

GLOBE MAGAZINE

A solar battle in sleepy Wareham is pitting environmentalists against each other

The town at the heart of cranberry country has about 300 acres of solar farms, with roughly 500 acres more in the works. So why are some people so unhappy about it?

By **Emma Foehringer Merchant** Updated May 5, 2022, 1:30 p.m.



An A.D. Makepeace solar array in Wareham. ARAM BOGHOSIAN/FOR THE BOSTON GLOBE

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lawyer, left her parents' house in Duxbury, pointed their black Chevy Tahoe south, and navigated to a country road running through Wareham and Carver,

two small towns in the heart of Southeastern Massachusetts cranberry country. She would take her parents for dinner later — oysters — but first, she had plans.

Sheehan parked on the side of the road and began snapping photos of a construction site. The lawyer, who was once an assistant attorney general in the state's environmental protection division, says that for more than a year she'd been fielding calls from locals concerned that a wave of construction was damaging the environment. She was here to gather documentation. Through the pines, she could see heavy equipment, mounds of soil, and the deep grooves of tire marks. On a notepad, she tallied the trucks rumbling by.

This site is owned by A.D. Makepeace, which calls itself [the world's largest cranberry grower](#) and is one of the largest landowners in the state. In recent years, the company has expanded beyond agriculture and begun leasing large swaths of its land to solar developers.

Wareham isn't a big place, but there are already nearly 20 solar farms in town, totaling around 300 acres — the equivalent of about 225 football fields. At least nine more farms, making up some 500 additional acres, are under development or awaiting approval.

For some Wareham residents, including two people that Sheehan is now representing in court, it's all getting to be too much. They say that big solar farms can actually harm the environment by encouraging the clear-cutting of forest and by disturbing natural habitats, to say nothing of the eyesores they say they create that disrupt the town's character. But the companies pursuing the projects — including Makepeace and its partner Borrego Solar Systems — see them as an environmentally friendly and profitable way to use land. Borrego has estimated that their arrays in Wareham alone will provide enough electricity to power more than 5,000 homes annually.

By that day last March, the disagreements were getting tense. Just before 1:45 p.m., a

Makepeace employee called the Wareham police to report someone trespassing. Over the next hour, the man would call the police several times, asking them to look into a black Tahoe, the car driven by Sheehan.

For her part, Sheehan also called the police that day, attempting to file a harassment complaint. She says she hadn't been trespassing, and that a Makepeace security guard actually followed her SUV until she pulled into a cemetery to lose him.

In a flurry of calls, the Makepeace caller told the police that environmental activists elsewhere were harassing and "raising hell" with the company's drivers. "This stuff is starting to come to a head," he said. "I'm afraid they're going to goad one of these poor truck drivers into smacking them or something, and then it's going to be all over."

In some ways, the ongoing conflict is surprising. Sheehan is a committed conservationist, and large-scale solar farms will be crucial for fighting climate change. But in Wareham, tensions about the scale of solar construction have curdled into controversy, pitting some environmentalists ardently — and ironically — against what is widely seen as climate-friendly development.

Related struggles are playing out in small-town government meetings across Massachusetts and elsewhere in the United States. Federal and state clean energy ambitions are leading to turf battles over farmland, forests, and undeveloped land that could be used for solar. And as the pace of clean energy deployment dramatically increases — as nearly every climate model shows it must — small-town controversies like the one tearing at Wareham could delay or upend renewable energy projects that are desperately needed.

President Biden wants the country to produce 40 percent of its electricity with solar energy by 2035, and wring all carbon emissions from US electricity by 2050. Massachusetts has also made clean energy a priority, establishing some of the most generous incentives for solar projects in the nation.

Less controversial solar installations — the kinds on the roofs of homes or big

commercial buildings — are unlikely to meet those targets on their own, according to experts. Increasing the amount of electricity we generate from the sun will also require constructing massive arrays of solar panels at ground level.

The problem is, no one can seem to agree on where to put them.

Southeastern Massachusetts is the historic heart of the US cranberry industry, with more than 13,000 acres of bogs. And A.D. Makepeace, the cranberry company that Abel D. Makepeace started in the 1800s, is an icon within it. In 1930, John Makepeace helped found the Ocean Spray cooperative; the company's Wareham headquarters sits down the road from an Ocean Spray processing facility today.

But as the cranberry industry hit rough times in the late '90s, Makepeace and other growers considered new ways to diversify. Makepeace started with real estate development — including creating the neighborhoods where the people now fighting the company live.

