CONFERENCE PROCEEDINGS

ENERGY TRANSITION PARTNERSHIP

CASE for Southeast Asia

ENERGY TRANSITION DIALOGUE 2022

ASEAN Outlook for Zero Carbon Energy

February 9, 2022

Zoom webinar

Organised by:

Australian National University

AMPERES
Australia - Mekong Partnership Environmental Resources & Energy Systems

LPEM FEB UI
Universitas Indonesia

Indonesia Research Institute for Decarbonization

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Cover photo: Rooftop solar installed on the headquarter of Central Power Corporation – Vietnam Electricity. Credit: Ngọc Hà/TTXVN.

About Energy Transition Roundtables

Energy Transition Roundtables is a two-year capacity building and networking program that aims to provide an opportunity for the region's energy transition stakeholders – in particular, mid-career policy-makers from identified Southeast Asia countries (Vietnam, Indonesia and the Philippines) and regional level bodies – to engage in an intensive roundtable series on the energy transition.
The roundtables are delivered by a partnership of the Australian National University (ANU), Australia-Mekong Partnership for Environmental Resources & Energy Systems (AMPERES), Institute for Economic and Social Research, Faculty of Economics and Business, University of Indonesia (LPEM UI), the Indonesia Research Institute for Decarbonisation (IRID), and Ateneo School of Government (ASOG).

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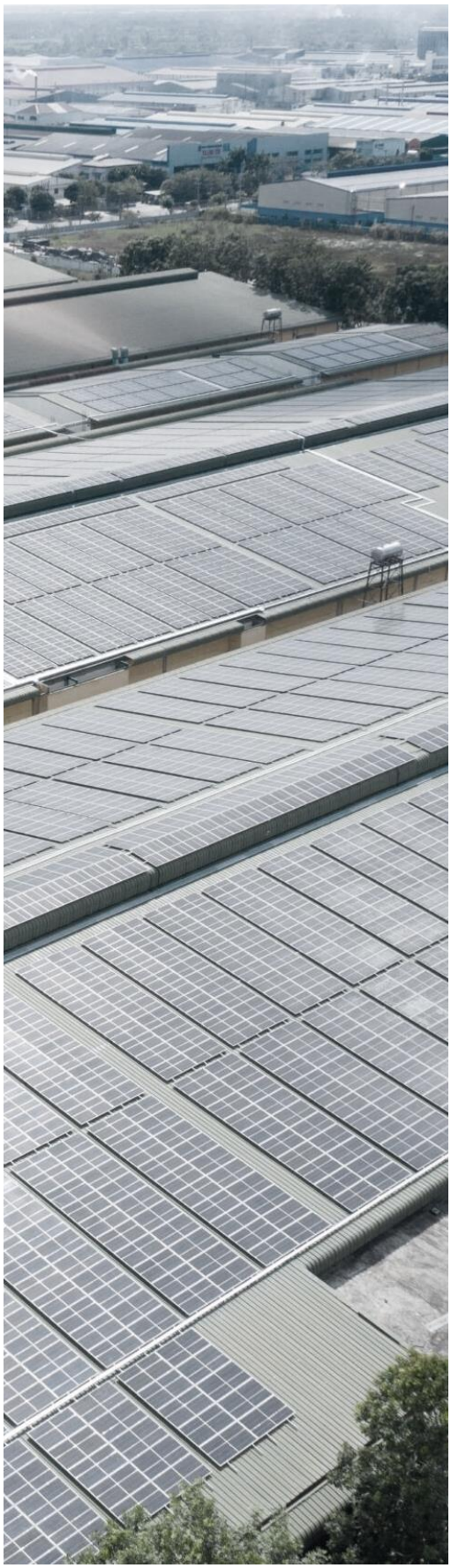


BACKGROUND

Context

ASEAN countries have experienced decades of unprecedented economic growth and infrastructure development associated with an exponential rise in energy consumption. Today power generation in ASEAN is dominated by fossil fuels, with natural gas and coal accounting for about 67% of the total in 2020. Vietnam and Indonesia, in particular, had the highest amount of electricity generation from coal in ASEAN in 2020. ASEAN countries, on the other hand, are endowed with enormous solar and wind power potential.

Recent international momentum for energy transition has resulted in profound changes in domestic energy and climate policies in Southeast Asia. All ASEAN countries except the Philippines have announced net-zero GHG emissions targets, although these are typically not yet fully formalised commitments. Vietnam and Malaysia aim for achieving net-zero by 2050, Indonesia by 2060, and Thailand by 2065.

About the ET Dialogues

The Energy Transition Dialogue is an annual public forum that reflects on how to turn commitment into scaled, sustained action in the dynamic economies of Southeast Asia.

This year's Dialogue saw a particular focus on Indonesia, the Philippines and Vietnam who are all large coal consumers, but also pioneers in the recent renewable energy deployment. A better understanding of what has worked, what can scale and what challenges remain in these three countries provides lessons for the whole of ASEAN.

