

# Liquid Cooling Act of 2025

Senator Chris Coons (D-DE) | Senator Dave McCormick (R-PA)

## Background



As data centers account for increasingly more electrical consumption, traditional air-cooling systems are failing to efficiently remove heat from high-density AI servers and data centers. Liquid cooling technologies are a more efficient alternative for these higher demand AI servers and centers but require appropriate instrumentation and controls to properly maintain their mechanisms. As the government implements AI systems across various infrastructures, a comprehensive assessment of AI cooling technologies is necessary for proper deployment.

## Bill Summary

The *Liquid Cooling Act of 2025* directs the General Comptroller to produce a review of the state of liquid cooling and its implementations for data centers, ultimately reporting to the Secretary of Energy and relevant congressional committees. An advisory committee of relevant experts will consider pertinent stakeholders to consult and coordinate this review. After receiving the report, the Secretary of Energy will send congressional considerations to relevant committees and recommendations for further research and development.

### The General Comptroller's report will produce:



A comparison of single-phase and 2-phase direct-to-chip and single phase and 2-phase immersion cooling across various performance, mitigation, and cost factors.



An overview of existing research and development on liquid cooling and its effects on computational performance, and other considerations.



A cumulating recommendation for the primary cooling option, utilization of ongoing research, standard practices, and data center enhancement.

## Bill Sponsors



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