

Financing Opportunities for RE Projects



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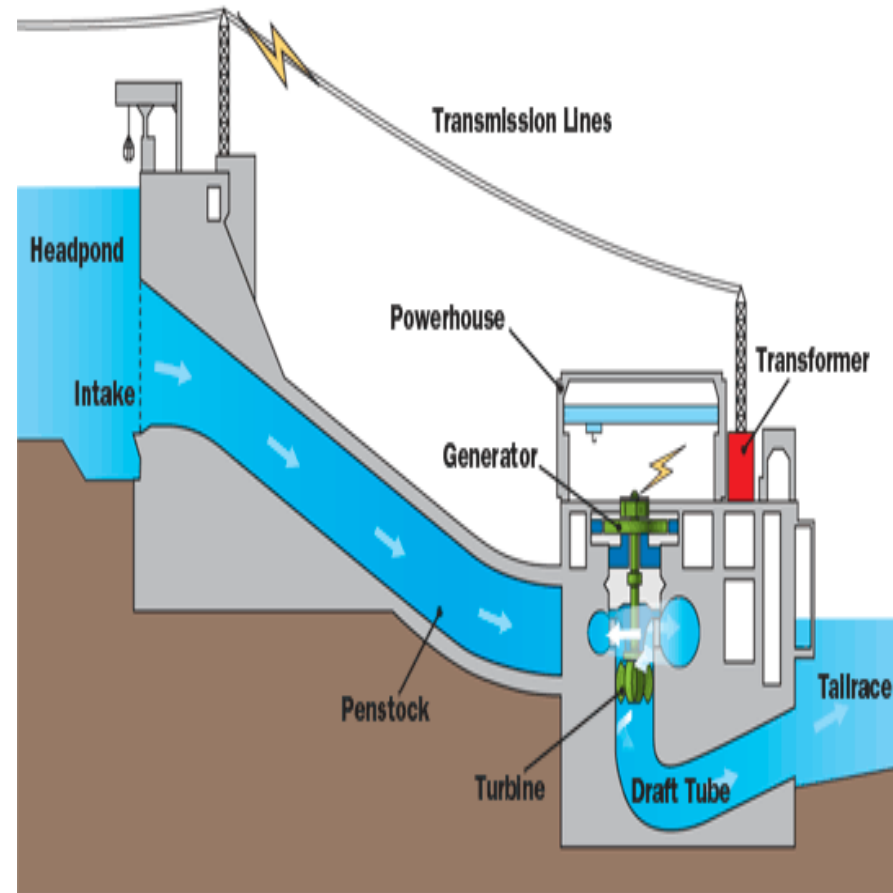


Overview

- Mini-Hydro Loans of ECs - Pre EPIRA
- Mini-Hydro Project
 - ✓ Operational
 - ✓ Non Operational
- RE Credit Facility
- RE New Loan – Rehab/Equity

RE Loan of ECs Pre EPIRA

41 ECs
Php1.3B



Mini-Hydro Projects

	EC	Amount (Php'ooo)	Project Name
1	ABRECO	15,463	Upper & Lower Bucloc
2	ALECO	747	Gayong, Manitoa
3	ANTECO	3,275	
4	BASELCO	84,565	Balactasan, Kumalarang
5	BENECO	175	Agno & Balili River
6	BOHECO I	89,094	Janopol
7	CAMELCO	438	Pamunglo
8	CASURECO II	2,176	Inarihan, Tigman
9	CASURECO III	3,717	Itbog, Binabugan,
10	CASURECO IV	18,211	Cuyaoyao, Panicuan, Ranggas
11	FICELCO	31,430	Balongbong, Hitoma
12	CEBECO I	52,186	Basak, Mantayupan, Matutinao
13	CEBECO II	2,287	Catman Sogod
14	CENECO	15,960	Maragandang River
15	CENPELCO	1,135	Barabac River
16	ESAMELCO	40,454	Amanjuray
17	IFELCO	1,154	Panghinawan River
18	INEC	308,093	Agua Grande, Mabogabog and Pansian River
19	ISECO	5,139	Dawara Falls
20	ISELCO I	251,067	Magat A,B, C & F
21	ISELCO II	32,089	Magat River & Tumauni

