

A Strategic Plan for the Caribbean Green Technology Center
of the University of the Virgin Islands
2014 – 2017

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Executive Summary

Reliable and affordable access to energy and water supply and services; the sustainable use of natural resources and improved environmental quality; and sustained livelihoods and economic growth are three cross-cutting local and regional needs that must be addressed through coordinated collaborative action to support sustainable development and the creation of vibrant communities across the Virgin Islands and the Caribbean Basin. This strategic plan for the Caribbean Green Technology Center of the University of the Virgin Islands seeks to provide a path forward that is consistent with the overall UVI strategic vision for establishing the long-term success of the Center. This plan will engage representatives from academia, the private sector, governance and policy, as well as non-/local community and other stakeholders in an evolving research-guided discourse. This strategic plan links the following five action areas to these prioritized local and regional needs:

1. Advance scientific research and application, and the development and implementation of context-relevant technology
2. Promote public engagement on energy/water security initiatives and environmental protection
3. Develop workforce capabilities to support a secure energy and water future and drive local economic development toward a sustainable future
4. Build and enhance partnerships and co-operation
5. Build organizational and operational capability

Introduction

The University of the Virgin Islands' Caribbean Green Technology Center (CGTC) was created in 2011 to advance energy and environmental sustainability in the U.S. Virgin Islands and its neighbors throughout the Caribbean Basin. In the face of severe economic pressures, almost unchecked urbanization and energy and water insecurity, the Center will serve as an important clearing house for information and processes geared towards supporting and protecting natural resources and the development of alternative and renewable energy technologies. With the goal of establishing vibrant, energy sufficient communities, *our vision is for the Caribbean Green Technology Center to serve as an intellectual hub for learning, networking and innovation in and across the Caribbean, in all areas pertaining to green technology.*

Our mission is to (i) foster the integration of research, education and public service on green technology and sustainability; (ii) promote Caribbean inter-Islands' cooperation; (iii) advance interdisciplinary investigations and learning; (iv) collaborate with academic, government and industry partners both locally and regionally; and (v) research, develop, demonstrate and monitor green technologies. Achieving the vision of the CGTC will require a collaborative effort involving UVI, local and territory agencies and elected officials, industry, educational institutions and the broader public. The CGTC will coalesce this group toward a common purpose of advancing energy, environment and sustainability practices in the Virgin Islands with an eye toward serving as a model for and assisting other Caribbean islands to achieve the same.

The Strategic Plan to achieve this vision includes research, education, workforce development, partnerships and policy initiatives. Implementing this Strategic Plan for the CGTC will position UVI as a valuable resource for the USVI and the Caribbean as a whole in developing a continuum toward energy and environmental sustainability.

Strategic Thrusts

Five strategic thrusts have been identified to address the prioritized action areas and are described below. The goals for each of these areas will address cross-cutting local and regional needs and put the Center on a path to achieving its vision of becoming a vibrant intellectual hub for learning, networking and innovation in sustainability in and across the Caribbean. Moreover, these goals are consistent with the six key areas that are identified in the broader University of the Virgin Islands strategic plan, “Pathways to Greatness”.

The five strategic thrust areas are:

1. Advancing scientific research
2. Promoting public engagement
3. Developing workforce capabilities
4. Enhancing partnerships and collaborations
5. Building organizational capacities

Strategic Thrust 1: Advancing scientific research

These activities will advance the creation of new knowledge and will leverage that knowledge base to address critical local and regional issues of sustainability.

Goal 1: Execute a research agenda that advances energy and environmental sustainability

- Build upon existing research strengths to advance the fundamental science that supports sustainability.
- Develop solutions to local and regional energy and environmental problems.

Goal 2: Execute a research agenda that broadens participation in CGTC research.

- Secure resources to attract and build a research team that can perform the research agenda.
- Leverage relevant strategic partnerships to positively impact community understanding of and actions on sustainability issues.
- Continue strong involvement of undergraduate students in research activities.

Strategic Thrust 2: Promoting public engagement

These activities will increase awareness and engagement of PreK-16 (Bachelor’s) [i.e, P-16] students and educators, public, decision-makers, media, and other stakeholders of the CGTC. These activities will provide critical information to the community with regard to key energy/water security and environmental degradation issues and embrace solutions that promote sustainability, including behavior change.

Goal 1: Use existing and strategic avenues of communication to inform the public about UVI-led and collaborative research and disseminate results on best practices and policies

Goal 2: Partner with emerging STEM improvement initiatives to incorporate green technology energy and sustainability content into P-16 curriculum, including authentic research.

- Examples of STEM improvement initiatives are MESA, P-16 partnership, SMILE, UTEACH, NOYSE K-12 teachers, Blue Flag Program, Virgin Islands Network for Environmental Educators, and the Department of Education's STEM coordinator.

Goal 3: Clearly identify specific goals of sustainability for the island and build campaigns around those goals.

Goal 4: Enhance stakeholder involvement in the CGTC

- Build accessible avenues, virtual and in person, for various stakeholders to engage with the center and contribute locally relevant content on green technology energy and sustainability.
- Create informal science learning spaces at UVI and throughout the community that focus on renewable energies.

Goal 5: Establish a flagship product, report or survey for the public that is published on a regular basis (e.g. "state of the clean technology industry")

Strategic Thrust 3: Developing workforce capabilities

These activities will support the development of a highly trained workforce that can ensure a sustainable energy and water future and drive local economic development.

Goal 1: Set up alternative energy certification programs to build capacity within the region

- Use existing models such as programs at Arizona State University (ASU) or the North American Board of Certified Energy Practitioners (NABCEP) program to develop a CGTC-based certification program.
- Develop a regional alternative energy curriculum by partnering with other institutions such as The University of the West Indies.

Goal 2: Establish a UVI Green Internship Program that gives college credit

- Identify companies with specific projects or problems to solve
- Establish a partnership with the Department of Labor to identify companies and organizations as well as to advertise the skill sets of potential interns
- Source funding for the internship program through UVI to provide a stipend where necessary for travel housing or other expenses

Goal 3: Develop the UVI Eco Industrial Park

- Support the inclusion of businesses such as: greenhouses, product manufacturing, aquaponics

Goal 4: Enhance entrepreneurship and innovation through collaboration with various institutions and agencies throughout the region and beyond.

Strategic Thrust 4: Enhancing partnerships and collaborations

These activities will establish and enhance existing partnerships and grow new collaborations to increase the value of contributions to sustainable development across the territory and the region.

Goal 1: Shape and guide sustainable energy policies through partnerships using

- Neutral, best practice research and information dissemination
- Dialogue with key local stakeholders
- Engagement with regional and other actors

Goal 2: Leverage partnerships to support and fund CGTC's programmatic activities through a range of structures including:

- Research partnerships with other academic institutions, the public sector and industry
- Serve as the administrator or service provider for projects and programs

Strategic Thrust 5: Building organizational capacities

These activities will increase the resources to successfully operate the CGTC

Goal 1: Expand the resources of the CGTC

- Secure the financial and other resources necessary to implement the activities of the CGTC
- Increase faculty involvement in the CGTC, possibly through new strategic hires by UVI