



Comments on the draft Philippine Energy Plan 2018-2040

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The Center for Energy, Ecology, and Development (“CEED”) commends the Department of Energy (“DOE” or the “Department”) for initiating the much-needed review and update of the current energy plan. This is even more necessary in light of the significantly changed energy landscape due to the implications of the Coronavirus Disease 2019 (COVID-19). In response to the Department’s call for comments on the draft Philippine Energy Plan 2018-2040 (“PEP” or the “Plan”), CEED submits its recommendations and hopes to continue engaging the Department towards the finalization of a people-centered, ecologically just, and Paris-aligned energy plan.

CEED finds the 2018 energy situation and the drastically different COVID-19 energy situation presented in the PEP alarming. The energy situationer does not only provide data and statistics but a concrete explanation for the day-to-day reality of millions of Filipinos who face the consequences of a fossil fueled energy sector—toxic outdoor and indoor air pollution resulting to tens of thousands of pre-mature deaths, unsafe and inadequate transport, exorbitant prices paid for unreliable electricity, environmental degradation, and worsening climate impacts among others.

However, the corresponding Plan is removed from this reality as the Department even commits to “intensify the exploration and development of fossil fuels”.ⁱ Based on a regressive policy favoring fossil fuels, the PEP expectedly falls short in solving the glaring problems of the Philippine energy sector, which are aggravated by the ongoing pandemic.

To anchor the PEP in policies that are truly responsive to ecological and climate imperatives, CEED recommends the following:

1. Map out decarbonization pathways that are aligned with the 1.5°C Paris temperature goal

For its energy outlook, the PEP presents only two scenarios: Business As Usual Scenario (“BAU”) and the Clean Energy Scenario (“CES”). The targets of the CES, however, still include increase in natural gas consumption and use of highly efficient coal technology until 2040, which will result in continuous increase in greenhouse gas (“GHG”) emissions. Beyond considering growth targets in the AmbisyonNatin2040 and Philippine Development Plan 2017-2022 and the energy intensity target of the Asia-Pacific Economic Cooperation, the CES should prioritize the country’s commitments to the Paris Agreement and climate impacts especially in light of the Philippines’ highly climate vulnerable position. **Thus, CES targets should be aligned to the 1.5°C Paris temperature goal.**

Currently, the CES sets a target to reduce the energy sector’s GHG emissions by 11.3% only from 2020-2040 compared to BAU projections.ⁱⁱ However, according to the Intergovernmental Panel on Climate Change’s (“IPCC”) Special Report on Global Warming of 1.5°C, to keep global

warming at not more than 1.5°C and to avoid catastrophic climate impacts, we only have less than 10 years to slash global net anthropogenic CO₂ emissions by about 45% from 2010 levels, and less than 30 years to reach net zero CO₂ emissions.ⁱⁱⁱ **To ensure that we don't miss recommended CO₂ emissions reduction, the CES should have clear and time-bound decarbonization targets.**

DOE recognizes that “without policy intervention for low carbon technology, coal continues to dominate the generation mix until 2050”^{iv}. It bears stressing that according to the first modelled 1.5°C pathway in the IPCC's Special Report, the use of coal for electricity should be reduced to close to 0% by 2050.^v **Decarbonization targets should prioritize the coal industry and assess the concurrent GHG avoidance and reduction benefits:**

- No new coal capacity starting 2020, regardless of technology. This means shelving all pipeline coal projects. Coal remains the single largest contributor to the climate emergency.
- Mandatory retirement of operating old coal plants at the end of their economic lifespan.
- Early retirement of newly operating coal plants by the end of this decade, which necessitates renegotiation of their coal power supply agreements (“PSAs”).

Finally, the PEP should map out several clean energy scenarios, similar to its effort to simulate different sustainable scenarios for nuclear energy.^{vi} Laying down varying decarbonization pathways would provide a comprehensive understanding of available energy sources and technologies, and GHG avoidances and reductions; assist policy makers in crafting adequate policy interventions geared towards building our capacity to decarbonize; guide industry players in their plans and investments; and, most importantly, inform stakeholders of the government's intended climate response.

