

International Seminar

GLOBAL ENERGY TRANSITION AND FUTURE OF COAL

Background

The IPCC Special Report 1.5°C, published in October 2018, analyzed various climate change impacts that can be avoided by limiting the increase to 1.5°C above pre-industrial levels¹. It is found that the global greenhouse gas (GHG) emission must reach the peak level in 2030 and then dramatically decrease to net-zero emission in 2050. The prerequisites to meet the target as follows: 1) global emission must be decreased by 2030, and it is equivalent to 45% of the 2010 emission level (20 GtCO₂eq); 2) coal consumption must be cut as much as 59 – 78% from the 2010 level and no more coal after 2050; 3) oil consumption must be lessened as much as 32 – 87% from the 2010 level; 4) 85% of the world's electricity supply by 2050 comes from renewable energy; 5) net-zero global emission by 2050.

On the other hand, Indonesia's energy consumption increases strongly. Data from the Ministry of Energy and Mineral² shows there was a 30% increase in Indonesia's energy consumption in 2017 compared to the 2007 level. Besides, World Bank Data shows Indonesia's energy consumption in 2014 was 812 kWh per capita or 26% of the world average; which rose to 1,021 kWh per capita in 2017 (MEMR, 2018). To meet electricity growth, Indonesia depends heavily on fossil fuel power plants, dominantly coal. According to the PLN's Electricity Supply Business Plan (RUPTL 2018-2027), the amount of capacity planned to build until 2027 reaches 56 GW: of which 48% is a coal power plant, and 26% is a gas power plant.

Indonesia must take dramatically climate change mitigation action in the electricity sector. According to the projections of the Climate Action Tracker³, total Indonesia's emission (excluding LULUCF) is equivalent to 3.75 – 4% of total global emissions in 2030. Of which 23 – 26% is from electricity generation. In order to be in line with the 1.5°C, half of Indonesia's emission from electricity generation must be cut down by 2030; or equivalent to the 2019 emissions level from electricity. Half of the coal power plant must be retired gradually starting from 2025 – 2030, and another half must be closed by 2050. Besides, no more coal power plant development allowed after 2025⁴.

Concerning these two issues, Indonesia needs a rapid energy transition to renewable energy power plants, while also considering the implications to the coal sector. For the last four years, coal revenue collected to the State was around IDR 27 trillion (1.93 billion USD) or on average 80% of total non-oil & gas revenue. Nevertheless, the contribution of coal to the state budget is relatively low around 1.5 to 2 % of total revenue. Also, coal has a substantial contribution to the local economy of the coal producer provinces.

¹ <http://www.ipcc.ch/report/sr15/>

² <https://www.esdm.go.id/assets/media/content/content-handbook-of-energy-and-economic-statistics-of-indonesia.pdf>

³ <https://climateactiontracker.org/countries/indonesia/>

⁴ <http://iesr.or.id/2018/10/siaran-pers-laporan-ipcc-sr15-dan-implikasinya-bagi-sektor-energi-indonesia/>

Having realized that Indonesia must cut down the emission from the energy sector to stay on the track of 1.5°C as well as the increasing energy demand, Institute for Essential Services Reform, together with other partners under the Climate Transparency partnership, conducted a study to scrutinize the energy transition and the future of coal in some of G20 countries. This study aims to analyze how energy demand can be fulfilled without putting more risks on climate change.

As one of the G20 countries, Indonesia must actively participate in the G20 Forum. Pushing G20 countries to their limit in achieving the Paris Agreement must become one of the priority issues to be discussed in G20 Osaka Summit 2019. An Energy Transition Working Group can be utilized as one forum to push the energy transition agenda. It is expected that the future of coal would be one perspective in deliberating the global energy transition.

Participants

Participants of this seminar consist of 80 people from the governmental institution, business, academic, non-governmental institution, media, and relevant association.

