

ASME Energy-Water Nexus Webinar

Title: Quantifying power plant water use

Presenters: John Rogers, Senior Energy Analyst/Co-Manager, Energy and Water in a Warming World Initiative, Union of Concerned Scientists and Tim Diehl, US Geological Survey

Overview:

Thermoelectric power plant water use for cooling can be an important component of water demand in given water basins or regions. Understanding the scale of that water use is crucial for good decision making involving existing and prospective electricity facilities. Yet even the best available power plant-level data for the country as a whole have tended to be incomplete or error-filled.

This webinar will discuss two approaches to quantifying power plant water use in the face of incomplete or erroneous data. John Rogers will present analysis carried out by a team of independent experts that calculated water use and compared the results with reported data. Timothy Diehl will present the U.S. Geological Survey's approach to including robust data on the power sector in the agency's five-year water census currently underway.

Who Should Attend:

- * Experts actively engaged in attempting to understand and assess power plant cooling water use and its implications
- * People interested in electricity-water issues in general

What You Will Learn:

- * An understanding of the scale of power plant water use for cooling and differences in use across the country
- * An understanding of the challenges in getting solid data on cooling water use, and multiple approaches to overcoming those challenges

Presenter Bios:

* **John Rogers**, a senior analyst in the Climate and Energy Program at the Union of Concerned Scientists, co-manages the organization's Energy and Water in a Warming World initiative. This effort is aimed at raising awareness of the energy-water connection, particularly in the context of climate change, and motivating and informing effective low-carbon and low-water energy solutions. John has 20 years of experience working on energy issues within the non-profit, for-profit, and government sectors. He holds an A.B. from Princeton University and a master's degree in Mechanical Engineering from the University of Michigan.

* **Tim Diehl** is a hydrologist in the Tennessee Water Science Center of the U.S. Geological Survey. His main research areas are water use by thermoelectric power plants and erosion and sediment transport due to land disturbance. He's also studied woody debris in streams and the evolution of wetlands in aggrading alluvial systems. He received his Ph.D. in Civil Engineering, M.S. in Environmental Studies, and B.S. in Botany from the University of Wisconsin – Madison.