Myno Carbon

Detailed FAQ

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1. What is biochar and why is it important?

Biochar is a renewable form of highly stable carbon that looks and feels a lot like charcoal, though it is not intended to be burned. It is produced when waste biomass, such as forest residuals, is heated without enough oxygen for combustion, converting the unstable carbon in the biomass into a stable form of carbon known as biochar. Biochar is more than 80% carbon and lasts for hundreds to thousands of years. So by converting short-lived waste biomass into biochar, carbon is sequestered "permanently," making biochar an important carbon removal, climate change solution. Biochar is recognized by the Intergovernmental Panel on Climate Change (IPCC) as one of the best methods for removing significant amounts of CO_2 from the atmosphere by 2050.

As industries work to reduce their dependence on fossil carbon sources that contribute to climate change, companies are looking with increased focus at biochar as a valuable supply chain input. In addition to its long-lasting durability, biochar is highly porous, retaining the cellular structure of the plants from which is was made. The different-sized pores in biochar make it beneficial in agricultural soils, the larger pores holding water and microbes, the smaller pores containing vast surface area where nutrients are retained. With these attributes and others that are the subject of hundreds of research papers, biochar contributes to drought resilience, fertilizer efficiency and overall soil health in many soil conditions, especially poor and sandy soils. For these reasons, biochar has enormous potential as a regenerative agricultural input. In addition to agriculture, biochar has potential applications in numerous industries that utilize durable carbon materials, including building materials, industrial solvents, and pharmaceuticals. Myno invites innovative companies in these industries to test our materials in their R&D efforts.
We at Myno think biochar is a unique climate solution ready for scale today, with a multitude of benefits. When we make biochar, we also reduce forest fire risk, increase food security by improving agricultural soils, help industries reduce their carbon footprints and create new jobs in rural communities.

2. How do Myno's facilities remove carbon and support climate resilience?

Myno Carbon Removal Facilities (CRFs) convert the carbon in wood waste, drawn down by trees from the atmosphere via photosynthesis, into biochar. By converting wood waste, a labile form of biogenic carbon that typically decomposes back to

atmospheric CO_2 within a decade, into biochar, a stable form of carbon, the process removes CO_2 from the atmosphere. Myno CRFs use only sustainably sourced wood waste to create biochar, such as logging slash piles (i.e., leftover limbs and branches), non-merchantable dead standing timber from insect outbreaks, wildfire, and drought, and mill residuals that would otherwise have no use. Each Myno CRF will convert approximately 180,000 tons of waste timber feedstock annually, reducing wildfire risk and reducing toxic emissions from the standard practice of open slash pile burning.

Each Myno CRF will generate around 40,000 tons of biochar per year, sequester about 100,000 tons of CO_2 annually, and produce about 18 MW of renewable electricity. Myno CRFs are guided by a rigorous Carbon Life Cycle Analysis and by VERRA's biochar carbon removal credit methodology to ensure accurate measurement, reporting, and verification of the biochar carbon removal.
Biochar is a carbon-negative material that can be used as a climate-smart additive in a multitude of products including growing media, fertilizers, and carbon black, providing additional insetting opportunities for companies to reduce their GHG emissions. Myno also partnered with Pacific Northwest National Laboratories to assess options for carbon capture, utilization, and storage (CCUS) strategies for our Carbon Removal Facilities (CRFs), including utilizing waste CO_2 to sequester carbon in crushed basalt to generate an agricultural liming soil amendment.

3. How does Myno qualify biochar carbon removal permanence?

Myno follows internationally recognized biochar carbon removal standards, such as the International Biochar Initiative, European Biochar Certificate, VERRA, and Puro Standard Biochar Methodology, to quantify the amount of carbon removal for biochar. These standards require lab testing analyses to determine the amount of organic carbon in the biochar and a permanence factor to indicate the amount of organic carbon that remains after 100 years in soil applications. Based on analytical testing of representative Myno biochar samples, the research indicates Myno's biochar has a permanence factor as high as 0.89, meaning that 89% of the biochar's organic carbon mass will be sequestered in soil for at least a 100 years. A growing body of research suggests that these estimates may be conservative, and that the addition of biochar to soil enhances the accumulation of additional soil organic matter by promoting plant growth, providing microbial habitat, and binding soil organic matter to biochar where it is harder to decompose.

