



Snohomish County
Public Works

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Snohomish County Expands Use of Electric Vehicles for Energy Efficiency and Cost Savings

Benefits of using an electric yard goat vehicle help celebrate Energy Efficiency Day

EVERETT, Wash., October 6, 2021 – National Energy Efficiency Day is October 6, 2021. As part of ongoing efforts to maintain an environmentally sustainable and cost-saving infrastructure system, the Snohomish County Public Works Solid Waste Division is in the process of replacing diesel powered “yard goats” (terminal tractors) with electric powered units at the Airport Road Recycling and Transfer Station (ARTS) and Southwest Recycling and Transfer Station (SWRTS). Three of five diesel yard goats have been replaced, and there are plans to replace the remaining units within the next two years. The division has been pleased with the performance of the electric units, especially noting reduced down time with mechanical issues.

“We were looking for a better performing vehicle that also had some cost savings as we replaced aging equipment, but we also are able to achieve environmental benefits with these electric yard goats.” said Solid Waste Division Director, Kevin Kelly. “We look forward to the continued reductions of carbon emissions, lifetime cost savings, and reduced maintenance these electric vehicles offer for many years to come.”

Yard goats are the most commonly used, heavy-duty vehicles for moving trailers on county property. Staff uses them to move 53’ intermodal trailers onsite at the division’s three transfer stations. Each container is filled with approximately 59,000 pounds of compacted refuse for transport via rail to our vendor’s landfill. Solid Waste is working to replace 2 more of the diesel units in 2022.

Savings generated from use of electric vehicles:

- Operating cost comparison: Average hourly operating cost (fuel, parts, and labor) for a diesel yard goat is \$36.10/hour; electric yard goat is \$11.33/hour (not including cost of electricity). This electric vehicle was used 890 hours in 2020, equating to a savings of over \$22,000 in operating costs for the year.
- Initial cost of equipment: \$240K for electric vs. \$120k for a diesel vehicle. A 10-year life is expected, generating operating and fuel savings which will more than make up the difference of the initial cost.
- Fuel savings (diesel vs. electric): Annual fuel consumption for one diesel yard goat is 1,002 gallons of diesel fuel vs. 0 gallons for electric.

- Reduced maintenance time/cost for electric vs. diesel: Maintenance time for a diesel unit is 169 labor hours and \$27,147 annually; 82 labor hours and \$10,080 annually for an electric unit.
- Tons of CO₂ emissions avoided: 10 tons avoided annually through the use of one electric yard goat. Therefore, 30 tons will be saved annually for the three new goats.

According to energyefficiencyday.org, energy efficiency is the cheapest, quickest way to meet energy needs and reduce pollution. It is also an economic engine, supporting more than 2.3 million jobs nationwide according to the Energy Efficiency Day website. [#EEDay2021](https://twitter.com/EEDay2021)

About Snohomish County Public Works

Snohomish County Public Works is responsible for approximately 1,600 miles of county roads, more than 200 bridges and manages about 200 traffic control signals. The department also processes nearly 600,000 tons of garbage per year. Its mission is to focus on safety and mobility while practicing fiscal responsibility and preserving the environment. Public Works has won numerous state and national honors for its work and is the largest department within Snohomish County government with approximately 500 employees plus seasonal staff. Its main office is located at 3000 Rockefeller Ave., Everett, WA 98201. Visit www.snohomishcountywa.gov/PublicWorks or follow the department on [Facebook](https://www.facebook.com/snohomishcountywa) and [Twitter](https://twitter.com/snohomishcountywa) for more information about Snohomish County Public Works.

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