



## REPORT ANALYZES THE USE OF BIOGAS- DERIVED ELECTRICITY TO POWER ELECTRIC VEHICLES

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With joint funding from the U.S. Department of Energy's Office of Strategic Programs, Bioenergy Technologies Office (BETO), and Vehicle Technologies Office, Oak Ridge National Laboratory (ORNL) published a report titled *Analyzing the Impacts of a Biogas-to-Electricity Purchase Incentive on Electric Vehicle Deployment with the MA3T Vehicle Choice Model*. Using a vehicle consumer choice model, MA3T, which ORNL developed, the report provides an independent analysis of the potential implications of establishing an electric vehicle (EV) purchase incentive with renewable fuel credits under the U.S. Environmental Protection Agency's (EPA's) **Energy Independence and Security Act** (EISA).

Under EISA, renewable fuels can be produced using a wide range of methods, called pathways, and EPA approves each pathway individually. EPA tracks how much renewable fuel is generated and used by monitoring credits called renewable identification numbers (RINs). EPA approved a pathway for biogas-derived electricity to be used in EVs, and under its recently proposed Renewable Enhancement and Growth Support rule, EPA is considering which one of four proposed parties should be given credit for electricity RIN (eRIN) generation under this biogas-to-electricity pathway (eRIN pathway): (1) EV owners, (2) public charging stations, (3) electric utilities and vehicle manufacturers, or (4) third parties using the available data sources.

The ORNL report showed that using the value created by the eRIN pathway to reduce the purchase price of vehicles could accelerate the deployment of EVs, an important strategy to decarbonize the transportation sector. This analysis could be used to understand the factors that affect eRIN generation and the conditions that could best advance both biogas production and EV deployment.

BETO strongly supports **waste-to-energy** technologies such as biogas generation, and recently published a **report** showing that biogas alone could produce approximately 0.4 quadrillion of the **97.7 quadrillion British thermal units** of U.S. total annual primary energy consumption. Waste-to-energy projects are a key component of BETO's portfolio and can help achieve the goal of developing domestic, cost-competitive biofuels and bioproducts from cellulosic biomass.