

Summary/Abstract for Public Release

Commercializing Bio-Derived 2,3-Butanediol Production from Industrial Waste for Sustainable Chemicals

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The National Renewable Energy Laboratory (NREL) and BioPrincipia are teaming up to scale NREL's 2,3-butanediol (2,3-BDO) fermentation process for production of new low-carbon biopolymers. BioPrincipia owns a fast-growing biomaterials business located in Columbus, Georgia that makes specialty materials for a variety of uses in the food, nutraceuticals, life science, and industrial markets. NREL has been working for several years on the strain engineering and fermentation process to make bio-derived 2,3-BDO from lignocellulosic sugars. 2,3-BDO is a versatile chemical that can be upgraded to low carbon fuels and products. The project, funded by the Department of Energy's Technology Commercialization Funding program, will support strain modifications and fermentation development on a new set of waste sugar feedstocks available to BioPrincipia and enable technology transfer activities between NREL and BioPrincipia. The result of this collaboration will be a commercial-ready process to make a sustainable and versatile chemical from industrial waste for upgrading to low-carbon, sustainable, and novel biopolymers, chemicals, and fuels.