

**Presentation on the
Philippine-German Solar Energy Forum
The Peninsula Manila
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**CHALLENGES and OPPORTUNITIES
of the ELECTRIFICATION in the
ISOLATED GRIDS**

Rene M. Fajilagutan
GM, Romblon Electric Coop., Inc.
President, AIEC

Association of Isolated Electric Cooperatives AIEC

**Membership - 41 Electric Cooperatives
Covering 32 Provinces**

Missionary Electrification Coverage

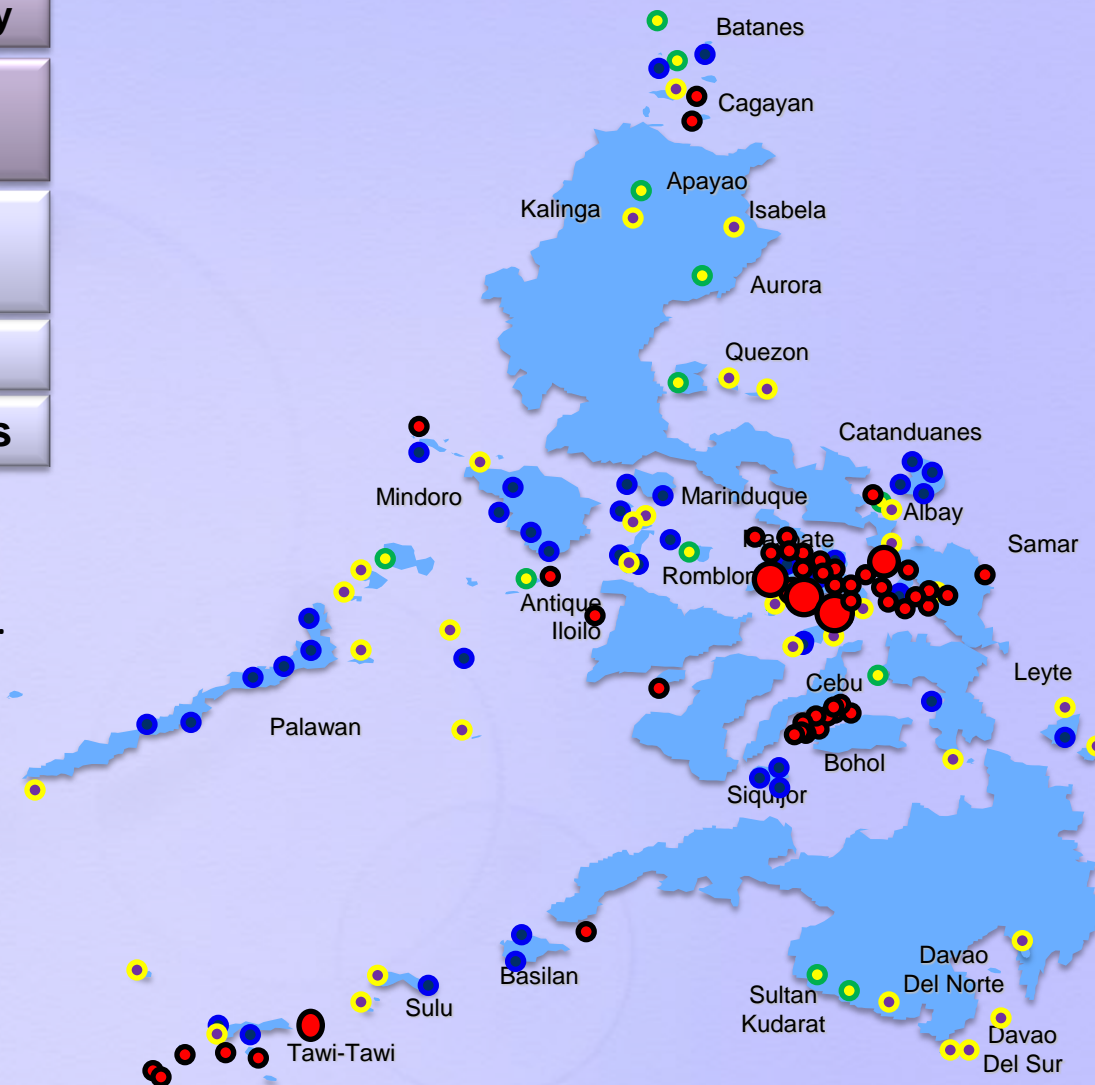
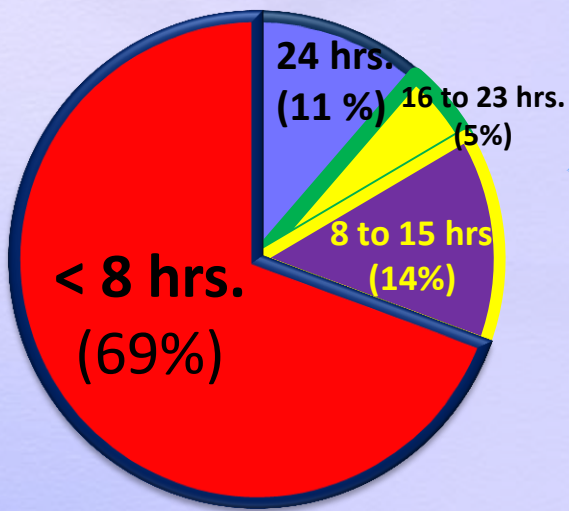
283 MW in Installed Capacity

