

Draft 1/11/2013

**42<sup>nd</sup> Meeting of the APEC Expert Group on Energy  
Efficiency & Conservation (EGEE&C 42)**

*11-15 November 2013*

*Queen Sirikit National Convention Center*

*Bangkok, Thailand*

## 42<sup>nd</sup> Meeting of the APEC Expert Group on Energy Efficiency & Conservation (EGEE&C 42)

### Agenda

11-12 November 2013

Queen Sirikit National Convention Center, Bangkok, Thailand

### Day One: Monday, 11 November 2013

#### Board Room1, Queen Sirikit National Convention Center

Session	Time	Topic
1.	9:00-9:10	<p><b>Welcome Address Hosts</b></p> <p>Dr.Twarath Sutabutr, Deputy Director-General, Department of Alternative Energy Development and Efficiency (DEDE) Ministry of Energy</p> <p><b>Opening remarks, introductions, and adoption of agenda</b> <i>(Chair)</i></p>
2.	9:10-10:00	<p><b>Host Economy Presentation:</b></p> <p>Mr. Danai Egkamol, Director, Bureau of Energy Regulation and Conservation, DEDE</p>
3.	10:00-10:30	<p><b>Update on Energy Working Group &amp; APEC strategic directives and priorities for energy and updates on other fora</b></p> <p>Including:</p> <ul style="list-style-type: none"> <li>▪ Progress with APEC Energy Smart Communities Initiative and APEC Smart Grids Initiative (ASGI) <i>(Dr. Cary Bloyd)</i></li> <li>▪ APEC Subcommittee on Standards &amp; Conformance (SCSC) <i>(Dr. Cary Bloyd)</i></li> <li>▪ APERC update on the future shape of Cooperative Energy Efficiency Design for Sustainability (CEEDS) and Peer Review on Energy Efficiency (PREE) <i>(Mr Kazumoto Irie, General Manager, APERC)</i></li> </ul>
-	10:30-11:00	<b>Morning tea</b>
4.	11:00-12:00	<p><b>Updates on APEC-funded &amp; Self-funded EGEE&amp;C projects</b> <i>(5 minutes per item)</i></p> <p><b>Project proposals under consideration (Session 2, 2013)</b></p> <p>Nil</p> <p><b>Projects in progress / recently completed</b></p> <ul style="list-style-type: none"> <li>▪ <b>EWG 12 2012A</b> – APEC-ASEAN Harmonization of Energy Efficiency Standards for Air Conditioners: Phase 1 <i>(Japan)(ICA)</i></li> <li>▪ <b>EWG 13 2012A</b> – Energy Saving Window Thermal Performance Simulation Training <i>(Thailand)</i></li> <li>▪ <b>EWG 14 2012A</b> – Workshop to support the development of national lighting design centres in the APEC <i>(US)</i></li> <li>▪ <b>EWG 15 2012A</b> – APEC Distribution Transformers Survey: Estimate of Energy Savings Potential from mandatory efficiency standards <i>(China)(ICA)</i></li> </ul>



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Session	Time	Topic
		<ul style="list-style-type: none"> <li>EWG 08 2012 Urban Development Smart Grid Roadmap: Christchurch Recovery Project (<i>New Zealand</i>) (<i>with EGNRET</i>)</li> </ul> EWG 19/2011A Best Practices in Energy Efficiency and Renewable Energy Technologies in the Industrial Sector in APEC Region (EGNRET/EGEEC) ( <i>Thailand</i> ) ( <i>with EGNRET</i> )
-	12:00-13:00	Lunch
5.	13:00-13:30	EGEEC Secretariat unveiling new Website. (Mr Martin Brown-Santirso, APEC EGEEC Secretariat)
6.	13:30-15:00	Economy presentations ( <i>15 minutes per item</i> )  TOPIC PROPOSED: Transport is one of the most energy demanding activity and greenhouse gas emitter. It is also highly inefficient and heavily dominated by fossil fuels. It is proposed that economies provide an update on actions and policies to improve transport energy efficiency.
-	15:00-15:15	Afternoon Tea
7.	15:15-16:30	Economy Presentations Continued
-	16:30	Close of Day 1
8.	16:30	Leave for Dinner at Baan Khanitha Restaurant (Asiatique's riverside pier)

