

Indonesia's Energy Support Measures: Shifting Support from Fossil Fuels to Clean Energy

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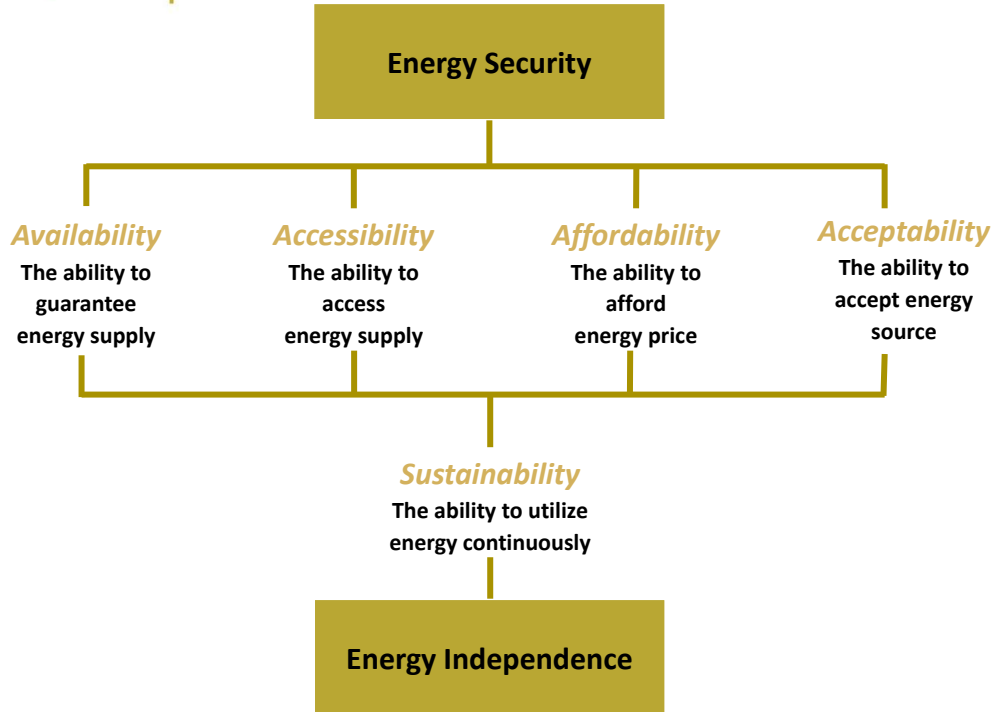
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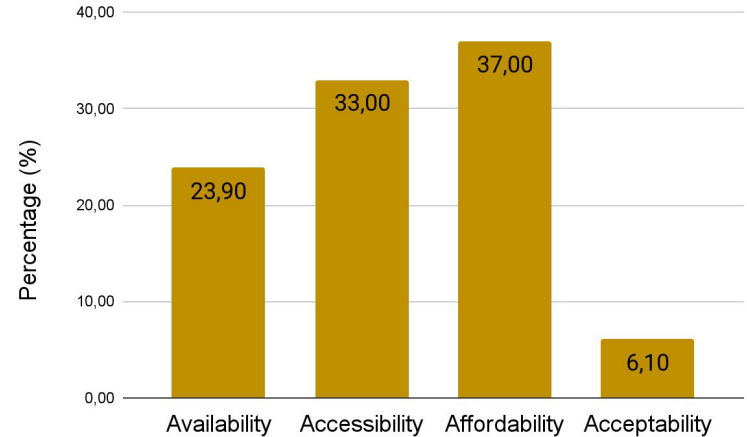
22 June 2022



