



# NDCP Executive Policy Brief

A PUBLICATION SERIES ON NATIONAL SECURITY ISSUES  
BY THE NATIONAL DEFENSE COLLEGE OF THE PHILIPPINES

17 December 2018  
No. 2018-02

## Examining the Philippines' Efforts in Promoting Energy Security and Economic Development under the Duterte Administration

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### Introduction

Elected in 2016, President Rodrigo Duterte launched an ambitious development agenda the “*Build Build Build Initiative*” as prescribed under the government’s *Ambisyon Natin 2040*, which aspires for a strongly rooted (*Matatag*), comfortable (*Maginhawa*), and secure life (*Panatag na Buhay*) for all Filipinos by 2040.<sup>1</sup> Infrastructure development, particularly on ensuring sustainable, secure, sufficient, accessible, and reasonably-priced energy, is among the top priorities identified under the Philippine Development Plan (PDP) 2017-2022.<sup>2</sup>

Supportive of these initiatives, the Department of Energy (DOE) crafted the *Energy Sector Strategic Directions from 2017 to 2022 and beyond* to serve as the overall energy agenda of the government towards achieving energy security, sustainable development and improve access to clean energy. It also underscores the priority areas that need immediate and focused action.<sup>3</sup>

Guided by the *Eight (8) Energy Sector Strategic Directions*, ensuring energy security is of prime attention. In a broadest sense, as discuss under the 2017-2040 Sectoral Plans and Roadmaps of DOE energy security can be viewed as having a reliable energy infrastructure, adequate and affordable energy supply that can meet the current and future demand.<sup>4</sup> It requires the sufficiency and growth of energy supply, as well as the diversification of generation portfolio, and reduced dependence on imported fuel by supporting local and indigenous sources of energy.<sup>5</sup>

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The International Energy Agency (IEA) defines “energy security as the uninterrupted availability of energy sources at an affordable price.”<sup>6</sup> Notably, energy security has many aspects. Long-term energy security mainly deals with timely investments to supply energy in line with economic developments and environmental needs. On the other hand, short-term energy security focuses on the ability of the energy system to react promptly to sudden changes in the supply-demand balance.<sup>7</sup> Furthermore, as the Philippines’ moves forward for greater economic prosperity it is projected that the total energy consumption of the country will increase in the succeeding years to come.

This paper<sup>8</sup> aims to discuss the energy security situation of the Philippines under the leadership of President Duterte and how does economic development affect the Philippines energy security outlook which emanates from

the increase in energy supply demand. Specifically, this paper will focus on addressing the following questions: (1) How does the Philippines view energy security?; (2) What is the energy security situation of the Philippines?; (3) What is the relationship between energy security and economic development in the Philippine context?.

## Energy Security in the Philippines

The Philippines 2018 National Security Strategy (NSS) defines energy security as “the uninterrupted availability of energy sources to all households and economic sectors throughout the country at an affordable price.”<sup>9</sup> As of 2016, the country's total final energy consumption (TFEC) reached 33.1 million tons of oil equivalent (MTOE) with the transportation sector, as the most energy intensive sector, accounting for more than one-third (37.2 percent) of the final energy demand. Moreover, in line with the government's “*Build Build Build Initiative*” highlighting archipelagic growth and connectivity, the country is then expected to have a more assertive stance on infrastructure development over the medium term, particularly on the transport sector with the end view of constructing more railways, urban mass transport, airports and seaports, bridges and roads. Given the foregoing, the transport sector will continue to dominate the country's total energy demand, with an annual average share of 38.2 percent in the TFEC and projected growth rate of 4.5 percent from its demand level of 12.3 MTOE in 2016 to 35.5 MTOE in 2040.<sup>10</sup>

According to the National Economic Development Authority (NEDA), the Philippines must continuously invest in improving the country's energy capacity to attain energy security that will allow the country to sustain its rapid growth and make it more inclusive.<sup>11</sup> On the status of energy mix in the country, Undersecretary Jesus Posadas of the Department of Energy (DOE) noted that the Philippines installed generating capacity in the first quarter of 2017 has significantly increased more than threefold as compared to 6,869 megawatts in 1990. In terms of capacity, coal remains to hold the largest share at 35% followed by renewable energy (RE) at 32.5%. The renewable energy-

based installed capacities of the Philippines come from hydropower (16.8%) and geothermal (8.8%) while oil-based and natural gas had shares of 16.6% and 15.9%. Undersecretary Posadas also underscored that the economic plan of President Duterte will require an additional 42, 765 megawatts for the succeeding years until 2040 as industry players increases.<sup>12</sup>

At the regional level, Association of Southeast Asian Nations (ASEAN) member states are at various phases of economic development and have different energy resource endowments and consumption patterns and that the challenge to meet rising demand in a secure, affordable and sustainable manner is shared among ASEAN countries.<sup>13</sup>

