

Summary Notes from Maine Data Center Advisory Council

June 23, 2026

Overview

The Maine Data Center Advisory Council (the Council) held its second meeting on June 23, 2026, from 2pm - 5pm. The Council was established by Executive Order of Governor Janet Mills in April 2026. It will provide strategic input, facilitate coordinated state planning, and evaluate policy tools to address large-scale data center opportunities and related benefits and risks to the State of Maine.

The meeting was held virtually via Zoom Webinar, and brought together 17 members of the Advisory Council, 10 project team members including staff from the Department of Energy Resources (DOER) and Department of Environmental Protection (DEP), 4 presenters and staff from the Pacific Northwest National Laboratory (PNNL) and 126 webinar attendees.

The objective of this meeting was to discuss environmental impacts associated with large-scale data center development. Agenda items included:

- Recap of public input and opportunities for additional feedback
- Guest presentation on data center fundamentals from PNNL
- DEP presentation on environmental impacts and existing regulatory safeguards
- Discussion among Council members and opportunity for audience input

The meeting agenda, slides, and recording are available on the [Maine Data Center Advisory Council webpage](#).

Below are high-level summary notes from the meeting.

Welcome and Introductions

DOER Acting Commissioner and Advisory Council Co-Chair Celina Cunningham welcomed Council members and other participants. She reviewed the directives guiding the Council's work and outlined the agenda for the meeting.

Review of Public Input

Facilitator David Plumb, Consensus Building Institute, shared the Council's approach to gathering public input and incorporating that feedback into its work. A public survey released prior to the kickoff meeting asked respondents, "Which public engagement opportunities are best for your participation?" Surveys and written responses were highly preferred, followed by virtual forums and in-person engagement. Based on this feedback, members of the public are invited to participate in several ways:

- **Attend public meetings and participate in live polling**, which will be used consistently to seek public input during meetings.

- **Share your input through surveys.** New surveys will be released ahead of each Council meeting, and results will be shared at the next meeting. The surveys will remain open for a few days after the meeting ends. Any additional input will be included in the meeting summary.
- **Sign up for the email newsletter** to receive direct updates.
- **Dedicated public listening sessions** will be scheduled in late August or early September.
- **Follow the Public Utilities Commission docket (2026-00142)**, which is running in parallel to the Data Center Advisory Council process.

Pre-Meeting Survey Results and Council Reflections

David reviewed a preliminary summary of 37 responses from the second public input survey released prior to this meeting, which asked about energy considerations pertaining to large-scale data centers. The survey remained open until June 30, and updated themes of responses are included in Annex 1. Members of the public then responded to a Menti poll that asked what they wished to learn from this meeting. Responses are included in Annex 2.

Council members noted that the survey and poll responses aligned well with their own priorities. Members emphasized the importance of education, understanding impacts at different scales and across different types of municipalities, and drawing useful comparisons between data centers and other industrial facilities in Maine.

Data Centers 101

Juliet Homer, Chief Systems Engineer, Pacific Northwest National Laboratory (PNNL), presented an overview of data centers including definitions, different types of data centers, and industry trends as data needs and planning shift based on current demand. She also spoke about sustainability expectations and water-energy tradeoffs

On national trends, Homer noted that data centers currently account for approximately 4% of U.S. electricity demand and could reach as high as 11% by 2030. Interconnection requests nationally are increasing in size, with requests of 500 MW or more becoming more common. She noted that utilities face challenges incorporating these requests into load forecasts, in part because some requests are speculative. Texas is an example of a state that recently required disclosure of speculative interconnection requests and mandated that backup generators be available for grid emergencies.

In New England, data centers are not currently a dominant load growth driver. ISO New England's 2026 CELT report identifies two large projects in the formal study phase, which are expected to begin affecting the system by winter 2027/28.

Water usage for data center cooling has been a major source of concern for the public. Water and other liquids are most often used to cool microchips. While dry cooling is possible, it requires more energy and is less efficient. Many data centers source water from municipal

utilities rather than directly from water bodies which require environmental permits for withdrawal. A growing trend involves data centers using treated wastewater effluent as a water source.

