

The implementation of E-RINs will greatly help wastewater treatment facilities (WWTF) utilize the biogas that is generated daily. The potential for WWTF's to supply renewable energy and reduce greenhouse gas emissions is tremendous.

As seen below, WWTF can make a significant contribution to support the emerging EV market, decrease greenhouse gas emissions, and gain positive financial benefits to their operating budgets with the adoption of E-RINs.

Input/Output	Value
Electric potential at WWTFs with anaerobic digesters	411 MW
Total annual electric production (assumes year-round operation)	3,602,826 MWh
Adjusted all-fossil average CO <sub>2</sub> emissions factor	1,860.14 lb CO <sub>2</sub> /MWh
Total displaced CO <sub>2</sub> emissions	3,350,880 tons CO <sub>2</sub> /year or 3,040,726 metric tons CO <sub>2</sub> /year
Equivalent number of passenger vehicles	596,052

The values in the above table are easily doubled with the addition of food waste to the WWTF digesters.

The direct result of implementing E-RINs when utilized at municipal WWTF include

- 1. Production of E-RINS at a significantly lower cost per kWh when compared to other renewable energy/vehicle fuel technologies.
- 2. Increase revenue streams to municipalities and their partners.
- 3. Implementation of combined cycle power (electricity and thermal (hot water) generation resulting in near 90% efficient systems
- 4. Reduction in GHG emissions
- 5. Utilizing a renewable energy resource (biogas) that is typically flared
- 6. Further positive investment in power production requires minimal electrical upgrades as WWTF are already connected to the electrical grid.