SUBMISSION BY GOVERNMENT OF INDONESIA

To:

Secretariat Katowice Committee of Experts on the Impacts (KCI), UNFCCC

SUBMISSION – KCI WORKPLAN ACTIVITY 5:
Build awareness and understanding of Parties and other stakeholders to assess the economic impacts of potential new industries and businesses resulting from the implementation of response measures with a view to maximizing the positive and minimizing the negative impacts of the implementation of response measures.

I. Introduction

Committed to energy transition at the latest would bring many benefits to Indonesia—the earlier the target date, the better. But it will not be easy. It will require major new policies, changes in investment priorities, and strong collaboration across the government and with international partners and the private sectors. Line ministries with very different perspectives will need to embrace a common vision and, in some cases, make substantial changes to programs and policies.

Powerful business interests facing higher costs and/or reduced demand for their products can be expected to push back. If significant efforts are not taken to ensure a just and equitable transition, citizens may also resist policies that affect their livelihoods and increase costs of living. Effective policies can manage those risks, however, to avoid regressive impacts on low- and middle-income households.

Indonesia's abundant natural resource wealth from the marine, agriculture and mining sectors is a modality in encouraging sustainable agricultural development and economic growth. The Indonesian government has committed to carrying out an economic transformation towards a green economy or green products that have high added value. The green economy has been included in Indonesia’s medium-term development planning program documents with three priority programs, namely improving environmental quality, increasing disaster and climate change resilience, and fostering low-carbon development.

The Glasgow Climate Pact calls on parties to implement policies for energy transition towards low emission energy. Indonesia has responded to this call, by revising its National Energy Policy (KEN) and National General Energy Planning (RUEN) with a

larger portion reserved for New and Renewable Energy (NRE) generations than fossil-fuel generators. The National Energy Policy, which stipulates that the planned NRE NRE portion should have reached 23% of all Indonesia's energy mix in 2025 and 31% in 2050, is being revised with the addition of a plan to achieve Net Zero Emissions in the energy sector in 2060 or earlier.

The COVID-19 pandemic has created new challenges. Protecting public health, ensuring people's well-being, and keeping the economy afloat has required enormous efforts. Indonesia has included some green investments in its stimulus packages, but like many governments around the world, it has also prioritized protecting existing industries. This can help avoid near-term job losses, and policy-makers often perceive investments in well-established industries as "safer" than green investments. It shows, over time, those choices are actually riskier, as they "lock in" high-carbon industries and technologies, slower GDP growth, rising GHG emissions and pollution, and the degradation of Indonesia's natural capital. There is also significant evidence that investing in renewables, public transport and nature-based solutions can generate more jobs—as much as double or more—than the same investments on oil, gas and coal.

The COVID-19 crisis has also taken a significant toll on Indonesia's economy and on government resources. The country has already borrowed at unprecedented levels to help cover the costs of pandemic response and economic stimulus. Unless a net-zero vision is integrated into ongoing recovery efforts, Indonesia could lack the fiscal space to take ambitious climate action in the coming years. Additional investments will be needed in any case. There are real capacity gaps as well, and they will need to be addressed to enable Indonesia's institutions to steer their respective sectors in the right direction and manage the transition. Additional expertise will be needed in different ministries, along with reliable data to inform policy-making, technical capacity-building, and enhanced resources.

II. The strategy to build an awareness of the economic impacts of potential new industries and businesses in energy transition policy

In the energy sector, the Government through the Minister of Energy and Mineral Resources as the operational chairman of the National Energy Council is designing the National Energy Grand Strategy (GSEN) which includes a plan for energy transition from fossil-based energy to NRE for achieving the Net Zero Emission target gradually until 2060.

In 2021-2030, the biomass co-firing is implemented in Coal-Fired Power Plant (CFPP) and continue until its end-life, while other methods such as Clean Coal Technology (CCT), de-dieselization, fossil-based energy conversion to gas and Renewable Energy, introduction of electric stoves as 2 million households/annum, smart grid & smart meter are also implemented as well. No new fossil PP will be built after 2030, and the target of mass use of electric vehicles as many as 2 million of four-wheelers and 13 million of two-wheelers by 2030 is set. By 2030 Electricity Demand is targeted to reach 1,548 kWh/capita, Renewable Energy (which are dominated by Hydro, Geothermal Energy and Solar Power Plants) to reach 25%

