help.
- Competing priorities within the implementing partner which may lead to oversight in project monitoring. Consistent periodical meetings as laid out in the M&E will assist EPU Energy to increase communication and Monitoring of the project. UNDP will provide the necessary advisory support as and when necessary.
- Gaps in terms of baseline data may still exist. There will be a need to consult relevant agencies in identifying the gaps and address it and discuss in the NSC.

## 5. RESULTS AND RESOURCES FRAMEWORK

<i>Intended Outcome as stated in the CPAP Results and Resource Framework: Sustainable and Resilient Development</i>													
<i>Outcome indicators as stated in the CPAP Results and Resources Framework, including baseline and targets: Priority 2: Sustainable and resilient development: Implementation of a national development agenda that enables green growth through climate-resilient measures, sustainable management of energy and natural resources, and improved risk governance.</i>													
<i>Indicator 1.1: Number of climate change mitigation actions which are funded and implemented in line with United Nations Framework Convention of Climate Change (UNFCCC). Baseline: 0. Target: 5</i>													
<i>Applicable Output(s) from UNDP Strategic Plan: Outcome 1 - Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded, Energy Efficiency</i>													
<i>Project title and ID : 00098685</i>													
<b>OUTPUTS AND TOC</b>	<b>OUTPUT INDICATORS<sup>3</sup></b>	<b>ACTIVITIES, RISKS AND ASSUMPTIONS</b>	<b>ROLE OF PARTNERS</b>										
Output 1: Baseline Studies on DSM related initiatives	Existence of baselines study on DSM	<p>1.1 Workshops for the stock take and baseline setting and identifying current gaps and loopholes in policies and other existing energy related studies</p> <p>1.2 Workshops for demand/supply trends and consumptions patterns</p> <p>1.3 Workshops for data gathering</p> <p>1.4 Individual resource persons data gathering activities and engagement with other stakeholders</p> <p>1.5 Study visit to model countries including to Thailand, and Denmark</p> <p>1.6 Workshop and review on UN's SE4ALL and SDG7 agenda (by UNDP)</p>	<p>EPU: As implementing partner and responsible on day-to-day management of the project</p> <p>Role of other partners is stated in section Results and Partnership Section.</p>										
			<table border="1"> <tr> <td>Local Consultants</td> <td>50,000</td> </tr> <tr> <td>Travel</td> <td>136,000</td> </tr> <tr> <td>Workshops / Trainings</td> <td>15,000</td> </tr> <tr> <td>Miscellaneous</td> <td>1,000</td> </tr> <tr> <td><b>Subtotal</b></td> <td><b>202,000</b></td> </tr> </table>	Local Consultants	50,000	Travel	136,000	Workshops / Trainings	15,000	Miscellaneous	1,000	<b>Subtotal</b>	<b>202,000</b>
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Miscellaneous	1,000												
<b>Subtotal</b>	<b>202,000</b>												
			<p>Monitoring Costs: USD 4,000</p>										

<sup>3</sup> it is recommended that projects use output indicators from the Strategic Plan, as relevant, in addition to project-specific results indicators

<p>Output 2: Identification of Focus and Boundary Setting</p>	<p>Identification focus and boundary setting</p>	<p>2.1 Workshops for the sectors / sub-sectors scope of work and focus areas 2.2 Identify areas with data issues</p>	<p>As above.</p>	<table border="1"> <tr> <td>International Consultant</td> <td>20,000</td> </tr> <tr> <td>Local Consultants</td> <td>33,000</td> </tr> <tr> <td>Travel</td> <td>5,000</td> </tr> <tr> <td>Workshops / Trainings</td> <td>15,000</td> </tr> <tr> <td>Miscellaneous</td> <td>1,000</td> </tr> <tr> <td><b>Subtotal</b></td> <td><b>84,000</b></td> </tr> <tr> <td colspan="2"><b>Monitoring Costs: USD 4,000</b></td> </tr> </table>	International Consultant	20,000	Local Consultants	33,000	Travel	5,000	Workshops / Trainings	15,000	Miscellaneous	1,000	<b>Subtotal</b>	<b>84,000</b>	<b>Monitoring Costs: USD 4,000</b>	
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<b>Monitoring Costs: USD 4,000</b>																		
<p>Output 3: Results Framework and Activities for Full Study</p>	<p>Availability of the proposed DSM master plan study and the full set of tender document</p>	<p>3.1 Conduct workshops to:  <ul style="list-style-type: none"> <li>design the TOR, framework and milestones for the main DSM study</li> <li>Identifying key stakeholders for the main DSM study</li> <li>Prepare a proposed framework mechanism for the main DSM study</li> </ul> </p>	<p>As above</p>	<table border="1"> <tr> <td>Local Consultants</td> <td>48,000</td> </tr> <tr> <td>Travel</td> <td>5,000</td> </tr> <tr> <td>Workshops / Trainings</td> <td>10,000</td> </tr> <tr> <td>Miscellaneous</td> <td>1,000</td> </tr> <tr> <td><b>Subtotal</b></td> <td><b>64,000</b></td> </tr> <tr> <td colspan="2"><b>Monitoring Costs: USD 2,000</b></td> </tr> </table>	Local Consultants	48,000	Travel	5,000	Workshops / Trainings	10,000	Miscellaneous	1,000	<b>Subtotal</b>	<b>64,000</b>	<b>Monitoring Costs: USD 2,000</b>			
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<b>Monitoring Costs: USD 2,000</b>																		
<p>Project Management, including Monitoring and evaluation</p>	<p>Activity Results: Compliance with the agreed M&amp;E framework  Associated Actions: Organization of TWCs &amp; NSCs</p>	<p>Appointment of the National Project Manager Organizations of the TWC &amp; NSC Meetings Purchase of IT equipment for database Project management, policy and advisory services (UNDP)</p>	<p>As above</p>	<table border="1"> <tr> <td>Local Consultants - Project Manager (IC)</td> <td>28,000</td> </tr> <tr> <td>IT Equipment</td> <td>8,000</td> </tr> <tr> <td>UNDP Project Management and Advisory Services</td> <td>80,000</td> </tr> <tr> <td><b>Subtotal</b></td> <td><b>116,000</b></td> </tr> <tr> <td colspan="2"><b>Monitoring Costs: USD 4,000</b></td> </tr> </table>	Local Consultants - Project Manager (IC)	28,000	IT Equipment	8,000	UNDP Project Management and Advisory Services	80,000	<b>Subtotal</b>	<b>116,000</b>	<b>Monitoring Costs: USD 4,000</b>					
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## 6. MONITORING AND EVALUATION

The project activities will be closely monitored by UNDP and the Economic Planning Unit in the Prime Minister's Department (EPU) as outlined in the Country Programme Action Plan 2016-2020 Part VII: Monitoring and Evaluation.

