

SUMARNO, T.B. and SANCHEZ, L. 2021. *How Indonesia can achieve both a COVID-19 recovery and its climate targets*. Achieving a fossil-free recovery in Indonesia, Brief 1. Winnipeg: International Institute for Sustainable Development (IISD) [online]. Available from: <https://www.iisd.org/publications/indonesia-achieve-covid-19-recovery-and-climate-targets>

# How Indonesia can achieve both a COVID-19 recovery and its climate targets.

SUMARNO, T.B. and SANCHEZ, L.

2021

# How Indonesia Can Achieve Both a COVID-19 Recovery and Its Climate Targets

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September 2021

## Introduction

In May 2021, the International Energy Agency (IEA) (2021) released its flagship report on how to reach net-zero by 2050, concluding that fossil fuel consumption should have peaked by 2020 and start declining as of 2030. It also shows that meeting the 2050 target will require that there be new fossil fuel extraction. The COVID-19 recovery budget presents a unique opportunity to shift public funds and expenditures to meet Indonesia's target of 23% of its energy mix coming from clean and renewable sources while aligning economic recovery with ambitious climate and net-zero targets.

COVID-19 created a worldwide economic disruption, and many countries are developing support and recovery packages to help counterbalance the socio-economic effects of the crisis. By May 2021, over USD 16.6 trillion in public money had been committed worldwide for this purpose. Between 3% and 5% of these funds went to energy production and consumption (O'Callaghan et al., 2020). As of June 30, 2021, 31 major economies and eight multilateral development banks analyzed by the Energy Policy Tracker (n.d.) have pledged almost USD 800 billion to energy-producing and consuming activities, out of which USD 335 billion went to fossil fuel-intensive sectors (i.e., 42%). In contrast, clean energy received only 35% of that funding.

All this support is coming at a time when quick action is required to avoid the catastrophic effects of climate change, so that it is key that recovery packages are aligned with climate targets. The G20 ministerial meeting in July 2020, emphasized that G20 countries should include money to mitigate and tackle climate change in their recovery budgets and ensure that financial flows are consistent with the low-carbon emission pathway (G20, 2021). Fossil

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<sup>1</sup> The authors thank Adhityani Putri of Global Strategic Communications Council (GSCC), Lucile Dufour, Paulina Resich, and Philip Gass of IISD for helpful comments on a draft of this brief.



fuel support is contradictory to the outcomes of the G7 summit in June 2021, that is to stop funding coal, free the world from fossil fuel dependency (Forbes, 2021), and further mobilize climate finance for developing countries in their climate change mitigation actions (G7, 2021). Being the incoming G20 presidency, Indonesia's vision is to focus on global recovery from the COVID-19 pandemic, as part of other key issues (Iyabu, 2021). Indonesia has a responsibility to lead the agenda diplomatically and walk the talk domestically, bringing climate change mitigation and adaptation as part of the COVID-19 recovery. Rapid action is needed, and COVID-19 recovery packages present a unique opportunity to align economic and social recovery with climate action that no country should miss.

## Where Is Indonesia's Recovery Spending Going?

The Indonesian government's economic recovery program has offered fiscal stimulus through the National Economic Recovery (PEN) since the start of the COVID-19 pandemic. In 2020, the Government of Indonesia (GoI) spent IDR 584.2 trillion (USD 40.6 billion, versus initially allocated IDR 695.2 trillion, or USD 48.3 billion) to COVID-19 recovery: in 2021 this increased to IDR 699.4 trillion (USD 48.6 billion)<sup>2</sup> (Ministry of Finance, 2020). Indonesia's recovery scheme covers five sectors considered to accelerate economic recovery, which are:

- Health
- Social protection
- Priority programs or line ministries (LM), local & regional government (tourism support, food security, information and communication technology development, regional borrowing, labour-intensive LM industrial area, reserve for PEN program)
- Micro, small, and medium-sized enterprises and corporate finance
- Business incentives.