The Energy Transition Dialogue is a collaboration between the **Southeast Asian Energy Transition Partnership (ETP)** and the **Clean Affordable and Secure Energy for Southeast Asia (CASE)**.

The Dialogue is part of an ETP program of Roundtables organised by a partnership of the Australian National University (ANU), Australia-Mekong Partnership for Environmental Resources & Energy Systems (AMPERES), Institute for Economic and Social Research, Faculty of Economics and Business, University of Indonesia (LPEM UI), the Indonesia Research Institute for Decarbonisation (IRID), and Ateneo School of Government (ASOG).

WORKSHOP OBJECTIVES

The Energy Transition Dialogue opens a space for government, private sector and civil society stakeholders to discuss and better understand the fast-moving changes in the energy sector and share experiences to accelerate the energy transition in the region.

The main objectives of the **Energy Transition Dialogue 2022** were to:

(i) launch the ETP Roundtables and CASE dialogues and share information about the networking and training events planned for this year;

(ii) take stock of the significant change experienced by the energy sector in 2021 and present an outlook for the year ahead; and

(iii) share lessons and experiences between countries to further understand the key challenges and barriers which an energy transition must overcome if the countries of Southeast Asia are to make a leading contribution towards meeting the Paris Agreement.

The challenges and lessons prioritised by workshop participants are also be used to inform future roundtables, providing an agenda for action amongst the ASEAN Energy Transition network.

VENUE & PARTICIPANTS

Due to ongoing Covid-19 restrictions, the workshop was entirely virtual. The ET Dialogue was open to all participants from Southeast Asia, but an emphasis was specifically made on participants from three focal countries Indonesia, Philippines and Vietnam. Participants attending the workshop include:

- Government officials from focal countries – senior officials involved in planning and managing energy issues in their countries. This includes the relevant ministries responsible for the power sector, environment and national socio-economic development.
- Private sector representatives – professionals with a background in developing energy infrastructure and supporting planning and analysis of energy decisions in the region.
- Academics and researchers advancing understanding of energy issues and options
- Civil society organisations and the public.
- External bilateral and multilateral development partners who are working with the focal countries to advance the energy transition, including relevant embassies, UN organisations and multilateral development banks.

AGENDA

SESSION 1 - Opening	▪ Welcome remarks ▪ Overview of the Southeast Asia Energy Transition Partnership (ETP) ▪ Overview of Clean Affordable & Secure Energy for Southeast Asia (CASE) ▪ Q&A
SESSION 2 - Energy Transition outlook for ASEAN	▪ Decarbonization – technology trends, economics and policy ▪ Decarbonization – understanding the gaps and challenges for Southeast Asia ▪ Perspectives on the energy transition (Indonesia, Philippines, Vietnam & Australia) ▪ Panel Discussion ▪ Q&A
SESSION 3 - Closing	▪ Next steps for CASE ▪ Next steps for the ETP Roundtables ▪ Closing remarks

KEYNOTE PRESENTATIONS ON ENERGY TRANSITION

Technology trends, economics, and policy

Prof. Frank Jotzo, *Head of Energy, Institute for Climate, Energy & Disaster Solutions, Australian National University*

Dr Emma Aisbett*, Director Research Grand Challenge Program on Zero Carbon Energy for Asia – Pacific, Australian National University*

Figure 1 Annual CO2 Emissions - PH, ID, VN. Source: Global Carbon Project

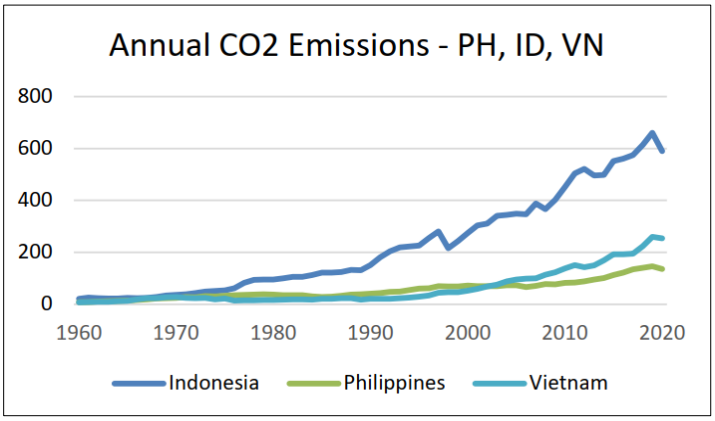
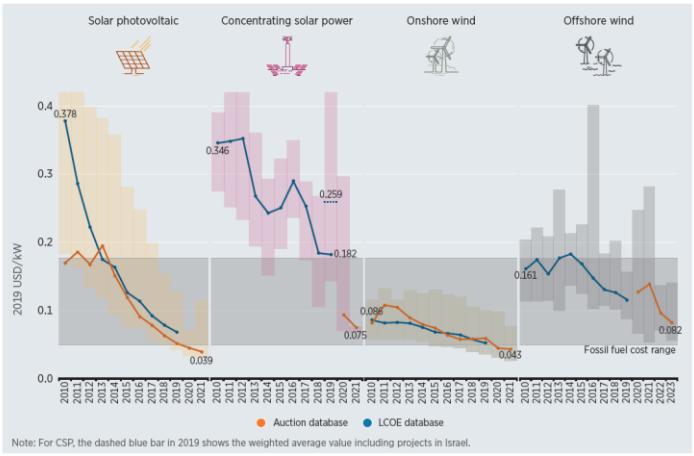


