

# Development for Renewable Energy Applications, Mainstreaming and Market Sustainability (DREAMS)



Project Brief  
As of June 2022







# DREAMS aims to accelerate growth of RE in the Philippines

**01**

## **Enforcement of policy environment**

Technical assistance for RE policy development and enforcement

**02**

## **Strengthened institutional capacity**

Capacity building LGUs through the Local RE Planning Cap. Build. Program (LREP)

**03**

## **Capitalized RE Market**

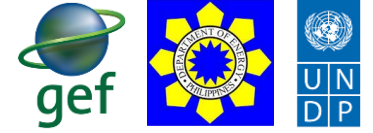
Establishment of the Philippine RE Market System (PREMS)

**04**

## **RE Commercialization and Investment in Local Areas**

Support Facility for RE projects (SF4RE), simulations of RE electrification (RE Models), and acceleration of service contracts

# Support Facility for Renewable Energy (SF4RE)\*

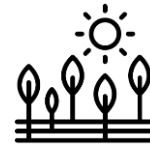


\*SF4RE is a facility under the Development for Renewable Energy Applications Mainstreaming and Market Sustainability (DREAMS) project which aims to provide local capacities and encourage investments that will integrate RE policies and projects in the executive and legislative agenda of LGUs, DUs, academe and the community strategies of other agencies organizations, rural electric cooperatives, academe and civil society organizations/foundations. Off-grid and far-flung areas are priority sites.

