Perjanjian Paris angkaian NDC Pertama Indonesia, NDC Diperbaharui, dan LTS-LCCR



esiden RI, Joko Widodo nberikan Speech COP21/CMP11 Paris, Perancis 2015



Menteri LHK
Upacara Penandatanganan Tingkat
Tinggi Perjanjian Paris
New York, Amerika Serikat 2016



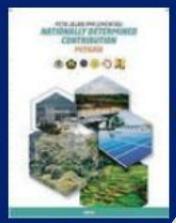
Ratifikas UU



LCCR 2050 Juli 2021



NDC diperbaharui Juli 2021



NDC Roadmaps 2019

Assessment of LTS: Indonesia

Rizaldi Boer, Retno Gumiland Dewi, Ucok Siagian, and Lukytawati Angraini

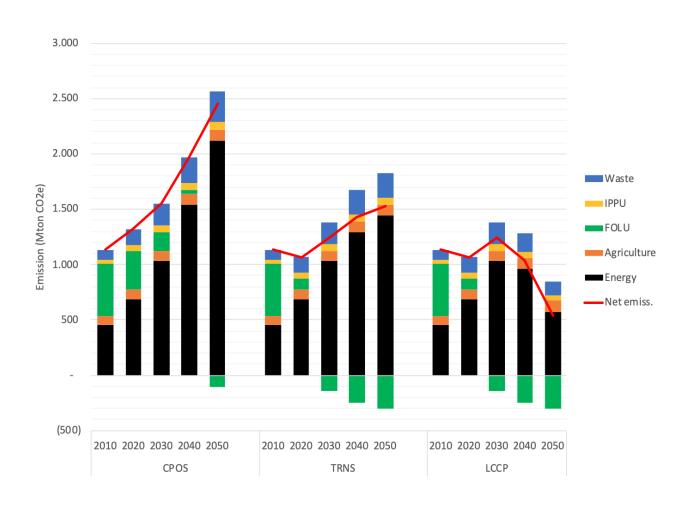






Long Term Strategy Indonesia

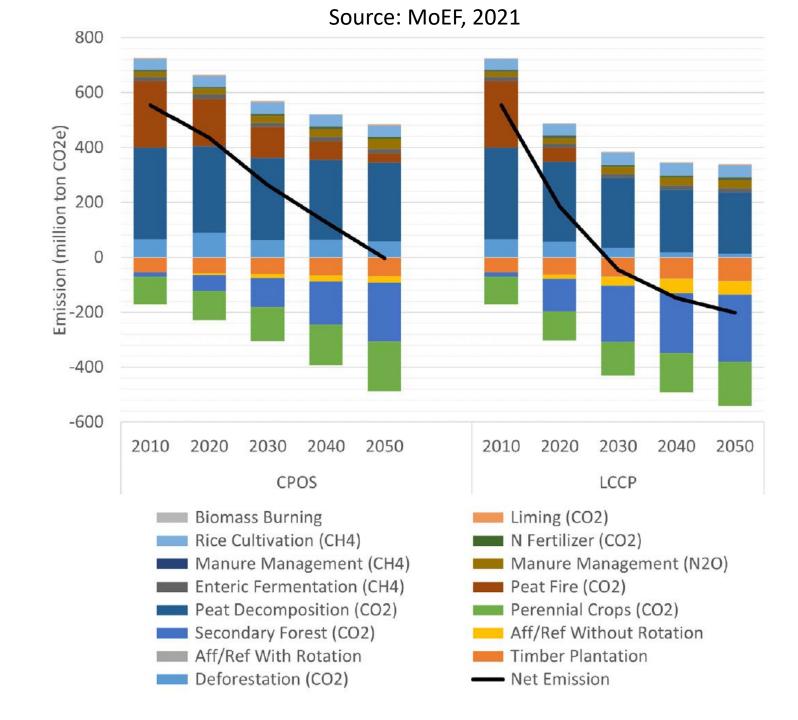
- Government of Indonesia has submitted its Long-Term Strategy (LTS) to UNFCCC last July 2021
 - CPOS: Current Policy Scenario extended of the NDC
 - TRNS: Transition scenario bridging between CPOS and LCCP in which the emission is lower than CPOS but it has not maximized mitigation potential
 - LCCP: Low carbon scenario compatible with Paris Target - the most ambitious scenario which considered the Paris target to prevent a global temperature increase of 2°C to 1.5oC and maximize the potential for reducing GHG emissions.
- Land use and forestry (FOLU) sector set up very ambitious target which will twist its status from emission to net sink in 2030