Figure 2 LCOE of Renewable energy sources. Source: IRENA/Mission Innovation



Note: The thick lines are the global weighted average LCOE, or auction values, by year. The grey bands that vary by year are cost/price range for the 5th and 95th percentiles of projects.. For the LCOE data, the real WACC is 7.5% for OECD countries and China, and 10% for the rest of the world. The band that crosses the entire chart represents the fossil fuel-fired power generation cost range.

While carbon emission from fossil fuel in developed countries are showing positive signs of slowing and in some cases declining, carbon emission in developing countries such as China, India, Indonesia, Philippines and Vietnam have been increasing significantly (Figure 1). To avoid serious climate change, the world needs to go towards complete decarbonisation of the power sector with renewable energy, as well as decarbonise energy use in other sectors such as transport and industry with electricity.

Clean energy has become cheaper than ever, and the cost will continue to fall. Solar is now the cheapest form of energy in history - the global weighted-average levelized cost of electricity (LCOE) of utility-scale solar photovoltaics (PV) fell 82% between 2010 and 2019, to USD 0.068/kWh (Figure 2).

ASEAN will need a massive investment in a short time to achieve the transition, but they will benefit from a stable upfront paid energy system for many decades and the benefit from reduced climate change impact.

Gaps and challenges for Southeast Asia

INDONESIA

Mr. Fabby Tumiwa,
Executive Director, Institute for Essential Services Reform (IESR), Indonesia

Around 80% of the primary energy mix in SEA still comes from fossil fuel (coal, natural gas and oil), which means SEA's greenhouse gas emissions is yet to peak (Figure 3). During COP26, 8 out of 10 ASEAN member countries have announced their net zero target, with the earliest in 2050 and the latest in 2065 (ACE, 2021).[1] They all need to quickly decarbonise energy sector to realise the targets but there are obstacles.

A study focusing on 4 ASEAN economies including Indonesia, Philippines, Thailand and Vietnam has identified 6 groups of challenges facing energy transition in these countries.

(1) Policy Planning and Alignment

- The absence of coordinated long-term policy visions or 'roadmap' for renewables significantly impacts all other dimensions relevant to the transition.
- Government silo structures lead to lack of ownership of the energy transition process.

(2) Fossil lock-in and perception of energy security

- Country driven processes focusing on countries' energy security limit regional interaction and collaboration.
- Fossil-fuels still considered as main components of energy security. Renewable energy continue to be perceived as unreliable and to increase consumer power prices.

(3) Actors and Institutions

- Poor coordination between the ecosystem of stakeholders that shapes the discourse and action on the energy transition lead to a lack of consistent and clear messaging on energy transition topics.
- Institutional inertia due to overreliance on government action or dominant players creates a powerful barrier to mobilising energy transition dialogue

(4) Capacity building & knowledge sharing

- Low knowledge sharing, lack of available data and limited capacity building opportunities are key non-technical challenges.
- The lack of independent 'knowledge holder' for the energy transition means that a lot of expertise is imported from outside the ASEAN region, and consequently may not be fully aligned with national or regional interests.

[1] Cambodia has recently also made the commitment to achieve carbon neutrality by 2050.