Energy Security

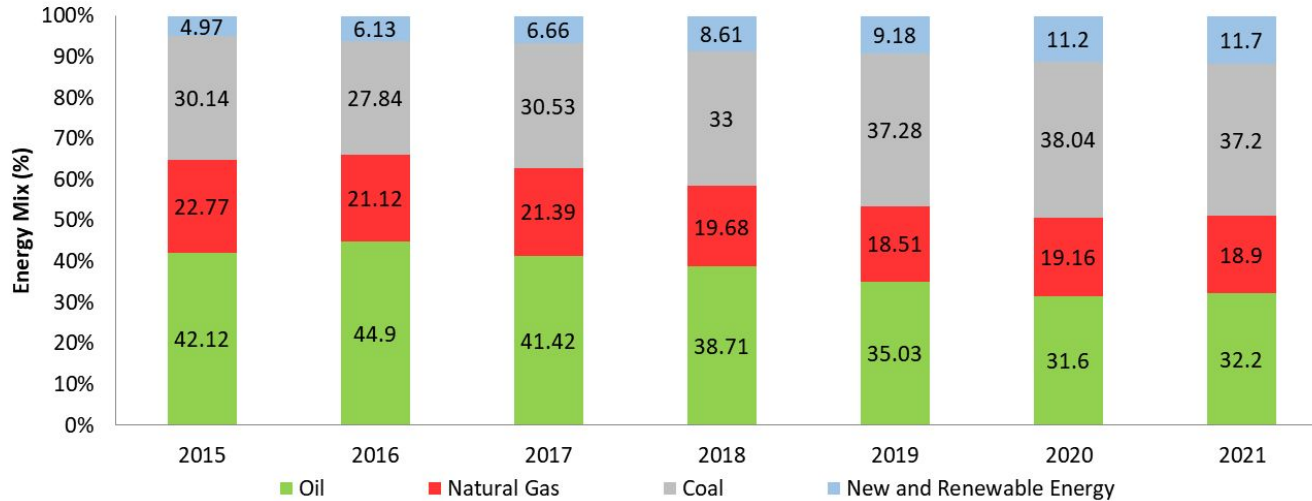


The 4A weighting needs to pay attention to a country's **economic, social, and political** conditions within a certain period and what targets to achieve.










- **Affordability** → People's purchasing power is still low, and there is no direct subsidy policy.
- **Accessibility** → The geographical condition of Indonesia which is an archipelagic country, and the distribution of energy is still not evenly distributed.
- **Availability and acceptability** → Type of energy supply taking into account the global climate crisis, transitional energy programs, and net zero-emission targets.

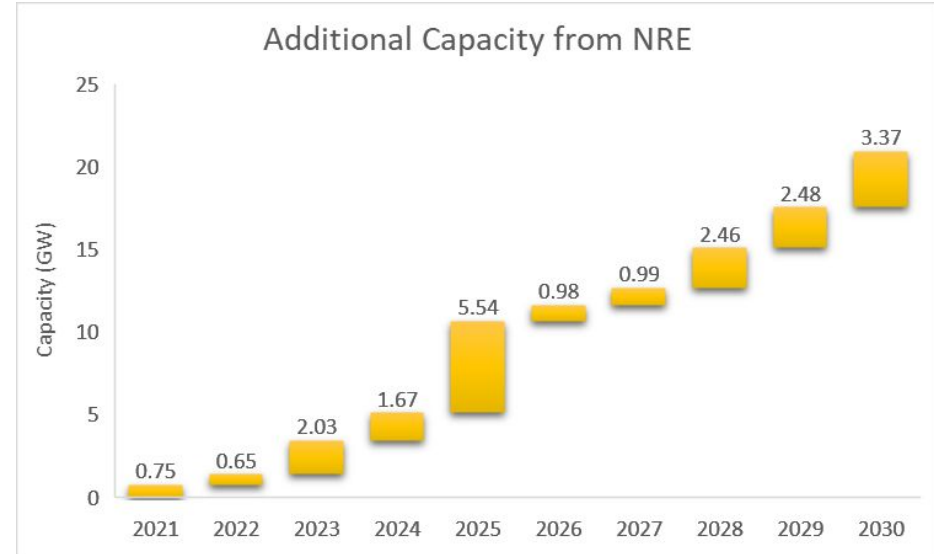
National Energy Mix



- The security of fossil energy has strongly impacted to the national economic growth. However, its impact towards climate is also concerning.
- **Diversifying energy profile** is necessary to reduce the dependency on one commodity, also contribute to mitigate climate change.

Indonesia's Renewable Energy Potential and The Government Support for Its Deployment

Energy	Potential (MW)	Utilization (MW)	% of Utilization
 Solar	400,000	182.3	0.05%
 Hydro	90,000	6,286.7	6.99%
 Wind	60,600	1,916.4	3.16%
 Bioenergy	45,000	154.3	0.34%
 Geothermal energy	23,700	2,175.7	9.18%
 Ocean	18,000	0	0%
 Nuclear	11,000*)	0	0%
Total	648,300	10,697.4	1.65%



	2021	2025	2030
Total Capacity (GW)	63	90	99
NRE Capacity (GW)	8	18.6	28.9
Energy Mix (%)	12.6	23	24.8

50% comes from hydropower, solar and geothermal.