Decrease of emission in 2020 taking COVID effect

Emission Pathways for AFOLU toward NZE: Twisting from net emitter to net sink in the next 10 years

- Maintaining remaining natural forest (maximum future deforestation only about 2 Mha – free deforestation after 2030)
- Fostering implementation of SFM practices and enrichment planting (targeted 8.8 Mha)
- Restoring peatland (reach 2.72 Mha in 2030 and 4.22 Mha in 2050
- Rehabilitating degraded land (reach 10.6 Mha by 2050 or about 0.265 Mha per year – agroforestry
- Boosting crop productivity and planting intensity
- Protecting rice area in Java from conversion (should be maintain at least 3.75 Mha)
- Fostering the implementation of integrated farming (4.9 Mha)
- Reducing food loss and food waste



SOME OF KEY POLICIES

Social forestry as a scheme aimed to allocate 12 million ha forest area for the community. Under the social forestry/TORA, agricultural land under forest area is now receiving legality status and can receive an incentive and/or capacity building program from the government. With more assured financial access and technical support, the yield gap between the community and private is expected to be reduced





KEY POLICIES FOR AFOLU SECTOR: MULTI BUSINESS SCHEME

- Multi business scheme is to allow forest concession to do multi business activities.
 - Not only timber but also non-timber forest product (NTFP) and environmental services and non forest commodities → may reduce the extent of unproductive land under conflict by utilizing the land that already occupied by the community through forest partnership (Social Forestry)
 - It is about 4.98 Mha concession areas occupied by communities

Key Policies: Fiscal policy to support Low Carbon Development

- The main fiscal instrument that potentially fills the budget demand for low carbon development are
 - Carbon Pricing Policies (emission trading, carbon tax),
 - Ecological fiscal transfer (EFT),
 - Payment for environmental services (PES)
- For the public investment strategy, the Ministry of Finance has launched Green Planning and Budgeting Strategy for Sustainable Development, specifically aimed at the key sectors to low carbon transition (e.g., renewable energy, etc.)
 - GoI has also issued Green Bonds and Green Sukuk as innovative financing to funds green and SDG-related projects
- National Agencies for Managing Environmental Fund (BPDLH: Non-State Budget System) that will manage fund from various sources to support the climate change actions



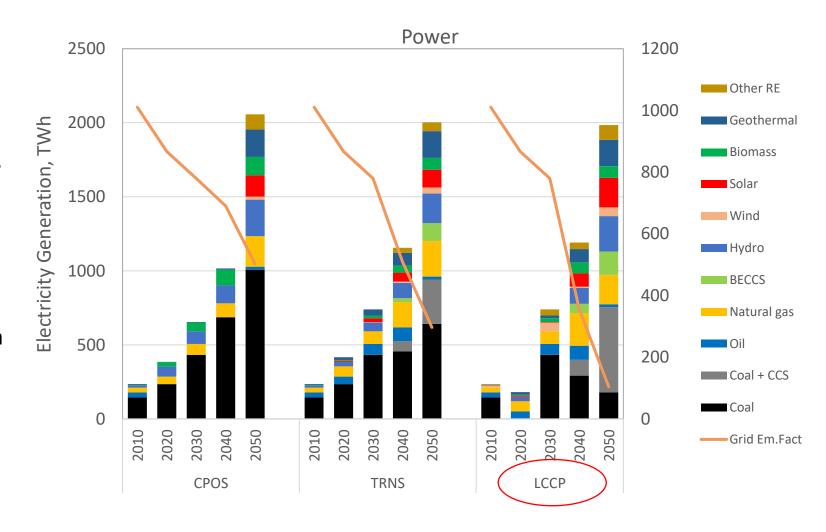
Physical Transformation on Energy Sector

The demand growth of electricity will be around 5% per year.

At present, power generation is mainly fuelled by coal, while other power plants use gas, hydropower, and geothermal.