Based on the Southeast Asia Energy Outlook 2017 Report of the International Energy Agency (IEA)<sup>14</sup>, the region remains an important producer of oil, gas and coal, but faces several challenges, especially in the near term. Per said report, oil supply continues the recent decline trajectory, falling from 2.5 million of barrel per day (mb/d) in 2017 to 1.7 mb/d in 2040, offsetting production declines from mature fields becomes all the more difficult in the current period of lower prices and investment. It is likewise noted that a slight rise in production in Brunei Darussalam and the Philippines is not enough to offset declines in Indonesia, Malaysia and Viet Nam. Notwithstanding, with the region as a whole expeditiously keeping production at around the same level as today in the period to 2040, pricing of natural gas would remain reasonable.<sup>15</sup>

Recognizing that a more expeditious realization of energy projects stimulates economic growth, President Duterte signed on June 2017 Executive Order (EO) No. 30 entitled “Creating the Energy Investment Coordinating Council in Order to Streamline Regulatory Procedures Affecting Energy Projects.”<sup>16</sup>

Under the presidential issuance, the DOE, in the interest of securing and fast-tracking energy investments, is now given the capacity to shorten the period of issuing permits and licenses for energy projects. Such EO has likewise advanced for a more streamlined regulatory

procedure of implementing Energy Projects of National Significance (EPNS). This, therefore, offers a more attractive business climate for investors.<sup>17</sup>

### **Economic Development and Energy Security**

In spite of the fact that the Philippines is poised to become an upper middle economy and thus heavily relying on larger supply of energy, energy efficiency and conservation (EEC) efforts are being practiced. However, more work is needed to optimize the benefits of demand-side management. It has been recorded that, in 2015, the country was able to save energy amounting to 5,199.6 kilotonne of oil equivalent (KTOE) through the various programs under the National EEC Program's. Moreover, as of March 2016, energy service companies (ESCOs) have already been accredited by DOE in view of accelerating the implementation of the government's EEC initiatives. The objectives espoused by EEC programs, which encourage the practice of sensible energy habits in government and private establishments, households and transportation to achieve greater energy savings, are already taking effect but need to be expanded to include the development and promotion of new technologies and programs.

In the interest of improving energy efficiency, to push for the full implementation of the EEC program that is aimed to support economic growth and environmental protection.<sup>18</sup> To achieve this, the government needs to do the following: (a) Push for the enactment of the EEC bill to promote demand-side management and incentivize energy efficiency projects; (b) Impose minimum energy performance standards for energy-intensive industries and energy-consuming products; (c) Implement a policy allowing government agencies to engage the services of ESCOs; and (d) Implement the 2016-2020 EEC Action Plan and the Alternative Fuels Roadmap to provide incentives for the implementation of energy efficiency projects.<sup>19</sup>

Furthermore, keeping the cost of energy low enough is one of the energy sector's major concerns. And while reducing the cost of

electricity is vital to improving the competitiveness of industries and encouraging private sector investments, the proper equilibrium among the rates, service reliability, and the environmental implications of the different technologies utilized should be ensured.<sup>20</sup> An optimal energy mix is set forth in order to provide maximum benefits at the most reasonable costs to consumers while safeguarding the sector from external shocks. Indeed, ensuring adequate market competition is deemed essential in view of driving down electricity costs.<sup>21</sup>

### **Sustaining Energy Supply**

As per DOE's projection<sup>22</sup>, energy self-sufficiency can be maintained at 60.0 percent through reduction of the country's dependence on imported energy, specifically fossil fuels. To achieve this, the government will intensify its efforts on acquiring the required massive investments and fast-tracking the implementation of infrastructure projects to improve power generation.<sup>23</sup>

Also, research and development agenda with regard to optimal energy mix based on the appropriate allocation of capacities (i.e., baseload, intermediate, peaking) and technologies (i.e., renewable energy, nuclear, coal, oil, gas, etc.) should be pursued. Such is deemed to be a vital development stride towards a fuel mix policy for power generation that takes into account the challenge of securing greater system stability and security of supply to meet power systems demand, as well as to increase the country's system reserve.<sup>24</sup>

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In view of shorter gestation period and in response to the country's baseload capacity requirement, as well as, consistent with a technology-neutral policy, investment on conventional sources of energy (e.g., coal-fired power plants) is inevitably necessary. Moreover, it should be noted that the government does not have direct control to set the energy mix given the current power industry structure, and cannot impose low carbon growth on private investments. Unlike other neighbor countries such as Indonesia and Vietnam, the Philippine government has gradually reduced its role in the generation sector and only maintains its role in missionary areas.<sup>25</sup> The government merely relies on current policy mechanisms and incentives enshrined in the RE law (RA No. 9513).<sup>26</sup>

Nonetheless, the energy sector has institutionalized policy and program mechanisms and interventions would spur utilization of renewable energies and provide an enabling environment that mitigate the impacts of global warming.<sup>27</sup>

