

STATE OF NEW HAMPSHIRE

Inter-Department Communication

DATE: March 23, 2021

AT (OFFICE): NHPUC

FROM: Paul Kasper PGK
Assistant Director, Safety Division

SUBJECT: Docket No. DE 20-115 Public Service New Hampshire d/b/a Eversource Energy
Petition for a License to Construct and Maintain Electric Lines Over and Across Land Owned by the State in the Towns of Peterborough and Temple, New Hampshire
Staff Recommendation

TO: Debra Howland, Executive Director
Thomas Frantz, Director, Electric Division
Richard Chagnon, Assistant Director, Electric Division
Lynn Fabrizio, Senior Staff Attorney, Legal Division

CC: Randy Knepper, Director, Safety Division

The Safety Division's review of the above petition consisted of the following elements:

- History of Miller State Park
- Petition contents and history;
- Applicable State Statute;
- Review of the existing crossing(s) already licensed by the PUC;
- 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;
- Public Outreach efforts to date and
- Conclusions and Recommendations.

1. History of Miller State Park

Miller State Park, on top of South Pack Monadnock Mountain, Peterborough is the oldest state park in New Hampshire. It was established in 1891 by donation of land on the summit to be used as a public park in a deed to B.P. Cheney as a trustee. The public park was to be a memorial to General James Miller, hero of Lundy's Lane in the War of 1812. In 1891, the legislature appropriated funds to include a road from the base to the summit. The 1.3 mile, 4 rod (66 feet) wide road was laid out in 1891 by the Peterborough and Temple selectmen. In 1907, Miller Park Road was designated a State Highway (Laws of 1907, Chapter 104). It is currently

classified as a Class II State Highway maintained by NH Department of Transportation. The paved road is currently used for automobiles and other motor vehicles and is open during spring, summer and fall seasons but is unplowed and closed when the State Park closes during the winter. The public commonly uses Miller Park Road as a pedestrian walkway in addition to the two trails, known as the Wapak Trail and Marion Davis Trail that are offset from the road at most locations.

On March 10, 1915 Miller Park was transferred to the State of New Hampshire upon the death of B.P Cheney. In 1935, the property was placed under the jurisdiction of the Forestry Department. Various gifts of parcels of land to the State of New Hampshire occurred over time that enlarged the amount of land surrounding Miller Park Road. A 1968 memo mentions in 1936 the Appalachian Mountain Club gifted 4 acres to the State on the upper half of the mountain. . In 1939, the New Hampshire Forestry and Recreation Report describes a Fire Tower modification and mentions phone service included in the project work. In 1939 and 1940, a private land owner gave permission to the State to install telephone wires across properties using trees to suspend line and in 1940 gave the State a lease for the right to construct, operate and maintain telephone line to the summit over the private land. In 1942 the State purchased 76 acres from the Bass family.

Utilities at Miller State Park

The Safety Division researched the history of utility installation at Pack Monadnock and stitched together a patchwork of information. The former Greenville Electric Lighting Company was incorporated and began operations October 27, 1903 in Greenville, NH. On October 5, 1927 Temple Electric Light and Power Company was granted the right to operate in limited areas of Temple by Commission Order No. 1943 in docket D-1133. In that Order, Greenville Electric Lighting Company was to operate and install electric lines for a portion of Temple. During this time, the majority owner of both companies was J.C. Taft. As of 1927, Greenville Electric was not allowed to operate in Peterborough but did renew terms to continue installing and operating plant for Temple Electric Light and Power Company. In 1940, Greenville Electric Lighting Company was granted rights to extend into Peterborough and Wilton. On May 3, 1971 Public Service Co of New Hampshire acquired Greenville Electric Lighting Company pursuant to Commission Order 10,263.

The Safety Division believes the original pole line was constructed by New England Telephone and Telegraph Company (NET&T) with joint ownership with Greenville Electric Lighting Company. 13 poles were installed circa 1940 across private property that eventually became State property. It was believed the pole line was extended another 6 poles sometime between 1940 and 1960. On April 14, 1960 an agreement between NET&T, Greenville Electric Lighting Company and the State Forestry Department, sold the first 13 poles to the State and the State Forestry Department became joint owner with Greenville Electric Lighting Company. There is no mention of the second set of poles extended. In September 29, 1972 the State

Highway Commissioner granted petition and license for buried NET&T cable for approximately 1,337 feet of buried cable to feed 3 buildings referred to Building A, Building B and Building C. It was not constructed or installed in a manner that would meet today's safety standards. Much of the existing configuration 35 years later was exposed above ground, the underground portions were not buried at proper depth and much of it has become a public hazard.

