ACCELERATE ENERGY PRODUCTIVITY 2030



Webinar 3: Transportation & Water

Wednesday, April 27, 2:00 p.m. – 3:30 EST

Register: https://attendee.gotowebinar.com/register/5393920745749167873

AGENDA

- 2:00 p.m. Welcome & Opening Remarks (15 mins.) Jenah Zweig, Director of Energy Efficiency Analysis, Office of Energy Policy and Systems Analysis U.S. Department of Energy Kateri Callahan, President, Alliance to Save Energy Deborah Wince-Smith, President and CEO, Council on Competitiveness
- **2:15 p.m.** Transportation Presentation (20 mins.) Kathy Kinsey, Senior Policy Advisor, Northeast States for Coordinated Air Use Management
- 2:35 p.m. Q & A (15 mins.)
- 2:50 p.m. Smart Manufacturing Presentation (20 mins.) Mike McDonald, Senior Engineer, American Water
- 3:10 p.m. Q & A (15 mins.)
- **3:25 p.m.** Closing Remarks (5 mins.) Accelerate Energy Productivity Partners

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Overview

The Accelerate Energy Productivity 2030 Partners are conducting a series of webinars to examine industry transformations and policy strategies in the context of energy productivity that will inform DOE as they draft the second installment of the Quadrennial Energy Review (QER 1.2). Each webinar will feature presentations from business leaders as well as state and local policymakers, drawing from the broad network of stakeholders who influenced the Partnership's work last year. Speakers and webinar participants alike will examine industry development and market transformation, to identify new and emerging strategies to inform potential policies. The speakers will also highlight "real world" examples of these potential strategies in the context of the six strategy wedges outlined in the <u>Roadmap</u>. Below are descriptions of the topics and framing questions for the third webinar on transportation and water.

> Topic: Accelerating Energy Productivity in Transportation and Water

Accounting for up to 28.1% of the U.S.' energy use and 71% of its oil consumption, the transportation sector plays a significant role in affecting national goals of energy productivity, environmental protection, and energy security. Increasing the energy productivity of moving goods and people relies on deploying new technologies that increase vehicle efficiency; increasing electric vehicle penetration and infrastructure; increasing options for mass transit; and better integrating transportation needs into land use planning. Equally as important is the need to better understand the interconnected nature of water and energy systems. Speakers will address the impacts of electricity use in the water sector, water infrastructure issues, the impacts of drought, and how water and waste water treatment can improve energy efficiency and demand response, implement emerging technologies and processes, and deploy energy recovery and generation technologies. Framing topics include:

Transportation:

- What are some best practices around energy productivity in the transportation sector and the most effective way to communicate them within and across industries?
- Reducing VMT (vehicle miles traveled) is one of the best ways to reduce energy use in the transportation sector, regardless of its source of energy. What policies in alternative transportation options (i.e. mass transit) will help reduce VMT? How can land use planning and urban planning incent denser built environments, which in turn will support both mass transit and electric vehicle charging infrastructure?
- Electricity use for transportation is projected to grow through 2040, primarily due increased penetration of lightduty vehicles, however electricity will still account for well less than 1 percent of total transportation energy use. How can we further incentivize and advance electrification infrastructure?
- What are some potential policies at the local, state, or federal level that can help reduce the demand for motorized transport?
- What is the next game-changing transportation technology that can help reduce fossil fuel consumption?
- How do we go beyond existing fuel economy standards for vehicles and ensure that we further improve fuel economy in all vehicle types?

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- Expanding charging station infrastructure would promote the adoption of PEVs and provide a valuable asset to utilities to better manage their grids. How can we help integrate charging station infrastructure with the electric grid to better coordinate PEV charging or discharging to help reduce congestion and peak demand on the power grid?
- What are some examples of smart regional transportation solutions that can both increase the energy efficiency of transportation modes and the increase the economic benefits of transportation services?
- What transportation mode shift policies are working (and not), and how do we better integrate transportation into land-use planning?
- How will consumer behavior evolve as new transportation opportunities are made available, and are their ways to incentivize that evolution to get changes done quicker that will increase energy productivity?

Water

- In the QER 1.2, DOE plans to investigate and better understand the interconnected flows of energy and water at the state, regional, and national levels; how these have changed; and how they may continue to change over time. What are some industry or water utility-specific perspectives that will help DOE understand this nexus better?
- Water supply and waste water treatment plants consume a tremendous amount of electricity, primarily through the use of motors and pumps. What business models can help local governments invest in more efficient motors and pumps? What analytical or software-related investments are available to help better use existing infrastructure?
- Waste water treatment facilities has the potential to use on-site biogas to power parts of their operations, both decreasing grid purchases and increasing resiliency in emergency situations. What state and federal policies can help communities invest in technologies such as biogas-powered combined heat and power and microgrids?
- Given their large loads, water supply and waste water treatment plants are well positioned to participate in demand response or ESPCs. What are some success stories, and what policies to these areas have that can be duplicated elsewhere?
- What are some policies that will help minimize the impacts of power generation on water resources and impacts of drought on cooling water availability?
- Many cities already have robust energy reduction goals for their building stock. How do we incentivize cities to commit to water consumption reduction goals, and how can these goals be tied back to energy savings from pumping less water?