Renewable Energy & Energy Efficiency: Pathways Toward a Low-Carbon Philippines 2030

13 October 2016 | Sofitel Philippine Plaza | Philippines







Renewable Energy & Energy Efficiency: Pathways Toward a Low-Carbon Philippines 2030

13 October 2016 | Sofitel Philippine Plaza | Philippines

**OVERVIEW** 

The 1<sup>st</sup> Philippine Clean Energy Summit serves as a platform to explore emerging developments in the Philippine energy sector while providing an excellent opportunity for its participants to listen to the country's policy-makers and clean energy's major players as they discuss core themes arising in the energy industry and to meet and network with domestic and foreign industry peers.

There is little doubt that fast-changing energy supply and demand trends and the recent fall in energy prices are altering the landscape for the energy business as we know it today.

Indeed commodities such as oil always go through cycles, but the dramatic fall in the oil price since last year has prompted a frenzy of speculation about what it all means for the global and national energy future.

It is evident that whatever the future holds, the energy industry is likely to look very different by 2030.

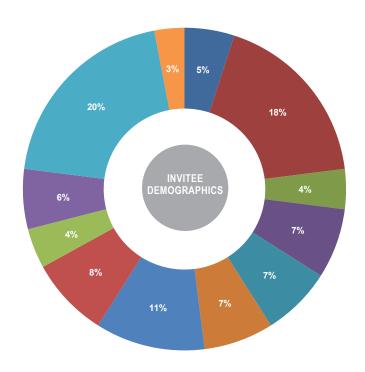
The 1st Philippine Clean Energy Summit brings together renewable energy and energy efficiency leaders and visionaries, government officials, business executives, policy experts, investors and other concerned stakeholders across the energy sector to network and create an in-depth understanding of the alternative paths open to the Philippines' massive clean energy supplies in order for the country to secure greater energy independence, improved quality of life and sustainable economic growth.

The 1st Philippine Clean Energy Summit aims to address the following pressing questions:

- How can renewable energy and energy efficiency be positioned to guide the energy market along a low-carbon development pathway?
- How can clean energy sources in both the supply and demand-sides of the energy market ensure affordable and reliable energy for the country?
- How can the energy market swiftly reconcile the needs to meet rising energy demand while reaching development goals and complying with climate agreements?
- How soon can the country's energy mix be "green" enough to lead a transformation toward a low-carbon economy?
- What market and policy gaps persist that are in the way of a major scaling up of renewable energy and energy efficiency investments?
- What innovative technologies, business models and market reforms should be deployed much sooner for the country to meet its balanced development objectives?

The 1st Philippine Clean Energy Summit is a superb platform to:

- NETWORK with peers
- CONNECT with potential investors and business partners
- LEARN from industry leaders and think tanks



- ■Economists and Financial Analysts
- ■Energy Sector Executives
- ■Environmental Managers and Consultants
- ■EPC and O&M Contractors
- ■Government Officials
- ■Investment Bankers and Investors
- ■Large Energy Users
- ■Legal and Financial Advisors
- ■Policy-Makers
- ■Regulators
- ■Renewable Energy Developers
- Technical Consultants



Renewable Energy & Energy Efficiency: Pathways Toward a Low-Carbon Philippines 2030

13 October 2016 | Sofitel Philippine Plaza | Philippines

#### MARKET OUTLOOK, DRIVERS & TRENDS\*

The 1st Philippine Clean Energy Summit also provides a unique opportunity to showcase the Philippines' promising clean energy industry and gain experience from the best practices adopted in countries at the forefront of energy deployment.



Strong economic growth and a rise in energy demand have exerted pressure on the Philippines' power sector in recent years.

It is clear that there are serious challenges to the country's electricity supply in the medium-term.

However, the implementation of new projects and incentives should help alleviate the shortfall in the long-term, even as energy demand continues to climb at a rate in excess of 4.77% per annum.