### Day Two: Tuesday, 12 November 2013

#### Board Room 1, Queen Sirikit National Convention Center

Session	Time	Topic
1.	8:30-8:35	Opening Session for Day Two
2.	8:30-9:30	Economy presentations ( <i>Continued</i> )
3.	9:30-10:00	APERC Presentation on PREE results for Brunei (Dr Aishah Mohd Isa, APERC)
-	10:00-10:30	Morning Tea
4.	10:30-11:00	Update on ESIS and CAST projects ( <i>Mr. Steve Pantano, CLASP secretariat</i> ) <ul style="list-style-type: none"> <li>Energy Standards Information System (ESIS)</li> <li>Collaborative Assessment of Standards and Testing (CAST)               <ul style="list-style-type: none"> <li>Heat Pump Water Heaters</li> <li>Electric Motors</li> </ul> </li> </ul>
5.	11:00-11:20	EGEEC project submissions for 2014
6.	11:20-11:40	Upcoming Events <ul style="list-style-type: none"> <li>Date and venue for the next EGEE&amp;C meeting</li> </ul> PLEASE INDICATE IF YOU WISH TO INCLUDE AN ITEM
7.	11:40-12:00	Summary Session for Day Two & EGEEC Action Plan for 2013
8.	12:00	Close of EGEE&C 42
9.	13.00-15.00	EGEE&C joint meeting with EGEDA (Expert Group on Energy Data Analysis)

**Related Meeting, Workshops and Site Visit**

<b>Date</b>	<b>Time</b>	<b>Topic</b>	<b>Venue</b>
12/11/2013	13:00 - 15:00	EGEDA- EGEE&C Joint Meeting	Meeting Room2, Queen Sirikit National Convention Centre
13/11/2013	9:00 - 18:30	International Energy Efficient Transformers Workshop 2013	Meeting Room2, Queen Sirikit National Convention Centre
14/11/2013	9:00 - 12:10	Workshop on the Harmonization of Energy Efficiency Standards for Air Conditioners in ASEAN: Phase 1	Meeting Room2, Queen Sirikit National Convention Centre
15/11/2013	08:00 - 14:15	Site Visit	Laksi Office, Thai Airways International Public Company Limited

# WELCOME TO Bangkok Thailand



Ref. <http://www.bangkoktourist.com/>

## **Time**

Bangkok is 7 hours ahead of GMT (GMT/UTC +7 hours).

## **Banking**

There are branches of all the commercial banks throughout Bangkok. ATMs are readily available in shopping malls, convenience store, etc., which are compatible with your bank cards from your home country. Major credit cards such as American Express, Master Card, and Visa are accepted at most restaurants, shops, and hotels.

## **Currency**

The unit of currency in Thailand is Thai Baht (THB), which has 5 denominations in paper money and 6 in coins. Paper money comes in THB1000, THB500, THB100, THB50, and THB20 denominations. There are 100 Satang in 1 baht. Coins come in THB10, THB5, THB2, THB1, 50 satang, and 25 satang denominations. Most banks can offer foreign exchange, but it can sometimes take significantly more time than the specialty exchange places. In tourist areas, you'll often find small exchange counters outside commercial banks; they can exchange foreign notes and cheques in major currencies and are typically open from 8.30 am to 8.00 pm daily.

## **Traveler's Cheques**

Many local stores do not receive Traveler's Cheques, therefore travelers who have Traveler's Cheque, please exchange them for THB at the bank.

## **Tipping**

Tipping is NOT customary in Thailand, there is absolutely NO mandatory requirement to tip anyone, but small gratuities for great service are very much appreciated. All public taxi rates are metered, and both Thais and local expats commonly round off the fare upwards as a tip. Tipping in hotels is not expected, but

again is always appreciated, ie. THB20-50 for the porter that carried your bags up to your room, or leave a small tip on your bed for the cleaning lady is also appreciated.

In all restaurants, it is customary to leave behind any coins from your change as a tip. In more upscale restaurants, with professional waiters who provide excellent service a larger tip 5%-10% is quite common.

Masseurs, hairdressers, etc. also deserve a small tip THB20-100 depending on the individual situation.