	EC	Amount (Php'ooo)	Project Name
22	KAELCO	280,860	Maling River
23	LEYECO III	611	Tunga River
24	LEYECO V	1,050	
25	LUELCO	2,762	San Gabriel, Saybuan and Pugo River
26	NEECO I	1,447	Penaranda
27	NEECO II	876	Pampanga & Talavera River
28	NOCECO	10,600	Lima-lima
29	NORECO II	5,919	Balanan. Baco, Calo #1 - #3
30	NUVELCO	12,983	Man-Abot, Amueg, Senora & Udiawan Falls
31	ORMECO	119,305	Bansud, Dulagan
32	PALECO	1,146	
33	PANELCO III	32,224	Bachelor, Agno, Dipolo and Cabalisian River
34	QUEZELCO I	1,151	Maapon River
35	QUEZELCO II	52	Dumacaa
36	QUIRELCO	1,044	Dipidio River
37	SAMELCO I	73929	Ton-ok, Bugtong Falls
38	SOLECO	59,081	Hinabian
39	SORECO II	3,264	Sibulan, Osiao & Ranggas
40	TARELCO I	725	Camiling River
41	ZAMECO I	6,783	Bagsit



Operational Mini-Hydro Projects



ISELCO I - MAGAT A MH POWER PLANT (4X360 Kw)

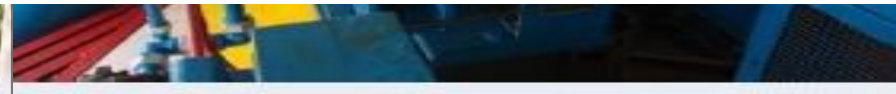


ISELCO I - MAGAT B MH POWER PLANT (3X360 Kw)





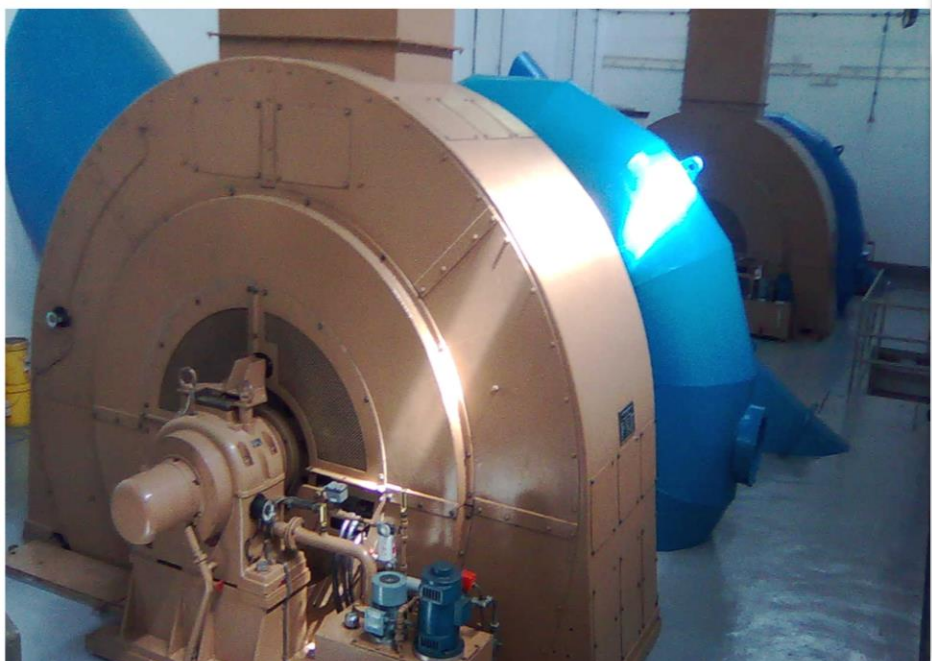
INEC - AGUA GRANDE MH POWER PLANT (2x910 Kw)