The Philippines is likely to remain reliant on oil and coal imports in the foreseeable future, with minimal investments in domestic exploration and development.

Substantial investments in power generation are likely to put an end to chronic power shortages and high prices associated with the local electricity sector, particularly in Luzon and Mindanao with tens of thousands of megawatts of new generating capacity coming on-line in the long-term. The sector will continue to be reliant on cheaper coal for its base load, although renewables and natural gas will shoulder an increasing amount of this load in the long run.

#### **MAKING PLANS**

An increasing appetite for gas and the post-peak output of the country's largest single gas field is leading the public and private sectors to explore new alternatives for securing more primary energy resources. To address these supply and demand issues, the Department of Energy (DoE) formulated the Philippines Energy Plan (PEP) 2012-30, which establishes a comprehensive roadmap intended to ensure sustainable, secure, sufficient and accessible energy.

#### **NATURAL GAS**

Natural gas is a key component of the government's fuel diversification program and is considered one of the most viable and cleaner alternatives to oil, particularly for use in power generation. The gas from Malampaya already fuels three major power plants in the Batangas province, as well as providing feedstock for compressed natural gas-powered buses. Looking to further stimulate the development of the natural gas industry by improving energy transport infrastructure, the government and the Philippine National Oil Company have already contracted a feasibility study for the Batangas-Manila 1 Pipeline to ease access for natural gas.

#### **BACK ON TRACK**

Although the Philippines operates one of the most liberalized electricity sectors in the region, the country's challenging and well-dispersed geography, along with limited domestic fuel supplies, continue to create an undersupplied market as demand rises. Since 2001, power consumption has increased steadily from 47,049 GWh to 77,261 GWh in 2014, growth of 64.2%, while installed generation capacity expanded by around half of that rate from some 13,380 MW to 17,944 MW, or 34.1% growth, over the same time period, according to DoE figures. Looking to address this rising imbalance, the government has rolled out a number of strategic power sector plans, such as the PEP 2012-30, which outlined several measures to increase self-sufficiency in the Philippines' overall energy level. In addition, the new National Renewable Energy Program (NREP) aims to diversify and expand renewable energy contributions to the country's energy mix over the next two decades.





Renewable Energy & Energy Efficiency: Pathways Toward a Low-Carbon Philippines 2030

13 October 2016 | Sofitel Philippine Plaza | Philippines

#### **MARKET OUTLOOK, DRIVERS & TRENDS\***

#### **RENEWABLE ENERGY**

The Philippines was ahead of the curve in exploiting renewable energy to make major contributions to the national power supply when the country tapped into its significant geothermal resources in the late 1970s.

However, interest in alternatives fell by the wayside in subsequent decades. Rising oil prices and greater environmental awareness led to a renewed commitment to clean energy by the government with the passage of the Renewable Energy Act of 2008.

The RE Act in turn, led to a series of measures designed to foster growth in the sector, including: the creation of the Renewable Energy Management Bureau, the National Renewable Energy Board (NREB) and the National Biofuels Board; implementation of a net metering program in April 2012; and, adoption of a feed-in tariff (FIT) incentive scheme, which was finalized in July 2012.

The NREP counts among its ambitions the tripling of renewable energy installed capacity from 5,438 MW in 2010 to 15,304 MW by 2030. Manila-based daily Philippine Star reported in September 2015 that a total of 682 renewable energy service contracts were awarded for the development of 13,574.68 MW of capacity.

According to the DoE, legacy geothermal power plants make up the bulk of renewable energy power generation, with 1,906.19 MW of installed capacity as of December 2015. This was followed by wind (427 MW), biomass (241.27 MW), hydropower (139.49 MW) and solar (144.4 MW). Another 166 MW of biomass capacity and 2 MW of solar capacity are also operating off the grid for own-use electricity.

Tidal energy is untapped. However, the thrust to pursue tidal energy is anchored on the predictability of tidal currents.

