# SENATE COMMITTEE ON APPROPRIATIONS
**Senator Anna Caballero, Chair**
**2025 - 2026 Regular Session**

**SB 654 (Stern) - California Environmental Protection Agency: contract: registry: greenhouse gas emissions that result from the water-energy nexus**

**Version:** February 20, 2025
**Urgency:** No
**Hearing Date:** April 21, 2025
**Policy Vote:** E.Q. 6 - 0
**Mandate:** No
**Consultant:** Ashley Ames

**Bill Summary:** This bill would update the requirements of the California Environmental Protection Agency's registry for greenhouse gas emissions that result from the water-energy nexus to increase outreach to participants and limit contract budgets to $2 million per three-year contract.

**Fiscal Impact:**
- Unknown, potentially significant costs (various funds) for CalEPA to recruit participants through means including but not limited to workshops, training, technical support, and planning assistance.

**Background:** The term "water-energy nexus" refers to the energy-intensiveness of the state's water system, as well as the water-intensiveness of the state's energy system.

The water system uses approximately 20% of the state's electricity and 30% of its natural gas for business and home use, according to data from 2001—accounting for more than 5% of California's greenhouse gas emissions. Heating and other energy-intensive water uses in homes and businesses makeup almost 90% of water-related energy use; a quarter of total residential energy is used to heat water. Water treatment, pumping, and conveyance of water and wastewater also require energy and have associated emissions.

California's energy sector uses significant amounts of water, although it is becoming less water-intensive. Hydropower averages 15% of California's electricity generation, from 7% in dry years to over 20% in wet years. However, increased precipitation variability due to climate change may reduce hydropower potential. Thermoelectric plants may face shortages during droughts, but many California plants have been increasing water efficiency and switching to recycled water for cooling. Some use ocean water, which is drought-proof. The growth of solar and wind power can boost the electricity sector's drought resilience by minimizing water use. Approaches like installing solar panels over canals can produce power while reducing evaporation.

*Water-Energy Nexus Registry.* The Water-Energy Nexus (WEN) Registry is administered by The Climate Registry in collaboration with CalEPA. According to The Climate Registry's website: "The WEN Registry is a voluntary statewide GHG and water reporting program that provides participants with standardized accounting guidance enabling them to measure, track, and mitigate their GHG emissions associated with California's water and energy systems. Participants can measure, track, and report their carbon footprints and report volumes of water associated with the annual extraction, consumption, delivery, storage, and/or treatment of water."

Participants can measure, track, and report their carbon footprints, as well as report volumes of water associated with the annual extraction, consumption, delivery, storage, and/or treatment of water. By reporting to the WEN Registry, participants can generate water-related performance metrics (e.g., metric tons GHG per acre-foot (AF) of water), help identify opportunities for GHG emission reductions, and track the impact of those actions over time. Participants report their data in the Climate Registry Information System (CRIS), The Climate Registry's proprietary GHG calculation and reporting software.

**Proposed Law:** This bill would:

1. Shift CalEPA's role from developing a water-energy nexus registry to administering the existing one.

2. Encourage CalEPA to recruit participants through means including but not limited to workshops, training, technical support, and planning assistance.

3. Impose a $2,000,000 budget limit on each three-year contract authorized.

**Related Legislation:**

SB 1425 (Pavley, Chapter 596, Statutes of 2016) requires CalEPA to develop and administer a registry of GHG emissions resulting from the water-energy nexus using the best available data.

**-- END --**