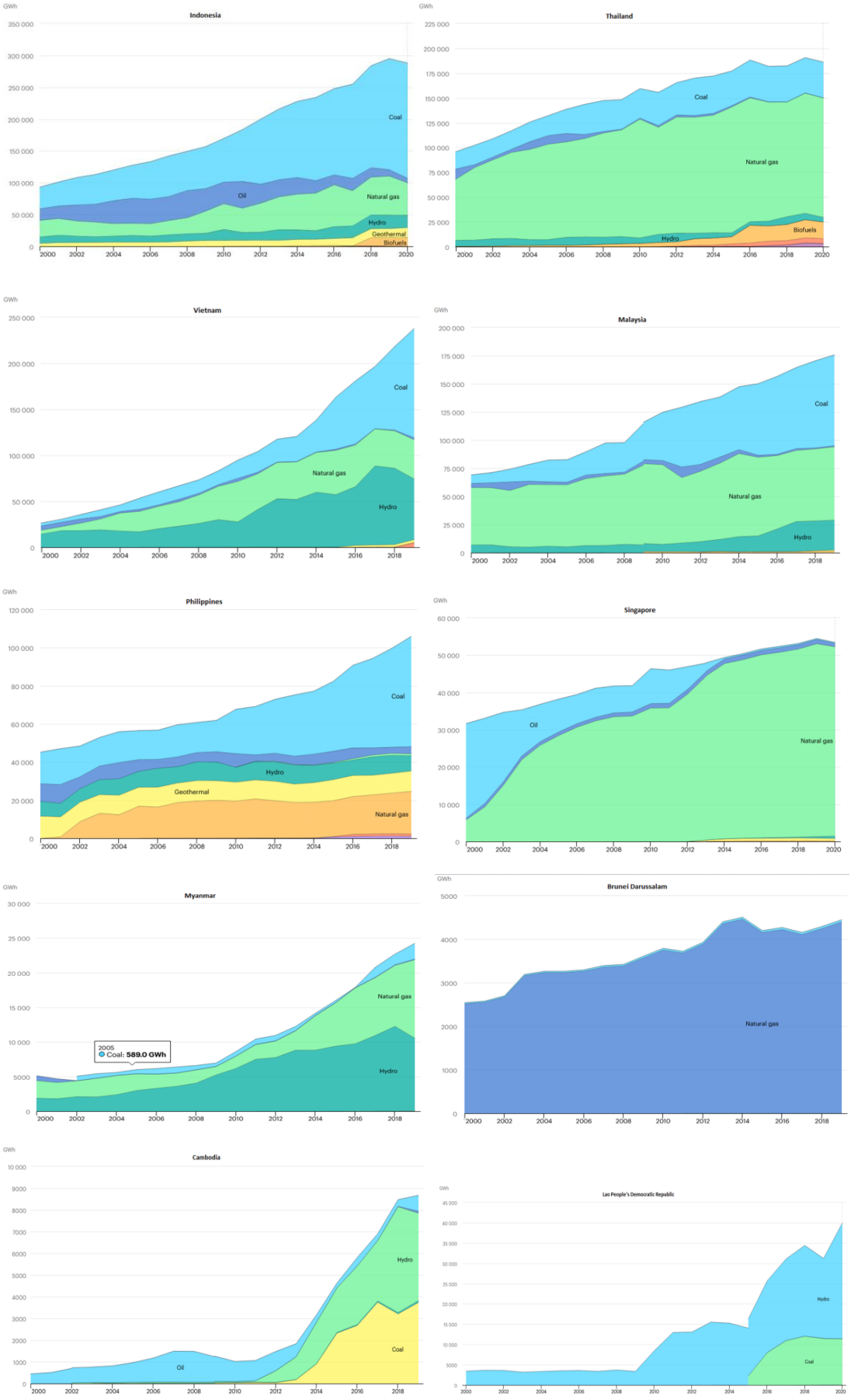
(5) Investment challenges

- High cost of capital remains a significant barrier for renewable energy deployment across the region.
- Renewable energy investments are perceived as high risk due underlying policy barriers e.g., regulatory, licensing and market inefficiencies. Stop-and-go policies increase developer risks.
- Local financial institutions have a relatively weak technical understanding of renewable energy project-based finance. The resulting gap of alternative financial derisking instruments constrains renewable energy deployment.

(6) Grid and regional market integration challenges

- The benefits of a regional grid are not yet well shared: Regional grid integration could be a regional solution to accommodate higher shares of renewables in all ASEAN countries.
  VRE grid integration challenges will appear separately in each country as shares of variable renewables increase.
- Current policy planning, market design and system operations in the region are not always based on updated processes and assumptions which represent additional barriers to the integration of renewables (e.g. prevailing idea of grid management with baseloads).

Figure 3: Electricity Generation in Southeast Asia 2000 - 2020. Data source: IEA, 2021.



PERSPECTIVES OF INDONESIA, THE PHILIPPINES, VIETNAM, AND AUSTRALIA ON ENERGY TRANSITION

In ASEAN, Indonesia and Vietnam have pledged to net-zero emission during COP26, while the Philippines have set a roadmap to 2030 and 2040 with 35% and 50% renewable energy (RE) in the power generation mix. All three countries aim to increase RE penetration based on their enormous potential for wind and solar, meanwhile, as a leading country in RE installation, Australia will soon surpass 50% RE in the power mix, which makes it an important learning case for ASEAN countries.

Indonesia, Philippines, and Vietnam (Table 1)

Bapak Harris, S.T., M.T

Director of Geothermal of the DG of New, Renewable Energy and Energy Conservation, Ministry of Energy & Mineral Resources

"The majority of our emission target in the energy sector will be achieved by using renewable energy. Indonesia has a very big potential of renewable energy, about more than 3,686 GW. The majority is solar, but we also have bioenergy, wind, geothermal and even ocean."

Mr Felix William Fuentebella

Undersecretary, Department of Energy Undersecretary, Department of Energy, Republic of the Philippines

"When we have more renewables, we need more capacity...so we need more investment even it's cheaper. The good side is we will create more jobs and more use of indigenous sources. Fast-tracking this requires a lot of synergies from the other agencies."