4. What kind of sustainable biomass will Myno use to produce biochar?

Timber harvesting operations and wildfire mitigation efforts are creating a pressing need to remove hazardous fuels, a byproduct of these operations, from timberlands. Recent announcements by the United States Forest Service and the Washington Department of Natural Resources indicate a significant increase in wildfire risk reduction treatments, particularly in high-priority firesheds. Foresters estimate that 20 million tons of waste biomass is available annually in Washington state and currently left in woods to decay, or stacked into piles and then burned, practices that contribute to regional air pollution, greenhouse gas emissions, and increased wildfire risks (Amonette, 2021).

Myno's CRF will collect and convert less than 1% of the available in-state wood waste. This means that the total quantity of wood waste biomass available in the project region is likely an order of magnitude larger than the biomass residues utilized annually by the project.

To address the environmental problems associated with leaving waste biomass in forests, Myno Carbon Removal Facilities (CRF) will utilize approximately 183,000 tons of biomass waste feedstock per year, including slash and mill residuals derived from sustainably managed and harvested timber from Federal, State, Tribal, and private lands. Myno will only use waste biomass, and not whole, merchantable logs. Removing in-woods residuals and providing a market for unmerchantable timber, Myno CRFs will lead to a decrease in wildfire fuel in the forests, a reduction in regional air pollution from mitigating slash pile burning, and significantly less CO_2 released into the atmosphere.

5. How does Myno ensure feedstock sustainability?

Myno will become a Sustainable Forestry Initiative (SFI) certified buyer of biomass feedstock. The Sustainable Forestry Initiative (SFI) defines sustainable forestry as: "a land stewardship ethic that integrates reforestation and the managing, growing, nurturing and harvesting of trees for useful products, and for the provision of ecosystem services such as the conservation of soil, air and water quality and quantity, climate change adaptation and mitigation, biological diversity, wildlife and aquatic habitats, recreation and aesthetics."

Myno will work with feedstock procurement partners to implement feedstock tracking using the 3-Log fiber tracking and accounting system from the source of the wood waste to Myno's custody. Myno will also hire a third party to periodically audit procurement practices to ensure feedstock is sourced sustainably (audited against governmental, tribal, and independent standards).

Furthermore, the VERRA biochar carbon removal methodology outlines strict requirements for feedstock procurement. Myno will adhere to the VERRA standard and ensure all feedstock is 1) purely biogenic waste biomass and a by-product of another business and has no higher or better use 2) does not contribute to illegal deforestation or degradation and 3) is harvested under approved State and Federal permits.

6. How do Myno CRFs improve regional wildfire mitigation and air quality?

Myno CRFs utilize approximately 183,000 Bone Dry Tons (BDT) of sustainability sourced waste biomass feedstock per year, much of which will come from unmerchantable slash residuals. Myno CRFs will greatly increase the removal of large volumes of in-woods residuals (slash), including byproducts from ecosystem restoration activities on federal lands or Tribal lands. The beneficial reuse of this feedstock in the CRF will reduce hazardous fuels in the forests and the associated risk of catastrophic wildfires while accelerating ecological restoration and replanting efforts.

Furthermore, traditional post-harvest slash pile burning releases PM 2.5 and other toxic pollutants (e.g., polycyclic aromatic hydrocarbons) resulting in poor air quality, public health concerns, as well as wildfire risk. Myno's ability to take in-woods waste biomass provides significant air quality benefits to the region.

Myno is working hand in hand with Tribal Nations, Washington State Department of Natural Resources, and the US Forest Service among others to procure sustainable waste biomass for Myno CRFs. Our CRFs will be a vital resource for un-merchantable biomass, providing timberland managers an avenue for removing biomass waste, reducing costs from slash pile burning, reducing the risk of wildfires, and improving regional air quality. These feedstock procurement efforts also create significant job growth in rural timber-dependent communities.

7. How are Myno's Carbon Removal Facilities (CRFs) different from other biomass facilities?

Unlike biomass pellet and traditional biomass energy plants which are designed to convert 100% of the carbon in biomass into energy or pellets, the primary objective of Myno's Carbon Removal Facilities (CRFs) is to remove and sequester carbon in the form of biochar. Biomass electricity is a byproduct of our process because ~40% of the carbon contained in the feedstock can be converted into biochar using Myno's gasification system, while the remainder is converted into combustible wood vapors which Myno CRFs convert into biomass electricity. Additionally, biomass pellet production facilities and traditional biomass energy plants have significantly higher overall emissions and toxic chemicals than the biochar gasification process. The gasification system in Myno CRFs has inherently lower toxic emissions than combustion facilities, and our CRFs will also implement the best available control technology emissions control system.