### Within the annual cycle

- **Track Progress.** Following the frequency cited in the monitoring plan, progress data against the results indicators will be collected and analysed to assess the progress of the project in achieving the agreed outputs. National data sources should be used whenever possible. Slower than expected progress will be addressed by the project management.
- **Monitor and Manage Risk.** Based on the initial risk analysis identified, a risk log shall be actively maintained, including by reviewing the external environment that may affect the project implementation. Risk management actions will be identified and monitored using a risk log. This includes monitoring social and environmental management measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.
- **Evaluate and Learn.** Evaluations shall be conducted in accordance with the evaluation plan. Knowledge, good practices and lessons should be captured and shared, as well as actively sourced from other projects and partners, and integrated back into the project. If a project evaluation is required (e.g., when mandated by partnership principles, or due to the complexity or innovative aspects of the project), it should be conducted in accordance with the project's evaluation plan.
- **Review and Make Course Corrections.** The project management will review the data and evidence collected (through all of the above) on a regular basis within the annual cycle, and make course corrections as needed. The frequency of review depends on the needs of the project, but an internal review of the available progress data against the results indicators is recommended to be undertaken at least quarterly. Any significant course corrections that require a decision by the Project Board should be raised at the next Project Board meeting.

### Annually

- **Annual Project Quality Rating.** On an annual basis and at the end of the project, the quality of the project will be rated by the UNDP Quality Assurance Assessor against the quality criteria identified in UNDP's Project Quality Assurance System. Any quality concerns flagged by the process must be addressed by project management.
- **Annual Project Review and Report.** The Project Board shall hold a project review at least once per year to assess the performance of the project and appraise the Annual Work Plan for the following year. An Annual Progress Report will be presented to the Project Board for the review, consisting of progress data showing the results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk log with mitigation measures, and any evaluation or review reports prepared over the period. Any quality concerns or slower than expected progress should be discussed by the project and management actions agreed to address the issues identified. This review is driven by the Project Board and may involve other stakeholders as required.

### Closure

- In the project's final year, the Project Board shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up, if applicable.

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following approaches:

The specific project monitoring and review meetings are as follows:

#### **National Steering Committee Meetings**

The National Steering Committee (NSC) will meet after the receipt of each project report or at least once a year, whichever is greater and address project issues raised by the National Project Director, review project progress reports and provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plan. A final NSC meeting should also be held at the end of project completion to agree to and endorse the final findings and outcomes of the project and to make recommendations towards project closure.

#### **Technical Working Committee Meetings**

The Technical Working Committee (TWC) will meet as regularly as required to assist the NSC in monitoring and advising the technical implementation of the project and its activities. The TWC acts as the technical advisors to the NSC, and regularly reviews the progress of all project components.

#### **Annual Project Review Meeting**

If required, an internal review meeting will be chaired by EPU during the fourth quarter of the year to assess the performance of the project based on the Annual Work Plan (AWP) submitted at the beginning of the calendar year as well as the Annual Progress Report submitted during the fourth quarter of each calendar year. The review will involve all key project stakeholders and the Implementing Partner, and will focus on the extent to which progress have been made towards achievement of the outputs and that they remain aligned to appropriate outcomes as outlined in the project document. This review should update output targets and results achieved.

#### **Final Project Review Meeting**

A Final Project Review meeting will be chaired by EPU within six months after the operational closure of the projects. Its purpose is to assess the performance and success of the project. It should look at sustainability of the results, including the contribution to related outcomes (and the status of these outcomes) and capacity development. It will also review lessons learned and recommendations that might improve design and implementation of other UNDP-funded projects. The meeting will discuss the Final Project Review Report that should be submitted two weeks prior to the Final Project Review Meeting.

The specific project progress reporting documents are as follows:

#### **Mid-Year Progress Report (MYPR)**

A Mid-Year Progress Report shall be prepared by the Project Manager and shared with the NSC by 30 June of each project year. As a minimum requirement, the Mid Year Progress Report shall utilize the standard template for the Annual Project Report (APR) covering a six-month period. The completed and signed MYPR will be submitted by the Implementing Partner to EPU by the first week of July, annually.

#### **Annual Progress Report (APR)**

An Annual Progress Report shall also be prepared by the Project Manager and shared with the NSC by the end of the last quarter of each year. The Annual Progress Report shall highlight risks and challenges, the summary of results achieved, and lessons learnt of the project for that reporting year. The completed and signed APR will be submitted by the Implementing Partner to EPU by the third week of December, annually.

### **Final Project Review Report**

- This document which is a structured assessment of progress based on the chain of results initially defined in the Project Document and Annual Work plans and will include information on financial allocations of expenditure. It may be supplemented by additional narrative to meet specific reporting needs of stakeholders; especially bilateral donor(s) within the annex, the following should be submitted together with the report:
- Lessons learnt log - summarizing the information captured throughout the implementation of the project
- Minutes of NSC meetings
- Minutes of TWC meetings
- Annual signed CDRs
- Statements of cash position (if applicable)

### **Final Project Evaluation**

Project evaluation assesses the performance of a project in achieving its intended results. It yields useful information on project implementation arrangements and the achievement of outputs. It is at this level that direct cause and attribution can be addressed given the close causal linkage between the intervention and its effect or output.