## Objectives:



Rural Household Electrification



Productive Use of Renewable Energy /  
Livelihood Development



RE for delivery of Social Services



Compliance and promotion of RA 9513 (RE  
Law) and investment leveraging

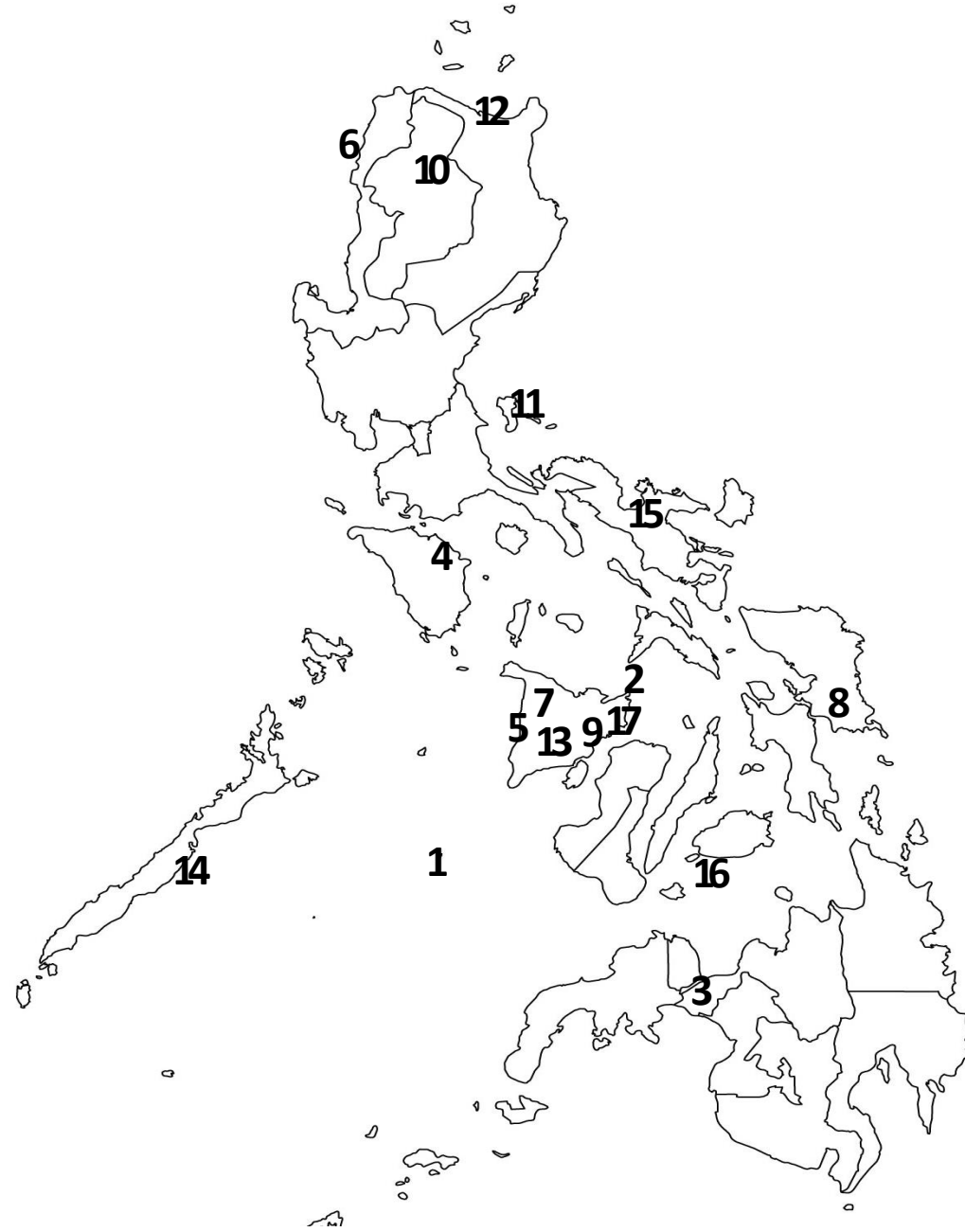


Climate Resiliency



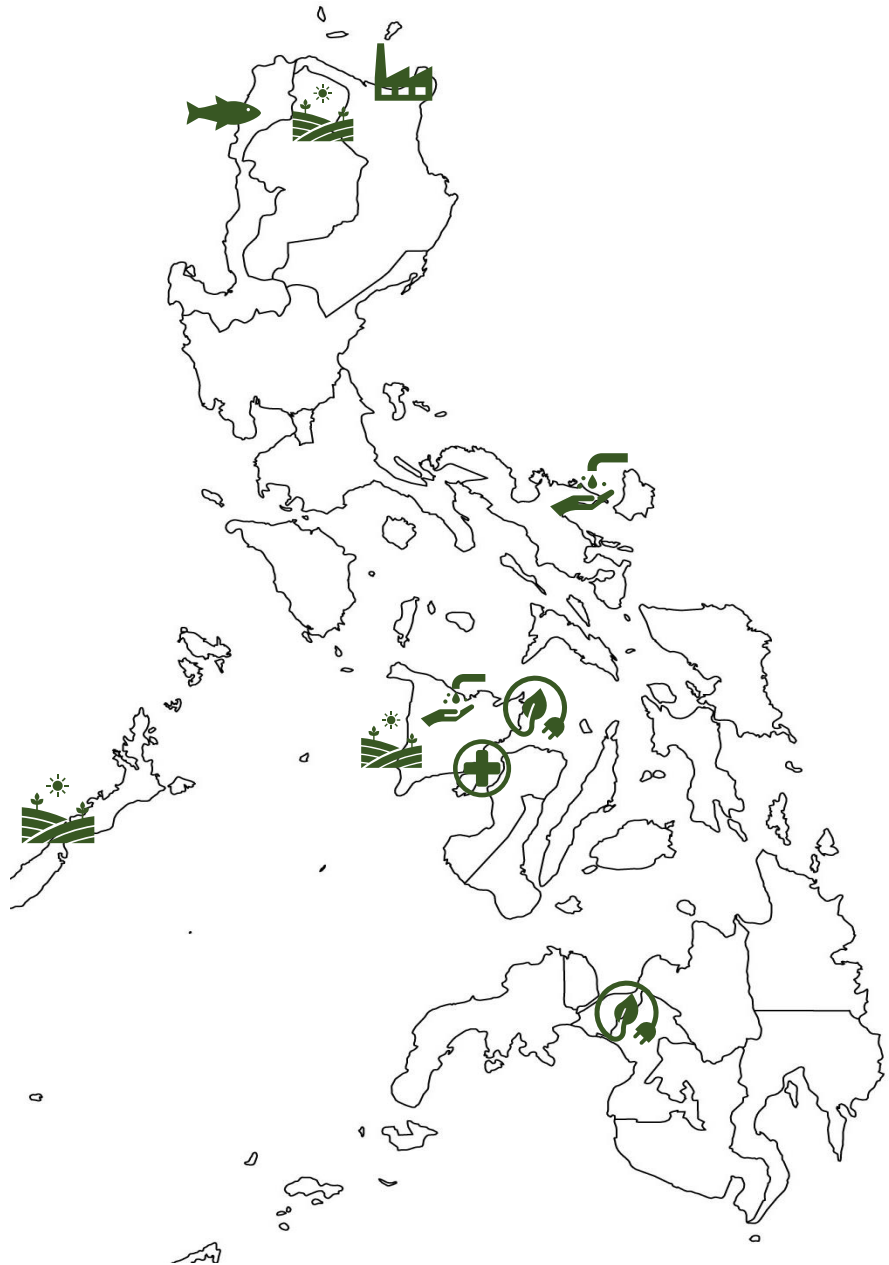
# SF4RE Projects

*Installed capacity | Project Title | Project Household (HH) or Building outreach | Location*



