



KEMENTERIAN ENERGI DAN SUMBER DAYA MINERAL  
REPUBLIK INDONESIA



G20  
SEMINAR  
SERIES  
REPORT

UNLOCKING INNOVATIVE  
FINANCING SCHEMES  
AND ISLAMIC FINANCE  
TO ACCELERATE  
JUST ENERGY TRANSITIONS  
IN EMERGING ECONOMIES

## WELCOMING REMARKS

### YUDO D. PRIAADI

Chair of Energy Transitions  
Working Group (ETWG) G20 2022

### ANDREW HUDSON

CEO, Centre for Policy Development (CPD)

## KEYNOTE SPEECHES

### H.E. SRI MULYANI INDRAWATI

**Minister of Finance of the Republic of Indonesia**  
*Innovative Government Budgeting Strategy for Energy Transitions: the Indonesian Case*

### H.E. ARIFIN TASRIF

**Minister of Energy and Mineral Resources of the Republic of Indonesia**  
*Defining Complete Financing Needs for Energy Transitions: the Indonesian Case*

### H.E. MAHENDRA SIREGAR

**Chairman of the Board of Commissioners, Indonesian Financial Service Authority (OJK)**  
*Developing an Innovative Regulatory Framework to Boost Financial Institutions' Appetite for Financing Energy Transitions: the Indonesian Case*

### H.E. MA'RUF AMIN

**Vice President of the Republic of Indonesia**  
*Islamic Finance as an Innovative Solution for Just Energy Transitions*

## PANEL 1

### OPTIMIZING THE ROLE OF INNOVATIVE DOMESTIC PUBLIC FINANCE, INCLUDING ISLAMIC-BASED FINANCING, IN LEVERAGING ENERGY TRANSITIONS FINANCE IN EMERGING ECONOMIES

Introductory remarks by **Peter Wooders, Senior Director, International Institute for Sustainable Development (IISD)**

Moderator: **Moekti Handajani Soejachmoen**, Lead Co-Chairs TF3 – T20 Indonesia, Executive Director of Indonesia Research Institute for Decarbonization (IRID)

#### Speakers:

1. **Amanda McLoughlin**, Development Director, British Embassy to Indonesia and Timor Leste
2. **Grace Tam**, Director Investment, Clean Energy Finance Corporation (CEFC)
3. **Adi Budiarmo**, Ministry of Finance, Republic of Indonesia
4. **Mercy Chriesty Barends**, Member of the House of Representatives, Republic of Indonesia
5. **Alexander Hogeveen Rutter**, Private Sector Specialist, International Solar Alliance

## PANEL 2

### EXPLORING THE ROLE AND APPETITE OF NON-STATE ACTORS IN FINANCING ENERGY TRANSITIONS AND FOR ISLAMIC FINANCE AS AN INNOVATIVE SOLUTION FOR JUST ENERGY TRANSITIONS

Introductory remarks and discussion led by moderator, **Anna Skarbek**, CEO, Climateworks Centre

#### Speakers:

1. **Ir. Satya Widya Yudha, M.Sc., Ph.D (c)**, Member of National Energy Council, Republic of Indonesia
2. **Rebecca Mikula-Wright**, CEO, the Asia Investor Group on Climate Change (AIGCC)
3. **Martijn Wilder AM**, Founder and CEO, Pollination Group (Climate Change Investment and Advisory)
4. **Jenn-Hui Tan**, Global Head of Stewardship and Sustainable Investing, Fidelity International
5. **Rizky Budinanda**, Group Head Investor Relation, Bank Syariah Indonesia

6. **Pradana Murti**, Risk Management Director, PT Sarana Multi Infrastruktur (SMI)

## PANEL 3

### UNDERSTANDING THE NEEDS FOR INCLUSIVE ENERGY TRANSITIONS FINANCING

Introductory remarks by **Fabby Tumiwa**, Executive Director, Institute for Essential Services Reform (IESR)

Moderator: **Moekti Handajani Soejachmoen**, Lead Co-Chairs TF3 – T20 Indonesia, Executive Director of Indonesia Research Institute for Decarbonization (IRID)

