

March 30, 2010

Town of Orrington Planning Board
c/o Dick Harriman, Code Enforcement Officer
Town of Orrington Municipal Office
29 Center Drive
Orrington, ME 04474

**Re: Site Plan Review Application
Maine Power Reliability Program
Central Maine Power Company**

Dear Planning Board Members:

Enclosed is Central Maine Power Company's (CMP) Site Plan Review Application for the proposed Maine Power Reliability Program (MPRP) in the Town of Orrington. The MPRP is a project by CMP to upgrade Maine's bulk power system, and the proposed MPRP activities in the Town of Orrington are part of this larger effort to increase Maine's transmission system reliability. Nine copies of the MPRP Site Plan Review Application have been provided.

The proposed MPRP transmission line construction in the Town of Orrington will take place within and directly abutting an existing transmission corridor that is owned and maintained by CMP and Bangor Hydro Electric Company (Bangor Hydro). The construction area begins at the municipal border with Bucksport, and continues approximately 4.9 miles to the northeast to the existing Orrington Substation. Improvements to the Orrington Substation will also occur within the existing substation fence line. CMP will implement the transmission line construction in Orrington, and Bangor Hydro will implement the substation construction. Accordingly, CMP and BHE are listed as co-applicants on the enclosed Site Plan Review Application Form.

On February 18, 2010 we met to discuss the Planning Board issued permits that will be needed to construct the MPRP in the Town of Orrington. During this meeting the Planning Board determined that the MPRP requires a Site Plan Review Application so that the Planning Board may evaluate project activities in the Town of Orrington. The Planning Board also confirmed that the MPRP will be constructed in shoreland zone districts in the Town of Orrington, so the provisions of Article 3 of the Town of Orrington Land Use Ordinance (Land Use Ordinance) should be addressed in the Site Plan Review Application.

The enclosed application has been developed in accordance with the requirements of the Land Use Ordinance and the Site Plan Review Application Form, and also with the recommendations received from the Town of Orrington Planning Board during the February 18, 2010 pre-application meeting. Several of the standard Site Plan Review Application items are not applicable to the MPRP due to the scope of the project and its linear geographical configuration. These items have been identified with a "N/A" on the Site Plan Review Application Form Checklist. In addition, certain checklist items have been addressed in the MPRP Site Plan Review Application, but in a modified format due to the nature of the project (e.g., the scale of the MPRP mapping and site plans).

I have been informed by Dick Harriman, Orrington Code Enforcement Officer (CEO) that the MPRP has been put on the agenda of the April 15, 2010 Planning Board meeting. I look forward to meeting with you to further discuss the MPRP's Site Plan Review Application. If the Planning Board has any questions regarding the enclosed application, please contact me at 879-1930 ext. 120 or sdonohue@trcsolutions.com. Thank you for your attention to the MPRP application.

Sincerely,



Sean Donohue
TRC

Enclosure

Cc: Mark Goodwin, Burns & McDonnell
Helen Edmunds, Pierce Atwood
Ken Fortier, Power Engineers
Lois Smith, Bangor Hydro



MAINE POWER RELIABILITY PROGRAM

A CENTRAL MAINE POWER COMPANY PROGRAM

ORRINGTON, MAINE APPLICATION FOR SITE PLAN REVIEW

**Section 254 Transmission Line Construction
Section 3023 Transmission Line Construction
Section 388 Transmission Line Construction
Orrington Substation Improvements**

Prepared for:

Central Maine Power Company
83 Edison Drive
Augusta, Maine 04336

Prepared by:



400 Southborough Drive
South Portland, ME 04106

March 2010

Agent Authorization Letter



Central Maine Power

August 15, 2008

Bureau of Land & Water Quality
Division of Land Resource Regulation
Maine Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017

Municipalities (various)

Federal Agencies (various)

RE: Central Maine Power Company - Maine Power Reliability Program (MPRP)
Agent Authorization

To Whom It May Concern:

Central Maine Power Company hereby authorizes TRC Engineers, Inc. and TRC staff to act as its agent for all activities associated with the acquisition of Federal, state and local permits related to the above referenced project.

Please call me at 626-9557 or email me at gerry.mirabile@comco.com with any questions. Thank you.

Sincerely,

Gerry J. Mirabile
Lead Analyst - Compliance

An equal opportunity employer

83 Edison Drive | Augusta, ME 04336

tel (207) 623-3521

www.comco.com



An Energy East Company



March 29, 2010

Town of Orrington Planning Board
29 Center Drive
PO Box 159
Orrington, ME 04474

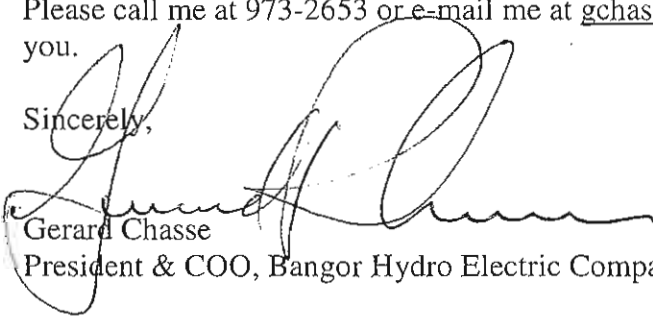
RE: Bangor Hydro Electric Company – Maine Power Reliability Program (MPRP)
Agent Authorization

To Whom It May Concern:

Bangor Hydro Electric Company hereby authorizes TRC Engineers, Inc. and TRC staff to act as its agent for all activities associated with the acquisition of Federal, state and local permits related to the above referenced project.

Please call me at 973-2653 or e-mail me at gchasse@bhe.com with any questions. Thank you.

Sincerely,



Gerard Chasse
President & COO, Bangor Hydro Electric Company

Application Summary

The Maine Power Reliability Program (MPRP) is a project by Central Maine Power Company (CMP) to upgrade Maine's bulk power system. CMP must upgrade its bulk power system with this proposed project in order to meet mandatory standards and to provide reliable electric service to Maine customers into the future. The MPRP consists of a network of 345 kV and 115 kV transmission lines and associated substations throughout CMP's service territory where particular needs were identified. The MPRP ranges from Eliot in the south, Rumford in the west, Warren and Searsport in the east, and Orrington and Pittsfield to the north. In all, the MPRP will encompass nearly 80 Maine towns.

The proposed MPRP construction in the Town of Orrington includes two new transmission lines within and immediately adjacent to an existing transmission corridor that is cooperatively owned and managed by CMP and Bangor Hydro Electric Company (Bangor Hydro). Improvements within the fence line of the existing Orrington Substation will also be made to accommodate these new lines. These upgrades will improve the reliability, safety, and security of the bulk power transmission system in Maine by adding 345 kV and 115 kV transmission capabilities, and will help to meet the increasing demand for electrical power.

In the Town of Orrington, the MPRP will be constructed in the following zoning districts: Rural Residence and Farming, Shoreland Residential, Resource Protection, and Stream Protection. CMP and Bangor Hydro are seeking Site Plan Review approval from the Orrington Planning Board to construct the MPRP in the Town of Orrington. The following sections of this application include: written supporting information in the order specified in the Land Use Ordinance, a completed Application For Site Plan Review, discussion of specific Land Use Ordinance criteria and standards, and supporting exhibits.

