

Feasibility Study for a 50 MW Solar Energy Project in Iloilo City

1. Executive Summary

This feasibility study evaluates the financial and operational viability of a 50-megawatt (MW) solar energy project in Iloilo City, Philippines. The project will utilize a 53-hectare seafront property, valued at PHP 2.2 billion, as equity investment, significantly reducing the need for external funding.

2. Project Overview

Project Size: 50 MW

Land Area: 53 hectares (seafront property)

Appraised Land Value: PHP 2,200,000,000.00

Estimated Annual Energy Output: 78,840 MWh (78,840,000 kWh)

Project Lifespan: 25 years

Location: Iloilo City, Panay Island, Philippines

3. Financial Model

Total Installation Cost: PHP 2,217,442,500.00 (excluding Land Lease)

Equity Contribution (Land Value): PHP 2,200,000,000.00 (2024 Cuervo Appraisal Report)

Seed Fund (SPV company)

PHP 70,000,000.00

Annual Revenue: PHP 433,620,000.00

Annual Operational Cost: PHP 50,000,000.00

Total Operational Cost over 25 years: PHP 1,250,000,000.00

4. Investment Returns

- Internal Rate of Return (IRR): 14.86%

- Net Present Value (NPV): PHP 1,595,057,641.47
- Discount Rate: 8.00%
- Return on Investment (ROI): 283.62%
- Estimated Payback Period: 7 year
- Forecasted Tariff Rate: 5.4
- EIRR in percent (approximate): 17.12

5. Funding Strategy

With the 53-hectare seafront property contributing PHP 2.2 billion in equity, the remaining funding requirement is PHP 2,227,442,500.00. The remaining amount will be sourced through:

- Debt Financing (Green Loans, Bank Loans)
- Green Bonds & Climate Financing
- Power Purchase Agreements (PPA) with Industrial & Corporate Buyers
- Public-Private Partnerships (PPP)
- & Government Grants
- PE (ACEN, Actis Capital)

6. Risks & Mitigation Strategies

Key risks and mitigation strategies include:

- Securing long-term Power Purchase Agreements (PPAs) to ensure stable revenue
- Leveraging government incentives and tax breaks for renewable energy
- Utilizing high-efficiency solar panels and advanced energy storage to maximize output
- Establishing strong partnerships with financial institutions to secure remaining funding
- Backed-up with Real Estate (Land-53 hectares with an appraised value of P2.2B; based on 2024 Cuervo Appraisal).

7. Conclusion & Call to Action

The 50 MW solar energy project in Iloilo City is financially viable, with significant equity contribution from a 53-hectare seafront property, reducing external financing needs. With strong investment potential, government support, and sustainable energy demand, this project presents an attractive opportunity for investors, financial institutions, and energy buyers. We invite stakeholders to participate in this transformative renewable energy.