#### Speakers:

1. **Daniel Raimi**, Fellow, Resource for the Future
2. **Bambang Widianto**, Member of the Global Council on Sustainable Development Goals
3. **Dr. Filda Yusgiantoro**, Chairperson, Purnomo Yusgiantoro Center (PYC)
4. **Udetanshu**, Principal of Carbon Free Electricity, Rocky Mountain Institute (RMI)
5. **Stefanie Fairholme**, Director of Investments, Global Energy Alliance for People and Planet (GEAPP)
6. **Amjad Abdulla**, Head Partnership, International Renewable Energy Agency (IRENA)

## CLOSING REMARKS

### Prof. Bambang P.S. Brodjonegoro

Lead Co-Chairs T20 Indonesia  
Minister of Research and Technology (2019 – 2021);  
Minister of National Development Planning (2016 – 2019);  
Minister of Finance Republic of Indonesia (2014 – 2016)



# G20 SEMINAR SERIES REPORT

## Unlocking Innovative Financing Schemes and Islamic Finance to Accelerate Just Energy Transitions in Emerging Economies

In an official G20 Seminar facilitated by the Energy Transitions Working Group (ETWG) on July 27, 2022, expert panellists unpacked how governments and industry can finance, manage and collaborate on energy transitions across the Indo-Pacific region and within emerging economies.

The event was co-hosted by the Centre for Policy Development (CPD), Climateworks Centre, T20 Indonesia, the International Institute for Sustainable Development (IISD), Institute for Essential Services Reform (IESR), Indonesia Research Institute for Decarbonization (IRID), and the Asia Investor Group on Climate Change (AIGCC).

The Seminar featured keynote addresses from Indonesian Vice President Ma'ruf Amin, Indonesian Minister of Finance Sri Mulyani Indrawati, Indonesian Minister of Energy and Mineral Resources Arifin Tasrif, and Chair of the Board of Commissioners of the Indonesian Financial Services Authority Mahendra Siregar.

In his opening remarks, CPD CEO Andrew Hudson emphasised that energy transitions can create enormous economic, environmental and social benefits across all economies.

"We must be willing to embrace change in a way that protects the wellbeing of those most affected by transitions," he said.



## CONTENTS

<b>Welcoming Remarks</b>	<b>1</b>
<b>Keynote Speeches</b>	<b>1</b>
<b>PANEL 1.</b> Optimizing the Role of Innovative Domestic Public Finance, including Islamic-based Financing, in Leveraging Energy Transitions Finance in Emerging Economies	<b>1</b>
<b>PANEL 2.</b> Exploring the Role and Appetite of Non-state Actors in Financing Energy Transitions and for Islamic Finance as An Innovative Solution for Just Energy Transitions	<b>1</b>
<b>PANEL 3.</b> Understanding the Needs for Inclusive Energy Transitions Financing	
<b>Closing Remarks</b>	<b>1</b>
<b>Indonesia's energy future</b>	<b>3</b>
Highlights from Indonesian Government officials	4
<b>Catalysing global capital</b>	<b>5</b>
Highlights from investor perspective	6
<b>Innovative and Islamic finance models</b>	<b>7</b>
Highlights from innovative and Islamic finance perspective	8
<b>Our path forward together</b>	<b>9</b>
Recommendations, conclusions and next steps	9
<b>The event</b>	<b>10</b>
<b>Acknowledgement</b>	<b>11</b>

# INDONESIA'S ENERGY FUTURE

As the 2022 G20 President and ASEAN Chair in 2023, Indonesia has a unique opportunity to engage its regional partners and build cooperation on climate change issues.

This is particularly the case for energy transitions, which Indonesia has chosen as one of its three strategic focus areas for its G20 Presidency.

“Unlocking innovative financing schemes and Islamic finance will be highly essential to accelerate just energy transitions.” - **Yudo Dwinanda Priadi**, Chair of the Energy Transitions Working Group (ETWG).

At the G20 Seminar, Indonesian Finance Minister **Sri Mulyani Indrawati** presented a national platform for energy transitions mechanism (ETM) to phase-down coal power plants. This platform builds on a proposal being developed by the Asian Development Bank and supported by developed countries in the G7.