Some hyperscale data centers have adopted water-positive targets and water replenishment programs. Homer noted that Google is targeting a 120% water replenishment rate at all project sites.

Council members asked questions about the quality of water discharged from data centers, whether sustainability goals are driving innovation in cooling technology, and whether the energy consumption projections presented account for electricity generated on-site by data centers. Homer clarified that the projections shown reflected gross electricity demand, not net of any behind-the-meter generation.

Environmental Impacts and Existing Safeguards

Facilitator Stacie Smith shared public input on questions related to environmental concerns from the kickoff survey, as well as preliminary responses to the pre-meeting survey, which asked participants to rank their concerns about environmental issues associated with data centers. In the most recent survey, 37 respondents each ranked their level of concern across nine environmental categories on a scale of 1 to 5 (1 being least concerning and 5 being most concerning). Each category averaged above 4.0, with water supply and river flows rated highest, followed by cooling water discharge and water quality, and land use, wetlands, and habitat.

Maine DEP Commissioner and Advisory Council Co-Chair Melanie Loyzim provided an overview of existing federal and state environmental regulations as they apply to data center development. The presentation walked through the sequence of environmental permitting, from site selection and pre-application studies through permit review, public comment, and facility closure. This presentation was a broad overview and was not exhaustive. The meeting recording, presentation slides and pre-read documents are available on the [Council webpage](#).

Commissioner Loyzim noted that environmental permitting is a multi-step process that can be sequential or concurrent across federal, state, and local levels. Processing timelines for DEP permits are published online. The public may submit comments on any license application under review by DEP.

The presentation covered the following areas of environmental regulation:

Land Use and Site Development: The Site Location of Development Act (SLODA) requires a permit for disturbance of more than 20 acres or creation of more than 3 acres of impervious surface. The Natural Resources Protection Act (NRPA) requires permits for activities in, on, over, or adjacent to protected natural resources, including wetlands, great ponds, rivers, and significant wildlife habitat. Shoreland zoning restrictions apply within 250 feet of surface waters and 75 feet of streams.

Water Use and Discharge: Water is required for most cooling systems in data centers. The presentation detailed three types of cooling systems: air cooling with chilled water, direct-to-chip liquid cooling, and immersion cooling using dielectric fluids. DEP staff presented data on water discharge volumes from Maine industrial facilities to provide context for the volume of water required by data centers, showing that large-scale data centers typically use less water than many water-intensive industries currently operating in the state. Water may be sourced from groundwater, surface water, or municipal supply systems, with usage and discharges governed by multiple regulations.

PFAS: Maine law prohibits the use of PFAS-containing cooling fluids beginning in 2032. Dielectric fluids used in immersion cooling must be characterized and properly disposed of as hazardous or non-hazardous waste.

Ambient Heat and Lighting: SLODA and DEP's implementing rule Chapter 375 call for industrial developments to demonstrate no unreasonable alteration of climate. Lighting may be addressed through SLODA's requirement of no unreasonable effect on scenic character.

Noise and Infrasound: Noise and infrasound may be regulated under DEP Chapter 375 or local zoning ordinances.

The presentation also addressed air emissions and noise requirements for emergency generators, permitting requirements for on-site power generation options, fuel supply and storage, greenhouse gas emissions, prevention of spills, electronic waste management, and other requirements at the time of facility closure. There are currently no decommissioning requirements in place specifically for data centers. Finally, all license applications submitted to DEP will be publicly accessible through the [Maine Enterprise Licensing System \(MELS\)](#).

Public Input: Mentimeter Poll

To inform the Council discussion, members of the public were invited to submit questions about Commissioner Loyzim's presentation via Menti. A complete list of submitted questions is available in Annex 2.

Council Discussion

Council members were asked to focus the discussion on the following prompts:

- Clarifying questions for presenters.
- Identifying priority gaps or considerations that need attention from policymakers.

