

Damian Beauchamp

President & Chief Development Officer, 8 Rivers

PUF's Steve Mitnick: Not everyone knows about 8 Rivers, but it's a cool option for power generation in North America and worldwide. Give an overview.

Damian Beauchamp: It's not just power generation. We do process technology innovation to produce today's commodities using today's feed stocks, but we create a constraint that our processes have to inherently capture all the carbon dioxide from production.

We're able to then eliminate the emissions from the production of today's existing commodities, be it steel, hydrogen, ammonia, calcium carbonate, or other building materials, while simultaneously maintaining the economic profile of production today of unabated assets.

PUF: You all were explaining that you have a power generation system that's like combined cycle, but kind of not. Talk about that.

Damian Beauchamp: The Allam-Fetvedt Cycle is a new type of power cycle that takes a novel approach to emissions reduction. It uses the oxy-combustion of carbon fuels and a high-pressure supercritical carbon dioxide working fluid in a highly recuperated cycle that captures all emissions by design.

The natural gas version of the cycle is licensed exclusively to NET Power, of which 8 Rivers is a founding member. The other partners in NET Power are Constellation, Occidental Petroleum, and Baker Hughes.

This is a process whereby you can use hydrocarbon fuels. In the case of NET Power, you use natural gas with pure oxygen, and get a very pure stream of carbon dioxide and water.

You use that to spin a turbine and then inherently capture the carbon dioxide as a gas. So, you don't need any absorbent. You can burn natural gas, produce electricity at efficient heat rates, capture all the carbon dioxide, and deliver to the world a stable, zero emissions, baseload power needed to complement renewables.

PUF: How does that compare economically and environmentally to combined cycle units?

Damian Beauchamp: On an environmental basis, it's enhanced. There are no sulfur dioxide, nitrogen, and no carbon dioxide. There are no atmospheric emissions. You'll have some



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fugitive emissions in the system, but nothing near what a traditional similar capacity combined cycle will have.

On an economics basis, it was designed to be competitive with unabated existing natural gas combined cycles. On a levelized cost of electricity basis, it's production of electricity at thirty, forty, or fifty dollars per megawatt hour, on par with today's power prices without the emissions.

PUF: This isn't just concept. You mentioned Constellation, so you have projects or plants in the U.S. and Canada.

Damian Beauchamp: Yes, they're being developed. We're currently developing a plant in the southwest corner of Colorado with the Southern Ute Indian tribe on their reservation. We have a brownfield site.

The other nice feature about the technology is it doesn't need water as an input for cooling so it can produce power water free, which existing power plants cannot do. This is excellent in this area of Colorado because of the constraints on the Colorado River.

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homes and businesses that we touch, everybody is different.

What's the heating or cooling profile for a unique customer in their home for that event that will keep them comfortable? It's very different if it's eighty percent humidity or twenty percent humidity.

That understanding of the customer, the premise, what's going on in their world, and then how do we make that simple to get them involved, so that personalized messaging then compels them to take action?

Many of us have been running home energy report programs. But we find if we give you a personalized message in a home energy report that says, here's how

much you will save by getting a smart thermostat, we see a six times higher conversion rate compared to those who purchase a thermostat.

As we take them through that journey and enroll them in demand response when they transact that, we give them an energy efficiency incentive, a demand-response incentive. If they're eligible for an income qualified or a locational incentive, as the case may be, then they get one click and they get those two, three, four, five, six different incentives in a single transaction and we see three to five times higher enrollment into those programs.

It's bringing those pieces together that

are complex. The org design matched either where essentially was the data coming from or where was the regulatory approval or the budget coming from? We've taken that complexity and put it onto the customer and said, here you navigate energy efficiency, demand response, low- and moderate-income, non-wires alternatives, all those things.

Moderator Bob Rowe: Everyone in this meeting is on board with the idea we need to understand, we want to understand our customers much better. We want our regulators to support us in that journey and for them to work with us to understand our customers better. **PUF**

Reuters' Energy Transition North America

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We've got another facility in the UK under development with Sembcorp on a brownfield site. It's an industrial site. The power will be delivered to Sembcorp's tenants on this industrial site. It's part of the East Coast cluster. It's been selected by the UK government. Our head of engineering and operations met with King Charles in Buckingham Palace on the project.

NET Power announced its plan to develop and build the world's first utility-scale natural gas-fired power plant with near-zero atmospheric emissions.

The project fully integrates power production with transportation and underground sequestration of carbon dioxide. The new plant will be built near Occidental's Permian Basin operations and is expected to be online in 2026.

PUF: You have a booth here, and staff at the Reuters Conference. Why did you come to this conference and what do you hope to tell people or hear about?

Damian Beauchamp: Part of the driver for our joining the Reuters Conference today is our board member Bob Dudley,

the former ten-year CEO of BP was delivering a keynote for his current role as Chair of The Oil and Gas Climate Initiative. OGCI is a CEO-led organization bringing together twelve of the largest oil and gas companies worldwide to lead the industry's response to climate change.

Also, we're looking to enhance 8 Rivers' brand awareness in the marketplace, highlight our technologies and our unique business model, so we thought this was a good venue to do that.

We also did an MOU signing today with JX Nippon around the deployment of net-zero based projects in the Gulf Coast here in the United States and our CEO will deliver a keynote tomorrow morning. **PUF**

The epic battle was played out in U.S. District Court, Eastern District South Carolina. In this grudge match 72 years ago, nothing less than the icons of the investor-owned and rural cooperative utilities was at stake. The plaintiff, the company behind the "fanciful character" of the electric utility industry, Reddy Kilowatt. Ashton Collins had given birth to Reddy and co-owned the company with investor-owned utilities. While 118 utilities in the U.S. and 38 utilities abroad licensed Reddy, to support their image, public power and rural cooperative utilities were turned away when requesting a license. Responding to the desire of its members to have a similarly endearing character, the National Rural Electric Cooperative Association held a contest, with a fifty-dollar prize to the winner, and introduced Willie Wiredhand in 1951. The name was a play on the common term for farm labor: hired hand.

Mid-Carolina Electric Cooperative became caught in the intrigue between investor-owned and co-ops and became a co-defendant with NRECA. Had it infringed on the Reddy mark? Reddy had knocked out, in the courts, every pretender to date: The Willing Watts, Eddie Edison, Elec-tric, Mr. Watts-His-Name, and Mr. Watt-A-Worker had all gone down for the count. But Judge Watkins found for Willie: "The names Reddy Kilowatt and Willie Wiredhand are entirely different. The two figures themselves do not look alike... Reddy Kilowatt is made up of a body, arms and legs of jagged lines simulating lightning ... with a round head having a nose made up from an electric light bulb, and plug-in socket for ears... Willie Wiredhand is made up of a male plug for the hips and legs, a wire for the body, and a socket for the head, with the push button thereof representing the nose."