

FOUR TWENTY SEVEN FOCUSES ON HELPING CLIENTS ANALYZE CLIMATE CHANGE RISKS AND EXPOSURES

Taking its name from California's target of limiting greenhouse gas (GHG) emissions in the state to 427 million metric tons of carbon dioxide equivalent (CO₂e) by 2020, climate consultancy **Four Twenty Seven** (Berkeley, CA) has been in business since late 2012, focusing on establishing partnerships that can help clients assess and react to the risks posed to their organizations by changes in climate. Founder and Managing Director Emilia Mazzacurati reports that 2014 is off to a great start with a partnership that will provide enterprise-level software for quantifying climate risks along global supply chains.

Four Twenty Seven is partnering with Berkeley-based consulting firm **Climate Earth, Inc.** in providing corporate clients with the Climate Change Risk Management (CCRM) application, which is based on climate indicators and country risk ratings developed by the Notre Dame Global Adaptation Index (ND-GAIN). The application uses those indicators and ratings to provide extensive mapping and modeling of climate change risks for multiple commodities across the supply chain.

"Companies need better tools to understand and act on climate risks," said Mazzacurati in announcing the partnership at the Climate Leadership Conference in late February in San Diego. "This application is a first foray into delivering climate intelligence to corporate leaders to support business resilience."

The application reflects Four Twenty Seven's mission of "providing services for companies that are looking at climate change as a risk," she tells EBJ. "We help them understand how climate change impacts their organization—their operations,

stakeholders, and supply chain—and then we help them develop a strategy to deal with these risks."

Four Twenty Seven—essentially Mazzacurati working with a team of external consultants on a project-by-project basis and partners like Climate Earth—primarily serves private companies, which "tend to be large corporations with large supply chains," she says. In particular, clients consist of large manufacturing concerns across the country. The company also provides support for California municipal governments in their efforts to conduct climate vulnerability assessments and develop adaptation plans.

Mazzacurati, who has a background in carbon markets—she was previously head of carbon analysis at **Thomson Reuters Point Carbon**—describes her firm's offering as "really a risk management service." That's a differentiator, in her view, from other climate consultancies that focus on greenhouse gas (GHG) inventory preparation and energy management. Another differentiator, reflected in the application offering with Climate Earth, is the expertise of her team in "bringing analytics and data to help companies make forecasts and correct decisions."

MUNICIPAL RESILIENCY

During Four Twenty Seven's ramp-up first year, the company managed to score some "really interesting" projects, according to Mazzacurati. For example, the firm helped the San Francisco Bay-area city of Benicia, begin charting its course towards adapting to climate change.

The city is host to an industrial park on the bay with a large refinery and a number

of small and mid-size businesses, and the firm was charged with assessing ways to make the park more resilient in the face of pending sea-level rise. The firm was scheduled to present its findings to Benicia's Sustainability Commission at the end of March.

Mazzacurati stresses that adaptation planning isn't just about long-term impacts coming years down the road, but involves addressing some immediate issues for small businesses, such as the ability to maintain access to electricity and water in the wake of potential disruptions. In California, "heat waves can lead to brownouts, while the ongoing drought could lead to increased water rates," she says.

"We found that one way to help these businesses be more resilient was to continue mitigation efforts, which lead to more efficiency in electricity and water consumption," she explains. In addition, small businesses can generate their own electricity on site through solar power or other systems, and they can set up water storage systems for backup. "Those kinds of measures make sense, because they address business disruption, and that can make the difference between being bankrupt or being back on your feet within three hours or three days."

Four Twenty Seven had a team of three people working a total of about 150 hours on the project, which will lead to a broader effort by the city to address its climate vulnerability issues. That effort is being supported by a \$150,000 grant from the California Coast Commission. "We did a high-level review of the risks, and they're going to want more detail," says Mazzacurati.

She finds that business owners who may blanch at the mention of "climate change" are responding favorably to discussions of adaptation. The science around climate change "is more confident," and people increasingly understand that "we're going to

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see some short-term risks.” The drivers for her business have regulatory and economic components, but really, “they’re climatic,” she notes.

On the regulatory side in California, there are important recent developments arising from the state’s Global Warming Solutions Act of 2006 (AB32) that will create some market opportunity. The law had originally set a target of reducing GHG emissions by 80% by 2050, but “that’s not going to happen,” says Mazzacurati.

Realizing that this goal is unrealistic, “there’s a desire among a lot of lawmakers and environmentalists and companies to set an easier target,” she explains. The parties will be discussing a 2030 target over the next year and a half, and the targets coming out of that discussion—perhaps 40 or 50% of 1990 emissions—“will impact not just the carbon market, because the tighter the target, the more valuable the credits, but will also create an array of new policies.

The impacts will then come “really, really fast,” she continues. The new targets may come at the end of 2016, “and from 2017 to 2020 there will be a lot of regulatory work to continue and expand existing policies and develop new policies.”

As for the future of climate policy in the United States, Mazzacurati joins many of her peers in wondering where leadership will come from. She expects policy to unfold in piecemeal fashion, sector by sector, and of course, it will have to be imple-

mented at the state level, “because that’s the nature of the Clean Air Act.”

Reminding EBJ that she is not a lawyer, she nonetheless echoes some legal experts and others who claim that the law is better suited to regulating more source-specific pollutants like nitrogen oxide and sulfur dioxide and not to addressing climate change, a problem that’s much broader in scope. “It’s not the right tool, but it’s better than nothing,” she concludes. “EPA is doing its best to use the law well, even though it’s not designed for greenhouse gases.” ■

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