Additional team members from DEP and PNNL helped answer clarifying questions posed by Council members.

A Council member asked a clarifying question about how existing laws and processes will consider the need for incremental power generation, and where that power will come from. DEP responded that its permitting process considers impact from a proposal at a specific site and would not account for external power generation unless it was contiguous and adjacent to that site. Other clarifying questions addressed regulatory treatment of emergency generators, application of site law to old industrial facilities facing redevelopment, and how the regulatory framework would apply to data centers of different sizes and in different contexts. In response to a question from the public about whether facilities could be designed to avoid the permitting process, DEP staff noted that the only way to avoid regulatory requirements is to not undertake the activities that trigger them.

Council members commented on the thoroughness of the existing regulatory framework and noted that few gaps exist. There was a request to clarify the permitting process for developers and communities so that expectations are understood on all sides. This might take the form of a checklist or guidelines.

The selection of a cooling technology for a data center depends greatly on the center's geographic location, as well as other local environmental considerations. On water consumption and evaporative capacity, Council members discussed whether additional limitations or criteria may be needed. Two examples included restrictions on evaporative cooling, and limits on the amount of water consumed.

PNNL shared recent research findings indicating that heat island effects from data centers are driven more by the size of impervious surfaces than by waste heat itself. Council members expressed interest in exploring the net heat balance and opportunities for waste heat reuse.

Council members discussed noise and associated impacts of continuous 24/7 operations. On noise, members asked whether state regulations are adequate for the type of noise generated by data centers. Statewide limits on decibels or $\frac{1}{3}$ octave bands could be helpful. A member noted that the experience of Maine's wind energy industry demonstrates the value of establishing clear standards in advance so that developers can design to meet it, rather than addressing concerns reactively. Regarding continuous operations, it was noted that people are more sensitive to noise at night when there is lower ambient sound. Minimum distance requirements from residential areas could be considered. Additional questions were also raised about impact on the viewshed.

Next Steps

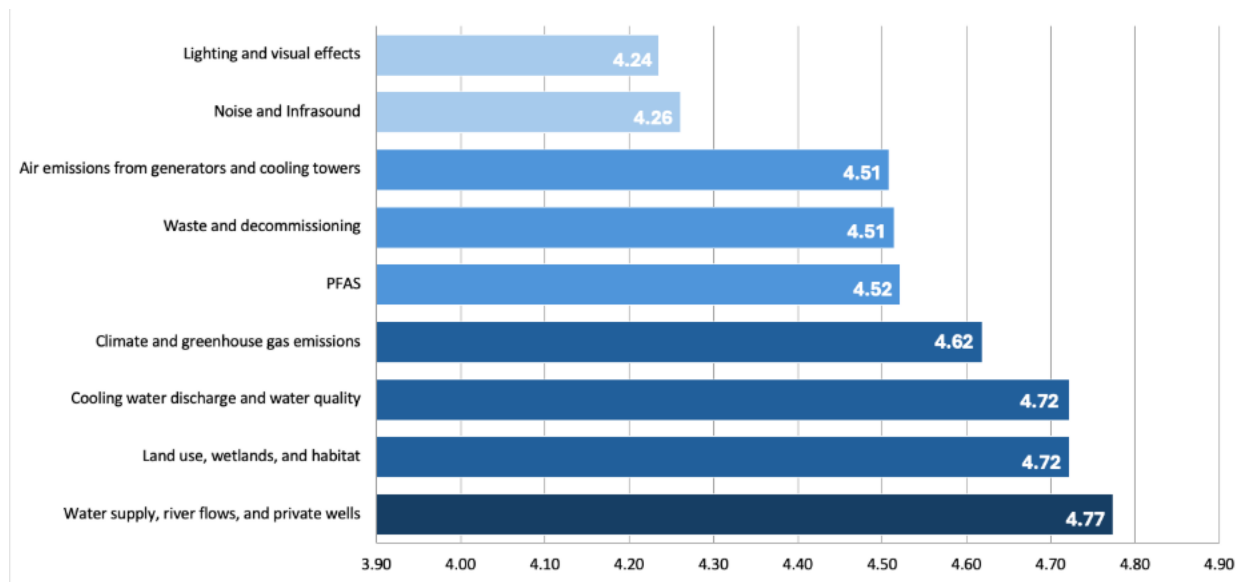
- The survey remained open through June 30, 2026 and participants were encouraged to respond to that following the meeting.
- The next Council meeting will be held on July 9, 2026 from 9:30am-12pm, via Zoom and will be focused on energy considerations pertaining to data centers. Meeting info is available on the [Council webpage](#).

