Gaining momentum as a clean energy center
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It looks like the clean energy hub in Buffalo is gaining some momentum.

With a major Japanese solar panel manufacturer signing an agreement to study the feasibility of setting up a factory in Buffalo – it would be a natural to locate at the planned RiverBend clean energy hub – the push to build a new industry in Western New York is starting to generate some energy of its own.

California-based LED lighting manufacturer Soraa and solar panel manufacturer Silevo were the pioneers who signed up for the RiverBend hub late last year. If the state succeeds in landing Solar Frontier, the world’s biggest manufacturer of thin-film solar cells, it will send a strong message throughout the clean energy industry that the Buffalo Niagara region is serious about becoming a key player in the sector.

“This is a big, big catch,” said Pradeep Haldar, vice president of entrepreneurship, innovation and clean energy programs at the SUNY College of Nanoscale Science and Engineering in Albany. “You can probably tell how excited I am about this.”

It’s not a done deal, yet, but state officials said they are optimistic about reaching a final agreement with Solar Frontier.

Indeed, announcing that the two sides were knee-deep in negotiations and then failing to land Solar Frontier would be a big black eye for Gov. Andrew M. Cuomo and one of the signature pieces of his Buffalo Billion economic development initiative.

“I don’t think we would have gone ahead with a release like this if we didn’t think it was feasible,” Haldar said.

If it does happen, landing Solar Frontier will add significant scale to the region’s efforts to build a clean energy hub here. Adding a second solar panel manufacturer will help the industry take a big step toward achieving the critical mass that is so essential to lure suppliers, talented workers and other types of expertise to the region.

State officials estimate that, beyond the 250 people that Solar Frontier could employ itself at a factory in Buffalo and a research center in Albany, the project could spur the creation of as many as 700 to 1,000 other jobs at suppliers and contractors working on the project.

“That’s the kind of ecosystem we keep talking about,” Haldar said.

And landing a high-profile solar cell manufacturer like Solar Frontier would only call further attention to the efforts to build a clean energy industry here.

It’s a hard sell to convince companies to be the pioneers in an industry-building venture – a process that usually requires some lucrative subsidies. The convincing will get a little easier if Solar Frontier joins pioneers Soraa and Silevo, and construction gets underway on the RiverBend project to show that the development actually is happening.

As a subsidiary of Showa Shell Sekiyu, Solar Frontier is backed by the deep pockets of one of the 500 biggest global companies. And its solar cell business turned profitable last year. If Buffalo is good enough for Solar Frontier, wouldn’t other solar industry companies be tempted to take a look?

Without a final deal in place, state officials said it’s too soon to say whether Solar Frontier would target the RiverBend project, but it would dovetail nicely with the plans to build a clean energy hub at the former Republic Steel site in South Buffalo.
“This is a clear fit with the clean energy hub at RiverBend,” said Howard Zemsky, the co-chairman of the Western New York Regional Economic Development Council. “I’d say the odds of manufacturing happening in Western New York, assuming they cement their relationship with the state through CNSE are high indeed.”

Hiroto Tamai, Solar Frontier's president, said in a statement that New York is a “leading candidate” to land the solar panel factory, as well as the Albany research center.

Solar Frontier currently makes all of its solar modules at its three factories in Japan, which have a combined annual capacity to produce enough solar panels to generate almost 1,000 megawatts of electricity.

The company is building a fourth plant in Japan that would open early next year and serve as a blueprint for factories that it might build in other countries.

Haldar said state officials have been courting Solar Frontier “for some time,” and have had dealings with the company over the years through the nanoscience college.

Solar panel manufacturers use production techniques similar to those used to make computer chips, and the resources at the nanoscience college have helped spawn a thriving semiconductor industry in the Capitol District.

But the nanoscience college also is focusing on solar energy. The state is building a new renewable energy building at the nanoscience college for its solar operations.

The U.S. Photovoltaic Manufacturing Consortium, which is working on a road map for the development of thin-film solar technologies that are cheaper to produce and more flexible than and more efficient standard crystalline silicon solar cells, also is based at the nanoscience college. Solar Frontier's cells, which recently set a record for efficiency in a small-scale lab test, are based on thin-film technology.

Then there are the state's other programs to bolster the solar industry here, from its NY-Sun initiative to its Energy Highway program, both aimed at encouraging energy innovation and manufacturing with lucrative incentives. And if Solar Frontier goes to RiverBend, it would be able to tap into the vast pool of subsidies available through the Buffalo Billion program.

Put it all together, and that could go a long way to making the numbers work, as officials from the nanocollege and Solar Frontier conduct their feasibility study.

“We're leveraging our strengths,” Haldar said.

“We have quite a bit of capability in that space, and we're fostering the entire upstate region to be tech-friendly,” he said. “We've created an ecosystem in upstate New York for nanoscience to attract the best and the brightest companies here.”

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