9

Senate
Office of the Secretary

'22 JUL 18 A9 :50

NINETEENTH CONGRESS OF THE REPUBLIC OF THE PHILIPPINES
First Regular Session

SENATE

P.S. RES. No. 40

RECEIVED BY:

Introduced by Senator WIN GATCHALIAN

A RESOLUTION DIRECTING THE APPROPRIATE SENATE COMMITTEE TO CONDUCT AN INQUIRY IN AID OF LEGISLATION ON CARBON CAPTURE AND STORAGE TECHNOLOGY AND OTHER NEW CLEAN ENERGY TECHNOLOGIES WITH THE END IN VIEW OF MITIGATING GREENHOUSE GAS EMISSIONS EMISIONS WHILE ENSURING ENERGY SECURITY IN THE COUNTRY

WHEREAS, Section 2 of Republic Act No. (RA) 9136 otherwise known as Electric Power Industry Reform Act of 2001 provides, among others, that it is the declared policy of the State to: i) ensure the security of electric power supply; and ii) assure socially and environmentally compatible energy sources;

WHEREAS, Article 2(1)(a) of the Paris Agreement provides that its purpose among others, is "[h]olding the increase in the global average temperature to well below 2^{0}C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5^{0}C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change.[1]" In order to attain the long-term temperature goal, Article 4(1) of the Paris Agreement provides that "[p]arties aim to reach global peaking of greenhouse gas emissions as soon as possible;[2]"

WHEREAS, on 28 February 2017, President Rodrigo Roa Duterte signed the Paris Agreement,[3] and on Senate on 14 March 2017, the Senate of the Philippines

[1] Article 2(1)(a) of Paris Agreement (2015). United Nations. Available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf. Accessed on 7 January 2021.
[2] Article 4(1) of Paris Agreement (2015). United Nations. Available at https://unfccc.int/sites/default/files/english_paris_agreement.pdf. Accessed on 25 January 2021.
[3] Duterte finally signs Paris Agreement on Climate Change. Philippine Daily Inquirer. 2 March 2017.Available at https://globalnation.inquirer.net/153030/duterte-finallly-signs-paris-agrement-climate-change. Accessed on 16 November 2020.

adopted Senate Resolution No. 320 concurring in the Accession to the Paris Agreement.[4] On 15 April 2021, the Philippines communicated its updated Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCC). It "commits to a projected GHG[5] emissions reduction and avoidance of 75%, of which 2.71% is unconditional and 72.29% is conditional, representing the country's ambition for GHG mitigation for the period 2020 to 2030 for the sectors of agriculture, wastes, industry, transport, and energy.[6]"

WHEREAS it is crucial to reduce CO_2 emission to reduce GHG emission in the country. As of 2020, out of 120.01 million ton of CO_2 equivalent ($MtCO_2e$) recorded total GHG emission of the country, 119.4 $MtCO_2e$ or 99.49% is CO_2 emission while only 0.61 $MtCO_2e$ or 0.51% is non-CO_2 emission. By sector comparison, power generation accounts the largest share at 69.7 $MtCO_2e$ or 58.38% of the total CO_2 emissions, followed by transport sector at 27.27 $MtCO_2e$ or 22.84% of the total CO_2 emissions;[7]

WHEREAS, based on the current energy framework, coal and oil are expected to be part of the energy mix until 2040. -As of 2020, percentage of coal in the power generation mix is at 58.2% while oil accounts 2.5% of the power generation mix.[8] Moreover, based on the Upstream Oil and Gas Roadmap, by 2040, the country targets to increase oil reserves by 138% from 48.7 million barrels (MMB) in 2022 to 116 MMB in 2040[9] while the Upstream Coal Roadmap provides that the country seeks to increase coal reserves by 44.53% from 530 million metric tons(MMMT) to 766 MMMT by 2040.[10]

WHEREAS, it is necessary for the country to explore technologies that can reduce the CO_2 emissions in the country notwithstanding that coal and oil are projected to be part of the energy mix until 2040 such as the carbon capture and storage (CCS);

