Solomon islands new york electric grid

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The Solomon Islands Electricity Access and Renewable Energy Expansion Project (SIEAREEP) (Phase II) (the Project) will comprise the following three components, which are described in more detail in Section 3 - Project Description:? Component 1 - Hybrid mini-grids? Component 2 - Connections to low-income households? Component 3 - Grid-connected solar PV power

The Project will be supported by grants from the Scaling up of Renewable Energy Program in Low Income Countries (SREP) under the Strategic Climate Fund, the International Development Agency (IDA), SIDS-DOCK an initiative of the Alliance of Small Island States, the Global Environment Facility (GEF), and other as yet to be determined funding sources.

The Islands principal generating units are diesel fueled power generators. Approximately 80% of generating capacity and 87% of all energy generated came from diesel facilities. SEIA also operates a number of outstations (mini-grids) that are traditionally defined by diesel generation, but may also include a small number of photo-voltaic facilities.

Power consumption in the various sub-regions correlates with population. Accordingly, the province of Guadalcanal, where the capital city of Honiara is located, is the largest load consuming province SEIA services. Peak power demand has increased from 9.3 MW in 2003 to 15.5 in 2016, representing an annual growth rate of approximately 4%.

According to the SEIA’s 2018 annual report, the average cost of power was approximately $0.26 USD per kWH, though its highest prices range at $0.82 USD. For comparison, the average price of electricity in the US is $0.12 USD, and $0.11 USD in the ERCOT ISO of Texas. Because of the SEIA’s generation mix, fuel accounted for 48.5% of the cost. SEIA considers fuel prices to be the greatest risk to profitability.

This transformation of course, comes with costs. The Tina River Project (Part 1 of the plan) costs an estimated $240 million. While SEIA closed several major financing hurdles in September of 2019, it still only has 20% of the required financing. Interestingly, part 2 of the plan, which calls for more tangential mini-grids and subsidized interconnection, only costs bout $20 million and has achieved nearly 50% of its financing goals from international partners.

This is significant for two reasons. First, it suggests that investors believe advanced mini-grids are both economic and feasible solutions for small islands. Second, this model of development is exportable to other island states. While not all islands have the same water resources available to build a hydro power damn, nearly all small islands have small isolated populations, disconnected from the grid, with limited or no ability to interconnect.

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Prime Minister Manasseh Sogavare today has launched the Solomon Islands Renewable Energy Roadmap - announcing major reforms in the energy sector in the areas of policy, legislation, regulation, institutional, financial and management arrangements.

The new Roadmap provides the technical pathway and implementation framework to reach 100% renewable energy by 2030 and would involve a major reform in the energy sector to create an enabling environment for participation of independent power producers (IPPs) to achieve the target.

These reforms will see the removal of the regulatory role away from Solomon Power to an independent regulatory body, opening up the electricity industry to interested independent power producers specifically in the generation component, amending the Electricity Act and developing a new electricity sectoral Bill/Act to transform the sector in the long term.