

RE Applications in Remote Areas

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

(an on-going story of how may dreams come true)

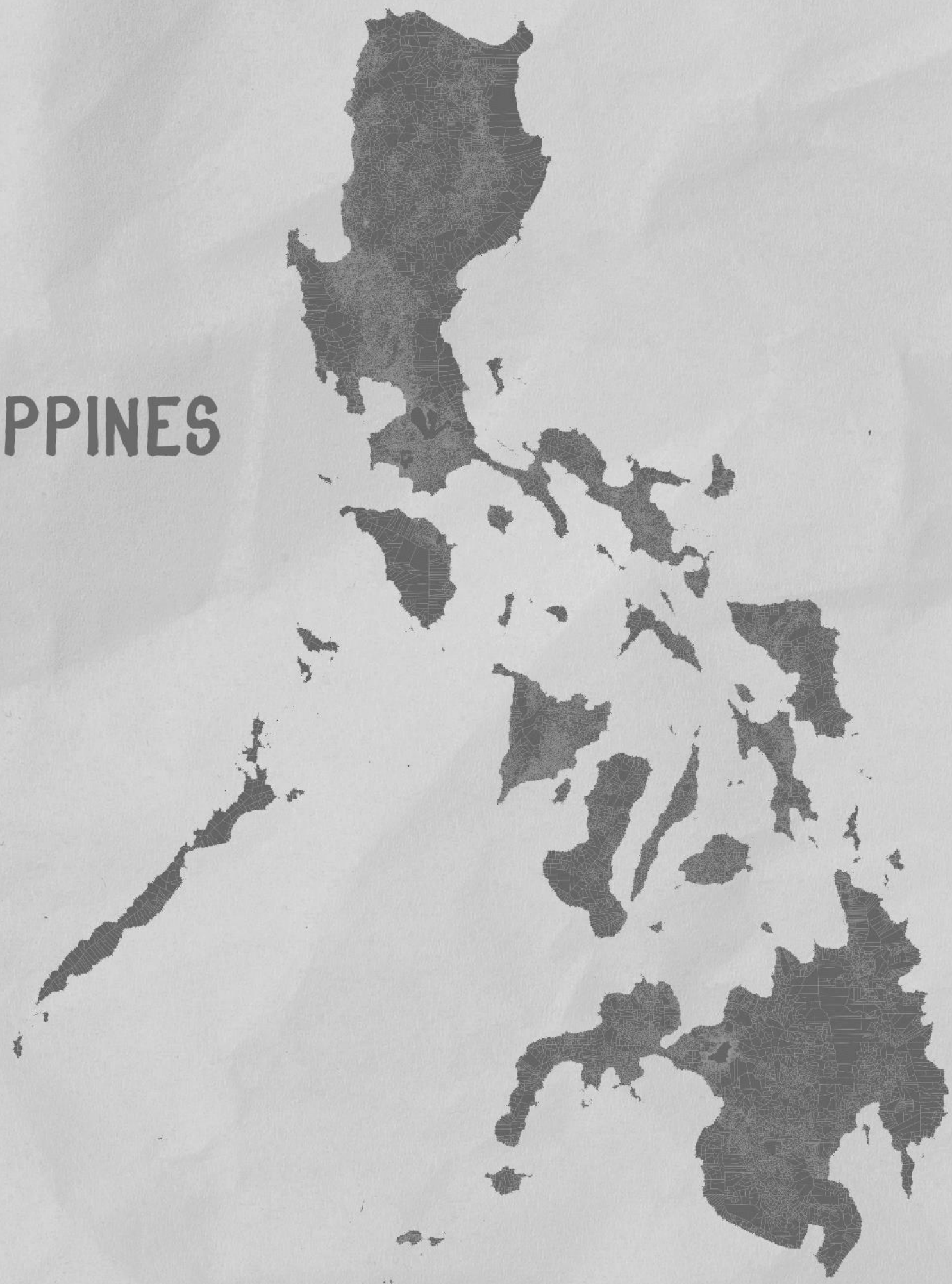


Renewable Energy Management Bureau is the
implementing unit of the DREAMS Project