Ms Vu Chi Mai, Team Leader of Renewable Energy Component/ 4E cum Project Manager/CASE

"Vietnam already had the corridor for renewable energy and prepared for the energy transition. With the commitment of the Prime Minister last year, the Vietnamese government is more motivated to develop further policies and incentives for the energy transition.

To reach net-zero by 2050, according to Vietnam Energy Association, the share of renewable energy in installed capacity must account for 80-90%. It is a big challenge for Vietnam to ensure an affordable electricity price and reliable system."

Table 1: Renewable energy policies in Indonesia, the Philippines and Vietnam.

	Indonesia	Philippines	Vietnam
Target	■ Net zero-emission by 2060	■ 35% and 50% of RE in the power generation mix by 2030 and 2040	■ Net zero-emission by 2050
RE in the energy mix	■ 11.7% (11 GW) of installed capacity (2021)	■ 21.2% (101.8TWh) power generation (2020)	■ 32.8% (26.9% excluding small hydropower) installed capacity (2021)
Strategies to achieve the targets	Indonesia has set the roadmap for transition to Net-Zero Emission. The target is achieved through supply side and demand side measures. ■ Supply side: ▪ Develop more RE. ▪ Reduce the use of coal-fired plants. The most important program to phase out coal in Indonesia is through the ADB Energy Transition Scheme, which aims to reduce 16.2 GW of coal-fired power plants. ■ Demand: ▪ Electrify LPG-based cookstove and transportation vehicles.	The Philippines looks into offshore wind which has the capability to power 7 times the demand of the Philippines right now. Main mechanisms: ▪ Green Energy Options Program. ▪ Feed-in-Tariff. ▪ RE Trust Fund. ▪ Net-metering program. ▪ Green energy auction program. ▪ Energy efficiency.	Vietnam Power Development Plan 8 continues to be revised to reflect the net-zero target the Prime Minister pledged during COP26. **Policy in place:** ▪ Politburo's Resolution No. 55. ▪ Environment protection Law 2020. ▪ Regulatory for RE/EE: FIT, Vietnam National Energy Efficiency Program (VNEEP). ▪ Road map for Smart Grid, retail market. ▪ Acceptance of RE. **Ongoing and future:** ▪ Revision of the electricity law; investment law, bidding law; Direct power purchase agreement. ▪ Green financing Mechanism. ▪ RE Law. ▪ Revision of EE Law. ▪ Innovative regulations for storage and battery. ▪ Identify an approach to further deploy clean energy. ▪ Legal framework for green mobility.

AUSTRALIA

***Prof. Ken Baldwin**, Founding Director, ANU Grand Challenge, Zero-Carbon Energy for the Asia-Pacific, Australian National University*

Australia is leading the world in terms of annual per capital RE installation. It had 250W added capacity per capita in 2019, which is about 10 times greater than the world average (Figure 4). Australia has particularly witnessed a dramatic growth in solar PV (both utility-scale and rooftop solar). While the energy system is gradually electrified to replace fossil fuel in heating and transport, electricity demand can be doubled by 2040 and tripled by 2050.

Currently, South Australia has over 60% RE in the power mix, while in other states, renewables share is about 30%. The country is expected to reach 50% RE installed capacity by 2025 and there are already periods in the year where South Australia's RE penetration exceeds 100% for short intervals.

High penetration of variable renewable energy (VRE) at over 50% poses challenges for system operations and integrity. Australia is also leading the world in solving these challenges with major innovations and investments in energy storage, distributed energy resources, transmission infrastructure and system controls. This will be a very important test case for countries that later come to that point.