Article 6(3)(F)- Site Plan Review
“Written Supporting Information”

1) Evidence of Legal Interest

CMP's legal interest in the land needed to construct the Maine Power Reliability Program (MPRP) in the Town of Orrington includes in-fee ownership, easement, option to acquire in-fee ownership or easement, licensing agreement, and as a last resort, Title 35A-Section 3136.1 (eminent domain). CMP has acquired ownership, easements, options, or licensing agreement on the land needed to widen the corridor in Orrington from all but four landowners (see Exhibit 1). With respect to the four remaining landowners, CMP continues to negotiate to obtain the necessary rights, and hopes to reach agreements with those landowners soon. For purposes of this application, however, CMP has the required title, right, or interest in these four parcels because when a Certificate of Public Convenience and Necessity (CPCN) has been issued by the Maine Public Utilities Commission (PUC) for the MPRP, CMP will have the ability to acquire them as a last resort by eminent domain.

2) General Description of the Proposed Use

Maine Power Reliability Program

The MPRP is a project by CMP to upgrade Maine's bulk power system. The vast majority of Maine's bulk power transmission system was placed into service in the early 1970s and is now reaching the limits of its ability to meet the growing electrical demand of Maine customers. Since the last major transmission infrastructure was completed more than 30 years ago, the patterns of both available generation and customer load have shifted significantly. For example, population has become more concentrated in the southern part of the state, while the generation needed to serve that load is now more distant and dispersed. When these pattern changes are combined with the increasing peak demand the current transmission infrastructure in Maine will, in very few years, become inadequate. In addition, the reliability and security standards mandated by law and administered by the North American Electric Reliability Corporation (NERC), the Northeast Power Coordinating Council, Inc. (NPCC), and ISO New England (ISO-NE) have changed significantly in recent years. CMP must upgrade its bulk power system with this proposed project in order to meet the mandatory standards and to provide reliable electric service to Maine customers into the future.

CMP's system consists of both "transmission" and "distribution" lines. Transmission lines function as the highway system of the electrical grid by feeding electricity from where it is generated (such as at power plants) to substations. From there, the distribution system carries the electricity from substations to customers. Transmission lines in Maine are typically operated at one of two levels – 115,000 volts, also expressed as 115 kilovolts ("kV") and 345,000 volts, often referred to as 345 kV. CMP's 345 kV transmission system was built and put into service in 1971. Since then power consumption has more than doubled. In recent years, both CMP and ISO-NE have identified certain reliability issues with the 345 kV system that need to be assessed and addressed.

In February of 2007, the MPRP began a comprehensive needs assessment of CMP's bulk power transmission system. The study included a 10-year forecast to evaluate the system in Maine, including a review of system reliability and performance under various system conditions and operating scenarios, as well as a needs assessment to ensure a reliable transmission system in the

most cost-effective manner possible. The study identified a number of significant reliability issues with Maine's bulk transmission system, including insufficient 345 kV transmission capacity, insufficient 115/345 kV transformation capacity, and insufficient transmission support and/or infrastructure in all regions served by CMP.

After completing the needs assessment, the MPRP team evaluated possible solutions. This included both transmission and non-transmission alternatives, including energy efficiency, before CMP designated its preferred solution. CMP ultimately selected a primarily transmission solution (although a small geographic area known as the South Portland loop will be addressed through non-transmission alternatives) based on a number of factors, including electrical performance, cost effectiveness, impacts to landowners, and Maine's environment under various forecasts of future conditions. The proposed solution consists of a network of 345 kV and 115 kV transmission lines and associated substations throughout CMP's service territory where particular needs were identified (see Figure 1).

The proposed transmission solution ranges from Eliot in the south, Rumford in the west, Warren and Searsport in the east, and Orrington and Pittsfield to the north. In all, the MPRP will encompass nearly 80 Maine towns, and will require approvals from the PUC, the Maine Department of Environmental Protection (DEP), the Army Corps of Engineers (USACE), and dozens of municipalities. CMP submitted environmental permit applications to the Maine DEP and the USACE in June 2009, and permit issuance is anticipated in 2010. The MPRP is also well into its review process with the PUC, and it is expected that the PUC approvals needed to commence project construction will be issued in 2010.

MPRP Description in the Town of Orrington

The proposed MPRP construction in the Town of Orrington includes two new transmission lines within and immediately adjacent to an existing transmission corridor (see Project Overview Map in Exhibit 2 and transmission corridor cross-sections in Exhibit 3), and improvements within the fence line of the existing Orrington Substation to accommodate these new lines. One new 115 kV transmission line (“Section 254”) will be built within the existing corridor. The existing 345 kV Section 388 transmission line in the middle of the corridor will remain in place, but will be re-designated as “Section 3023”. A new 345 kV (“Section 388”) transmission line will be built within a corridor expansion area along the eastern side of the existing corridor. At the Orrington substation, new buswork structures and equipment, and new 115 kV and 345 kV circuit breakers will be added to accommodate the two new connecting transmission lines. All of the proposed improvements at the Orrington substation will be made within the existing substation fence line. These upgrades will improve the reliability, safety, and security of the bulk power transmission system in Maine by adding 345 kV and 115 kV transmission capabilities, and will help to meet the increasing demand for electrical power.

The proposed MPRP transmission line construction in the Town of Orrington will be co-located with an existing transmission corridor identified as Segment 1 of the MPRP (see Project Overview Map in Exhibit 2). This existing corridor is cooperatively owned and managed by CMP and Bangor Hydro, and enters the Town of Orrington at the municipal border shared with the Town of Bucksport. The transmission corridor runs in a northeasterly direction and crosses Betts Road at 0.17 miles, Swetts Pond Road at 1.74 miles and Center Drive at 2.6 miles. Just north of Center Drive the corridor turns in a more northerly direction and crosses Brewer Lake Road at approximately 4.26 miles, Fields Pond at 4.28 miles, and Fields Pond Road at 4.87 miles. The transmission corridor connects with the existing Orrington Substation immediately north of Fields Pond Road.

Although the portion of the MPRP located in the Town of Orrington will be co-located with the existing transmission corridor, the existing corridor will need to be widened to maintain the necessary lateral clearances between the transmission conductors and the corridor edge for safe and reliable operation. CMP will acquire the needed land from abutting landowners. In most areas the corridor will be widened by 100 feet, but between Brewer Lake Road and Fields Pond Road the corridor will need to be widened by up to 239 feet to accommodate the proposed transmission infrastructure upgrades. At present, the existing corridor ranges from 227 to 270 feet wide. Subsequent to construction the corridor will be 370 feet wide in most areas, but will range from 327 to 542 feet wide between Brewer Lake Road and Fields Pond Road.

Section 3023 will include existing wooden H-frame supports (H-frames). Six new wooden H-frames with a typical aboveground height of 75 feet (see Exhibit 4) will also be added to provide additional support to the transmission conductors. The six new H-frames will not require foundations.

The new Section 388 transmission line will be constructed on 47 wooden H-frames that will have a typical above ground height of 75 feet (see Exhibit 4).¹ Three of the H-frames will have a 120 square foot foundation. The remaining 44 H-frames will not have foundations and will require 60 to 120 square feet of ground disturbance during construction.

The proposed Section 254 transmission line will be constructed on 50 new supports, which will include both H-frame and single pole construction. The 46 H-frames will have a typical aboveground height of 55 feet (see Exhibit 4). Four of these H-frames will be of steel construction, and the remaining 42 will be constructed of wood. Each 115 kV H-frame will require 60 to 120 square feet of ground disturbance during construction. Three of the H-frames will have 90 to 120 square foot foundations.

Monopole supports will be used for the final four Section 254 supports that precede the transmission line connection with the Orrington Substation, due to corridor space constraints in this vicinity. The four monopoles will have a typical aboveground height of 75 feet (see Exhibit 4). Three of these monopoles will be constructed of steel and one will be wooden. Installation of each monopole will require approximately 30 to 40 square feet of ground disturbance during construction. Three of the monopoles will have a 40 square foot foundation.

