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Fueled for the future

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Red Rock Biofuels facility breaks ground in Lakeview

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LAKEVIEW – Remember in the iconic “Back to the Future” films when Doc Brown placed garbage in the time machine’s engine to fuel it? From science-fiction to science-fact, a similar process will soon become reality fueling aircraft nationwide once the Red Rock Biofuels renewable energy plant is built.

On Wednesday, members of Red Rock Biofuels, political dignitaries, corporate representatives and a large community contingent gathered on the outskirts of Lakeview for a groundbreaking ceremony for the \$320 million renewable fuels facility. Taking woody biomass waste products such as pine needles, agriculture waste, sawdust and slash piles from forest thinning projects, the facility will convert materials that might otherwise fuel raging wildfires into jet fuel — around 15 million gallons worth each year.

The facility is an economic and environmental game-changer, according to the project’s developers, and a grand collaborative experiment combining military, commercial and bipartisan political efforts to bring it to fruition. No facility like it exists anywhere in the world, but if successful, preliminary plans are already in the works to develop more in the United States and possibly Australia to create a more sustainable, clean renewable fuel source for the military and civilian aviation industries. Funded through bond sales, grants and a military contract, the project has been seven years in the making to reach Wednesday’s groundbreaking.

Wood to gas

Surprisingly, the technology is not new. The facility utilizes the Fischer-Tropsch method, a scientific process developed by Germany during World War II to create fuel. Red Rock will intake woody biomass products and heat them to approximately 1,800 degrees in an oxygen-free high-pressure environment, which converts it to a gas. The liquid hydrocarbons produced are then refined into jet fuel, diesel fuel and naphtha fuels.

Similar gasification facilities are already in operation in South Africa and Qatar, but none to date utilize woody biomass for its raw materials, making Lakeview’s new facility the first of its kind anywhere. Many who have worked on the Red Rock project see it as a blueprint to be replicated across the western United States as the future of renewable fuels, while simultaneously keeping forests healthy and more resistant to catastrophic wildfires by reducing fire fuel sources.

The site, located on Kadmas Road on the southern end of Lakeview adjacent to the railroad lines, will be prepared this year for delivery of large modules to be delivered next year that will house the majority of the plant’s processing parts. Fuel deliveries are expected to begin by December 2019.

New jobs

Over 100 jobs are estimated for the construction, and once fully operational Red Rock will provide around 35 full-time jobs for operations. Additionally, approximately 75 jobs will be needed for trucking and materials gathering, utilizing private and public forest lands as well as waste product from regional sawmills and wood products manufacturing sites.

While Red Rock's corporate office is based in Colorado, the company was drawn to Lakeview thanks in part to the previous work conducted by Iberdrola Renewables – a Spanish company that had done extensive environmental studies to develop a facility in Lakeview until the deal fell apart. Red Rock picked up the proverbial baton, salvaging Iberdrola's work while recognizing the area as an attractive site for a fuels facility because of its railroad and abundance of forest fuels and wood biomass waste products available regionally.

Soon after, the company partnered with the military, followed by contracts with Southwest Airlines and Federal Express, which will be the primary clientele for Red Rock's fuel supplies.

"This is a monumental day for Southwest," said Michael AuBuchon, fuel supply chain director for Southwest Airlines. "Red Rock will help us make our environmental goals as we have a continuous eye to reduce our carbon footprint. This facility is key to our strategy."

Economic impact

While it is impossible to gauge exactly what kind of economic impact the facility will have once operational, praise of its potential was unanimous by representatives from the offices of Gov. Kate Brown, Sens. Ron Wyden and Jeff Merkley, Congressman Greg Walden, as well as State Rep. Werner Reschke and State Sen. Dennis Linthicum – both present for the groundbreaking. In a letter, Wyden called Red Rock's development "a significant economic multiplier for the entire region."

An economic study by Business Oregon estimates that 520 jobs in metropolitan counties such as Multnomah have the same equivalent economic impact locally as just one full-time job in rural, low-population areas like Lake County. Multiply that economic impact by the 100 jobs estimated with Red Rock's development, and many anticipate a boom in the area from new housing and businesses, to increased tax revenue with Red Rock serving as the foundation for Lake County's future.

With a local population of barely 2,000 residents, Lakeview's leadership anticipates that the necessity for new hires will result in many people moving to the area for job prospects, bringing with them spouses who may open ancillary businesses, kids to increase school enrollment, and more patrons for local business. It is beneficial for forestland management organizations as well, and regional companies like Collins Pine and Green Diamond Resource Company who will sell their waste products to Red Rock. To celebrate the groundbreaking, Green Diamond even provided several potted tree saplings that were raffled.

'New growth'

"This is a dream come true," said Lake County Commissioner Dan Shoun. "Our local industries have weathered through tough times, but this is the domino that creates new growth. This will be a model for the rest of the western United States – it will clean up our lands to make them more productive and resilient."

The process to reach the groundbreaking was not easy, and at several points the project seemed likely to fail amidst tricky negotiations. A strong bipartisan effort matched with bonds created in collaboration with Stern Brothers and Goldman-Sachs, and the ongoing support of military-backing, helped carry the proposed facility through many regulatory, environmental and contractual pitfalls.

"Financiers told us we had a 20 percent chance of financing it, and we thought, 'hey, that's pretty good!'" laughed Terry Kulesa, CEO of Red Rock. "We deal with hard projects that are hard to do, either we're too dumb to know better or we're geniuses. We knew we had the right technology, we knew we had to get the right combination of financing together, and everyone who worked on it was just phenomenal."

Guest speakers for the groundbreaking ceremony included Lakeview Mayor Ray Turner, Diana Carlin of the Air Force Research Lab, former Navy representative Chris Tindal, Joe Murdoch of FedEx and more. All seemed jubilant that despite many pitfalls and times of doubt across seven years of difficult work that a revolutionary way to sustainably supply the aviation industry in an environmentally conscious way was finally going from the drawing board to construction.

'Turning point'

"This bio-refinery marks a turning point," said Red Rock Chief Financial Officer Jeff Manternach. "It will help this mill town continue to be a place where things are made, and it will combat global climate change. This is the first of its kind in the world, and you all made it happen. May this be the precedent for a great highway fueled by courage and innovation."

"We are on track, but there's a lot that can still go wrong," added Kulesa. "When we started I would tell people there were a million things that could go wrong, now we're down to just a thousand things that could go wrong."