The company eventually moved into solar, too. In 2010, then-CEO Mike Hogan said it was an opportunity “to use a small, secluded portion of our property in a way that has tremendous positive environmental impact and no negative impact.” Since then, the company has completed 15 projects in Wareham, Carver, and Plymouth, all of them, a representative says, while following state guidelines and limiting construction to areas that do not overlap with “significant wildlife habitat.”

Makepeace has long been important to Wareham. The company has donated to the hospital in town and its neighborhood fund has awarded hundreds of thousands of dollars to local nonprofits and government agencies. When Wareham's police force was reduced in 2008, Makepeace helped put up the money for a citizen crime watch office.

In recent years, its influence has only grown, such that critics of the industry sometimes joke about a “Cranberry Cosa Nostra.” Hogan recently served as the chair of the

Massachusetts Business Roundtable, a powerful political advocacy organization, and is on Ocean Spray's board. Current Makepeace CEO Jim Kane is an elected official in Shrewsbury; his wife is a Republican state representative. And the company has paired development efforts with the sale of more than 1,000 acres of land to the state for conservation.

"Makepeace was a staple in this town," says Matthew Buckingham, one of the neighbors suing to stop the solar development. But he says it has become too profit-driven: "We all know what [companies] want. They want the money."





Environmental lawyer and activist Meg Sheehan. ARAM BOGHOSIAN/FOR THE BOSTON GLOBE

In 2016, Meg Sheehan got a call from a Plymouth resident who had discovered that a solar developer was building a project next to his home. The two went to court to challenge the project permits. They lost, but Sheehan has been agitating against solar in the area since.

She believes solar development is disturbing the landscape and hurting the area's forested ecosystem, called Atlantic coastal pine barrens, unique habitats where only certain species of plants and animals flourish. That habitat survives in only three places in the United States: patches dotting New York, New Jersey, and parts of Massachusetts, including an area that overlaps with Wareham. Sheehan says ground-based solar projects fragment those habitats and do more harm than good. "Just because something's called renewable, doesn't mean that it should be promoted at all costs," she says. "We're killing the planet in trying to save it."

Sheehan's family, like Makepeace, [has history in this part of Massachusetts](#). Their company, L. Knife & Son, was founded in the late 19th century and would go on to become a leading distributor for beer giant Anheuser-Busch. Through its foundation, the family has given more than \$17 million in funding to various causes, about half of them environmental. Sheehan served as a director of the family's billion-dollar business, was once director of its philanthropy, and has fought land conservation battles across New England. She traces some of that commitment back to studying under Zygmunt Plater, a lawyer who consulted on Woburn's iconic toxic contamination case. "He told the students that when you're an environmental activist, it's not a living, it's a life," she says.

To organize against projects in Wareham and elsewhere, Sheehan started an advocacy group called [Save the Pine Barrens](#). She hosts Zoom calls with interested residents, and maintains a YouTube channel and a website where she posts about local government meetings and truck traffic, as well as drone footage of what she claims is unpermitted

sand removal on Makepeace construction sites — allegations that Makepeace says are

~~SAND REMOVAL ON MAKEPEACE CONSTRUCTION SITES — ALLEGATIONS THAT MAKEPEACE SAYS ARE~~
false.

Sheehan, who now lives in New Hampshire, has some local allies in the fight. They range from moderate sympathizers who agree that solar development is crowding the town to fervent believers in the cause. It's difficult to tell how widespread the aggravations are; last year, a Wareham Town Meeting, which drew about 200 people, voted unanimously to restrict solar projects (the town's total population is about 23,000). What is clear is that some residents have become agitated enough to sue; Sheehan is representing two people who live near each other in Wareham, Matthew Buckingham and Wendy O'Brien, in litigation attempting to stop solar construction near their homes.

Buckingham, a lifelong Wareham resident, describes himself as a "bog rat." Growing up, he played ice hockey on the bogs in winter and splashed in swimming holes in the summer. He grew up to purchase land in a Makepeace development and built a more than 5,000-square-foot home — a "goddamn mansion," as he puts it — that neighbors an expanse of cranberry bogs and forest. Buckingham calls it is his dream home.

Now, though, he feels the encroachment of solar threatens the bucolic landscape of his childhood. Look closely, and breaks in the pines on a street near his home reveal heavy yellow construction vehicles, no-trespassing placards, and a roughly 50-acre solar facility cordoned off by chain-link fencing. "I could have went anywhere, I got money. And I chose to stay where I grew up," Buckingham says. "Now I have endless solar fields wrapped around me."

Wendy O'Brien also fell for Wareham's natural surroundings. She and her husband bought a house on Wareham's Tihonet Pond in 2013, in a Makepeace development just down the street from Buckingham. The O'Brien's two-story Nantucket-style house sits near the end of a winding road lined with manicured lawns and large homes. Their gleaming kitchen overlooks the pond where O'Brien kayaks, and the half-finished pool she and her husband have been building for months.

