



MAINE DEPARTMENT OF
Energy Resources

**Transmission Planning
Stakeholder Group Meeting #6
Pursuant to Resolve 2025, ch. 57**

August 5, 2026

Resolve 2025, ch. 57

To Direct the Governor's Energy Office (now DOER) to Conduct a Study Regarding the Future of Electric Transmission Infrastructure in the State



DOER will **coordinate with state agencies** involved in the siting, permitting and regulation of electric transmission infrastructure and **solicit information from a stakeholder group** to assist in conducting the study under section 1.



DOER must submit a report with an overview of the study and any recommendations **to the Legislature by September 1, 2026.**



DOER will **include any comments provided by the stakeholder group as an appendix** to the report of the study.



The Maine Transmission Infrastructure Study

Pursuant to the legislation, the study must include a review of:

- 1. Existing processes for the siting and permitting of new and upgraded electric transmission infrastructure in the State;*
- 2. Best practices related to electric transmission planning, siting, permitting and community engagement from other states or regions;*
- 3. Existing analyses of future electric transmission needs in the State necessary to integrate new renewable resources as well as to ensure reliability, improve market efficiency or support the achievement of the State's policy goals;*
- 4. Types of existing rights-of-way and opportunities for potential use of those rights of-way for siting of electric transmission infrastructure in the State; and*
- 5. Existing and emerging technology and construction methods...including strategic undergrounding and a cost-benefit analysis comparing buried high-voltage direct current lines with aerial high voltage alternating current lines and aerial high-voltage direct current lines.*



Today's Agenda

- Review of **stakeholder process** to date and **remaining opportunities** for engagement
- Presentation by E3 to provide **overview of the Draft Study** and acknowledge outstanding stakeholder comment(s)
- Facilitated Q&A and time for **public input**
- Close-out and **next steps**



Transmission Updates

ISO-New England LTP

- ISO-NE has selected the preliminary preferred longer-term transmission solution, submitted by Central Maine Power and Eversource.
- The preliminary preferred solution has a benefit-to-cost ratio (BCR) of 2.17.
- The ISO's [draft report](#) details the results of all technical analyses, cost-benefit calculations, and the basis for the selection of the preliminary preferred solution.

Northern Maine Renewable Energy Development Program

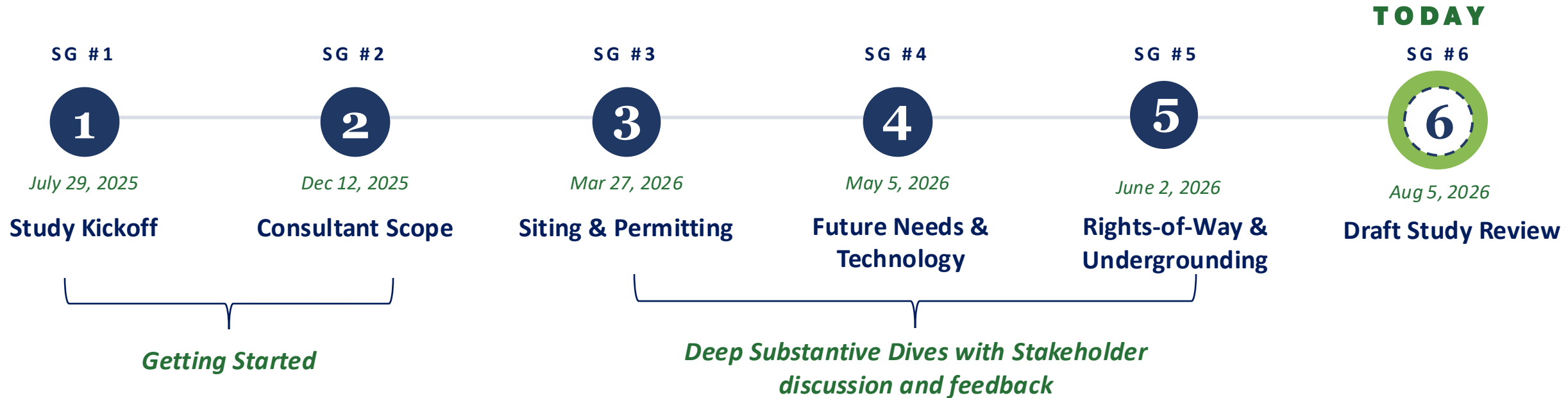
- On April 28, 2026, after reviewing the proposals that had been received, the Commission issued an amended RFP and reopened the bid window.
- The April 28 Order established deadlines for bids up to June 12, 2026, and indicated awards could be made beginning as early as June 2026.