Objectives

The objectives of this seminar are:

1. Sharing result of the “Coal Phasing Out” study from some of the G20 countries (Indonesia, India, China, South Africa)
2. Sharing insight on the future of coal utilization in G20 countries (Indonesia, India, China, South Africa)
3. Facilitate active learning opportunities and knowledge exchange in integrating energy transition into G20 priorities agenda

Date and Venue

Details of the seminar as follows:

Day/Date : Monday, April 1, 2019
Time : 08.15 – 15.30 WIB
Location : Ashley Hotel, Jl. KH. Wahid Hasyim No.73-75, Menteng, Jakarta Pusat

Agenda

Time	Activity	PIC
08.15 – 08.45	Registration	IESR
08.45 – 09.00	Opening remarks and introduction to the seminar	IESR
09.00 – 10.30	<p>Session I: Report Launching and Discussion A Just Energy Transition: Energy, Climate and Economic Development (IESR) Discussant:</p> <ul style="list-style-type: none"> • Ir. Bambang Gatot Ariyono, M.M. (Director General, Directorate General of Mineral and Coal, Ministry of Energy and Mineral Resources) 	Moderator: Jalal (Thamrin School)

	<ul style="list-style-type: none"> • Dr. Ir. Ruandha Agung Sugardiman, MSc. (Director General, Directorate General of Climate Change Control, Ministry of Environment and Forestry) • Hendra Sinadia (Executive Director, Indonesia Coal Producer Association) 	
10.30 – 10.45	Coffee Break	IESR
10.45 – 13.00	<p>Session II: Panelist Discussion International Experiences on A Just Energy Transition</p> <ul style="list-style-type: none"> • Paris Agreement and the Urgency for Global Energy Transition: Dr. Ursula F. Hutfilter (Head of Policy / Senior Climate Policy Advisor, Climate Analytics) • India's Energy Transition and Its Implications to Imports: Thomas Spencer (Fellow, The Energy and Resources Institute) • China's Energy Transition: Alvin Lin (Climate and Energy Policy Director, Natural Resources Defense Council) • South Africa's Energy Transition: Bryce McCall (Researcher, Energy Research Centre) 	Moderator: Hannah Schindler (Climate Transparency)
13.00 – 14.00	Lunch	IESR
14.00 – 15.30	<p>Session III: Panelist Discussion Energy Transition and Climate Change Agenda on G20 Summit</p> <ul style="list-style-type: none"> • Energy Transition Agenda on G20 Summit (Update from Energy Transition Working Group): Ir. Yudo Dwinanda Priaadi, M.S. (Ministry Expert Staff on Strategic Planning, Ministry of Energy and Mineral Resources) • Energy Transition and Climate Change Agenda on G20 Summit through Finance Track: Parjiono, S.E., MPP., Ph.D. (Director of Center for Climate Change and Multilateral Policy, Fiscal Policy Agency, Ministry of Finance) • Indonesia Agenda in G20 Osaka Summit 2019: Dr. Rizal Edwin Manansang, Ak., MSc. (Deputy Assistant of Financing and Multilateral Economic Cooperation, Ministry Deputy for Coordination of International Economic Cooperation, Coordinating Ministry of Economy Cooperation) 	Moderator: Jalal (Thamrin School)
15.00 – 15.30	Conclusion and Closing	IESR

About Institute for Essential Services Reform:

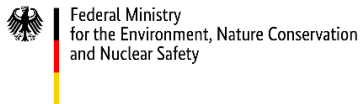
Institute for Essential Services Reform ([IESR](#)) is a well-known think-tank in the energy and climate change issues in Indonesia and has been involved in the development of Indonesian energy framework as well as in the international climate change negotiation and therefore gained recognition nationally and internationally. We produce fact- and science-based analyses and studies, provide technical assistance and capacity building for policy makers, businesses, civil societies, and other stakeholders in need, and work in partnership with other state and non-state actors on specific projects and campaigns. IESR has been active in energy and climate change discourses for more than a decade by conducting rigorous research, studies, capacity buildings, advocacy activities, forward-looking initiatives, media engagements, and public campaigns.



About Climate Transparency:

[Climate Transparency](#) is a global partnership with a shared mission to stimulate a 'race to the top' in climate action in G20 countries through enhanced transparency. It convenes partners from Argentina (Fundación Ambiente y Recursos Naturales), Brazil (CentroClima/COPPE UFRJ), China (Energy Research Institute), France (The Institute for Sustainable Development and International Relations), Germany (Germanwatch, HUMBOLDTVIADRINA Governance Platform, NewClimate Institute), India (The Energy and Resources Institute), Indonesia (Institute for Essential Service Reform), Mexico (Iniciativa Climática de México), South Africa (Energy Research Center/University of Cape Town) and the UK (Overseas Development Institute). Climate Transparency is funded by the ClimateWorks Foundation, Stiftung Mercator and the World Bank and supported by the European Climate Foundation.

Supported by:



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