



THE INSTITUTION OF ENGINEERS, MALAYSIA

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Pre AGM Talk on “District Cooling Plant 1, Putrajaya | Largest Twin Thermal Energy Storage (TES) Tanks”

Organised by Mechanical Engineering Technical Division

BEM Approved CPD/PDP Hours: 2.0 Ref No: IEM19/HQ/493/T

Date	: 19 th October 2019 (Saturday)
Time	: 9.00am – 11.00am (Refreshments will be served at 8.00am)
Venue	: Auditorium Malakoff, Ground Floor, Wisma IEM, Petaling Jaya
Speaker	: En. Yusoff Khalid Likin

SYNOPSIS

KLCC Projek Sdn Bhd (KLCCP) has successfully completed the construction of the largest twin TES tanks in District Cooling Plant 1, Putrajaya with a capacity of 25,000 RTh each. The tank diameter and height are 24.5m and 26.5m respectively with approximate weight of 290,000kg during empty (no chilled water inside).

The construction of the TES tanks featured an application of a unique new technology known as the Synchronized Electrical Chain Hoist (SECH) lifting system, as pioneer in Malaysia. This lifting system works in such a way that the courses of the tank are assembled from top downwards, using jacks to lift the assembled courses (top-down construction method). This method reduces the risk of workers working at height, safer work environment, improved quality control through ease of fabrication, less exposure to severe weather and reduce time and cost.

Furthermore, the benefits of having TES Tanks in the District Cooling System (DCS) are mainly:-

- 1) To reduce energy consumption by optimizing on the available night tariff.
- 2) To leverage reduction in capital expenditure (CAPEX) and operations expenditure (OPEX).
- 3) To improve chillers efficiency and reliability.
- 4) To improve system endurance under extreme heat conditions.
- 5) Initiative of Green Star Building achievement.

In particular of this project, it was initiated objectively to accommodate the increase in new customer chilled water demand from Parcel F (consisting of new 10 government office blocks), Parcel Z (offices, retails and commercials) and future developments in Putrajaya. In addition, it is also to minimize the cost of generating chilled water to ensure business/commercial viability and to optimize utilization of existing chillers. This project managed to resolve the prolong chilled water supply temperature issue to existing customers by providing a total chilled water temperature solutions. This project also represents growth of Malaysia as a nation especially in Putrajaya and Malaysia's commitment to sustainability.

ANNOUNCEMENT TO NOTE

EFFECTIVE 1st OCTOBER 2017

FEES FOR TALKS

Members

Registration Fee
Free of Charge (FOC)

Administrative Fee

Online - RM15.00
Walk In - RM20.00

Non-Members

Registration Fee - RM50.00
Administrative Fee - RM20.00

Limited seats are available on a "first come first served" basis (maximum 100 participants).

To secure your seat, kindly register online at www.myiem.org.my

PERSONAL DATA PROTECTION ACT

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“IEM reserves the right to alter or cancel the programme due to unforeseen circumstances at its discretion”. For intending participants who choose to ‘walk in without prior registration’, IEM SHALL NOT be responsible for any direct or consequential losses”.

BIODATA OF SPEAKER

En. Yusoff Khalid Likin, Head of Section Residential & Infra 3 Department, having extensive experience in Civil & Infrastructure works as a Site Engineer, Resident Engineer and Construction Manager. Current position as a Project manager in KLCC Projeks Services Sdn Bhd. Having involved in several Gas District Cooling (GDC) related projects in Putrajaya, namely Chilled Water pipe laying inside the Common Utility Tunnel (CUT), Construction of the Thermal Energy Storage (TES) Tanks for GDC Plant 4 and the latest is the GDC Plant 1 upgrading which includes the construction of the Twin (two numbers) of TES Tanks. He graduated from B. Eng. (Civil & Computing) at Chisholm Institute of Technology, Melbourne in year 1989. He had join KLCC since 1999 and had more than 25 years' working experience.

Ir. Syed Neguib Syed Mohamed
Chairman
Mechanical Engineering Technical Division
Session 2018/2019