

# Conference on Energy Efficiency for the Industry - Solutions made in Germany

PROJECTS FOR INVESTMENT IN RENEWABLE ENERGY

Venue: Ballroom 1, Fairmont Makati, Manila  
May 07, 2019

German-Philippine Chamber of Commerce and Industry (GPCCI)



Renewable Energy Association of the Philippines, Inc.

# Status of Household Electrification

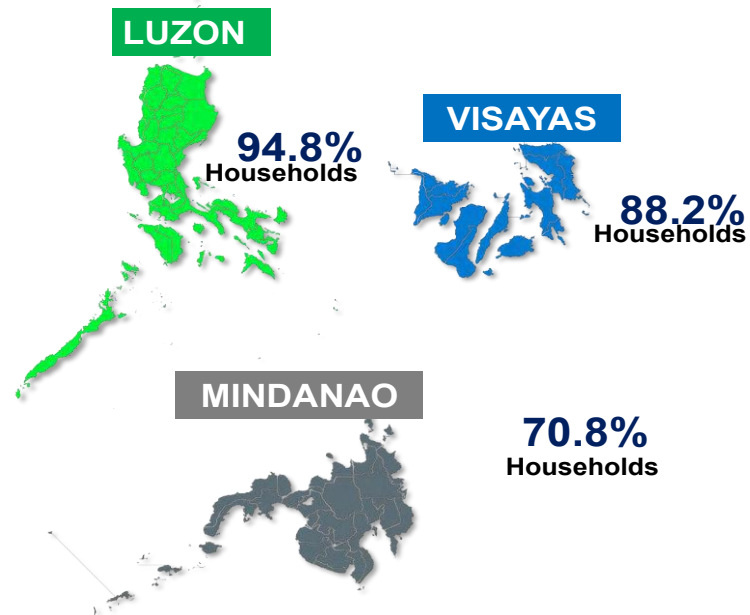
Initial Estimate as of 31 December 2017

**20.936 Million**  
**Households** have  
electricity out of  
**23.716 Million**  
**Households** in the  
country

(Based on DDP 2018-2027 by DUs)



Distribution Utilities (in Millions HH)	HH Population	Served HH	Unserved HH	HH Electrification Level (%)
119 Electric Cooperatives	14.59	12.19	2.39	83.6%
MERALCO	6.98	6.82	0.16	97.7%
Other Distribution Utilities	2.14	1.92	0.22	89.07%
Philippines	23.72	20.94	2.78	<b>88.3%</b>



Department of Energy  
Empowering the Filipino

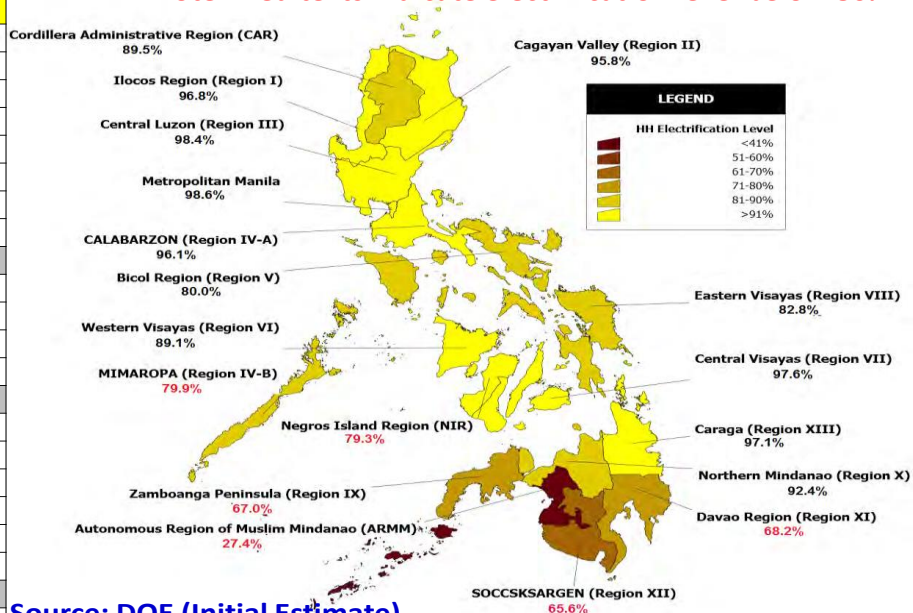


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# REGIONAL ELECTRIFICATION LEVEL (DEC 2017)

Region	Total HH*	Served HH	Unserved HH	HH Elect'n Level %
CAR	409,100	365,999	43,101	89.5%
I	1,179,133	1,141,887	37,246	96.8%
II	795,800	762,314	33,486	95.8%
III	2,793,456	2,748,334	45,122	98.4%
IV-A	3,718,758	3,572,657	146,101	96.1%
IV-B	708,077	566,065	142,012	79.9%
NCR	3,233,605	3,189,357	44,248	98.6%
V	1,197,558	957,954	239,604	80.0%
<b>Luzon</b>	<b>14,035,487</b>	<b>13,304,568</b>	<b>730,920</b>	<b>94.8%</b>
VI	1,019,375	908,244	111,131	89.1%
VII	1,426,286	1,391,344	34,942	97.6%
VIII	1,003,543	831,235	172,308	82.8%
NIR	1,016,400	806,494	209,906	79.3%
<b>Visayas</b>	<b>4,465,604</b>	<b>3,937,317</b>	<b>528,287</b>	<b>88.2%</b>
ARMM	618,600	169,190	449,410	27.4%
CARAGA	633,700	615,515	18,185	97.1%
IX	754,300	505,444	248,856	67.0%
X	1,004,722	927,878	76,844	92.4%
XI	1,177,596	803,588	374,008	68.2%
XII	1,026,019	672,999	353,020	65.6%
<b>Mindanao</b>	<b>5,214,937</b>	<b>3,694,614</b>	<b>1,520,323</b>	<b>70.8%</b>
<b>Philippines</b>	<b>23,716,028</b>	<b>20,936,499</b>	<b>2,779,530</b>	<b>88.3%</b>