There has been a long history of the summit being used for communications, including radio and cellular equipment. The utility infrastructure at Miller State Park has been installed over time and was designed to meet the needs of those facilities requiring electric power and telecommunications services at the summit. This project will formally and properly license the current utilities, resolve pole ownership issues between State and Eversource, and address the current safety code issues and public hazards that are present at this time at Miller State Park.

In 2017, Segtel dba as First Light contacted Eversource to request to start the process of attaching a fiber optic cable to the existing ES structures ascending up to the summit at Miller State Park. With this request, the NH PUC Safety Division became involved and requested that ES and Consolidated Communications address and correct the safety concerns and NESC standards upgrade that are needed at Miller State Park.

2. Petition contents and history

On June 25, 2020, Public Service Company of New Hampshire d/b/a Eversource Energy (ES), filed a petition pursuant to RSA 371:17 for a license to re-construct, maintain, and operate the Eversource 3155X9 Circuit, which is a 4kV Distribution Circuit. Supplemental Petitions were filed on 10/06/2020, 01/05/2021, and 02/25/2021 with modifications clarifying pole and conduit locations within Miller State Park. This is a project to replace 29 structures on the existing 3155X9 Circuit across state-owned land in the Towns of Peterborough and Temple comprising a portion of the Miller State Park. Of the existing 19 wood poles, 10 will be replaced in kind and new messenger and conductor installed. New poles 81/5, 81/6.81/7 and 81/ 8 will be replaced with weathered steel structures. Five of the existing poles will be eliminated. On the upper portion of the mountain where the conductor is located within surface mounted conduit, 16 new Penta wood poles and new messenger wire and conductor will be installed. Replace the existing Neutral wire and conductor with one (1) new messenger wire that is .052 AWA Alumoweld 7 strand and one (1) 1/0 ACSR/AW 25kV rated Aerial cable on all the structures in this petition.

The 3155X9 Circuit crossing of the State's land parcels in the Towns of Peterborough and Temple, New Hampshire was not previously licensed when the 3155X9 Circuit was originally constructed by the Greenville Electric Company.

According to ES, the existing 3155X9 Circuit structures are approximately 50 - 94 years old, have been subject to environmental damage and require replacement for the line to continue to function safely, reliably and within NESC standards. The structure replacement and repair project is part of a safety reliability project that is necessary for the 3155X9 Circuit to meet

current NESC Standards as well as future projected electricity demand. See the detailed NHPUC Safety Division map/schematic in the attachments Map 1, Map 2, and Map 3 of this recommendation.

Eversource has informed staff that ES has coordinated with and obtained the required licenses and permits from the State of New Hampshire DOT to construct and maintain the required underground installation of the Eversource 3155X9 4kV Distribution Circuit at the summit of Miller State Park.

A field survey of the proposed utility corridor was performed by the New Hampshire Natural Heritage Bureau (NHNHB). All plant species present, 16 herbaceous and 9 woody species, were recorded. None of these species are tracked by NHNHB. None of these forest areas are in a condition or level of development that would warrant formal documentation as exemplary by NHNHB.

A New Hampshire Department of Environmental Services (SPN) is required for the temporary impact of nontidal wetlands and will be obtained prior to the commencement of the project that is subject to this petition. A SPN for temporary impacts to P 81/3 and P 81/5 was approved by NHDES on April 27, 2020 (see NHDES File #2020-00867).

For clarity, Safety Staff summarized the twenty-nine (29) structures with a PUC-noted reference number, which will be found on the attached Safety Division map. Common to all these noted structures, One (1) new 1/0 ACSR/AW 25 kV Insulated Ariel Cable 6/1 Compact Round and One (1) .052 AWA Alumoweld Messenger Wire 7 strand conductor. The conductor cable clearance requirements were met using the National Electrical Safety Code (NESC) conditions at 285 deg F. for all crossings within these segments. This scenario is the governing condition, which yielded the greatest sag and lowest clearance. Only 14.5 feet clearance is required by the NESC Table 232-1 for these crossings. Refer to ES exhibits 0 through 11.