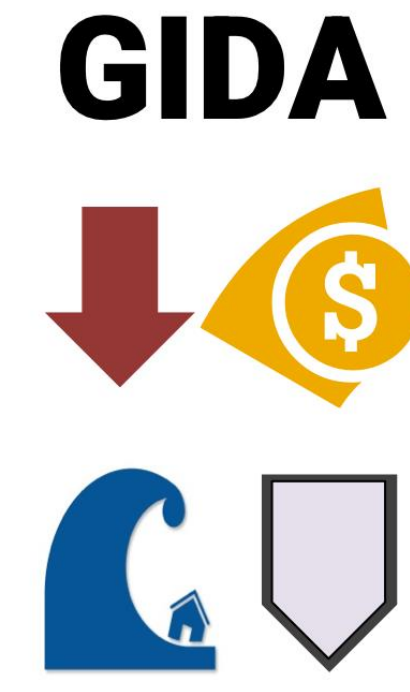


THE PHILIPPINES



courtesy of Juan Miguel Torres, Photovoice and Climate Resiliene

Introduction



30%

Area ≤ 500 sq.km (DENR, A.O 2000-83)

- Economic activites
- Essential facilities
- Electricity
- Environmental/climate protection



Season 1:Episode 1/2018:
“Local RE Planning (LREP)” Process

- ❖ Build local capacities and “experience-based” knowledge to make policies, prepare plans and use RE technologies
- ❖ Integrate RE policies and projects in Executive and Legislative agenda and local investment plan
- ❖ Initiate partnerships , LGU, EC, CSOs and RE Developers, potential Investors, Academe



Partnership Efforts for Local RE Planning

- Palawan-2018 signed MOU
- Iloilo-2019 signed MOU
- Oriental Mindoro- RE 101, Initiated, September 2021
- RDC Region VI - in discussion, November 2021
- Lanao Del Sur- RE 101, starts January 2022



REPUBLIC OF THE PHILIPPINES
REGIONAL DEVELOPMENT COUNCIL
Western Visayas Region (Region VI)
 NEDA Region VI Office, Fort San Pedro Road, Iloilo City 5000
 Web Address: <http://nro6.neda.gov.ph> | Email address: nro6@neda.gov.ph
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RDC VI Resolution No. 28 Series 2021

ENDORING TO THE DEPARTMENT OF ENERGY (DOE) AND THE DEPARTMENT OF THE INTERIOR AND LOCAL GOVERNMENT (DILG) A REQUEST TO SPEARHEAD THE PROPOSED WEBINAR ON POWERING LOCAL GOVERNMENT UNITS TO DEVELOP AND UTILIZE RENEWABLE ENERGY FOR RECOVERY AND GROWTH

WHEREAS, the DILG-DOE Joint Memorandum Circular (JMC) No. 2020-01 or the LGU Energy Code was issued for the local government units (LGUs) to facilitate the implementation of energy projects;

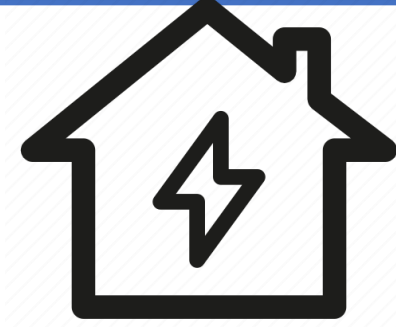
WHEREAS, the JMC was supported by the Regional Development Council VI through the issuance of RDC VI Resolution No. 11, Series of 2021 "Enjoining All LGUs in Region VI to Fully Support and Adopt the DILG-DOE Joint Memorandum Circular No. 2020-01 through an Issuance of a Local Ordinance to Facilitate the Implementation of Energy Projects;

WHEREAS, the proposed Webinar on Powering LGUs to Develop and Utilize Renewable Energy (RE) for Recovery and Growth may serve as an initial follow-through to the said RDC VI resolution;

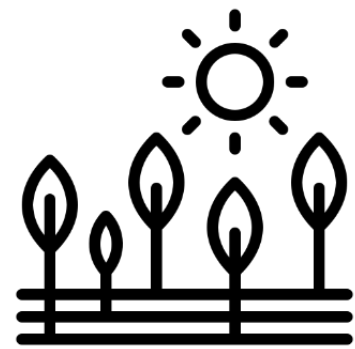
WHEREAS, through the said Webinar, the LGUs and selected national/regional line agencies will:

- gain basic understanding of the National RE Plan 2020-2040;
- learn from actual projects and explore possible options that will be applicable to their respective LGUs; and
- come up with initial plan on the development and utilization of RE which the LGUs can integrate in their CLUPs/CDPs.