Note: Red texts indicate electrification level below 80%



Source: DOE (Initial Estimate)

# Solar Rooftop



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# Market Trend

- ▶ Rooftop solar power systems will account for at least one-third of all solar installations in the Philippines by 2030 as the popularity of this renewable energy platform continues to rev up, according to Market Insights Reports.
- ▶ The North Carolina-based American firm said in a report that within the next 12 years, total solar power generation capacity in the country was expected to reach 8,700 megawatts (MW).
- ▶ According to a separate report from Netherlands-based Solarplaza, the Philippines' solar power installed capacity totaled at just 900 MW as of June 2017.

“The government in the Philippines aims to increase the solar PV (photovoltaic) installations, to reach 3 gigawatts (or 3,000 MW) of utility solar in 2022,” the research firm said.

- ▶ “In addition, the cumulative solar installation is predicted to reach 8.7 GW by the end of 2030, with solar rooftops constituting 35 percent of the total installations,” it added. “These initiatives are likely to further drive the growth of the Philippine solar energy market.

Source: <https://business.inquirer.net/248692/whats-vogue-solar-rooftops#ixzz5nAeJ098k>



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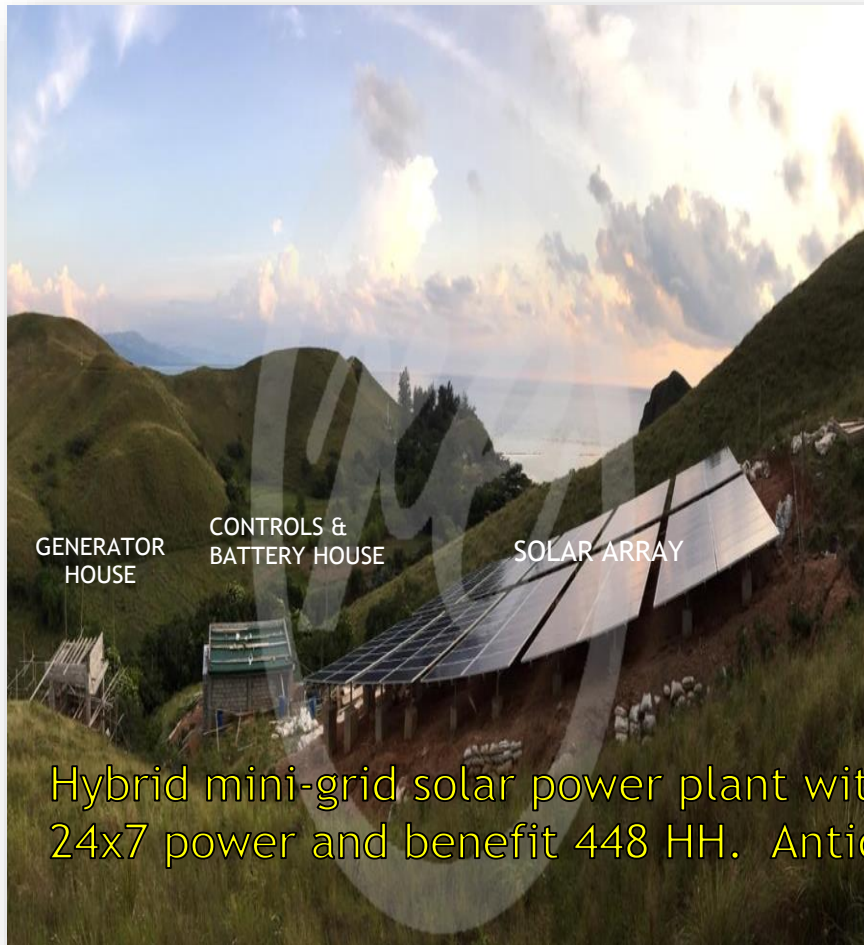




# RE Resource-based Island Electrification



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Hybrid mini-grid solar power plant with diesel generator with 50 kw & 30 kw 24x7 power and benefit 448 HH. Antique (ANTECO) & Romblon (ROMELCO)



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Cantingas 900kW Mini-Hydro, Sibuyan Island  
(ROMELCO)



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Wind Power 900 kW - Romblon Island  
(ROMELCO)



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# Market Trend

- ▶ The decentralized energy and power backup markets are converging.
- ▶ Inverter makers are also vying to build micro-grid capabilities.
- ▶ Oil price volatility could provide a tailwind for solar-diesel hybrids.
- ▶ RE micro-grid projects at the moment remain sparse.
- ▶ Graduation of some SPUG Islands from UCME subsidy



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# Thank you



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