

EDIN-USVI Clean Energy Quarterly

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Key EDIN-USVI Events

- November 15-16 2010

The third EDIN-USVI clean energy workshop will be held at the University of the Virgin Islands (UVI) campus on St. Croix.
- June 14-16 2010

More than 90 people attended the second EDIN-USVI workshop, which was held at UVI in St. Thomas (*photos above*).
- February 16 2010

At the inaugural EDIN-USVI workshop, held at the National Renewable Energy Laboratory (NREL) in Golden, Colorado, Gov. John P. de Jongh Jr. signed a memorandum of understanding (MOU) to initiate the USVI's participation in the EDIN program (photo below).

What Is EDIN?

Energy Development in Island Nations (EDIN) is an international partnership focused on addressing the unique energy challenges islands face by advancing the deployment of renewable energy and energy efficiency technologies.

In the U.S. Virgin Islands, EDIN is a collaborative effort among many public and private groups led by the U.S. Department of Energy, the U.S. Department of the Interior, the VI Water and Power Authority (WAPA), and the VI Energy Office (VIEO). Our purpose is to support the USVI's efforts to reduce fossil fuel usage in the electricity and transportation sectors 60% by 2025. This will not be an easy task, but it is possible. It will take everyone working together to achieve this goal.

In June 2010, we announced the formation of five integrated working groups focused on specific challenges:

- 1) Renewable Energy
- 2) Energy Efficiency
- 3) Transportation
- 4) Education and Workforce Development
- 5) Policy and Analysis

Learn more about the efforts of each working group on the following pages.

USVI Sets Goal to Reduce Fossil Fuel Use 60% by 2025

At the MOU signing ceremony with the U.S. Department of Energy and the U.S. Department of the Interior, Governor de Jongh announced his goal to reduce the USVI's dependence on fossil fuel 60% by 2025.

"There is no reason why the Virgin Islands cannot be the leaders in clean energy deployment in the Caribbean." —Governor de Jongh



The Need for Change



In 2008, the price of oil spiked to over \$140/barrel, and the price of electricity in the USVI exceeded \$0.50 per kilowatt hour—over four times the U.S. average. Businesses failed, and many Virgin Islanders were unable to pay their bills.

Each of the EDIN-USVI clean energy working groups is doing its part to minimize USVI’s vulnerability to global oil market volatility.

EDIN-USVI Clean Energy Working Groups

Participants in the EDIN-USVI project have organized into five focused working groups.

Renewable Energy Working Group

The Renewable Energy (RE) working group focuses on the cost-effective deployment of renewable energy in the territory. The USVI has an abundance of potential renewable energy resources, including solar, wind, and biomass. The RE group is working on several fronts to help identify the best mix of renewable energy on the islands.

Renewable Energy Assessments

Using American Reinvestment and Recovery Act (ARRA) dollars, the VIEO is purchasing metrological systems to measure wind and solar resources. The team is also collecting plant samples to determine whether St. Croix can develop a biomass energy resource to supplement the waste-to-energy biomass stream from area landfills.

Grid Integration

Wind and solar energy generation can vary quickly as clouds and winds change. The RE group is working with WAPA to model the effects of these changes and to determine the maximum amount of renewable energy WAPA can integrate onto island grids while still maintaining the reliability of the power supply.

Technology Deployment

Using ARRA funds, the VI Port Authority is installing the first large-scale solar photovoltaic (PV) system in the USVI. This system will help power the Cyril E. King Airport on St. Thomas.

Energy Efficiency Working Group

The Energy Efficiency (EE) working group focuses on the many energy efficiency opportunities in the USVI. Businesses and individuals could save significant money today by making simple changes that reduce energy use and by investing in more efficient lighting, air-conditioning, and appliances.

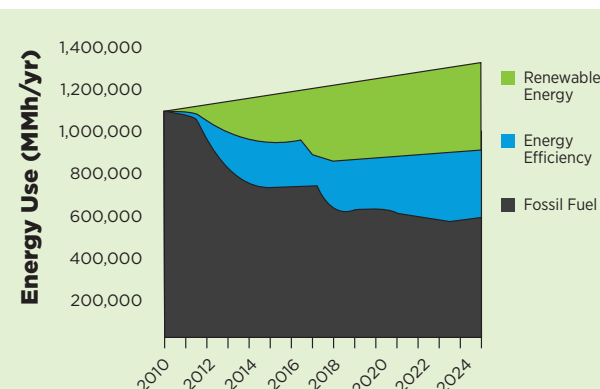
Efficient Building Design

For a building to be comfortable in the Caribbean without using excess

air-conditioning, that building must be designed with energy efficiency in mind. The EE working group is working to design comfortable, affordable housing for the territory. Initial models show that the extra cost of efficient design is more than made up for by reduced electricity bills.

Energy Savings Performance Contracts

The EE working group is investigating the use of energy savings performance contracts (ESPCs) in the territory. With an ESPC, an energy service company (ESCO) works with a building owner to identify energy saving projects. The ESCO often covers the up-front cost of the projects and is paid back by sharing the resulting savings with the property owner.



Source: NREL

Achieving a 60% reduction in fossil fuel use by 2025 will require a combination of energy efficiency and renewable energy.



An Integrated Approach

Achieving the 60% by 2025 goal will benefit the USVI by sheltering the *economy* from inevitable oil price spikes, protecting the *environment*, and creating sustainable *jobs* for the future.

EDIN-USVI Clean Energy Working Groups (cont'd.)

Transportation Working Group

The Transportation working group's focus is on creating a sustainable transportation system for USVI residents and tourists. Among the first steps for this group are developing a baseline measurement of the current fuel use for transportation and creating a plan to transform fuel use in the future.

Education & Workforce Development Working Group

Transforming the USVI's energy future will require everyone to better understand how energy is generated and used. The need to develop and maintain the energy-

efficient buildings, solar installations, wind turbines, and other building blocks of a green economy will generate new jobs and fuel local industries. The Education and Workforce Development working group is focused on identifying and developing the tools and programs critical to this transformation.

Policy & Analysis Working Group

Governmental policy is foundational to reshaping the regulatory landscape to clear the way for a new energy future. The Policy working group is focused on assisting USVI lawmakers and other clean energy advocates in this important area.

A Vision for the Future

Wind, solar, and biomass energy have the potential to reduce the cost of electricity and create new, sustainable industries for the future of the USVI.

This transition to a new energy economy will transform the territory's landscape. Solar panels and solar water heaters will become commonplace on roofs. Revitalized farms will grow fields of bioenergy feedstock. And wind farms will

harness the local trade winds to power island homes and businesses more affordably and sustainably.

The computer-generated image at right is a graphic depiction of Bovoni Landfill on St. Thomas with more than 7.5 MW of installed wind generation. This power could be supplemented with a co-located waste-to-energy or landfill gas power plant.



If you are interested participating in the transformation of the USVI's energy future, we need your help!

Please contact anyone on this list below to get involved. We look forward to hearing your ideas and working with you.

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To learn more about the EDIN-USVI energy revolution and how you can be part of the solution, please visit:

edinenergy.org/usvi.html



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