

Proposal for Board of MPC Management

Title Keterangan: Tajuk Projek/ Cadangan	Pilot Project on IoT-Driven Energy Monitoring System for Automotive and Pharmaceutical Nexus
Date / Time line Keterangan: Jadual mula dan akhir pelaksanaan projek/ cadangan	Oct -Dec 2024
Purpose and Background Keterangan: Tujuan dan penerangan ringkas mengenai projek	<p>The purpose is to guide company through the process of improving energy management practices, reducing operational cost, and staying compliant with latest regulation.</p> <p>This project also aims to equip selected manufacturing companies with the expertise to enhance energy efficiency monitoring and reduce operational costs. By implementing IoT energy monitoring systems, companies are expected to reduce their energy consumption by 10%, which will directly contribute to improving Malaysia's Energy Intensity (EI) indicator—a key factor in the country's World Competitiveness Ranking.</p> <p>This program aligns with the Energy Efficiency & Conservation Act 2024 and supports Malaysia's national carbon reduction targets (45% by 2030 and net zero by 2050). Additionally, it ensures compliance with the National Energy Transformation Roadmap (NETR) and helps companies meet Environmental, Social, and Governance (ESG) standards, positioning them as leaders in sustainability while reaping long-term cost savings and operational improvements.</p>
Justification Keterangan: Penjelasan yang menyokong kepada pelaksanaan projek/ cadangan	<ul style="list-style-type: none">Improve Energy Intensity This project will help companies reduce energy consumption by using IoT Monitoring system. By improving energy efficiency, companies will lower operational costs, enhance productivity, and contribute to Malaysia's World Competitiveness Ranking.Prepare for Compliance The project will prepare companies for the Energy Efficiency & Conservation Act 2024, ensuring they meet legal requirements. Participants will gain skills in energy monitoring and reporting, avoiding penalties and ensuring smooth compliance.Support National and ESG Targets This initiative supports Malaysia's carbon reduction goals (45% by 2030) and net-zero targets by 2050. It aligns with the National Energy Transformation Roadmap and promotes ESG compliance, enabling companies to reduce their carbon footprint, meet investor expectations, and access green financing.

<p>Method of Implementation</p> <p>Keterangan: Kaedah yang perlu dilakukan bagi melaksanakan projek</p>	<p>The project will be executed through a structured and phased approach, ensuring that participating companies gain practical knowledge and tools.</p> <p>The key elements include:</p> <p>A. Capacity Building and Training</p> <ol style="list-style-type: none"> 1. Conduct a comprehensive Awareness Seminar, Clinic, training workshop for participants, focusing on the development and implementation on the IoT Monitoring system. 2. Provide participants with practical tools, including an IoT Sensor for customizing and updating their energy management data. <p>B. Assessments and Monitoring</p> <ol style="list-style-type: none"> 1. Implement assessments at the 10 participating companies to identify Significant Energy Uses (SEUs), analyze energy consumption patterns, and establish energy baselines. This will be followed by customized intervention strategies to reduce energy consumption by up to 10%, directly improving the Energy Intensity (EI) of each company. 2. Provide each company with access to a real-time energy monitoring portal that integrates smart energy analytics. This platform will help companies track their energy performance in real-time and make data-driven decisions for continuous improvement. <p>C. Reporting and Review</p> <ol style="list-style-type: none"> 1. Performance reports will be generated to document energy savings, improvements in the Energy Intensity (EI) indicator and reporting international compliances, contributing to Malaysia's World Competitiveness Ranking.
<p>Stakeholders</p> <p>Keterangan: Pihak atau kumpulan yang menerima kesan positif maupun negatif daripada projek yang dijalankan</p>	<ol style="list-style-type: none"> 1. Ten companies from Automotive and Pharmacuetical Nexus (2 person for each company) 2. 5 MPC staffs from NRO (1 officer), SRO (1 officer), & HQ (3 officers),
<p>Expected Outcome</p> <p>Keterangan: Apa yang MPC perlu capai/ faedah-faedah jangka pendek dan jangka panjang hasil dari intervensi projek/ cadangan</p>	<ul style="list-style-type: none"> • Improved Energy Intensity (EI) Ranking: A 10% reduction in energy consumption, positively impacting Malaysia's EI indicator and World Competitiveness Ranking. • Long-term Cost Savings: Companies will experience sustained operational cost savings through better energy management. • Reduced Carbon Footprint: Companies will lower their carbon emissions, supporting Malaysia's target

	<p>of 45% carbon reduction by 2030 and net-zero by 2050.</p> <ul style="list-style-type: none"> Ensuring companies to compliance with the Energy Efficiency & Conservation Act 2024 and enhancing their ESG performance.
Expected Output Keterangan: Output ketara dan tidak ketara yang dihasilkan daripada aktiviti projek/ cadangan.	<ul style="list-style-type: none"> Real-Time Monitoring: Track energy usage in real-time, allowing for immediate detection of inefficiencies. Data Analytics: Use AI to analyze energy consumption patterns, identify trends, and predict potential issues. Customizable Alerts: Set up notifications for anomalies or inefficiencies, helping to prevent energy waste. Integration: Compatible with other industrial systems, allowing for seamless data exchange and enhanced operational efficiency.
Target Audience Keterangan: Individu/ kumpulan yang menerima faedah daripada projek/ cadangan	10 Manufacturing Companies
Source of Budget Keterangan: Sumber bajet / jumlah kos yang terlibat.	<p>SPC2.0 RM162,300.00</p> <ul style="list-style-type: none"> Procurement method: PK 7.3 <p>OE RM10,000</p> <ul style="list-style-type: none"> Travelling & Accommodation
Income to MPC Keterangan: Pendapatan yang diterima daripada projek	Value creation RM100mil savings
Recommendation Keterangan: Keputusan yang diperlukan daripada Lembaga Pengurusan MPC	We seek the Board of Management's approval for RM173,300 to implement this pilot project Pilot Project on IoT-Driven Energy Monitoring System for Automotive and Pharmaceutical Nexus. This budget will ensure that 10 companies can participate in the program, receive training and tools for IoT Energy Monitoring System and contribute to Malaysia's energy efficiency and decarbonization goals
Unit/Division	MMT

COSTING

	Phase and activities	Milestone	RM
A.	1 day Awareness Seminar and Clinic	Oct – Dec 2024 (RM180x50)	9,000.00
B	Capacity Building (4 days) Day 1: Introduction to Energy Monitoring Systems Day 2: System Setup and Basic Configuration Day 3: Using the Energy Monitoring Dashboard Day 4: Practical Applications and Review	RM15,300 x 10 company (Included training, hotel, device installation, advisory for 10 companies. Each company will send 2 reps, and 5 MPC officers to undergo this training)	153,300.00
C.	Travelling & accommodation Expenses for MPC Officers	(1 NRO, 1 SRO and 3 HQ officers)	10,000.00
		Grand Total	172,300.00