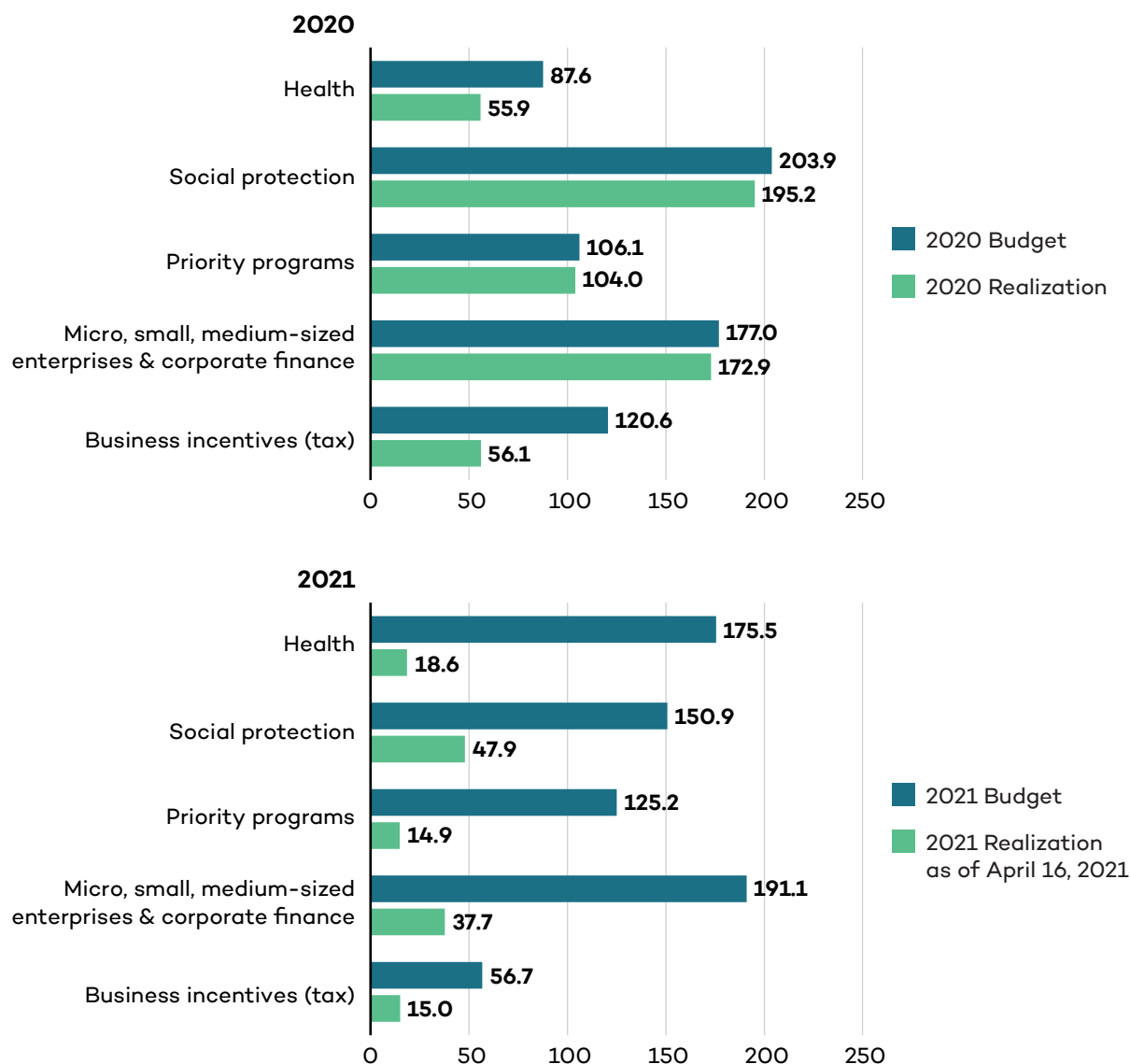
Figure 1 shows the comparison between the COVID-19 recovery budget 2020 and its realization, with the COVID-19 recovery budget 2021 and its disbursement as of April 16, 2021.

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<sup>2</sup> The currency exchange rate used here is IDR 14,400/USD, based on the official exchange rate in the Indonesian State Budget 2020 (Ministry of Finance, 2021a).



