

# STATE OF NEW HAMPSHIRE

## Intra-Department Communication

**DATE:** March 10, 2023

**AT (OFFICE):** NH Dept. of Energy

**FROM:** Michael Soucy *MRS*  
Administrator III – Division of Enforcement

**SUBJECT:** CRE 2023-005 Eversource Energy  
Application for License to Construct and Maintain Electric Lines over and across public water and state-owned land in the City of Dover, and across public waters in the Towns of Durham, Lee and Nottingham, New Hampshire.

### **Staff Recommendation**

**TO:** Jared Chicoine, Commissioner, Department of Energy  
Christopher Ellms, Jr., Deputy Commissioner, Department of Energy

**CC:** Thomas Frantz, Director of Regulatory Support Division  
Paul Kasper, Director, Enforcement Division  
Elizabeth Nixon, Director-Electric Regulatory Support Division  
Andrew Harmon, Hearings Examiner, Enforcement Division

Review by the Division of Enforcement (DOE) of the above application consisted of the following elements:

- Application contents, replacement application contents, and history;
- Applicable State statutes;
- Review of the existing crossing(s) previously licensed by the PUC, if any;
- Review of land ownership of existing pole structures;
- Review of NESC code requirements as described in Puc 300;
- Review of public need and public impact, including applicability of other State regulations; and
- Conclusions and Recommendations.

### **1. Application contents and history.**

On February 22, 2023, Public Service New Hampshire d/b/a Eversource Energy (Eversource, ES or the Company) filed an application for a license pursuant to RSA 371:17 to construct and maintain the Eversource 307 Line, an existing 345 kV transmission line, over and across public water and state-owned land in the town of Dover, and across public waters in the towns of Durham, Lee and Nottingham, New Hampshire.

The Eversource 307 Line is a 345kV overhead transmission line which was originally built in 1972 between the Eliot Substation in Eliot, Maine and the Deerfield Substation in Deerfield, New Hampshire.

The proposed project for the 307 Line encompasses replacing the single existing alumoweld static wire with an optical ground wire (OPGW) at the pole top position. The crossing at Exhibit 3 (Structures 65 and 66) currently has two alumoweld wires and one pole top alumoweld will be replaced with the proposed OPGW. At the other crossing locations, an existing OPGW will remain, and the existing alumoweld wire will be replaced with the proposed OPGW. All the structures at the waterbody crossing locations are steel structures which are to remain. Structures 49 and 50, at the Piscataqua River crossing, and Structure 65 at the Bellamy River crossing are original steel structures installed when the line was built in 1972 and are not in need of replacement. Structures 106 and 107 at the Oyster River crossing, and Structure 161 at the North River crossing were replaced from wood to weathered steel in 2015. Structure 162 at the North River crossing was replaced from wood to weathered steel in 2017, and Structure 66 at the Bellamy River crossing was replaced from wood to weathered steel in 2018. These prior structure replacements were not licensed owing to oversight and the 307 Line will be fully licensed as a result of this application. Existing phase conductors will remain unchanged.

The specifications and loading conditions to establish maximum sag for the crossing spans that are the subject of this application were indicated on the Profile View and Cable Schedule of Exhibits 2 through 5 submitted by ES. The conductor clearance requirements pursuant to the NESC based on the design conditions at 285 deg F and the 100-year flood level have been met. Staff verified the depicted sag clearances using Sag10 commercial software with the data inputs as stated in the application.

All prior structure replacement locations were installed within 10 feet of the original locations. The locations of the public water crossings and state-owned land that are the subject of this application are depicted on the Overview Map attached hereto as Exhibit 1 submitted by ES, and the DOE Maps attached to this recommendation. Exact locations of the structures are expressed with Latitude and Longitude on exhibits 2 through 5 submitted by ES.

The location of Structures 49 to 50 in this application creates a total span of 1099.8 feet with a span of 825.7 feet crossing the Piscataqua River in the City of Dover.