The Minister said Indonesia wanted to make a concrete announcement on the ETM by the G20 Leaders Summit in November, and recognised in her speech at the ETM would need to be “rigorous” and provide a demonstration transaction to attract additional finance.

Vice President **Ma'ruf Amin** emphasised that energy transitions need to take into account local needs: “The achievement of these targets should not ignore the important aspect of justice for the community. Just energy transitions are the goal we all want to achieve.”

Minister of Energy and Mineral Resources, **Arifin Tasrif**, said Indonesia will need investment of US\$1 trillion to support effective energy transitions to achieve net zero emissions by 2060.

“Within this roadmap, we aim to develop almost 600GW of renewables in the energy mix, coming from solar, hydro, ocean, geothermal, as well as hydrogen.”

Under the national electricity utility *Perusahaan Listrik Negara* (PLN) National Electricity Supply Business Plan, a majority of new energy projects this decade will be renewable. Renewables will account for 51.6 percent of 40.6GW of new energy projects by 2030 under the plan. Indonesia reached 11.5 percent renewables as part of its energy mix in 2021, with the aim of reaching

15.7 percent in 2022, said Indonesian House of Representatives Member, **Mercy Christy Barends**. As **Bambang Widianto**, Special Staff to the Indonesian Vice President, noted, Indonesia's National Energy Plan aims to reduce coal from 25 percent of the national energy mix to 10 percent and increase renewable energy to 23 percent by 2025.

**Satya Widya Yudha** of the National Energy Council noted there was lots of opportunity for investment in clean energy outside of Java, including in Sulawesi and 6,000MW in Sumatra.

“There is an opportunity for investors to step in now. Not 2030, not 2035 ... we don't want to wait.” - Satya Widya Yudha

## What needs to be done:

- » Seek to attract both public and private international finance through a commitment to the ETM and by establishing complementary goals to retire coal power capacity ahead of its technical and commercial life.
- » Establish technical pathways and implement supporting policies that more clearly identify when, where and at what scale different forms of renewable energy should be adopted.
- » Promote equal access for the poor to energy by removing entry barriers for households to acquire low-carbon technology such as distributed solar systems.
- » Include the voices of rural poor, vulnerable, or other marginal communities in the decision-making process around energy transitions in order to increase their roles and sense of ownership of the transition and their control over technologies that affect their lives.
- » Further develop carbon pricing mechanisms to strengthen market signals for energy developers and heavy industry to reduce emissions.
- » Expand more immediate decarbonisation initiatives such as efforts to convert motorcycles into electric vehicles.
- » Identify additional complementary incentives or disincentives beyond carbon pricing to support green projects, accelerate sustainable financing, and improve financial instruments.



# HIGHLIGHTS FROM INDONESIAN GOVERNMENT OFFICIALS



## MA' RUF AMIN

*Vice President of the Republic of Indonesia*

"The achievement of these targets should not ignore the important aspect of justice for the community. Just energy transitions are the goal we all want to achieve."



## ARIFIN TASRIF

*Minister of Energy and Mineral Resources*

"Within this roadmap, we aim to develop almost 600GW of renewables in the energy mix, coming from solar, hydro, ocean, geothermal, as well as hydrogen."



## YUDO DWINANDA PRIAADI

*Chair of the Energy Transitions Working Group (ETWG)*

"Unlocking innovative financing schemes and Islamic finance will be highly essential to accelerate just energy transitions."



## SATYA WIDYA YUDHA

*The National Energy Council*

"There is an opportunity for investors to step in now. Not 2030, not 2035 ... we don't want to wait."



# CATALYSING GLOBAL CAPITAL

Close, intelligent cooperation is the key to accelerating energy transitions across all economies while meeting development goals and ensuring the prosperity of all nations.

Energy system costs are lower when they have shifted to majority renewable energy, while investment portfolios are higher value when decarbonisation is achieved. Energy transitions will require a wholesale change in the way we produce, store and consume energy, as noted by Global Head of Stewardship and Sustainable Investing at Fidelity International, **Jenn-Hui Tan**.