Project evaluation provides valuable information to support informed decision-making and serves to reinforce the accountability of Implementing Partner. Depending on the purpose, project evaluations can be commissioned by the management at any time during the project cycle: at mid-point, just before or after completion. They should ideally take place around the time of completing a project to determine the future of the project (e.g. continuation or termination of the project), to decide whether the concept should be scaled up or replicated elsewhere, and/or to generate lessons that are of strategic significance for the organization.

The specific financial monitoring and quality assurance are as follows:

### **Combined Delivery Reports**

The Combined Delivery Report (CDR) is the report that reflects the total expenditures and actual obligations (recorded in Atlas) of a Project during a period. This report is prepared by UNDP using Atlas and shared with the implementing partner on a bi-annual basis and at the end of each year. The Implementing Partner is required to verify each transaction made and sign the quarterly issued CDR report.

### **Audit**

Audit is an integral part of sound financial and administrative management, and of the UNDP accountability framework. The project will be audited at least once in its lifetime and in accordance with the threshold established for the annual expenditures by the Office of Audit and Investigations (OAI). The audit provides assurance that resources are used to achieve the results described and that UNDP and government cost sharing resources are adequately safeguarded.

The Auditor-General's Office may undertake the audits of Government Implementing Partners. If the Auditor-General's Office chooses not to undertake the audits of specific Implementing Partners with the frequency and scope required by UNDP and EPU, such audits will be commissioned by UNDP to be undertaken by private sector audit services.

Assessments and audits of non-Government Implementing Partners will be conducted in accordance with the policies and procedures of UNDP. The selection of an Audit Firm shall be through a competitive Request for Proposals, in consultation with the Implementing Partner and EPU.

The audit is expected to provide assurance related to the following broad areas:

- Project progress and rate of delivery
- Financial management
- Procurement of goods and /or services
- Human resource selection and administration
- Management and use of equipment and inventory
- Record-keeping systems and controls
- Management structure
- Auditors' comments on the implementation status of prior year audit

## 7. MULTI YEAR WORK PLAN

**Preliminary Study on Demand Side Management Project**  
**(ATLAS PROJECT NUMBER No. 00098685)**  
**ANNUAL WORK PLAN**  
**Year: 2016**

EXPECTED OUTPUTS <i>And baseline, associated indicators and annual targets</i>	PLANNED ACTIVITIES <i>List activity results and associated actions</i>	TIME FRAME				RESPONSIBLE PARTY	PLANNED BUDGET		Amount (USD)
		Q1	Q2	Q3	Q4		Funding Source	Budget Description	
Output 1:  Baseline Studies on DSM related initiatives  Baseline: Available but scattered  Indicators: Number of studies / initiatives  Targets:  Availability of baseline studies in concrete form	Activity Results:  I. Stocktake key findings and recommendations from past and existing studies, policies and roadmaps related to energy as well as energy policy planning and governance;  II. Analysis of Energy Demand and Supply;  III. Assess energy development in Malaysia through analysis on energy demand and supply by sectors and fuel type as well as other energy sources;  Associated Actions:  Workshops for the stock take and baseline setting and identifying current gaps and loopholes in policies and other existing energy related studies  Workshops for demand/supply trends and consumption patterns  Workshops for data gathering individual resource persons data gathering activities and engagement with other stakeholders  Study visit to model countries including to Thailand, and Denmark  Appointment of consultants	X	X	X	X	EPU	Cost Sharing	Local Consultants	50,000
								Travel	118,000
								Workshops / Trainings	15,000
								Miscellaneous	1,000
								SUB TOTAL	184,000





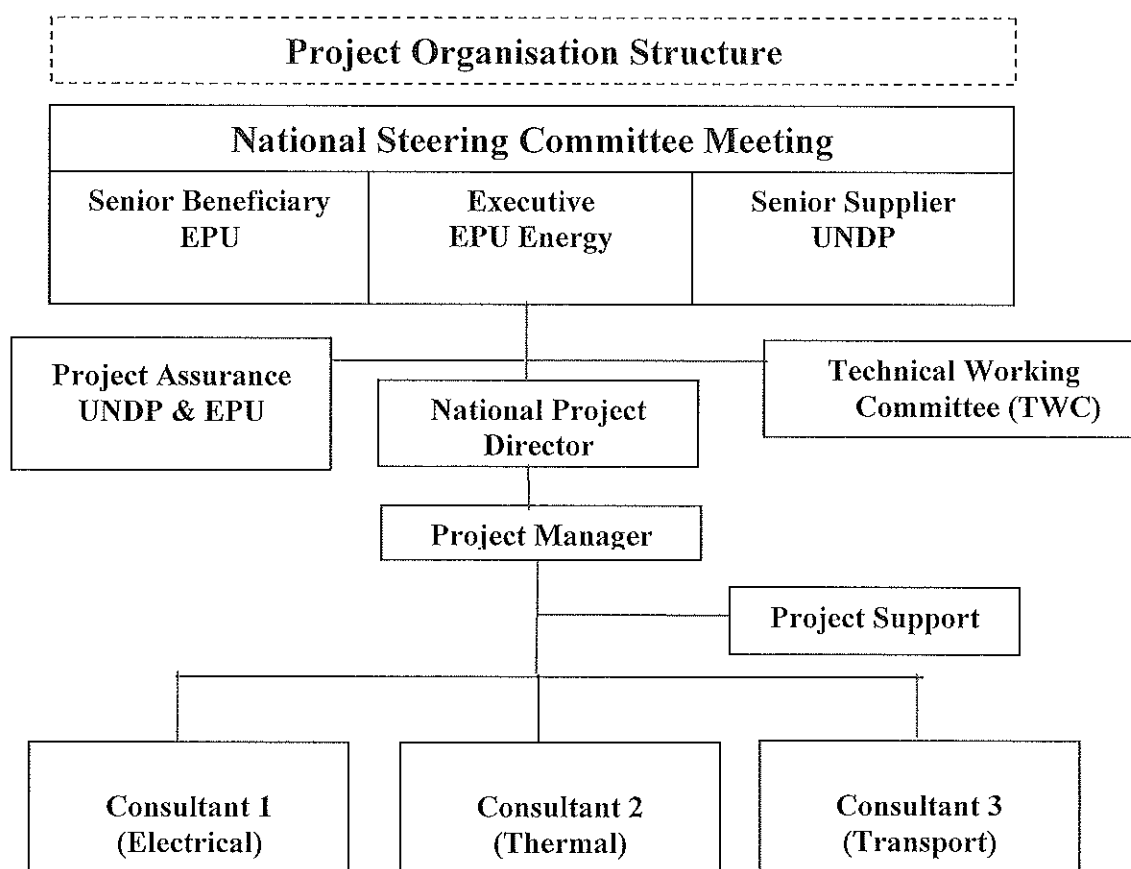
**Preliminary Study on Demand Side Management Project**  
**(ATLAS PROJECT NUMBER No. 00098685)**  
**ANNUAL WORK PLAN**  
**Year: 2017**