Episode 2/2019: Proof of Concept: Support Facility for RE (SF4RE) to invest in local RE initiatives



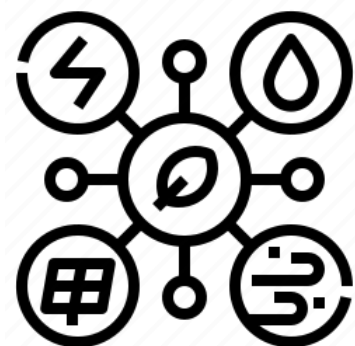
Household Electrification



Productive Use of Renewable Energy (PURE) /
Community Livelihood Development



RE for delivery of Basic Social Services

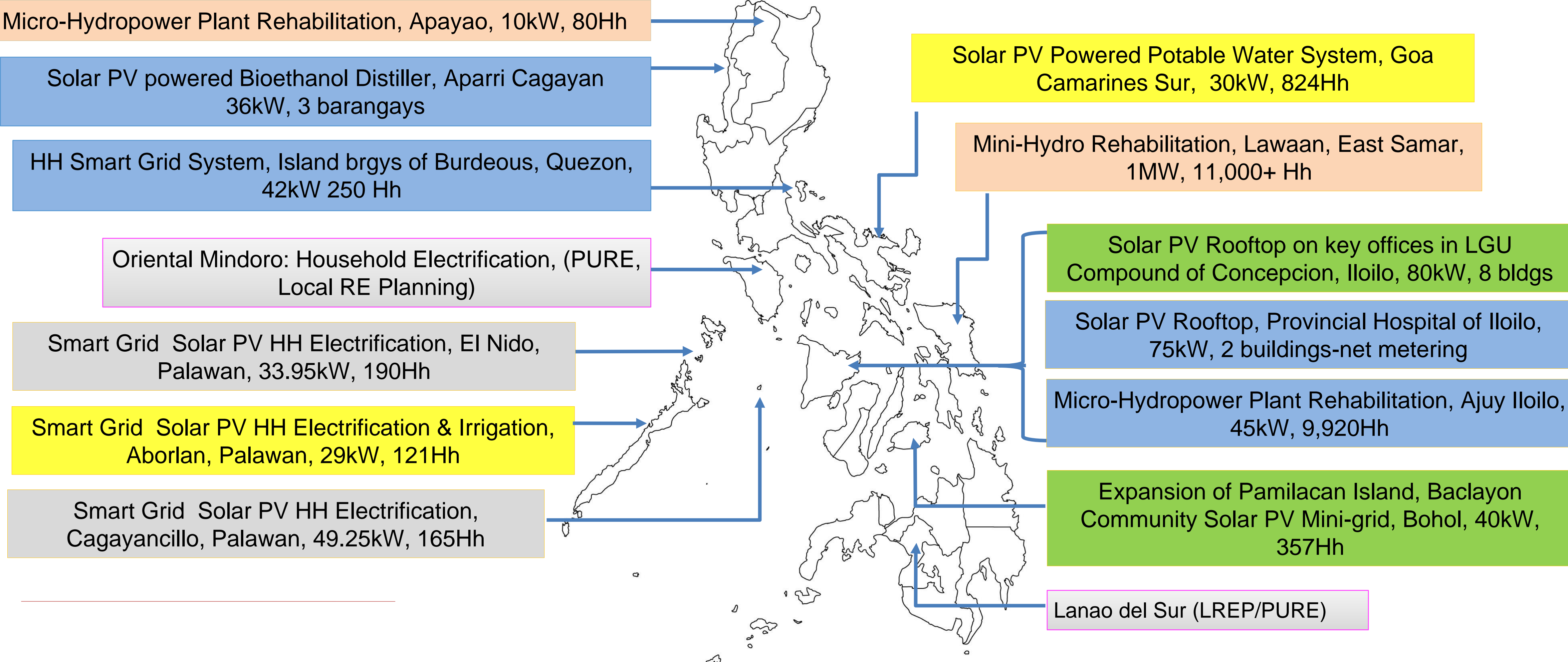


Promotion and/or compliance to the RE Law (RA 9513)



Energy Security and Climate Resiliency

Episode 3: DREAMS coming through.....



