Commonwealth of Massachusetts Executive Office of Environmental Affairs MEPA Office



For Office Use Only Executive Office of Environmental Affairs
EOEA No.: 14/86 R. MEPA Analyst Anne Canaday Phone: 617-626-1035

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: K163 Groveland to West Amesbury 115kV Line

		 			
Street: King Street, Groveland to Mic					
Municipality: Groveland, West Newbury,		Watershed: Mei	rrimack and Parker		
	Merrimac, and Amesbury				
Universal Tranverse Mercator Coordinates:		Latitude: Not Applicable, linear utility project			
Not Applicable – linear utility project			Applicable, linear utility project		
Estimated commencement date: Sept. 2009		Estimated completion date: Sept. 2011			
Approximate cost: 8 million		Status of project design: 25%complete			
Proponent: New England Power Cor	mpany				
Street: 25 Research Drive			1 m		
Municipality: Westborough		State: MA	Zip Code: 01582		
Name of Contact Person From Whom Copies of this ENF May Be Obtained:					
Matthew Devlin		<u> </u>			
Firm/Agency: Mason & Associates, Inc.		Street: 219 Eas			
Municipality: Milford	<u> </u>	State: MA	Zip Code: 01757		
Phone: 508-422-9495	Fax: 508	3-422-9435	E-mail: mdevlin@mason-		
			associates.com		
Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)? Yes					
Are you requesting coordinated review	nding or la ———with any o	and area (in acres) other federal, state,	: none/not applicable		
☐Yes (Specify)⊠No <i>lers of Conditions</i> 	s, ACOE Permit, NPDES Storm		

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):						
☐ Land ☐ Water ☐ Energy ☐ ACEC ☐	Rare Specie Wastewate Air Regulations	r 📋	/aterways, & Tidelands ion ardous Waste Archaeological			
Summary of Project Size	Existing	Change	Total	State Permits &		
& Environmental Impacts				Approvals		
L	.AND			Order of Conditions		
Total site acreage (entire ROW)	175			Superseding Order of Conditions		
New acres of land altered		0.19		☐ Chapter 91 License		
Acres of impervious area	0	0	0	X 401 Water Quality Certification		
Square feet of new bordering vegetated wetlands alteration		149,629(1)		☐ MHD or MDC Access Permit		
Square feet of new other wetland alteration(isolated wetland)		1,764(2)		Water Management Act Permit		
Acres of new non-water dependent use of tidelands or waterways		NA		☐ New Source Approval		
STRU	JCTURES			☐ DEP or MWRA Sewer Connection/ Extension Permit		
Gross square footage (removing 1,316 st of existing electrical poles/structures and adding 1,843 st of electrical poles/structures)	2,352	527	2,879			
Number of housing units	none	none	none			
Maximum height (in feet)	30 to 50	35 to 50	65 to 100			
TRANSI	PORTATION			Department of Public Utilities (DPU) approval under M.G.L. Chapter 164, Section 72		
Vehicle trips per day	NA	NA _	NA			
Parking spaces	NA	NA	NA]		
WAST	TEWATER					
Gallons/day (GPD) of water use	NA	NA	NA			
GPD water withdrawal	NA	NA	NA			
GPD wastewater generation/ treatment	NA	NA	NA			
Length of water/sewer mains (in miles)	NA	NA	NA]		

^{(1) -} includes 148,129 square feet (sf) of "temporary" disturbance from the placement of swamp mats for access and work areas and 1,500 sf of "permanent" wetland alteration for the construction of new electrical structures (i.e. poles). (2) "temporary" disturbance only from the placement of swamp mats; non-state jurisdiction.

resources to any purpose not in accordance with Article 97?	ion of public parkiand or other Article 97 public natural				
	ork within existing Article 97 land is being				
conducted in accordance with existing easement rights,	which do not require Article 97 approval.				
Will it involve the release of any conservation restriction, prese	ervation restriction, agricultural preservation				
restriction, or watershed preservation restriction?					
☐Yes (Specify) ⊠No				
RARE SPECIES: Does the project site include Estimated Hat	pitat of Rare Species, Vernal Pools, Priority Sites of				
Rare Species, or Exemplary Natural Communities?)				
⊠Yes (Specify (see list below) 1 bird - bald eagle) LINO				
2 reptiles - wood turtle & Blanding's tur	tla				
2 reptiles - wood turtle & Blanding's tur 2 amphibians - blue-spotted salamander					
7 7	-				
2 fish - shortnose sturgeon & bridle shir					
4 pianis - estuary arrowwooa, river butr	ush, American waterwort, and Parker's pipewort				
HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth? \[\times \text{Yes (Specify: 19-ES-547, 19-ES-767, 19-ES-768, and 19-ES-769)} \text{\text{No}} \]					
If yes, does the project involve any demolition or destruction or resources?	of any listed or inventoried historic or archaeological				
☐Yes (Specify)				
AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the	e project in or adjacent to an Area of Critical				
Environmental Concern?	, ,				
☐Yes (Specify) 🔲 No				
PROJECT DESCRIPTION: The project description of					
(b) a description of both on-site and off-site alternative alternative, and (c) potential on-site and off-site mitigation					