Greater Portland CPCN

- The Commission convened an initial case conference on July 23, 2026.
- CMP notified parties of a rerouting of a portion of the proposed transmission line, which introduced four to five new abutting landowners who may wish to intervene.
- The parties of the case conference agreed to the initial schedule to the proceeding. Three technical conferences are currently scheduled for mid-September.



Where We Started, Where We Are, What's Next



ENGAGEMENT AHEAD

DOER is accepting written comments on the Draft Study until August 17, 2026.

- Written comments received by the above date will be submitted with the Final Study to the Legislature.
- Please send written comments to doer@maine.gov.

DOER is exploring how to apply engagement best practice in Maine. More details to come!



Today's Goals

- Familiarize Transmission Stakeholder Group members with the Draft Study, **generating initial reactions and feedback**
- Highlight how the Study has **evolved** over the past year based on **group members' input**
- Provide opportunity to discuss the **stakeholder engagement process** and **next steps for Maine** once the Study is complete



Maine Transmission Infrastructure Study

Stakeholder Meeting #6

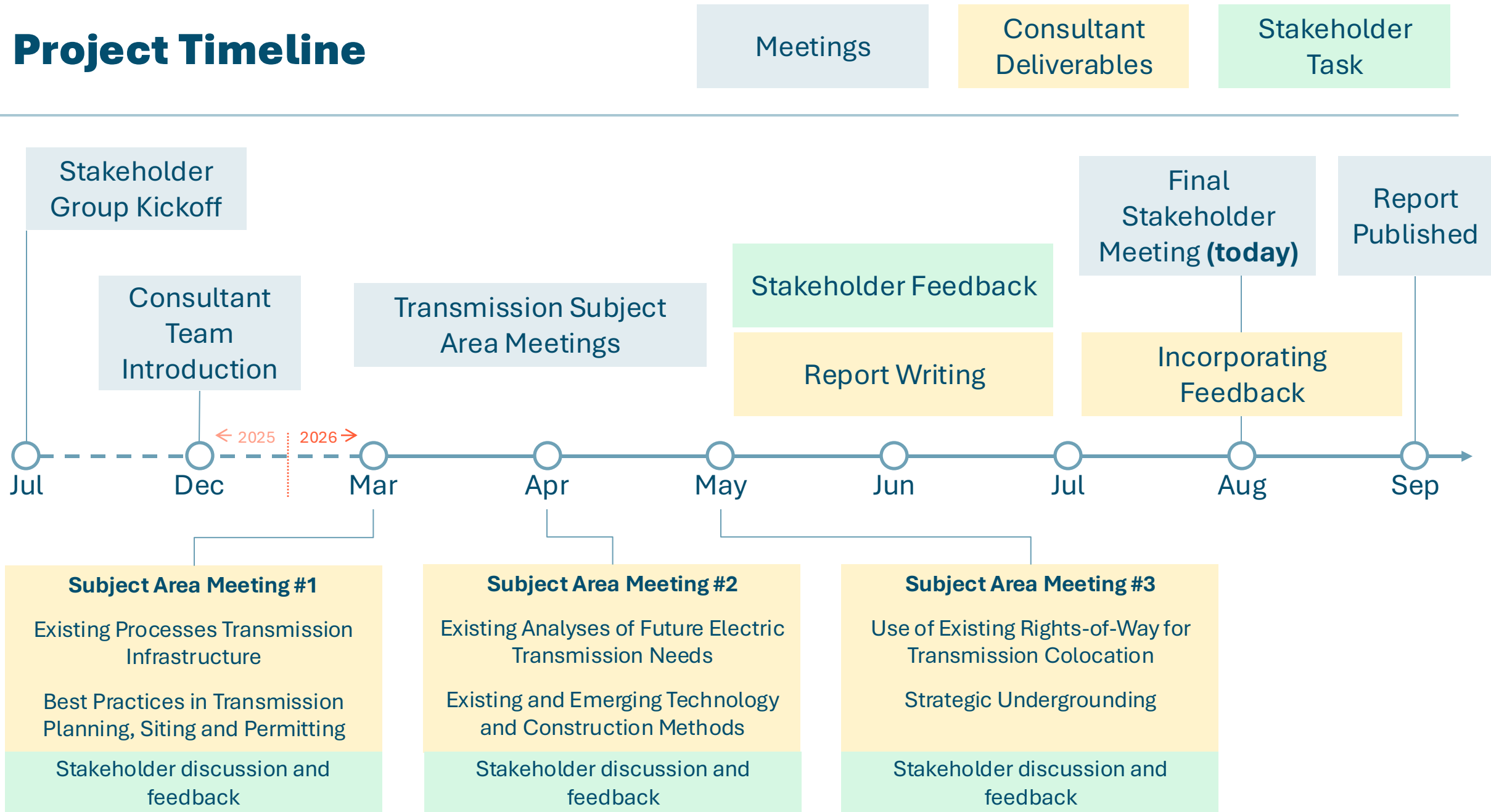
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Project Timeline