"Tidal currents are predictable even one hundred years in advance. Their reliability has the potential to meet energy needs of future generations. Tidal energy can be harnessed to supersede electricity generated from fossil fuels, thereby reducing greenhouse gas emissions. While tidal turbines are heavier and studier because water is 800 times denser than air and are hitherto more expensive, turbine technologies are reaching cost competitiveness because these can capture large-scale energy."

#### A NEW SYSTEM

The linchpin of renewable energy in the power sector is the FIT system, which grants preferential rates for electricity sales for qualified renewable energy producers and which has been crucial in attracting private investment into the sector. Since an initial period of deliberation begun in June 2010, the Energy Regulatory Commission (ERC) has adjusted rates over the ensuing years in order to maintain an optimal balance between an acceptable rate of return for power producers and end-use pricing for consumers.

Initial rates issued in July 2012 granted generators of solar power a FIT rate of P9.68 (\$0.21) per KWh, P8.53 (\$0.19) per KWh for wind power, P6.63 (\$0.15) per KWh for biomass and P5.90 (\$0.13) per KWh for run-of-river hydropower.

As the capital costs of some of these technologies have decreased, some of these rates have since been revised, including a new rate of P8.69 (\$0.19) per KWh for solar implemented in May 2014. Rather than retroactively punishing solar operations that are already up and running under the old tariff, those projects will maintain their original rates while the new rate will apply to the next 71-500 MW of approved and operational capacity. Philippine Star reported in December 2015 that new wind power projects are also seeing a cut, with the next 200 MW of approved projects receiving FIT rates of P7.40 (\$0.16) per KWh in accordance with the ERC's October 2015 decision, lower than the NREB's recommendation of P7.93 (\$0.18).

#### **FIT COMPETITION**

Competition for the limited pool of FIT capacity has been essentially restricted to larger developers with deep pockets as the costs of financing rises. As a result, smaller firms that have historically been significant drivers pushing the development of renewable energy in new markets have been more or less shut out or restricted in their participation. In addition, the government has also granted a number of other incentives for renewable projects. These include an income tax holiday of seven years and a reduced income tax rate of 10% upon expiration of the holiday; duty-free imports; a special real estate tax rate of less than 1.5%; accelerated depreciation of assets; tax exemption on carbon credits; and tax credits on domestic capital equipment and services. Renewable projects are also given priority in grid connection, as well as guaranteed off-take once the generators begin transmitting to the grid.

#### **ENERGY EFFICIENCY**

Aligned with greenhouse gas emission reduction pathway targeted by the Philippines' Intended Nationally Determined Contribution to the COP21 agreement, the Philippine Department of Energy (DoE) has approved in July 2014 a 2014-2030 Energy Efficiency Roadmap which sets the following 2030 targets:

- · 40% reduction in energy intensity compared to 2010 baseline
- Decreased energy consumption of 1.6% per year against baseline forecasts
- Savings of approx. 10,665 kilo tons of oil equivalent (Ktoe) p.a. by 2030

The Philippine Energy Efficiency Alliance, Inc. (PE2) preliminarily estimates that no less than 125 million tons of oil equivalent (Mtoe) will need to be shaved off the economy's final energy demand across end-use sectors during the period 2016-2030. Through 2030, the 125 Mtoe energy savings target has the potential to reduce GHG emission reductions by about 1.2 gigatons of CO2 equivalent, defer about 31.5 gigawatts in additional energy production, transmission and distribution infrastructure and flow down USD 414 billion in energy end-use savings. PE2 however maintains that this ambitious 2030 target will require the economy, albeit largely from the private sector and external climate funding, to mobilize around USD 180 billion in technology deployment and project capital.

PE2 believes that the energy efficiency market, particularly in the scaled-up delivery of Energy Service Company (ESCO) performance contracting services to energy-intensive commercial and industrial energy end-users, will need to strengthen the technical and financial capacities of the ESCO sector, bridge early-stage EE project development barriers, assist the executive and legislative branches of government to effect policy reforms and develop market acceptance of the ESCO delivery model.