1. 49.25 kW Smart Grid Solar PV Household Electrification for 165 HHs in Cagayancillo, Palawan
2. Solar PV Installations and Productive Use of RE in Carles, Iloilo
3. Productive Use of RE in Lanao del Sur
4. 34.2 kW Oriental Mindoro Green Energy Pilot Project for 7 Municipal Buildings, 7 Faith Based Buildings and 1 livelihood center in Oriental Mindoro
5. 25 kW Rehabilitation of Bun-acan Micro-Hydropower Plant for 60 HHs in San Remigio, Antique
6. 22 kW MMSU Solar Powered Aquatic Life Support System
7. 4 Potable Water Systems with 1.22 kW per Solar PV Water Pump serving 128 HHs in Tapaz, Capiz
8. 1 MW Mini-hydropower Plant Rehabilitation for 11,035 HHs in Lawaan, Samar
9. 45 kW Micro-Hydropower Plant Rehabilitation for 9984 HHs in Ajuy, Iloilo

10. 10 kW Micro-Hydropower Plant Rehabilitation for 62 HHs and 5 community facilities in Upper Katablangan, Apayao
11. 42.84 kW Smart Grid Solar PV System for 300 HHs in Burdeos, Quezon
12. 36 kW Solar PV powered Bioethanol Distiller for 3 barangays in Aparri, Cagayan
13. 75 kW Solar PV Rooftop for the Provincial Hospital of Iloilo
14. 29.3 kW Smart Grid Solar PV Household Electrification and Irrigation for 120 HHs in Brgy. Apurawan, Aborlan, Palawan
15. 10 Potable Water Systems with 2.2 kW per Solar PV water pump serving 820 HHs in Goa, Camarines Sur
16. 39.65 kW Community Solar PV Mini-grid for 357 HHs in Pamilacan, Bohol
17. 95 kW Solar PV Rooftop for 10 LGU Buildings in Concepcion, Iloilo



# Productive Use of Renewable Energy SF4RE Projects

*PURE projects demonstrate how RE can enhance income generation and welfare activities that would not have been possible without energy supply.*



- 25 kW Rehabilitation of Bun-acan Micro-Hydropower Plant and Irrigation Project for 60 HHs in San Remigio, Antique



- 22 kW MMSU Solar Powered Aquatic Life Support System



- 4 Potable Water Systems with 1.22 kW per Solar PV Water Pump serving 128 HHs in Tapaz, Capiz



- 10 kW Micro-Hydropower Plant Rehabilitation for 62 HHs and 5 community facilities in Upper Katablangan, Apayao



- 36 kW Solar PV powered Bioethanol Distiller for 3 barangays in Aparri, Cagayan



- 10 Potable Water Systems with 2.2 kW per Solar PV water pump serving 820 HHs in Goa, Camarines Sur



- 75 kW Solar PV Rooftop for the Provincial Hospital of Iloilo



- 29.3 kW Smart Grid Solar PV Household Electrification and Irrigation for 120 HHs in Brgy. Apurawan, Aborlan, Palawan



