



# International Cooperation through Papua New Guinea Electrification Partnership (PEP) Assists Regulators in Meeting Ambitious Energy Targets



June 2020 – Regulators in Papua New Guinea (PNG) are working hard to meet electrification targets set by the government of PNG and supported by the Papua New Guinea Electrification Partnership (PEP), a joint effort by the governments of PNG, the United States, Australia, New Zealand, and Japan that aims to connect 70% of the country's population to electricity by 2030.

With support from the United States Agency for International Development (USAID), the National Association of Regulatory Utility Commissioners (NARUC) is acting as an

implementer to spearhead U.S. efforts in the partnership.

## Tackling Developmental Challenges Collectively through PEP

Papua New Guinea announced the PEP in 2018, when PNG hosted the Asia-Pacific Economic Cooperation (APEC) Leaders' Summit in an effort to showcase the country as an ideal business and investment destination.<sup>1</sup> During the summit, all partners committed to support principles and values that help maintain and promote a free, open, prosperous, and rules-based Indo-Pacific region.<sup>11</sup> For its part, the U.S. initiated a five-year \$60 million program design in 2019.<sup>111</sup> Together with funding from Australia, Japan, and New Zealand, this contribution is crucial to enabling PNG to undertake major reforms and address its developmental challenges.

By providing targeted technical assistance to the Independent Consumer and Competition Commission (ICCC), the Department of Petroleum and Energy (DPE), and PNG Power Limited (PPL), NARUC is facilitating opportunities to exchange best practices with their counterparts at U.S. State regulatory commissions and NARUC's international regulatory partners.

#### Assessing the Health of PNG's Energy Sector

One of the first steps NARUC took as an implementer was to conduct an assessment of electricity tariff setting practices in PNG. Electricity pricing is a critical determinant of energy sector health, and must be carefully designed to maintain customer affordability while protecting utilities' ability to provide and expand reliable service.

Currently, only 13% of PNG's population has dependable access to electricity. One reason for this low percentage is harsh geographical conditions. Steep mountains with elevations of over 13,000 feet<sup>iv</sup> stretch across the main island, making it challenging and expensive to build new infrastructure, connect the capital to distant provinces, and upgrade existing infrastructure.

Another factor that complicates increasing access to electricity is the large socioeconomic divide between urban and rural populations, with 87% of the population living in rural areas.<sup>v</sup> This divide is heightened by a diverse ethnic makeup of more than 10,000 clans spanning 600 islands,<sup>vi</sup> which are deeply rooted in tribal identity and have a close connection to their land. As a result, communities are disinclined to move to electrified areas and increased connectivity is more difficult to achieve.

#### **Steps toward Public and Private Investment**

The government of PNG lacks the financial resources to address its critical infrastructure needs. Approximately 40% of PNG's population lives below the poverty line.<sup>vii</sup> In addition, PNG has the lowest life expectancy in the Pacific at 62.9 years,<sup>viii</sup> and the population suffers from critical health problems such as high maternal, infant, and child mortality.<sup>ix</sup> With this in mind, increased access to electricity is especially important. Not only will it support economic growth and local business development – it will also help to boost the efficiency and capabilities of essential services that often operate without power, such as schools and hospitals.

Attracting large scale investment – both public and private – is necessary to help build and support the overall institutional and technical ability to expand electrification. Consequently, building energy regulatory capacity and enhancing the efficiency and transparency of regulatory processes are top priorities. As a first step to strengthening the investment environment in the energy sector, NARUC provided in-person training that convened key PNG stakeholders and enabled them to learn more about the principles of cost-based tariff setting.

### Working Together to Achieve Common Goals



Through convening stakeholders and providing an interactive environment for them to engage with one another, NARUC experts were able to share best practices on price regulation and lessons learned from the U.S. and around the world. Stakeholders also had the opportunity to identify areas of potential cooperation, discuss strategies and hurdles to achieving national electrification goals, and share updates and concerns related to pending energy sector reforms.

Executing the tariff setting assessment and a series of stakeholder meetings also helped NARUC gain

greater insights into the unique challenges facing PNG regulators and utility staff in designing and implementing cost-based rates. These insights will play a major role in guiding NARUC's further collaboration with PNG partners to develop a more robust tariff setting regime.

Moving forward, NARUC will continue to support and work together with energy regulatory agencies and other key stakeholders to foster cooperation, increase the quality of service, and attract the investment needed to meet PNG's energy targets. With PEP efforts underway, PNG is one step closer to achieving its development objectives.

Top Left Photo: Deputy Chief of Mission (U.S. Embassy Port Moresby) Bernie Link shakes hands with stakeholders during a NARUC engagement in PNG.

Bottom Right Photo: NARUC staff, experts, and PNG energy sector stakeholders gather at the Technical Workshop on Tariff Setting in Port Moresby in December 2019.

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<sup>&</sup>lt;sup>6</sup> 2019 Investment Climate Statements: Papua New Guinea." U.S. Department of State. <u>https://www.state.gov/reports/2019-investment-climate-statements/papua-new-guinea/</u>

<sup>&</sup>quot; "The Papua New Guinea Electrification Partnership." The White House. https://www.whitehouse.gov/briefings-statements/papua-new-

 <sup>&</sup>quot;"U.S. Relations with Papua New Guinea." U.S. Department of State. <u>https://www.state.gov/u-s-relations-with-papua-new-guinea/</u>
"Going the Distance: Off-Grid Lighting Market Dynamics in Papua New Guinea." International Finance Corporation (IFC), 2019. PDF file. https://www.ifc.org/wps/wcm/connect/0dc0a258-e9b4-4c4e-9e76-c2b3d67ae2c9/PNG+Off-Grid+Report.pdf?MOD=AJPERES&CVID=mNKWdxh \* "The World Bank in Papua New Guinea." The World Bank. https://www.worldbank.org/en/country/png/overview

 <sup>&</sup>lt;sup>vi</sup> "Going the Distance: Off-Grid Lighting Market Dynamics in Papua New Guinea."
<sup>vii</sup> "Poverty Data: Papua New Guinea." Asian Development Bank. <u>https://www.adb.org/countries/papua-new-guinea/poverty</u>
<sup>viii</sup> "Papua New Guinea Country Cooperation Strategy at a Glance." World Health Organization. 2018. PDF file.
<u>https://apps.who.int/iris/bitstream/handle/10665/136819/ccsbrief\_png\_en.pdf;jsessionid=40D546B28497F4C831C7838DE4B43C63?sequenc</u> e=1 <sup>ix</sup> "Papua New Guinea." Burnet Institute. <u>https://www.burnet.edu.au/countries/8\_papua\_new\_guinea</u>