**Figure 1.** COVID-19 Recovery budget & disbursement 2020 and 2021 (in trillion IDR)



Source: Author diagram based on Ministry of Finance, 2020, 2021a, 2021b; Asian Development Bank (ADB), 2021.

In 2020, the highest fiscal support was given to the social protection scheme, which included energy subsidies (mostly electricity subsidies) to poor households, followed by micro, small, medium-sized enterprises and corporate finance, which included support for Indonesia’s state-owned enterprises (SOEs) (see Figure 1). Between the two schemes, the country committed at least IDR 108.5 trillion (USD 7.5 billion) in 2020 to supporting different energy types through new or amended policies. This support represented around 15.6% of the total COVID-19 recovery budget in 2020 (Ministry of Finance, 2021a). The largest part of the stimulus to the energy sector was given to SOEs directly associated with the fossil fuel sector:<sup>3</sup> PT Pertamina, PT PLN, PT Garuda Indonesia, and PT Kereta Api Indonesia (PT KAI) as

<sup>3</sup> Support to fossil fuel SOEs is to support the industry and does not mean that all support is given directly for the use of fossil fuels.



part of the package to corporate finance, amounting to IDR 95.3 trillion (USD 6.6 billion). Within that support, PT PLN attracted IDR 45.5 trillion (USD 3.2 billion), PT Pertamina IDR 37.8 trillion (USD 2.6 billion), PT Garuda Indonesia IDR 8.5 trillion (USD 583 million), and PT Kereta Api Indonesia IDR 3.5 trillion (USD 243 million) to support their business amid the COVID-19 pandemic (see Table 1). The social protection budget included IDR 13.1 trillion (USD 912 million) in 2020 for energy subsidies to support poor households, mostly in the form of free and discounted electricity tariffs for consumer classes 450 VA and 900 VA (including micro, small, and medium-sized enterprises) and the subscription tariff<sup>4</sup> (see Table 1). For renewable energy, there was no specific amount allocated to support the sector in the 2020 COVID-19 recovery package, as most measures targeting renewable energy projects were in the form of fiscal incentives, which would have to be estimated (Energy Policy Tracker, n.d.).

In addition to that support, Indonesia also continued its yearly fossil fuel subsidy in 2020, which totalled IDR 97.4 trillion (USD 6.8 billion) covering electricity subsidy (IDR 49.7 trillion or USD 3.4 billion), LPG subsidy (IDR 32.8 trillion or USD 2.3 billion), and fuel subsidy—the so-called “BBM” subsidy (IDR 14.9 trillion or USD 1 billion) (Ministry of Finance, 2021a). The Organisation for Economic Co-operation and Development (OECD) (n.d.b) lists other forms of subsidies that cannot be quantified, such as subsidies to fossil fuel producers in the form of import duty and income tax exemptions for the oil and gas sector.

Table 1 summarizes all the previous values for 2020, which are compared in Figure 2 and disaggregated in Figure 3. These data show that COVID-19 recovery packages are more than doubling the already very high subsidies to fossil fuels in the country. In total, subsidies as well as support to fossil fuels as part of the PEN in 2020 represented 8% of Indonesia’s total budget. It is important to note, however, that many of the measures determined as part of the Indonesian COVID-19 recovery package could not be quantified, so that the values in Table 1, Figure 2, and Figure 3 are conservative.

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<sup>4</sup> The electricity subscription tariff is the total bill of the electricity used in a household (Ministry of Finance, 2021a).