(Refer to Enclosed - Expanded ENF Narrative)

Project Description

The project will involve the installation of a new 115kV transmission line to be called the K-163 line (K-163), in an existing Right of Way (ROW) from the King Street Substation on King Street in Groveland to the West Amesbury Substation on Middle Road in Amesbury, through the towns of Amesbury, Merrimac, West Newbury, and Groveland (refer to Figure 1). The K-163 will replace one of the existing 23kV lines located in the middle of the ROW known as the 2377 line. The K-163 will be a back-up source to the West Amesbury Substation in the event of an extended outage of the 345kV/115 kV source at the West Amesbury Substation.

In addition to the 2377 23kV line to be replaced by the K-163, the 7.2 mile, 200-foot wide existing maintained ROW has two other existing transmission lines located on either side of the 2377 line including the 2396 23kV electrical transmission line and the 345kV 394 electrical transmission line. The 23kV 2377 line currently located in the middle of the ROW will be removed to accommodate the construction of the K-163 in the same general location (i.e. middle of the ROW).

The project involves the erection of approximately 72 new steel electrical structures (poles) within the middle portion of the existing transmission line ROW. The new 115kV steel structures will replace the existing 23kV line containing approximately 173 wood structures (poles) along the same linear section of the ROW (within the middle portion of ROW). In addition, two short sections of the K-163 and nine associated new structures will serve as a double circuit (i.e. 23kV 2396 line and 115kV line will be set on the same structure) due to lack of ROW width and inadequate line separation distances. Approximately 173 23kV wood structures will be removed and approximately 72 115kV steel structures will be constructed/erected within the ROW. In addition, approximately nine new 23kV wood structures will also be constructed as part of this project. This project will require the removal of approximately 61 existing 23 kV structures currently located in wetland and the placement of approximately 13 new steel 115kV structures and four new wood 23kV structures in wetland. Limitations on electrical conductor span length preclude removing all structures from wetlands.

Existing Environment

The existing electrical utility ROW consists of maintained vegetation (under a Department of Agricultural Resources approved ROW Vegetation Management Plan) including short-form shrub species, woody vines, and various herbaceous plants of grasses, sedges, and rushes. There are wetland and non-wetland (upland) areas generally consisting of open field, meadow, dense shrub thickets, marshes, wet meadow, and scrub-shrub wetlands. Topography within the ROW varies from rolling hilly terrain to flatter open field areas within some portions of the ROW. The ROW crosses intermittent streams and six perennial streams, including the Merrimack River (between the towns of West Newbury and Merrimac). The ROW contains portions of land that are either owned in fec by New England Power Company or for which there

are easement rights. The ROW contains mainly undeveloped areas including an easement through the Crane Pond Wildlife Management Area (WMA) in Groveland and West Newbury and also extends through rural residential areas and streets.

The ROW intersects two portions of a Natural Heritage and Endangered Species Program (NHESP) mapped habitat polygon for rare species. The first area, located within the southern portion of the ROW, is in the vicinity of the Crane Pond Wildlife Management Area in Groveland and West Newbury. The other mapped habitat polygon area is located within the northern portion of the ROW associated with the Merrimack River and three of its tributaries.

There are four (4) recorded prehistoric archeological sites located within the ROW. Two sites are located within the northern portion of West Newbury near the Merrimack River whereas the other two areas are located in Merrimac, also near the Merrimack River.

Alternatives to the Project

The types of alternatives evaluated as part of this project include no-build, new overhead (aboveground), and new underground.

No Build Alternative

The no build alternative will not meet the project's objective which is to provide a backup high voltage source for the West Amesbury Substation.

Overhead Transmission Alternatives

<u>Preferred Alternative--Overhead Line on the Existing Right-of-Way</u>

The Preferred Alternative is to utilize the existing, middle portion of the cleared right-of-way (ROW) to connect the West Amesbury and Groveland substations. On this ROW, an existing 23kV line, located near the central portion of the ROW, will be replaced by the proposed overhead 115kV line. The alignment is relatively direct; there is existing access; and no tree clearing will be required.

The middle portion of the ROW was selected due to its close proximity to the existing inner 23kV line to be removed and for safe clearance distances (pursuant to 220 CMR 125.00) to other existing electrical lines (i.e. 345kV and other remaining 23kV lines) within the ROW and ground clearances.

Overhead Line within another portion of the Existing Right-of-Way

Locating the proposed 115kV line in another area within the ROW was evaluated. The width of the ROW and location/configuration of the existing 23kV and 345kV electrical lines within the ROW limits the potential area in which a new line can be sited. Locating