Trees and other vegetation capable of growing tall enough to interfere with the transmission lines (“capable species”) will be removed prior to construction where corridor widening is proposed, and also in the existing transmission corridor. Within construction areas, a limited area of additional temporary vegetation trimming may also be necessary around each proposed transmission line H-frame and along temporary construction access ways in order to facilitate pole installation and equipment operation.

Subsequent to construction non-capable species (which generally means those species that grow less than 10 feet tall) will be maintained in the corridor, and will also be allowed to naturally re-establish in areas disturbed by MPRP construction. Removal of capable species to maintain a shrub-meadow cover type (or allowing landowners to maintain hayfield or other suitable cover type) will be done on a four-year cycle in accordance with existing standard corridor maintenance procedures, which are presently implemented in the existing transmission corridor.

¹ Transmission line support heights will vary due to varying terrain and the need to achieve spans that will avoid or minimize impacts to natural resources. Typical support heights are 55 to 75 feet above ground, although some supports may exceed 75 feet in specific instances. See Exhibit 4 for a table showing the number of transmission line supports within specific height ranges for the transmission corridor within Orrington. Pursuant to Article 9, Definitions, of the Land Use Ordinance, “height of a structure” is not measured for structures having no floor area, such as transmission line supports.

Orrington Zoning Districts and Applicable Standards

CMP and Bangor Hydro are seeking Site Plan Review approval from the Orrington Planning Board to construct the MPRP in the Town of Orrington. The MPRP will be constructed in the following zoning districts: Rural Residence and Farming (RF), Shoreland Residential, Resource Protection, and Stream Protection. Table 2-1 in Article 2, Part 5 of the Land Use Ordinance of the Town of Orrington, Maine (Land Use Ordinance) identifies the MPRP as a “Transportation and Utilities” land use, which is a permitted use with planning board approval in the RF Zoning District. Table 3-1 in Article 3 Part 7 of the Land Use Ordinance identifies the MPRP as an “Essential Service” (as defined in Article 9) in the Shoreland Residential, Resource Protection, and Stream Protection Zoning Districts, where it is also a permitted use with planning board approval.

The MPRP will also cross two Federal Emergency Management Act (FEMA) “Zone A” flood zones associated with Fields Pond and an unnamed tributary to Swetts Pond. Article 7 Part 2 of the Land Use Ordinance indicates that construction within areas of special flood hazard may commence with a Flood Hazard Development Permit from the Code Enforcement Officer.

The following sections of this application include: additional written supporting information in the order specified in the Land Use Ordinance, a completed Application for Site Plan Review, discussion of specific Land Use Ordinance criteria and standards, and supporting exhibits.

3) *Hydrological Groundwater Assessment*

Hydrogeologic conditions have been evaluated in the MPRP project area. In the Town of Orrington, the MPRP is not located within and will not impact significant sand and gravel aquifers mapped by the Maine Geological Survey (MGS), or sole source aquifers designated by the United States Environmental Protection Agency (USEPA). Maine Department of Health and Human Services Drinking Water Program information published as a geospatial dataset by the Maine Office of Geographic Information Systems identifies no community wells or wellhead protection areas within the MPRP project area in the Town of Orrington.

4) *Net Residential Acreage Calculation*

The MPRP is not a residential project.

5) *Refuse Disposal*

In accordance with CMP’s “Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects” (2007) (Environmental Guidelines) (see Exhibit 5), the transmission corridor will be maintained and left each day in a safe and sanitary manner during construction. Excess or leftover construction materials and garbage will be removed from the transmission corridor before construction of the MPRP is completed. CMP anticipates that solid waste generated from the project will be limited to minimal land clearing and construction debris generated during the construction phase. This debris is inert, non-hazardous material that will be handled in accordance with the Maine State Solid Waste Management and Recycling Law (38 M.R.S.A. § 2101 et seq). All personnel and affiliates

contracted for work as part of the MPRP will utilize best management practices (BMPs) and CMP protocol. CMP will monitor the disposal of all solid waste material including paper documentation of waste streams. CMP will contract with a licensed waste hauler, which will transport solid waste to an appropriate and licensed facility.

6) Soils

CMP conducted a Geographic Information System (GIS) analysis of soil suitability within the proposed MPRP transmission line corridor using the Soil Survey Geographic Database (SSURGO) compiled by the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS). Soils mapped on the SSURGO database within the MPRP corridor in Orrington include glaciomarine/ glaciolacustrine deposits (marine deposits) with silty surface horizons that tend to become clayey with depth, and sandy loam to silt loam textured glacial till. Peat deposits are also mapped.

Soils mapped within the corridor that have formed in marine deposits that include the Buxton, Boothbay, Biddeford, Suffield, and Scantic series. With regard to constraints related to the MPRP construction, the Scantic and Biddeford series are hydric soils that generally support wetlands. Other depressions and low-lying areas on the landscape with marine deposits may also comprise wetlands or areas with a seasonal high water table. Marine deposits on sloping landforms are also prone to erosion because they generally have silty surface textures.

Soils mapped within the corridor that have formed in glacial till include the Bangor, Plaisted, Monarda, Burnham, Thorndike, Rockland, and Howland series. With regard to constraints related to MPRP construction, the Monarda and Burnham soils are hydric and generally support wetlands. Depressions, drainage swales, and areas at the base of steep slope breaks with glacial till soils may also contain wetlands, seeps, or have a seasonal high water table. Most of the glacial till soils mapped in Orrington have a dense hardpan within a few feet of the surface; large stones and boulders may also be present. The Thorndike series has a shallow depth to bedrock.

Peat soils are mapped at the location of Fields Pond. Constraints related to these soils include year-round ponding or saturation to the surface, and lower bearing capacity than mineral soils.

The soils mapped within the MPRP transmission corridor are generally suitable for the proposed activities. Where limitations exist in the areas of proposed construction, they will be easily overcome by implementation of construction Best Management Practices (BMP's). Techniques for mitigating soil constraints are summarized in the following paragraphs.

Wetlands have been delineated within the corridor, and provide more accurate mapping of the location of wetlands within the corridor than can be determined from the SSURGO mapping. The MPRP has been designed to avoid and minimize construction activities within wetlands where practicable. During construction, soil constraints within the transmission line corridor related to wetness or low bearing capacity will be managed through the use of MDEP approved crossing methods (e.g., construction mats or construction during frozen ground conditions). Typically, construction mats will be placed over soils in wetlands and in other areas that are

saturated to the surface so that equipment can travel over the soils without causing extensive rutting, compaction, erosion, or structural damage.

Furthermore, CMP has developed a standard manual, “Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects” (2007), which it uses as a routine part of all transmission and substation projects. A copy of the manual is included in Exhibit 5. In addition to techniques for avoiding soil damage in wet areas, this manual contains erosion and sedimentation control requirements, standards, and methods for protecting soil and water resources during construction. These techniques have proven to be effective for the soil conditions that are encountered in Maine, including the marine, glacial till, and peat deposits that are mapped in Orrington.

Excavation will occur at pole locations. Dense hardpan layers, stones, and boulders will be removed by mechanical excavation. Where bedrock or stones and boulders that are too large to be removed by mechanical excavation are encountered, small blasting charges will be used to facilitate removal. Areas within the corridor mapped as having a shallow depth to bedrock (Thorndike series soils) are located south of Center Drive, although it is possible that shallow bedrock exists at other locations within the corridor that are not mapped as Thorndike series soils.