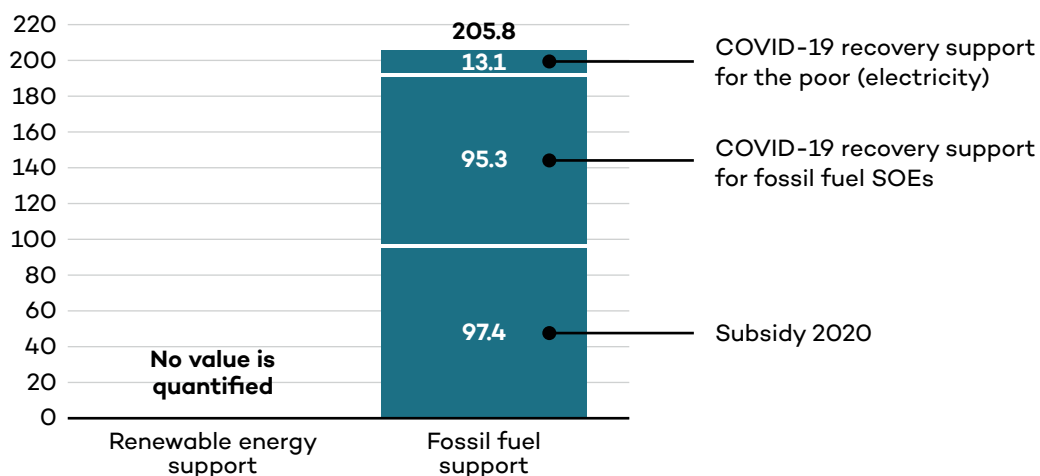


**Table 1.** Summary of 2020 quantified subsidy & COVID-19 recovery for Indonesia’s energy sector

2020 Energy Subsidies	Trillion IDR	Billion USD Eq.
<b>Yearly subsidy</b>	<b>97.4</b>	<b>6.8</b>
Electricity subsidy	49.7	3.4
LPG subsidy	32.8	2.3
Fuel subsidy (BBM)	14.9	1.0
<b>COVID recovery packages</b>	<b>108.5</b>	<b>7.5</b>
<b>Fossil fuel SOEs</b>	<b>95.3</b>	<b>6.6</b>
PT PLN	45.5	3.2
PT Pertamina	37.8	2.6
PT Garuda Indonesia	8.5	0.6
PT Kereta Api Indonesia	3.5	0.2
<b>Poor households</b>	<b>13.1</b>	<b>0.9</b>
Electricity discount	11.5	0.8
Electricity subscription tariff	1.7	0.1
<b>Total</b>	<b>205.8</b>	<b>14.3</b>

Source: Energy Policy Tracker, n.d.; Ministry of Finance, 2021a.

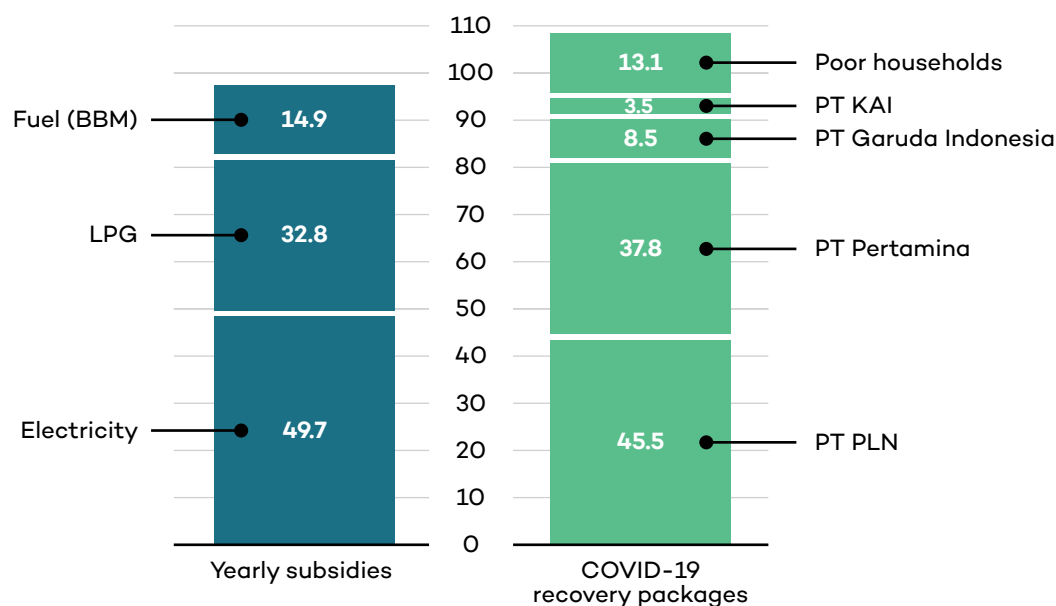
**Figure 2.** Total quantified government support to fossil fuels in 2020 by form and area (in trillion IDR)



Source: Author diagram based on Energy Policy Tracker, n.d.; Ministry of Finance, 2021a.



