

# Innovative Financing for Renewable Energy for Coastal Small Island Communities



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## Background

A renewable energy transition has the potential to electrify rural coastal island communities in Indonesia with rich off-grid renewable energy sources while simultaneously improving the economic development of the community. This productive synergy between energy and economic development, however, remains unactualized. **The Government of Indonesia (GoI) has policies that account for electrifying rural areas and bolstering their clean energy targets which are: 1) the Indonesia's Rural Electrification Program; 2) the National Energy Policy of 23% share of renewable energy in energy mix by 2025; and 3) Indonesia's NDC in reducing GHG emissions by 29% with national efforts and up to 41% with international support by 2030 from the projected business-as-usual scenario.** Existing renewable energy projects implemented in Indonesia are dominated by grants followed by high risks and unattractive returns which hinders the renewable energy transition. UNDP's climate finance solution is an investment opportunity in solar PV and hybrid PV-diesel power generation which revitalizes the local businesses in coastal small island communities. This finance solution introduces a blended financing mechanism as opposed to the current investment of RE which is often dominated by grants.

## Solution Overview

The proposed *Innovative Finance for Renewable Energy in Small Coastal Island Communities* builds on existing efforts to allocate funds to leverage public funding and private sector investment in clean energy which creates financially viable interconnected renewable grids, specifically developing a hybrid PV-diesel power generation system in small islands. Furthermore, creating energy demand by building a local green economy. This fund will:

- 1) **Develop a feasibility study of bankable renewable energy and energy efficiency**

**projects** that will be implemented with support from PV EPC companies

- 2) **Create a partnership with MFIs, DFIs, and renewable energy experts** by using the results from the feasibility study in consultation with PLN on integration of existing off-grid renewable energy power plants to PLN's island grid
- 3) **Build an eco-inclusive SMEs ecosystem** with technical and financing capacity-building leading to an energy demand creation
- 4) **Elicit discussion through UNDP Innovative Finance Lab** on the need for more effective public fund allocation to leverage private sector investment in clean energy

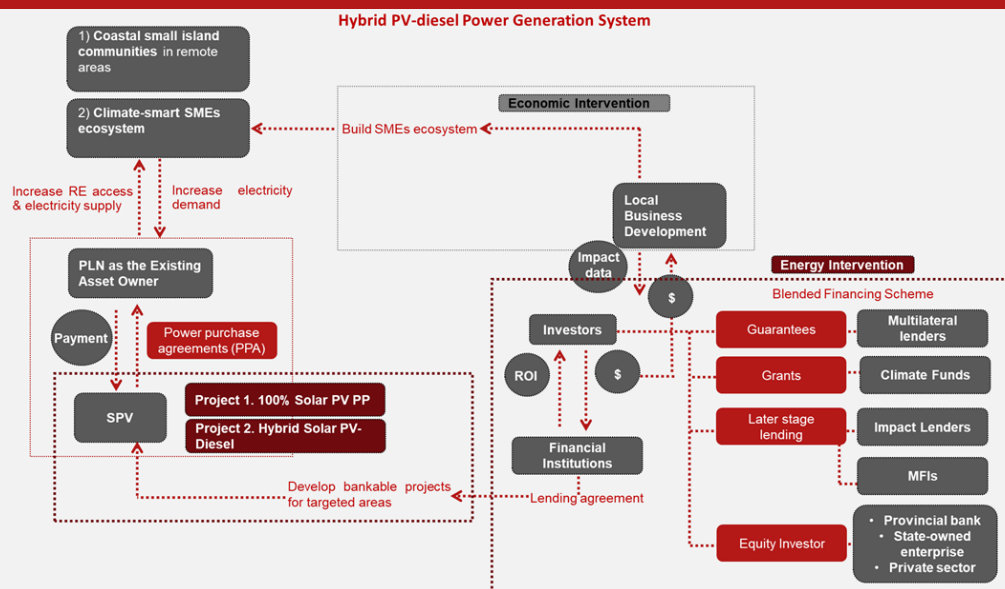
Focus:	Climate Change Mitigation
Instrument Type:	Access to Finance Mechanism
Lab Cycle:	Indonesia 2020
Product Developers:	UNDP Indonesia

## Key Features

The innovative aspect of the finance mechanism lies in the blended financing scheme. The blended financing scheme consists of these financial actors and instruments:

- Guarantees will be provided by multilateral lenders
- Grants will be provided by climate funds
- Later stage lending will be provided by impact lenders and MFIs
- Equity will be provided by private sectors, provincial bank, and SOE

The fund will then be channelled towards energy and economic intervention.



**Energy intervention** consists of two project categories. The first project category will tap into coastal small island 100% solar PV power generation. The second project category will focus on increasing electricity supply of coastal small island territories with a hybrid PV-diesel power generation where in the existing condition the electricity is supplied by PLN with a diesel generation for half-day.

The **economic intervention** creates electricity demand-side by increasing eco-inclusive economic activities with micro-credit and local bank financial support.

## Target Market

The target market from the hybrid PV-diesel project intervention are **the communities living in small islands of the archipelagic provinces in Indonesia**. The indicative target regions for the programme are Riau Islands (consists of 1,796 islands), Maluku (1,422 islands), North Maluku (1,474 islands), West Nusa Tenggara (864 islands), East Nusa Tenggara (1,192 islands), North Sulawesi (668 islands), Southeast Sulawesi (750 islands).

These regions are based on the Presidential Regulation No. 131/2015 on Disadvantage Regions, the Presidential Decree No. 6/2017 on small and outer islands, PLN's data on the electrification status on the target locations, and development stage of the archipelagic provincial capital. Engagement with the direct beneficiaries will be through the partnership with the MEMR and the local government.

## Impact Potential

### Climate Impact

- Increase renewable energy share to meet the National Energy Policy target of RE mix

- Contribute to NDC's target in decreasing GHG emissions
- Contribute to GOI's Rural Electrification Programme

### Economic Impact

- Increased **green economic activities with adequate access to renewable electricity**
- Through SME ecosystem building for renewable energy supply and demand, the financial solution aims to support Indonesia's renewable energy transition and increasingly involve the private sector. This ecosystem building will also increase the **local business economy particularly for agriculture, fisheries, tourism, food processing, water supply, and telecommunications sector**. Lastly, the solution ensures gender mainstreaming and equality measures which prioritizes marginalized communities as the main beneficiaries.

## Solution Developer



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SEED Practitioner Labs Climate Finance empower participants during the hands-on and collaborative Labs process to turn major financing challenges into robust prototypes. SEED Practitioner Labs Climate Finance are part of the implementation of "Financing and capacity building for micro and small climate-smart enterprises: Filling the gap of the missing middle", a project supported by the German Federal Ministry for the Environment, Nature Conservation, and Nuclear Safety.