7) *Subsurface Disposal System Report*

No new subsurface wastewater disposal systems are proposed as part of the MPRP. The existing subsurface wastewater disposal system at the Orrington Substation will continue to be used to serve the substation. The MPRP will not increase existing wastewater flows at the substation, so the existing disposal system will be sufficient for meeting wastewater disposal needs.

8) *Water and Sewer Demand*

The MPRP will not increase water or sewer demand.

9) *Utility Statement*

Since the MPRP will not increase water or sewer demand, a written utility statement is not applicable to the MPRP.

10) *Storage of Material and Equipment*

With regard to machinery and equipment that may generate appreciable noise at the project limits, both transmission line conductors (wires) and the Orrington Substation have the capacity to generate “audible noise” (AN). Equipment that will be added to the Orrington Substation within the existing substation footprint includes expansion of the existing buswork and new circuit breakers. This new equipment will not generate noise. Accordingly noise levels at the Orrington Substation will not increase as a result of the MPRP.

Transmission wires can also give rise to AN. For electric transmission lines, AN is relative to conductor size. Audible noise from transmission lines is typically a foul-weather/wet conductor phenomenon. CMP has selected conductor sizes that under ideal, dry conditions are designed to be noise free; under adverse weather conditions (e.g., very high humidity and storm conditions) these same conductors will emit only a slight crackling sound. Audible noise levels at the edges of the corridor for the MPRP conductors were modeled based upon conservative assumptions for conditions relating to the operation of existing 12.5 kV, 34.5 kV, 115 kV, and 345 kV transmission lines, and to the operation of a new 345 kV and 115 kV transmission line and re-rated/upgraded existing lines proposed for the MPRP. Dr. William Bailey of ExPonent conducted AN modeling at numerous points along the proposed MPRP corridor. The modeling results show only a slight increase in AN under the proposed conditions. These results meet the MDEP noise standard of 50 dBA in typical areas or 45 dBA in quiet areas.

Based on the modeling of AN Dr. Bailey it determined that: “The transmission line conductors can give rise to AN, and the levels at the edges of ROWs in fair weather are calculated to be below the noise standard of the MDEP (50 dBA or 45 dBA in quiet areas). Higher levels of AN would occur during foul weather but would be masked by the background noise of rain and wind”, but in each case will remain below the levels allowed by the MDEP. Given that the MPRP will meet the applicable state noise standards, the proposed transmission line upgrades in the Town of Orrington are not anticipated to cause excessive noise at unreasonable hours.

With regard to the storage of materials, no raw, finished, or waste materials will be stored within MPRP land subsequent to project construction. Refer to the discussion of refuse disposal for management of waste generated during MPRP construction.

11) *Traffic Impact Analysis*

The MPRP will not result in appreciable traffic generation. Some construction traffic will be generated, as is typical with any development project. This traffic will be temporary and will not have a significant impact on area roadways.

During construction, the few vehicles that will need to access the corridor will do so from maintained corridor access points where the corridor crosses existing public roads, as is presently done for routine and urgent maintenance. These areas are located where the MPRP corridor crosses Betts Road, Sweets Pond Road, Center Road, Brewer Lake Road, and Fields Pond Road.

12) *Evidence of Technical Capability*

CMP has built, operated, and maintained thousands of miles of transmission lines in the State of Maine for over 100 years. Based on this experience, CMP has the technical capability to construct the MPRP. To support the development of the project, CMP has also engaged a team of highly qualified consultants and contractors to supplement CMP’s staff on the MPRP project. All contractors will be required to follow detailed specifications addressing compliance with land use and environmental controls in the construction of the MPRP facilities.

13) Evidence of Financial Capability

CMP has the financial capability to complete the proposed construction activities related to the MPRP. Central Maine Power Company (CMP) is a subsidiary of Iberdrola USA, Inc. (formerly Energy East Corporation), which in turn is a subsidiary of Iberdrola, S.A. Iberdrola is Spain's number one energy group, one of the largest electricity companies in the world and a world leader in wind power. Iberdrola operates in more than 40 countries, employs more than 33,000 people worldwide, and has a stock market capitalization in excess of \$45 billion. CMP is a financially strong company with total assets in excess of \$2 billion, credit ratings of BBB+ / Baa1 (from Standard & Poor's and Moody's, respectively), strong banking relationships, and access to the investment grade debt capital markets. CMP has short-term revolving credit availability of \$200 million through a bank facility (\$100 million) and under an agreement with Iberdrola USA (\$100 million). CMP has the regulatory authority to have outstanding, at any time, up to \$500 million of unsecured, medium-term notes (MTNs), of which there were \$293 million outstanding at 9/30/09, and has provisional authority to issue up to \$1 billion of first mortgage bonds (FMBs, rated A/A2 by Standard & Poor's and Moody's, respectively), of which there were \$150 million outstanding on September 30, 2009.

14) Construction Schedule

The start of the MPRP construction is scheduled for July 2010, and construction of the entire project is expected to require approximately 4 years. The proposed construction schedule for project components in Orrington is as follows:

Transmission Corridor Work:

- Transmission Corridor Clearing: November 2010 through June 2011;
- Construct Section 388: November 2011 through May 2012;
- Construct Section 3023: May 2012 to July 2012;
- Construct Section 254: July 2012 to September 2013.

Orrington Substation Work:

- Orrington Substation 345 kV Construction: March 2012 through June 2012;
- Orrington Substation BG/AG Electrical Work: March 2012 through September 2013;
- Orrington Substation 115 kV Construction: April 2013 to September 2013.

As shown in this summary list, construction in the Town of Orrington will be phased over a three year period, and is not expected to be continuous. The construction must be phased in this way in order to avoid disruption to electrical service and facilitate interconnects with other MPRP components or existing infrastructure. With regard to the transmission corridor clearing and construction of the transmission lines, the construction duration indicated includes the entire transmission line segment or section, which spans multiple municipalities. Thus, the duration of the clearing work and transmission line construction in Orrington should be much shorter than what is specified in the bulleted list above. As provided in Article 6(4)(C) and Article 6(4)(E) of

the Land Use Ordinance, CMP requests that the Planning Board utilize its authority to approve an extended construction schedule with any permit that may be issued.

Site Plan Review Application Form and Checklist

TOWN OF ORRINGTON
APPLICATION FOR SITE PLAN REVIEW
Adopted 10/20/94

Note to Applicant:

Orrington Planning Board requires a Preliminary Review (Art. III Sec. 2 & 3B) and a site plan sketch so that they may assist the applicant in preparing the final site plan. It is also an opportunity for the Planning Board to inform the applicant of any additional information that may be required based on the complexity of the application. An on site visit by the Planning Board members may also be required.

Date: March 29, 2010

*Co-Applicant: Bangor Hydro Electric Company 970 Illinois Avenue Bangor, ME 04401 Ph: 207-945-5621

1. Name of Applicant: Central Maine Power Company *
2. Name of Owner(if other than applicant): Maine Electric Power Company
3. Address of Applicant: 83 Edison Drive, Augusta, ME 04330
4. Telephone: (207) 623-3521
5. Location of Proposed Site (property tax map and lot number, book and page number from Registry of Deeds). Multiple tax maps and lot numbers. Please refer to Exhibit 1.
Tax Map: _____ Lot: _____ Book: _____ Page: _____
6. What is the existing use of the property: Electric transmission corridor and substation, undeveloped, residential, commercial, other.
7. What is the proposed use of the property: Electric transmission corridor and substation.
8. Zoning designations of the property and what Town of Orrington Zoning Ordinances apply (sections) ? Rural Residence and Farming, Stream Protection, Resource Protection, Shoreland Residential. Land Use Ordinance Articles 3, 4, 6, and 7 Apply.
9. Does the proposed site fall within a Flood plain Zone ? Yes X No _____

The following is a check list of the information that must appear on a Final Plan unless determined at the Preliminary Review not applicable:

- X Final Plan drawn to a scale of no larger than 50 feet to the inch.
- X A sketch map showing the general location of the site with the Town drawn to a scale of no larger than 400 feet to the inch.
- X Boundaries of all contiguous property under control of the owner or applicant regardless of whether all part is being developed at this time showing lot dimensions and acreage.
- X North arrow and graphic scale.
- N/A Contour and/or spot elevations at an interval of _____ feet. (Planning Board to determine).