8. How do Myno CRFs eliminate particulate emissions with Best Available Control Technology?

Myno CRFs will feature proven Best Available Control Technologies (BACT) for pollutant emission reduction and monitoring. A unique attribute of the Myno's system are the tandem Thermal Oxidizers (TO) that combust the gasifier flue gas stream at extremely high temperatures (in excess of 2,000F) effectively eliminating Hazardous Air Pollutants (HAPS) and Volatile Organic Compounds (VOC's). Precursor constituents such as Oxides of Nitrogen (NOx) remaining in the flue gas stream will be reduced using BACT technologies currently subject to the Washington BACT selection process. The final cleaning of the gas stream to remove particulate matter will occur in an Electrostatic Precipitator (ESP), a well proven and highly effective "dry" scrubber. Continuous Emission Monitors (CEMS) will be prescribed under BACT for installation on the single CRF stack downstream from the ESP. Emission reduction performance of all emissions listed in the facility Air Permit will be evidenced by CEMS data.

9. How does Myno's biochar production process eliminate concerns of application dust emissions and toxic chemical release?

Myno's biochar CRF production system, feedstock in-take, biochar products, and application guidelines are structured to eliminate any negative impacts of biochar application including possible dust, particulate emissions, and toxic chemical concerns. Myno's CRF production process intakes only clean woody biomass, drying the feedstock pre-production to a target MC of 15%, quenching biochar with water post-production along with additional watering when loading into packaging which results in a biochar product with a 35%+ moisture content, and post-processing our biochar into both water-borne slurries and compacted pelletized products for further compaction. These conditions are all recommended to reduce and eliminate dust, PM_{10}, and toxic chemical concerns. Furthermore, our biochar will be certified by and follow the International Biochar Initiative and European Biochar Certificate standards and we will provide biochar application protocol to buyers following the guidelines within the approved USDA NRCS 336 Conservation Practice Standard's biochar application recommendations to mitigate any further potential impacts.

10. How do Myno Carbon Removal Facilities support surrounding communities?

Myno CRFs aim to bring economic and environmental benefits to the region through the production of sustainable biochar to improve agricultural soil health, the creation of family-wage jobs, supporting healthier forests by reducing in-woods hazardous fuels, and reducing regional air pollution. To achieve these goals, Myno is collaborating closely with local partners such as Tribal nations Washington State Department of Natural Resources, United States Forest Service, and Conservation Districts, regional NGOs among others.

Future Myno CRFs will be in small rural timber communities, many of which are economically disadvantaged. Myno CRFs will also increase the availability of biochar to support regenerative agriculture. Moreover, CRFs will generate affordable renewable electricity, which will help to decarbonize the grid with baseload renewable electricity.

11. Which stakeholders support Myno CRFs?

Myno CRFs will provide a multitude of climate and economic benefits in the region to support rural economic development, enhance regenerative agriculture, reduce wildfire risk, and improve climate resilience. Myno CRFs will increase access to sustainably produced biochar to support regenerative agriculture, create union

wage jobs at the facility, sequester carbon, and generate affordable renewable electricity. Myno is working closely with regional NGOs, Tribal Nations, policymakers, Conversation Districts, and industry partners to ensure our projects provide extensive community co-benefits alongside our mission of removing carbon to mitigate the climate crisis.

Over the past year, we have received support from a diverse array of regional stakeholders. The following stakeholders have supported our various grant proposals and projects this past year through letters of support.

Regional tribal nations, including Colville Tribes, Kalispel Tribe, Spokane Tribe, and the Yakama Nation. We have had productive conversations with these Tribal Nations regarding feedstock procurement and deployment of, and research on, biochar as an agricultural soil amendment.

Regional economic development agencies, including the Clallam County Economic Development Council, Tri-County Economic Development Council, Colville Together Main Street Program, Colville Chamber of Commerce, and West Plains Chamber of Commerce.

Washington State agencies, including the Dept. of Natural Resources, Dept. of Commerce, and Dept. of Agriculture.

Environmental non-profits, including American Farmland Trust, Kulshan Carbon Trust, and Clean and Prosperous WA.
State and federal legislators, including US legislators Rep. Cathy McMorris-Rodgers, Rep. Schrier, Sen. Cantwell, Sen. Murray, Rep. Kilmer; and State legislators Sen. Short, Rep. Kretz, Rep. Maycumber, Sen. Van De Wege, Rep. Tharinger, Rep. Chapman, Rep. Fitzgibbons, the Mayor and City Council of Kettle Falls, and Stevens County Commissioners.