Report Overview

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Feedback Review Process: Overview

Thank you to all stakeholders who shared feedback during this process, both live during the stakeholder group meetings, and via written comments shared with DOER. Your input helped advance the discussion, add valuable perspective to the narrative, and highlight additional areas worthy of investigation.

All feedback received has been recorded, and wherever possible within the bounds of this study scope*, have been addressed in the final report and documentation

Major Categories of Feedback Received and Incorporated:

**Framing of Key
Issues and Emerging
Topics**

**Refinements
to Characterization
of Existing
Processes and
Studies**

**Expansion and
Deepening of Best
Practices
Discussion**

**Details and Data
Sourcing**

*Some few comments suggested changes to the report scope or timeline outlined in LD 197, and/or advocated for specific policy changes or official state positions on ongoing processes or procedures; these were out scope for this study and so are not directly addressed by E3

Feedback Review Process: Response Details

+ Important framing on key issues and emerging topics

- Stakeholders shared perspective on many of the thorniest transmission planning challenges in the state, as well as the emerging technologies and development options considered. These included:
 - Specific perspectives on advanced transmission technologies
 - Discussion of the pros and cons of transportation colocation
 - Discussion of both affordability and siting priorities
 - Considerations related to potential undergrounding
- The project team incorporated perspectives on each of these elements where possible

Feedback Review Process: Response Details (1/2)

+ Important framing on key issues and emerging topics

- Stakeholders shared perspective on many of the thorniest transmission planning challenges in the state, as well as the emerging technologies and development options considered. These included:
 - Specific perspectives on advanced transmission technologies,
 - Discussion of the pros and cons of transportation colocation
 - Discussion of both affordability and siting priorities
 - **Considerations related to potential undergrounding**
- The project team heard and incorporated perspective on each of these elements where possible

<< DOER received written feedback about this specific topic since the last stakeholder session, so we thought it worthy of some targeted discussion on the call today

Targeted discussion on underground v. overhead transmission costing

+ Feedback Received

- Some stakeholders suggest that cost premium of underground HVDC relative to overhead AC transmission was overstated, citing one 2022 study from Minnesota that suggested that the technologies are more cost-competitive

+ E3 conducted additional investigation into recent costs of underground transmission projects