Proposal Evaluation/Devpt.	approved	Bid Process	Implementation	Completed
P 15 M	P 9.2 M	P 25.1 M	P 4.7M	P 8.5M

Pamilacan Island Solar Expansion Project

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

Installed Capacity: 60 kW

Outreach: 357 Households

Project Objectives:

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

DREAMS Support: PhP 3.634 Million



“energy-filled community participation”

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

Proponents: Aborlan LGU & Palawan Electric Cooperative (PALECO)

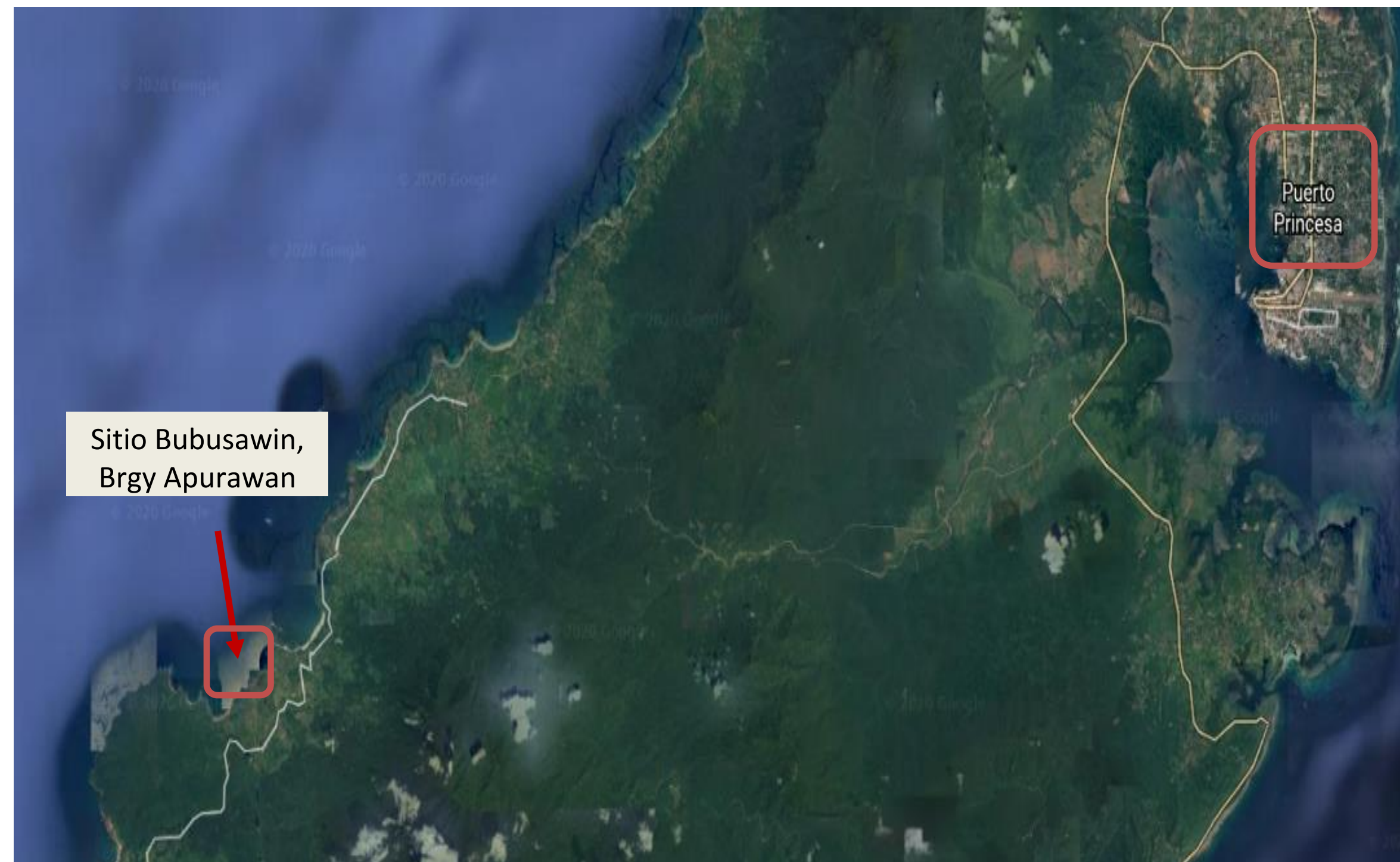
Installed Capacity: 29.3 kW

Outreach: 120 Households

Project Objectives:

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

DREAMS Support: PhP 4.797 Million



User Experience in Smart Technology and Partnership: LGU, EC and Community partnership and a New Power Developer

10kw Katablangan Microhydro Plant
Barangay Upper Katablangan Conner, Apayao,
Katablangan Indigenous Farmers Association (KIFA)

Date of Operation: 26th October 2002

62 households (60Php/month with 75 watts
allocation)

2 Churches

2 Primary schools

1 Clinic

Inside the Powerhouse: rice milling machine and
coconut grater.

Rehabilitation Cost: PhP 1.1M



Concepcion LGU Rooftop Solar Generation Energy Efficiency and Conservation Project

Proponents: Concepcion LGU & Iloilo Electric Cooperative III

Installed Capacity: 95 kW

Outreach: 8 MLGU Buildings

Project Objectives:

- ✓ RE for Delivery of Basic Social Services
- ✓ Compliance and promotion of RA 9513
- ✓ Climate Resiliency

DREAMS Support: PhP 4.935 Million



local government experience and investment

#	Name and Location	Proponents & Partners	Installed Capacity	Outreach	Project Objectives				
					HH Electrification	PURE	Delivery of Basic Social Services	Compliance & Promotion of RE	Climate Resiliency
1	Solar Energy Solutions for Off-grid Island Community Bordeos, Polillo Island, Quezon	Entrepreneurs du Monde and Quezon 2 Electric Cooperative	42.84kW	300 HHs	✓	✓			
2	Deployment of Solar Powered Distiller for Bioethanol Production used as a Main Agent for Bio-based Products in Response to COVID-19 Emerging Needs Aparri, Cagayan	Mariano Marcos State University and Aparri LGU	36 kW	Three (3) Brgys			✓		✓
3	Solar Powered Potable Water Systems Goa, Camarines Sur	Goa LGU	30kW (Ten 3kW solar-powered potable water pump system)	820 HHs			✓		

#	Name and Location	Proponents & Partners	Installed Capacity	Outreach	Project Objectives				
					HH Electrification	PURE	Delivery of Basic Social Services	Compliance & Promotion of RE	Climate Resiliency
4	Iloilo Provincial Hospital Rooftop Solar PV Project Pototan, Iloilo	Provincial Government of Iloilo	75kW (60 kW grid-tied and 15 kW, hybrid grid-solar-battery)	Operating Room, Molecular Lab			✓	✓	
5	Redevelopment of Ajuy Micro-Hydropower Plant and Grid Interconnection Project Brgy Agbobolo, Ajuy, Iloilo	Ajuy LGU Iloilo Electric Cooperative III	45kW	64 HHs/ 9,920 HHs	✓				✓

#	Name and Location	Proponents & Partners	Installed Capacity	Outreach	Project Objectives				
					HH Electrification	PURE	Delivery of Basic Social Services	Compliance & Promotion of RE	Climate Resiliency
1	Rehabilitation of Amanjuray Mini-Hydro Power Plant Lawaan, Eastern Samar	Eastern Samar Electric Cooperative	1 MW	12,072 HHs	✓			✓	
2	Upgrading and rehabilitation of 7 kW Micro Hydro Power Plant in Upper Katablangan Barangay Upper Katablangan, Municipality of Conner, Apayao, Mountain Province	Katablangan Indigenous Farmers Association (KIFA)	10kW	62 HHs	✓	✓			

#	Name and Location	Proponents & Partners	Installed Capacity	Outreach	Project Objectives				
					HH Electrification	PURE	Delivery of Basic Social Services	Compliance & Promotion of RE	Climate Resiliency
1	Electrification of Sitio Calusa and Sitio Cawili, Bgy. Magsaysay, Cagayancillo, Palawan	Cagayancillo LGU and Palawan Electric Cooperative (PALECO)	49.25 kWp	165 HHs	✓			✓	
2	Electrification of Sitio Diapela, Bgy. Teneguiban, El Nido, Palawan	El Nido LGU & PALECO	33.95 kWp	190 HHs	✓			✓	