EXPECTED OUTPUTS And baseline, associated indicators and annual targets	PLANNED ACTIVITIES List activity results and associated actions	TIME FRAME				RESPONSIBLE PARTY	Funding Source	PLANNED BUDGET		
		Q1	Q2	Q3	Q4			Budget Description	Amount (USD)	
Output 1: Baseline Studies on DSM related initiatives <i>Baseline: Available but scattered</i> <i>Indicators: Number of studies / initiatives</i> <i>Targets: Availability of baseline studies in concrete form</i>	Activity Results: III. Assess energy development in Malaysia through analysis on energy demand and supply by sectors and fuel type as well as other energy sources;  Associated Actions: Study visit to model countries including to Thailand	X	X	X	X	EPU	Cost Sharing	71600	Travel	18,000
<i>Related CP Outcome: Priority 2: Sustainable and resilient development: Implementation of a national development agenda that enables green growth through climate-resilient measures, sustainable management of energy and natural resources, and improved risk governance</i>								SUB TOTAL		18,000
	MONITORING									2,000

EXPECTED OUTPUTS And baseline, associated indicators and annual targets	PLANNED ACTIVITIES List activity results and associated actions	TIME FRAME				RESPONSIBLE PARTY	PLANNED BUDGET	
		Q1	Q2	Q3	Q4		Funding Source	Amount (USD)
<p>Output 2:</p> <p>Identification of Focus and Boundary Setting</p> <p>Baseline: Not available</p> <p>Indicators: Focus areas and scoping sectors identified. Outputs will be number of reports produced</p> <p>Related CP Outcome : Priority 2: Sustainable and resilient development: Implementation of a national development agenda that enables green growth through climate-resilient measures, sustainable management of energy and natural resources, and improved risk governance</p>	<p>Activity Results:</p> <p>1. Produce a preliminary study report that suggest scope of work in detail, disaggregated at the sectors and sub-sectors level</p> <p>Associated Actions:</p> <p>Workshops for the sectors / sub-sectors scope of work and focus areas</p> <p>Identify areas with data issues</p>	X	X	X	X	EPU	71300 Local Consultants	18,000
							SUB TOTAL	18,000
<p>OUTPUT 3:</p> <p>Results Framework and Activities for Full Study</p> <p>Baseline: Not available</p> <p>Indicators: Proposed DSM master plan study and its framework available and a complete set of tender document ready.</p> <p>Related CP Outcome : Priority 2: Sustainable and resilient development: Implementation of a national development agenda that enables green growth through climate-resilient measures, sustainable management of energy and natural resources, and improved risk governance</p>	<p>MONITORING</p> <p>Activity Results:</p> <p>Mechanism and TOR for full DSM study</p> <p>List of key stakeholders for full study</p> <p>Associated Actions:</p> <p>Conduct workshops to design the TOR, framework and milestones for the main DSM study identifying key stakeholders for the main DSM study</p> <p>Appointment of consultants</p>	X	X	X	X	EPU	71300 Local Consultants 71600 Travel 75700 Workshops / Trainings 74500 Miscellaneous expenses	2,000 48,000 5,000 10,000 1,000
							SUB TOTAL	64,000

EXPECTED OUTPUTS And baseline, associated indicators and annual targets	MONITORING		TIME FRAME				RESPONSIBLE PARTY	PLANNED BUDGET		Amount (USD)
	PLANNED ACTIVITIES List activity results and associated actions	Q1	Q2	Q3	Q4	Funding Source		Budget Description		
								71405	Local Consultant - Project Manager (IC)	
		X	X	X	X	EPU & UNDP	71405	Local Consultant - Project Manager (IC)	8,000	
							74500	UNDP Project Management and Advisory Services	40,000	
							SUB TOTAL		48,000	
									2,000	
									0	
							TOTAL		USD156,000	

## 8. GOVERNANCE AND MANAGEMENT ARRANGEMENT



\*Note: The Final arrangement of the consultants and other project structure will be decided during the Inception Phase.

### Programme Management Arrangements

#### **National Steering Committee (NSC)**

The National Steering Committee will provide guidance and direction to the project implementation process according to the established detailed work plan monitoring tool. The Committee will be composed of representatives from MEGTW, MNRE, ST, TNB, SEDA, Petronas, MNRE and other relevant stakeholders including NGOs. The Chairperson of the NSC will be the Deputy Director General (Sectoral) Economic Planning Unit. NSC will endorse the activities, budget, project outputs and any changes to the project activities. Refer Appendix C for the TOR.

#### **National Project Director (NPD)**

The National Project Director will be responsible for coordinating project activities among the main parties to the project. Among these responsibilities are ensuring that the project document and project revisions requiring Government's approval are verified and processed through the Government co-ordinating authority in accordance with established procedures and providing direction and guidance on project-related issues. The NPD will be the Director of Energy Section, EPU.

### **Project Assurance**

The Project Assurance role supports the Project Board (NSC) by carrying out objective and independent project oversight and monitoring functions. This role ensures that appropriate project management milestones are managed and completed. Risk factors as in Appendix II, will be periodically reviewed to ensure the risks are mitigated and manageable. Necessary actions to overcome any project challenges will be discussed as well. A UNDP Programme Officer will hold the Project Assurance together with a representative from the Malaysian Government (EPU)

### **Project Manager**

The Project Manager is responsible in running the day-to-day coordination of the project together with an oversight by identified officer of the implementing agency. The person ensures that the project produces the results specified in the project document to the required standard of quality and within the specified constraints of time and cost. The Project Manager will be recruited (as an Individual Consultant) and will report administratively and programmatically to both the NPD and UNDP. The person will assist in preparing progress reports in timely and required manner, and provide the information needed for disbursement of funds.