Structure	Type	SPAN (pole to pole)	Distance (feet)	ES Vertical Design Clearance (ft.)	Complies with NESC Table 232- 1
P 81/1	40' Class 1 Penta Wood Pole	A	123	30.2	YES
P 81/2	40' Class 1 Penta Wood Pole	B	147	27.8	YES
P 81/3	40' Class 1 Penta Wood Pole	C	164	29.8	YES
P 81/4	40' Class 1 Penta Wood Pole	D	138	29.4	YES
P 81/5	55' Class 1 Weathering Steel Pole	E	130	20.9	YES
P 81/6	45' Class 1 Weathering Steel Pole	F	304	24.4	YES
P 81/7	40' Class 1 Weathering Steel Pole	G	163	28.7	YES
P 81/8	40' Class 1 Weathering Steel Pole	H	260	31.9	YES
P 81/9	40' Class 1 Penta Wood Pole	I	156	31.4	YES
P 81/10	40' Class 1 Penta Wood Pole	J	141	33.0	YES
P 81/11	40' Class 1 Penta Wood Pole	K	135	34.1	YES
P 81/12	40' Class 1 Penta Wood Pole	L	186	36.8	YES
P 81/13	45' Class 1 Penta Wood Pole	M	113	25.3	YES
P81/13X	45' Class 1 Penta Wood Pole	N	94	25.8	YES
P 81/14	45' Class 1 Penta Wood Pole	O	163	25.2	YES
P 81/15	45' Class 1 Penta Wood Pole	P	197	33.6	YES
P 81/16	45' Class 1 Penta Wood Pole	Q	192	27.9	YES
P 81/17	40' Class 1 Penta Wood Pole	R	206	30.2	YES
P 81/18	40' Class 1 Penta Wood Pole	S	176	29.6	YES
P 81/19	40' Class 1 Penta Wood Pole	T	160	24.3	YES
P 81/20	45' Class 1 Penta Wood Pole	U	170	26.2	YES
P 81/21	40' Class 1 Penta Wood Pole	V	156	26.8	YES
P 81/22	40' Class 1 Penta Wood Pole	W	213	25.8	YES
P 81/23	40' Class 1 Penta Wood Pole	X	205	26.3	YES
P 81/24	40' Class 1 Penta Wood Pole	Y	244	23.1	YES
P 81/25	40' Class 1 Penta Wood Pole	Z	204	29.5	YES
P 81/26	40' Class 1 Penta Wood Pole	AA	213	24.6	YES
P 81/27	45' Class 1 Penta Wood Pole	AB	180	25.5	YES
P 81/28	40' Class 1 Penta Wood Pole	AC	204	31.3	YES
P 81/29	45' Class 1 Penta Wood Pole	AD	141	31.3	YES
P 81/29	SC 81/29S1	AE	124		
	Total Span		5402.0		
	Less DOT ROW Land Crossed		235.90		
	Total State Land Crossed for License		5,166.10		

1. New Hampshire statute referenced in petition

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, it shall petition the commission 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 commission may prescribe. Every corporation and individual desiring to cross any public water or land for any purpose herein defined shall petition the commission for a license in the same manner prescribed for a public utility.

Source. 1921, 82:1. PL 244:8. RL 294:16. 1951, 203:48 par. 17. 1953, 52:1, eff. March 30, 1953. 2013, 82:1, eff. June 19, 2013.

2. Review of land ownership of existing pole structures

In its petition, ES states the 3155x9 circuit crossings over the State's land parcels within a new utility corridor area which will be authorized by the New Hampshire Division of Natural and Cultural Resources (DNCR) pursuant to a Use and Occupancy License which Eversource has applied for concurrent with this petition and will be obtained prior to commencement of the project that is the subject of this petition. The new utility corridor will be sixteen (16) feet wide from the boundary of the State owned land property at the north boundary of the Rte. 101 Right Of Way to the MIT building (depicted on Exhibits 4 and 5) and twenty (20) feet wide from the MIT building to the summit termination point. The Exhibits also depict construction access routes which will be authorized by DNCR through the Director, Division of Parks & Recreation and the Director, Division of Forests and Lands, pursuant to a Special Use Permit which Eversource has applied for concurrent with this petition and will be obtained prior to commencement of the project that is the subject of this petition. There is no private property in which the planned utility upgrade will traverse unlike the original pole line.

