

**Commonwealth of Massachusetts**

**Executive Office of Environmental Affairs ■ MEPA Office**

**ENF**

**Environmental Notification Form**

*For Office Use Only*  
*Executive Office of Environmental Affairs*  
 EOEA No.: **14355**  
 MEPA Analyst: **Holly Johnson**  
 Phone: 617-626-**1023**

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: <b>Agawam to West Springfield Circuit Separation Project</b>		
Street: <b>Multiple public ways and existing electric transmission rights-of-way. Refer to Supplemental Report.</b>		
Municipality: <b>West Springfield and Agawam</b>	Watershed: <b>Westfield; Connecticut</b>	
Universal Transverse Mercator Coordinates: <b>Linear Project – See Supplemental Report</b>	Latitude: <b>Linear Project – See Supplemental Report</b>	Longitude: <b>Linear Project – See Supplemental Report</b>
Estimated commencement date: <b>April 2009</b>	Estimated completion date: <b>December 2011</b>	
Approximate cost: <b>\$23,000,000</b>	Status of project design: <b>30 %complete</b>	
Proponent: <b>Western Massachusetts Electric Company (WMECO)</b>		
Street: <b>One Federal Street, Building 111-4A</b>		
Municipality: <b>Springfield</b>	State: <b>MA</b>	Zip Code: <b>01105-2361</b>
Name of Contact Person From Whom Copies of this ENF May Be Obtained: <b>Ms. Eastin Meyer</b>		
Firm/Agency: <b>Burns &amp; McDonnell</b>	Street: <b>35 Thorpe Avenue</b>	
Municipality: <b>Wallingford</b>	State: <b>CT</b>	Zip Code: <b>06492</b>
Phone: <b>203-284-8590</b>	Fax: <b>203-741-1054</b>	E-mail: <b>emeyer@burnsmcd.com</b>

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?  
 Yes  No

Has this project been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No

Has any project on this site been filed with MEPA before?  
 Yes (EOEA No. \_\_\_\_\_)  No

Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:  
 a Single EIR? (see 301 CMR 11.06(8))  Yes  No

a Special Review Procedure? (see 301CMR 11.09)  Yes  No

a Waiver of mandatory EIR? (see 301 CMR 11.11)  Yes  No

a Phase I Waiver? (see 301 CMR 11.11)  Yes  No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): **None.**

Are you requesting coordinated review with any other federal, state, regional, or local agency?  
 Yes (Specify \_\_\_\_\_)  No

List Local or Federal Permits and Approvals: USACE 404 Permit; Orders of Conditions in Agawam and West Springfield. **See also Section 1.4 of the Supplemental Report.**

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- |                                 |                                       |  |
|---------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Land   | <input type="checkbox"/> Rare Species | <input checked="" type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water  | <input type="checkbox"/> Wastewater   | <input type="checkbox"/> Transportation                              |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air          | <input type="checkbox"/> Solid & Hazardous Waste                     |
| <input type="checkbox"/> ACEC   | <input type="checkbox"/> Regulations  | <input type="checkbox"/> Historical & Archaeological Resources       |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
<b>LAND</b>				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input checked="" type="checkbox"/> Chapter 91 License <input checked="" type="checkbox"/> 401 Water Quality Certification <input checked="" type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/Extension Permit <input checked="" type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i>  <b>Section 72 Approval of transmission line by Mass DPU</b>
Total site acreage	37			
New acres of land altered		6.1		
Acres of impervious area	NA	0.04	NA	
Square feet of new bordering vegetated wetlands alteration		33,229		
Square feet of new other wetland alteration		312,819		
Acres of new non-water dependent use of tidelands or waterways		0		
<b>STRUCTURES</b>				
Gross square footage	NA	2,525	NA	
Number of housing units	0	0	0	
Maximum height (in feet)	120 (lattice towers)	15	135 (poles)	
<b>TRANSPORTATION</b>				
Vehicle trips per day	N/A	0	N/A	
Parking spaces	N/A	0	N/A	
<b>WATER/WASTEWATER</b>				
Gallons/day (GPD) of water use	0	0	0	
GPD water withdrawal	0	0	0	
GPD wastewater generation/treatment	0	0	0	
Length of water/sewer mains (in miles)	0	0	0	