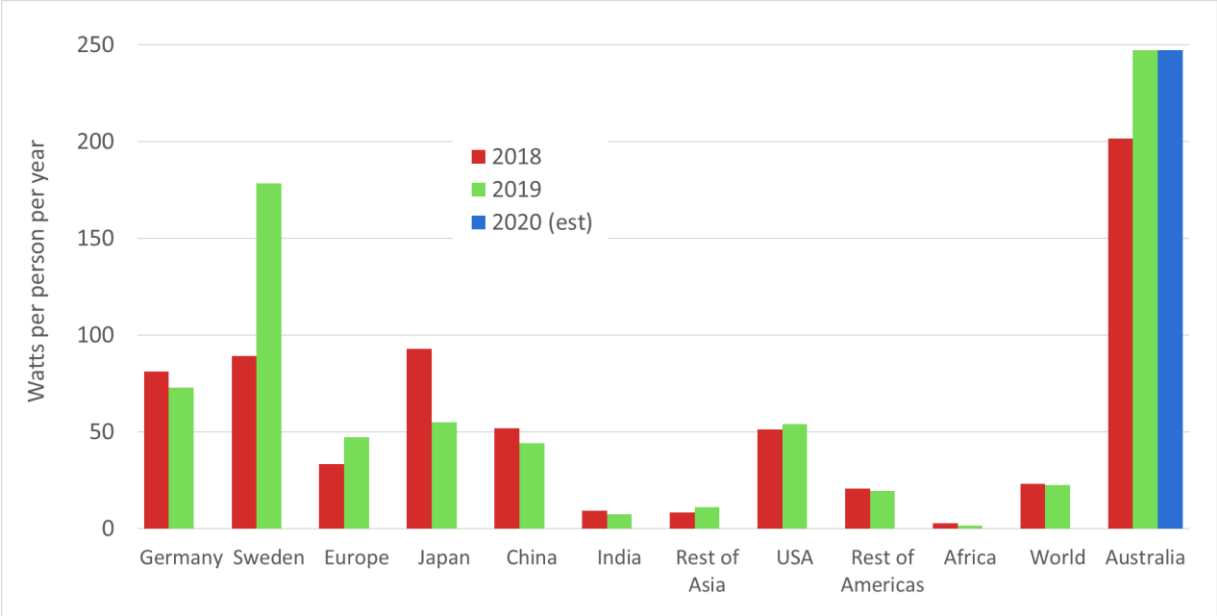


Figure 4: Deployment speed of PV and wind for 2018 (red) and 2019 (green) in terms of Watts per person per year [IRENA]. The estimate for Australia in 2020 (blue) from the Clean Energy Regulator is also included.

PLENARY DISCUSSION

WHAT ARE THE KEY ENERGY TRANSITION CHALLENGES IN INDONESIA, THE PHILIPPINES AND VIETNAM?

A survey taken with 463 participants from 22 countries indicates 15 main challenges, noticeably policy uncertainty, access to finance, fossil fuel reliance, renewable storage options, technical capacity and the lack of grid infrastructure. Participants from Indonesia and Vietnam see policy uncertainty as the most pronounced challenge, while in the Philippines, the greatest difficulty is access to finance. In Vietnam, with a rapid increase in new installed RE capacity, underdeveloped grid capacity is also a major issue.

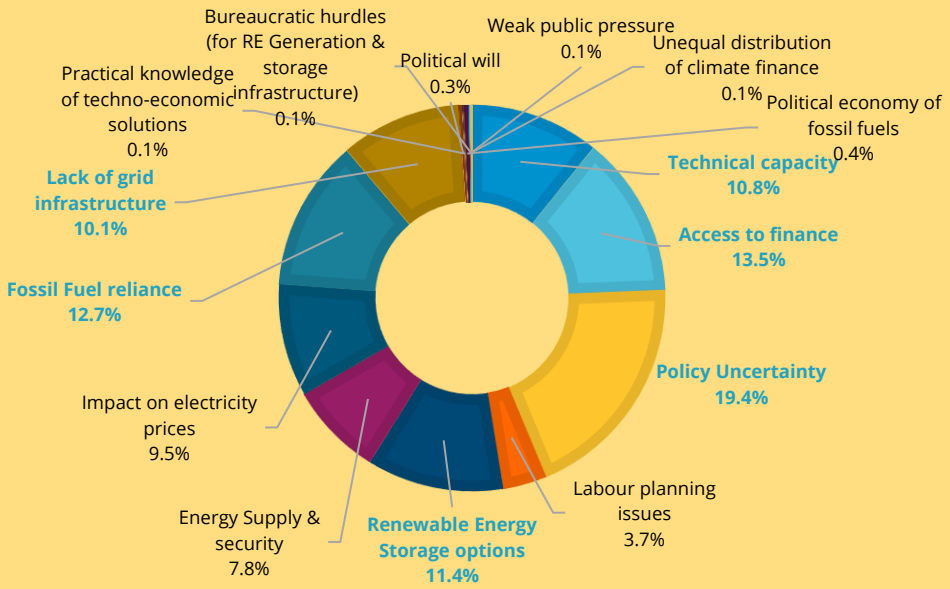


Table 1 Major challenges in energy transition

Indonesia	Philippines	Vietnam
1. Policy Uncertainty (21%) 2. Access to finance (15%) 3. Fossil Fuel Reliance (14%).	1. Access to finance (16%) 2. Technical capacity (15%) 3. Fossil Fuel Reliance (13%).	1. Policy Uncertainty (18%) 2. RE storage options (17%) 3. Lack of grid infrastructure (17%).

DISCUSSION WITH THE PANELISTS

Question:

As an island country, how important is the decentralized characteristics of renewables in the energy transition in Indonesia?

Bapak Harris, S.T., M.T

Director of Geothermal of the DG of New, Renewable Energy and Energy Conservation, Ministry of Energy & Mineral Resources

Answer:

"It is very important. Indonesia has more than 17,000 islands, it is very difficult to use a single national transmission line, so we try to develop distributed power plants on each island based on their own possibility and potential of renewable energy.
We have several programs to accelerate energy access for the islands. Where we already have the existing grid transmission of distribution, we would try to expand the grid. We are also trying to develop communal renewable energy where it is too difficult to expand the existing grids. Meanwhile, we have programs to develop standalone renewable energy systems such as solar lanterns for a single house or battery that will be charged in a charging station and used to power the house".