Indonesia's Renewable Energy Potential and The Government Support for Its Deployment

Policy

- Finalising the renewable energy law.¹
- State-Owned Enterprise (BUMN) intervention.¹
- Accelerating coal phase-down and implementing coal gasification & liquefaction.¹
- Encouraging NRE investment.¹
- Accelerate the shift from Internal Combustion Engine (ICE) to Electric Vehicle (EV).¹
- Encouraging cooking fuel transition from LPG to electricity by providing incentives for households.
- Reducing Deforestation.

Technology

- Natural gas as bridging fuel.¹
- Substituting the technology (CCUS, IGCC, CCT, Gasification, and coal liquefaction).¹
- Technology development on a small scale.¹
- Acquisition of foreign technology on a large scale while continuing to develop domestic technology.

Economy

- Carbon tax implementation.¹
- A significant potential of crowdfunding as a community financing-based source.²
- Total potential investment up to **IDR 192 trillion (USD 13.4 billion)/annum** and up to **IDR 46 trillion (USD 3.2 billion)/annum** for donation.²
- Adjusting the feed-in tariff scheme by considering the technology, location, and scale of the RE projects.¹
- Incentives for national financial institutions to support the development of renewable energy, including the small scale projects.¹
- Provide soft conditional funding for green projects from national and international.
- **Gradually transform price subsidy to direct subsidy.**

Indonesia' Consideration on Fossil Fuels Transition to Renewable Energy (in Just Transition)

Investment

- Fossil fuels industry could participate in accelerating the transition by investing in renewable energy projects.
- Enforcing Green Taxonomy to avoid green washing.

Job Sector Mitigation

- Creating scheme to manage the transition in the job sector.
- Mapping of human resources potential, subsidies to develop employee skills and competencies among small-medium enterprises, village-owned enterprises (BUMDes), start-ups and incubators in creating new green economy prospects in their own regions.

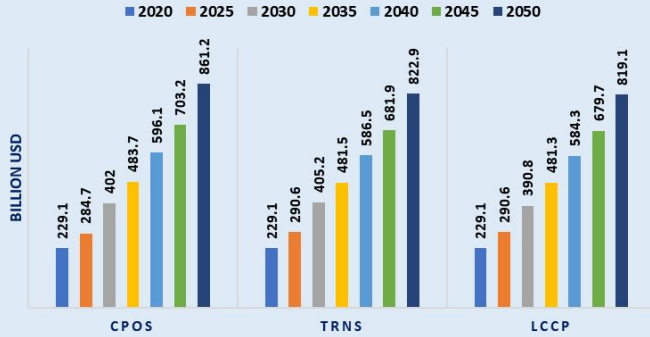
Education and Training

- Policy in the education and training sector to introduce the energy transition in earlier stage.
- Enforcing the democratic education learning environment (*Pendidikan Anak Merdeka*) to expose the students to real-world problems, especially energy transition.

Gender Equality Policy

- The energy transition should include gender equality aspects in all policies.
- Collecting better data, remapping all the policies, and identifying which policies ignore gender equality principles.

TOTAL INVESTMENT



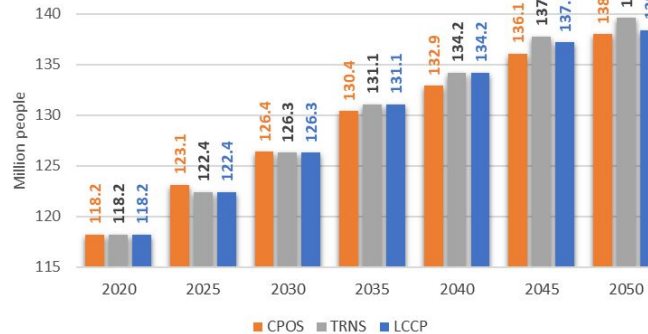
ADDITIONAL INVESTMENT



GDP



Employment Rate



- LCCP is required to meet the Paris Agreement target because it attributes to the most progressive actions.
- Securing sufficient funds and international aid becomes a significant factor to ensure the success of the climate mitigation plans for Indonesia.
- Thus, this scenario is important to attract foreign direct investor.
- The synergy among stakeholders, especially the government and non-government parties, is also critical.

