
Increasing Energy Generation from the Wastewater Sector

Increasing Energy Generation from the Wastewater Sector

A growing number of wastewater utilities are generating energy from biogas and solids produced during the municipal wastewater treatment process. NACWA supports clean energy policies and programs that would bolster energy production at public clean water agencies. Such policies would help agencies decrease onsite energy costs and reduce their carbon footprint, while advancing the national objective of energy independence.

Federal energy policies and programs should encourage the production of energy from biosolids and biogas for the following reasons:

- **The Energy Potential in Biosolids is Significant.** The energy potential contained in biosolids exceeds the electricity requirements for treatment by a factor of 9.3 to 1. In other words, domestic wastewater contains nearly 10 times the energy needed to treat it.
- **Biosolids Are an Abundant, Natural, and Sustainable Resource.** Biosolids result naturally and are collected and managed by clean water agencies to protect human health and the environment. As one of many management options, the emerging trend of energy generation is an efficient and environmentally beneficial practice.
- **Energy Recovery Replaces Fossil Fuel Requirements.** The U.S. Environmental Protection Agency estimates that more than 3 million metric tons of CO₂ could be displaced if clean water agencies currently using anaerobic digestion for biosolids management were to generate electricity. This is the equivalent of taking nearly 600,000 cars off the road.
- **Biogas Production Produces Beneficial By-Products.** Digesting biosolids to produce biogas produces a nitrogen-rich fertilizer, which can also help displace CO₂ emissions caused by chemical fertilizer production. In addition, digested biosolids result in significant volume reduction, which requires fewer trucks to transport the material offsite, eliminating production of even more CO₂. These emission reductions are in addition to the direct reductions of the electricity generated and its use.
- **Energy Production at Wastewater Utilities Is Reliable and Cost-Effective.** Energy production at wastewater treatment facilities occurs all day every day– it is a reliable, stable and sustainable energy source. In addition, recovery of energy from biosolids and biogas can decrease the costs communities must bear to treat wastewater.

For more information, contact:

Hannah Mellman, NACWA's Legislative Manager, at 202.833.4655 or hmellman@nacwa.org.