Their last house, in Braintree, sat near a reservoir. But Wendy O'Brien says changes to water levels to help fish spawn downstream ended up drying it out. Snapping turtles would wander up to her yard and die, she says, and swans stopped coming to lay their eggs. "All of a sudden it turned into a mud pit," O'Brien says.

Then in 2020, Makepeace and [Borrego](#), the California-based solar developer, proposed solar projects that would sit across the water from O'Brien's Wareham home, covering more than 100 acres. The town approved the projects last year. "When they started this, I'm like, 'Oh my gosh, here we go again,'" O'Brien says.

In the lawsuit they filed last June, O'Brien and Buckingham allege the town violated its own regulations in approving solar construction — that project builders did not provide enough information on how the construction would affect nearby habitat and the town ignored evidence that the projects would harm the environment. Defendants include the town of Wareham, members of the Conservation Commission, and Borrego. While the suit is in progress, the project remains in limbo.

A spokesperson for Makepeace says the litigation around its solar projects is little more than "nuisance lawsuits" from a "small group of antagonists." In a court filing in response to another lawsuit filed by Buckingham, which has since been dismissed, Borrego and Makepeace argued that, "waving the banner of environmental preservation," Save the Pine Barrens "stands against projects that will address the impending environmental calamity of climate change."



Matthew Buckingham in front of a Makepeace solar array not far from his home in Wareham. ARAM BOGHOSIAN FOR THE BOSTON GLOBE

Wareham has a vested interest in climate action. With more than 50 miles of shoreline, the town has identified coastal flooding and sea-level rise as its top natural hazards; the fire department and a strip of Main Street have been flagged as especially vulnerable. Warming temperatures also threaten the very pine barrens that organizers in Wareham hope to protect.

To avert the worst impacts of climate change, the United States could pursue many routes to drastically reduce emissions. But all of them, according to most energy modelers and climate scientists, require construction of renewable energy at an incredible — and visible — scale. If you drive from New Jersey to Los Angeles, “two-

thirds of that drive you're going to be seeing wind turbines or solar farms," says Eric

Larson, a senior research engineer at Princeton University's Andlinger Center for Energy and the Environment.

For a report released last October, Larson and a team of 17 other researchers spent two years examining how the nation can eliminate or offset its emissions by mid-century. All options would require the country to add renewable electricity at a record pace every year through 2050. Overall, the modeling shows that solar would require more land than wind, and the total area needed would range from space the size of Connecticut to the size of Virginia. In Massachusetts, meanwhile, officials estimate the state will need to add as many as 158,000 acres of land-based solar to meet climate targets, because rooftop capacity is insufficient.

Larson anticipates concerns over land use will be a "huge" stumbling block in the path forward. "The issue is societal acceptance, social license for this transition. Land use is a big part of that," he says. "The NIMBY issue is alive and well throughout the country."



Cranberries growing behind solar arrays in Carver.) STEVEN SENNE/ASSOCIATED PRESS / FILE 2019

There are several reasons a town like Wareham would see solar as a boon. “It’s a fairly quiet neighbor,” says Kenneth Buckland, the town’s director of planning and community development. It can also be lucrative. Solar developers pay commercial taxes or fees and pay landowners to lease or purchase their land. In Southeastern Massachusetts, cranberry growers have taken a particular shine to the added revenue solar provides among the uncertainties of agricultural markets.

But disagreements over solar construction in small towns where undeveloped land remains plentiful have cropped up around the country in recent years — embroiling communities from Virginia to Nevada and Washington state. Residents worry about property values falling, negative environmental impacts, and the loss of the bucolic character of their neighborhoods. Vast solar arrays plopped amid all that unspoiled

nature, Buckingham says, are simply “tacky.”

In Massachusetts, such concerns often seem to come from majority-white, rural areas that have tended to face relatively few of the negative impacts, such as air pollution and asthma, that are associated with fossil fuel infrastructure, which has historically been located more often in low-income areas and in communities of color. But Indigenous groups in Southeastern Massachusetts have also said some solar projects there threaten their tribal sovereignty.

Last year, Melissa Ferretti, chair of the [Herring Pond Wampanoag Tribe](#), spoke to the Wareham Conservation Commission. “The homeland of tribal nations in the United States are among those communities that are most likely to be targeted for projects that are disastrous for the environment and that have multiple destructive impacts on Indigenous peoples’ lives,” she said.