**Land Use Ordinance Articles 4, 6, 3 and 7
Performance Standards and Criteria**

Introduction

Within the following discussion of the MPRP's compliance with the standards and criteria of the Land Use Ordinance, those relevant to the entire project area are discussed first (Article 4 - Performance Standards, Article 6 - Site Plan and Subdivision Review), followed by those that are relevant to specific areas of the project (Article 3 - Shoreland Zoning, Article 7 - Floodplain Management).

Article 4 – Performance Standards

The only items applicable to the MPRP are “3. Floodplain and/or Mudslide Hazard Areas” and “12. Signs”.

3. Floodplain and/or Mudslide Hazard Areas

The MPRP will be constructed within the Zone A flood hazard development area that is associated with Fields Pond, as mapped on Federal Insurance Rate Map (FIRM) Panel 2301800013A published by the Federal Emergency Management Agency (FEMA) (see Project Scope and Natural Resources Maps in Exhibit 2). Within this Zone A flood hazard development area, nine H-frames will be constructed, capable species of vegetation will be removed and temporary access ways incidental to construction will be utilized. No structures, as defined in Article 9 for the purposes of floodplain management, will be constructed within the flood hazard development area.

Another Zone A flood hazard development area that is associated with an unnamed tributary to Swetts Pond, and that is mapped on the FEMA published FIRM Panel 2301800005A slightly overlaps with the MPRP corridor between proposed H-frames 254-513 and 254-514 (see Project Scope and Natural Resources Maps in Exhibit 2). Capable species removal and one temporary access way are proposed within an approximately 500 square foot portion of the very upper reach of this flood hazard development area. No new monopole supports or H-frames are proposed within this flood hazard development area.

The proposed MPRP construction activities in these flood hazard development areas constitute minor development as provided in Ordinance § 7(5)(F)(3). The proposed transmission H-frames will be buried to a depth of ten percent of their entire length plus an additional two feet, and will therefore be sufficiently anchored to prevent flotation, collapse, lateral movement, or damage. Accordingly the proposed MPRP infrastructure will be safe from flooding and does not constitute a flood hazard to property in Orrington or downstream areas. Prior to the start of construction, CMP will consult with the Orrington Code Enforcement Officer (CEO), and will obtain either a Flood Hazard Development Permit or a written determination that no permit is necessary from the CEO.

With regard to mudslide hazard areas, the MPRP will be constructed on land that is well vegetated and stable. The proposed construction activities will not create or exacerbate mudslide hazards.

12. Signs

The MPRP will require only small safety and security signs at the Orrington Substation. The signs will primarily be attached to the substation fencing.

Article 6 - Site Plan and Subdivision Review

8. *Statutory Criteria*

A. **Pollution**

The MPRP will not generate air emissions, wastewater, or effluent, and therefore will not result in undue water or air pollution. Please refer to the discussion of subsurface disposal systems, groundwater, stormwater, lake phosphorous control, and hazardous waste in this application. During construction, dust will be controlled as needed.

B. **Sufficient Water**

There is an existing water supply serving the Orrington Substation. The MPRP will not increase the volume of water required or consumed by uses at the Orrington Substation, so sufficient water is available for foreseeable needs.

C. **Municipal Water Supply (not applicable)**

D. **Erosion**

Ground disturbance associated with the MPRP will be limited to the immediate vicinity of the pole placements and the impacts associated with temporary access ways. CMP will require contractors to utilize its “Environmental Guidelines for Construction and Maintenance Activities on Transmission Line and Substation Projects” (2007) (Environmental Guidelines) during construction (see Exhibit 5). This manual contains erosion and sedimentation control requirements, standards, and methods that will be used to protect soil and water resources during construction of the various MPRP components. The Environmental Guidelines were developed in consultation with the Maine DEP and are largely based on the DEP’s *Maine Erosion and Sediment Control BMPs*, dated March 2003, and DEP’s Chapter 500 Stormwater Management Rules, and contains specific Best Management Practices appropriate for electric transmission line construction. These guidelines will be followed during the construction of transmission line. Adherence to these guidelines and state and federal environmental permit conditions will be monitored by a CMP environmental representative during project construction.

Temporary access ways, which do not add any impervious surface area, will be established within the MPRP corridor for use during the construction phase. Temporary access ways are equipment paths approximately 12 feet wide suitable for the passage of equipment such as excavators, cranes, and other equipment. The temporary access ways will be created by trimming back tall shrubs and saplings to ground level. Roots will be left in place, unless existing large stumps that would pose a travel hazard for equipment are present. In most cases, herbaceous growth and low-compact shrubs will not be trimmed. Grading along the

access ways will be limited to areas where minor grading is needed to facilitate safe equipment access.

Establishment of temporary access ways is a construction necessity that will be an ongoing process as access to areas undergoing immediate construction becomes necessary. All access paths will be temporary and will be removed once construction is complete. Subsequent to construction, areas where soils have been disturbed will be seeded (depending on location and construction timing) and mulched with straw or hay. Vegetation will be allowed to re-establish itself once the temporary access ways have been removed. Subsequent to construction there will be no new permanent roads or driveways associated with the project, other than CMP-maintained access points and ways suitable for routine and urgent maintenance by its own vehicles. The proposed temporary construction access ways will not have an unreasonable negative impact on the town road system. The proposed temporary access ways will provide safe access to and from the construction area.

E. Traffic

Subsequent to construction, the MPRP will not increase traffic volumes from existing levels. During construction the MPRP transmission corridor will be accessed via temporary access ways at public road crossings. The Orrington Substation will continue to be accessed from the existing entrance ways. Construction traffic will be limited and will not cause unreasonable road congestion or unsafe conditions.

F. Sewage Disposal

The existing septic system at the Orrington Substation will be used for wastewater disposal at the substation. There will be no increase in wastewater flows at the substation as a result of the MPRP, so the existing septic system will be adequate for wastewater disposal.

G. Municipal Solid Waste Disposal

The MPRP will not increase solid waste generation, and will not cause an unreasonable burden on the Town's ability to dispose of solid waste. During construction solid waste will be generated and disposed of as described under the "Refuse Disposal" heading in the preceding "Written Supporting Information" section of this application.

H. Aesthetic, Cultural, and Natural Values

A guiding principle in the design of the MPRP has been to utilize CMP's existing transmission line corridors to the maximum extent practicable. Co-location of the transmission line upgrades, as opposed to the creation of new corridors, has multiple benefits, including the minimization of impacts to communities, individual property owners, and the environment. Only where existing corridors cannot accommodate the proposed upgrades while meeting safety and reliability standards is CMP seeking to widen the existing corridors. Creating an entirely new corridor is a last resort. As a result, the vast majority of the

transmission line upgrades proposed as part of the MPRP are located within or immediately adjacent to existing corridors.

