Marshall islands solar incentives

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The Republic of the Marshall Islands, a nation of scattered reefs and atolls in the North Pacific, is under grave threat from sea level rise associated with climate change. With its highest point standing at a mere thirty feet above sea level, the Islands’ existence is in danger of submersion.

Purpose: According to the Marshall Islands’ Chamber of Commerce, electricity rates rose from 12 to 15 cents per kilowatt-hour in 2005, a steep price for residents who earn an average of two dollars per day. In order to alleviate some of these high costs, GSEII collaborated with the Government of the Marshall Islands to promote the use of energy-efficient light bulbs. These bulbs will reduce the amount of energy consumed to produce light, decreasing the amount of money spent to generate it.

Description and Results: This project originated on the island of Majuro, for which maps were created to target those areas most in need of efficient lighting technology. The UK-based organization Climate Care provided 10,000 energy-efficient light bulbs for the Energy Efficient Lighting Program, which were distributed to government buildings, schools, and houses.

Purpose: Renewable energy is the most appropriate long-term alternative source to replace imported petroleum products for electricity production in the Marshall Islands. Solar photovoltaic (PV) technology is already technically and financially attractive for relatively small remote island demands when properly planned, operated, and maintained.

Description: GSEII iworked with the Marshall Islands to expand the use of PV technology to improve the quality of life for the Marshallese while helping reduce carbon emissions. In 2006, solar electricity became a part of the long-term development of the National Energy Policy, demonstrating the Marshallese commitment to renewable energy through PV systems.

In Fall 2006, the Outer Island Electrification Project was launched, giving access to solar homes to residents of Namorik and Mejit Islands. Solar electrification was completed with assistance from the EU, the Republic of China, and the US government.

As a substitute for diesel, the Marshalls Energy Company, with the aid of GSEII, aims to develop small generators from 5 kWh to 50 kWh that run on this biofuel to work in synergy with solar-powered systems, providing electricity for high load appliances not requiring 24-hour power generation such as freezers and washers. Currently, the company is still developing methods of generating this fuel.

In general, the PTC under Section 45 of the Internal Revenue Code includes an inflation-adjusted per-kilowatt-hour ("kWh") tax credit, currently $0.023/kWh, for electricity generated by qualified wind energy resources and sold by the taxpayer to an unrelated person during the taxable year. The duration of the

credit is 10 years after the qualifying facility is placed in service.

The ITC under Section 48 of the Internal Revenue Code is a 30% tax credit based on the total cost of qualifying energy property. For this purpose, the total cost includes both equipment and labor, but generally does not include the building or structural components on which the equipment was placed. For a 5-year compliance period, the ITC is subject to recapture if either (1) the property ceased to be a qualified energy property or (2) a change in ownership interest occurred.

Although the PTC was set to expire for wind facilities on January 1, 2015, the Omnibus Bill extends the PTC expiration date for wind facilities that begin construction before January 1, 2020, as well as the election for wind facilities to receive a 30% ITC in lieu of the PTC. As set forth below, the Omnibus Bill includes a phase-down of both credits when construction of a wind facility commences after December 31, 2016. The phase-down for wind facilities is described as a percentage reduction to the current $0.023/kWh PTC.4

Other non-wind facilities such as biomass, waste heat-to-power, small irrigation, and hydropower are not granted the 5-year extension of the PTC under the Omnibus Bill. The PTC expires and is not available for non-wind technologies if construction is commenced after December 31, 2016.

Under the Omnibus Bill, the 30% ITC for eligible solar properties such as solar photovoltaic systems, solar water heating, solar space heating/cooling, and solar process heat are extended "as is" through the end of 2019, and then will phase down through 2021. After December 31, 2021, the ITC is scheduled to remain at 10%. As shown below, the ITC percentage phase-down is based on a combination of when the solar facility is "placed in service" and when "construction commences."