According to **Rebecca Mikula-Wright**, CEO of Asia Investor Group on Climate Change (AIGCC), investment in energy transitions is currently “grossly insufficient” for the scale of the challenge.

Finance providers - both public and private - increasingly want to align their funding with the Paris Agreement and Sustainable Development Goals, said **Anna Skarbek**, CEO of Climateworks Centre.

“There is no shortage of global capital looking for new energy transitions.” - **Martijn Wilder**, founding partner of Pollination Group.



Mr Wilder said development banks need to work more closely with governments and the private sector, and start de-risking some of the investments that need to occur.

**Pradana Murti, Risk Management Director at PT Sarana Multi Infrastruktur**, said just energy transitions that consider workers, indigenous peoples and cultural heritage will need a combination of both international best practice and local wisdom.

“ASEAN nations, and Indonesia in particular, can realise their renewable energy potential, without compromising growth or increasing costs.” - Rebecca Mikula-Wright

## What needs to be done:

» Energy market reform similar to the Philippines and Singapore to help facilitate new clean energy projects, complement the ETM and attract private investment.

- » Development of innovative and localised solutions to attracting private finance such as blended finance and other sustainable finance policy, including green taxonomies consistent with global standards.
- » Governments should note that institutional investors are deepening engagement with state-owned enterprises and other Indonesia companies, including PLN and other utilities, on energy transitions and other climate risk issues, and consider the implications of their policy settings for attracting global capital in this environment.
- » Indonesian development banks should work closely with investors to help de-risk projects where private activity is currently sluggish. This would be assisted by a clear policy trajectory and project pipeline for development, including resources and capability needs.”



# HIGHLIGHTS FROM INVESTOR PERSPECTIVE



## **PRADANA MURTI**

*Risk Management Director at PT Sarana Multi Infrastruktur*

“Just energy transitions that consider workers, indigenous peoples and cultural heritage will need a combination of both international best practice and local wisdom.”



## **ANNA SKARBEK**

*CEO of Climateworks Centre*

“Finance providers - both public and private - increasingly want to align their funding with the Paris Agreement and Sustainable Development Goals.”



## **REBECCA MIKULA-WRIGHT**

*CEO of Asia Investor Group on Climate Change (AIGCC)*

“ASEAN nations, and Indonesia in particular, can realise their renewable energy potential, without compromising growth or increasing costs.”



# INNOVATIVE AND ISLAMIC FINANCE MODELS

Blended and innovative finance, including Islamic finance in the context of Muslim-majority countries like Indonesia, has massive potential to help drive clean energy transitions in emerging economies.

**Vice President Ma'ruf Amin** emphasised that sustainable finance aligns closely with the principles of Islamic finance.

Islamic endowments, known as waqf, can be used not only for the construction of mosques but also those that benefit the community and the sustainability of life, he said.

"There is enormous potential to develop sukuk or Islamic bonds as an instrument to raise funds from the public to finance energy transitions." - Ma'ruf Amin.

"Indonesia launched the world's first Green Sukuk (Green Islamic Bond) in 2018 to support climate change mitigation and adaptation. Over \$3 billion was raised during its first two years." noted **Peter Wooders, of IISD** when discussing the role of public finance and innovative models.

Islamic finance can be employed in ETM or other blended finance structures. A study from Convergence showed current blended finance flows averaging around US\$9 billion annually from 2015-2019.

Former Indonesian minister and economist, **Bambang Brodjonegoro**, pointed to the use of blended finance to develop and revitalise micro hydropower plants in Jambi with a total capacity of 180kW, providing electricity for four remote villages.



The establishment of the plants was supported by Baznas, UNDP and the Indonesian Government.

"The potential of blended finance in the energy sector is immense." - Bambang Brodjonegoro

## What needs to be done:

- » Promote preservation of the natural environment in line with key Islamic principles.
- » Amplification of the need to uptake sukuk and Islamic bonds and increase investors' awareness of the mechanism by Indonesia and Organisation of Islamic Cooperation (OIC) countries.
- » Create opportunities for Islamic finance to be included within the blended finance mechanism and enhance, both private and public financial institutions' demand to pursue Islamic financing.





