

Playbook Lesson Learned

Phase 2: Assessing Opportunity Pathways

Assessing Pathways in Aruba

In 2010, Prime Minister Eman of Aruba expressed an ambitious goal: to transition Aruba to 100% renewable energy by 2020. Aruba offers a valuable example of how to approach vision and goal setting for an energy project or initiative.

Challenge

Strong tourism and growth in the hospitality industry are boosting economic development for the island of Aruba. However, like many islands and remote locations, Aruba must import thousands of barrels of fuel oil per day to sustain its economy. In 2012, Aruba consumed more than 4,000 barrels of oil per day for electricity and water production.

To meet the prime minister's vision of transitioning off fossil fuels by 2020, the Aruban government and the local utility, WEB Aruba, developed an integrated strategy for sustainable, affordable, and reliable energy.

Solution

The first step was to develop an integrated, multisector, sustainable development strategy in collaboration with the private sector, nongovernmental and government organizations, and individuals. Partners that have committed to the project and are helping Aruba realize its vision include the Carbon War Room, Harvard University, former Vice President Al Gore, and Delft University of Technology.

Through the Green Aruba Forum, the Government of Aruba assembled sector-specific teams of technical experts to examine the current status of Aruba's economic sectors responsible for most of the island's fuel consumption, and to offer a range of possible strategies for addressing the key challenges to sustainable growth in those sectors.

The technical teams focused on three sectors—energy, transportation, and the built environment—to identify pressing challenges and potential opportunities. This work included assessments of renewable energy and energy efficiency opportunities, and wind, solar, and storage options.

“Our goal is an ambitious one: to increase the social, environmental, and economic resilience of Aruba through an efficient use of natural resources and an implementation of projects that will create and sustain high-quality local jobs for current and future generations. Ultimately, we hope that Aruba will become the model for a low-carbon, sustainable, and prosperous economy that can be replicated in other island nations.”

—Aruba Prime Minister Mike Eman

The teams also pinpointed possible actions that Aruba might take in the near term to realize its vision, and highlighted some opportunities, which include sectors that require long-term planning, as well as an analysis of technologies still under development.

The findings are summarized in the research report, *Smart Growth Pathways: Building a Green Platform for Sustainable Aruba*,¹ which provides an overview of the work that has been done to date by these technical teams to translate Aruba's goals into tangible plans of action.

Aruba has already made significant progress on the path to sustainability. The island's 30-megawatt (MW) Vader Piet wind farm generates approximately 18%² of Aruba's annual electricity, and another 24-MW Urirama wind farm is in development. Other planned projects include a 3.5-MW grid-tied solar PV installation at the airport, a waste-to-energy plant, grid storage, and demand response options. Aruba is also electrifying its public transportation sector, with the first electric bus put into service in 2013.

Key Takeaways

An actionable plan is critical to achieving the vision of a sustainable future. For Aruba, and other similar locations, this involves reducing carbon dioxide emissions to open new channels for environmentally sustainable economic growth, creating local job opportunities, and enhancing the health and well-being of the island's residents and visitors.

¹ Carbon War Room. http://www.carbonwarroom.com/sites/default/files/reports/CWR_SGP_Download_singless.pdf.

² Source: NuCapital. Accessed Aug. 7, 2014. <http://nucapitalsvcs.com/index.php/projects/27-nuvader-piet-beheer-nv-aruba>.

This lesson learned is one of many provided in the Energy Transition Initiative Islands Playbook—an action-oriented guide to help island communities successfully initiate, plan, and complete a transition to a clean energy system and eliminate dependence on imported fuels. See the full Islands Playbook at www.eere.energy.gov/islandsplaybook.

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The Energy Transition Initiative leverages the experiences of islands, states, and cities that have established a long-term vision for energy transformation and are successfully implementing energy efficiency and renewable energy projects to achieve established clean energy goals. Through the initiative, the U.S. Department of Energy and its partners provide government entities and other stakeholders with a proven framework, objective guidance, and technical tools and resources for transitioning to a clean energy system/economy that relies on local resources to substantially reduce reliance on fossil fuels.