**Figure 3.** Total quantified Indonesian support to fossil fuels in 2020, in the form of subsidies and COVID-19 recovery support (in trillion IDR)



Source: Author diagram based on Energy Policy Tracker, n.d.; Ministry of Finance, 2021a.

Indonesia’s PEN has also supported the clean energy sector, although the value of this support could not be quantified. Policies regarding renewables include support for solar rooftop installations for private customers and policies to incentivize investment in renewable energy projects (Energy Policy Tracker, n.d.; Suharsono & Lontoh, 2020). Cash subsidy was also offered to support biofuels (Pribadi, 2020).<sup>5</sup> While most of the fossil fuel policy supports are in the form of cash subsidies, only one type of renewable energy receives a cash subsidy through the state budget—which was biodiesel (both biofuel & waste energy) (Pribadi, 2020)—even if the amount of the budgetary transfer is not available. The other policies to support renewables could not be quantified.

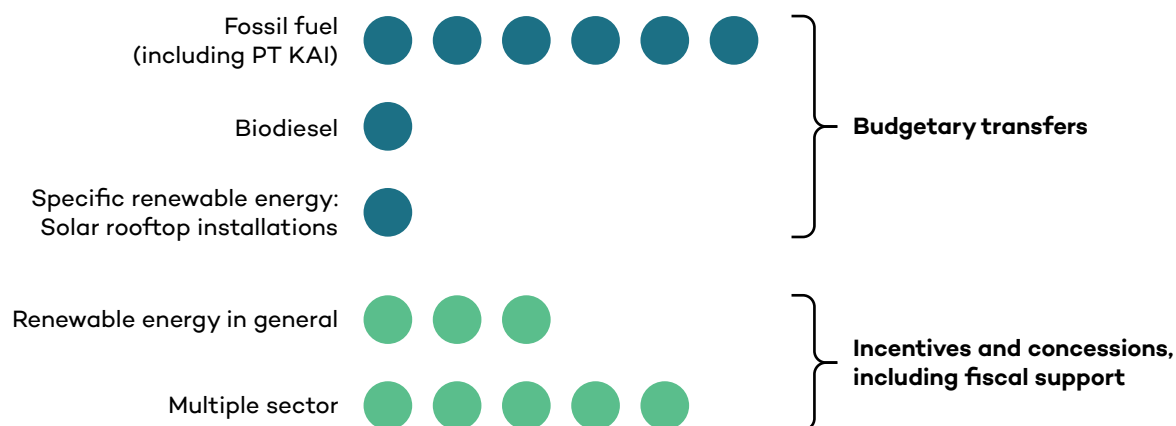
In total, according to the Energy Policy Tracker (n.d.), the PEN 2020 included 15 measures to support the energy sector. Six of them are policies to support fossil fuels<sup>6</sup> (in the form of support to SOEs or to electricity tariffs), the previous policies to support clean and renewable energy, and the rest are policies to support multiple sectors, but mostly offering tax incentives to SOEs (e.g., reduction on the corporate income tax rate) (Energy Policy Tracker, n.d.). These might benefit the fossil fuel industry more than the clean energy industry, considering the relative importance of the fossil fuel industry SOEs and the sector more generally. Figure 4 shows the different policies that GoI has implemented to support the energy sector.

<sup>5</sup> Biodiesel (mainly palm oil based) is considered renewable energy according to the GoI.

<sup>6</sup> The Energy Policy Tracker (n.d.) classifies support to PT Kereta Api Indonesia as “clean conditional.” However, this brief considers that since Indonesia’s railways use mostly fossil fuel (coal, LNG, diesel) or electricity (Yuniarto, 2021), in this case, any support to PT KAI is still classified as fossil fuel support.



**Figure 4.** The number of policies supporting the energy sector in Indonesia



Source: Author diagram based on Energy Policy Tracker (n.d).