The location of Structures 65 to 66 in this application creates a total span of 829.4 feet with a span of 355.9 feet crossing state-owned land and 200 feet crossing the Bellamy River in the City of Dover.

The location of Structures 106 to 107 in this application creates a total span of 1095 feet with a span of 48.3 feet crossing the Oyster River in the Towns of Durham and Lee.

The locations of Structures 161 to 162 in this application creates a total span 1002.9 feet with a span crossing 36.2 feet crossing the North River in the Town of Nottingham.

The following table provides the summary of this application with the crossing to include structure numbers, types, spans, ES design criteria, and NESC compliance.

**Department of Energy Enforcement Division Summary Table**

Eversource 307 Line - State Land and Waterbody Crossing Details					
Structures	Type	Span Distance (feet)	Minimum NESC Table 232-1 Clearance (ft.)	ES Vertical Design Clearance (ft.)	Complies with NESC Table 232-1 (Y/N)
49-50	49 – Steel Lattice Tower 50 – Steel Lattice Tower	1099.8	46.8	71.4	Y
65-66	2 – Steel Running Angle 3 – Steel Type SEA-HF	829.4	Land 24.8 Water 46.8	31.2 52.5	Y
106-107	106 – Steel Type H-Frame 107 - Steel Type H-Frame	1095	23	39.2	Y
161-162	161 - Steel Type H-Frame 162 - Steel Type H-Frame	1002.9	23	27.9	Y

**2. New Hampshire statute referenced in application (as modified by N.H. House Bill 1258 on August 22, 2022).**

**371:17 Licenses for New Poles** – Whenever it is necessary, in order to meet the reasonable requirements of service to the public, that any public utility should construct a pipeline, cable, or conduit, or a line of poles or towers and wires and fixtures thereon, over, under or across any of the public waters of this state, or over, under or across any of the land owned by this state, modify a previously licensed installation, or license a previously constructed installation, it shall apply to the department of energy for a license to construct and maintain the same. For the purposes of this section, “public waters” are defined to be all ponds of more than 10 acres, tidewater bodies, and such streams or portions thereof as the department of energy may prescribe. Every corporation and individual desiring to cross any public water or land for any purpose herein defined shall apply to the department of energy for a license in the same manner prescribed for a public utility. The department of energy may condition any license issued under this paragraph in any manner necessary to assure that the license may be exercised without substantially affecting the public rights in public waters or state-owned lands. Using a non-adjudicative process, the department of energy may reject incomplete or improperly filed applications, and shall, also using non-adjudicative process, issue or deny the license within 90

days of receiving a complete application and all information subsequently requested of an applicant. 371:17 Licenses for New Poles (eff. Aug. 20, 2022)

**3. Review of existing license(s) and permissions previously granted by the PUC for this location over and across public water and state-owned land in the town of Dover, and across public waters in the towns of Durham, Lee and Nottingham, New Hampshire.**

The public water crossings at the Piscataqua River and the Bellamy River that are the subject of this application were licensed in 1953 under D-7649-13 (Order # 6668) and 1954 under D-E3341 (Order #6471), respectively, copies of which are included with this application submission. The public water crossings at the Oyster River and the North River that are also the subject of this application were not previously licensed owing to oversight, or that the waterbodies were not designated as public waters at the time the 307 Line was built. The 307 Line in New Hampshire will be licensed in its entirety as a result of this application.

The Piscataqua River in Dover is listed under the “Estuary” category in the Official List of Public Waters (OLPW). The Bellamy River in Dover from the outflow of the Bellamy Reservoir, the Oyster River in Durham/Lee from the juncture of Duby Brook in Madbury and the North River in Nottingham from the juncture of unnamed 3rd order stream are listed under the category “Public Rivers and Streams” in the OLPW. The entire list of public waters can be accessed through the following web link:

<https://www.des.nh.gov/sites/g/files/ehbemt341/files/documents/olpw.pdf>

Eversource asserts that a New Hampshire Department of Environmental Services (NHDES) Statutory Permit by Notification (SPN), and Shoreland Permit Notification (PBN) will be required for temporary impacts associated with the wire replacements described in this application and will be obtained prior to commencement of construction. NHDES Utility Maintenance Notifications were obtained to account for temporary wetland impacts related to the previous structure replacements, in 2015, 2017 and 2018, NHDES Permit # 2015-00650, 2017-00160, and 2018-00304, respectively.