### **Project Support Staff**

Support for the Project Manager may be extended by EPU on as-need basis with regards to official correspondences by the Government. This may also include in-kind support such as the use of office facilities, tools and equipment.

### **Technical Working Committee (TWC)**

A technical working committee will be established to handle all technical matters relating to the project and will be chaired by the National Project Director. The members of the TWC will consist of representative from EPU, UNDP Malaysia and respective Divisions from the Implementing Partner as well as other relevant stakeholders to be determined by the National Steering Committee.

### **Consultants and Technical Support**

If applicable, technical support will be provided by local and international professionals with extensive experience working in relevant areas as required by the project. The UNDP global knowledge network will provide valuable inputs through best practices and lessons learned from similar experiences in other countries.

### **Financial Management Arrangements**

Based on the approved AWP, UNDP will provide required financial resources to the Implementing Partner to carry out project activities during the annual cycle. The following modalities may be used, where applicable and relevant:

- Direct cash transfers to the Implementing Partner, for obligations and expenditures to be made by them in support of activities;
- Direct payments to vendors and other third parties, for obligations incurred by the Implementing Partner;
- Reimbursement to the Implementing Partner for obligations made and expenditure incurred by them in support of activities.

The Implementing Partner will work closely with UNDP to monitor the use of the financial resources and are accountable for:

- Managing UNDP and Government of Malaysia's resources to achieve the expected results;
- Maintaining an up to date accounting system that contains records and controls to ensure the accuracy and reliability of financial information and reporting. Expenditures made should be in accordance with the, Annual Work Plans and budgets.

At the end of a quarter/year UNDP prepares a Combined Delivery Report (CDR) which records all disbursements made under the project for verification. The Implementing Partner and UNDP should sign this CDR.

A project revision shall be made when appropriate; to respond to changes in the development context or to adjust the design and resources allocation to ensure the effectiveness of the project provided that the project remains relevant to the CPAP. A project revision shall be supported by the record of an approval decision made by the project NSC, and an updated and signed AWP.

The contribution of funds for this project shall be charged:

- 6% cost recovery for the provision of general management support (GMS) by UNDP headquarters and country offices

Direct cost for implementation support services (ISS) provided by UNDP and/or an executing entity/implementing partner

### UNDP Support Services

In addition to the roles and responsibilities assigned to UNDP and the Implementing Partner in the Project Document, UNDP may/ shall provide the following services, at the request of the Implementing Partner:

- identification and recruitment of project personnel;
- procurement of goods and services including project vehicle
- Identification of training activities and assistance in carrying them out

The above will be carried out based on UNDP policies and procedures following the principles of best value for money, fairness, integrity, transparency, and effective competition. UNDP shall charge to the project as per the Universal Price List where required.

UNDP will also charge for the support services provided as follows:

- 6% cost recovery for the provision of general management support (GMS) for activities funded under Government Cost sharing, if any
- Direct cost for implementation support services (ISS) for activities under TRAC funding, if any

### In-Kind Contribution

In addition to the financial resources through UNDP, the implementing partner will provide the following in-kind contribution:

- Assist in gaining access to all relevant data and information required to for the project that is accessible for public viewing;
- Assist in coordinating with other agencies and ministries
- Office space (i.e. room/workspace) for the Project Manager, consultants and experts at EPU
- Use of office support facilities by the Project Manager, consultants and experts (e.g. fax machine, stationary, Xerox machine, telephone), and secretarial support where applicable;
- Facilities for convening meetings, workshops and seminars.
- Any reimbursable expenses can be borne by the project fund as agreed Annual Work Plan (AWP).

### Activities related to Implementation of Nationally Implementation Modality (NIM)

The below encompasses in detail of each section related to the effective implementation of NIM modality.

Sections	Roles of IP (EPU Energy)	Roles of UNDP
Procurement of Equipment/ Venue for Workshops / Publications	Finalize Specifications, Sourcing and purchasing. Issuance of Letter of Authorization	Payment according to FACE
Procurement of Local Consultants	Finalize Terms of References (TOR)	Sourcing, Advertising and Issuance of Contracts as per UNDP IC guidelines
Procurement of International Consultants	Finalize Terms of References (TOR)	Sourcing, Advertising and Issuance of Contracts as per UNDP guidelines
Recruitment of Project Teams	Finalize Terms of References (TOR). For interim measures, government to issue Letter of Appointment	Sourcing, Advertising and Issuance of Contracts as per UNDP HR/SC guidelines For interim measures, disbursement will be according to FACE from.

Sections	Roles of IP (EPU Energy)	Roles of UNDP
Travelling and use of Subsistence Allowance and others	Finalize Agenda / Programme Government staff to use government 's Subsistence Allowance (SA) and others as per the Government's procedures	Disbursement to Government's staff as per FACE from UNDP contracted personnel and UNDP staff to use available UN's rate inline with UNDP's guidelines



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## 9. LEGAL CONTEXT

This document together with the CPAP signed by the Government and UNDP which is incorporated herein by reference, constitute together a Project Document as referred to in the Standard Basic Assistance Agreement (SBAA); as such all provisions of the CPAP apply to this document. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner", as such term is defined and used in the CPAP and this document.

Consistent with the Article III of the Standard Basic Assistance Agreement (SBAA), the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

- put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

The Implementing Partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via [http://www.un.org/sc/committees/1267/ag\\_sanctions\\_list.shtml](http://www.un.org/sc/committees/1267/ag_sanctions_list.shtml). This provision must be included in all sub-contracts or sub-agreements entered into under/further to this Project Document".