\*OBG's The Report: Philippines 2016



Renewable Energy & Energy Efficiency: Pathways Toward a Low-Carbon Philippines 2030

13 October 2016 | Sofitel Philippine Plaza | Philippines

#### **COLLABORATING PARTNERS**

The 1<sup>st</sup> Philippine Clean Energy Summit supports the Philippines' 2030 energy vision to increase energy supply from renewables and reduce energy usage per capita through energy efficiency by bringing together key domestic and regional industry stakeholders to help formulate strategies, discuss the latest case studies and benchmark on global best practices.



The Asia-Pacific Basin for Energy Strategies (APBest) is an energy and economic think tank that first brought its advocacy to the United Nations on "negotiating oil prices vis-a-vis the OPEC, Gulf oil states, financial institutions and traders in oil. If UN has agencies or bodies in AIDS, crime and drugs, food, atomic energy, global warming, even land mines, more so it should focus on gruelling oil prices that cripples the world's economy. It aims to contribute in attaining energy security in the Pacific basin through agreements on global pricing and supply-and-demand models that are reasonably profitable and socio-economically responsive. It works for the creation of a technical working group or an appropriate body to liaise with the UN as an instrument to determine effective measures to negotiate economically-sound and geopolitically-acceptable oil pricing formulae and supply-and-demand policies." (October 10, 2008).

Earlier, in the 28th ASEAN Ministers of Energy Meeting on August 6, 2008 in Bangkok, Thailand, Antonio A. Ver, APBest's Founder and first President talked on "Negotiating Oil Prices" which was acclaimed as "thought-provoking and action-pushing." On July 20, 2012, APBest presented "The Rise of China and the US Asia Pivot: Implications for ASEAN, the Philippines and the West Philippine Sea Dispute" at the Malcolm Theatre, UP College of Law, with Prof. Huang Jing of the Lee Kuan Yew School of Public Policy, National University of Singapore. On March 14, 2013, Angelo A. Jimenez, then APBest Executive Vice-President, joined a panel of experts in Asia Society's Conference on "The South China Sea: Central to Asia-Pacific Peace and Security" held in New York City. Thus, on July 17, 2014, APBest achieved its Special Consultative Status in the United Nations Economic and Social Council (ECOSOC). With technologies and businesses that create competitive choices against fossil fuels and energy solutions penetrating far flung villages, APBest pushes for initiatives in renewables and energy efficiency in the Asia-Pacific basin. Atty. Jimenez is presently president. Benjamin E. Diokno, PhD, an Economist, is Chairman. He was former President of the Philippine National Oil Company and Secretary of Budget and Management.



Building on the decade-long legacy of both the Energy Service Companies Association of the Philippines and its successor, the Philippine Association of Energy Service Companies, both of which were organized with DoE guidance, the Philippine Energy Efficiency Alliance, Inc. (PE2) convened 27 private and public sector energy efficiency market stakeholder entities in December 10, 2015 to:

- To contribute to the Philippines' efforts toward its long-term energy intensity reduction, annual final energy demand reduction and greenhouse gas emission avoidance targets through the accelerated deployment of energy efficiency (EE), energy conservation (EC) and renewable energy (RE) technologies across various energy end-use sectors and other market segments.
- To accelerate the transformation of the energy market toward low-carbon EE, EC and RE technologies through barrier removal, policy reform, knowledge sharing, capacity building and other market interventions.
- To catalyze investments from both the public and private sectors in projects utilizing EE, EC and RE technologies through policy reform, financial mechanisms and other market interventions.
- To convene and represent the interests of the ESCO industry especially in collaborating with government for the promotion of ESCO performance contracting and for regulatory concerns such as ESCO accreditation.
- To convene and represent the interests of other EE, EC and RE market stakeholders which include, but not limited to, technology and solutions providers, EPC contractors, service providers, consultants, investors, financial institutions, commercial and industrial end-users and large EE, EC and RE program implementing entities.
- · To generate green jobs in the market.







