

# ENERGY PERFORMANCE EVALUATION, TARGET SETTING & MONITORING

*4 CDP Hours (Mandatory CDP For REM 2)*



# TRAINING OVERVIEW

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Establishing an energy baseline is only the first step in effective energy management. To achieve sustained improvement, organisations must be able to monitor energy performance correctly and translate performance trends into realistic targets.

This training focuses on energy performance evaluation, targeting and monitoring in accordance with Energy Management System (EnMS). Participants will learn how to set the target, evaluate energy performance against a fixed baseline, interpret performance deviations, apply adjustment rules for non-routine conditions, and use CUSUM analysis to detect sustained improvement or degradation over time.

The course emphasises performance-based decision-making, avoiding misleading conclusions drawn from absolute energy consumption or short-term results.

## WHO SHOULD ATTEND

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- Energy managers and energy management team members
- EnMS implementation and maintenance teams
- Facility and plant engineers
- Sustainability and ESG professionals
- Energy auditors and consultants
- Technical managers responsible for energy performance reporting

## PREREQUISITE

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Participants should have basic knowledge of energy baselines and Energy Performance Indicators (EnPIs).

# LEARNING OUTCOMES

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By the end of this training, participants will be able to:

- Apply EnMS-aligned Energy Performance Evaluation, Target Setting & Monitoring procedure.
- Interpret energy performance deviations and distinguish between normal variability and real performance change.
- Set realistic and defensible energy performance targets based on observed performance trends.
- Use CUSUM analysis to monitor long-term energy performance trends.
- Identify sustained improvement, degradation, and instability in energy performance.

# TRAINING APPROACH

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- Structured explanation of EnMS performance monitoring principles
- Practical interpretation of performance and trend data
- Realistic industrial case examples
- Focus on governance, consistency, and audit defensibility

# KEY TAKEAWAYS

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Participants will gain:

- A clear understanding of what energy performance means in practice
- The ability to monitor energy performance reliably over time
- Practical skills to use CUSUM as a performance trend tool
- A structured approach to setting credible energy performance targets

# TRAINING OUTLINES

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Time	Session Title
09:00 – 09:15	Opening & Context Setting
09:15 – 09:30	Energy Performance vs Energy Consumption
09:30 – 10:30	Energy Performance Evaluation, Target Setting & Monitoring <ul style="list-style-type: none"><li>• Phase 1: Planning &amp; Target Setting</li><li>• Phase 2: Monitoring &amp; Data Preparation</li><li>• Phase 3: Performance Evaluation</li></ul>
10:30 – 10:45	Tea Break
10:45 – 12:00	Energy Performance Evaluation, Target Setting & Monitoring <ul style="list-style-type: none"><li>• Phase 4: Review &amp; Improvement</li><li>• Phase 5: Documentation &amp; Reporting</li></ul>
12:00 – 12:45	Case Studies
12:45 – 13:00	Wrap-Up & Key Takeaways

## CERTIFICATION

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Participants will receive a Certificate of Completion upon successful attendance.

## OPTIMISE Energy Audit, GHG Accounting and EnMS Track Records

- Led UTM to be globally ranked 1st on SDG 7 - Affordable and Clean Energy
- Co-developer of ASEAN EMGS Energy Management System Standards with MGTC.
- Led UTM to win the ASEAN Energy Award and EMGS 3 Star EMGS Gold Standard.
- Involved in certification of energy managers and energy end users for 15 years.
- Developer of award-winning energy audit and energy monitoring software.
- Led UTM to achieve over RM 30 million energy savings between 2011-2023.
- Over 20 years experience in energy audit and optimisation consultancy, R&D and professional training for over 700 national/multinational companies.
- Certified trainer, auditors & centre for training & certification of energy managers.

## Selected References

- Shell, Middle Distillate Synthesis
- BP - Amoco
- MLNG
- Felda Proctor and Gamble
- MIMOS Semiconductor
- Riau Pulp and Paper Mill
- Qatar LNG
- Pertamina Engineering Group
- PT Titan Petrokimia Interindo
- Pan Century, IOI Oleochemicals
- BASF - Petronas
- MTBE - Petronas
- Huntsman Tioxide
- Ansell Malaysia
- Hershey Malaysia
- Malaysia Newsprint Industries
- Malaysia Palm Oil Board
- Malaysia Energy Commission
- Technip (M) Sdn Bhd
- PT Chandra Asri
- Petronas Penapisan (M) Sdn Bhd
- Petronas Gas Sdn Bhd
- Kaneka Malaysia
- UKM, UPM, USM, UM, UNIKL

**20+**

Years Experience in  
Energy Audit and  
Optimisation

**#1**

Global Rank in R&D on  
'Heat Exchanger.  
Retrofitting and Design'  
Elsevier Scival 2014

**700+**

National & Multinational  
Companies Benefitted  
from our Energy Trainings  
and Consultancy Services