



ACCESS TO ENERGY

# Monitoring & Evaluation Report

Quarter Four :  
October - December 2020

# ACCESS TO ENERGY PROJECT

Achieving sustainable, systemic change in the energy sector requires innovating on technologies. This section highlights what was achieved in the Access to Energy project in Q4 2020. The coastline rural communities in the Niger Delta region of Nigeria have long suffered from the consequences of poor rural electrification. Many of these communities do not have access to regular supply of electricity to power basic economic assets and household needs, thereby reducing the economic activity in these communities. Expectations for an early connection to the National grid is near hopeless due to the high cost implications and the difficult terrains. Since 2018, PIND has been addressing this gap through alternative and affordable off-grid solutions –capable of targeting not only basic energy needs (i.e. lighting and cooking energy), but also productive uses of energy at both household and rural enterprise levels, which is our priority.

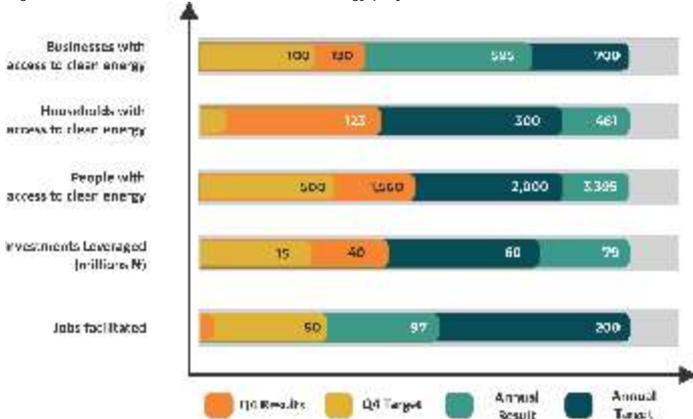
## Outreach

PIND’s access to energy program had an outreach of 1,560 in Q4 2020. This includes 1,380 persons across 230 households and 130 rural business owners connecting to new mini-grids across four coastal communities. In addition to these, 50 persons received training on various technical, entrepreneurship and business support service roles in the same communities. The total number of people with access to clean energy with PIND assistance in 2020 is 3,395, from 461 households, and a total of 595 businesses accessed clean energy in 2020.

## Scaling up the off-grid solutions to deliver energy access in rural communities

Recent advancements in off-grid solutions present an excellent opportunity to accelerate progress towards the SDG 7 target on universal access to modern energy services/ PIND’s delivery model innovations in the renewable energy mini-grid sector is improving long-term viability so as to attract investments, boost local demand for energy services and improve the sustainability of projects from a technical, economic, social and environmental standpoint.

Figure 7. Performance status of Access to Energy project as at Q 4 2020



During the quarter, PIND leveraged 40 million Naira investment (Figure 7) by the Ilaje RDC for two 20kW community Solar Mini Grids at Awoye and Odofado to support a total of 200 connections (including businesses and households) in both communities.

Earlier in Q1 2020, PIND facilitated the adoption of the energy cabin model by the Ilaje RDC, as a way of encouraging RDC funding for sustainable development projects in their communities. This



resulted in the leverage of N40 Million RDC funding for two 20kW community Solar Mini Grids at Awoye and Odofado to support a total of 200 connections (including businesses and households) in both communities. These two projects are ongoing and enjoy co- supervision from the CNL PGPA, the PPCD and Morgan Smart Development foundation as the mentoring NGO for the Ilaje RDC.

#### Field visit with Infranergy

PIND support with assessment of potential sites and business models for off-grid solar is critical to the business entry of many new power developers within the coastal communities. In view of this, PIND collaborated with infranergy LLC - a private sector power developer that wants to get involved in mini-grids in the Niger Delta to assess Opia, Dagbolo and Azama, three EGCDF RDC communities in Delta State.

The assessment was able to rank the various commercial viability of the 3 sites for solar energy business, and potential investment from Infranergy LLC. Of the 3 sites, Opia and Azama, were consistent with the investor's viability criteria and community engagement were held with the leadership of the communities with a view to deploying commercial solar mini-grid and solar refrigerating cold-rooms in the two communities respectively.

#### Chevron Corporation Grant Support for Energy cabins

In Q4 2020, PIND deployed 2 Energy Cabins as part of the Chevron Corporation Grant supported solar mini-grids interventions in the GMOU communities. These grants supported the installation of a 20kW Solar Mini-Grids at Molutehin community in Ilaje LGA of Ondo state, and another 20kW Solar Mini-Grid at Gbokoda community in Warri North LGA of Delta state. These two mini-grids support a combined 150 connections including businesses and households across both communities. 100 connections in Molutehin and 50 connections in Gbokoda



community. The solar mini-grid at Gbokoda supports all the existing businesses and households within the community and is expandable to 100 connections, with the forecast that both business and household demand will increase.

#### Technical assistance to the Ilaje RDC towards implementation of two community energy projects

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#### Promoting Clean Energy for businesses

A critical component of PIND's Access to Energy program in the coastal communities is the decarbonisation of the electricity energy pathway towards economic development of coastal communities. In 2020, the various interventions and partner investments in creating clean energy businesses and technology enablers in the Niger Delta yielded an estimated 88,800kwh of electricity and a combined displacement of 49.6 Tonnes equivalent of Carbon Dioxide (CO<sub>2</sub>) emissions from 4 Access to Energy interventions across the Niger Delta.

#### Training and Capacity building

A total of 50 people comprising males and females were trained as village level technicians and service agents to support the various installations around the coastal communities and also build the capacity of the participants towards entrepreneurship around emerging opportunities in small scale solar PV business solutions.