The U.S. Army Corps of Engineers (ACOE) regulates the Piscataqua River and the Bellamy River as navigable waters, and the scope of work discussed in this application at the subject crossing location will be licensed via Self-Verification under the ACOE New Hampshire Programmatic General Permit #4. This licensing will be accomplished prior to commencement of the maintenance project. The Oyster River and North River crossing locations are not regulated by ACOE as navigable waters.

**4. Review of land ownership of proposed pole structures.**

In its application, Eversource specifies that the wire installation work will be accomplished within existing right-of-way easements, thereby mitigating impacts and concerns of property owners affected by the project scope.

## **5. Review of NESC code requirements as described in Puc 300.**

The Enforcement Division staff reviewed the specifications related to the wire replacement work of this crossing project as described in the application, attachments, and all supplemental support documents and corrections filed by the Company and found them to be in conformance with N.H. Admin. Rule Puc 306 and applicable sections of NESC C2-2012.

## **6. Review of public need and public impact.**

The 307 Line is an integral part of Eversource's existing electric transmission system in New Hampshire. The crossing locations identified in the application are in the City of Dover, and the Towns of Durham, Lee and Nottingham, New Hampshire. The Company asserts in its application that the existing crossings will be exercised without substantially affecting public rights in the identified public waters and state-owned land in New Hampshire.

The Enforcement Division staff verified that minimum safe line clearances above the public water will be maintained at all times and determined that public use and enjoyment of the public water will not be diminished in any material respect as a result of the proposed project.

## **7. Enforcement Division Recommendation:**

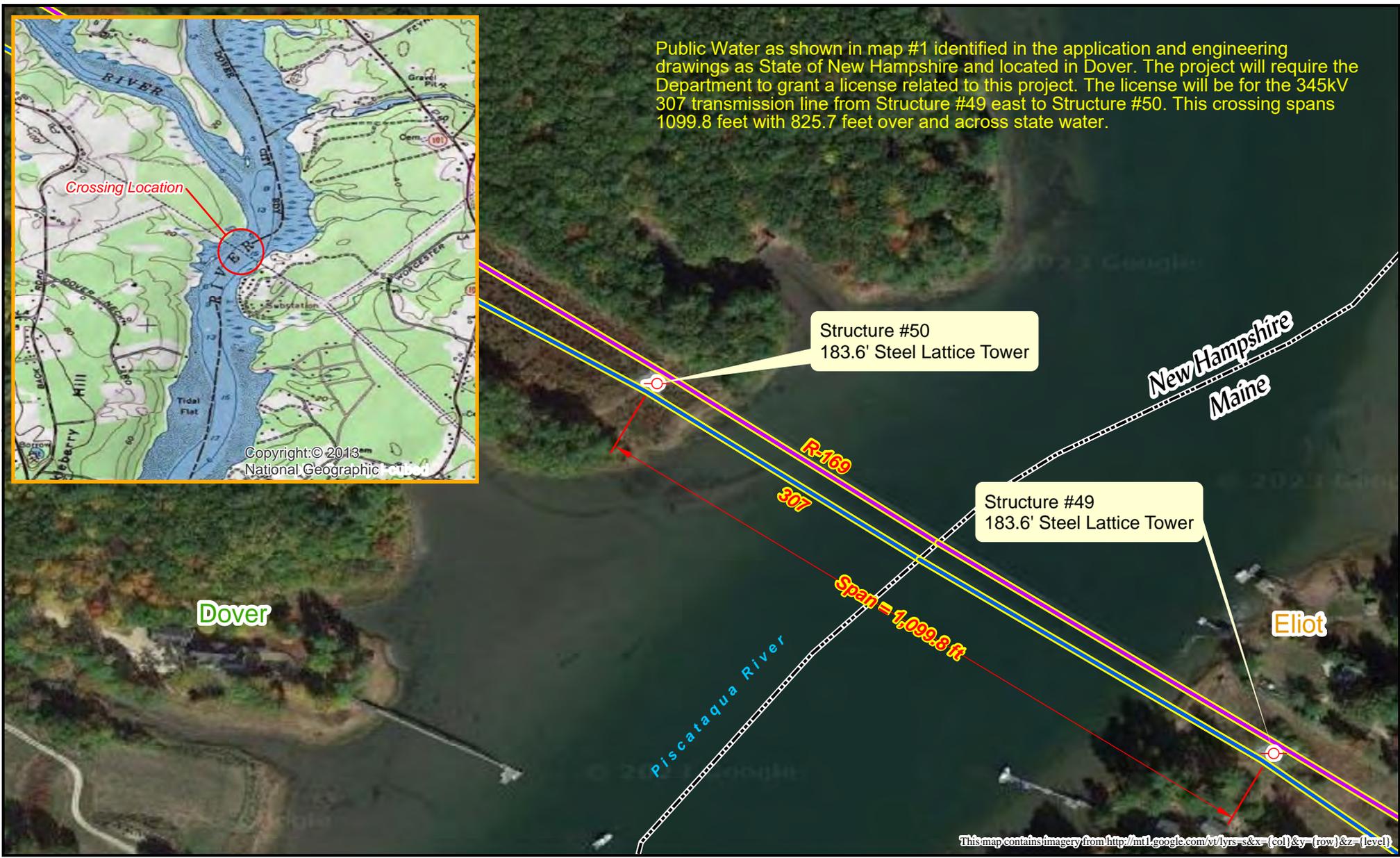
Based on the results of its review of the application, attachments, and all other supporting documents, the Enforcement Division recommends that the Department:

- 1) Find that the license Eversource requests in this application may be exercised without substantially affecting the public rights in public waters and state-owned land; and
- 2) Grant Eversource a license to construct and maintain electric lines pursuant to RSA 371:17 and Puc 306.01, over and across public water and state-owned land in the City of Dover, and across public waters in the Towns of Durham, Lee and Nottingham, New Hampshire as specified in the application.

Attachments:

# Piscataqua River (Tidal) - CRE 2023-005 Eversource Crossing - Map 1

Public Water as shown in map #1 identified in the application and engineering drawings as State of New Hampshire and located in Dover. The project will require the Department to grant a license related to this project. The license will be for the 345kV 307 transmission line from Structure #49 east to Structure #50. This crossing spans 1099.8 feet with 825.7 feet over and across state water.



This map contains imagery from <http://mtl.google.com/vt/lyrs=s&x={col}&y={row}&z={level}>

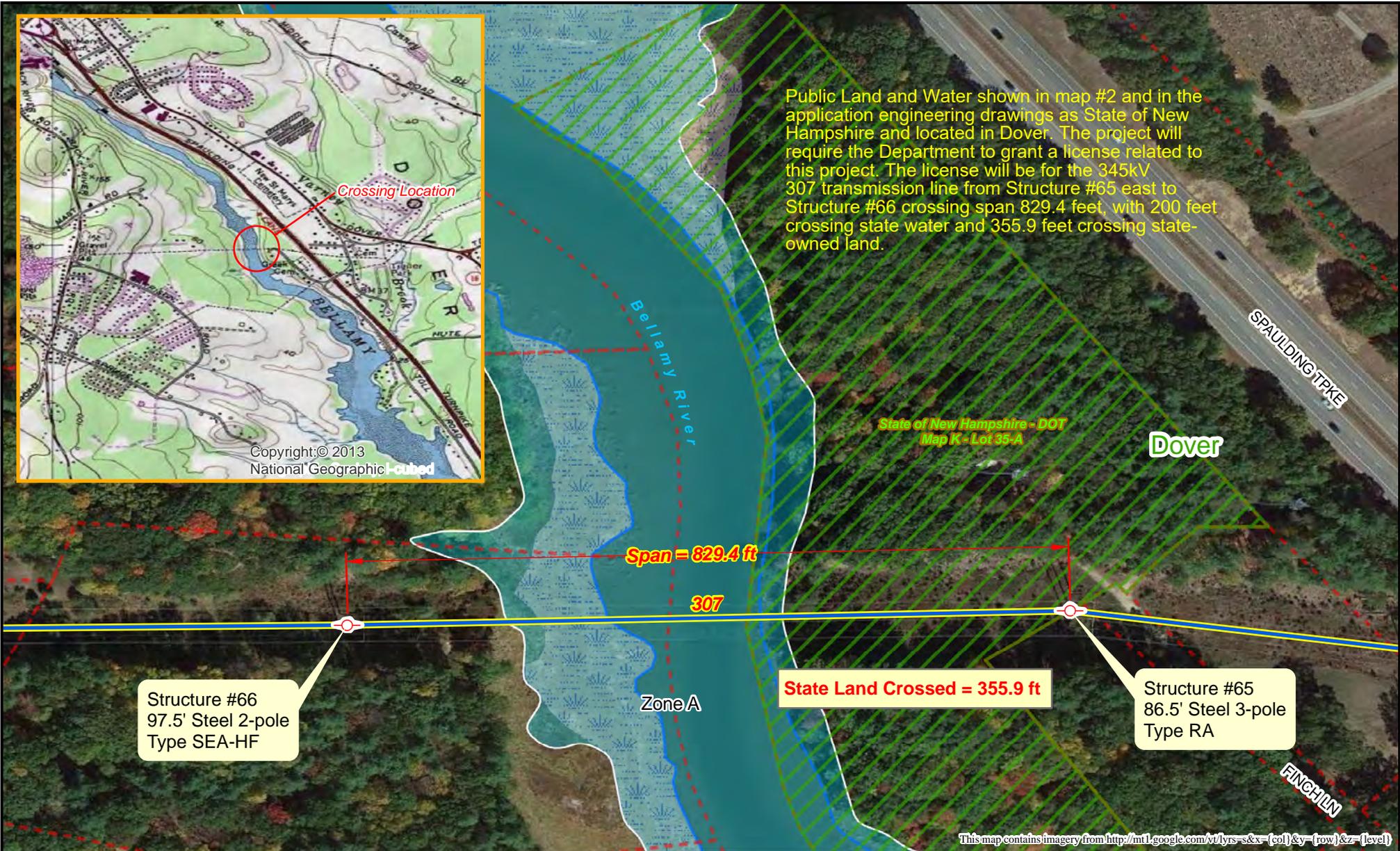
-  Utility Structure
-  345 kV Line
-  115 kV Line



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# Bellamy River & State Land (NHDOT) - CRE 2023-005 Eversource Crossing - Map 2



	Utility Structure		Town Parcel
	345 kV Line		State Land Parcel

Flood Hazard Zones	
	Regulatory Floodway
	1% Annual Chance Flood Hazard
	0.2% Annual Chance Flood Hazard