290 Power plants in
221 Service areas

37 Provinces thru
51 ECs & DUs

3,947 Barangays

Over 650,000 Households



Electric Cooperatives served by NPC – SPUG (Island Provinces)

- **BATANELCO.....Batanes**
- **OMECO.....Occidental Mindoro**
- **ORMECO.....Oriental Mindoro**
- **LUBELCO.....Lubang Island, Occ. Mindoro**
- **ROMELCO.....Province of Romblon**
- **TIELCO.....Tablas Island, Romblon**
- **PALECO.....Province of Palawan**
- **BISELCO.....Busuanga Island, Palawan**
- **MARELCO.....Marinduque**
- **FICELCO.....Catanduanes**
- **MASELCO.....Masbate Province**
- **TISELCO.....Ticao Island, Masbate**
- **BANELCO.....Bantayan Island, Cebu**
- **CELCO.....Camotes, Cebu**
- **PROSIELCO.....Siquijor Province**
- **DIELCO..... Dinagat Province**
- **BASELCO.....Province of Basilan**
- **SULECO.....Province of Sulu**
- **SIASELCO.....Siasi, Sulu**
- **TAWELCO.....Province of Tawi – Tawi**
- **CASELCO.....Cagayan de Sulu, Tawi - Tawi**

Electric Cooperatives served by NPC – SPUG (Isolated Grid located in Mainland)

- **CAGELCO-II.....Cagayan Province**
- **KAELCO.....Kalinga and Apayao Provinces**
- **ISELCO-II.....Isabela Province**
- **AURELCO.....Aurora Province**
- **QUEZELCO-II.....Quezon Province**
- **BATELEC-II.....Batangas**
- **ALECO.....Albay Province**
- **CASURECO-IV.....Camarines Sur**
- **ANTECO.....Antique Province**
- **ILECO-III.....Iloilo Province**
- **SOLECO.....Southern Leyte**
- **SAMELCO-I.....Samar Province**
- **SAMELCO-II.....Samar Province**
- **NORSAMELCO.....Northern Samar**
- **BOHECO-I.....Bohol**
- **ZAMCELCO.....Zamboanga City**
- **SUKELCO.....Sultan Kudarat**
- **DANECO.....Davao del Norte**
- **DASURECO.....Davao del Sur**
- **SURNECO.....Surigao del Norte**

Summary of Power Demand of AIEC ECs

ISLAND	No. Power Plants	MAX DEMAND, MW	MIN DEMAND, MW
Luzon	52	99.676	47.545
Visayas	20	7.395	2.731
Mindanao	24	23.193	11.757
Total	96	130.264	62.033

NOTE: SPUG Power Plants operations range from 6 to 24hrs

ISSUES and CONCERNS

- **Unreliable, insufficient power supply**
- **Limited operating hours.**
- **Recurring problem on fuel supply**
- **High operating cost of NPC-SPUG power plants**

AREA	VARIABLE COST	FIXED COST	APPROXIMATE TRUE COST	APROXIMATE SUBSIDY REQUIREMENT
Luzon	19.9971	3.2784	23.2755	20.3055
Visayas	22.3003	7.5561	29.8564	24.3374
Mindanao	16.9106	2.2868	19.1974	14.8121

Moving Forward

A. Our Objectives

- **Increase in operating hours**
- **Reliable and efficient electric service**
- **Reduce dependence from the UC-ME subsidy**
- **Reduction of rate** ($SAGR = 5.6460 + 0.9492 = 6.5952$)
($POWER\ RATE = 6.5952 + 12\% VAT = P7.3866$)

B. Addressing the Issues and Concerns

- 1. New Power Provider (NPP) option with Conventional Power Source**
- 2. Promotion of Renewable Energy**
 - Benefits from R.A. 9513**
 - Right Technology**
- 3. Partnership with Private Investors**

Thank You!