WHEREAS, CCS is defined as "a combination of technologies designed to prevent the release of CO_2 generated through conventional power generation and

---

[4] Senate concurs in ratification of Paris Agreement. Senate of the Philippines. 14 March 2017. Available at http://legacy.senate.gov.ph/press_release/2017/0314_prib1.asp. Accessed on 7 January 2021.
[5] Greenhouse gas emissions.
[6] Green Growth Knowledge. Nationally Determined Contribution Communicated to the UNFCCC on 15 April 2021. Available at https://www.greengrowthknowledge.org/sites/default/files/downloads/policy-database//Philippines%20-%20NDC.pdf. Accessed on 22 June 2022.
[7] Page 20 of 2020 Philippine Energy Situationer & Key Energy Statistics.DOE. Available at https://www.doe.gov.ph/sites/default/files/pdf/energy_statistics/doe-pes-kes-2020.pdf. Accessed on 22 June 2022.
[8] Page 35 of PEP 2020-2040. Available at https://www.doe.gov.ph/sites/default/files/pdf/pep/PEP_2020-2040_signed_01102022.pdf?withshield=2. Accessed on 22 January 2022.
[9] Page 49 of PEP 2020-2040. Available at https://www.doe.gov.ph/sites/default/files/pdf/pep/PEP_2020-2040_signed_01102022.pdf?withshield=2. Accessed on 22 January 2022.
[10] Pages 54 of PEP 2020-2040. Available at https://www.doe.gov.ph/sites/default/files/pdf/pep/PEP_2020-2040_signed_01102022.pdf?withshield=2. Accessed on 22 January 2022.

industrial production processes by injecting the CO_2 in suitable underground storage reservoirs;"[11]

WHEREAS, according to Climate Technology Centre and Network, "[t]he deployment of CCS in the industrial and power generation sectors would allow fossil fuel use to continue with a significant decrease in CO_2 emissions."[12] As of 2020 there are 65 commercial CCS facilities in the world;[13]

WHEREAS, globally, there is consistent effort to develop new clean energy technologies which are more efficient and economically competitive. Some of the new clean energy technologies include, but are not limited to bifacial solar, floating solar, green hydrogen, ocean power, renewable gas, renewable diesel, and energy storage systems;

WHEREAS, there is a need for the Department of Energy (DOE), the Energy Regulatory Commission (ERC), and other government agencies to encourage the entry of these new technologies by providing guidelines and regulations on the development and use of these new clean energy technologies in the country. This is because it is important for the country to adopt available technologies to reduce CO_2 emissions which would consequently reduce GHG emissions to attain its commitments under the Paris Agreement and policies laid out in RA 9136 while meeting the energy requirements;

NOW THEREFORE BE IT RESOLVED, as it is hereby resolved, to direct the appropriate Senate Committee to conduct an inquiry, in aid of legislation, on CCS and new clean energy technologies with the end in view of mitigating GHG emissions in the country while ensuring energy security in the country.

Adopted,

WIN GATCHALIAN

---

[11] CO2 capture technologies. Climate Technology Centre & Network. Available at https://www.ctc-n.org/technologies/co2-capture-technologies#:~:text=Carbon%20capture%20and%20storage%20(CCS,in%20suitable%20underground%20storage%20reservoirs. Accessed on 24 January 2021.

[12] CO2 capture technologies. Climate Technology Centre & Network. Available at https://www.ctc-n.org/technologies/co2-capture-technologies#:~:text=Carbon%20capture%20and%20storage%20(CCS,in%20suitable%20underground%20storage%20reservoirs. Accessed on 24 January 2021.

[13] Global Status of CCS 2020. Global CCS Institute. Available at https://www.globalccsinstitute.com/wp-content/uploads/2020/12/Global-Status-of-CCS-Report-2020_FINAL_December11.pdf. Accessed on 24 January 2021.