## 10. ANNEX I: PROJECT BUDGET

### TOTAL BUDGET AND WORKPLAN

Award ID:	00094574	Project ID:	00098685
Award Title:	Preliminary DSM Study		
Business Unit:	MYS10		
Project Title:	Preliminary Study on Demand Side Management (DSM) Project		
Implementing Partner	Economic Planning Unit – Energy Section		

Outcome/Atlas Activity[1]	Responsible Party	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	TOTAL
C1: Baseline Studies on DSM related initiatives	EPU		CS	71300	Local Consultants	50,000	0	50,000
				71600	Travel	120,000	20,000	140,000
				75700	Workshops / Trainings	15,000	0	15,000
				74500	Miscellaneous	1,000	0	1,000
					<b>Subtotal</b>	<b>186,000</b>	<b>20,000</b>	<b>206,000</b>
C2: Identification of Focus and Boundary Setting	EPU		CS	71200	International Consultant	20,000	0	20,000
				71300	Local Consultants	27,000	20,000	47,000
				71600	Travel	5,000	0	5,000
				75700	Workshops / Trainings	15,000	0	15,000
				74500	Miscellaneous	1,000	0	1,000
					<b>Subtotal</b>	<b>68,000</b>	<b>20,000</b>	<b>88,000</b>
C3: Results Framework and Activities for Full Study	EPU		CS	71300	Local Consultants	0	50,000	50,000
				71600	Travel	0	5,000	5,000
				75700	Workshops / Trainings	0	10,000	10,000
				74500	Miscellaneous	0	1,000	1,000
					<b>Subtotal</b>	<b>0</b>	<b>66,000</b>	<b>66,000</b>
Project Management, including Monitoring and evaluation	EPU / UNDP		CS & TRAC	71405	Local Consultants - Project Manager (IC)	20,000	10,000	30,000
					IT Equipment	10,000	0	10,000
					UNDP Project Management and Advisory Services	40,000	40,000	80,000
					<b>Subtotal</b>	<b>70,000</b>	<b>50,000</b>	<b>120,000</b>

<b>PROJECT TOTAL</b>					<b>324,000</b>	<b>156,000</b>	<b>480,000</b>
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## 11. ANNEX II: RISKS AND MITIGATION

Description	Type	Impact & Probability	Mitigation Measures
The value of US Dollars foreign exchange against the Ringgit may reduce during the project cycle.	Financial	Probability: Low Impact: Medium	There will be a need to regularly monitor the exchange rate to ensure that it does not affect the budget of the project. If there are major changes, the budget will be adjusted accordingly and approved by the NSC.
Lack of awareness from the public and private sectors on DSM and its definition	Management	Probability: Medium Impact: Medium	Promotional exercise will be strengthened. Having a comprehensive visibility programme and by engaging a full-time project coordinator/project manager in the project will help.
Competing priorities within the implementing partner which may lead to oversight in project monitoring	Management	Probability: Low Impact: Medium	Consistent periodical meetings as laid out in the M&E will assist EPU Energy to increase communication and Monitoring of the project. UNDP will provide the necessary advisory support as and when necessary.
Gaps in terms of baseline data may still exist.	Others	Probability: Medium Impact: High	There will be a need to consult relevant agencies in identifying the gaps and address it.

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## 12. ANNEX III: FINANCIAL ARRANGEMENTS

Please refer to Financial Arrangement section on pg 30.

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## 13. ANNEX IV - TERMS OF REFERENCE

### **TERMS OF REFERENCE: National Steering Committee (NSC)**

The National Steering Committee (NSC) will monitor the conduct of the project and provide strategic guidance to the project team on the implementation of the project. The NSC will be chaired by Deputy Director General (Sectoral) of Economic Planning Unit

Members of the NSC may include EPU (International Cooperation), EPU Energy, MoA, MEGTW, MOF, DOS, SEDA, TNB, Petronas and other related agencies. The NSC will meet at least once a year or when necessary. The NSC will have the following duties and responsibilities:

- Provide policy guidance on matters pertaining to the implementation of the project;
- Monitor and evaluate the implementation of the project towards fulfilment of the objectives stated in the project document;
- Review, approve and endorse proposed work plan and budget or any change of activities and budget;
- Initiate remedial actions to overcome all constraints in progress of the project;
- Review and approve relevant changes to the project design and including budget;
- Endorse any project outputs as stipulated in the project document
- Coordinate the roles of the various organizations involved in the execution of the project and ensure harmony with related activities;
- Advice on the long term sustainability strategy of the project;
- Review and approve all related reports to the projects.

### **Terms of Reference: Technical Working Committee**

The TWCs will provide guidance, conclude and recommend decisions related on technical matters. The TWC will be chaired by Director of the Energy section of the Economic Planning Unit. As date, it is anticipated that 3 TWCs will be established (Electrical, Thermal and Transport). Members of the TWCs may include related government agencies, universities, industry experts and subject matter experts as and when required. The TWCs will meet at least in quarterly basis or when necessary. The TWC will have the following duties and responsibilities:

- Finalize analysis of baseline findings and recommend the necessary follow up needed for the DSM full study.
- Provide technical analysis and evaluate the implementation of the project towards fulfilment of the objectives stated in the project document;
- Review and recommend proposed work plan of activities and budget or any change of activities and budget;
- Proposed initiate remedial actions to overcome all constraints in progress of the project;
- Review reports and outputs by consultants and recommend for endorsement by NSC at a later stage.
- Coordinate the roles of the various organizations involved including data sharing and collection, in the execution of the project and ensure harmony with related activities;

## **TERMS OF REFERENCE: National Project Director (NPD)**

National Project Director is a senior staff member of the Government of Malaysia's implementing agency of a UNDP-supported project. The NPD will be the Director of Energy Section, EPU. His/her main responsibility is to coordinate project activities among the main parties to the project: the Government co-coordinating authority, the consultants, and UNDP. Specifically, he/she works in close collaboration with the Project Manager as well as UNDP and his/her responsibilities include:

- Approve project outputs as stipulated in the project document.
- Ensure that the project document and project revisions requiring Government's approval are processed through the Government co- coordinating authority, in accordance with established procedures;
- Approve work plans in discussion with the Project Manager, UNDP and consultants, for endorsement by NSC
- Mobilize national institutional mechanisms for smooth progress of project;
- Chair the TWCs as and when necessary
- Review and approve project progress and status reports such as APR.
- Provide direction and guidance on project-related issues;
- Provide advice and guidance to the project team.
- Approve financial transaction and including signing of the Combined Delivery Report
- Approve final project progress and financial status for endorsement by NSC