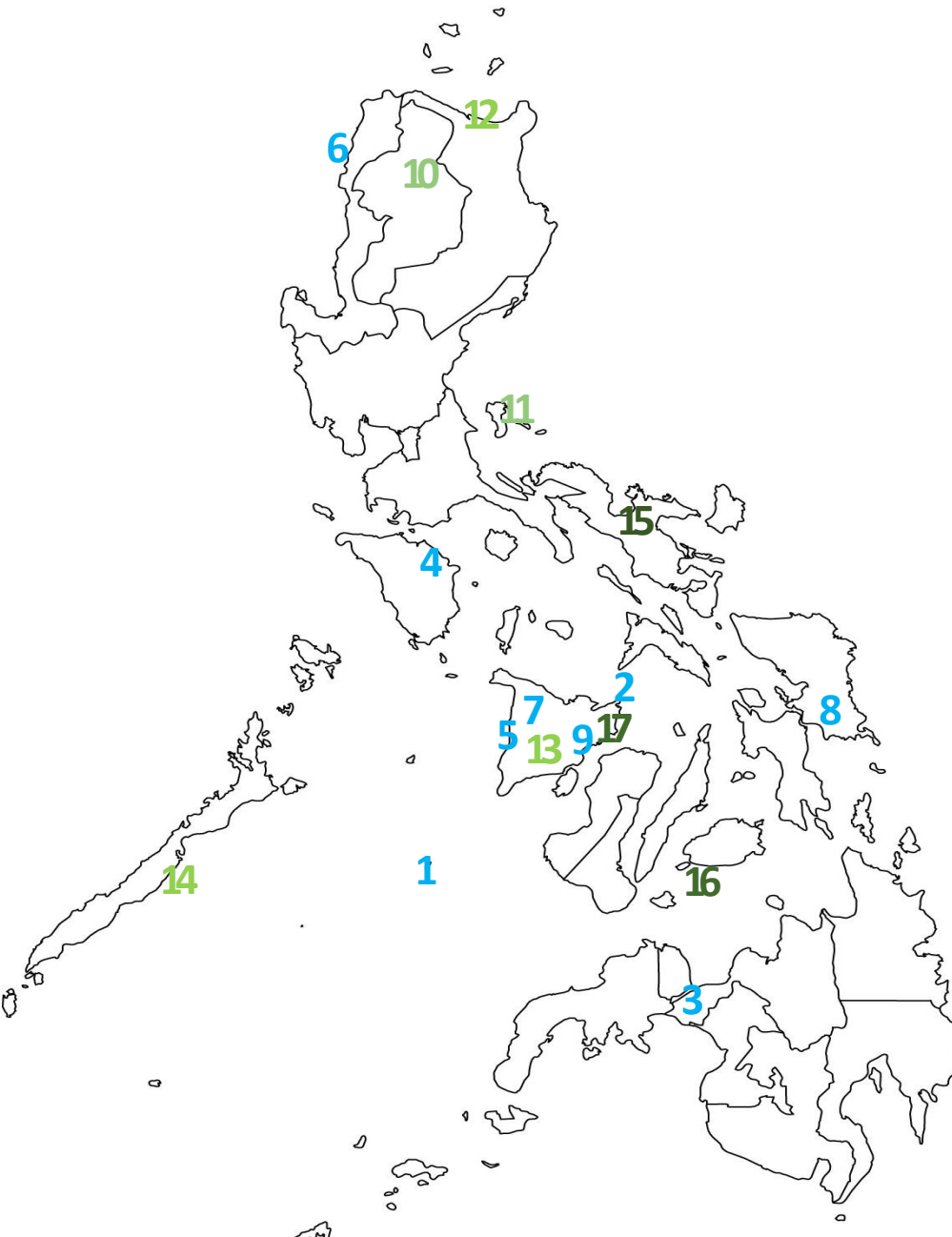
- *Under development* - Productive Use of Energy Project in Gigantes, Iloilo



- *Under development* - Productive Use of Energy Project in Lanao del Sur

# SF4RE Project Status

As of 1 June 2022



## Pre-installation:

1. 49.25 kW Smart Grid Solar PV Household Electrification for 165 HHs in Brgy. Magsaysay, Cagayancillo, Palawan
2. Solar PV Installations and Productive Use of RE in Gigantes, Iloilo
3. Productive Use of RE in Lanao del Sur
4. 34.2 kW Oriental Mindoro Green Energy Pilot Project for 7 Municipal Buildings, 7 Faith Based Buildings and 1 livelihood center in Oriental Mindoro
5. 25 kW Rehabilitation of Bun-acan Micro-Hydropower Plant and Irrigation Project for 60 HHs in San Remigio, Antique
6. 22 kW MMSU Solar Powered Aquatic Life Support System
7. 4 Potable Water Systems with 1.22 kW per Solar PV water pump serving 128 HHs in Tapaz, Capiz
8. 1 MW Mini-hydropower Plant Rehabilitation for 11,035 HHs in Lawaan, Samar
9. 45 kW Micro-Hydropower Plant Rehabilitation for 9984 HHs in Ajuy, Iloilo

