In what seems, at least at first, to be a strange turn of events, environmentalists – who have long called for the government to start switching to renewable, eco-friendly energy – are gathering forces to oppose the government's first industrialized renewable energy initiative: a proposed wind farm on a spit of land in Guayanilla Bay.

The project would consist of 25 large turbines spread out over 725 acres of land and generate about 40 megawatts of emissions-free power – enough to provide electricity to 20,000 homes – and could, according to the government and the private developer, open the door to the implementation of more renewable energy projects, reduce the island's dependence on fossil fuels and diversify fuel sources.

The problem, opponents say, is that the proposal is equivalent to putting, for example, a recycling industrial complex in the middle of the El Yunque rainforest. And it could set a precedent for future projects, where environmentally valuable land is seen as prime sites for other initiatives.

The site in the Punta Verraco area abuts the Guánica State Forest, a UNESCO International Biosphere Reserve, and has essentially the same characteristics as the dry forest; it wasn’t included in the original designation of the forest because it was – and still is – in private hands. That declaration is the environmental equivalent of the Word Heritage Site label for El Morro.

"Our position is, location, location, location," said Camilla Feibelman, of the local chapter of the Sierra Club, the largest and oldest environmental organization in the United States. "We support renewable energy, including wind power, but not if it's in an inappropriate place – and that's the case in Guayanilla. It's totally inappropriately located."

Scientists, academic groups, bird lovers and the mayor of Guayanilla have made similar arguments: Do the project, by all means, but do it somewhere else – the energy-hungry north coast, or the abandoned Corco industrial complex just a stone's throw away.

Putting it in the proposed site, owned by developer Víctor González, would be "exactly like putting it in El Yunque," Feibelman said. "This is a UNESCO biosphere reserve. It just makes no sense."
Unknown impact
The area includes habitat for a critically endangered bird, the Puerto Rican nightjar. According to environmental documents for the project, the huge whirring windmills are not likely to kill the birds, because they generally feed and fly below the forest canopy. It will impact some of their habitat, but the developer has come up with a conservation plan that includes mitigation efforts, and the Fish and Wildlife Service has issued an "incidental take" permit, an exemption to the Endangered Species Act allowing a certain number of accidental injuries and deaths.

The project would also affect federally listed Brown Pelicans and other birds, which has proven to be the case at wind farms around the world. But no one really knows what the impact on the nightjars – Caprimulgus noctitherus in Latin and Guabairo in Spanish – would be, because the species is found nowhere else in the world. There are only, at most, 2,000 alive.

But that is just the tip of the iceberg when it comes to the importance of the area, which includes a number of archaeological sites, opponents of the project say.

"This area is one of extraordinary ecological, cultural and scientific value," University of Puerto Rico faculty and students wrote in a letter to the Department of Natural and Environmental Resources. "The ecosystem provides functions and services necessary to maintain global diversity and health."

The state dry forest – it's separated from the windmill site by just a barbed wire fence – was declared a UNESCO reserve in 1981. It is the habitat for 48 endangered plants species, including 17 found nowhere else. It is also the only home for Puerto Rico's only toad species, the Golden Crested Toad, which scientific institutions in the United Stares and Canada are trying to restore to healthy population levels through overseas breeding programs.

More than 3,000 people have signed a petition by the Puerto Rican Ornithological Society urging La Fortaleza to stop the project, and calling on the government to expand the reserve to the proposed windmill site. Gov. Acevedo Vilá's "100,000 [acre] Heritage" conservation program points to growing state forests as a key to achieving the land protection goal, and the DNER has identified the Punta Verraco-Cerro Toro-Punta Ventana site as a "priority conservation area."

"The negative effects this industrial-scale wind energy project will have cannot compensate for the possible benefits," the petition says.