FICELCO-BALONGBONG MH POWER PLANT (2x900 Kw)





BOHECO I- JANOPOL MH POWER PLANT (2x2.5MW)



CEBECO I-MANTAYUPANMH POWER PLANT (2x250 Kw)



CEBECO I - MATUTINAO MH POWER PLANT (720Kw)





CEBECO I – BASAK MH POWER PLANT (500Kw)

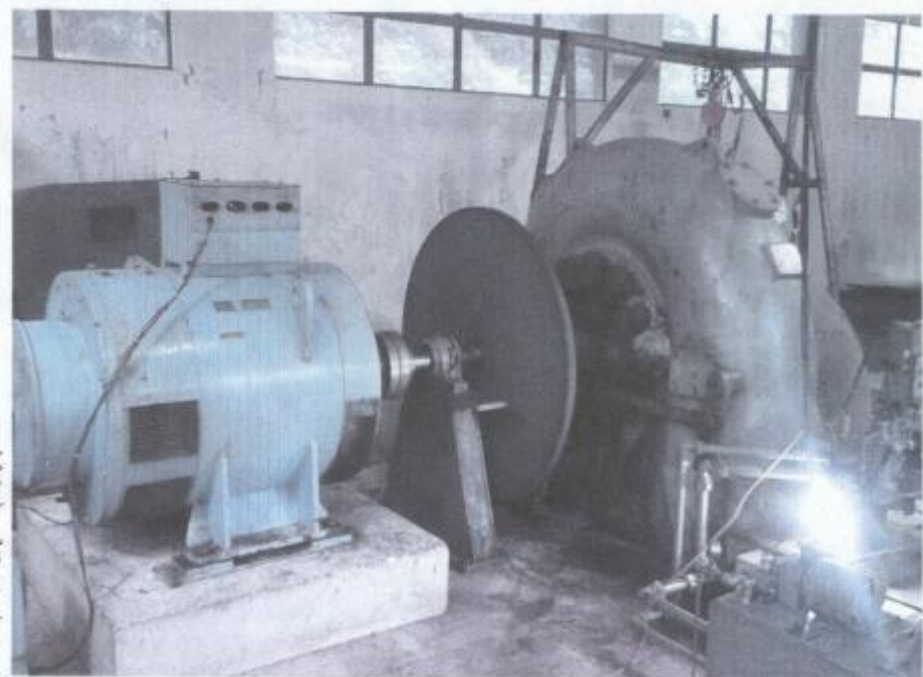


SAMELCO I - TON-OK MH POWER PLANT (4x270Kw)

