

## The Energy Institute Hong Kong (Branch) 香港能源學會(分會)

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(Attn. : Ir Dr HF Chan))

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### STUDY TOUR TO MACAU

23 – 24 SEPTEMBER 2016

**First Announcement**

Energy Institute Hong Kong with support from the Gas & Energy Division of the Hong Kong Institution of Engineers (TBC) will organize a Study Tour to Macau on 23 – 24 September, 2016 for their members and guests. The main objectives of the study tour are:

- (1) to promote professional exchange between Hong Kong and Macau;
- (2) to gain knowledge on strategies & policies in related to energy management, environmental and sustainability program for giant hotel facilities; and
- (3) to gain knowledge on a power dispatch center to achieve optimize, safe and reliable power generation, transmission and distribution control;

Cost: HK\$1,200 per person for single room (EI Members)

HK\$1,550 per person for single room (non-EI members)

Notes:

- The charge covers one-night hotel accommodation, travel insurance, local transportation and meals.
- Seats are limited and the registration will be handled on a first-come-first-served basis.

To enroll, please complete the following reply slip and email it to the Tour Coordinator, Ms April Li, via email [aprilagc@gmail.com](mailto:aprilagc@gmail.com) on or before 9 September 2016.

Enquiries: Please contact Ms April Li, Tour Coordinator, via email [aprilagc@gmail.com](mailto:aprilagc@gmail.com) or phone 2967 8855.




## Itinerary (tentative)

Day 1 (23/9/2016, Friday)	
PM	<p>- <b>MUST BE ARRIVED AT Galaxy Macau™ BY 2:45 PM</b></p>
	<p>Galaxy Visit (expected to arrive at 15:00)</p>
	 <p>Galaxy Macau™, is the flagship property of Galaxy Entertainment Group. It offers a World Class Asian integrated resort service including hotels, spas, shopping, food &amp; beverage outlets, cinemas, water theme</p>
	<p>park and pool features, ballroom and function room services, and gaming entertainment. With the recent opening of Galaxy Macau Phase 2 and Broadway Macau™ on 27 of May, 2015, Galaxy Macau's footprint has increased to more than 1.1 million square meters providing an even more diversified hospitality and entertainment service for guests in the region.</p> <p>Since the opening of Phase 1 in 2011, Galaxy Macau has implemented many energy and environmental initiatives to manage the carbon emission and energy consumption reduction program, which has helped reduce the utility consumption and environmental impacts. We will learn about the various energy project which MGM have implemented such as Real Time Climate Change Control Strategies, Chiller Plant Optimization, Lighting Optimization based on the Internet of Things concept, a Heat Pipe Solution and Food Temperature Simulation Control for the Cold Room Compressor.</p> <p>Galaxy Macau has been an active participant in several environmental and sustainability programs such as the Green Hotel competition, ISO-14001 environmental system certification program, Clean the World program, WWF Earth Hour and the USGBC-LEED Certification Program. Recently, Galaxy Macau has obtained a Macau Energy Saving Concept Award which demonstrates how the hospitality industry has initiated an innovative approach to energy management.</p>




Evening	<ul style="list-style-type: none"> <li>- Check-in hotel</li> <li>- Dinner and city tour</li> </ul>
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Day 2 (24/9/2016, Saturday)
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AM	<ul style="list-style-type: none"> <li>- Check-out hotel</li> <li>- Breakfast</li> <li>- Travel from Galaxy to MGM</li> </ul>
	MGM Visit
	<div>  <p>MGM Macau is an integrated gaming resort. It is 154m, 35-storeys high and has a gross built area of 211,500m<sup>2</sup>, comprising almost 29,000m<sup>2</sup> of casino facilities, 468 hotel rooms, 99 suites and 14 villas. In addition, there is a spa, laundry, six restaurants, a staff dining area, a commissary kitchen serving the banquet, in room dining as well as casino pits and catering.</p> </div> <p>A number of energy efficiency measures have been put in place to achieve continuous improvement in energy efficiency and reduction in overall consumption. MGM Macau has won a number of prestigious energy and environmental awards over the years. These include: the CEM Energy Savings Award (2012, 2013), the CEM Energy Saving Concept Award (2014), the CEM Excellence Award (2014), and the Macau Green Hotel Award in Gold (2014). Delegates will be given a run down of the various projects MGM have undertaken in the past 4 years at which have significantly brought down the energy consumption of the property in terms of power and LP gas including the two projects submitted to ASHRAE that have earned MGM MACAU the 2015 ASHRAE Regional XIII Technology Award. We will also learn about the Monitoring Based Commissioning System which has been installed and which has significantly contributed to the reduction in energy consumption and maintenance cost for the complex.</p>



PM	<ul style="list-style-type: none"> <li>- Lunch</li> <li>- Travel to Macau CEM – System Dispatch Center</li> </ul>
	Macau CEM – System Dispatch Center Visit
	 <p>Companhia de Electricidade de Macau – CEM, S.A. (CEM) is a public utility company with a sole concession to transmit, distribute, sell high, medium and low voltage of electricity in Macao. Besides, CEM owns an installed generation capacity of 472MW.</p>
	<p>The System Dispatch Center, via SCADA/EMS system, coordinates generation, transmission and distribution control into one centralized control center hence achieving optimal performance of the power system. Our customers particularly benefit from the Distribution Automation (DA) functions in terms of power supply quality and reliability.</p> <p>The SCADA system is based on an open system architecture that uses the most updated international standards. It allows expansion and integration with other systems without any barrier. An Energy Management System (EMS) is incorporated to ensure optimization, safety and reliability of the network. Analysis is performed regularly, providing advises to Dispatchers to get the highest efficiency of the Power System.</p> <p>The implementation of Distribution Automation functions allows CEM to reduce the number of power interruption to our customers. Real time monitoring the whole 11kV distribution network operations enables the operators to prevent faults from happening.</p> <p>On the other hand, the duration of the power interruption is drastically shorter than before, as remote controls replaced site interventions. Remote isolation and quick power restoration can now be performed easily from the control room, which greatly helps in reducing the average interruption time.</p>
Evening	Back to Hong Kong or stay behind (self-arrangement)



**Ferry Details:**

- To arrange by delegates themselves.
- 23 September 2016: MUST BE ARRIVED AT Galaxy Macau™ BY 2:45 PM.

**Hotel:**

駿景酒店 - 氹仔

MAC 氹仔沙維斯街

T: (853) 2883 9933

**Insurance:**

Standard travel insurance will be arranged.