UTILIZATION OF POTENTIAL ENERGY RESOURCES FOR SORSOGON CITY’S SUSTAINABLE DEVELOPMENT

Mayor Leovic R. Dioneda
Sorsogon City, Philippines
History:
Created in 2000, through the merger of the municipalities of Sorsogon and Bacon

Land Area: 31,292 has.
Population: 160,000
Growth Rate: 1.78%

Economy: Agriculture, Fishing, Trade, and Services

Poverty situation: 23% live below poverty threshold

Governance: Decentralized

Role in the Province: Administrative, Commercial and Educational Center

Annual budget: ¥ 870 M
$ 10.3 M
P 466 M
Power supply

National Grid Corporation of the Philippines

Energy Development Corporation

SORECO 2

Consumers
Power Rates (per kwh)

- Residential use – ¥22.82 ($0.27)
- Commercial use – ¥18.79 ($0.22)
- Industrial use – ¥18.79 ($0.22)
Residential houses use LPG, electricity, charcoal and firewood as cooking fuel
Transportation in the city relies on fossil fuels like gasoline and diesel.
City’s geothermal plant

BACMAN geothermal power plant

- Operated by a private entity
- Generates 150 megawatts but directed to the national grid before its distribution to the consumers
Cawayan Hydro Electric Powerplant

- Generates only 160 to 180 kilowatts due to a damaged turbine from a typhoon.
- Rehabilitation and upgrading - can generate up to 1 megawatt.
Other potential energy resources

For hydro development
- Osiao River
- Rangas River
- Sibulan River

Existing Cawayan hydro
- Aggregate capacity of 2 to 3 MW.

Barangays Osiao and San Juan
Household level installation of solar panels can be practicable once commercialized.

Sorsogon City’s climate – no pronounced dry season year round but the city experiences now 8 months of dry season with rainy days during months of November to February with the changing climate.

National weather agency projection – increased in temperature and precipitation in the next 50 years.
The city is a coastal city with a coastline of 75 kilometers on both sides.
Biogas potential

- The city generates 86 cubic meters of solid waste.
- 2 sites for the solid waste disposal, not converted into a landfill yet.
- A possible off-site biogas generation plant can also be a potential subject to the volume requirements.
Biogas potential

Proposed city slaughterhouse

- New site with new facilities.
- Wastewater treatment facility
- Biogas digester to demonstrate biogas harvesting for water heating

Valenzuela City Slaughterhouse Wastewater Treatment Facility with Biogas digester Model
Sorsogon City hosted the summit for the Alliance of Geothermal Energy Producing LGUs (AGEPL).

- Taxation due to the local government units
- Possible preferential power rates for the host cities and municipalities to geothermal energy generation
- Future plans to include expansion of the group’s concern to other renewable energies
Issues and challenges

- Lack of technical capacity to assess viability of potential energy resources
- Ownership of Cawayan hydro electric plant with an external investor
- Implementation of solid waste management in the city – a challenge
- Exploring of a possibility of developing geothermal or other renewable energy resources for the City’s power consumption
Possible partnerships

Partnerships/cooperation can be undertaken on the technical and financial aspects

Investors can explore possibilities that would be beneficial for both the local government and the business partner either for demonstration or major projects.

Sorsogon City after all is looking forward to a sustainable environmental development
Maraming salamat po.