## **TERMS OF REFERENCE: National Project Manager (NPM)**

The Project Manager will provide the day-to-day operation, management, technical advisory inputs, administrative, financial and operational support as required. He/She will coordinate the implementation of various activities in ensuring quality and timeliness of outputs and deliverables. The person will be assigned to carry out duties under the requirement set by EPU and UNDP. The tasks to be covered will be as follows:

- Support the day-to-day management and operations of the preliminary DSM Study as stated in the project document.
- Archiving of data and information obtained during the study period.
- Liaise with relevant stakeholders (public and private sectors) in the efforts to systemise data collection process and reporting for preliminary DSM Study. The project manager is responsible in following up with the various focal points in ensuring a timely and quality submission of reports.
- Plan, organise and facilitate as well as to provide minutes of meetings / notes of all workshops, brainstorming and consultation events required from each Consultant including the secretarial and rapporteur duties
- Plan, organise and facilitate study visits required by EPU (abroad and local). The person shall maintain records of such events.
- Plan, organise, facilitate and prepare the Terms of References (TOR) of the Consultants (and any other relevant documentation) and follow up the process of the appointment of consultants for EPU and UNDP's approval during the Preliminary DSM study
- Consolidate and streamline information gathered from Consultants for further reporting to EPU. It is expected that a consolidated inception, interim and final reports from each consultant of the Preliminary Study, which comprise main report and executive summary from the respective consultants.
- Upon in-depth analysis of the aggregated data and information available, prepare and submit to EPU and UNDP the final draft of the main DSM Master Plan study tender document
- Provide quality assurance on all reports submitted by Consultants by ensuring comprehensiveness and relevant information incorporated upon consultation from EPU and UNDP.
- Maintaining financial records and FACE forms in-line with the agreed procedures. The NPM shall liaise with EPU/UNDP on matters regarding the expenses, claims, and payments related to the study for approval before payments is made
- Prepare and recommend for approval from EPU for UNDP Annual Project Report (APR) or any other reports required
- Assist EPU and UNDP with regards to monitoring and evaluation of the study in accordance with UNDP's requirements from time to time.
- Conduct other duties assigned by EPU and UNDP related to continuation of the preliminary DSM Study (for the implementation of the main DSM Study in the 11<sup>th</sup> Malaysia Plan)
- To execute the duties and responsibilities above at the agreed remuneration package with the exception for guidance and advice, other additional assistance in the form of manpower and other resources are not obligatory
- Must be available at EPU's office at Putrajaya of at least twice a week specifically every Monday and Thursday for the purpose of updating the respective EPU and UNDP officers

### **REQUIRED SKILLS AND EXPERIENCE**

#### **Education:**

Minimum Bachelor's degree in Electrical/Energy/Mechanical/Civil/Chemical/Petroleum Engineering or related field.

#### **Experience:**

- Minimum ten (10) years of working experience in the field of energy particularly on demand side management, energy management and/or energy efficiency;
- At least five (5) years of experience in the formulation of energy policy and, regulatory framework and strategic implementation plan for government of Malaysia;
- A Registered Energy Manager with Energy Commission of Malaysia;
- Experience in project management is a must;
- Experience in coordinating a government-link programme in Malaysia is preferred;
- Experience in conducting research, analysis and generating reports in energy studies and energy efficiency preferred;
- Experience in energy management systems and energy efficiency technologies for organizational applications preferred;
- Experience in energy performance measurement, monitoring and audits for conservation projects in buildings preferred;
- Experience in working with private sectors and/or UN agencies is preferred.

## 14. ANNEX V – ANNUAL PROGRESS REPORT TEMPLATES

### A. ANNUAL PROGRESS REPORT



COUNTRY PROGRAMME ACTION PLAN 2016-2020



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#### Section 1: Overall Implementation of Project Outputs as Per Signed Annual Work Plan 2016

2016 AWP Budget: 2016 AWP Budget (Revised): 2016 Expenditure: 2016 Expenditure (%): 2016 In-Kind Contribution:	Total Project Budget: Total Project Expenditure: Total Project Expenditure (%): Total In-Kind Contribution: Gender Marker Rating (ATLAS):
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<b>OUTPUT 1:</b> Activity 1: Target 2016: Achievement and Results 2016:  Activity 2: Target 2016: Achievement and Results 2016:  Remarks if any project activities and targets were not implemented or amended.
<b>OUTPUT 2:</b> Activity 1: Target 2016: Achievement and Results 2016:  Activity 2: Target 2016: Achievement and Results 2016:  Remarks if any project activities and targets were not implemented or amended.
<b>OUTPUT 3:</b> Activity 1: Target 2016: Achievement and Results 2016:  Activity 2: Target 2016: Achievement and Results 2016:  Remarks if any project activities and targets were not implemented or amended.



## Section 2: Project Contribution to National Development Agenda in 2016

### 2.1 Contribution to Analysis/ Development/ Refinement of National or Sectoral Policies, Strategies and Action Plans

*(Note: Please indicate and elaborate on how the outputs have been utilized by the Implementing Partner to contribute to analysis/ development/ refinement of National or Sectoral Policies, Strategies and Action Plans. Please also indicate if the outputs have contributed to the implementation of the 10<sup>th</sup> Malaysia Plan or inputs into the 11<sup>th</sup> Malaysia Plan preparatory work.)*

<input type="checkbox"/> Yes	
<input type="checkbox"/> No	

### 2.2 Contribution to awareness raising or convening on key thematic issues

*(Note: Please indicate the thematic issues, objective of activities and the number of participants and affiliations.)*

<input type="checkbox"/> Yes	Topic: Objective: Participants Pax: Affiliations (Name the Ministries involved and indicate the number of private sector, civil society organizations and academia who participated):
<input type="checkbox"/> No	

### 2.3 Contribution to capacity development and institutional arrangements (Mandatory response)

*(Note: Please indicate if capacities are being built to implement or sustain systemic changes.)*