**CONSERVATION LAND:** Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

Yes (Specify \_\_\_\_\_)  No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

Yes (Specify \_\_\_\_\_)  No

**RARE SPECIES:** Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify **Refer to Section 5.2 of the Supplemental Report**)  No

**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?

Yes (Specify \_\_\_\_\_)  No (**Refer to Section 5.6 of the Supplemental Report**)

**Supplemental Report**

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify \_\_\_\_\_)  No

**AREAS OF CRITICAL ENVIRONMENTAL CONCERN:** Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify \_\_\_\_\_)  No

**PROJECT DESCRIPTION:** The project description should include **(a)** a description of the project site, **(b)** a description of both on-site and off-site alternatives and the impacts associated with each alternative, and **(c)** potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary.*)

### **Project Summary and Purpose**

The Agawam to West Springfield Circuit Separation Project (Project) is a set of proposed improvements to the Western Massachusetts Electric Company (WMECO) electric transmission system within the municipalities of Agawam and West Springfield, Massachusetts. The improvements are needed to provide safe, reliable, and economic transmission service in the Springfield area, and to ensure that these components of the transmission system will comply with reliability standards developed by Northeast Utilities (NU), WMECO's parent company.

The existing transmission system serving the area consists largely of 115-kilovolt (kV) lines originally constructed in the 1940s through the early 1970s. Reliability criteria are designed to protect against loss of electrical supply under certain contingency scenarios (principally electric system outages). At present, outages involving both of the 115-kV circuits between the Agawam and West Springfield Substations as well as other area circuits would result in the loss of the 115-kV electrical supply to the Clinton Substation.

As the Clinton Substation supplies electrical service to much of the downtown Springfield area (including many businesses and hospitals), such outage scenarios, or contingencies, can result in lengthy and undesirable system outages. The distribution lines in the area are unable to compensate for this potential loss of supply and any resulting extended loss of power would affect large numbers of customers.

To alleviate such contingency scenarios, WMECO is proposing the reconstruction of the existing double-circuit 115-kV overhead transmission line between the Agawam to West Springfield Substations (the 1311 and 1412 lines).

## **Project Description**

The 1311 and 1412 lines are currently located within an existing right-of-way (ROW) between the Agawam and West Springfield Substations. The lines share a common set of transmission towers, referred to as double-circuit lattice towers. The ROW traverses commercial, industrial, residential, agricultural and forested land uses. The ROW also crosses the Westfield River at three (3) locations, and six wetland resource areas, primarily in Agawam.

The proposed Project involves removing the 1311 and 1412 lines, and the associated double-circuit lattice towers. New 1311 and 1412 lines will then be reconstructed, using higher-capacity conductors on separate steel-monopole structures. Twenty-five double-circuit towers averaging 90-feet will be replaced by 26 pairs (52 total) of new steel-monopole structures averaging 100 feet in height. Each of the new monopole structures will hold the conductors of a single 115-kV circuit (3 conductors per circuit), and each of the new structures will be placed near the locations of the existing structures. Also, to avoid conflicts with other transmission facilities, one of the replacement circuits (1311) will be placed underground for its first approximately 850 feet beginning at the Agawam Substation, entirely within existing WMECO property. A distribution line that is currently carried on the existing lattice towers, underneath the transmission circuits, will also be carried on the new structures. Other distribution lines in the ROW will either be carried on the new structures or relocated outside of the existing ROW.