## On-going installation:

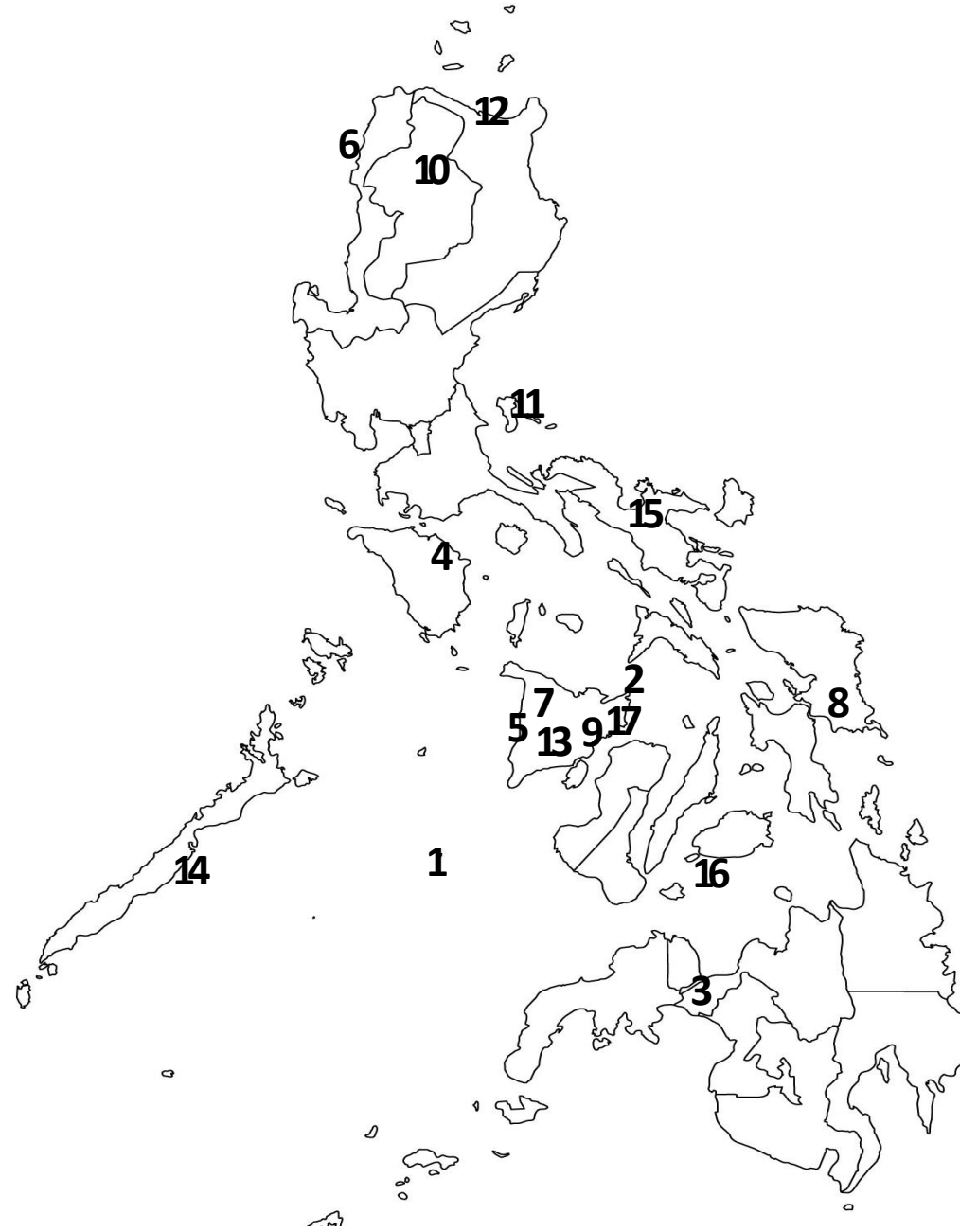
10. 10 kW Micro-Hydropower Plant Rehabilitation for 62 HHs and 5 community facilities in Upper Katablangan, Apayao
11. 42.84 kW Smart Grid Solar PV System for 300 HHs in Burdeos, Quezon
12. 36 kW Solar PV powered Bioethanol Distiller for 3 barangays in Aparri, Cagayan
13. 75 kW Solar PV Rooftop for the Provincial Hospital of Iloilo
14. 29.3 kW Smart Grid Solar PV Household Electrification and Irrigation for 120 HHs in Brgy. Apurawan, Aborlan, Palawan

## Completed!

15. 10 Potable Water Systems with 2.2 kW per Solar PV water pump serving 820 HHs in Goa, Camarines Sur
16. 39.65 kW Community Solar PV Mini-grid for 357 HHs in Pamilacan, Bohol
17. 95 kW Solar PV Rooftop for 10 LGU Buildings in Concepcion, Iloilo

# SF4RE Projects

*Installed capacity | Project Title | Project Household (HH) outreach |  
Location | Total DREAMS Support Amount in PHP million*