- The cost ranges shown in the Minnesota study **do not align with updated costs** for the projects referenced; installed costs for those same projects indicate underground HVDC is on average 5x higher cost than overhead AC
- Undergrounding costs can vary widely by **A) geology** (soils that can be trenched to an appropriate depth are much easier to install in than bedrock), **B) right-of-way** (use of existing rights of way or colocation with transportation can substantially reduce costs relative to greenfield development), and **C) location** (dense urban installation is more costly than rural).
- HVDC carries economies of scale, but undergrounding doesn't; on average it is a higher cost installation approach regardless of whether using AC or DC technology

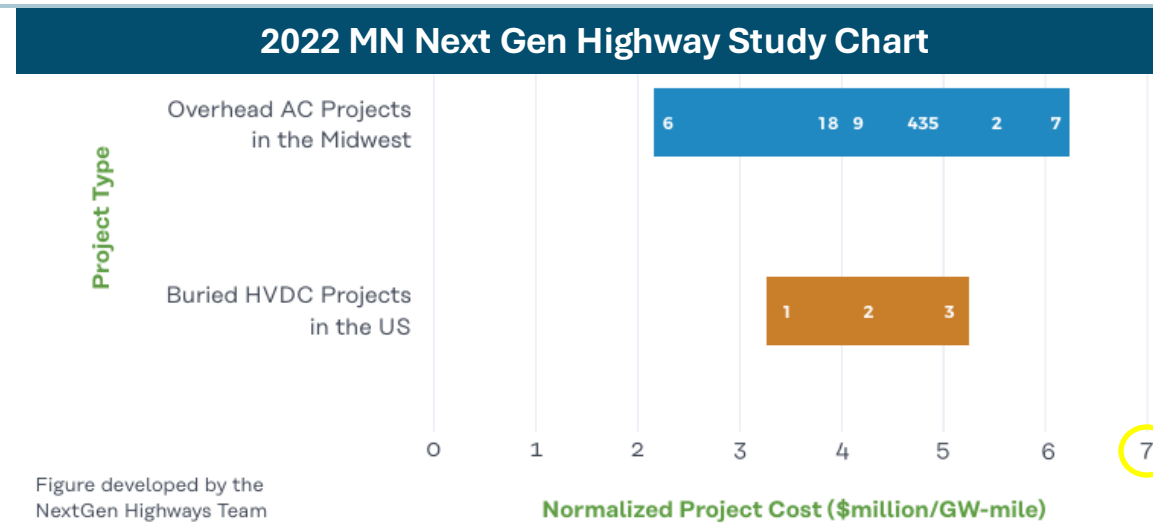
Resulting Cost Comparison with MN Report

+ MN report used earlier developer cost estimates, some of which have increased

- E3 analysis finds ~5x price difference between underground HVDC and overhead AC projects

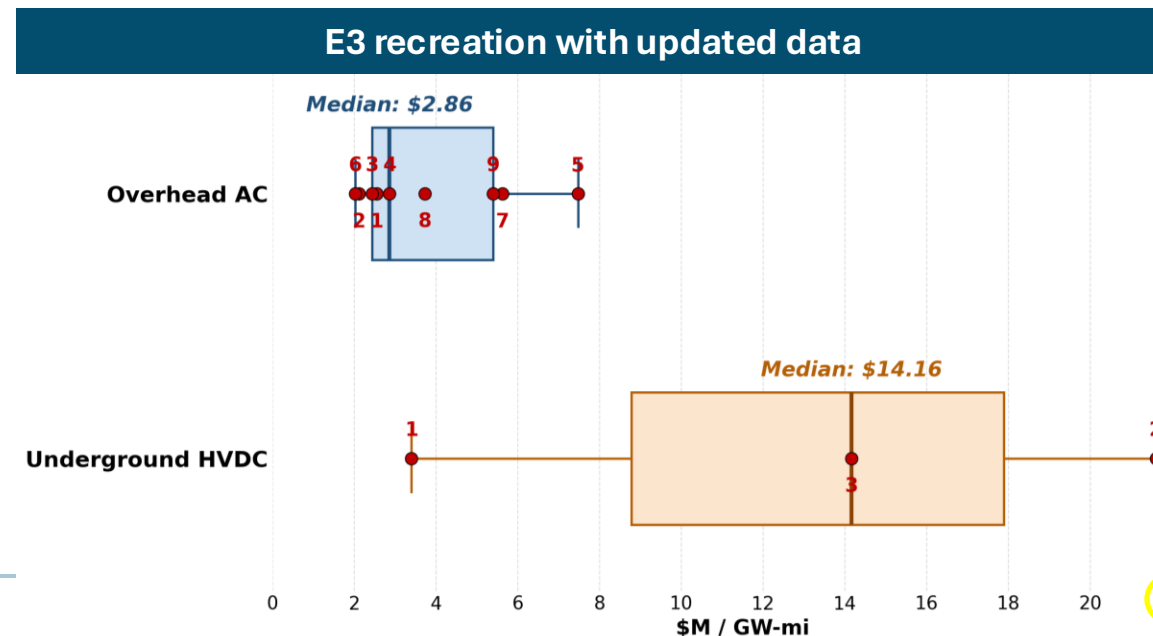
+ Of the underground HVDC projects:

- #3 (CHPE) has since been built, allowing us to use the final approved costs
- #2 (CPNY) advanced through approval stages, refining its cost expectations before ultimately being canceled
- #1 (SOO Green) is still early stage and merchant
 - Since it's not part of a public procurement, costs are not transparent
 - It's expected to enter service in 2031, at which point final cost data will hopefully be available
 - SOO Green also follows an existing railroad ROW along a route suitable for trenching, potentially enabling lower cost development



Overhead AC Projects Included

1. MISO MVP: Brookings, SD - SE Twin Cities
2. MISO MVP: Lakefield - Winnebago - Winco - Burt Area & Sheldon - Burt Area - Webster
3. MISO MVP: Winco - Lime Creek - Emery - Black Hawk - Hazleton
4. MISO MVP: N. LaCrosse - N. Madison - Cardinal (Badger Coulee)
5. MISO MVP: Cardinal - Hickory Creek
6. MISO MVP: Big Stone South - Ellendale
7. MISO MVP: Maywood - Herleman - Meredosia - Ipava & Meredosia - Austin
8. MISO MVP: Pana - Faraday - Kansas - Sugar Creek
9. MISO MVP: Reynolds - Burr Oak - Hiple

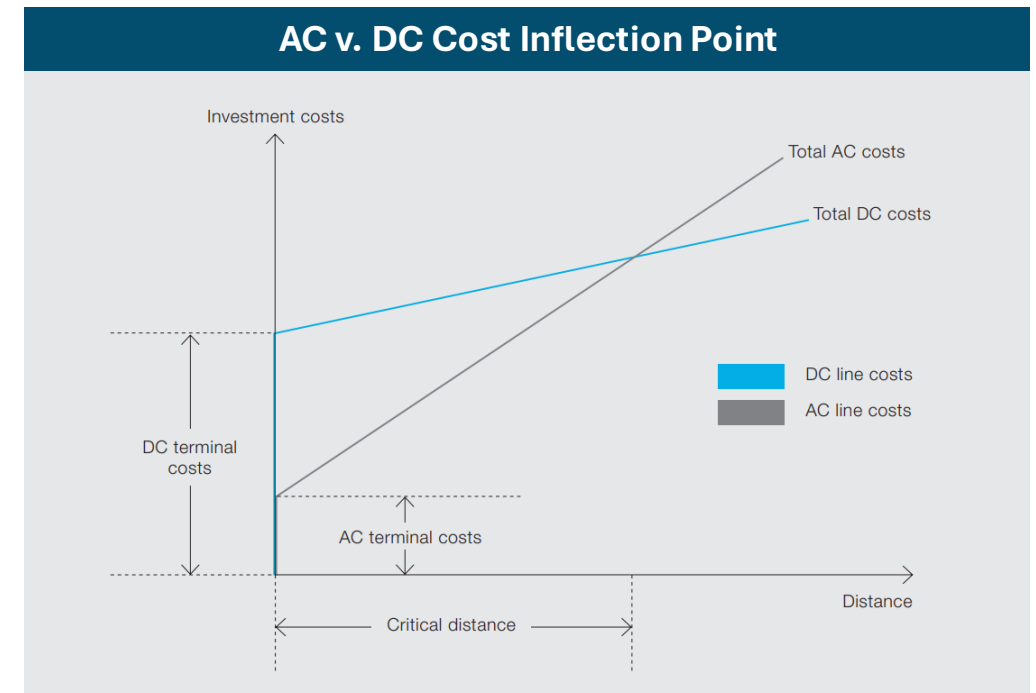


Underground DC Projects Included

1. SOO Green HVDC Link
2. Clean Path New York
3. Champlain Hudson Power Express (CHPE)

Considerations for Report

- + Based on this feedback and subsequent investigation, E3 recommends some framing updates to the report to better capture some nuance related to undergrounding:
 - Additional detail on the types of conditions that could lead to undergrounding being relatively more or less expensive (e.g. geology, ROW, and location)
 - Reiteration of the need for comprehensive study to determine beneficial transmission solutions, including evaluation of HVDC and AC options, and underground v. overhead installation approaches
 - Reiteration of the recommendation to consider undergrounding strategically given the cost premium associated with that installation approach
 - Clarification around potential economies of scale associated with HVDC and the relationship between both distance and capacity size for determining if HVDC could be a preferred solution to AC (as illustrated in the chart to the right)



Feedback Review Process: Response Details (2/2)

+ Refinements to characterization of existing processes and studies

- Stakeholders directly involved in key planning and permitting steps helped review, confirm, and refine the characterization of those processes, as well as the discussion of the needs analyses