## Indonesia’s Climate and Clean Energy Targets

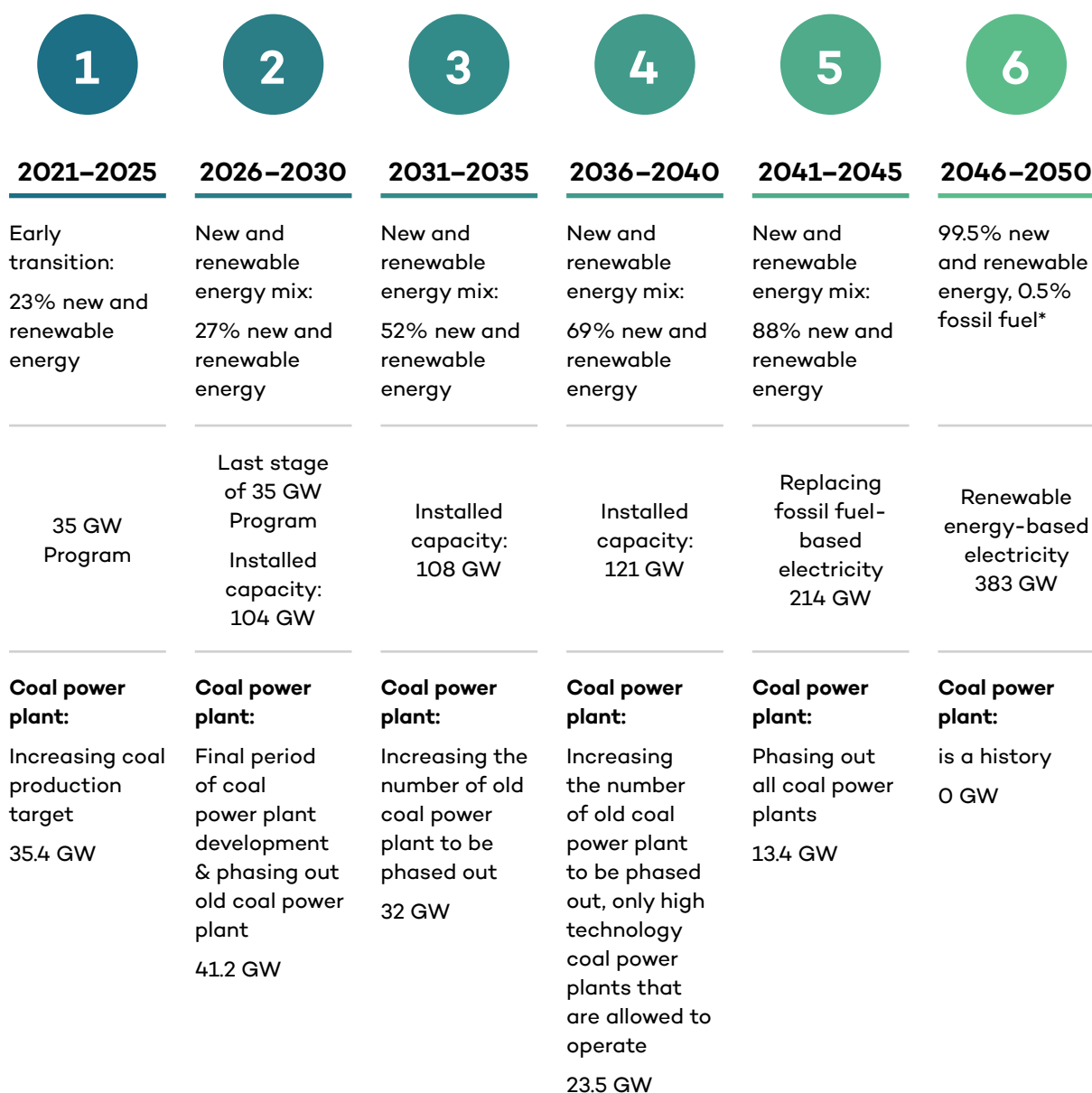
While pledging to make new and renewable energy 23% of the primary energy mix by 2025 and reduce emissions by 29% by 2030 (United Nations Framework Convention on Climate Change, n.d.), President Joko Widodo has also stipulated during the Leaders Summit on Climate in April 2021, that Indonesia is currently accelerating a net-zero emission pilot project<sup>7</sup> (Cabinet Secretariat of the Republic of Indonesia, 2021). In April 2021, the Ministry of Energy and Mineral Resources (MEMR), together with PT PLN, published a report on a strategy of the power and utility sector to achieve net-zero emissions by 2045, 2050, and 2060, according to the three respective scenarios (Figure 5, which represents one of them) (MEMR, 2021).

