

# MARKET OPPORTUNITY

## Philippines



**GREEN  
ENERGY  
TECHNOLOGIES**

- The National Renewable Energy Program (NREP) aims to expand capacity of green energy from **6.63** gigawatts (GW) in 2015 to **15.30** GW in 2030. This provides up to **50%** of the country's electricity generation.
- Green energy constituted 25.4% (20,964 out of 82,413 GWh) of power production in the Philippines in 2015.
- The Philippines Government adopts a Feed-in-Tariff (FiT) mechanism that rewards green energy producers on each unit of electricity generated. However, it has been recently phased out due to the lower cost of equipment.
- The EU is the largest foreign investor in Philippines' clean energy sector, alongside with plans to commit €249 million in energy investments between 2014 and 2030.

### Business Opportunities for EU companies

1. EU companies involved in renewable energy generation can supply **equipment, technology solutions and related services in developing green energy infrastructure projects** as the sector expands. For example, the wind systems in the Burgos wind project (0.150 GW in capacity) are supplied by Danish company Vestas.
2. Companies with expertise in **tidal and wave energy** can provide technology transfer to local companies. Under NREP, the first tidal power plant was expected to be fully operational by 2018 and four contracts have been awarded since 2015. This provides opportunities for cross-border partnerships since the sector is relatively undeveloped in the Philippines.
3. Under the **Investment Priority Plan (IPP)**, both fiscal (e.g. income tax holiday for 4-6 years) and non-fiscal incentives (e.g. simplification of custom procedures) are provided to companies which invest in green energy. EU business partners may be more motivated to invest under this scheme as they are allowed to own up to 40% of equity.
4. EU companies in the **electric vehicles (EV)** sector can seize opportunities through collaborating with local firms on **imports and exports of EVs, supply of EV components, and establishing charging stations**, given the government incentives for firms to expand into local and overseas markets under National Development Plan.

### Sector Characteristics

- Power generation by hydro, geothermal and other green energy sources (solar, wind, and biomass) constitute **10.5%, 13.4%, and 1.5%** of the total power generated in 2015. The green energy sector is expected to grow by **27.3%** from 2017 to 2021, an average of **4.9%** per year.
- According to experts, solar energy has strong potential for growth compared to other green energy sub-sectors.
- Wind energy sector has an average annual growth of 22.2% in the next 5 years due to the government's push to add 1.6 GW capacity in the next 3 years.
- Government incentives such as FiT have resulted in an increase in investments in green energy projects. High FiT is offered to solar project developers and a strong project pipeline resulted in a vast 288% capacity growth in 2016.
- There is considerable potential in biomass given its small base. As of June 2016, **0.295 GW** of capacity had been installed and contracts of additional 0.238GW were awarded.
- Tidal energy is an emerging sector. The first project (5 MW in capacity) is expected to be completed by the end of 2017.
- The domestic sales of electric cars is €200.4 million in 2013 and is expected to grow 80.9% in volume until 2017.



Investment  
**€1.27 billion**  
(2014)

**2<sup>nd</sup> largest**  
producer of  
geothermal energy  
in the world

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**GREEN ENERGY TECHNOLOGIES**

### OVERVIEW

- The energy sector in the Philippines is largely driven by the private sector. The green energy sector is dominated by large companies such as EDC, First Gen, and Aboitiz Power in large infrastructure projects.
- Sustainable resources such as wind, biofuel and tidal energy remain largely unutilised while the hydropower and geothermal sectors are relatively well-established.

### Key Players

Source: BMI, Department of Energy the Philippines, Company Annual Reports 2015

	Company	Revenue (€)	Generating Capacity
1	<b>First Gen</b> Largest Philippine power generation company	1,701.7 Mil	2,950 MW
2	<b>Aboitiz Power</b> Heavy presence in hydroelectric power generation	1,587.5 Mil	2,530 GW
3	<b>Energy Development Corp (EDC)</b> World's second largest geothermal plant	640.4 Mil	1,170 GW
4	<b>National Power Corporation</b> Government-owned corporation; generates and distributes electricity	177.9 Mil	1,740 GW
5	<b>Ayala Corporation Energy (AC)</b> Owns 3 major wind and solar farms	52.8 Mil	1,000 GW
6	<b>Global Green Power PLC Corporation</b> Largest biomass power generator locally	15.3 Mil	420 MW
7	<b>PetroEnergy Resources Corporation (PERC)</b> New department for Geothermal, wind, and solar power	2.1 Mil	151MW
8	<b>Helios Solar Energy Corp</b> Largest solar energy facility in South East Asia	1.9 Mil	132MW

### Key Sub-sectors and Projected Market Growth (2021)

Source: BMI, Department of Energy the Philippines

	Sub-sector	Est. Power Generation in 2016 (GWh)	Forecasted Annual Growth 2017-2021	Forecasted Total Power Generated (GWh)
1.	Geothermal	11,580	1.6%	12,537
2.	Hydropower	9,996	6.6%	13,770
3.	Wind Energy	842	22.2%	2,297
4.	Biomass	707	3.8%	853
5.	Solar Energy	671	4.5%	838
6.	Tidal Wave Energy	0	10 MW in capacity	Negligible

Non-Hydropower Renewables Generation, By Type, TWh (2015-2025)