Renewable Energy & Energy Efficiency: Pathways Toward a Low-Carbon Philippines 2030

13 October 2016 | Sofitel Philippine Plaza | Philippines

#### **SPONSORSHIP TIERS**





- One (1) 2.5m x 2.5m free-standing exhibition space located in the event's high traffic area
- Thirty (30) complimentary admissions with full access to the event's sessions, documentations, refreshments and receptions extended to (the) sponsoring company's officers and business partners
- Two (2) sponsoring company's colored full-page ads and logo in/on the event's official participants' guide and marketing collaterals featured as the event's Platinum Sponsor and Pillars of the Industry Partner
- Inclusion of the sponsoring company's promotional materials in the event's participants' kit
- List of the event's attendees with complete contact details



- One (1) 2.5m x 2.5m free-standing exhibition space located in the event's high traffic area
- Fifteen (15) complimentary admissions with full access to the event's sessions, documentations, refreshments and receptions extended to (the) sponsoring company's officers and business partners
- Sponsoring company's colored full and half-page ads and logo in/on the event's official participants' guide and marketing collaterals featured as the event's Gold Sponsor and Pillars of the Industry Partner
- Inclusion of the sponsoring company's promotional materials in the event's participants' kit
- List of the event's attendees with complete contact details



- One (1) 2.5m x 2.5m free-standing exhibition space located in the event's high traffic area
- Ten (10) complimentary admissions with full access to the event's sessions, documentations, refreshments and receptions extended to (the) sponsoring company's officers and business partners
- Sponsoring company's colored full-page ad and logo in/on the event's official participants' guide and marketing collaterals featured as the event's Silver Sponsor and Pillars of the Industry Partner
- Inclusion of the sponsoring company's promotional materials in the event's participants' kit
- List of the event's attendees with complete contact details



- One (1) 2.5m x 2.5m free-standing exhibition space located in the event's high traffic area
- Seven (7) complimentary admissions with full access to the event's sessions, documentations, refreshments and receptions extended to (the) sponsoring company's officers and business partners
- Sponsoring company's colored half-page ad and logo in/on the event's official participants' guide and marketing collaterals featured as the event's Bronze Sponsor and Pillars of the Industry Partner
- Inclusion of the sponsoring company's promotional materials in the event's participants' kit
- List of the event's attendees with complete contact details



Renewable Energy & Energy Efficiency: Pathways Toward a Low-Carbon Philippines 2030

13 October 2016 | Sofitel Philippine Plaza | Philippines

#### **EXHIBITION AND ADVERTISEMENT RATES**



# EXHIBITION (PHP 135,000.00)

- One (1) 2.5m x 2.5m free-standing exhibition space located in the event's high traffic area
- Five (5) complimentary admissions with full access to the event's sessions, documentations, refreshments and receptions extended to (the) exhibiting company's officers and business partners
- Exhibiting company's colored half-page ad and logo in/on the event's official participants' guide and marketing collaterals featured as the event's Exhibitor and Pillars of the Industry Partner
- Inclusion of the exhibiting company's promotional materials in the event's participants' kit
- List of the event's attendees with complete contact details

## FULL-PAGE AD (PHP 75,000.00)

- Three (3) complimentary admissions with full access to the event's sessions, documentations, refreshments and receptions extended to (the) advertising company's officers and business partners
- Advertising company's full-page ad and logo in/on the event's official participants' guide and marketing collaterals under the event's Pillars of the Industry Partners' roster
- Inclusion of the advertising company's promotional materials in the event's participants' kit
- List of the event's attendees with complete contact details

