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### Technical Tour Agenda

**Location:** Metropolitan Electricity Authority (MEA) Underground Cable, Bangkok, Thailand

**Fee per Person:** - Early Bird Rate: 45 USD (until 15 Feb 2019)  
- Regular Rate: 55 USD (after 15 Feb 2019)

**Participation:** Minimum of 30, Maximum of 40

**Website:** <https://www.mea.or.th/intro>

#### Description:

Metropolitan Electricity Authority (MEA) underground cable project come as a vision for MEA to shape Bangkok to become a major city of Asian. This results in the project to bring the electric wire to underground. On this site, MEA has installed a 230 kV ultra-high voltage underground cable tunnel to connect the electric power distribution systems from Bangkok terminal station to Chidlom terminal station. The tunnel has a diameter of 2.62 meters and 7 kilometers length, installed deeper than 30 meters under Saen Saep canal, MRT tunnels and the drainage tunnels of the Bangkok Metropolitan Administration (BMA). As increasing demands and the energy consumption in the major business areas in the heart of the city, the underground cable tunnel turns to be a high-voltage power tunnel. It also establishes stability for the power distribution systems of MEA but in the meantime it reduces physical risks associated with electric power transmission lines such as accidents and incidents caused by rainstorms or windstorms in various seasons.

#### Feature:

The on-site tour will show you how the MEA operate the operation.

- GIS room: This room serves as a heart of the entire project that regulate all of the issue in terms of construction, management, process, and safety. The system uses SCADA as their operate system which is able the inspection and evaluation of the system to happen in real time. If the malfunction is detected, the power will be shut down instantly.
- The tunnel: In this place, there will be a safety briefing on how to inspect the site safely. Also, the tour of the place will give us a picture of how the wiring and the structure of the tunnel made of and how to regulate the system in case of the emergency. The tunnel structure has a waterproof structure to prevent water from getting into the wire. Also, in case of water leakage, the wire coating with cooling compound, waterproof pipe, and fire insulation in place within the surrounding area.
- EV parking lot: It is equipped with electrical charging system for electric vehicle which serves as a foundation for a future in electric vehicle society that is to come in the near future.

- Remarks:**
- Safety helmet are provided on site.
  - Medical check-up is mandatory before underground site inspection  
(Hypertension and heart disease patient are not suitable for this session)
  - Smart casual dress is recommended due to the climbing activities.

**Itinerary A**

**Date:** Tuesday 19th March, 2019

**Duration Time:** 13:30 - 18:00 hrs. (4.5 Hours)

<b>Time</b>	<b>Activities</b>
13:30 hrs.	Group departing from Bangkok International Trade and Exhibition Centre (BITEC)
14:30 hrs.	Group arrived at MEA Headquarter Phloen Chit.
14:30 - 14:55 hrs.	Joining company profile and introduction at Auditorium 8th Floor. - Introduction of the Metropolitan Electricity Authority (MEA) and Underground Cable Project (20 minutes) - Safety Briefing before entering underground tunnel (5 minutes)
14:55 – 15:05 hrs.	Break (10 minutes)

The participant will be divided into 2 groups

**Group 1**

15:05 - 15:25 hrs.	Medical Check-up (Systolic Blood Pressure and Heart rate measurement) (20 minutes)
15:30 – 15:55 hrs.	Group observe the underground tunnel (20 minutes)
15:55 – 16:03 hrs.	Group observe GIS 230 KV room (8 minutes)
16:03 – 16:11 hrs.	Group observe GIS 69 KV room (8 minutes)
16:11 – 16:19 hrs.	Group observe GIS 12 KV room (8 minutes)
16:24 – 16:29 hrs.	Break at Auditorium room (8th Floor)

**Group 2**

15:10 – 15:18 hrs.	Group observe GIS 230 KV room (8 minutes)
15:18 – 15:26 hrs.	Group observe GIS 69 KV room (8 minutes)

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15.26 – 15.34 hrs.	Group observe GIS 12 KV room (8 minutes)
15:34 – 15:54 hrs.	Medical Check-up (Systolic Blood Pressure and Heart rate measurement) (20 minutes)
15:59 – 16:29 hrs.	Group observe the underground tunnel (20 minutes)
Both group converging at Auditorium room (8 <sup>th</sup> Floor)	
16.39 hrs.	Break at Auditorium room (8th floor)
16.40 – 16.50 hrs.	Both group participate in question and answer session at Auditorium room (8th floor) (10 minutes)
16.55 – 18.00 hrs.	Group returning to Bangkok International Trade and Exhibition Centre (BITEC)