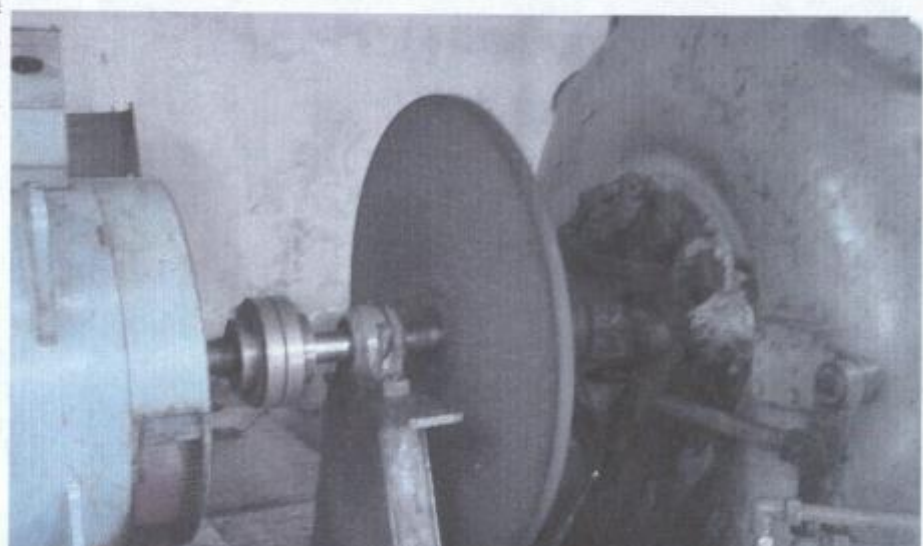
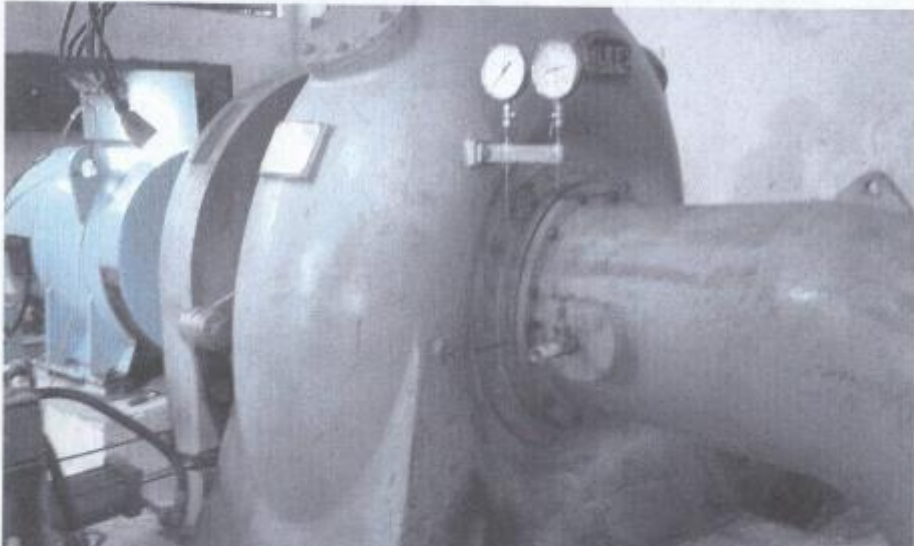




SOLECO - HINABIAN MH POWER PLANT (810Kw)



KUMALARANG MH



BASELCO - KUMALARANG MH POWER PLANT (680Kw)

Mini-Hydro Projects

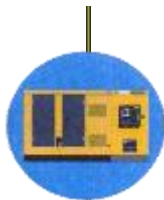
Non Operational

Electric Cooperative	Name of Project	Capacity (kW)
CASURECO IV	Coyaoyao	350
ISECO	Dawara	525
LUELCO	Amburayan	200
PANELCO III	Batchelor	750
ORMECO	Dulangan	1600
ISELCO II	Tumauini	250
BASELCO	Balactasan	270

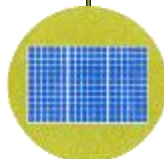
POTENTIAL ISLANDS (19) FOR HYBRIDIZATION

EC	Province	Islet
BATANELCO	Batanes	Itbayat
MARELCO	Marinduque	Maniwaya
MARELCO	Marinduque	Mongpong
MARELCO	Marinduque	Polo
OMECO	Palawan	Cabra
PALECO	Palawan	Agutaya
PALECO	Palawan	Araceli, Dumarán
PALECO	Palawan	Balabac
PALECO	Palawan	Cagayancillo
PALECO	Palawan	Rizal
TIELCO	Romblon	San Jose
ANTECO	Antique	Batbatán, Cullasi
BOHECO I	Bohol	Hambongan
BOHECO I	Bohol	Pamilacan
BOHECO I	Bohol	Balicasag
LEYECO V	Leyte	Higatangan
NORSAMELCO	Northern Samar	San Antonio
NORSAMELCO	Northern Samar	Biri
SAMELCO I	Samar	Camandag

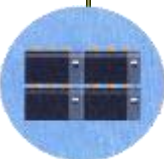
Diesel Generator



Solar PV System



Energy Storage System



Power Control System



Credit Facility for Renewable Energy Projects for ECs

Purpose	<ul style="list-style-type: none">• Development/Construction• Repair/Rehab
Amount	<ul style="list-style-type: none">• Equity - 30% of project cost not to exceeding Php100M• Repair/rehabilitation up to Php60M
Interest Rate	<ul style="list-style-type: none">• 6% per annum• 4.5% per annum during grace period
Tenor	<ul style="list-style-type: none">• 15 years• 3 years grace period