In the interest of addressing the growing concerns on the negative impacts of climate change to the environment, nature, and people, accelerating RE is thus deemed necessary. On the positive side, the expeditious means to promote RE development is through hastening of the implementation of remaining policy mechanisms under the RE law (e.g., RE market, renewable portfolio standards) to further encourage development.<sup>28</sup>

In addressing the intermittence of RE, compliance to the DOE Department Circular DC2015-07-014, "Guidelines for Maintaining the

Share of RE in the Country"<sup>29</sup> and Department Circular DC2015-03-0001, "Promulgating the Framework for the Implementation of Must Dispatch and Priority Dispatch of RE Resources in the WESM"<sup>30</sup> should be strictly monitored. In addition, thorough implementation of the National Renewable Energy Program, which envisions to triple the 2010 installed capacity from 5,439 MW to 15,304 MW by 2030<sup>31</sup>, under the purview of DOE and National Renewable Energy Board (NREB) should be sustained.

### Policy Considerations

In view of ensuring energy security for the Philippines, the country may consider the following initiatives.

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*First, reduce the cost of energy by introducing market competition.* The Philippines' electricity rates remain among the highest in Asia owing to, among others, the absence of state subsidy for the rates of privately-generated, transmitted, and distributed power supply.<sup>32</sup> In this light, ensuring adequate

market competition is deemed essential in view of driving down electricity costs.

*Second, improve access to energy.* While there has been considerable effort in recent years to pursue nationwide distribution of electricity, gaps in access especially in the rural and off-grid areas remain. Much is still needed to achieve the 7<sup>th</sup> Sustainable Development Goal (SDG) of universal energy access by 2030<sup>33</sup> particularly in Mindanao where household electrification level stands only at 72.38 percent.<sup>34</sup> Strong support in leveling up energy infrastructure development (e.g., Mindanao-Visayas Interconnection, Small-Island Interconnection, Integrated Liquefied Natural Terminal)<sup>35</sup> in view of inclusive growth.



Third, provide effective and efficient policy response. Persistent issues on energy projects delay brought by hurdles on procurement and uncertainties over financing, among others, are the continuing threat in making energy projects realized.<sup>36</sup> In response to this, the need to facilitate an expedient enactment/passage of new policy directions and the firm institution of energy sector roadmaps is essential in order to ensure energy security and strong investment participation from the private sector.

## Conclusion

Under the Duterte administration, critical infrastructure projects are seen to spur economic growth. On the other hand, it has also posed serious concerns over the increasing demand on energy supply and has consistently raised questions about the stability and sufficiency of energy in meeting the present and future demands.

It is an incontrovertible fact that energy security is crucial for the success of the government's agenda and this can be met by encouraging investment and infrastructure development that could help expand access and provide affordable and reliable energy for all. There are many rooms for improvement in the full spectrum of the energy sector, from the power generation, transmission, distribution, to energy supply.

Overall, the Philippines must continue to implement programs that promote the utilization of alternative fuels and new advance energy technologies to effectively manage the country's utilization of energy sources.

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## Endnotes

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<sup>2</sup> Government of the Republic of the Philippines, National Economic Development Authority, *Philippine Development Plan 2017-2022*, Pasig City: National Economic Development Authority, 2017, 283-316

<sup>3</sup> Government of the Republic of the Philippines, Department of Energy, Energy Policy and Planning Bureau, *Energy Annual Report 2017*, Taguig: Department of Energy, 2017, 7-20.

<sup>4</sup> Government of the Republic of the Philippines, Department of Energy, *Sectoral Plans and Roadmaps 2017-2040*, Taguig: Department of Energy, 2017, 1-38.

<sup>5</sup> Department of Energy, *Energy Annual Report 2017*, 7-20.

<sup>6</sup> International Energy Agency [online]. (2014). Available from: <<http://www.iea.org/topics/energysecurity/>>. [Accessed 14 December 2018].

<sup>7</sup> Ibid

<sup>8</sup> This policy brief is partly condensed from the author's graduate school project wherein key insights were gathered through Key Informant Interviews (KII) with representatives from the Department of Energy and National Economic Development Authority.

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<sup>10</sup> Government of the Republic of the Philippines, Department of Energy, *Energy Demand and Supply Outlook 2017-2040*, Taguig: Department of Energy, 1-20.

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<sup>18</sup> National Economic Development Authority, *Philippine Development Plan 2017-2022*, 283-316.

<sup>19</sup> Ibid

<sup>20</sup> Ibid

<sup>21</sup> Ibid

<sup>22</sup> Department of Energy, *Energy Demand and Supply Outlook 2017-2040*, 1-20.

<sup>23</sup> National Economic Development Authority, *Philippine Development Plan 2017-2022*, 283-316.

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<sup>29</sup> Government of the Republic of the Philippines, Department of Energy, *Department Circular No. DC2015-07-0014*, 2015, Taguig City.

<sup>30</sup> Government of the Republic of the Philippines, Department of Energy, *Department Circular No. DC2015-03-0001*, 2015, Taguig City.

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