Within the Town of Orrington, the proposed transmission line construction will occur within and directly adjacent to an existing transmission line corridor that is shared by Bangor Hydro and CMP. In most areas CMP has minimized the proposed corridor expansion to 100 feet by co-locating with the existing transmission corridor. The exception to this is the portion of the corridor located between Brewer Lake Road and Fields Pond Road, where up to 239 feet of corridor expansion is needed due to an existing angle point in the Maritimes & Northeast Pipeline. Co-locating with the existing transmission corridor avoids construction of new transmission corridor, which helps to maintain the existing landscape and land use patterns. Because the existing transmission line corridor contains H-frames supports of a similar bulk and style, co-locating with the existing transmission corridor causes the least overall impact to the landscape.

CMP has been in consultation with the Maine Department of Inland Fisheries and Wildlife (IF&W) regarding significant wildlife habitats within the MPRP project area. In the Town of Orrington, significant wildlife habitats recognized by IF&W include three significant vernal pools within the existing corridor, and one high value waterfowl and wading bird habitat associated with Fields Pond. No construction will occur within the water-holding depression of the significant vernal pools. No transmission line H-frames will be placed within Fields Pond, and, at the request of IF&W, bird diverters will be installed on the proposed transmission lines where they cross Fields Pond. Two active bald eagle nests also exist on Fields Pond, but are far enough away from the transmission lines that they will not be impacted by the MPRP. As requested by IF&W, CMP will conduct additional pre-construction aerial surveys of the MPRP transmission corridor to ensure that no new bald eagle nests are established that might be affected by construction. MPRP impacts to significant wildlife habitat and other natural resources are being fully addressed as part of the MPRP's Natural Resources Protection Act and Site Location of Development Act permit applications with the Maine Department of Environmental Protection.

CMP has also been in consultation with the Maine Natural Areas Program (MNAP) regarding rare plants and natural communities within the MPRP project area. CMP's environmental consultants developed a methodology to review the MPRP project area for rare plants and natural communities through the consultations with MNAP. This methodology involved review of existing databases, aerial photograph analysis, and targeted on-site field surveys. Using this methodology, no rare plants or rare and irreplaceable natural areas were identified in the MPRP project area in the Town of Orrington. MNAP has also determined that CMP's approach to addressing rare plant and exemplary natural community concerns in the MPRP project area is satisfactory.

With regard to cultural resources, CMP has engaged in extensive consultations with the Maine Historic Preservation Commission (MHPC) regarding the investigation of pre-historic archeological, historic archeological, and historic architectural resources within the MPRP area of potential effect (APE) that are listed on or eligible for listing on the National Register of Historic Places (NRHP). CMP's consultants conducted reconnaissance level pre-historic

archaeological and historic cultural resource surveys to identify resources that might be impacted by project related activities within the MPRP APE. After consultation with the MHPC regarding the results of the reconnaissance level surveys, CMP conducted more intensive surveys to determine site significance (eligibility for listing in the NRHP) on a number of potentially eligible archaeological sites within the APE. Similarly, CMP's consultants conducted architectural surveys in accordance with MHPC guidelines to identify any potential historic above-ground structures that are listed on or eligible for listing on the NRHP that are located within the APE and to determine any adverse impacts on those properties from MPRP.

As a result of these surveys, the MHPC determined that the MPRP would not have an adverse effect on any pre-historic archaeological or historic archaeological sites that are listed on or eligible for listing on the NRHP in Orrington. The MHPC also determined that the MPRP would not have an adverse effect on any historic architectural structures in Orrington that is listed on or eligible for listing on the NRHP.

I. Conformity with Local Ordinances and Plans

The MPRP is identified as a "Transportation and Utilities" land use in the RF Zoning District, and as an "Essential Service" land use in the Shoreland Residential, Resource Protection, and Stream Protection Districts. Both Transportation and Utilities and Essential Service land uses are permitted uses within these districts with Planning Board approval.

J. Financial and Technical Capacity

Please refer to the discussion of CMP's financial and technical capacity to construct the MPRP in the preceding "Written Supporting Information".

K. Surface Waters; Outstanding River Segments

CMP's environmental consultants have surveyed the MPRP project area for water bodies and wetlands, and delineated these features within the MPRP project area. In the Town of Orrington, the MPRP will cross Fields Pond, as well as 12 streams. No outstanding river segments will be crossed. Although capable species of vegetation will be removed within the proposed area of corridor expansion, the corridor will remain vegetated, so no increase in stormwater runoff will occur as a result of the MPRP. No discharge of effluent will occur during construction, and contractors will adhere to the Environmental Guidelines and Environmental Controls, so the MPRP will not impact the quality of surface waters. The shoreline of Fields Pond will remain stable and vegetated, and will not be degraded as a result of the MPRP.

L. Groundwater

The MPRP will not adversely affect the quality or quantity of groundwater. Within the Town of Orrington, the MPRP will not require additional groundwater withdrawals for water supply. Wastewater will not be generated. The project will not adversely affect surface

water drainage or runoff, as there will be no addition of impervious surface area large enough to generate significant volumes of stormwater runoff, and no permanent changes to existing slopes or grades.

In order to minimize spill and groundwater contamination risks during construction, no fueling or maintenance of vehicles will be performed within 100 feet of a wetland or waterbody. The contractor will also utilize a Spill Contingency Plan and will abide by CMP's Environmental Controls (see Exhibit 6) during construction.

After construction, the electric transmission line corridor will continue to be maintained in the same manner as it currently is to encourage a shrub-meadow cover type. Trees and capable species will be removed for safety and reliability reasons. CMP will continue to use a selective herbicide program to treat an area once every four years to maintain an early successional stage of growth. Herbicide is selectively applied (using a low-pressure backpack applicator) to capable species to prevent growth (or re-growth of a cut plant) of individual plants. CMP does not use herbicides within at least 25 feet of any waterbody or wetland with standing water, or within 100 feet of known well at the request of the well-owner. Crew forepersons are certified by the Maine Pesticide Control Board, and all herbicides are Environmental Protection Agency (EPA) registered. The selective use of herbicides within the transmission line corridor does not pose a threat to groundwater quality.

M. Flood Areas

The MPRP will be constructed within FEMA mapped Zone A flood hazard development boundaries associated with Fields Pond and an unnamed tributary to Swetts Pond. However, the MPRP does not constitute a subdivision in a flood prone area. Furthermore, no "structures" as defined in Article 9 for the purposes of floodplain management (a walled and roofed building) are proposed as part of the MPRP. Please refer to the discussion of "Floodplains and Mudslide Hazards" in the preceding section "Article 4 Performance Standards".

N. Freshwater Wetlands

Wetlands have been delineated by CMP's environmental consultants and are shown on the Project Scope and Natural Resources Maps contained within Exhibit 2.

O. River, Stream, or Brook

Water bodies (including rivers, streams, and brooks) have been delineated by CMP's environmental consultants and are shown on the mapping contained within Exhibit 2.

P. Storm Water

With the exception of small concrete foundation pads at the base of nine transmission line H-frames, there will be no increase in concrete or paved impervious surface area associated with the MPRP in the Town of Orrington. These pads will be small – approximately 40 to

120 square feet in area. Subsequent to construction, the expanded transmission corridor will remain vegetated in the same shrub-meadow cover type as the existing transmission corridor. Accordingly, the MPRP will not significantly increase stormwater runoff and will not adversely impact abutting or downstream properties.

Q. Spaghetti-Lots Prohibited

Not applicable. No new shore frontage lots for the purpose of residential or commercial development will be created as part of the MPRP in the Town of Orrington.

