



Ryegate Associates

247 Weesner Drive
East Ryegate, VT 05042
Tel: (802) 633-3500

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Subject: Vermont BioCarbon Project Summary Information

Ryegate Associates is your local biomass power plant referred to by locals as the local wood chip plant or "mill".

Located in East Ryegate (Vermont), the plant generates 20.5 Megawatts of electric power, equivalent to 3% of Vermont's total power needs, enough to keep Saint Johnsbury powered. The facility has been built and continuously operating since 1992 contributing to the local economy with permanent full-time staff of 21 highly qualified professionals and inducing indirectly over 250 jobs in the forestry and trucking industry to provide renewable baseload energy around the clock. Our relationships in the Northeast Kingdom and Vermont are very important to us.

At Ryegate Associates we care about being carbon neutral and are permanently striving to reduce the carbon footprint as much as possible.

Our company only accepts whole tree chips from our wood vendors. This means all wood that comes to our facility is not only completely organic, but it is a natural outlet to a healthy forest maintenance and growth process. The facility is equipped with highly efficient metal detectors that can even catch cigarette packs and sandwich wrappers. This ensures that any wood that may have been used for pallets or railroad ties or anything with metal does not go into our boiler.

Additionally, the ash produced by the combustion of the wood chips in the boiler is used as organic fertilizer by local farmers.

The company completed in 2014 a \$7.1 million Selective Catalytic Reduction (SCR) emissions system to cut NOx (nitrous oxide) emissions by 50 percent.

It is our wish and plan to continue our operation, reduce the carbon footprint, and provide financial stability to the local 270 people that rely on us.

A new project has been started to recover the waste heat out of the stack and use it in a low temperature belt dryer which will dry about 20 tons of green wood chips per hour without any additional heat source, such as propane or diesel. This new process will contribute to a significant reduction of fossil fuel consumption, and consequently carbon emissions, by replacing current drying processes in operations that use fossil fuels.



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Green wood chips have a water content of about 45% to 50% of their weight. The dryer to be installed will bring this water content down to about 10%-12% by evaporating the water from the chips.

This collocated dryer project at the Ryegate power plant is being promoted by Ryegate Associate's affiliated company Vermont BioCarbon.

With the dryer project, 160,000 tons of green/wet chips will be converted into 100,000 tons of dry chips that can be used for heating in schools, hospitals, etc. as well as local pellets production for household use. This will increase the efficiency of consumers' boilers on one hand and reduce up to 3,000 tractor trailer loads of wet wood traffic on the roads. At the average rate of 5 miles per gallon and 50 miles per load, that will save 30,000 gallons of diesel per year.

The project can also address third party drying needs, like for animal feed/grain producers, pellets producing companies and similar entities. Vermont BioCarbon is already offering drying and product handling services in the market.

Our project will contribute in several other ways to local added value. Ranging from higher local woodchips purchases, (for example by replacement of pellets imports from Canada), additional tax revenue for the Town of Ryegate, additional local jobs in East Ryegate and its wood basket, and most importantly the longevity of the Power Plant that itself provides \$14 million business volume to the local economy. The Ryegate power plant does not want to end up like other biomass facilities across the northeast.

The plan is to start operations on or about October 1st, 2024. The milestones in engineering, design, permitting, and construction are scheduled with less than 18 months.

We appreciate your interest and time regarding the future of your local biomass power plant and remain at your disposal for any additional information.

Thank you,

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