### **VAT (value-added tax)**

Thailand has a 7% value-added tax (VAT) on many goods and services. Mid-range and top-end hotels and restaurants might also add a 10% service tax. When the two are combined this becomes the 17% known as 'plus plus', or '++'.

Visitors to Bangkok who depart by air and who haven't spent more than 180 days in Thailand during the previous calendar year can apply for a VAT Refund on purchases made at approved stores; Look for the blue-and-white VAT Refund sticker. For more detail: [www.rd.go.th/vrt/howwill.html](http://www.rd.go.th/vrt/howwill.html)

Minimum purchases must add up to THB2,000 per store in a single day, with a minimum total of THB5,000. You must get a VAT Refund form and tax invoice from the shop. Most major malls in Bangkok will direct you to a desk dealing with VAT refunds, where they will organize the appropriate paperwork (takes about five minutes).

### **Getting Around**

- International Airports

There are 2 international airports in Bangkok: Suvarnabhumi Airport (BKK), and Donmuang Airport (DMK). Visitors can use the limousine service, car rental service, or public taxis in getting to their desired places. Other transportation methods include Bangkok Mass Transit Authority (BMTA) Vans and Intercity Bus. Furthermore, the newly opened Airport Link (from Suvarnabhumi only) is an extremely fast and convenient way to get around. It takes around 22 minutes to get to downtown area. (For more detail [www.suvarnabhumiairport.com/to\\_from\\_airport\\_link\\_en.php](http://www.suvarnabhumiairport.com/to_from_airport_link_en.php))

- BTS (Sky Train)

The Bangkok Mass Transit System, commonly known as the BTS Skytrain is an elevated rapid transit system in Bangkok, Thailand. The system consists of 34 stations along two lines: the Sukhumvit Line running northwards and eastwards, terminating at Mo Chit and Bearing respectively, and the Silom Line which plies Silom and Sathorn Roads, the Central Business District of Bangkok, terminating at the National Stadium and Wongwian Yai. The lines interchange at Siam Station and have a combined route distance of 55 kms.

Service: [www.bts.co.th/customer/en/02-route-current.aspx](http://www.bts.co.th/customer/en/02-route-current.aspx)

Explore Bangkok by BTS: [www.bts.co.th/customer/en/06-travel-palace-01.aspx](http://www.bts.co.th/customer/en/06-travel-palace-01.aspx)

- MRT (Underground)

The Metropolitan Rapid Transit or MRT is a rapid transit system serving the Bangkok Metropolitan Region in Thailand. The first section of the Blue Line between Hua Lamphong and Bang Sue opened in 2004 as Bangkok's second public transit system. Along with the Bangkok Mass Transit System (BTS, also called the Skytrain), and the Airport Rail Link (ARL), the MRT is part of Bangkok's rail transportation infrastructure. The MRT has 18 operational stations along 27 kilometers (16 miles) of underground track.

- Airport Rail Link

The Airport Rail Link is a rapid transit line in Bangkok, Thailand. The line provides as an airport rail link from Suvarnabhumi Airport, via Makkasan, to Phaya-Thai station in central Bangkok. Most of the line is on a viaduct over the main eastern railway. Opened on August 23, 2010, the 28.6-km route is the fourth rapid transit line in Bangkok, after 2 BTS and 1 MRT lines. Services consists of two Express Lines and a City Line. The new timetable will be launched on Tuesday 1st October 2013

- City Line 12 mins - 15 mins headway (a commuter rail service with 8 stations)
- Makkasan Express 45 mins headway
- Phayathai Express 1 hour Headway (weekday: 10.00 am. - midnight)  
(weekend: 06.00 am. - midnight)

- Taxi

A large number of taxis are available in Bangkok. As of August 2012, there are 106,050 cars, 58,276 motorcycles and 8,996 tuk-tuk motorized tricycles cumulatively registered for use as taxis. Meters have been required for car taxis since 1992, while tuk-tuks fares are usually bargained. Motorcycle taxis operate from regulated ranks, with either fixed or negotiable fares, and are usually employed for relatively short journeys.

- Rail system

Hua Lamphong Railway Station is the main terminus of the national rail network operated by the State Railway of Thailand (SRT). In addition to long-distance services, the SRT also operates a few daily commuter trains running from and to the outskirts of the city during the rush hours.

