**PRESS RELEASE**

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**Rise and Shine: Haiti’s Bright Energy Future**

*New Worldwatch Institute* Roadmap *outlines challenges and opportunities*

*for a sustainable energy future in Haiti*

**Washington, DC—** Haiti’s electricity sector stands at a crossroads. Haiti depends on imported petroleum for 85% of its electricity generation, diverting 7 percent of its annual gross domestic product to importing fuel. Still, only 25% of the Haitian population has regular access to electricity, bringing barriers to advances in economic opportunity, health, education, and social equality. Yet, according to the Worldwatch Institute’s new *Haiti Sustainable Energy Roadmap* report, tremendous opportunities and actionable solutions exist to build an electricity system that is economically, socially, and environmentally sustainable, using the tremendous renewable energy and energy efficiency potentials of the country ([www.worldwatch.org](http://www.worldwatch.org)).

“With their soft white sand and pristine ocean waters, their swaying coconut trees and bright blue skies, small islands in the Caribbean are often compared to paradise. Yet they all struggle to attain the ideal supply of energy to serve their population,” writes René Jean-Jumeau, Ph.D., former Minister Delegate for Energy Security in Haiti. “Availability of energy is…an absolute necessity for small developing countries, as a driver for their growth and contributor to social well-being.”

Limited access to electricity stands as a key barrier to advances in human health, economic development, gender equality, social opportunity, and education.

“There is hardly a place on Earth where the advantages of a distributed electricity system powered by domestic renewable sources are as evident as in Haiti,” writes Alexander Ochs, Climate and Energy Director at the Worldwatch Institute and director of the study. “In the absence of a national grid system, Haiti has an opportunity to leapfrog 20th century energy development, modeling a pathway to electrification and resilience that harnesses the enormous domestic energy resources the country has at hand and uses them locally and efficiently.”

To create the *Sustainable Energy Roadmap for Haiti*, Worldwatch Institute partnered with the Bureau of the Minister Delegate to the Prime Minister for Energy Security to assess the interconnected technical, socioeconomic, financial, and policy potentials of building a sustainable energy system.

**Improving energy efficiency.** Haiti’s high electricity costs, significant losses during transmission and distribution, and large suppressed demand mean that energy efficiency improvements could result in significant cost savings for the country. In 2011, two-thirds of total electricity production was lost to technical inefficiencies or consumed by Haitians unable or unwilling to pay the utility, posing immense challenges to the sector’s financial viability. Improving the efficiency of power generation and reducing grid losses—both of which fall far short of international standards—are crucial first steps. Reforming tariff structure, improving metering, and implementing end-use efficiency improvements, can achieve further significant additional energy savings.

**Harnessing renewable energy resources.** Renewable technologies available today could generate more electricity than the country currently consumes. Haiti’s solar resources are particularly strong. Only 6 square kilometers of solar photovoltaic panels would be able to generate as much electricity as Haiti produced in 2011. Just a few medium-sized wind farms near Lac Azuei could generate as much electricity as Haiti currently produces. Developing a diverse portfolio of solar, wind, small hydro and modern biomass would create a more flexible and resilient power system.

**Building reliable electricity grids.** Haiti has no nationwide electricity grid, creating both challenges and opportunities. A renewable electricity system drawing on both existing grids and distributed systems will be more resilient to earthquakes as well as to climate change impacts, including increased intensity of tropical storms—to which Haiti is particularly vulnerable—and extended periods of drought.

**Socioeconomic impacts.** Building an electricity system powered almost exclusively by renewables would have broad social benefits. It would decrease the average cost of electricity from 25 to 10 U.S. cents. The highest renewable energy scenario shows savings of up to USD 5.84 billion by 2030. It would create up to 1,870 jobs, reduce local pollution, improve health and education through expanded electricity access, and position the country as a leader in climate change mitigation and adaptation, reducing greenhouse gas emissions in the electricity sector by as much as 22.2 million tons of CO2-equivalent by 2030.

**Financing a sustainable energy system.** While an efficient, renewable-based energy system promises enormous benefits far outweighing the costs, substantial investments upfront are needed to install it. Haiti could reach 90% renewable electricity generation by 2030 with less than USD 7 billion in investment costs between 2013 and 2030. This most ambitious scenario is the most affordable one of all—more affordable, even, than business-as-usual development. However, limited national infrastructure, disputed land ownership, and a history of political instability, natural disasters, and insecurity contribute to international actors’ hesitation to invest in the country.

Creative solutions will be most successful. Micro-finance institutions can be strengthened to fit the sustainable energy sector. Creating greater economies of scale by bundling multiple renewable energy or development projects—like those related to education, health, or telecommunications—could help reduce capital costs while leveraging greater private investment. To fund clean energy projects, harnessing a portion of the USD 1 billion in remittances sent to Haiti each year could have significant impacts.

**Implementing reform.** Although capacity building and creative financing solutions can increase investment in sustainable energy solutions, existing barriers to achieving a complete transition to sustainable energy in Haiti can only be overcome through policy and governance reform. Haiti needs to establish a long-term vision that articulates a clear intent to develop a highly efficient and sustainable energy sector, focuses on distributed renewable generation models, and sets ambitious energy targets. It must streamline administrative barriers and implement targeted support policies to increase investment, support energy entrepreneurship, and facilitate the spread of innovative distributed energy models.