<sup>7</sup> Indonesia Green Industrial Park in Kalimantan.





**Figure 5.** Roadmap of power and utility sector to achieve Indonesia’s carbon neutrality by 2050<sup>8</sup>



Note: \*IDR 40 trillion is required to completely phase out fossil fuel-sourced power plants.

Source: Author diagram based on Directorate General Electricity MEMR, 2021; MEMR, 2021a.

According to the PLN and MEMR plan, Indonesia will need a massive increase in renewable energy capacity in the decades to come. Figure 5 represents the most optimistic scenario in the PLN net-zero emission strategy, which would potentially require an additional IDR 40 trillion (USD 2.7 billion) to phase out coal-fired power plants early (Directorate General of Electricity MEMR, 2021).

<sup>8</sup> The roadmap uses the term of new and renewable energy. New energy is not necessarily renewable energy, which in this roadmap, is nuclear energy power plant.



In 2020, Indonesia only reached 11.2% (10.5 GW) of renewable energy<sup>9</sup> in its primary energy mix, lower than the 2020 target of 13.4% (MEMR, 2021b). The COVID-19 recovery package poses an unprecedented opportunity to address this gap and accelerate renewable energy investment at the levels required to meet the 23% target and PLN's net-zero commitments. However, as seen in the previous section, the largest share of support goes to the fossil fuel sector to maintain the current situation, and more time is needed to evaluate the level of success of the policies for promoting renewables.

Renewable energy development in Indonesia faces several barriers (Bridle et al., 2018). These barriers include subsidies to fossil fuels—which make electricity prices artificially low so that it becomes very hard for renewable energy to become cost competitive—as well as several technical and pricing issues that make renewable energy in Indonesia more expensive than in other places like India or the Middle East (Suharsono, 2020). It becomes more challenging to increase renewable energy while the COVID-19 recovery budget includes support for fossil fuel consumers. These factors undermine the attractiveness of renewable energy investments in the country. If Indonesia wants to promote these sources, it needs to address these barriers and give the right incentives to investors and project developers.

The International Renewable Energy Agency (IRENA) (2020) has estimated that the renewable energy sector worldwide created 11.5 million jobs in 2019, an increase of 0.5 million from 2018. According to the IRENA annual review (2020), the renewable energy sector could result in nearly 30 million new jobs globally by 2030. In Indonesia, the renewable energy sector created around 0.5 million jobs in 2019 (IRENA, 2020). Dedicating COVID-19 recovery funds to promote this industry in Indonesia would be a double win—creating jobs and a new renewable energy industry in the country—and will be aligned with the country's climate ambitions. Investments in grid upgrades and improvements to integrate more renewables (as well as decentralized renewable energy generation) can have similar types of effects (IRENA, 2021); using COVID 19 recovery finance to also address those would have positive economic and climate impacts—among others. Other countries are already doing this (see Box 1).

### **Box 1. International examples of renewable energy contributing to economic growth.**

China, Denmark, and Germany are three countries that started investing in renewable energy development years ago and have used it to support economic growth and achieve energy sustainability (Gallagher, 2013) – and they are maintaining this trend as part of their COVID-19 recovery packages (Energy Policy Tracker, n.d.). The EU considers that renewable energy could help achieve sustainable development and mitigate the negative effects of climate change while generating direct and indirect economic benefits (Vasylieva et al., 2019). In addition to several developed economies, India and Vietnam are examples of countries committing substantial shares of their COVID-19 recovery financing to renewable or clean energy (Energy Policy Tracker, n.d.).

<sup>9</sup> 35% of 10.5 GW was contributed by biodiesel (B30 program by the GoI) (MEMR, 2021a; Umah, 2021).