The Sizable Increase in Fossil Fuels Subsidies (*as reported by media*)



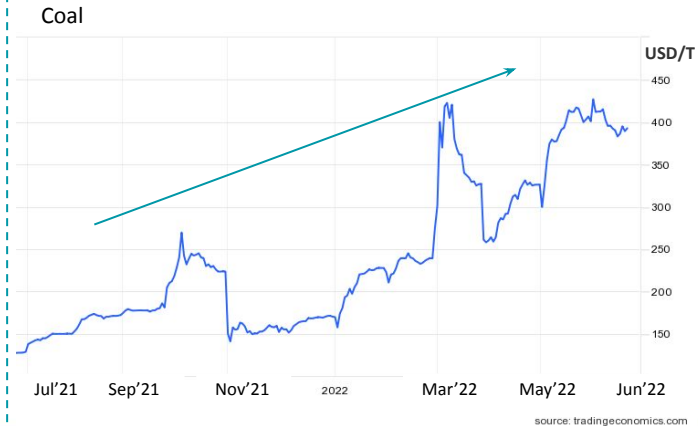
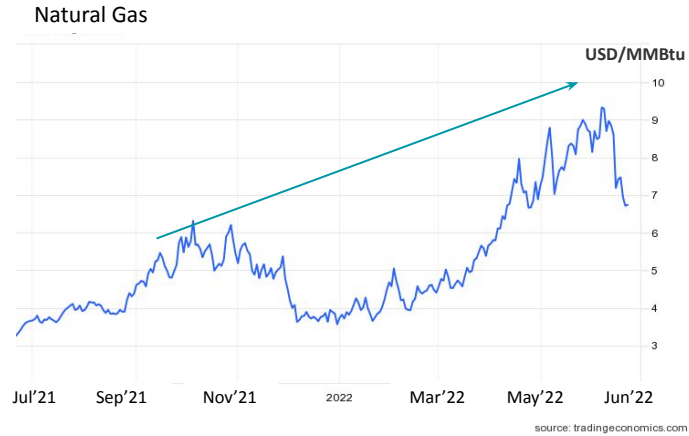
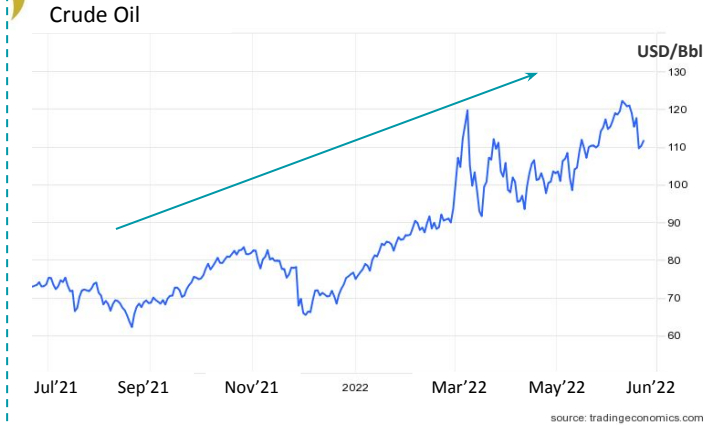
2020 (ICP > Crude Price)		
Oil and Gas	State Budget	Realization
Indonesia Crude Price (USD/bbl)	63	40.45
Non-Tax State Revenues (Trillion IDR)	53.3	69.7
Oil and Gas Tax State Revenues (Trillion IDR)	57.4	33.2
Revenue (Trillion IDR)	110.7	102.9
Subsidy	38.6	55.4
Summation	72.1	47.5

} 54%

2021 (ICP < Crude Price)		
Oil and Gas	State Budget	Realization
Indonesia Crude Price (USD/bbl)	45	68.54
Non-Tax State Revenues (Trillion IDR)	75	103.2
Oil and Gas Tax State Revenues (Trillion IDR)	45.8	772.3
Revenue (Trillion IDR)	120.8	875.5
Subsidy	56.9	83.7
Summation	63.9	791.8

} 9%

The Impact of Fossil Fuels Subsidies to RE and Energy Transition Agenda



Boost the competitiveness of RE

The right momentum to accelerate energy transition.



THANK YOU!