“For this and other small island nations, a roadmap for optimal use of renewable energy might just be the path to their paradise,” writes Jean-Jumeau.

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**For more information:** To download a free copy of the *Haiti Sustainable Energy Roadmap* visit [**www.worldwatch.org/bookstore/publication/haiti-roadmap**](http://www.worldwatch.org/bookstore/publication/haiti-roadmap)or contact Gaelle Gourmelon at **ggourmelon@worldwatch.org**.

**About the Worldwatch Institute:** Worldwatch is an independent research organization based in Washington, D.C. that works on energy, resource, and environmental issues. Worldwatch Institute delivers the insights and ideas that empower decision makers to create an environmentally sustainable society that meets human needs. For more information, visit [www.worldwatch.org](http://www.worldwatch.org).

**TIP SHEET**

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**Highlights: Haiti’s Bright Energy Future**

**Haiti Sustainable Energy Roadmap**

**Tip Sheet**

Haiti’s electricity sector stands at a crossroads. Haiti depends on imported petroleum for 85% of its electricity generation. Despite diverting 7% and more of its annual gross domestic product to importing fuel, only 25% of the Haitian population has access to electricity, bringing barriers to advances in economic opportunity, health, education, and social equality. Yet, according to the Worldwatch Institute’s new *Haiti Sustainable Energy Roadmap* report, tremendous opportunities and actionable solutions exist to build an electricity system that is economically, socially, and environmentally sustainable (www.worldwatch.org). **Download this free publication at** [**www.worldwatch.org/bookstore/publication/haiti-roadmap**](http://www.worldwatch.org/bookstore/publication/haiti-roadmap)**.**

“There is hardly a place on Earth where the advantages of a distributed electricity system powered by domestic renewable sources are as evident as in Haiti,” writes Alexander Ochs, Climate and Energy Director at the Worldwatch Institute and director of the study. “In the absence of a national grid system, Haiti has an opportunity to leapfrog 20th century energy development, modeling a pathway to electrification and resilience that harnesses the enormous domestic energy resources the country has at hand and uses them locally and efficiently.”

The Worldwatch Institute’s new report, *Haiti Sustainable Energy Roadmap*, assesses the interconnected technical, socioeconomic, financial, and policy potential of building a sustainable energy system. Here are some key findings and recommendations from the report:

**Improving Energy Efficiency**

* Given that only 63% of Haiti’s total installed capacity is currently operational, efficiency upgrades and refurbishment projects at existing power plants can increase production and reduce energy costs in the near to medium term.
* Overall, Electricité d'Haïti recovers only 22% of its generation costs, placing significant financial strain on the utility and limiting the resources available to maintain existing infrastructure.

**Harnessing Renewable Energy Resources**

* Only 6 square kilometers of solar photovoltaic (PV) panels would be able to generate as much electricity as Haiti produced in 2011.
* Just a few medium-sized wind farms near Lac Azuei to the east of Port-au-Prince could generate as much electricity as Haiti currently produces.

**Building Reliable and Affordable Electricity Grids**

* Renewable minigrids, along with household and commercial-scale rooftop solar PV systems, can provide access while reducing power system inefficiency by avoiding grid losses.
* A distributed electricity system based on renewable energy will be more resilient to earthquakes and the impacts of climate change —to which Haiti is particularly vulnerable—, including more intense tropical storms and extended periods of drought.

**Assessing the Socioeconomic Impacts of Alternative Electricity Scenarios**

* Renewable energy can enable Haiti to extend energy access, lower electricity prices, increase energy security, decrease the country’s trade deficit, create jobs, and reduce greenhouse gas emissions and local pollution—all at negative costs.
* Building an electricity system powered almost exclusively by renewables decreases the average cost of electricity by 15 U.S. cents per kWh, from 25 to 10 U.S. cents. Our highest renewable energy scenario shows the highest costs savings by 2030, saving Haiti up to USD 5.84 billion by 2030.

**Financing a Sustainable Energy System in Haiti**

* Our cost analyses demonstrate that Haiti could reach 90% renewable electricity generation by 2030 with less than USD 7 billion in investment costs between 2013 and 2030.
* Creating greater economies of scale through bundling multiple renewable energy projects together—or combining a renewable project with related development projects in education, health, or telecommunications—can help reduce financing and capital costs while leveraging greater private investment.

**Building effective institutions and implementing proven policies**

* Existing barriers to achieving a sustainable energy transition can be overcome using an effective policy framework. Key components include an ambitious, long-term strategy for energy sector development; improved institutional capacity and administrative efficiency; and a mix of well-designed and complementary concrete policies. We suggest the creation of key institutions, including an independent regulator and a Bureau of Rural Electrification, the de-monopolization of EDH and the opening of the market to other grid operators.
* The government should improve transparency of electricity tariffs and collection processes, communicate clear requirements for renewable project development, and make energy data widely available.
* Implementing energy efficiency codes and standards, encouraging energy audits and net metering program for major energy consumers, offering tax incentives to encourage renewable energy technology importation and use and other measures would save energy consumers money and reduce the overall level of suppressed demand in Haiti.

To download a free copy of the *Haiti Sustainable Energy Roadmap* visit [www.worldwatch.org/bookstore/publication/haiti-roadmap](http://www.worldwatch.org/bookstore/publication/haiti-roadmap) or contact Gaelle Gourmelon at **ggourmelon@worldwatch.org** or **+1 (202) 745-8092 ext 510**.