- Perspectives shared from stakeholders who have navigated these processes were also incorporated in the narrative

+ Expansion and deepening of best practices discussion

- Many stakeholders shared input on best practices at each stage in the planning, permitting, and community engagement process, and these comments helped shape the final version of that best practices section and associated appendix

+ Additionally stakeholders helped us refine many details including specific citations and data sourcing

Q&A and Discussion Guidelines

- **This is a meeting of the Stakeholder Group**
 - *We'll take questions and comments from observers if there is time*
- **It's OK to bring different perspectives**
 - *Show others the respect you'd want people to show you*
- **Please be brief**
 - *Share the space with others and send any additional feedback via email (doer@maine.gov)*
- **Please stay on topic**



Remaining Steps for Engagement

- Thank you for your input and engagement through the development of the Maine Transmission Infrastructure Study, pursuant to Resolves 2025, Ch. 57.
- The draft Study is available on DOER's website and is open for **written comment until August 17, 2026.**
- Written comments should be submitted by email to DOER@maine.gov. Written comments that are sent to DOER by the deadline **will be included with the final report** as an appendix when it is submitted to the Energy, Utilities and Technology Committee in September.



Help Shape the Next Maine Energy Plan



Attend a public workshop in Portland, Presque Isle, or Bangor

- **Portland**: August 19, 2026, 5:30 – 7:30 p.m. at Glickman Family Library, University Events Room
- **Presque Isle**: August 24, 2026, 5:30 – 7:30 p.m. at Mark and Emily Turner Memorial Library
- **Bangor**: August 25, 2026, 5:30 – 7:30 p.m. at Bangor Public Library

Share your feedback using the **online survey**

- DOER will continuously review responses and use them to inform development of the Energy Plan

Request a meeting or a presentation with DOER staff

- DOER will endeavor to reach as many interested groups as possible

Sign up for email updates [Link to access DOER website](#) to stay informed about the 2027 Energy Plan

- Future public meetings to provide updates, share draft information, and obtain additional feedback will be announced by email



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Thank You

doer@maine.gov

www.maine.gov/energy

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