Annex 1: Updated Results from Survey 2

In this survey, members of the public were asked to “rank each of the following environmental considerations related to large-scale data centers based on importance to you, with 1 being least important and 5 being most important.”

The survey closed on June 30, 2026 and received a total of 480 responses. Responses were submitted from residents across 127 unique towns and 15 unique counties in Maine.

The chart below shows the average score for each topic.



Annex 2: Mentimeter Results

Poll #1

At the beginning of the meeting, participants were asked: *Given the agenda and what we've outlined here, what's one thing you want to learn during today's presentation?* A total of 50 responses were received from 26 participants, with several participants offering multiple responses.

- Any gaps in current siting and permitting regulations related to data centers
- Understanding how AI can decrease energy costs for ratepayers
- More about the processes in place to ensure environmental impacts are known and regulated
- What the DEP is thinking about in terms of possible discharge limits on toxics from these facilities as well as water usage
- Current regulations and constraints

- Given the drought conditions in Maine, I want to know about water use and release from data centers
- Water usage
- Environmental impact, water usage compared w/other large load clients
- What concrete questions will the commission be seeking to answer?
- Water protection
- Are there any long-term benefits which accrue to the residents in the environs of a data center?
- Preliminary target of recirculated cooling and require DS owners to produce their own electric plus 10% back into the grid. Need DS people on the panel.
- Water consumption from hyper scale data center
- Natural Resources impact and the negative consequences noted from other states.
- wildlife impacts
- How is interconnecting to the grid and paying for upgrades a part of your conversation?
- I want clear information about what data centers do and why we need to have them in the first place.
- What controls will communities have to protect their communities
- LEARN MORE ABOUT CANDIDATE SITES AND ENVIRONMENTAL IMPACT.
- How are our regulations going to be able to adapt to this unknown level of development?
- Does DEP currently have authority to impose closure and post-closure requirements on data center development?
- Current technology on cooling - not all use water but how do they work
- Do we have a sense of how many developers have shifted to closed-loop cooling?
- Are there classes of size of data centers?
- Wildlife impacts
- Are there options to lower water usage?
- R&D Opportunities led by Maine
- PFAS
- How will Maine policy makers protect communities/ratepayers?
- Need to have goals before policy.
- Can the creation of the data centers be put to vote in November for public voting?
- Energy usage
- Where/what will be the access points for targeted communities to have meaningful input and agency in the process that will frame decisions about whether/if Maine allows data centers.
- What are the success and horror stories from data center implementation in other states.
- Post-construction and pre-construction monitoring requirements given novelty
- Isn't it true that water districts have an existing responsibility to ensure water usage does not exceed sustainable flow?
- How does water use compare on relative basis to - for example - paper mill usage
- Economic impact vs environmental impact.
- Habitat impacts
- Difference between data centers and other industrial sites
- Next steps for the council and priorities

- We need a geothermal person to elaborate on cooling and heating, and how that technology works with data centers.
- Can we also calibrate the conversation to the size we are talking about. Impacts of a 20 mw are different than a 1,000 mw facility.
- How can data centers improve life in maine?
- If we require data centers to produce their own electricity, plus a percentage into the grid, perhaps their engineers can save Maine money in the design process?
- Data Centers need many different ISP options. Bringing more ISPs to Maine can assist rural areas with internet access and bring a stronger backbone to Maine. Please evaluate.
- AWS is the most profitable branch of Amazon. If Amazon wants warehouses in Maine, they should provide engineering support for data centers. AWS is a data center...
- May a wastewater treatment plant provide water to data center, and the data center, after cooling, send the water back to the treatment plant (closed loop)?