2. Raise ambitions to a 100% renewable energy mix by 2040

In view of the tight climate race ahead of us, CEED recommends that the DOE raise ambitions to a 100% renewable energy mix by 2040. Although the IPCC's Special Report projects that we have until 2050 to meet emission reductions targets, adopting a more ambitious goal will provide us elbow room to adjust and respond to unexpected socio-political barriers, economic conditions, or crises that may prevent us from following decarbonization pathways and meeting optimal targets.

Setting a 100% renewable energy mix target will likewise oblige the DOE to adopt a backcasting, instead of forecasting, approach in simulating decarbonization pathways.

This means working backwards to the present in order to surface transition barriers and opportunities and reveal important interventions to reach the desired end.^{vii} This approach would also surface that **DOE's long-standing technology-neutral stance in energy planning is one of the biggest barriers to the energy sector's decarbonization. And its newly declared regressive policy to intensify the exploration and development of fossil fuels,^{viii} in contravention to its Renewable Energy Law mandates, would pose an even bigger barrier.**

Raising ambitions will also allow us to reap co-benefits as early as possible. For instance, integrating more renewables in the power mix today would result in wholesale electricity prices that are 30% cheaper.^{ix} An assessment of MERALCO's detailed generation rates indicate that coal generation rates are among the most expensive, while renewable generation rates are among the cheapest.^x For the millions of MERALCO electric consumers still reeling from the

effects of bill shock, an immediate shift to renewable energy will also result in cheaper electricity bills. Distributed renewable energy systems could also bridge the gap in national electrification initiatives, powering and empowering some 2.3 million households that remain unelectrified.^{xi} Needless to say, renewable energy use will also reduce air pollution and environmental degradation resulting from fossil fuels consumption.

3. Formulate just transition plans for affected sectors, making sure to prioritize highly polluting and energy-intensive sectors such as power, transportation, and industry

Amid the pandemic, the country's unemployment rate is at an all-time high, with 7.3 million jobless Filipinos and counting.^{xii} Decarbonization of the energy sector could spell more unemployment for workers in fossil fuel industries. The implementation of the PUV Modernization Program during the pandemic, for example, has provided a grim picture of the social impacts of decarbonizing a fossil fuel sector to affected transport workers.

After almost four months of halting transport operations during the enhanced and modified community quarantine, traditional public utility jeepneys (PUJs) operators and drivers were not allowed to operate alongside other public utility vehicles unless they comply with the PUV Modernization Program. This has affected over tens of thousands of PUJs workers, who have lost more than P2.2 billion in wages.^{xiii} Many have since resorted to begging.^{xiv}

The experience of our PUJ transport workers emphasize the dire importance and urgency of integrating the concept of just transition in the PEP. The current Plan discusses job generation across all energy sources but severely lacks a comprehensive assessment of job losses for transitioning industries, and a set of transition programs and assistances in the form of subsidy for low-carbon technologies such as modernized PUJs, reskilling or retraining workshops, and concessional loans to name a few.

To initiate this process, CEED recommends that highly polluting and energy-intensive sectors such as power, transportation, and industry be prioritized. A just transition framework and plan for each of the sectors must be laid out after a series of comprehensive and inclusive consultation with affected stakeholders and experts. To ensure that affected workers are at the heart of the transition, just transition plans should, at the minimum, include:

- Identification of all affected workers and stakeholders,
- Assessment of financial and training needs for affected workers,
- Adequate provision of transitional support and assistance for workers,
- Conversion of abandoned fossil fuel infrastructures into green project infrastructures, and
- Proper disposal of abandoned fossil fuel units such as traditional PUJs.

4. Upgrade existing transmission infrastructure to increase integration of renewables and emerging storage technologies

To upgrade and expand transmission infrastructure for greater renewables integration, the PEP relies on the Competitive Renewable Energy Zones (CREZ). Out of the 807 GW of nation-wide CREZ gross renewable energy potential capacity, initial modeled transmission expansion scenarios can integrate only more than 30 GW by 2040.^{xv} According to the CES, total installed generating capacity would reach approximately 95 GW by 2040, with additional renewable energy capacity comprising around 45 GW.^{xvi}

In order to displace the approximately 25 GW of additional capacity from other fossil fuels,^{xvii} other complementary mechanisms such as the smart grid roadmap must be fast-tracked. Enhancing grid flexibility will overcome the need for baseload coal, which has caused grid instability during this pandemic. Since the expansion for smart grids is still underway, emerging storage technologies can also enable variable renewable energy to supply baseload demand.

