

April 30, 2019

The Honorable Eddie Bernice Johnson
Chairwoman
Committee on Science, Space, and Technology
U.S. House of Representatives

The Honorable Frank Lucas
Ranking Member
Committee on Science, Space, and Technology
U.S. House of Representatives

Re: Support for H.R. 34, the Energy and Water Research Integration Act

Dear Chairwoman Johnson and Ranking Member Lucas:

We the undersigned represent a coalition of business and energy and water efficiency leaders who work together to double U.S. energy productivity to achieve economic growth, a cleaner environment, and greater energy security, affordability and reliability. We write today in support of the bipartisan energy-water nexus legislation, H.R. 34, the Energy and Water Research Integration Act, and recommend it be reported favorably by the Committee on Science, Space, and Technology and passed by the U.S. House of Representatives. We appreciate your commitment to the critical issue of the energy-water nexus, and the importance of addressing energy efficiency in water use.

Codes, Standards, and Efficient Technologies & Practices

The Energy and Water Research Integration Act would, if approved, ensure that the Department of Energy (DOE) consider water intensity within its research, development, and demonstration (RD&D) on energy and water distribution systems. Identifying water intensity as a critical area for further RD&D is an important step towards identifying opportunities for energy savings considering the significant amount of water use by energy systems. DOE has found that 196 billion gallons of water per day are withdrawn for thermo-electric cooling to support power generation, in comparison to 44 billion gallons of water per day that are withdrawn for public supply.¹ Opportunities to reduce the level of water use can play a large role in improving energy efficiency considering every gallon of water saved is a gallon that is not pumped or delivered.

Building codes and appliance and equipment standards are key tools for reducing water and energy waste, and in reducing stress on water and energy distribution systems. Water-intensive ENERGY STAR products (e.g., dishwashers, clothes washers) include water efficiency criteria, delivering savings for both water and energy. While the energy consumption of buildings and appliances is often governed by codes and standards, water efficiency has received far less consideration. With updated standards for water efficiency, water savings could reach an estimated 770 billion gallons per year by 2035.²

Within the bill's Strategic Plan (Section 2, Part B), we support the considerations for improving water delivery technologies to support energy generation, fuel production, and other associated energy resource development applications. We also support the consideration for "energy efficient

¹ U.S. Department of Energy. "The Water-Energy Nexus: Challenges and Opportunities." 2014. <https://www.energy.gov/sites/prod/files/2014/07/f17/Water%20Energy%20Nexus%20Executive%20Summary%20July%202014.pdf>

² Appliance Standards Awareness Project and American Council for an Energy-Efficient Economy. Next Generation Standards: How the National Energy Efficiency Standards Program Can Continue to Drive Energy, Economic, and Environmental Benefits. August 4, 2016. https://appliance-standards.org/sites/default/files/Next_Gen_Executive_Summary.pdf.

technologies for water distribution, treatment, and collection systems.” Pumps alone can consume about [80 percent](#) of a drinking water utility’s total electricity use according to the Congressional Research Service. To achieve the objective towards “improving understanding of the energy-water nexus,” DOE should not overlook the need to consider the energy required to support water utilities while it also considers the water required to support power utilities.

In further exploring the energy-water nexus, we also encourage DOE to consider the benefits of cross-cutting coordination between energy and water utility planners to co-locate facilities to enhance synergies. A more integrated approach to developing, managing, and regulating energy and water systems could help maximize savings of water, energy, and cost.

Energy-Water Subcommittee & Enhanced Data

The bill would also establish an Energy-Water Subcommittee of the Energy Advisory Board “to promote and enable improved energy and water resource data collection, reporting, and technological innovation.” The Energy-Water Subcommittee would help address the current lack of information on whether and how water utilities track energy performance. In addition, the level of detail available for energy data varies widely among water utilities. We would encourage the Energy-Water Subcommittee to collaborate with ENERGY STAR Portfolio Manager to help support data collection and analysis. ENERGY STAR Portfolio Manager provides facility managers, including water and wastewater utilities, with tools that help operators evaluate and measure energy consumption, and compare performance to the energy-intensity of peers.³ The directive for the Energy-Water Subcommittee to “provide nationally uniform water and energy use and infrastructure data” would address the need for more comprehensive and useful energy data to enable greater transparency and support opportunities to optimize energy use at water utilities. Such data could also inform the development of guidance or policy incentives for water utilities that support best practices on energy-water data collection.

We are prepared to work with you and your colleagues to provide more assistance as requested to identify specific programs, activities, and projects that we believe may warrant specific congressional direction and guidance. We pledge to assist you and your staff by identifying further legislative measures that would address the nation’s energy productivity by maximizing opportunities within this critical energy-water nexus. We know that with your leadership, we can achieve the necessary policies to maximize energy efficiency in both the water and power sectors.

Thank you for your consideration.

Sincerely,

Alliance for Water Efficiency

Alliance to Save Energy

AVEVA, Inc.

Danfoss

The Smart Water Networks Forum: SWAN

³ To date, more than 10.8 billion square feet have been benchmarked using ENERGY STAR tools.

Energy and Water Research Integration is Critical
April 30, 2019

Cc: The Honorable Nancy Pelosi, Speaker, U.S. House of Representatives
The Honorable Kevin McCarthy, Republican Leader, U.S. House of Representatives
Members, U.S. House of Representatives Committee on Science, Space, and Technology