<input type="checkbox"/> Yes	
<input type="checkbox"/> No	

### 2.4 Contribution to development of new datasets, statistics or models

*(Note: Please indicate if datasets, statistics or models have been generated or improved/ updated. Please also indicate on how these have been utilized by the Implementing Partner to strengthen national evidence based policy making.)*

<input type="checkbox"/> Yes	
<input type="checkbox"/> No	

### 2.5 Contribution to Gender Equality

*(Note: Please specify aspects of project activities and outputs that have contributed to gender equality. E.g: gender disaggregated data have been produced; activities was gender inclusive; gender analysis of outputs have been generated; outputs have been utilized in state/national/agency policies in gender sensitive ways; and/or stakeholder capacity in collecting, retrieving, and analyzing data with a gender perspective have been supported.)*

<input type="checkbox"/> Yes	
<input type="checkbox"/> No	

2.6 Demonstration or Pilot Initiative

(Note: Please indicate if demonstration or pilot initiatives were undertaken and how outputs have contributed to inform decision-making and/or national policy and also if it has led to actual/ planned upscaling or replication.)

<input type="checkbox"/> Yes	
<input type="checkbox"/> No	

2.7 Review of Risk Analysis and Action

(Note: Upon reviewing the Risk Analysis stated in the Project Document, please indicate if the risks status were monitored and updated regularly. Please also highlight mitigation steps undertaken, if applicable.)

<input type="checkbox"/> Yes	
<input type="checkbox"/> No	

2.8 Areas of Improvement for Project Management and Implementation

(Note: Please indicate any additional comments on areas of improvement that should be taken into consideration by EPU and UNDP Malaysia in the implementation of future projects.)

Section 3: Project Extension into 2017

(NOTE: APPLICABLE ONLY TO PROJECTS ORIGINALLY SCHEDULED FOR COMPLETION IN 2016)

Please indicate reasons for the project extension
Proposed duration of project extensions XX Months
Agreement by National Steering Committee: Date of Meeting: Minutes Attached: <input type="checkbox"/> Yes <input type="checkbox"/> No

Annual Progress Report 2016 approved by:

.....  
Name  
Designation

## B. MID-YEAR PROGRESS REPORT TEMPLATE



COUNTRY PROGRAMME ACTION PLAN 2016-2020



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### SECTION A: TO BE COMPLETED BY UNDP MALAYSIA

1. PROJECT DETAILS	
Project Title: Implementing Partner:	Award ID: Project ID: Project Period (Project Document): Revised Project End Date (If Any):
2. FINANCIAL MANAGEMENT	
2016 AWP Budget: USD 2016 Expenditure - As of 30 June: USD 2016 Expenditure - As of 30 June (%):	Total Cumulative Expenditure: USD Total Cumulative Expenditure (%):
3. PROJECT MANAGEMENT	
NSC: <input type="checkbox"/> Yes <input type="checkbox"/> No Minutes (Attached): <input type="checkbox"/> Yes <input type="checkbox"/> No	NSC Date (Actual/ Scheduled): NSC Chair & Designation:
4. RISK LOG MANAGEMENT AND MONITORING	
Risk Log Reviewed: <input type="checkbox"/> Yes <input type="checkbox"/> No Risk Log Amended: <input type="checkbox"/> Yes <input type="checkbox"/> No	Last Log Update: Last Log Amendment:
5. AUDIT AND EVALUATION	
NIM Audit: <input type="checkbox"/> Yes <input type="checkbox"/> No Report (Attached): <input type="checkbox"/> Yes <input type="checkbox"/> No Rating:	Project Evaluation: <input type="checkbox"/> Yes <input type="checkbox"/> No Report (Attached): <input type="checkbox"/> Yes <input type="checkbox"/> No Rating:

SECTION B: TO BE COMPLETED BY IMPLEMENTING PARTNER

1. 2016 OUTPUT TARGETS AND STATUS	
Output 1: Name	
Target:	Status: <input type="checkbox"/> On Track <input type="checkbox"/> Off Track Details:
Output 2: Name	
Target:	Status: <input type="checkbox"/> On Track <input type="checkbox"/> Off Track Details:
Output 3: Name	
Target:	Status: <input type="checkbox"/> On Track <input type="checkbox"/> Off Track Details:
Output 4: Name	
Target:	Status: <input type="checkbox"/> On Track <input type="checkbox"/> Off Track Details:

2. ISSUES AND CHALLENGES
Description:
Action Taken By implementing Partner:
Additional Support Requested from UNDP/ EPU:

Mid Year Progress Report 2016 approved by:

.....  
 Name:  
 Designation:  
 Date:



### C. WORKSHOP/SEMINAR/TRAINING/EVALUATION TEMPLATE

[EVENT TITLE]  
[date], [location]

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*As part of UNDP Malaysia's efforts to continuously improve its partnership with fellow stakeholders, we would appreciate your input in the following evaluation.*

Please rate the following statements according to this scale:

1– Strongly Agree; 2 – Agree; 3 – Neutral ; 4 – Disagree; 5 – Strongly Disagree

Panels  Statements	[Panel #1 Title]					[Panel #2 Title]					[Panel #3 Title]				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
The objectives of this panel were clearly defined and as described beforehand.															
My general understanding/awareness of this topic has significantly improved.															
My knowledge of possible mechanisms and processes has significantly improved.															
This will contribute significantly to the benchmarking in my organisation.															
I am now better equipped to advocate about this issue to other stakeholders.															
I will now ensure that this topic will be on my organisation's agenda.															
My organisation will discuss next steps and solutions to address the issues raised.															
UNDP is an appropriate development partner with suitable resources and expertise in this area.															

Overall:	1	2	3	4	5
The activities were well-organised and facilities provided were satisfactory.					
It was worthwhile for me to attend this conference.					
I would like to attend similar events in the future.					

Comments:

We are already working in Green Growth:      Yes      No

Gender:      Male      Female

Respondent details:

Federal Govt      State Govt      Foreign Govt      Donor Org  
 CSO/NGO      Govt-Linked Companies      Private Sector      Other: \_\_\_\_\_