5. Incentivize innovative technologies that increase energy efficiency and empower communities

The PEP laid out a promising energy efficiency roadmap.^{xviii} To achieve the overall objective of a quantifiable reduction in energy intensity and consumption per year, it would help to have more detailed targets defined from 2023 onwards. For instance, fast-tracking transport augmentation using electric vehicles (EVs) and other technologies maximizes energy savings while addressing the transport crisis. Instead of a flat 10% share by 2040, EV road share target, a more ambitious annual incremental targets could be set and a detailed roadmap to achieve said targets could be laid down.^{xix}

On the other hand, the alternative fuels and technologies roadmap provides more defined and ambitious targets that can be pursued throughout the timeline.^{xx} What may be lacking for alternative technologies is broader application. Most of the slated programs aim to augment the transport sector, meanwhile there is limited development towards residential application. Community microgrids and other distributed energy systems, for example, are some of the technologies that could benefit from performance testing and demonstration. To incentivize innovative technologies such as community microgrids, the PEP should include a microgrids program, which should also reduce access barriers.

6. Set a clear policy and timeline on fossil gas consumption

The PEP aggregates natural gas alongside other renewables under the term “green energy”.^{xxi} As the primary agency leading the decarbonization of the energy sector, DOE should not be the cause of confusion on clearly defined energy sources. Natural gas is a fossil fuel, which should be more accurately referred to as “fossil gas”. It emits an annual average of 4.932 million tons of CO₂ equivalent.^{xxii}

Thus, along with other fossil fuels, fossil gas should be phased-out in the CES and other decarbonization pathways to be simulated. Instead of setting a 3% increase in aggregate fossil gas consumption as a CES target, **the CES should formulate clear, time-bound targets on decreasing fossil gas consumption until 2040.**

7. Dismiss false solutions such as nuclear energy and waste-to-energy systems

The PEP outlines a detailed Nuclear Power Program despite strong public opposition to nuclear energy. It even presents “sustainable” scenarios, comparing fossil gas displacing coal versus nuclear energy displacing coal.^{xxiii} Instead of allocating resources to exploring the integration of highly risky nuclear energy, scenarios simulating the potential of varying mixes of renewables should be prioritized. This should show more conclusively that nuclear energy is neither more viable nor less risky.

For an archipelago situated in the Pacific Ring of Fire, nuclear energy likewise poses unparalleled risks to the people and the environment. Disposal of nuclear waste would also

become a heavy burden. Much like coal, nuclear energy is also inflexible and would need major capital investment. As deposits of nuclear energy fuels such as uranium do not exist in the Philippines, development of nuclear energy would make us more dependent on imported fuels and render us vulnerable to global price shifts. These fuels are also extracted through polluting manners that contribute to, rather than counter, the climate crisis.

CES targets also mentions 1,200 MW of emerging technologies. To be sure, these emerging technologies should not include waste-to-energy systems which would encourage further wasteful production and consumption and simply move pollution from the ground to the air.

8. Prioritize increasing energy self-sufficiency, which will consequently increase resiliency of our energy systems to the ongoing pandemic and to future crises

The country's self-sufficiency saw a decline in 2018, indicating a rise in net imports of coal and oil.^{xxiv} The risks associated with overdependence on imported fossil fuels and low energy self-sufficiency surfaced during the COVID-19 pandemic as certain restrictions were placed on the importation and transport of coal. The Independent Electricity Market Operator of the Philippines (IEMOP) sounded off the alarm that power rates might spike as soon as restrictions were imposed on coal supply.^{xxv} These power rate spikes were in fact experienced by contested and captive consumers alike, the latter due to unfavorable coal power supply agreements.

In the meantime, domestic renewable resources maintained optimal performance.^{xxvi} The performance of renewables during the pandemic attests that we can have reliable and resilient renewable energy systems while increasing self-sufficiency.