The tribe has pushed back on solar projects planned on its historic lands, which the Herring Pond Wampanoag people have occupied for thousands of years, including by working with Sheehan to rally against some solar projects. Ferretti has emphasized to the town that “laws and policies give us, as Indigenous people, the right to be consulted when human activities harm our ancestral lands and our heritage.” She says that some of the land set for solar development overlaps with archaeologically-sensitive areas, such as burial grounds or ceremonial sites.

Ferretti, who grew up in nearby Plymouth, supports solar on rooftops, but not on undisturbed land. Indeed, many opposing the projects don’t object to all solar; O’Brien installed panels on her home. But they feel it should be built on already-disturbed sites, for instance above parking lots or warehouses.

Borrego, the solar company named in O’Brien and Buckingham’s lawsuit, has pursued that type of development in the past, developing seven solar projects atop landfills in Massachusetts. But that well has largely run dry, says Jessica Robertson, Borrego’s New

England director of policy and business development. That's partly because many of the state's remaining commercial properties are not well suited for solar for reasons such as higher costs, unsuitable roofs, and owners unwilling or unable to commit to a solar project for decades.

"The incontrovertible fact about the transition to renewable energy is that we're going to need more land for energy generation than we have in the past," Robertson says. "With the need for more land is inevitably going to come some hard conversations about what that land has previously been used for."



Solar panels along Tihonet Road in Wareham. ARAM BOGHOSIAN FOR THE BOSTON GLOBE

In Massachusetts, projects have often ended up on forestland. Over the past three decades, the state has lost nearly 7,000 acres of forest to solar, says John Rogan, a geographer at Clark University in Worcester whose lab has plotted every land-based solar facility in the state. His team estimates that half the state's solar projects, measured by area, were built on previously undisturbed forestlands.

Although solar accounts for an average of 11 percent of all forested land lost each year in the state — most of the loss goes to other types of development, such as housing — Rogan believes that small fraction belies the impacts. “It’s fragmenting forest. It’s impacting rural areas more than other places,” Rogan says. “Solar is a great idea. But Massachusetts has proven that it has to be done very carefully.”

Activists in Wareham often frame forests as a climate solution, because trees soak up carbon as they grow. Generally, though, scientists have shown that the carbon emissions offset by solar sites producing electricity for decades far exceed the carbon taken up by trees and soil in the same area. That finding holds true in Wareham, too, according to a Borrego analysis. Over the next three decades, one 65-acre project Makepeace is pursuing is projected to offset the carbon emissions equivalent to the consumption of more than 27 million gallons of gasoline.

But the many other benefits of forests further complicate assessments, says biogeochemist William Schlesinger, professor emeritus at Duke University. “It’s not just an energy question or a carbon sequestration question. It’s a question of how we want our landscape to look and be for the next generation,” he says. “That involves the preservation of forests, but it also involves putting up renewables to avoid climate change, which could, unchecked, destroy the forest just as easily.”

The paradox is at the center of the conflict in Wareham. Balancing the need for clean energy with local concerns is “a difficult task,” Wareham town counsel Richard Bowen says in an e-mail, adding that the benefits of solar energy are sometimes harder to envision for an area’s residents than its downsides. “One can see a cleared local forest; a far away melting ice cap, not so much.”

In late April, the town voted to approve new regulations on solar siting and size, which will now go to the attorney general for approval. Meanwhile, the state Supreme Judicial Court is mulling a case challenging solar zoning rules in the City of Waltham. The court’s decision could change how much ability towns have to regulate solar projects within their

borders.

Last summer, supporters of Sheehan's efforts gathered at the VFW hall in Wareham that sits across the street from conserved wetlands. The rally was organized by Sheehan, the Herring Pond Wampanoag Tribe, and a Western Massachusetts environmentalist named Janet Sinclair. Its goal was to boost a petition calling for a moratorium on state-subsidized solar projects, those either over 5 acres or that affect forests, protected land, or farmland. In one section of the building, organizers had constructed a "Wall of Shame" featuring A.D. Makepeace and Borrego.

"The Wampanoag people have been at the ground zero of Colonial resource extraction for over 400 years," said Ferretti, the chair of the Herring Pond Wampanoag Tribe, speaking from the front of the room. "We know that we and our history as a tribe are directly connected to the decisions that the Commonwealth of Massachusetts makes about clean and green energy projects."

The moratorium, Sinclair says, would give communities time to evaluate their approach to solar energy. Later, she texts a photo of flowers blooming in Greenfield's Highland Park, one of the forests where she likes to walk while taking phone calls.

"Humans have encroached upon nature much more than we should have," she says. "It's better to have some areas that are left alone."

Emma Foehringer Merchant is a freelance journalist covering climate change, the environment, and energy. Send comments to magazine@globe.com.

*** This story has been updated to correct one instance where the party named in the current lawsuit was misidentified.*

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