## Conclusion and Recommendations

The 2020 COVID-19 recovery budget is not in line with Indonesia's net-zero emissions target. Indonesia has great renewable energy potential (MEMR, n.d.) and should take advantage of it to use recovery funds strategically to move away from fossil fuels while creating jobs and economic development. Indonesia can use its public support for energy SOEs to scale up the country's renewable energy profile (Suharsono et al., 2019). As Indonesia's budget deficit increases (Suharsono et al., 2021), fossil fuel subsidy reform becomes crucial, since it can create significant savings and allow the swapping of public funds to promote renewables or help address other pressing development needs such as public health spending.

Many countries have viewed the COVID-19 pandemic as an opportunity to accelerate energy transition toward a low-carbon economy. Looking at the recovery budget (Figures 2 and 3), this does not yet seem to be the case for Indonesia. How could the country more strongly align its objectives on achieving ambitious net-zero emission targets and its nationally determined contribution while also trying to boost its economy through the energy sector? The following are some recommendations that could help Indonesia meet its renewable energy and climate targets:

- **Direct fiscal support to the fossil fuel sector should be avoided. Any support should be accompanied by a conditionality for the company to transition away from fossil fuel to clean energy alternatives.** For example, financial support to PT PLN should promote large-scale renewable energy, investments in the electricity grid to be able to adopt more intermittent sources, or renewable-based decentralized energy solutions in remote areas. Some of the fiscal support given to the fossil fuel sector should also be spent to improve and expand workers' skills for the renewable energy sector (Corkal et al., 2020). With proper training, workers would be ready to transition from the fossil fuel sector to the renewable energy sector. This could make the process of the energy transition smoother and more just.
- **Subsidies to fossil fuels should be reformed and reallocated to renewable energy.** Indonesia spends a lot of public money annually to make energy affordable by subsidizing fossil fuels for consumers and incentivizing the upstream fossil fuel industry. However, most of the current energy subsidies primarily benefit rich households (who consume more) and encourage wasteful energy consumption (Beaton et al., 2017). These subsidies and incentives could be reallocated to clean energy, incentivizing investment and making renewable energy economically viable and more competitive in the energy market. Reducing and/or eliminating fossil fuel subsidies would save significant amounts of public money, especially in the long term as support to renewables contributes to sustainability and substantially decreases their price (Bridle et al., 2019). Furthermore, some savings from reforming fossil fuel subsidies could be used for direct support to the poor—those who need it most.
- **Indonesia can raise revenue from the fossil fuel production sector to support the COVID-19 recovery—for example, by allocating the revenues from coal and oil and gas production (e.g., royalties/taxes).** Indonesia has financially benefited from its fossil fuel resources for decades. The recovery package has given out tax incentives (such as reduced tax rates) for companies (including fossil fuel



companies). Instead, taxing fossil fuels can potentially generate revenue for the government, which can also be better spent supporting the energy transition in Indonesia (Laan et al., 2021).

- **Ensure transparency in COVID-19 recovery fiscal spending, including transparency on requirements to receive this stimulus.** COVID-19 recovery money should be used to accelerate the economic recovery to benefit the Indonesian population. Non-transparent public funding allocations can be very vulnerable to waste, misuse, and even fraud, which means it is important for any government to be transparent on the spending (OECD, n.d.a) and allocation process. This can also increase public trust in the government. Indonesia should set a clear guidance to receive this stimulus (e.g., who can receive this support, what the requirements are, etc.). Indonesia asked the Asian Development Bank to review its 2020 COVID-19 recovery budget spending (ADB, 2021) as an act of transparency. This report provides data on how much was spent but only at a macro level. Increasing the level of detail could increase clarity about the use of public funds, fairness, integrity, and trust (OECD, n.d.a).



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The International Institute for Sustainable Development (IISD) is an award-winning independent think tank working to accelerate solutions for a stable climate, sustainable resource management, and fair economies. Our work inspires better decisions and sparks meaningful action to help people and the planet thrive. We shine a light on what can be achieved when governments, businesses, non-profits, and communities come together. IISD's staff of more than 120 people, plus over 150 associates and consultants, come from across the globe and from many disciplines. With offices in Winnipeg, Geneva, Ottawa, and Toronto, our work affects lives in nearly 100 countries.

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