9. Adopt a more comprehensive valuation parameters for power supply procurement to account for externalities

The increased number of coal-affected communities intervening in PSA applications and raising health, environmental, and other external costs indicate that the valuation parameters for power supply procurement is outdated and incomprehensive. While these are costs that are often overlooked in competitive bidding, these are the costs that affect the everyday lives of ordinary Filipinos. Discussions on the competitive selection process and green energy auction program still do not address this important policy gap.

To adopt a more comprehensive valuation parameter for power supply procurement, the computation of externalities to capture the real cost of a power project should be an essential component. For example, external costs of a coal power project would include the monetary value of human health impacts, loss of livelihood, environmental destruction, and climate impacts.

10. Provide relief to electric consumers during the pandemic

The lifeline rates threshold should be recalibrated considering more households are in need of relief. A low-income household has an average consumption of 60kWh, while a middle-income household has an average consumption of 210 kWh.^{xxvii} The lifeline consumption threshold should be increased from 100 kWh to 210 kWh considering there was an observed increase in poverty incidences^{xxviii} and growth of unemployment during the pandemic.^{xxix} Subsidies for electricity bills offer much needed relief for approximately 5.7 million low-income households and additional lower middle-income households comprising part of the 1.5 million middle-income households.^{xxx}

For Meralco electric consumers, refund payments can be a source of relief. MERALCO was ordered to issue refunds to consumers based on a 2003 Supreme Court ruling that income tax should not be passed on to consumers as a component of an electricity bill. The Power for People Coalition estimates the remaining refunds at P19.126 Billion, inclusive of interest to compensate for the delay and inconvenience brought onto consumers. The long overdue refunds should be paid urgently as it can serve as additional relief for consumers who have lost their livelihoods during this pandemic.

Endnotes

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- ii *Id.* at p. 167.
- iii Intergovernmental Panel on Climate Change (IPCC), *Special Report on Global Warming of 1.5°C*, Summary for Policymakers, p. 14. Retrieved from <https://www.ipcc.ch/sr15/>
- iv DOE, *Draft Philippine Energy Plan 2018-2040*, p. 175.
- v IPCC, *Special Report on Global Warming of 1.5°C*, Summary for Policymakers, p. 16. Retrieved from <https://www.ipcc.ch/sr15/>
- vi DOE, *Draft Philippine Energy Plan 2018-2040*, pp. 175-176.
- vii See Jim Williams and Henri Waisman, 2050 Pathways: A Handbook. Retrieved from <https://www.2050pathways.org/wp-content/uploads/2017/09/2050Pathways-Handbook-1.pdf>
- viii DOE, *Draft Philippine Energy Plan 2018-2040*, p. 47.
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- x Power for People, *Position Paper on Important Points Discussed by the Committee on Good Government and Public Accountability During the 5th Hearing on House Resolution 879 and 882 Held on the 15th of July 2020*.
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- xiv Hungry, homeless, jeepney drivers resort to begging, The Manila Times, August 17, 2020. <https://www.manilatimes.net/2020/08/17/news/top-stories/hungry-homeless-jeepney-drivers-resort-to-begging/756492/>
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- xvi *Id.* at p. 30.
- xvii *Ibid.*
- xviii *Id.* at p. 146.
- xix *Id.* at p. 19.
- xx *Id.* at p. 154.
- xxi *Id.* at p. 10.
- xxii *Id.* at pp. 39-40.
- xxiii *Id.* at p. 176.
- xxiv *Id.* at p. 9.
- xxv Myrna Velasco, Delays in coal deliveries to trigger power rate spikes, Manila Bulletin, May 7, 2020. <https://mb.com.ph/2020/05/07/delays-in-coal-deliveries-to-trigger-power-rate-spikes/>
- xxvi Independent Electricity Market Operator of the Philippines (IEMOP), IEMOP Powers Continuous Market Operations During the ECQ as of 23 April 2020.
- xxvii See Philippine Institute of Development Studies, *Energy Consumption, Weather Variability, and Gender in the Philippines: A Discrete/Continuous Approach*, March 2017.
- xxviii Vernise Tantuco, *Expect Increase in Poverty as COVID-19 Ushers in Duterte's 4th Year*, Rappler, 2 July 2020.
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ABOUT CEED

The Center for Energy, Ecology, and Development is a think-do institution that conducts research and advocacy, and partners with communities in promoting transformative energy, ecological justice, and people-centered development.

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