Documentary Requirements

A. Development/Construction

1. Board resolution stating the interest to develop a RE project
2. Board resolution to joint venture with other stakeholders (in case with partner/s)
3. Board resolution requesting for loan and authorizing the EC GM and Board Pres. to sign loan agreement
4. Budget request
5. Pre-feasibility study/Feasibility study/ Detailed engineering design
6. Renewable Energy Service Contract (RESC) - Pre-development
7. Corporate Social Responsibility (CSR) Plan
8. Environmental Compliance Certificate (ECC) or Certificate on Non-Coverage (CNC)
9. FPIC/Certificate of Pre-condition/ Certificate of Non-Overlap from NCIP
10. LGU endorsements (Barangay to Provincial)
11. Water rights permit from NWRB or NIA (if applicable)
12. Land Conversion Certificate /Permits (If applicable)
13. Other clearances from other concerned agencies
14. 15 year Financial Projection and Generation rate mix



Documentary Requirements

B. Repair/Rehabilitation

1. Board resolution requesting for loan and further authorization the EC GM and Board Pres to sign a loan agreement
2. Budget request
3. Project profile including project justification, timeline of implementation of project or project feasibility study
4. Bill of materials
5. 15 years Financial Projection and Generation rate mix



Renewable Energy New Loan – Rehabilitation/Equity

SOLECO

Rehabilitation of Hinabian 810 kw
Mini-Hydro Power Plant Project

Project Description

- Reinforcement and repair of butterfly expansion valves, & Bifurcation valves
- Replacement of hydraulic Turbine runner, hydraulic governors & synchronous generators
- Control panel assembly repairs

Amount

Php11,353,203.99



Renewable Energy New Loan – Rehabilitation/Equity

ROMELCO

HYBRID SYSTEM

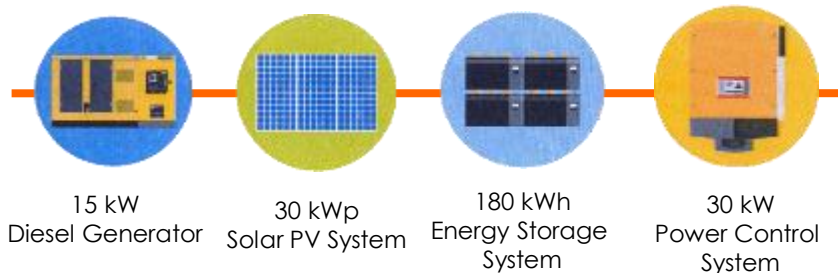
Solar-Diesel with Energy Storage Battery
Cobrador Island

Purpose

Counter part of the EC to cover the cost for the construction and installation of 30 kilowatt (kW) solar photovoltaic 180 kWh lithium-ion batteries 15-kW diesel generator

Amount

Php6.182M



Renewable Energy New Loan – Rehabilitation/Equity

ESAMELCO

AMANJURAY MHP (500 KW)

Purpose

Repair/replacement of old control panel and synchronization of Amanjuray Mini-Hydro Power Plant generator 1 to the 13.2KV line Feeder E.

Amount

Php6M



Control Panel



Generator , 500kW

Renewable Energy New Loan – Rehabilitation/Equity

INEC

Rehabilitation of Agua Grande Mini-Hydro Power Plant Project

Project Description

- Reinforcement and repair of upper dam, headrace, forebay, penstock, water raceway and access road
- Replacement of inlet pipe, turbines and generator for unit 4 and 5
- Installation of new turbine system, control board and outdoor substation

Amount

Php220M





For Inquiries

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**We must endeavor to
pursue the use of
mini-grids and
distributed generation
for increased access
to power.**

Edgardo R. Masongsong
NEA Administrator



End of Presentation