Question:

At COP26, the Philippines did not make the commitment to net zero emission, can you talk a little bit about the decision to make the pledge or not? What are barriers and challenges entailed.

Mr. Felix William Fuentebella

Undersecretary, Department of Energy Undersecretary, Department of Energy, Republic of the Philippines

Answer:

"The Philippines is known as aggressive as far as its local program towards RE and clean energy scenarios is concerned. What we are looking into, before we are making any pledge, we have to make sure that the numbers are collected and we have the metrics supporting it. When we say we are going to 35% RE by 2030 and 50% by 2040, It means that we can really do it and that is still being conservative. Now as far as going toward net-zero, what we pledge is we will be responsible, and we will move forward with accountability, we will be very aggressive in pursuing our nationally determined contribution."

Question:

For Vietnam, RE storage and lack of grid infrastructure are coming up as important issues for Vietnam, could you please explain why it is the case?

Ms Vu Chi Mai

Team Leader of Renewable Energy Component/4E cum Project Manager/CASE

Answer:

"We see recently a very strong development of solar PV in Vietnam, not only ground-mounted but also solar rooftop, accounting for about 20% installed capacity only after 2 years. Also, for wind energy, in the power development plan 8, we planned to have 800MW by 2020, but then by end of 2021, the installed capacity is almost 4GW, which is 5 times higher than being planned. Solar power is also 20% higher than being planned. That is because of the very dynamic development of solar and wind, because of the attractive policy framework for Vietnam as well as the strong decrease of solar panel price.

In addition, the time for project development, particularly for solar is very short – one can be developed within 6 to 8 months, while the grid infrastructure in VN invested by EVN needs at least 3 years. We see there is a big gap between the timelines, which is making curtailment happen in Vietnam. That's why storage and infrastructure are hot topic in Vietnam."

Question:

Policy uncertainty is identified as the major barrier in energy transition in Indonesia, could you please elaborate what are the kinds of uncertainty that we see in the policy environment in Indonesia? What is needed to turn uncertainty to confidence for investors and for others?

Ms. Moekti Handajani Soejachmoen

Executive Director, Indonesia Research Institute for Decarbonisation (IRID)

Answer:

"Policy uncertainty has been a big issue, I think it's basically because of two main issues. The first one is the inconsistency of policies, in terms of sectoral policies – there are different policies in different sectors that sometimes compete with each other rather than synergizing. The second one is uncertainty in long term, like there is a new policy coming up relatively in a short time, so there is no clarity basically. With that uncertainty, investor and other business players cannot do the best planning and strategies for their business.

What we need is definitely the synergy of different of policies in different sectors but also making sure that there will be a long-term policy, not only on energy issues but also on finance, environmental issues and others."

Question:

From the Indonesia perspective, what are the different roles of regulation and market? Where do you see as the big opportunities for Indonesia?

Dr. Alin Halimatussadiah

Head of Environmental Economics Research Group, The Institute of Economic & Social Research, Universitas Indonesia

Answer:

"For the market particularly for electricity, we are quite a newbie here. If we look at the ten-year electricity plan, we see a lot of small projects and we hope that local players can play a significant role. But the problem is because we are new in this market, so the homework is capacity, for example in preparing the proposal as we know the proposal is quite important because a good proposal can help us access international finance or other kinds of soft financing that needs quite high standards e.g. Environmental and Social Impact Assessment, good feasibility study and other kinds of preparation. This can be an opportunity but also a challenge. We have big players also and how to build a good ecosystem between local players and big national also international players so we can learn together."

Question:

What are the challenges in access to finance for RE infrastructure in the Philippines and what we can do?

Dr. Lloyd C. Bautista

Ateneo School of Government,
Ateneo de Manila University

Answer:

"Access to finance is one of the challenging problems in the Philippines because of our dependence on coal-powered power plants, and many coal-powered power plants are owned by the private sector. There is now a need for it to transition to RE.

In addition, we need to modernize the grid to allow variable RE and other energy storage systems. This is something that the government is looking into. If you also look closely at the percentage, the concerns of finance and technical capacity are just 1% difference because they are 2 sides of the same coin. It is not only to access the finance but also the capacity to absorb the finance, so the availability of the finance will be dependent on the accessibility or the capacity for many of these firms to access that finance. Government right now through the effort of the department of energy, our central bank and the department of finance are concertedly putting effort to come up with an energy financing and strategic investment plan.

The idea here is because we have a very ambitious NDC to reduce GHG by 75%. Our intention is to optimize and shift to RE by 2030. This fossil fuel reliance hinges on the fact that our mass transport system is totally dependent on fossil fuel, particularly of which is petrol which we import abroad. This is the situation right now in the PH. If you look at policy directly, it is not a problem anymore in the Philippines because we established the right policy framework with the support of the national government, it is just a matter of how we push the necessary buttons to create the economic incentive for many of these firms to access and to appeal finance."