Except for the relocation of a portion of the ROW traversing Bondi's Island Landfill, the new lines, replacement facilities, and structures will be confined to the existing WMECO ROW. The ROW is approximately 150 feet wide for 0.5 miles, starting at the Agawam Substation, and approximately 100 feet wide over the remaining 2.0 miles to the West Springfield Substation. Relocation of the portion of the ROW traversing Bondi's Island Landfill is proposed at the request of the City of Springfield (i.e., the Operator of the landfill). This relocation will involve a trade of the existing ROW segment for a new ROW segment. The new ROW segment will be approximately 3,700 feet in length, and will remain within the confines of the landfill site. Total ROW length, following construction, will be 2.8 miles between the two substations.

## **Alternatives Analysis**

Numerous alternative solutions also have been developed and considered. Each would alleviate the reliability issues summarized above.

Alternative 1 involves the addition of a new, and therefore third, overhead 115-kV circuit between the Agawam and West Springfield Substations. This new circuit would be constructed on an independent new set of steel-monopole structures. To accomplish this, the existing ROW would need to be widened to accommodate the new line without impacting or reconstructing the existing 1311 and 1412 lines. This alternative would maintain electric service to area substations under the contingency scenarios described above, but would result in additional environmental impacts, real estate acquisition, and higher project costs than the preferred Project solution.

Alternative 2 involves the construction of a new underground cable circuit between the East Springfield and Clinton Substations, in the City of Springfield. The Clinton Substation is currently supplied only by the West Springfield Substation, but a new, additional cable circuit between the East Springfield and Clinton Substations would maintain electric service to area substations under the contingency scenarios described above. This alternative would also result in much higher project costs than the preferred Project solution.

Alternative 3 involves the construction of new underground cable circuits between the East Springfield and Breckwood Substations, and between the Breckwood and West Springfield Substations. These new circuits would maintain electric service to area substations under the contingency scenarios previously described. This alternative would result in an additional crossing of the Connecticut River, with the environmental and Riverfront Area impacts associated with such a subsurface crossing. However, this alternative would also result in significant impact to area roadways and traffic during construction, and would be by far the most costly to construct.

In summary, all of the alternatives considered were dismissed due to the significant increases in community/environmental impacts and project costs as compared to the preferred Project solution.

### **Potential Impacts, Mitigation and Effects**

The proposed Project will be constructed within existing developed, and therefore previously disturbed, ROW. Expansion of the existing ROW has been avoided, with the exception of the 3,700 linear foot relocation around the perimeter of the Bondi's Island Landfill facility. It is important to note, however, that this relocation will be located within the confines of the existing landfill site, and is being proposed at the request of the City of Springfield to make otherwise unutilized portions of the landfill available for potential future use. Impacts to sensitive areas such as wetlands, waterways, and documented rare species habitats have been avoided and minimized whenever possible.

Temporary and permanent alterations to land will occur as follows: improvement or construction of access roads through grading, filling, and/or vegetation removal; installation of new transmission line structures and foundations; limited vegetation removal to facilitate construction; and installation of temporary equipment staging ("crane") pads at structure installation or removal points. No work is proposed within the Westfield River itself, and mostly temporary impacts to vegetated wetlands will total less than one acre. Wetland impacts will occur primarily through use of temporary crane pads and temporary access routes. Impacts to wildlife habitat, rare species habitats, vernal pools, land use, visual aesthetics, cultural and historic resources and traffic are anticipated to be negligible in association with this project. *Note: the proposed activities constitute a Limited Project pursuant to 310 CMR 10.53(3)(d).* Detailed information regarding the potential effects of the Project is provided in Section 5 of the Supplemental Report to this ENF.

Mitigation measures that will be taken to avoid, minimize, and where necessary, restore construction related impacts include: maximizing the use of existing, and therefore, previously disturbed ROWs; avoidance of wetlands to the greatest extent practicable; installation of appropriate erosion and sedimentation controls, and maintenance of such until vegetation is re-established; proper dewatering and stormwater management measures; proper grading to re-establish preconstruction contours; and replacement and/or improvement of existing access roads. Detailed information regarding proposed impact avoidance, minimization, and mitigation measures is provided in Section 5 of the Supplemental Report to this ENF.