While Small Island Developing States (SIDS) produce only a tiny fraction of global greenhouse gas emissions, many, because of their location barely above sea level, are among the most vulnerable to the effects of climate change such as sea level rise and extreme weather conditions.

Compounding their climate change challenge, small island nations struggle with expensive fossil fuel imports and an inability to supply electricity in rural areas. However, these nations are especially suited to utilize combinations of modern renewable energy technologies and energy efficiency due to the availability of renewable energy resources and current energy consumption patterns.

The Global Sustainable Energy Islands Initiative (GSEII), a consortium of international NGOs and multi-lateral institutions, has been organized to support the members of the Alliance of Small Island States (AOSIS), potential private investors and donors by bringing renewable energy and energy efficiency projects, models, and concepts together in sustainable energy plans for small island nations. The GSEII seeks to showcase national efforts to significantly reduce greenhouse gas emissions.

GSEII was launched with a grant from the Rockefeller Brothers Fund. This grant enabled the consortium to initiate sustainable energy plans and policies as well as communications and outreach in the 3 lead Caribbean countries—St. Lucia, Grenada, and Dominica as well as other AOSIS nations. The United States Department of Energy and the Turner Foundation were also initial supporters of GSEII.

The United Nations Foundation (UNF) has enabled the consortium to advance projects in these 3 island nations as well as to expand activities to other island nations within the Caribbean and Pacific. The UNF grant will also help in identifying and developing financing for replication in the region. The United Nations Industrial Development Organization (UNIDO), is the executing agency and partner.

Most recently, the consortium also received support from 2 new funders—the United States Agency for International Development (USAID) and the Renewable Energy and Energy Efficiency Partnership (REEEP).

The Organization of American States (OAS), a consortium member, has also obtained support from the Global Environment Fund (GEF) and the United Nations Development Programme (UNDP) to develop a pre-feasibility study for geothermal resource assessment in Dominica, St. Lucia, and St. Kitts and Nevis.
THE GSEII STRATEGY

To accelerate the transition of AOSIS member nations toward cleaner, more sustainable energy use, the GSEII Consortium employs the following approach to both broaden and deepen sustainable energy development activities:

• Work with partner countries on the development and implementation of Sustainable Energy Plans, with quantifiable targets and timetables
• Identify and mitigate policy, financing, technical and institutional obstacles and bring about changes in the marketplace that will enhance the viability, profile and replicability of clean energy projects.
• Work with utilities to enhance their capacity for renewable energy planning

EXPECTED OUTCOMES OF THE 5 YEAR SUSTAINABLE ENERGY PLAN

The GSEII has developed an ambitious 5 year plan to assist several SIDS that are members of the Alliance of Small Islands States (AOSIS) in achieving energy independence and serve as successful models for the rest of the world. It is expected that the following outcomes will be achieved as a result of implementing the GSEII strategies and plans from 2003-2008.

• Approved National Sustainable Energy Action Plans (SEP) by over 12 SIDS.

• Enhanced capacity for national energy planning and RE/EE policy implementation.
• Commitment and/or leverage of $100 million in investment in RE/EE projects and enterprises.
• Initiation of energy efficient projects in the Government facilities, commercial, residential and industrial sectors, especially in the hotels and tourism industry.
• Initiation of 15 new projects in the AOSIS member nations, and plans for at least 100 MW of clean energy projects (new renewable energy projects or equivalent savings through efficiency measures) facilitated with corresponding GHG emissions reductions.
• Enhanced capacity for renewable energy and efficiency at regional level and among all 43 members of the AOSIS.
• Catalyzing the interest of other bigger nations to follow the SIDS example.

GSEII WORK WITH GEOTHERMAL ENERGY SOURCES

The Unit for Sustainable Development and Environment (USDE) of the Organization of American States (OAS) is executing a Global Environment Facility (GEF) project to support geothermal energy development in the Eastern Caribbean. The Eastern Caribbean Geothermal Development Project (Geo-Caraïbes) seeks to catalyze commercial geothermal energy projects in St. Lucia, Dominica, and St. Kitts and Nevis with the expectation that regional power independence will contribute significantly to the economic and environmental sustainability in the region.

Geo-Caraïbes will achieve this goal by supporting market reforms that improve the market conditions for geothermal power in these countries, including:

• Establishing a transparent pro-active and commercially sound geothermal policy and legal environment
• Furthering geothermal resource/technical studies for commercial investment pre-selection
• Conducting the technical evaluation and establishing the institutional arrangements for the export of geothermal power to Martinique and/or Guadeloupe
• Creating a US$10M Eastern Caribbean Geothermal Energy Drilling Risk Fund

It is expected that a large quantity of geothermal energy capacity (60-120MW) will be developed, and that the resulting power will offer the host countries a low cost power solution, while generating substantial income as an export to Martinique and/or Guadeloupe, via submarine electricity transmission cables.
GSEII has focused much of its initial work on three Caribbean island nations – St. Lucia, Grenada and Dominica. Working with these island nations, GSEII has assisted them in developing their National Sustainable Energy Plans as well as preparing projects for investments. As a result of these plans, and closely working with the local utilities and private sector entrepreneurs, a number of projects have been identified in each of the participating island states (Table 1). GSEII and its partners are providing technical assistance in further development and implementation of these projects.

Table 1. List of Ongoing Projects and Projects to be implemented in 2004-07 period.