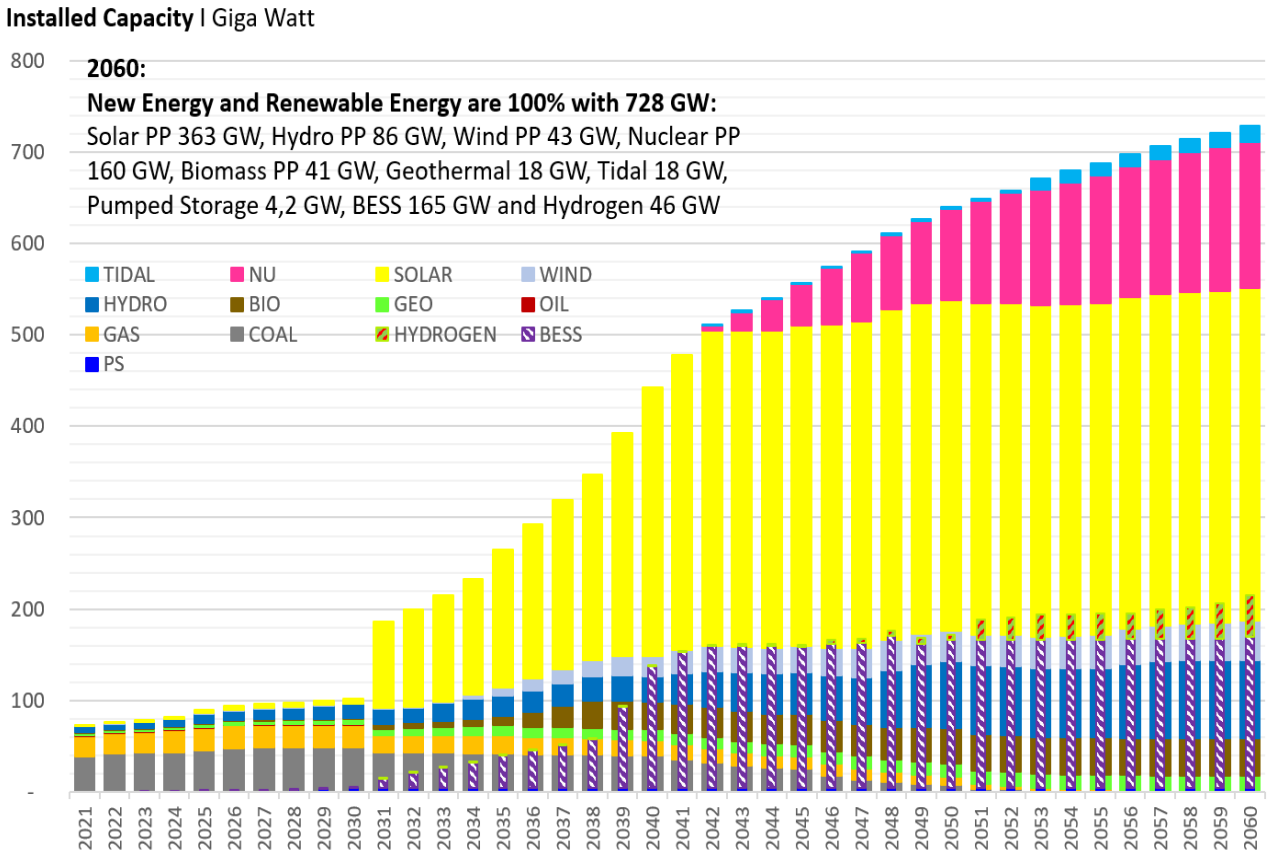
portion of all national Energy Mix and Emission reduction to reach 314 million tons CO2 and CO2 emission will peak at that time.

In 2031-2040, first stage Retirement for sub-critical Coal-Fired Power Plants (PP) in 2031, inter island interconnection will start commercial operation date (COD), no more Diesel PP, start hydrogen use for electricity and increase battery usage.

In 2041-2050, Large Scale Ocean Current PP and First Nuclear PP will start COD, NRE 93% is dominated by Solar, Hydro, and Bioenergy, reduce sales of conventional cars, Electricity Demand 4,299 kWh/capita.

In 2051-2060, massive utilization of Hydrogen, Gas-Fired PP and Coal-Fired Power Plants will be retired, 100% Renewable Energy in energy mix which are dominated by Solar PP, hydro, and wind, all two-wheelers are electric-based, electric stoves 52 million households and CO2 emission of Power Generation already zero from 2056.

In order to achieve environmentally friendly fuels, the government has determined the type of RON 90 gasoline as a type of fuel for special assignment and has eliminated RON 88 gasoline (Article 3 paragraph (4) of Presidential Regulation Number 117 of 2021 concerning the Third Amendment to Presidential Regulation Number 191 of 2014 concerning Supply, Distribution and Retail Selling Price of Oil Fuel in conjunction with the First and Sixth Dictum of the Decree of the Minister of Energy and Mineral Resources No. 37.K/HK.02/MEM.M/2022 concerning Types of Fuel Oil for Special Assignments). Both types of gasoline are equivalent to the euro II standard, but RON 90 is more environmentally-friendly than RON 88. For the type of diesel (gas oil) the Indonesian government has also implemented the Pertamina Dex (cetane 51 with a sulphur content of 50 ppm or equivalent to euro IV). Furthermore, to go towards environmentally-friendly fuels, the government will compile and establish a roadmap for environmentally-friendly fuel (Article 21C of Presidential Regulation Number 117 of 2021).



Picture-3. Energy Transition in Power Generation Towards to Net Zero Emission 2060

Building awareness of the response measure impact implementation in activity 5, the Government of Indonesia will set several policies this year as follows:

a. Revise Legislation on the National Energy Policy (KEN) to include the net zero emission strategy in the energy sector;
b. Revise Presidential Decree on the National General Energy Planning (RUEN) to include the net zero emission strategy in the energy sector;
c. Prepare the Ministerial Regulation on Carbon Capture Storage/Carbon Capture, Utilization, and Storage.

To increase public awareness on clean energy, the Government needs to educate and persuade the public so intensively that they will switch to NRE. Indonesia still needs technology-sharing from developed countries for advancing its renewable energy management so that Indonesia can reduce the NRE production costs and increase people's affordability of energy.

The impact caused by the policy will be responded to by improving the quality of human resources through training and education for workers engaged in the fossil-based energy sector to renewable energy, improving the quality of Small and Medium Enterprises (SMEs) as well as Micro Enterprises such as conversion workshops to support the conversion of conventional vehicles to electric vehicles.