## Itinerary B

**Date:** Thursday 21th March, 2019

**Duration Time:** 13:30 - 18:00 hrs. (4.5 Hours)

Time	Activities
13:30 hrs.	Group departing from Bangkok International Trade and Exhibition Centre (BITEC)
14:30 hrs.	Group arrived at MEA Headquarter Phloen Chit.
14:30 - 14:55 hrs.	Joining company profile and introduction at Auditorium 8th Floor. - Introduction of the Metropolitan Electricity Authority (MEA) and Underground Cable Project (20 minutes) - Safety Briefing before entering underground tunnel (5 minutes)
14:55 – 15:05 hrs.	Break (10 minutes)

The participant will be divided into 2 groups

### Group 1

15:05 - 15:25 hrs.	Medical Check-up (Systolic Blood Pressure and Heart rate measurement) (20 minutes)
15:30 – 15:55 hrs.	Group observe the underground tunnel (20 minutes)
15:55 – 16:03 hrs.	Group observe GIS 230 KV room (8 minutes)
16:03 – 16:11 hrs.	Group observe GIS 69 KV room (8 minutes)
16:11 – 16:19 hrs.	Group observe GIS 12 KV room (8 minutes)
16:24 – 16:29 hrs.	Break at Auditorium room (8 <sup>th</sup> Floor)

### Group 2

15:10 – 15:18 hrs.	Group observe GIS 230 KV room (8 minutes)
15:18 – 15:26 hrs.	Group observe GIS 69 KV room (8 minutes)
15:26 – 15:34 hrs.	Group observe GIS 12 KV room (8 minutes)
15:34 – 15:54 hrs.	Medical Check-up (Systolic Blood Pressure and Heart rate measurement) (20 minutes)
15:59 – 16:29 hrs.	Group observe the underground tunnel (20 minutes)

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Both group converging at Auditorium room (8<sup>th</sup> Floor)

16.39 hrs.

Break at Auditorium room (8<sup>th</sup> floor)

16.40 – 16.50 hrs.

Both group participate in question and answer session at Auditorium room (8<sup>th</sup> floor) (10 minutes)

16.55 – 18.00 hrs.

Group returning to Bangkok International Trade and Exhibition Centre (BITEC)

## Itinerary C

**Date:** Friday 22th March, 2019

**Duration Time:** 08:30 - 13:00 hrs. (4.5 Hours)

Time	Activities
08:30 hrs.	Group departing from Bangkok International Trade and Exhibition Centre (BITEC)
09:30 hrs.	Group arrived at MEA Headquarter Phloen Chit.
09:30 - 09:55 hrs.	Joining company profile and introduction at Auditorium 8th Floor. - Introduction of the Metropolitan Electricity Authority (MEA) and Underground Cable Project (20 minutes) - Safety Briefing before entering underground tunnel (5 minutes)
09:55 – 10:05 hrs.	Break (10 minutes)

The participants will be divided into 2 groups

### Group 1

10:05 - 10:25 hrs.	Medical Check-up (Systolic Blood Pressure and Heart rate measurement) (20 minutes)
10:30 – 10:55 hrs.	Group observe the underground tunnel (20 minutes)
10:55 – 11:03 hrs.	Group observe GIS 230 KV room (8 minutes)
11:03 – 11:11 hrs.	Group observe GIS 69 KV room (8 minutes)
11:11 – 11:19 hrs.	Group observe GIS 12 KV room (8 minutes)
11:24 – 11:29 hrs.	Break at Auditorium room (8 <sup>th</sup> Floor)

### Group 2

10:10 – 10:18 hrs.	Group observe GIS 230 KV room (8 minutes)
10:18 – 10:26 hrs.	Group observe GIS 69 KV room (8 minutes)
10:26 – 10:34 hrs.	Group observe GIS 12 KV room (8 minutes)
10:34 – 10:54 hrs.	Medical Check-up (Systolic Blood Pressure and Heart rate measurement) (20 minutes)

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10:59 – 11:29 hrs.	Group observe the underground tunnel (20 minutes)
Both group converging at Auditorium room (8 <sup>th</sup> Floor)	
11.39 hrs.	Break at Auditorium room (8 <sup>th</sup> Floor)
11.40 – 11.50 hrs.	Both group participate in question and answer session at Auditorium room (8 <sup>th</sup> floor) (10 minutes)
11.55 – 13.00 hrs.	Group returning to Bangkok International Trade and Exhibition Centre (BITEC)

**Contact Person:**

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