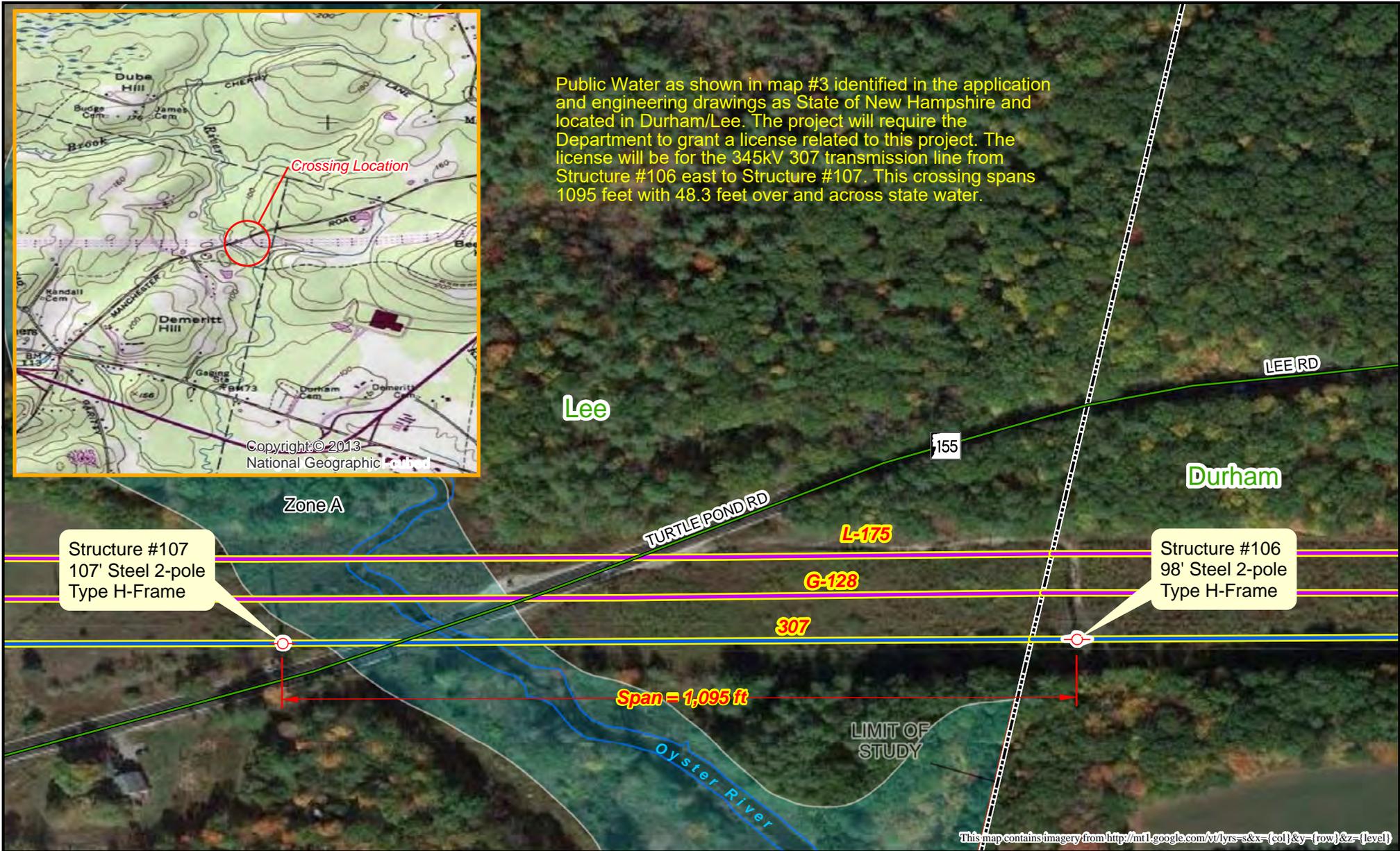
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# Oyster River - CRE 2023-005 Eversource Crossing - Map 3



Public Water as shown in map #3 identified in the application and engineering drawings as State of New Hampshire and located in Durham/Lee. The project will require the Department to grant a license related to this project. The license will be for the 345kV 307 transmission line from Structure #106 east to Structure #107. This crossing spans 1095 feet with 48.3 feet over and across state water.