#### HALF-PAGE AD (PHP 50,000.00)

- Two (2) complimentary admissions with full access to the event's sessions, documentations, refreshments and receptions extended to (the) advertising company's officers and business partners
- Advertising company's half-page ad and logo in/on the event's official participants' guide and marketing collaterals under the event's Pillars of the Industry Partners' roster
- Inclusion of the advertising company's promotional materials in the event's participants' kit
- List of the event's attendees with complete contact details

## QUARTER-PAGE AD

- One (1) complimentary admission with full access to the event's sessions, documentations, refreshments and receptions extended to (the) advertising company's officer(s) and business partner(s)
- Advertising company's quarter-page ad and logo in/on the event's official participants' guide and marketing collaterals under the event's Pillars of the Industry Partners' roster
- Inclusion of the advertising company's promotional materials in the event's participants' kit
- List of the event's attendees with complete contact details





Renewable Energy & Energy Efficiency: Pathways Toward a Low-Carbon Philippines 2030

INDUSTRY PARTNER'S LISTED MEMBER NON-MEMBER

13 October 2016 | Sofitel Philippine Plaza | Philippines

#### **ADMISSION FEE PER REGISTRANT\***

PUBLIC SECTOR AND ACADEME [] PHP 8,000.00 [] PHP 10,000.00 [] PHP 17,000.00 LOCAL REGISTRANT [] PHP 15,000.00 FOREIGN REGISTRANT [] USD 600.00 [] USD 700.00 **LOCAL REGISTRANT FOREIGN REGISTRANT** EARLY BIRD (first 100 registrants) [] PHP 13,000.00 [] USD 500.00 \*Inclusive of full access to the event proceedings, materials, meal functions and networking receptions. PLEASE REGISTER THE FOLLOWING\* **PAYMENT METHODS** 1<sup>st</sup> Registrant

### 2<sup>nd</sup> Registrant

E-mail:

Name:

Mobile:\_\_\_\_

Telephone:\_\_\_ E-mail:\_\_\_\_\_

Approving Officer

E-mail:

Name:

Mobile:

Name:

Telephone: E-mail: 3<sup>rd</sup> Registrant Name: Designation:\_\_\_\_\_Department:\_\_\_\_\_ Mobile: Telephone:\_\_\_\_

Designation: \_\_\_\_\_Department: \_\_\_\_\_

Designation: Department:

Telephone: Fax:

## \*Photocopy for more than 3 registrants.

Organization:\_\_\_\_

#### **CANCELLATIONS AND TRANSFERS**

Designation: Department:

By completing this registration form, your organization shall be subjected to the full payment of the event's admission fee. Should your registrant(s) be unable to attend, substitute(s) is/are always welcome at no extra charge. Alternatively, a 50% refund will be provided for cancellation of registration(s) received in writing (e-mail or facsimile) no later than 4 weeks prior to the event; thereafter, no refund can be made. The event organizer reserves the right to alter the event's program without prior notice including the substitution of its speaker(s) and/or topic(s) and/or alteration of the date(s) and/or venue of the event. The event organizer will not be liable for any travel or accommodation expense(s) incurred by your organization or registrant(s) due to the aforementioned event alteration(s). Payment prior to the event is mandatory for attendance.

Fax:

#### **BANK TRANSFER\***

#### Peso

Account Name: PCM Event Management Services Bank: Metropolitan Bank and Trust Company Account No.: 660-3-66053391-6 Swift Code: MBTCPHMM

#### **Dollar**

Account Name: PCM Event Management Services

Bank: Maybank Philippines, Inc. Account No.: 01-714-00-0210-5 Swift Code: MBBEPHMM

\*Local and/or foreign bank charges (if any) are to be borne by the remitting organization.

#### CHECK

Make all check(s) for collection payable to: PCM Event Management Services

Registration(s) will only be confirmed upon receipt of payment by the Event Secretariat.

#### VENUE INFORMATION



#### **SOFITEL PHILIPPINE PLAZA**

CCP Complex, Roxas Boulevard, Pasay City Manila, Philippines +63.2.551.5555 H6308@sofitel.com