Mitigating the impact
The developer, WindMar, plans to mitigate the impacts, by among other measures, restoring some wetlands, and so far, in addition to the FWS, the DNER has signed off on the project – although Secretary Javier Vélez Arocho has expressed concerns about the sitting – but support for renewable energy.
According to the preliminary Environmental Statement, "Puerto Rico's economic security is at risk from an overdependence on expensive and polluting fossil fuels."

The site also has the best wind characteristics of four sites tested – including on the north and east coasts.

According to WindMar's environmental contractors, the windmills and new roads will impact only 4.2 percent of the site, including about 4 acres of nightjar territory – although 26 would be lost during construction.

However, the developer would also establish a 612-acre conservation easement, restore 6 acres of dry forest and 25 acres of mangrove, support a bird research program and establish an environmental education program.

"The scope and generosity of this plan results from the deep, abiding interest WindMar's principal, Víctor González, has in conservation and sustainable development," says the conservation plan, whose contractor, hired by González generally refers to the developer as "we".

"He firmly believes that, with this mitigation plan, the wind energy project is, without question, good for the environment, good for endangered species, and appropriately sited on land WindMar owns adjacent to the Guánica State Forest."

The $100 million project – which Puerto Rico Electric Power Authority Jorge Rodríguez has repeatedly pointed to as the utility's "opening the doors" to renewable energy – is endorsed by the local Energy Affairs Administration, the "proposing," or leading, agency.

EEA Director Javier Quintana said his decision at the outset was that, from an energy point of view, the project is "good for Puerto Rico," but that he would leave the environmental evaluations to the environmental agencies, and that if they found that the negative impacts outweigh the benefits, he would have no problem pulling the plug.

"I decided . . . [that] if they recommend the project, I will agree with them. And if they don't recommend the project, well, then I will agree with them," he said last week. So far, he said, the FWS and DNER have "basically recommended the project."

"Any project in which a human being is involved will have an impact on the environment," he said. "What we want is to reduce that impact to a minimum."

Wind power is, today, one of the cheapest renewable energy sources available, he said.

Environmentalists have argued that the government should look to solar power before wind, but the equivalent of 40 megawatts form the sun would cost about $500 million, or five times the cost of the windmill project, not including the land, and require an
enormous amount of space – 20,000 home-size rooftop photovoltaic panels – or $25,000 investments by an equal number of individual homeowners. Rodríguez has ruled out, at least for now, implementing any industrial-sized solar projects.

Quintana supports more solar power use, but said that is not the be-all, end-all solution.

"You can't solve the energy problem of Puerto Rico by thinking that the solution is one energy source," Quintana Said. "When you want to solve an energy problem you need to diversify."

For now, solar "can't compete" with wind, he said, and it could lead the way to reducing Puerto Rico's dependence on dirty fossil fuels.

"[WindMar] opens the door to developing renewable energy projects on a commercial scale," he said.

**Setting a precedent**

But the problem with opening the Guayanilla wind farm door is that it could set a precedent for establishing projects in other, similarly sensitive undeveloped areas, said community activist and environmentalist Rogelio Figueroa, the head of the Puerto Ricans for Puerto Rico Party and an outspoken supporter of renewable energy.

"What's next, El Yunque?" he said.

"Many scientists and environmental experts have said this is not a good project to start a renewable energy industry in Puerto Rico, because it's putting industrial machinery in an environmental reserve," he said.

It's also a scenic area – and those are the two basic criteria for evaluating potential wind farm sites around the world, he said.

The idle, former, polluted, industrial Corco refinery site is within miles, and most of PREPA's plants are already located in the south, he said, while in the north along the near-coastal lands north of Route 22 there are "huge, unused agricultural valleys" that could house much larger operations that are far closer to where the energy is needed. Installing windmills there would not rule out future agriculture or cattle farming – farms are common sites for windmills elsewhere – and could benefit landowners, said Figueroa, a Ceiba native.

Anywhere else would be better, he said.

"The most significant aspect of the current political culture is that they have the ability to make great projects into bad projects." He said.