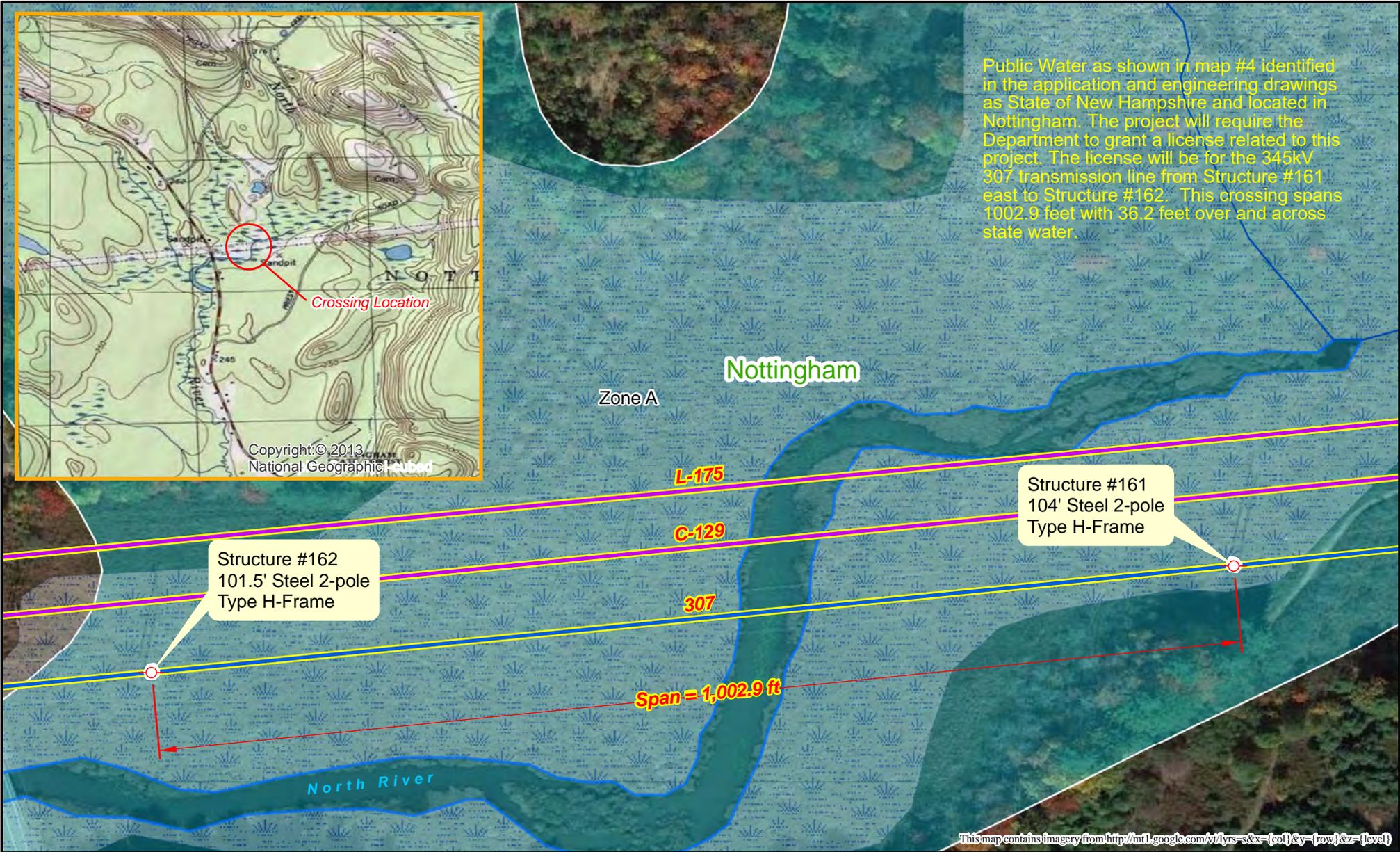
This map contains imagery from <http://mt1.google.com/vt/lyrs=s&x={col}&y={row}&z={level}>

	345 kV Line		Utility Structure
	115 kV Line		Town Boundary
<b>Flood Hazard Zones</b>			
	Regulatory Floodway		
	1% Annual Chance Flood Hazard		
	0.2% Annual Chance Flood Hazard		



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# North River - CRE 2023-005 Eversource Crossing - Map 4



 345 kV Line	 Utility Structure	<b>Flood Hazard Zones</b>
 115 kV Line		 Regulatory Floodway
		 1% Annual Chance Flood Hazard
		 0.2% Annual Chance Flood Hazard



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NH Department of Energy  
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