# HIGHLIGHTS FROM INNOVATIVE AND ISLAMIC FINANCE PERSPECTIVE



## MA'RUF AMIN

*Vice President of the Republic of Indonesia*

"There is enormous potential to develop sukuk or Islamic bonds as an instrument to raise funds from the public to finance energy transitions."



## PETER WOODERS

*International Institute for Sustainable Development (IISD)*

"Indonesia launched the world's first Green Sukuk (Green Islamic Bond) in 2018 to support climate change mitigation and adaptation. Over \$3 billion was raised during its first two years."



## BAMBANG BRODJONEGORO

*Former Indonesian minister and economist*

"The potential of blended finance in the energy sector is immense."



# OUR PATH FORWARD TOGETHER

Tens of billions of dollars are still invested every year in fossil fuels. There is enough global capital to fund energy transitions, but we need to re-direct financial flows towards decarbonisation projects.

“Indonesia has a lot of potential in geothermal, hydro, solar, and wind power, and even ocean energy power which requires a lot of capital which is not easily obtained during the current economic downturn.” - **Bambang Widianto**, Vice Presidential Special Staff.

As governments plan the pathway out of the pandemic, we must ensure that every country has the chance to become part of energy transitions that will improve the wellbeing of people and the planet, said **Fabby Tumiwa**, Executive Director of IESR.

This requires people-centred energy transitions approaches, with a focus on skills, decent jobs, and social and economic development, that protect the most vulnerable.

“There are great opportunities that will be coming in on jobs in terms of the value creation from the addition of renewables, green economy, clean technologies but we also need to bear in mind on where the most impact is happening” - **Udetanshu**,

Principal of Carbon Free Electricity, Rocky Mountain Institute (RMI).

**President Joko Widodo** has said that Indonesia needs at least US\$30 billion to finance energy transitions in the next eight years.

“Indonesia cannot act alone, and financial needs for a balanced transition are of such high order that international cooperation between financing bodies is important.” - **Mahendra Siregar**, Chair of Board of Commissioners, OJK.

As **Satya Widya Yudha** of the National Energy Council said, all sectors are committed to transition and the vehicle has been established by the government with the ETM.

“Indonesia can achieve peak CO2 emissions by around 2025 without an increase in the system cost, due to the lower costs of solar and wind compared to fossil fuels.” - **Rebecca Mikula-Wright (AIGCC)**.

The opportunity this gathering represents is enormous; the prize on offer is invaluable and the consequences of failure too grave to contemplate. – **Andrew Hudson**, CEO, CPD.

## RECOMMENDATIONS

- » Ensure agreements made at the G20 Energy Transitions and Leaders meeting in 2022 are implemented and momentum is sustained into 2023 and beyond, including through the ASEAN agenda.
- » Spark regional and global collaboration to create a global framework for energy transitions policy that embeds justice, development and affordability issues.
- » Establish ongoing, regular and formalised dialogue, skill sharing and financing opportunities between the Indonesian and Australian Governments on decarbonisation, leveraging the Indonesia-Australia Comprehensive Economic Partnership Agreement.
- » Complement this dialogue by supporting a 1.5 track process on climate and energy between public and private actors across the two countries that will continue to progress this policy development beyond Indonesia’s G20 presidency.







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## ACKNOWLEDGEMENT

On the road to the G20 Summit, the Energy Transitions Working Group (ETWG) Indonesia G20 2022 and T20 Indonesia, in collaboration with the Centre For Policy Development (CPD) Australia, Climateworks Centre, International Institute for Sustainable Development (IISD), Indonesia Research Institute for Decarbonization (IRID), and the Institute for Essential Services Reform (IESR), supported by Asia Investor Group on Climate Change (AIGCC), organized a G20 pre-event workshop on “Unlocking Innovative Financing Schemes and Islamic Finance to Accelerate Just Energy Transitions in Emerging Economies.”

This event aimed to explore a complete picture of the additional policies and financing mechanisms required to finance energy transitions as a basis for starting discussions or negotiations on a comprehensive package with government and non-government actors. The financing aspects discussed did not only include the transition of the energy and electricity system to clean sources, but also other non-project financing including employment transition, safeguarding the budget, and social safety nets.