R. Lake Phosphorus Concentration

Sedimentation is a primary source of phosphorous pollution. As discussed under criterion “D. Erosion”, erosion and sediment control practices will be rigorously implemented during construction of the MPRP. Controlling erosion during construction will also control phosphorous pollution to Fields Pond and other water bodies. Subsequent to construction, soils within the MPRP project area will be stable and vegetated, and phosphorous containing effluent or discharge will not be generated. Therefore, the MPRP will not unreasonably increase the phosphorous content of any great pond either during construction or over the long-term.

S. Impact on Adjoining Municipality

The MPRP transmission corridor does cross the municipal boundary with Bucksport. Motorized vehicle use within the corridor is limited to authorized vehicles for routine and urgent maintenance. Other motorized vehicle use within the corridor is prohibited. Therefore, the MPRP will not cause traffic congestion or unsafe conditions within public ways in adjoining municipalities.

T. Lands Subject to Liquidation Harvesting

Not applicable. In Orrington, most of the proposed MPRP corridor is an existing cleared opening that has been routinely maintained by CMP and Bangor Hydro in a shrub-meadow cover type for decades. Existing corridor management procedures are to remove vegetation safety hazards and transmission reliability risks. Tree removal is an activity that is incidental and necessary to the principal land use as a transmission corridor.

9. *Specific Standards*

A. Buffering of adjacent uses

With regard to the proposed MPRP transmission corridor expansion and improvements, the work will be constructed within and along a service corridor that has been in existence for decades. Although the corridor boundary will shift, transitions from one land use type to another will not change as a result of the MPRP. There will be no land use change that would necessitate a buffer to maintain the characteristics and feel of the existing landscape. Furthermore, in order to maintain the required minimum operational safety clearances,

vegetation within the corridor must be managed to ensure that it generally does not grow taller than approximately ten feet, as is presently done.

With regard to the Orrington Substation, a portion of the existing row of pine trees located along Fields Pond Road will be removed to accommodate the proposed Section 254 transmission line. A buffer of non-capable species will be planted to replace the pine tree buffer. This will maintain a vegetated visual buffer between the substation and adjacent properties and land uses. The nearest building to the substation is a residence located approximately 250 feet away, on the south side of Fields Pond Road.

B. Buffering of residential uses

Please refer to the immediately preceding discussion under criterion “A. Buffering of adjacent uses.”

C. Conformance to major street plan

No new streets or roads are proposed as part of the MPRP.

D. Conformance to future land use plan

No part of the MPRP is to be specifically dedicated as land for public use. However, the public is welcome to use the transmission corridor for certain non-motorized activities such as walking or wildlife observation.

E. Curbs and gutters

No new streets or roads are proposed as part of the MPRP, so there will not be a need to install curbs and gutters.

F. Easements

Easements for the purpose of providing utility services to a structure, or for drainage purposes will not be needed for the MPRP. Some of the existing corridor and proposed corridor expansion title, right, or interest is in the form of an easement. See Exhibit 1 for additional information.

G. Exterior lighting

Presently there is limited night-time lighting at the Orrington Substation for safety and security purposes. Additional lighting systems are also used as necessary for repair and maintenance work. Comparable lighting systems will be mounted to the infrastructure that is to be added to the substation. With regard to the transmission corridor, no lighting is needed or proposed as part of the MPRP.

H. Hazardous waste

During construction, fuel (diesel and unleaded gasoline) and hydraulic and lubricating oils will be used in the operation of vehicles and construction equipment. Small quantities of such materials may be kept in vehicles for use in refueling and maintenance of construction equipment. All refueling activities will be located at least 100 feet from wetlands, water bodies, and streams.

If temporary fuel storage is necessary in Orrington, all fuel will be located at least 100 feet from wetlands, water bodies, and streams, and at least 200 feet from a private water supply. Furthermore, as specified in the “Environmental Control Requirements For Contractors and Subcontractors of Central Maine Power Company – Oil and Hazardous Material” (Environmental Controls) (see Exhibit 6) all gasoline and fuel storage tanks will have secondary containment constructed of impervious material that will be capable of holding 110% of the storage tank capacity. Petroleum based products will be stored in Department of Transportation approved containers. Hazardous waste will not be generated or stored in the transmission corridor subsequent to construction.

Oil filled electrical equipment will be contained in some of the substation equipment that is proposed at the Orrington Substation. These materials will be handled in accordance with all applicable state and federal regulations and the Orrington Substation Spill Prevention Control and Countermeasure Plan.

I. Landscaping

The project does not include new streets or parking areas. The proposed construction is co-located with the existing CMP transmission corridor, which will continue to be managed to maintain a shrub-meadow vegetation cover type subsequent to construction. Therefore, there will be no significant change in the appearance of the landscape.

J. Large parcels

The MPRP is an electric transmission project that is co-located with an existing transmission corridor, and does not involve activities that require consideration of future road access to subdivided land.

K. Lots

An existing transmission corridor will be expanded to accommodate the proposed transmission lines. The proposed work at the Orrington Substation will occur within the existing fence line. The MPRP does not include creation of new lots.

L. Monuments

Monuments are not proposed where the MPRP corridor intersects with road right-of-ways because the MPRP is not a residential or commercial subdivision involving the establishment of new building lots or roads.

The existing corridor was originally established by surveying and staking the corridor centerline. The lateral limits of the corridor were established on the ground by measuring from the staked centerline. Prior to the start of construction the corridor centerline will be re-surveyed and staked, and the lateral limits of the MPRP corridor will be located on the ground by measuring from the staked centerline. The proposed transmission line H-frame and monopole supports will be installed based on construction drawings stamped by a Professional Engineer, and will be a known distance from the corridor centerline.

M. Noise

The MPRP will comply with noise standards mandated by the Maine DEP, and will not produce audible noise that will create unreasonable interference with the use and enjoyment of neighboring properties. The proposed improvements to the Orrington Substation that are part of the MPRP do not include equipment that creates audible noise, so audible noise produced by the substation will not be increased by the MPRP. Please refer to the discussion under “Storage of Material and Equipment” in the preceding “Written Supporting Information” section of this application.

N. Storage of materials

Please refer to the discussion under the “Storage of Material and Equipment” in the preceding “Written Supporting Information” section of this application. The existing substation is fenced to deter unauthorized access, and will remain so.

O. Street name signs

No new streets or roads are proposed as part of the MPRP, so street name signs will not be required.

P. Subdivision or site plan names

The MPRP is not a subdivision and does not require a site name.

10. Street Construction Standards

New streets or roads are not proposed as part of the MPRP.

Article 3. Shoreland Zoning

The following describes the MPRP's compliance with the provisions and standards of Article 3 (Shoreland Zoning) of the Town of Orrington Land Use Ordinance, to ensure that there will be no unreasonable adverse impact on the water quality or shoreline of any adjacent water body. The shoreland zoning districts affected by the MPRP are identified, impacts are evaluated, and the shoreland zone land use standards are discussed relative to the MPRP.

Affected Shoreland Zoning Districts

The proposed project will traverse a Stream Protection District; Shoreland Residential Districts, and one Resource Protection District in the Town of Orrington. These individual zoning districts and their locations are identified and described as follows:

1. A Stream Protection District associated with an unnamed tributary to Swetts Pond

Construction of the new Section 254 transmission line will cross a small portion of the uppermost reach of a Stream Protection District associated with an unnamed tributary to Swetts Pond (see Shoreland Zone Mapping in Exhibit 2). The Stream Protection District is located between Section 254 H-frame numbers 513 and 514, and extends 75 feet horizontally from the normal high water line of the stream.

No new transmission line H-frames will be installed in this Stream Protection District. Existing trees and capable species will be removed. One temporary access way and temporary bridge will cross the stream during the construction phase, and will then be removed and the site restored when construction is completed.