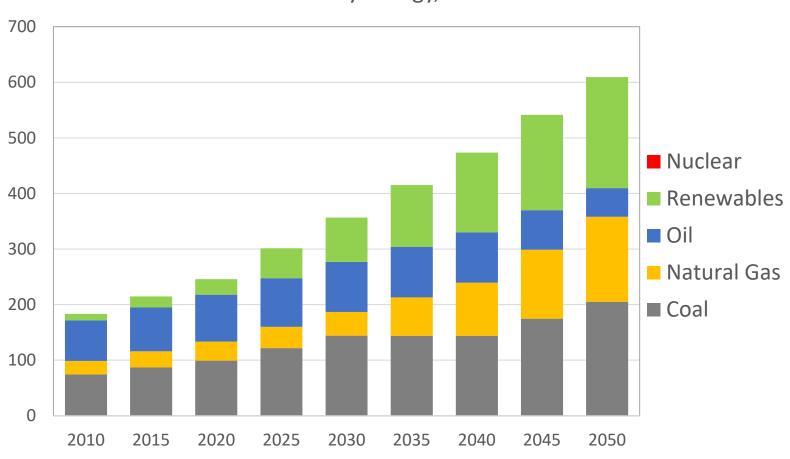
It is expected that in 2050, the power sector will practically be decarbonized through:

- utilization of renewables (hydro, geothermal, solar, wind, biomass) on a massive scale;
- most coal powerplants are equipped with CCS/CCUS; and
- biomass power plants are connected to CCS (Biomass Energy with Carbon Capture and Storage or BECCS)



Primary Energy for LCCP Scenario





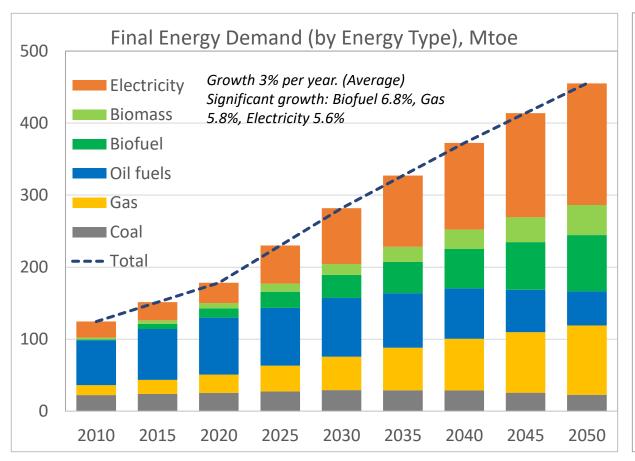
Growth 3% per year. (Average) Significant: RE 7.4%, gas 4.7% Coal remain growing 2.6%

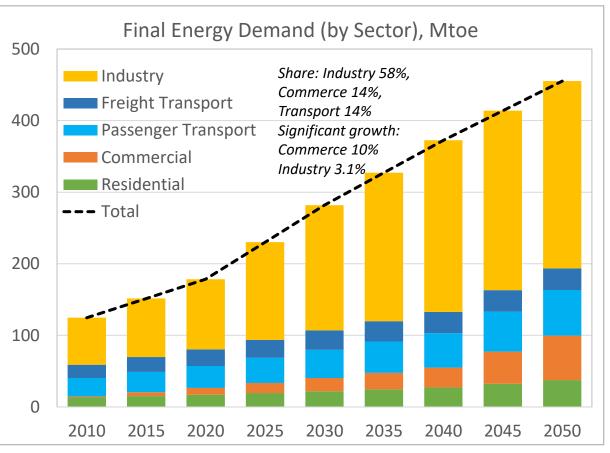


Difficult to move away from coal

Nuclear has not been considered up to 2050

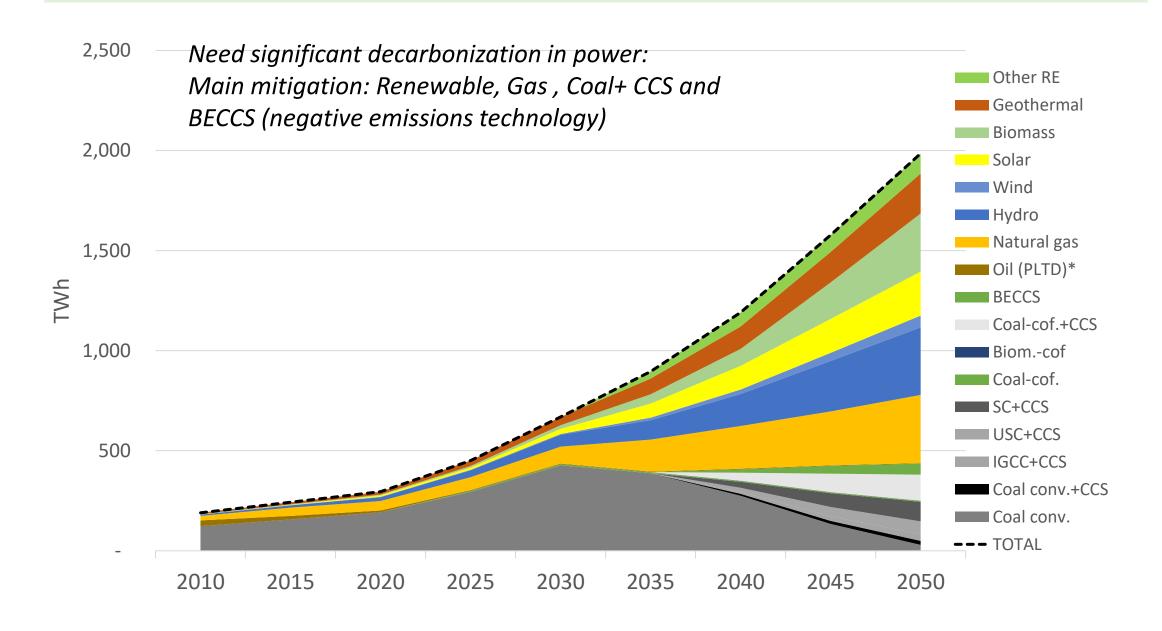
Final Energy Demand by Energy Type and by Sector for LCCP Scenario



