

16 CDP
BY SURUHANJAYA TENAGA

ORGANIZED BY

MAESCO

(Pertubuhan Syarikat Syarikat Perkhidmatan Tenaga Malaysia)
Malaysia Association of Energy Service Companies

THERMAL ENERGY STORAGE

2-DAY TRAINING PROGRAM

RM 1,700.00 (PUBLIC)
RM 1,300.00 (MEMBERS)

**EXCLUDING 8% SST*

16 CDP HOURS APPROVED BY
SURUHANJAYA TENAGA

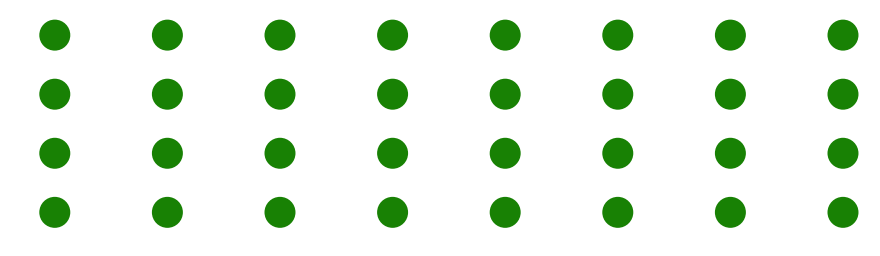
MANDATORY TOPIC FOR REM TYPE 2



CONTACT US TODAY

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OVERVIEW

This programme provides participants with comprehensive knowledge and practical understanding of Thermal Energy Storage (TES) technologies and applications in industrial, commercial, and energy systems. The course covers the principles of sensible, latent, and thermochemical thermal storage systems, including chilled water storage, hot water storage, phase change materials (PCM), cryogenic energy storage, and thermal buffer tanks. The programme further introduces practical engineering considerations including TES sizing, stratification principles, CFD validation, performance testing, lifecycle costing, and system integration challenges.

COURSE OUTLINE

Day 1:

Module 1: Introduction to Thermal Energy Storage (TES)

Module 2: Types of Thermal Energy Storage

Module 3: Sensible Thermal Energy Storage (STES)

Module 4: Practical Applications of STES

Module 5: Industrial Case Studies

Day 2:

Module 6: Thermal Buffer Tanks – Fundamentals

Module 7: Buffer Tank Design and Operation

Module 8: CFD Validation and Performance Testing

Module 9: Lifecycle Costing and Procurement Considerations

Module 10: Challenges and Future Trends

OVERAL LEARNING OBJECTIVES

By the end of this programme, participants will be able to understand the fundamentals, principles and benefits of Thermal Energy Storage (TES) systems, differentiate the various TES technologies including sensible, latent, thermochemical and cryogenic energy storage systems, and understand TES integration with waste heat recovery, renewable energy systems and industrial processes. Participants will also be able to identify key TES design considerations, sizing methodologies, stratification principles and operational challenges, as well as evaluate TES performance through practical case studies, CFD validation concepts, testing procedures and lifecycle costing approaches