1. 49.25 kW Smart Grid Solar PV Household Electrification for 165 HHs in Cagayancillo, Palawan | PHP 6 M
2. Solar PV Installations and Productive Use of RE in Carles, Iloilo | PHP 8.7 M
3. Productive Use of RE in Lanao del Sur | TBD
4. 34.2 kW Oriental Mindoro Green Energy Pilot Project for 7 Municipal Buildings, 7 Faith Based Buildings and 1 livelihood center in Oriental Mindoro | PHP 4 M
5. 25 kW Rehabilitation of Bun-acan Micro-Hydropower Plant for 60 HHs in San Remigio, Antique | PHP 4 M
6. 22 kW MMSU Solar Powered Aquatic Life Support System | PHP 2.4 M
7. 4 Potable Water Sustems with 1.22 kW per Solar PV water pump serving 128 HHs in Tapaz, Capiz| PHP 3 M
8. 1 MW Mini-hydropower Plant Rehabilitation for 11,035 HHs in Lawaan, Samar | PHP 10 M
9. 45 kW Micro-Hydropower Plant Rehabilitation for 9984 HHs in Ajuy, Iloilo | PHP 5 M

10. 10 kW Micro-Hydropower Plant Rehabilitation for 62 HHs and 5 community facilities in Upper Katablangan, Apayao | PHP 1 M
11. 42.84 kW Smart Grid Solar PV System for 300 HHs in Burdeos, Quezon | PHP 5.6 M
12. 36 kW Solar PV powered Bioethanol Distiller for 3 barangays in Aparri, Cagayan | PHP 7.2 M
13. 75 kW Solar PV Rooftop for the Provincial Hospital of Iloilo| PHP 5 M
14. 29.3 kW Smart Grid Solar PV Household Electrification and Irrigation for 120 HHs in Brgy. Apurawan, Aborlan, Palawan | PHP 5 M
15. 10 Potable Water Systems with 2.2 kW per Solar PV water pump serving 820 HHs in Goa, Camarines Sur | PHP 6.2 M
16. 39.65 kW Community Solar PV Mini-grid for 357 HHs in Pamilacan, Bohol | PHP 3.6 M
17. 95 kW Solar PV Rooftop for 10 LGU Buildings in Concepcion, Iloilo | PHP 4.9 M

## Success Contributors:

- Involvement of Local Government Units and Household Beneficiaries in demand and supply forecasting and tariff setting
- Clear organizational partnership and ownership, especially between the Distribution Utility, Community-Based Organization, and Local Government Units
- Micro-grid sustainability local planning for operations and maintenance after commissioning
- Cost sharing/fund leveraging



## Pamilacan Island Solar Expansion Project

**Proponents:** WeGen Laudato Si, Bohol 1 Electric Cooperative and Pamilacan Solar Credit Cooperative

**Installed Capacity:** 79.5 kWp      **Outreach:** 357 Households      **DREAMS Support:** PhP 3.634 Million

**System Description:** DREAMS Project provided an additional 39.65 kWp of Solar PV System with inverter and battery storage to increase the existing installed Solar PV capacity in the island to 79.5 kWp to meet the daytime to the early evening energy demand of the households. The installed system was transferred for operations and maintenance to Bohol Electric Cooperative I. The system also adds capacity to the existing NPC diesel power plants.

### Project Objectives:

- ✓ Rural Household Electrification
- ✓ Productive Use of Renewable Energy / Livelihood Development
- ✓ Compliance and promotion of RA 9513
- ✓ Climate Resiliency



# Household Electrification (DC Smart Grid System) and Solar Powered Irrigation Pump for Barangay Apurawan



**Proponents:** Aborlan LGU & Palawan Electric Cooperative (PALECO)

**Installed Capacity:** 29.3 kW

**Outreach:** 120 Households

**DREAMS Support:** PhP 4.797 Million

**System Description:** DREAMS Project supported the installation of a Solar-PV Powered DC Smart Grid that will provide 24/7 energy to household beneficiaries. The DC Smart Grid will use interconnected household clusters that will share energy to ensure that power is continuously available. The Smart System is integrated into the controllers installed at each house and communicates thru mobile signals. The DC Smart Grid will be transferred for Operations and Maintenance to Palawan Electric Cooperative

## Project Objectives:

- ✓ Rural Household Electrification
- ✓ Productive Use of Renewable Energy / Livelihood Development
- ✓ Compliance and promotion of RA 9513
- ✓ Climate Resiliency