Question:

Which of the lessons from Australia will be the most immediately useful for ASEAN region?

Prof. Frank Jotzo

Head of Energy, Institute for Climate, Energy & Disaster Solutions, Australian National University

"The very key aspect of the Australian energy transition is that the shift away from coal-fired power station and towards renewable energy is already underway and it's underway rapidly; including in one far-flung part of electricity grid in South Australia - Adelaide and the rural areas around that city where we now supply 100% of grid-based electricity from wind and solar at many times of the week and the year. That's working technically fine and electricity prices in the market have indeed fallen over the time that renewable energy is really taking off there.

Australia will be able to share technological insights from this in terms of grid management, grid integration and decentralized renewable energy generation, but also some of the regulatory aspects that come into it as well as electricity market design.

There is a big hope in Australia that is an emerging economy of energy exports based on clean energy renewable energy -based energy exports. That is obviously unity of not just for Australia but also for certain regions within countries of the ASEAN."

UPCOMING ACTIVITIES

SOUTHEAST ASIA ENERGY TRANSITION PARTNERSHIP

The Southeast Asia Energy Transition Partnership (SEA - ETP) is a multi-stakeholder platform that aims to accelerate energy transition in Southeast Asia and deliver the Paris agreement targets on climate change by bringing together Government Donors, Philanthropies and Partner Governments.

ETP is a unique program in the way it brings together philanthropies with governments, as such the forces and the networks that the partnership brings together are able to push and press on the acceleration of energy transition. ETP's fund is managed by the United Nations Office for Project Services (UNOPS), from their ASIA office based in Bangkok, Thailand with staff in each of the operating countries.

Part of ETP, Energy Transition Round tables is responding to multidimensional knowledge needs of policymakers, business stakeholders and civil society in the energy transition. This is a two-year capacity building and networking program that aims to provide an opportunity for the region's energy transition stakeholders – in particular, mid-career policy-makers from identified Southeast Asia countries (Vietnam, Indonesia and the Philippines) and regional level bodies – to engage in an intensive roundtable series on the energy transition. The program aims to equip leaders with tools and concepts and knowledge to communicate and navigate energy transition processes, address impediments and provide solutions to the most pressing energy transition issues.

ROUNDTABLE EVENTS IN 2022 AND 2023	
Mar 2023	**Energy transition dialogue** is an annual public forum designed to reach a wide and diverse audience and take stock of progress & challenges facing the energy transition. **The next energy transition dialogue will be organized in March 2023.**
Mar – July 2022	**Energy Transition Masterclass** is a 20-week structured training course designed to build common understanding and skills of ETP participants in the core concepts, ideas and approaches underpinning a sustainable and just energy transition.
July – Oct 2022	**Deep Dives** are a national-level program of round tables structured around three working sessions events on how hot-topic policy issue over 3 months.
Oct 2022 and 2023	**COP policy dialogue** is a high-level annual event designed to provide ETP with an audience to discuss NDCs and COP preparations with national government delegations to COP.
Oct 2023	**National Review** is an opportunity for the ETP to come together and review national energy transition progress, discuss major challenges and setbacks that national energy transition has experienced and to share the lessons across countries.

CLEAN, AFFORDABLE AND SECURE ENERGY FOR SOUTHEAST ASIA (CASE)

The programme "**Clean, Affordable and Secure Energy for Southeast Asia" (CASE)** is funded by the German Federal Ministry of the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV), and jointly implemented by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and international and local expert organisations in the area of sustainable energy transformation and climate change: Agora Energiewende and NewClimate Institute (regional level), the Institute for Essential Services Reform (IESR) in Indonesia, the Institute for Climate and Sustainable Cities (ICSC) in the Philippines, the Energy Research Institute (ERI) and Thailand Development Research Institute (TDRI) in Thailand, and Vietnam Initiative for Energy Transition (VIET) in Vietnam.

In 2022, at the regional level, CASE is going to launch the Southeast Asia Information Platform for Energy Transition (SIPET) functioning as Power Sector Tracking Tool, Database and Project Mapping, Power Sector Database, Power Sector Database, Knowledge and Research Hub, Event Promotion and News Feed. It also aims to learn and scale up the annual event "Indonesia Energy Transition Dialogues" into the Regional SEA Energy Transition Dialogue (Nov 2022). There will be many research activities happening at the regional and country level.

Research priorities:

- Region: power sector review, international finance and the role of gas
- Indonesia: renewable energy upscaling/integration, coal phase down and just transition and sustainable energy finance.
- Philippines: grid flexibilities; technical reports/repackaging of evidence.
- Vietnam: Study on Long-term Energy Planning and co-benefits of energy transition, power grid planning and investment, mechanisms for investing in clean power supply
- Thailand: De-carbonization roadmap, derisking renewables investment.

DOWNLOAD

Presentations at the event: Here

Recording of the event is available on Youtube