- Water Transport

Although much diminished from their past prominence, water-based transport still plays an important role in Bangkok and the immediate upstream and

downstream provinces. Several water buses serve commuters daily. The Chao Phraya Express Boat carries passengers along the river, regularly serving thirty-four stops from Rat Burana to Nonthaburi. The smaller Khlong Saen Saep boat service serves twenty-seven stops from Wat Si Bun Rueang to Phan Fa Lilat on Saen Saep Canal, and another service serves thirteen stops on Khlong Phra Khanong. Long-tail boats operate on fifteen regular routes on the Chao Phraya, with an average of 2,889 passengers per day.

### **Climate**

A tropical city known for its hot climate and plentiful sunny weather, temperatures in Bangkok regularly stay well above 30°C / 86°F all through the year. Bangkok is at its driest between November and February. The climate in Bangkok is at its hottest from March to August, while the rainy season tends to fall between June and October. At this time of the year you can expect short spells of rainy weather, with frequent afternoon showers, monsoons and spells of thunder at times, although on some days, the rainy weather may last all day. Around 90 percent of the rain falls at this time of the year, although even during Bangkok's rainiest weather, there is still usually plenty of sunshine to go around.

### **Smoking**

Draconian new rules prohibit smoking in all air-conditioned buildings and public places (including streets, parks, transport, hotel lobbies and restaurants), except bars, clubs and places with signed smoking rooms or zones (fine THB2,000). Cigarettes are legally on sale, but cannot be displayed.

### **Electricity**

The standard current is 220V, 50 cycles/sec, but plugs are unearthed two-pins (round or parallel flat).

### **Business Hours**

Generally speaking, Bangkok and the major tourist destinations such as Pattaya, Chiang Mai, and Phuket generally have longer opening hours for most services; however, operating hours for most businesses and government services in Thailand are not dissimilar to those in most other developed nations.

- **Banking Hours**

Thai bank hours are typically Monday through Friday from 9:30 am to 3:30 pm, though some Thai bank branches, particularly those inside of shopping malls, are open on weekends and late hour. Currency exchange booths in Bangkok and other tourist destinations are open on weekends and evenings.

- **Clinics and Doctors' Surgeries**



Major hospitals in Bangkok have 24 hour emergency rooms, but typical doctors appointments should be scheduled between 8.00am and 18.00, Monday - Friday. Some larger hospitals offer off-hours and weekend services. If you have a medical emergency you should go to the accident and emergency department of the nearest hospital. Emergency services can be reached by dialing 191 on any phone.

- **Emergency Services**  
Emergency services, which can be reached at 191, are generally available 24 hours.
- **Shops and Department Stores**  
Most shops are open seven days a week from 10 am to 10 pm. Local “mom and pop” convenience stores may open earlier and remain open until after midnight. Thai markets are open various hours depending on the wares they sell, with wet-markets selling food products from the wee hours of the morning until around 10am, while night markets typically open around sunset and remain open until 10pm or occasionally midnight.
- **Museums and Galleries**  
Thailand museums and galleries are typically open from 9.00am to 4:00pm daily. Times may vary and some museums and galleries may close one day during the week and/or on public holidays.
- **Nightclubs**  
Nightclubs in Thailand have flexible operating hours. The official closing times are 12/1am depending on the type of establishment, with hotel bars given longer operating hours. Certain clubs, particularly those in tourist destinations including Phuket and Koh Samui, have permission to stay open until 2 or 3am.
- **Post Offices**  
The Thailand postal service is reliable and efficient. Thailand post offices are open Monday through Friday from 8am to 4:30pm and Saturday and Sunday from 9am to 1pm. The Bangkok Central GPO on New Road is open Monday through Friday from 8 am to 6pm and on Saturday and Sunday from 9am to 1pm. All Thai post offices are closed on public holidays, though most major hotels can arrange to mail letters and parcels on your behalf.
- **Pubs**  
Pubs are typically required to close by 1am.
- **Restaurants**  
Restaurant operating hours are highly variable and, as Thai people love to eat, street-side restaurants frequently stay open well past midnight. Restaurants have typically later closing hours in Bangkok and tourist destinations than in the rural provinces.