#	Name and Location	Proponents & Partners	Installed Capacity	Outreach	Project Objectives				
					HH Electrification	PURE	Delivery of Basic Social Services	Compliance & Promotion of RE	Climate Resiliency
3	Redevelopment of 15kWp Micro-Hydropower Plant Brgy Proper, Panpanan 1 San Remigio, Antique	San Remigio LGU	15kWp	200 HHs	✓		✓		
4	Construction of Solar PV Powered Potable Water Systems Tapaz, Capiz	Tapaz LGU	TBD	TBD			✓		

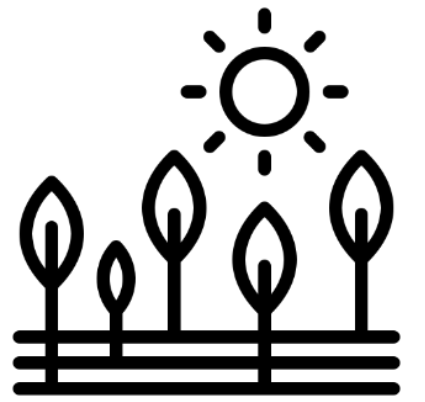
Season 2/2022:

SCALE UP! -

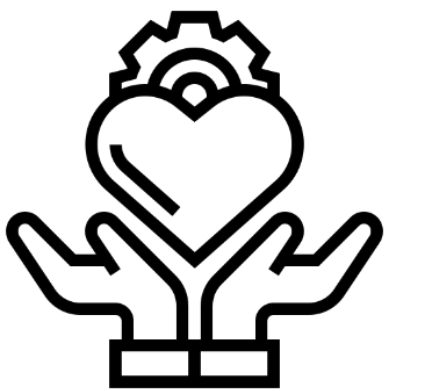
Bringing DREAMS' experience into the agenda of
National Renewable Energy Plan 2020-2040



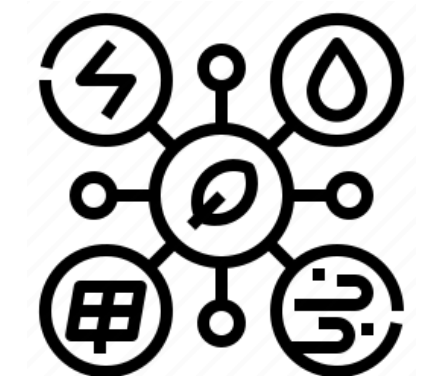
“User Experience” in Electrification through RE
(Communities, LGUs, National agencies, Investors)



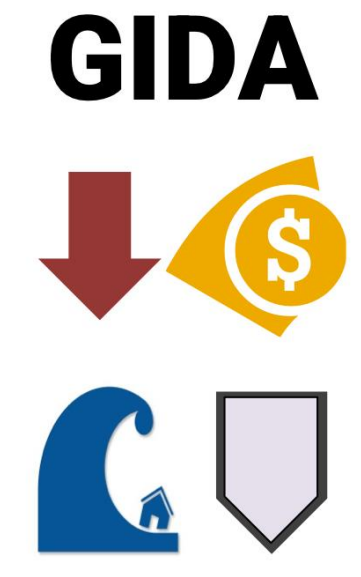
Fiscal Strategies and Investment Models on Productive Use of
Renewable Energy (PURE) Community Livelihood Development



Integration of Climate Adaptation and Climate Mitigation - RE
for Climate Resilience, Basic Social Services



Sustainable local investment and local fiscal policies for
NREP 2020-2040



30%

Area ≤ 500 sq.km (DENR, A.O 2000-83)

Put together the DREAMS story for a Policy and Investment Framework and Program Strategy for RE Application in Remote Areas

- Cagayancillo Palawan
- Polillo, Quezon
- Gigantes Island, Iloilo
- Pamilacan Is, Bohol
- Lawaan, Eastern Samar
- Katablangan, Apayao



Coming in 2022: Season 2

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Philippine Electricity Market Corporation



NGCP



REMB is the implementing unit of the DREAMS Project

ricardo torres jr
project manager
DREAMS Project
10th November 2021

BIG SHOW



BIOMASS



GEOTHERMAL



SOLAR



HYDROPOWER AND OCEAN



WIND

