Public Utilities Commission Requirements when Constructing Transmission Lines of 100 kV or Higher

Rule or law that applies to PUC approval requirements: 35-A M.R.S.A. § 3132 and Chapter 330 of the PUC's Rules.

Approvals required: Before constructing a transmission line of 100 kV or higher, a T&D utility must receive a Certificate of Public Convenience and Necessity (CPCN) from the PUC. Transmission lines lower than 100 kV need no CPCN.[1]

Additional requirements:

- A transmission line that connects a new generator to the ISO-NE grid needs ISO-NE approval. Under its Rule 18.4, ISO-NE requires a review to establish that the New England grid remains safe and reliable. For more information, contact ISO-NE (web site: www.iso-ne.com). A transmission line that connects a new generator to the Maritimes Control Area grid in Northern Maine needs NMISA approval under Rule NMMR #6.5. For more information, contact the NMISA at 207-992-4724.

- A line in a public way requires approval by the licensing authority (Department of Transportation, a municipality, or a county) and must follow all requirements of that authority, pursuant to 35-A M.R.S.A. §§ 2501-2503. Permission from a railroad owner is also required for a line along a railroad, pursuant to 35-A M.R.S.A. § 2311; the PUC may resolve a dispute.

- Construction must conform to the National Electric Safety Code (NESC), pursuant to 35-A M.R.S.A. §2305-A.

- Department of Environmental Protection or Land Use Regulation Commission approval is required, depending upon location.

Process: The utility files a petition for CPCN. The PUC will conduct a proceeding, including a public hearing and discovery as necessary. The PUC must issue its decision within 6 months unless both parties agree to the extension or the petitioning party would otherwise be disadvantaged. Other approvals are required; if the utility adjusts its proposal to comply with other permission requirements, it must file the revisions with the PUC. For more detail, see the PUC's flowchart and 35-A M.R.S.A. § 3132.

Content of Petition: Chapter 330 of the Commission's Rules describes the items that must be included in a petition. Briefly summarized, they include the proposed location and impacts, the location of various features such as parks, historic areas, streams, etc., the physical and electrical characteristics of the line, a description of the corridor, costs, required

[1] A line of 69 kV or higher built by or for Northern Maine Transmission Corporation requires a CPCN. 35-A M.R.S.A. § 3132(2).

grid revisions, alternative routes considered, alternatives to construction such as load reduction, and the impact on grid reliability. The applicant should review Sections 10 and 11 of Chapter 330 for more detail.

Demonstration necessary for CPCN: The utility must demonstrate "need for the proposed transmission line." 35-A M.R.S.A. § 3132(6).

Standard by which CPCN decision is made:

There is no specific statutory provision as to what constitutes "need.".
Issues the PUC will likely consider include but are not limited to:

- harm to ratepayers (financial risk to ratepayer money)
- whether the line is required because of open market forces (the PUC generally believes that if the new transmission line is needed to connect new generation built by private investors and the private investors will pay for the new line, "need" is established)
- whether the line creates duplication of services
- whether the line is in another utility's service territory
- harm to another utility's ratepayers (bypass)
- whether the line is good for the region economically
- whether there is a more economic route
- whether there is a "better" route considering other criteria (such as State laws and requirements)
- whether the line maintains the safety and reliability of the grid and of the line

Standard by which ISO-NE approval of safety and reliability is made: Section 18.4 of the NEPOOL agreement outlines engineering and technical requirements that ensure safety and reliability of the grid

Miscellaneous: A T&D utility may take land by eminent domain for construction of a transmission line, upon approval by the PUC. 35-A M.R.S.A. § 3136.

Public Utilities Commission Requirements when Installing Private-use Distributed Generation

Net Energy Billing

Net energy billing is available for generation using a renewable fuel or technology[2] from a facility with installed capacity of 100 kW or less to serve the customer's own electricity requirements.

Rule that applies: PUC's Chapter 313.

Purpose of rule: To "ensure an adequate and reliable supply of electricity for Maine residents and to encourage the use of renewable efficient and indigenous resources" (35-A M.R.S.A. §3210 (1))

Approvals required: T&D utility must approve facilities' construction and operation as it relates to interconnection with the utility grid.

Process: Customer contacts the utility. A utility employee visually inspects the interconnection. Customer and utility sign a contract, available from the utility.

Demonstration necessary: Generally an engineering demonstration that the interconnection and generation does not jeopardize the safety of utility line workers or the integrity of the grid.

Standard by which decision is made: In general, utilities require that the applicant followed good engineering and technical practices and complied with NESC requirements. Generators <100 kW are generally plug-and-play, with minimal demonstration necessary. The applicant should confer with the utility for more details. Utility standards may be published and available to the applicant before construction.

[2] Renewable fuels are as defined in 35-A M.R.S.A. §3210(2)(C): fuel cells, tidal power, solar arrays and installations, wind power, geothermal, hydroelectric, biomass, or municipal solid waste in conjunction with recycling.

Public Utilities Commission Requirements
when Installing Private-use Distributed Generation

Generating Capacity Exceeding 100 kW[3]

Rule that applies: None

Approvals required:

- T&D utility approval of interconnection with the utility grid
- If transmission line is required, see Transmission section of this document
- FAA approval if over 200 feet
- Local planning or siting board approval
- Army Corp of Engineers if wetlands affected
- Department of Environmental Protection or Land Use Regulation Commission approval depending on location

Process: Customer contacts the T&D utility. Utility examines the customer's facility specifications and determines upgrades that must be made to the utility grid. Customer must pay for the interconnection, and generally must pay for upgrades to the grid (this varies with the situation). Customer must sign an interconnection agreement with the utility.

Demonstration necessary: Generally an engineering demonstration that the interconnection and generation does not jeopardize the safety of utility line workers or the integrity of the grid. Utility standards may be published and available to the applicant before construction.

Standard by which decision is made: In general, T&D utilities require that the applicant followed good engineering and technical practices and complied with NESC requirements. The applicant should confer with the utility for more details.

[3] These requirements also apply to generation capacity lower than 100 kW when net billing is not desired.

Public Utilities Commission Requirements when Constructing Distribution Lines or Transmission Lines of 100 kV or Lower

Rule or law that applies to PUC approval requirements: None regarding approvals.

Approvals required: None. The utility must observe certain construction requirements. The PUC can investigate the utility for unreasonable utility practices if there is reason to doubt compliance.

A line in a public way requires approval by the licensing authority (Department of Transportation, a municipality, or a county) and must follow all requirements of that authority, pursuant to 35-A M.R.S.A. §§ 2502-2503. Permission from a railroad owner is also required for a line along a railroad, pursuant to 35-A M.R.S.A. § 2311; the PUC may resolve a dispute.

Construction must conform to the National Electric Safety Code (NESC), pursuant to 35-A M.R.S.A. §2305-A.

Miscellaneous: A T&D utility may not take land by eminent domain for distribution line construction.