All existing pole structures will be removed by Eversource and existing cable that is on the ground will be abandoned and removed.

3. Review of NESC code requirements as described in Puc 300

N.H. Code of Administrative Rules Puc 306 requires:

- (a) each utility shall construct, install, operate and maintain its plant, structures and equipment and lines, as follows:
 - (1) In accordance with good utility practice;
 - (2) After weighing all factors, including potential delay, cost and safety issues, in such a manner to best accommodate the public; and

- (3) To prevent interference with other underground and above ground facilities, including facilities furnishing communications, gas, water, sewer or steam service.
- (b) For purposes of this section, “good utility practice” means in accordance with the standards established by:

- (1) The National Electrical Safety Code C2-2012....

ES states that the proposed crossings have been designed and will be constructed, maintained and operated in accordance with 2012 National Electrical Safety Code C2-2012.

Safety Division Staff reviewed the specifications related to the design and construction of this crossing project as provided in the petition, the attachments, and all supplemental support documents, and found them to be in conformance with the applicable sections of NESC code C2-2012 and Puc 300.

4. Review of public need and public impact

In order to meet the reasonable requirements of electric service to the public, ES proposes to rebuild and maintain a 4 kV distribution circuit, designated as the 3155X9 4kV Circuit Miller State Park, in Peterborough and Temple, New Hampshire.

ES asserts in the petition that the proposed license for this crossing may be exercised without substantially affecting the rights of the public in the public lands of the Miller State Park. Minimum safe line clearances above the land surface will be maintained at all times. The use and enjoyment of the state owned land by the public will not be diminished in any material respect as a result of the overhead line crossings.

Safety Division Staff concludes the impact to the public will be significant due to the aesthetics changes resulting from the projects construction requirements. The proposed crossings do not appear to affect the rights of the public in the public land of the Miller State Park because minimum safe line clearances above the land surface will be maintained at all times allowing for safe hiking activities in the park.

5. Review of public outreach to date

A very active community of users of at the Miller State Park that urged public participation in the utility upgrade project and the sensitivity to making changes to the aesthetics of the park made this project unique compared to typical utility replacement projects. So a multi-year, multi- stakeholder outreach effort was made to discuss any impacts utilities may have on Miller State Park and its users. ES held the first of several public information sessions in conjunction with representatives from New Hampshire Department of Natural and Cultural Resources¹, New Hampshire Department of Transportation, the Safety Division of the New Hampshire Public Utilities Commission, Consolidated Communications, and First Light Fiber on October of 2017 to inform the public of current conditions and obtain feedback from park users with regards to a

¹ including the New Hampshire Division of Parks and Recreation, more specifically the Bureau of Park Operations and Division of Forests and Lands, more specifically the Land Management Bureau.

solution to bring Miller State Park into compliance with NESC Standards and state codes and to accommodate additional telecommunications providers access to the infrastructure at Miller State Park. Additional public information sessions were held on July 23, 2018 and October 16, 2019 to present the projects construction requirements with public participants and NHDNCR, NHDOT, NHPUC including State Representative Leichman, staff input and acceptance for the changes to be incorporated at the Miller State Park. On March 16, 2021 a virtual public information meeting was held to present the final project plan for the utility upgrade to Miller State Park and can be found on You Tube (see [*Miller State Park Utility Project Virtual Public Information Session - YouTube*](#))

