

North Fork Community Power to Commission California Facility

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North Fork Community Power will soon commission and utilize advanced gasification technology from EQTEC to convert forest stewardship residues into renewable electricity, heat and biochar—a solid carbon byproduct with applications in agriculture and water filtration that sequesters carbon for centuries.

The climate action-oriented waste-to-energy project is aligned with state and international net zero targets and in support of circular economy principles. This positive climate action is newly rewarded with carbon removal credits by Carbonfuture through its platform and marketplace. The project is the first forest biomass plant in California to join the scheme.

Catastrophic wildfires in California have made clear the urgency of forest management efforts that reduce risk and improve forest health. NFCP, located in

North Fork, California, is a forest-based biomass gasification plant that will utilize sustainable local forest biomass as well as fire threat reduction activities from the Sierra and Yosemite National Forest areas which will benefit local communities.

The project is located on the site of an abandoned sawmill from the 1990s, bringing back sustainable jobs to this rural community in the Sierra Nevada. The project originated by the North Fork Community Development Council as a way to both steward the environment and promote economic redevelopment in the wake of the sawmill closing.

Thanks to the proprietary Advanced Gasification Technology developed and supplied by EQTEC, which is also a material capital investor in the North Fork project, the process does not involve burning or combusting the wood and so the CO₂ does not go up a stack. The waste wood is transformed through EQTEC's patented process, reduced and left in solid form as pure carbon as it is converted into a hydrogen-rich synthesis gas 'syngas'. The process will generate 2 MWe of renewable electricity and biochar. Once produced, biochar is sold mostly to farms in California's Central Valley to improve water efficiency, nutrient conservation, beneficial microbial composition, and overall quantity of stable organic matter. As the carbon remains in the soil permanently, these positive characteristics are important for its carbon sequestration ability as well as ecosystem benefits. The produced biochar will help sequester 20,000t CO₂ equivalent over the next 5 years.

Carbonfuture's fully digital platform is used to guarantee the secure and stringent documentation of all climate-preserving activities generated in this project. The company issues removal credits for carbon sequestration services through biochar, such as the

one provided in this triple-bottom-line approach. Focusing on solid climate performance, Carbonfuture uses a defensibly quantified carbon sink value, resulting in high-quality, long-term and scientifically verified credits. To support the integrity of the credits even further, tamper-proof, digital tracking based on an innovative and low energy blockchain is implemented. The use of this technology not only enables unique “credit-to-cradle cradle look-through” but also eliminates the possibility of double-counting.

EQTEC CEO David Palumbo said, “I’m very pleased that our partnership in North Fork is now even more compelling by working with Carbonfuture. Once operational, the plant at North Fork will service the local community by demonstrating a better way to use forestry waste that would otherwise pose a fire risk and to both produce biochar for watershed protection, carbon sequestration and soil enrichment, as well as use the syngas produced from the wood as a fuel to produce electricity.”

Phoenix Energy CEO, Gregory Stangl, said, “This project is so impactful because it provides California with carbon negative, 24/7 renewable power, created from a unique sustainable waste-to-energy process and at the same time it reduces catastrophic wildfire risk and returns lost jobs to a struggling Sierra Nevada community.”

Carbonfuture co-founder, Andreas Hoelzl, said, “The North Fork project is a unique collaboration that showcases that triple bottom line projects can be accomplished by the collaboration of the right parties, spanning development, investment and technology innovation. Carbonfuture is really happy to help to support and remunerate the climate service of the project and to provide our carbon removal credit customers with high-quality, impactful credits.”