Regional state conservation districts, including Benton, Franklin, and Stevens County Conservation Districts, and the Colville Reservation Conservation District.

Washington's commodity crop commissions and grower associations, including the Washington Association of Wheat Growers, Potato Commission, Dairy Federation, Wine Growers Association, Wine Commission, Dairy Farmers, and Hop Growers of America.

Regional agricultural producers, including Gebbers Farms, Carpenter Ranches, Perrault Farms, Yakama Nation Farms, Colville Reservation Conservation District, and Kalispel Tribes.

Regional research institutions: Myno has worked closely with Washington State University (WSU), Oregon State University, and the Pacific Northwest National Laboratory (PNNL) to apply for grant funding to assess the effects of biochar as a soil amendment in key cropping systems in the PNW. We plan to continue working with research institutions, particularly in developing value-added biochar products.

Washington State Government and Political Support: The WA DNR enthusiastically supports through a Letter of Intent feedstock sourcing from DNR managed timberlands and incentivizing its farming leaseholders to amend soil with biochar. In 2022 Myno engaged with Washington State legislators to help pass WA State Senate Bill 5961, which requires biochar to be considered during all public works projects. In 2023, the Washington State legislature passed additional funding to support agricultural carbon sequestration through biochar application and streamlined permitting for clean energy facilities including biochar production facilities. Myno is excited to see continued bi-partisan support for our CRFs.

12. What kinds of jobs do Myno CRFs create?

Myno CRFs will generate 15-40 full time prevailing wage careers at the facility. Furthermore, the construction phase of the project allocates approximately $7 million to labor for prevailing wage construction job creation in the region. The project will additionally allocate approximately $41M for M-300 gasifier equipment that will be manufactured by ICM in Colwich, Kansas, supporting additional prevailing wage jobs and economic development in a rural community.

Myno CRFs will also benefit the regional economy through the increase in slash removal and transportation sector jobs. We are working alongside economic development councils, city, county, state, and federal policy makers who are supportive of our facility's rural economic development benefits.

13. What constitutes Myno's CRF Lifecycle Carbon Assessment (LCA)?

Myno's LCA has been reviewed by third parties and will continue to meet the highest methodological standards developed by Verra and International Carbon Reduction and Offset Alliance (ICROA). Below is a summary of our CRF's carbon benefits.

Based on Verra's current biochar methodology, the CRF will remove approximately 90,000 MT of CO_2e each year via the production of roughly 37,000 BDT of biochar. We believe more credit will be given in future versions of the methodology for methane reductions associated with slash pile decomposition, but we do not account for such CO_2e avoidances today.

Downstream of the CRF, Myno estimates that when used in agriculture or fertilizer applications, the 37,000 BDT per year of biochar the CRF can generate roughly 190,000 MT of CO_2e in Scope 3 emissions reductions each year. These reductions come in the form of nitrous oxide emissions reductions, increased soil organic activity (i.e., negative priming), and reduction of high-carbon-intensity inputs, such as the synthetic fertilizers, peat, and perlite prevalent in today's supply chains.

Myno considers the LCA to be the project's true scorecard. Effectiveness at removing carbon is an ongoing process rather than a static measure of performance. As a company, Myno has made its technical and business decisions with a high fidelity to the LCA, under the conviction that economic success will accrue to companies that decarbonize at scale.

14. What parts of the US are attractive for future biochar carbon removal facilities?

Myno is focused on building future biochar Carbon Removal Facilities (CRFs) in locations with access to 1) extensive working forests with ample waste wood such as forestry slash or timber mill residuals; 2) applications for waste heat, including industrial process heat or electricity production when existing grid interconnects are available; and 3) proximity to biochar markets and/or transportation to markets. Myno is actively working to build 6 more CRFs across the US by 2030, with a focus on California and the Southeast.