Poll #2

What clarifying questions do you have about DEP's presentation? We received 39 answers from 23 participants, with several participants offering multiple answers.

- Permitting triggers are usually direct impacts from building, but what about indirect and operational impacts - ie heat islands that won't be captured in permit triggers as written now
- In the example from PNNL about municipal water, are there areas in Maine where adding a large user to an existing water/wastewater system would help the community with affordability of infrastructure.
- While it's great that PFAS is banned in 2032, what happens between now and then if a facility is built? Are their PFAS discharge limits, both water and emissions?
- I've heard of hyperscale data centers in other states who have skirted zoning restrictions by starting small or finding gaps in guidelines. What does Maine's process look like for monitoring this?
- I think more comparisons to similar facilities in Maine are need to compare such as hospitals as they would be closest to data centers on criteria, maybe major bio labs and a chip plant too.
- Site license are based upon acreage? What is the site expanded underground (for example)?
- Is there a checklist for selectboard/code enforcement officers to follow to ensure they are responding appropriately to a data center business application and building permit?
- Not hearing how the public exercises access and agency to influence decisions.. A chance to comment when decisions are set, is NOT public participation. It is a prearranged outcome . . .
- Can you think of any aspect of data center development and operation that is not covered by existing statues at either the state or local level? It seems to me that we have things covered.

- A NEW NUKE WOULD ALSO REQUIRE COMPLIANCE WITH THE STATUTORY REFERENDUM REQUIREMENT
- At what outside ambient temperature is dry cooling more efficient than wet cooling for a Datacenter?
- There seems to be a lot of unknowns about water usage, quality of waste/discharge water. That seems to be a large gap for a state struggling with drought and water quality issues.
- What is the difference in permitting for greenfield and brownfield in terms of timing? The timeline Melanie had appeared to be for greenfield sites
- Are there issues with electromagnetic radiation? Also, what are the predominant acoustic sources in a data center?
- Commissioner Loyzin talked about the effects of generated heat on wildlife, but that should also be extended to sensitive plant communities and other adjacent natural areas.
- What can we learn from success and failures in data center deployment in other states? Are there any cautionary tales that might be relevant to Maine?

Which regulatory gaps should be the focus of future Council discussions? We received 14 answers from 10 participants.

- Operational impacts can potentially be more impactful than building footprint and may fall through the cracks in current regulatory framework.
- Discharge limits. Even with current PFAS regulations there is a gap until those go into effect. Water usage. Need some guidance around that.
- I think water use and discharge are most important, followed by noise pollution
- Support for municipalities/model ordinances
- Sounds like there's pretty much a consensus that 99% of raised concerns are already covered by existing laws
- Data Centers can go, ideally underground, for consistent temperature and security for government contracts. Does this change the DEP matrix?
- Policy implementation from state to local
- Public participation e.g., referendum-level engagement in large data center establishment in Maine - similar to what was discussed about what would be required of nuclear power in the state
- How communities can have access and agency that matters . . .
- The issue of acoustic noise and vibration seems to be the main hole we have in regulatory statutes relevant to data centers. The discussion regarding noise held at the meeting was pretty naive...
- Some of the DEP regs are super vague and we may need specific data center ones, similar to our mining laws
- If a data center taps into Canadian power, that reduces regulations, right?
- this committee needs to bring in an expert in environmental noise and an expert in the mechanisms for noise generation (relevant to data centers) to discuss technical issues.

- The best way (by far) to mitigate noise problems is at the source. It is essential that developers are given clear guidance on the noise restrictions at the outset.