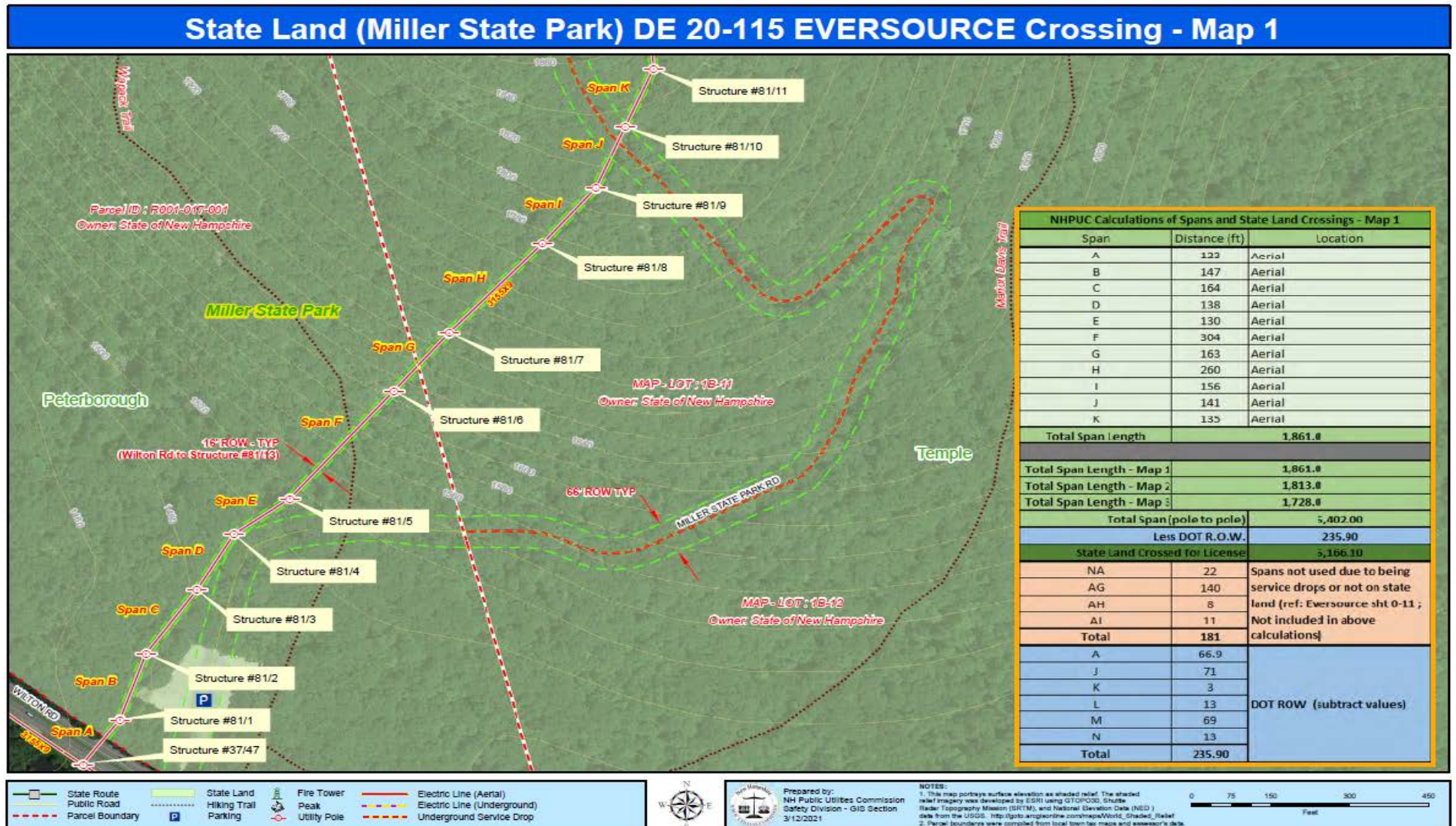
Staff Recommendation:

Based on the results of its review of the petition, its attachments, and all other supporting documents filed to this docket, the Safety Division Staff recommends that the Commission:

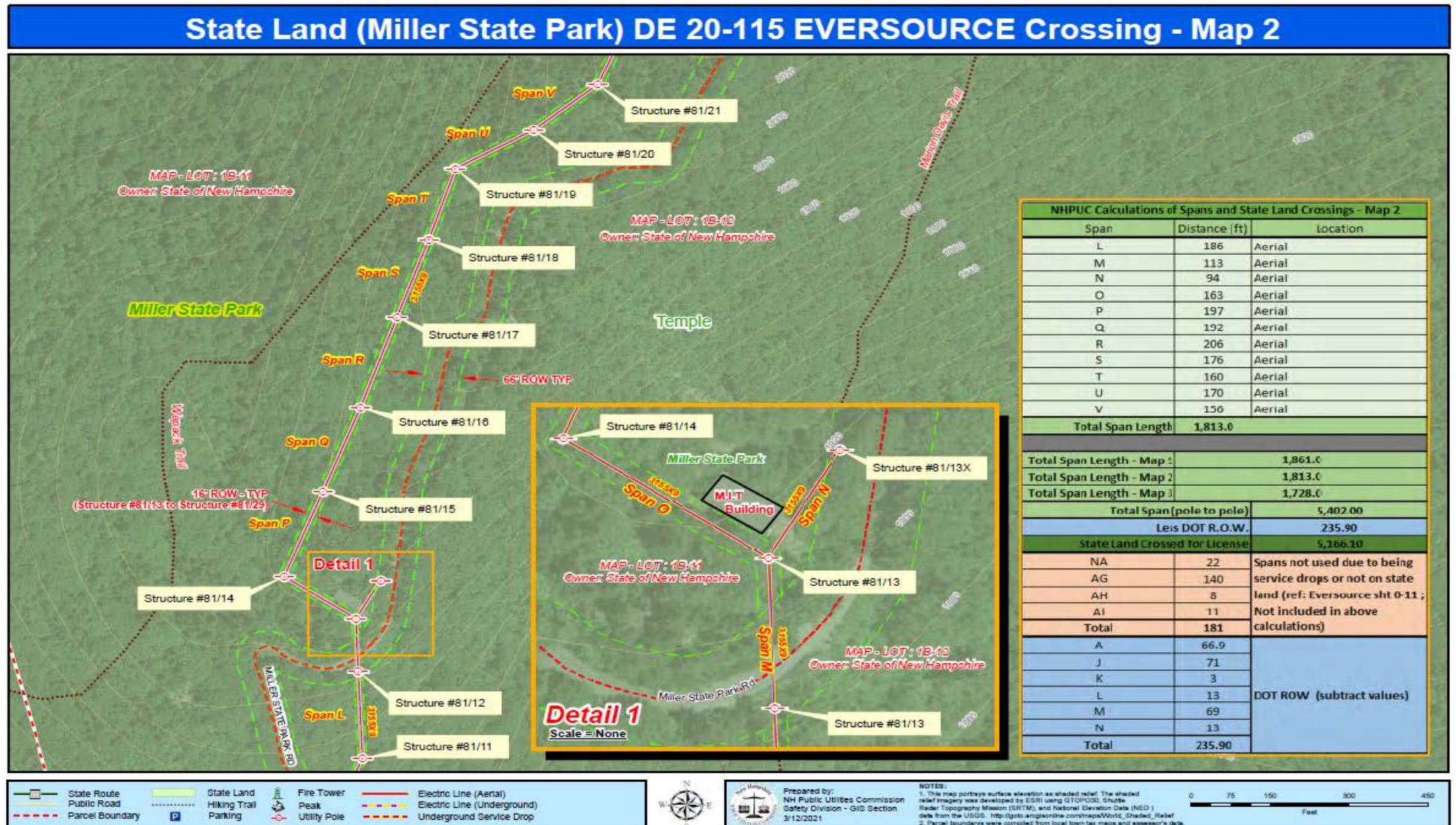
1. Find that the license ES requests in this docket may be exercised without substantially affecting the public rights in the public lands which are the subject of the petition;
2. Grant ES a license to construct, operate and maintain electric line, including neutral over and across the public lands of Miller State Park, in Peterborough and Temple, New Hampshire, as specified in the petition; and
3. Issue an Order Nisi and orders for its publication.