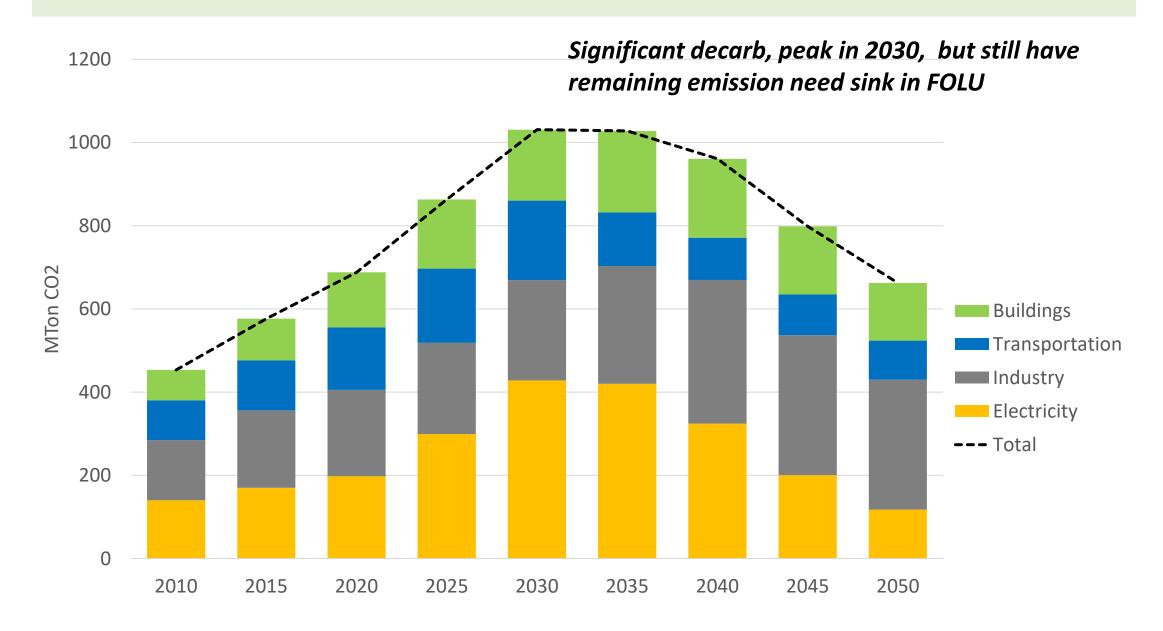


	2010	2015	2020	2025	2030	2035	2040	2045	2050
Electricity Demand kWh/cap/year	810	959	1,088	1,589	2,258	2,932	3,780	4,854	5,923
Total Energy Demand, toe/cap/year	0.51	0.58	0.63	0.78	0.91	1.03	1.14	1.22	1.30

Power Generation Mix



GHG Emissions 2010 - 2050



Key challenge:

Difficult to move away from coal because Indonesia has abundant reserves and inexpensive. Therefore, the remaining coal must be + CCS.

The coal is also needed to serve as baseload as there will be significant fraction of intermittent RE electricity.

Large investment is needed for massive energy infrastructure development.

Key policies:

Require incentives for renewable such as solar rooftop.

Need capacity building for R&D and manufacturing for RE and EV technology, including battery.

Roadmap of decarbonization must be designed in such away so that fossil energy 'locked-in' phenomena could be avoided

Note:

Discussion concerning decarbonization is still on-going. Many institutions are involved in the NZE development such as power utility company, national energy council.