- **Supermarkets**  
Supermarkets are typically open seven days a week from 10am to 9pm. 7-11 convenience stores, located throughout Thailand are generally open 24 hours.
- **BTS Skytrain**  
The BTS Skytrain runs daily between 6:00 am and 12:00 midnight with frequent service throughout the day, increased during rush hours.
- **MRT Subway**  
The MRT underground Blue Line operates from 6.00 am to 12:00 midnight daily. Frequency - Less than 5 minutes during the peak hours 06.00 - 09.00 am and 04.30 - 07.30 pm.

### **Emergency / Useful Phone Numbers**

- **Erawan Centre**  
*514 Department of Medical Services, Bangkok Metropolitan Administration, Thanon Luang (022239401-3, hotline 1646, 1554).* Open 24-hrs daily. Free emergency medical treatment and dispatch of ambulances and doctors, plus health advice.
- **International SOS Services Thailand**  
*11th floor, Diethelm Tower, 93/1 Thanon Witthayu (022057755 www.internationalsos.com).* **Open** 24hrs daily. Tackles any emergency, using speedy ambulances and police contact.
- **Tourist Police**  
*TAT, 4 Ratchadamnoen Nok Avenue (24hr hotline 1155, 0 2308 0333).* **Open** 8.30am-4.30pm. Hotline 24hrs daily. This English-speaking force is best for empathy, efficiency, perseverance and familiarity with non-Thai concerns. Or call **Tourist Assistance Centre** (0 2281 5051). If necessary, try the 24-hour **Police Hotline** (191) or police stations, where procedures can be stressful. Road casualties often get sent to the Police Hospital, Thanon Ratchadamri, by Chinese charities like Poh Tek Tung.

For more information, please visit...

<http://www.timeout.com/bangkok/features/495/travel-information-bangkok-fast-facts-a-z>

For information specific to Bangkok, please visit...

<http://www.tourismthailand.org/home>

## CONFERENCE VENUE

### The Queen Sirikit National Convention Center



#### General Information

Queen Sirikit National Convention Center (QSNCC), managed by N.C.C. Management & Development Co., Ltd., is Thailand's first purpose-built, world-class exhibition and convention center. With floor space of 65,000 sq m, QSNCC's layout emphasizes a traditional Thai structure, yet boasts a full range of equipment and facilities, including simultaneous interpretation system, wireless internet system, 1,000 permanent direct-dial international telephone lines, in-house food outlets and restaurant, and other supporting amenities.

#### Facilities

QSNCC and its highly functional facilities can comfortably accommodate up to 6,000 people theater-style in the Plenary Hall, which can be divided into 3 sound-proofed sections of approximately 1,500 sq m each. The Ballroom and reception areas are suitable for such functions as a spectacular grand opening ceremony, gala reception and banquet. Gross exhibition area is in excess of 20,000 sq m.

#### Access

QSNCC is located in the heart of Bangkok's vibrant business district and surrounded by luxurious 3-5-star hotels. It is conveniently accessible by BTS Skytrain, MRT Subway, taxi, bus and car, and just a 45-minute drive from Suvarnabhumi Airport. QSNCC's MRT Subway station offers mass transit connectivity to the Airport Rail Link as well as to hotels, world-class shopping centers and many city attractions.

#### Other Facilities & Services

- Parking space capacity on site for 700 cars and 30 buses, with overflow capacity for an additional 1,500 vehicles in the adjoining Thailand Tobacco Monopoly site.



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- Coffee shop, restaurants and food outlets.
- In-house & outside catering and fine dining services.