<table>
<thead>
<tr>
<th>St. Lucia</th>
<th>Grenada</th>
<th>Dominica</th>
</tr>
</thead>
<tbody>
<tr>
<td>LUCELEC Point de Caille 4.25 MW Wind Farm</td>
<td>225 kW Wind Turbine on Carriacou island</td>
<td>Large Scale Geothermal Project Pre-feasibility Development</td>
</tr>
<tr>
<td>St. Lucia Cooperatives League and Credit Unions Solar Hot Water Heating Financing Program</td>
<td>Grenada Nutmeg Shell to Energy Project</td>
<td>Energy and Power Losses Reduction in DOMLEC Distribution System</td>
</tr>
<tr>
<td>St. Lucia Ciceron Landfill Gas to Energy Project</td>
<td>Grenada Cooperatives League and Credit Unions Solar Hot Water Heating Financing Program</td>
<td>Dominica Cooperatives League and Credit Unions Solar Hot Water Heating Financing Program</td>
</tr>
<tr>
<td>Poultry Litter to Energy Project</td>
<td>Energy Efficient Lighting Project</td>
<td>Pilot Phase for a potential 4MW Wind Farm</td>
</tr>
<tr>
<td>Sulphur Springs Geothermal Project</td>
<td>PV system for Grenada Chocolate Company energy supply</td>
<td>DOMLEC Micro Hydro Project</td>
</tr>
<tr>
<td>Energy Audits &amp; Training Project for Hotel Industry</td>
<td>Energy Efficient Lighting Project</td>
<td>Energy Efficiency Lighting Project</td>
</tr>
<tr>
<td>Energy Efficiency and Renewables Awareness Campaign</td>
<td>Energy Efficient Lighting Project</td>
<td></td>
</tr>
</tbody>
</table>

GSEII will also work with the local governments and project developers on the development and packaging of projects for carbon financing through the Clean Development Mechanism, Prototype Carbon Fund and other sources. GSEII will coordinate these efforts by closely working with the existing regional organization and multilateral initiatives, including the Caribbean Renewable Development Programme (CREDP), Organization of Eastern Caribbean States (OESC), Caribbean Energy Information Systems (CEIS), United Nations Development Programme (UNDP), Global Environmental Facility (GEF).
At the 12th Pacific Power Association Annual Conference, held July 28-30 2003 in Palau, His Excellency Ambassador Enele S. Sopoaga reiterated the clear need for developing renewable energy sources for small island nations.

“Clearly, the element of urgency to switch to efficient, affordable and renewable energy sources is real. Whilst in global terms the energy use in small island States is small, and their polluting-emissions minimal, the AOSIS countries have shown many a time that they stand ready to do their part to contribute to the reduction of global emissions through the promotion of renewable energy. Every contribution counts, however small. Our interest in moving the global economy towards less carbon intensive is not self-serving, for the consequences that we are first to encounter will surely be felt by others”.

**THE GSEII CONSORTIUM:**

Members include:
- Climate Institute
  www.climate.org
- Counterpart International
  www.counterpart.org
- Energy and Security Group
  www.energyandsecurity.com
- International Network for Sustainable Energy
  www.inforse.org
- Organization of American States
  www.oas.org/reai
- Winrock International
  www.winrock.org

For more information on the GSEII, please contact:
Nasir Khattak at nkhattak@climate.org or (202) 547 0104 phone, (202) 547-0111 FAX

**CLIMATE INSTITUTE** (CI) is a nonprofit organization founded in 1986 to serve as a bridge between policymakers and scientists around the world, as well as between developed and developing nations. The Institute promotes cooperative international action to address climate change. Contact nkhattak@climate.org

**COUNTERPART INTERNATIONAL** (CPI), set up in 1965 as the Foundation for the Peoples of the South Pacific, is involved in the successful rural energy program in the Pacific Island nation of Kiribati. CPI works with island communities in the areas of capacity building, sustainable energy, climate change, biodiversity, marine resource management, and environmental protection. Contact info@counterpart.org

**ENERGY AND SECURITY GROUP** (ESG) assists clients to address critical energy and natural resource issues at the nexus of national and international security interests. ESG promotes the use of environmentally responsible energy solutions through the following business services: energy security analysis, project support, financial engineering, policy support and technical assistance and training. Contact judy@energyandsecurity.com

**INTERNATIONAL NETWORK FOR SUSTAINABLE ENERGY** (INFORSE) is a European-based global network of independent non-governmental organizations working for sustainable energy solutions to reduce poverty and protect the environment. INFORSE is a worldwide network consisting of over 140 Non Governmental Organizations working in over 60 countries. Contact ove@inforse.org

**ORGANIZATION OF AMERICAN STATES** (OAS) is a multi-lateral organization for the nations of the Americas and currently serves as the coordinating institution for the Renewable Energy in the Americas (REIA) initiative, which offers technical, policy and financial assistance for the promotion of sound energy solutions throughout the region. Contact mlambrides@oas.org

**WINROCK INTERNATIONAL** (WI) is an NGO working with people around the world to increase economic opportunity, sustain natural resources, and protect the environment. WI’s Clean Energy Group is a recognized leader in the field of clean energy and operates a multimillion dollar program, including Renewable Energy Project Support Offices in 10 countries. Contact jgp@winrock.org