

Puro Standard: Annex A: Biochar Methodology, edition 2022

Compliance requirement: 1.2.3 Additionality

1.2.3. CO2 Removal Supplier shall be able to demonstrate additionality, meaning that the project must convincingly demonstrate that the CO2 removals are a result of carbon finance. Even with substantial non-carbon finance support, projects can be additional if investment is required, risk is present, and/or human capital must be developed. To demonstrate additionality, CO2 removal Supplier must provide full project financials and counterfactual analysis based on Baselines that shall be project-specific, conservative and periodically updated. Suppliers must also show that the project is not required by existing laws, regulations, or other binding obligations.¹⁸

Note: In Puro Standard and related verification, a project specific additionality assessment is required. Puro Standard does not work with automatic additionality criteria or placement on a positive list.

Notice. These answers are public information

*****This statements are filled in at the end of the process by the officials*****

*****This section is filled in by the project with calculations attached*****

#	Additionality	No/yes. If yes, describe	Project response	+++
	Is the project required by existing laws, regulations, or other binding obligations	No		
	Dependency on carbon finance.	Yes	Carbon finance is vital to both the success of VGrid's current operations and its future expansion. Revenue generated from CORCs will directly support the company's ability to scale production, attract new investment, and increase its sales of biochar, all of which will ultimately help V-Grid sequester more carbon in the ground.	

	Is investment required	Yes	V-Grid depends on outside investment to fund both current operations and future business growth, as well as to fund the critical R&D required for further technological innovation.	
	Is risk present	Yes	V-Grid's future success depends on many factors, all of which have risk. One significant risk lies in the company's ability to sell co-products (biochar and wood vinegar) in sufficient quantities and at acceptable price levels.	
	Is there a need to develop human capital, is there lack of skilled activity locally?	Yes	As V-Grid expands, additional employment opportunities will be created in clean energy and climate tech. V-Grid is actively recruiting and training technical personnel to design, operate, and engineer its proprietary technology. Additional sales and marketing professionals are also required to maximize biochar revenue.	
	Is your project first-of-its-kind?	Yes	VGrid's proprietary "modular and scalable" biomass gasification system creates clean energy, biochar, and wood vinegar from waste pistachio shells, which are otherwise destined for the landfill. The company's primary production site is co-located at a large dairy operation in Visalia, California. The electricity created in the production of biochar helps to directly power the dairy farm, while excess energy is returned to the public power grid, helping to offset energy from fossil fuels. To the best of V-Grid's knowledge, this is a 'first-of-its kind' project utilizing cutting-edge technology and unique processes.	
	How is the project not economically feasible without carbon finance?		V-Grid's business case depends on the sale of biochar. At present, we are not able to sell enough biochar (and electricity) at sufficient price points to make the business stand on its own. Carbon financing provides a vital revenue stream that is required to offset this shortfall.	
	Attach a simple cost analysis and sensitivity analysis.			

	What are the key variables impacting the cost analysis?	Describe variable and sensitivity limits	The quantity of co-products sold and the price point at which they are sold (the co-products generated by VGrid are biochar and wood vinegar). V-Grid also earns revenue from the sale of electricity. The quantity and price of electricity is established and well understood. Unfortunately, energy revenue alone is not sufficient to maintain the viability of the company.	
	What else is preventing your project implementation? Do you have to change industry norms or market practises or to build new infrastructure to carry out the project ?		V-Grid's technology is readily scalable, and sources of waste biomass are plentiful. However, like all green technologies, the barriers to adoption are lowered as the devastating impacts of climate change are better recognized by the government entities, private enterprises, and the general public.	
	What is the activity substituting the proposed activity in the baseline case? Or is there a direct substitute?	Landfill emissions	V-Grid processes 100% waste pistachio shells, which otherwise decompose and release GHGs.	

Project signature and date

I hereby declare that all information provided is truthful and precise to the best of my knowledge.



Jeff Norton

V-Grid Energy Systems

Vice President - Business Development

06 / 15 / 2022