For more information, visit:

<http://www.qsncc.com>



## DINNERS AND SITE VISIT

### EGEE&C DINNER

MONDAY , 11 November

TIME	ACTIVITY DETAILS
4:30 p.m.	Depart from meeting venue
6:30 p.m.	Dinner at Baan Khanitha Restaurant(see map mark A below)
8:00 p.m.	Shopping at Asiatique
9:30 p.m.	Leave for Hotel

### Baan Khanitha by the River (Asiatique)

Baan Khanitha : [www.baan-khanitha.com/venues.php?branch=asiatique](http://www.baan-khanitha.com/venues.php?branch=asiatique)

Asiatique: [www.thaiasiatique.com/index.php/en/view/page/getting-here](http://www.thaiasiatique.com/index.php/en/view/page/getting-here)





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## SITE VISIT

Friday, 15 November

Thai Airways International Public Company Limited (THAI) & Lunch



Thai Airways International  
Public Company Limited

TIME	ACTIVITY DETAILS
8:00 am	Meet in hotel lobby (Imperial Queen's Park hotel) DEDE staff will serve for reception at the hotel lobby
8:15 - 9:30 am	Bus depart hotel to Laksi Office Thai Airways International Public Company Limited (THAI), Vibhavadi Rangsit Road
9:30 - 10:30 am	Introduction of Thai Airways International by THAI staff on Energy Efficiency and Conservation Achievements: in building and logistic
10:30 - 11:45 am	Visit runner up ASEAN Energy Awards 2013, Retrofitteds Building
11:45 - 12:00 pm	Wrap up session
12:00 - 13:00 pm	Lunch
13:00 - 14:15 pm	Bus leaving for Imperial Queen's Park hotel

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**PARTICIPANTS LIST**

<b>ECONOMY</b>	<b>NAME</b>	<b>ROLE</b>	<b>POSITION</b>	<b>COMPANY or ORGANISATION</b>
China	Pengcheng Li	economy representative	Senior Engineer	China national institute of Standardization (CNIS)
China	Wei Xu	economy representative	DIRECTOR	CHINA ACADEMY OF BUILDING RESEARCH
China	Yuejin Zhao	economy representative	Senior Engineer	China national institute of Standardization (CNIS)
China	ZHANG Shicong	economy representative	-	China Academy of Building Research. Institute of Building Environment and Energy.
China	Min An	economy representative	Project Manager	China Standard Certification Center
China	Shaojun Zhang	economy representative	General Manager	China Standard Certification Center
China	Pierre Cazelles	observer	DIRECTOR	INTERNATIONAL COPPER ASSOCIATION
Hongkong	Chug Yee Shum	economy representative	Engineer	HKSAR Government
India	Mayur Karmarkar	observer	Director – Sustainable Energy, Asia	International Copper Association, Asia
Japan	Naoko Doi	economy representative	Senior Researcher	The Institute of Energy Economics, Japan
Japan	Aishah Mohd Isa	observer	Researcher	Asia Pacific Energy Research Centre (APERC)
Japan	Kazutomo Irie	observer	General Manager	Asia Pacific Energy Research Centre (APERC)
New Zealand	Martin Miguel Brown-Santirso	economy representative	Senior Transport Advisor	Energy Efficiency and Conservation Authority (EECA)
New Zealand	Terence Collins	economy representative	General Manager	Energy Efficiency and Conservation Authority (EECA)
Singapore	Latha Ganesh	economy representative	Assistant Director	Energy Market Authority
Singapore	Steven Sim	observer	CEO	INTERNATIONAL COPPER ASSOCIATION SOUTHEAST ASIA
Taipei	Shin-Hang Lo	economy representative	Senior Project Manager	Industrial Technology Research Institute
Thailand	Chidchanok Choompalee	economy representative	Analyst	Ministry of Energy
Thailand	Danai Egkamol	economy	Director Bureau of	DEDE



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		representative	Energy Conservation and Regulation	
Thailand	Pongpan Vorasayan	economy representative	Engineer	DEDE
Thailand	Prasert Sinsukprasert	economy representative	Executive Director	International Energy Cooperation Bureau Ministry of Energy
Thailand	Twarath Sutabutr	economy representative	Duputy Director General	DEDE
Thailand	Vinuchada Talangsri	economy representative	Analyst	DEDE
Thailand	Yongyooth Horthong	economy representative		Ministry of Energy
Thailand	Atit Tippichai	observer	Research	Joint Graduate School of Energy and Environment
USA	Bipin Shah	observer	President	WinBuild Inc.
USA	Derek Greenauer	observer	Global Government Affairs Manager	UL underwriters
USA	Nicole Kearney	observer	Senior Associate	CLASP
USA	Cary Bloyd	observer	Senior Staff Scientist	Pacific Northwest National Laboratory