15. What differentiates Myno compared to other biochar producers?

Currently, biochar production remains small scale across the US due to low capital investment resulting in small-scale production, high priced and inconsistent biochar, and limited revenue generation capabilities. Myno Carbon Removal Facilities (CRFs) pioneer a new business model for biochar production that improves profitability and scalability of biochar production. Myno CRFs are innovative through the following attributes:

1. **Biochar Production Technological Innovation**: Myno has integrated existing technologies from the biomass power, ethanol production, timber harvest, and farming industries to create an innovative and unique biochar production system that captures and sequesters carbon from wood waste at a scale not yet achieved globally.
2. **Profitable Carbon Removal At-Scale:** Myno CRFs have three primary revenue streams that differentiate our facilities: production of consistent volumes of high-pressure steam for renewable electricity or industrial heat; production of large quantities of consistent, premium, and lower cost biochar; and creation of high-quality durable carbon removal credits.
3. **Advanced Biochar Product Development:** Myno is focused on developing high quality biochar products tailored for a range of industries including bulk, powdered, and granulated biochar, and biochar-coated fertilizer products. These are being developed in conjunction with large corporations in each of Myno's target market segments.

16. How much does Myno biochar cost and what financial incentives are available to growers?

Myno biochar costs $600 per bone dry ton, FOB Port Angeles, WA, which is equivalent to approximately $400 per ton after water is added, or $50-60 per cubic yard. The cost of shipping is not included. This price is cost-effective for many growers without additional incentives due to the many long-term agricultural benefits of biochar application.

The new USDA NRCS "Conservation Practice Standard 336: Soil Carbon Amendment" is a financial incentive for farmers to apply biochar as an agricultural amendment. Through NRCS 336, producers can secure cost share payments to cover the cost of

biochar purchase, shipping, handling, storage, and deployment, including any equipment and labor required. NRCS Conservation Practice Standard 336 will provide farmers up to $200/CY ($2,000/MT) to apply at least 12 CY of biochar per acre to increase soil carbon. With these incentives, producers will incur no out-of-pocket costs and will be compensated for a portion of equipment and labor costs. Furthermore, emerging 'Climate-Smart' crop pricing and credit programs implemented by food products companies could also result in higher crop prices paid to growers that implement climate smart agricultural practices, including applying biochar as a soil amendment.

17. What are Myno's target biochar markets?

We target markets and customers where biochar can add value to the supply chain both because of its material properties and because it helps reduce emissions. By substituting high carbon intensity (CI) product inputs with low CI inputs such as biochar, companies can significantly reduce their Scope 3 emissions. Biochar can be used as a climate-smart additive in a multitude of industries in support of decarbonization efforts. Biochar can be beneficially employed as an agricultural amendment, stormwater pollution filtration additive, replacement for carbon intensive potting media components, additive to create low-carbon building materials, and substitute for petroleum-based carbon black products.

As an agricultural soil amendment, biochar increases yields, reduces nitrogen fertilizer requirements and runoff, reduces soil nitrous oxide emissions, and increases the rate of accumulation of soil carbon (which is called "negative priming," strangely enough). In addition to reducing on-farm carbon emissions, our bulk biochar amendments and biochar-enhanced fertilizer (BEF) products will deliver improved margins for growers. Myno is actively developing strategic partnerships to develop and trial bulk biochar and BEF products to support the decarbonization of the agricultural industry.

Myno is also tackling the high carbon footprint of the horticultural soil media sector. Replacing high CI materials such as peat moss, perlite, and vermiculite in commercial and retail potting media with biochar generates significant Scope 3 emissions without sacrificing product integrity or profits. Myno is working with some of the largest retail brands and their suppliers and aims to become the high-volume, low-cost provider of biochar to the soil products sector, reducing the carbon

footprint of every cubic foot of soil products sold by over 40%. We seek similar relationships with leading brands in other industries. If you are interested in making carbon history with us, please reach out.

18. What's the difference between a carbon offset credit and a carbon removal credit?

Carbon removal credits differ from traditional carbon offsets as they give the purchaser credit for existing CO_2 emissions that are permanently withdrawn from the atmosphere or ocean, rather than for new emissions that are avoided. While companies work to reduce their operational and supply-chain carbon footprints, carbon removal credits offer a way to make progress toward net zero that is generally seen as more scientifically credible — albeit much more expensive — than offsets. Today the market for carbon removal is tiny: Last year, 4,000 times more tons of carbon offsets were sold than carbon removals. The technologies — which include biochar, direct atmosphere capture with big fans, converting farm waste to oil that gets injected deep underground, and spreading carbon-sucking crushed rocks on farmland, among others — are at about the stage solar energy was two decades ago, with few customers and no economies of scale. Biochar carbon removal credits have high measurability, high permanence threshold, high scalability, and reduced price compared to other leading carbon removal technologies and credits.