Staff Attachments

Map 1

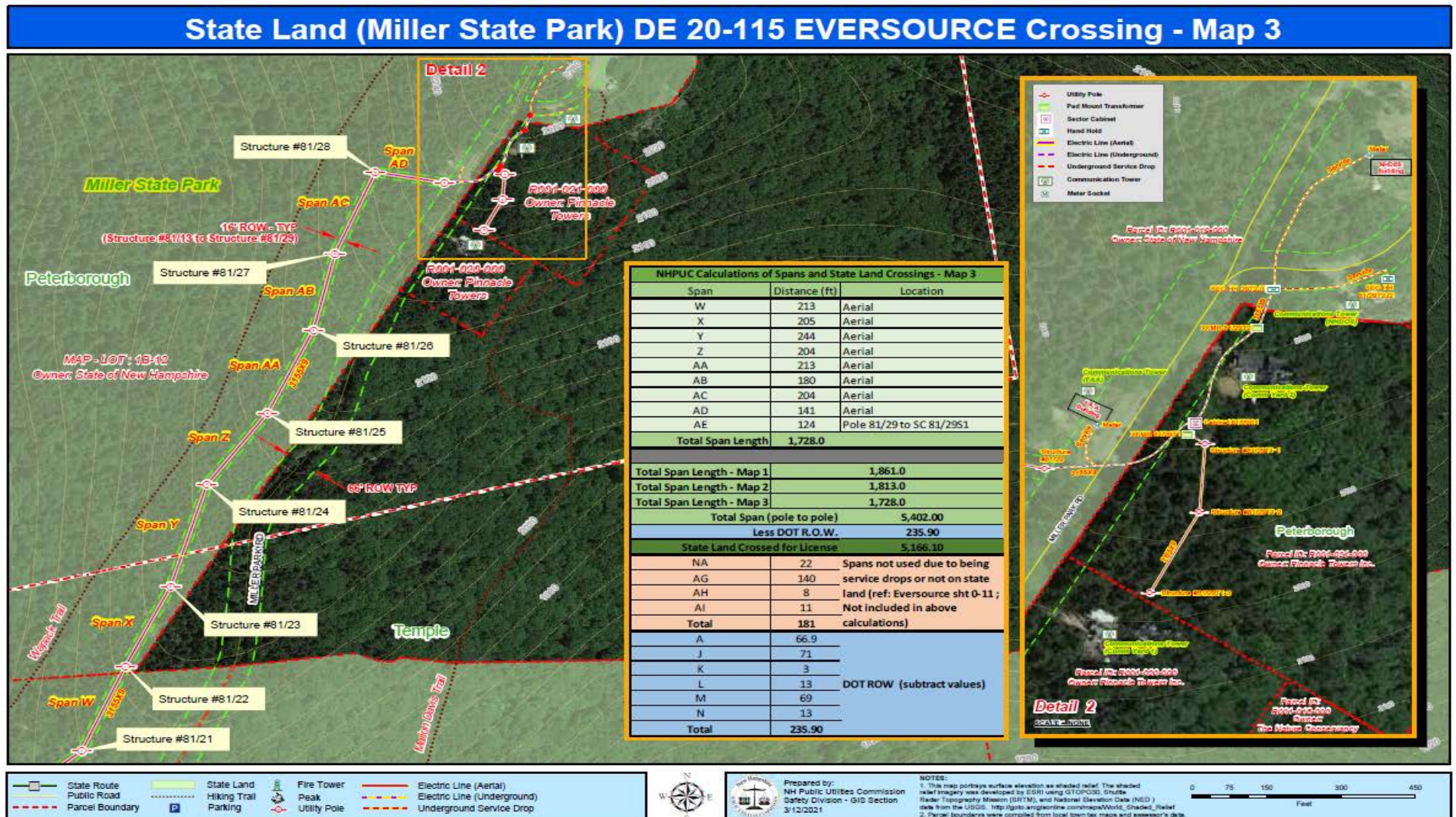


Map 2



Map 2: 4 kV line, designated as the 3159X9 Circuit, is a span of approximately 1.813 feet between Pole 81/12 and Pole 81/21, from a total of 5,166.10 feet across state owned land in the Towns of Peterborough and Temple, New Hampshire known as Miller State Park.

Map 3



Map 3: 4 kV line, designated as the 3159X9 Circuit, is a span of approximately 1.728 feet between Pole 81/21 and Pole 81/28, from a total of 5,166.10 feet across state owned land in the Towns of Peterborough and Temple, New Hampshire known as Miller State Park.

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