

## Breathing New Life into in the Southwest Dominican Republic: The Los Cocos and Quilvio Cabrera Wind Farms

By Catherine Colby and Bari Dominquez\*

The blades of the Los Cocos and Quilvio Cabrera nineteen windmills rarely rest, steadily turning the ocean winds into clean energy for the Dominican Republic. Since October of 2011, two side-by-side windparks in the southwestern part of the country, owned by EGE Haina and CEPM respectively, have been a breath of fresh air bringing not just electricity but hope and positive change to one of the most marginalized areas of the country. These sleek windmills tower over the construction of an additional 26 windmills, a testament to the consistent winds feeding power into the Dominican national electrical grid.

EGE Haina is the largest energy producer in the Dominican Republic, with a total installed capacity of 600 MW, 22% of the total capacity of the national system. Its Los Cocos Wind Farm is composed of fourteen Vestas wind turbine generators, model V90, with CEPM's Quilvio Cabrera Wind Farm consisting of five V82 Vestas. Together, these two wind farms deliver 33.5 MW of power to the substation, which then travels fifty-five kilometers until it is fed into the national grid. Today, these parks produce enough electricity for 60,000 homes (3% of the Dominican demand), reduce the emission of 70,000 tons of CO<sub>2</sub>, and slash the need for the importation of 200,000 barrels of fuel. An expansion of the Los Cocos park is scheduled for completion in December of 2012, producing another 52 MWs using 23 Gamesa G97 WTGs and 3 Gamesa G90 WTGs, and reducing the emissions of yet another 130,000 tons of CO<sub>2</sub> to the environment.

These advanced, computerized windmills, approximately 125 meters from ground to tip, have generated more than electricity, contributing to overall development in the area. The surrounding communities have become partners with the windparks, setting long-term goals built with concrete, short-term steps to improve the region's overall quality of life on a variety of fronts; economic growth, health, access to clean water, educational opportunities and the sustainable use of area land and marine resources.

The first fundamental blocks of community development are arriving with high-quality electric power available to the region for the first time, satisfying basic needs. Now, with lights and refrigeration, many would-be entrepreneurs contemplate a variety of businesses, including ecotourism to entice tourists to a stunningly beautiful, relatively unvisited area of the Dominican Republic. To jumpstart the changes in the region's electricity situation, EGE Haina not only donated the distribution transformer for the local communities, but also financed 3.2 million dollars worth of regional network renovation.

However, EGE Haina has reached into community lives in ways that far outstrip topics directly related to power generation. Guidelines were developed to help evaluate requests from local communities, enabling EGE Haina to maintain a consistent approach in responding to area needs while not falling into the trap of replacing governmental obligations. Using anthropological methodology to help



Los Cocos Windmills from the Bay



Fishing cooperative with sustainable fishing promotional posters

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understand and connect with local culture, a series of initiatives were developed in response to needs, with the caveat that there must be community involvement and participation to ensure local investment in and sustainability of projects.

Thus, installing potable water systems (through a partnership with the non-profit organization, World Water Relief, based in Atlanta) involves committed local residents, not merely technical installations.



Cleaning up trash so ecotourism can take off

In the small fishing community of Juancho, a committee of fifteen students, called the “Protectors of Water” meets monthly, learning how to care for their school’s water filtration system and studying global water issues. EGE Haina is also piloting an innovative residual water treatment system using native wetland plants to process sewage before it contaminates groundwater or critical fisheries in mangroves or coral reefs. The hopes are that these low-tech solutions will be replicated at individual homes and other businesses.

Increasingly, families who rely upon the ocean find household incomes threatened as overfishing depletes reefs and as middle-men take the profits. EGE Haina and CEPM are committed to protecting marine resources and the families that depend on them through educational workshops on appropriate fishing techniques and through establishing cooperatives. Now, by working as a collective group, with some start-up

equipment donated by EGE Haina and CEPM, fishermen will be able to get fair prices for fish, while protecting the marine ecosystem.

Though the windparks are located in a fertile valley, agricultural development has not been maximized, as impoverished farmers lack capital for machinery to clear thorny scrub. In yet another partnership, EGE Haina helped the local agricultural association prepare lands for planting. The farmers are now demonstrating their ongoing commitment to production by maximizing irrigation potential through their own efforts to enter more distant but lucrative markets.

In addition to working directly with local groups, another strategy employed by EGE Haina has been to act as facilitator; providing information to communities and assisting with connections to government agencies and other resources not previously accessed. EGE Haina has linked local women’s groups to government programs providing economic development through the production of utilitarian and artisanal products. Likewise, a partnership facilitated between the Dominican Apicultural Network and a local honey-producing and woodworking community is exposing area beekeepers and wood carvers to new markets and resources. To further support small business development, EGE Haina sponsored financial education classes offered by the microfinance bank ADOPEM, training 30 area community leaders in savings, accounting, loan procurement and debt management.

EGE Haina’s commitment to area education and youth was demonstrated through the installation of solar panels and a small windmill at a technical high school, supplying 100% of their electricity needs. This support of education continues with adult literacy classes, environmental education and awareness workshops, donations of educational materials, and family planning, nutrition and hygiene classes. EGE Haina also established an innovative extracurricular activity program for children of marginalized families, typically of Haitian descent. In addition, EGE Haina rounds out its efforts with youth by supporting sports programs and renovating decrepit facilities; including baseball, basketball and girls’ volleyball. In each instance, team members must give back to their community through various volunteer activities.

Through true partnerships with communities, and by incorporating non-profit groups, governmental institutions and volunteers, the Los Cocos and Quilvio Cabrera wind parks contribute steadily to regional development. The uplifting winds of change, in tandem with Dominican sweat and enthusiasm, are sweeping through the south.