2. A Shoreland Residential District and Resource Protection District associated with a palustrine wetland on the south side of Center Drive

The MPRP corridor will also cross a Shoreland Residential District and Resource Protection District associated with wetlands located on the south side of Center Drive (see Shoreland Zone Mapping in Exhibit 2). These shoreland zoning districts extend 250 feet from the wetland boundary.

The existing transmission corridor crosses these shoreland zone districts approximately 400 feet south of where the corridor crosses Center Drive. The existing corridor is 270 feet wide and currently contains one 345 kV electric transmission line and the Maritimes & Northeast Pipeline in the Shoreland Residential and Resource Protection Districts.

Under proposed conditions, the corridor will be widened by 100 feet to construct the MPRP. CMP proposes to construct one new 345 kV transmission line and one new 115 kV transmission line on H-frames within these shoreland zone districts. Three new H-frames will be installed within this Shoreland Residential District, and one new H-frame will be installed in the Resource Protection District. Capable species will be removed, and

temporary access ways will be utilized by equipment to reach the installation locations, and will then be removed and restored subsequent to construction.

3. Four crossings of the Shoreland Residential District associated with Fields Pond

The MPRP corridor will also cross the Shoreland Residential District surrounding Fields Pond at four locations (see Shoreland Zone Mapping in Exhibit 2). These Shoreland Residential Districts extend 250 feet from the edge of the normal high water line of Fields Pond or its riparian non-forested wetlands.

The existing corridor ranges from 227 to 270 feet wide in this vicinity and currently contains one 345 kV electric transmission line and the Maritimes & Northeast Pipeline in the Shoreland Residential District.

Under proposed conditions, the corridor will be expanded to 327 to 542 feet in width in the Shoreland Residential District to construct the MPRP. CMP proposes to construct one new 345 kV transmission line and one new 115 kV transmission line on H-frames within these Shoreland Residential Districts. Nineteen new H-frames will be installed within the Fields Pond Shoreland Residential District. Capable species will be removed in the expanded corridor, and temporary access ways will be utilized by equipment to reach the installation locations, and will then be removed and restored subsequent to construction.

Project Impacts in the Shoreland Zone Districts of Orrington

In each of the affected shoreland zones, project impacts will be minimal. Prior to construction, capable species will be removed from both the existing and expanded transmission corridor, which will continue to be managed in a vegetated shrub-meadow cover type as is presently done. Where necessary for MPRP construction, additional temporary vegetation trimming may also occur within an approximately 25-foot radius construction area surrounding each proposed H-frame. Within the construction area saplings and tall shrubs will be trimmed and mulched to existing grade to facilitate equipment operation during pole installation. Roots will be left in-place. Low-compact shrubs and herbaceous growth that will not affect equipment operation will not be trimmed. Subsequent to construction the area of temporary vegetation trimming around the H-frames will be allowed to naturally re-vegetate with non-capable species and will be maintained in the shrub-meadow cover type as is presently done.

Installation of each H-frame in the shoreland zone will impact approximately 60 to 120 square feet of ground. Once the H-frames are installed, the disturbed ground around the poles will be stabilized with hay or straw mulch and allowed to revegetate. The restored area around the H-frames will also match original grade as nearly as possible. However, where warranted by subsurface conditions, a small amount of soil mounding around H-frames may be necessary to provide additional structural support. In addition, two H-frames in the Fields Pond Shoreland Residential District will each have a 120 square foot concrete foundation.

Although no new permanent roads or access ways will be constructed, temporary access ways will be utilized by construction equipment to reach the H-frame installation locations.

Temporary access ways will have no long-term or significant environmental impacts and are addressed in more detail under the preceding discussion of the “Erosion” criterion of Article 6.

Once the new H-frames are installed and areas of temporary disturbance restored, the remaining construction activities in the shoreland zone will be limited to hardware installation on the H-frames and stringing the conductors.

Land Use Standards

A. Minimum Lot Standards

As an “essential service” land use, the minimum lot standards are not applicable to the MPRP.

B. Agriculture

Agricultural activities are not part of the MPRP.

C. Archeological Sites

Please refer to the discussion under criterion “H. Aesthetic, Cultural, and Natural Values” in the preceding section of this application addressing “Article 6 – Site Plan and Subdivision Review” of the Land Use Ordinance.

D. Beach Construction

Beach construction is not part of the MPRP.

E. Campground

Campground construction is not part of the MPRP.

F. Clearing of Vegetation for Development

As mentioned in the preceding discussion of project impacts in the shoreland zone, trees and capable species will be removed from the area where the corridor is to be expanded, and will also be removed from the existing corridor as is presently done for routine maintenance. This vegetation management is a necessary component of the permitted use, and is required for safety and transmission reliability.

Some limited and temporary clearing of tall shrubs and saplings will also be necessary in the construction area around the proposed transmission H-frames, and along proposed construction access ways. Root systems will remain intact and stumps will not be removed except where it poses a safety hazard to equipment access. Subsequent to construction and site restoration these areas of the corridor will exhibit the early-successional habitat type that is typical of the existing transmission line corridor within a relatively short period of time (generally within one calendar year).

G. Commercial and Industrial Uses

The MPRP is not a commercial or industrial land use.

H. Erosion and Sedimentation Control

Erosion and sedimentation control measures related to construction of the MPRP are addressed in the discussion of criterion “D. Erosion” in the preceding section of this application “Article 6 – Site Plan and Subdivision Review”. Detailed information regarding construction best management practices and erosion and sediment control measures that CMP will implement during construction are specified in its Environmental Guidelines (see Exhibit 5).

I. Essential Services

(1) A guiding principle in the design of the MPRP transmission line upgrades has been to utilize CMP’s existing transmission line corridors to the maximum extent possible. Only where existing corridors cannot accommodate the proposed upgrades while meeting safety and reliability standards is CMP seeking to widen the existing corridors. Creating an entirely new corridor is a last resort. As a result, the vast majority of the transmission line upgrades proposed as part of the MPRP are located within or immediately adjacent to existing corridors. Co-location of the transmission line upgrades, as opposed to the creation of new corridors, has multiple benefits, including the minimization of impacts to communities, individual property owners, and the environment. Within Orrington, the corridor will be widened along its eastern side by 100 feet, except between Brewer Lake Road and Fields Pond Road where the corridor will need to be widened by up to 239 feet.

(2) Within the corridor, CMP has, to the greatest extent practicable, sited each H-frame or monopole support so as to avoid, and where unavoidable, to minimize, adverse impacts on surrounding uses and resources. As part of this avoidance and minimization effort, CMP has sited the H-frame and monopole supports so that none are located within the Stream Protection District. One H-frame will be located within the Resource Protection District, because the proposed Section 388 crosses the Resource Protection District at an angle point in the corridor. H-frames must be sited at corridor angle points, which eliminates the possibility of spanning the Resource Protection District entirely.

There is no reasonable alternative to locating this H-frame within the Resource Protection District. The amount of ground disturbance associated with the planned H-frame will be small, i.e., limited to the immediate vicinity of the pole placements, and because the project is within the existing transmission line corridor (which contains H-frames of a similar bulk and style), locating H-frames within this district causes the least overall impact when compared to the alternatives. Avoiding the Resource Protection District would require expanding the existing transmission line corridor to the west or creating a new corridor. Expanding the corridor to the west would directly impact undeveloped land and existing residences along Hillside Drive. Establishing a new corridor would also directly impact existing residences and undeveloped land along Hillside Drive or Center Drive. The overall environmental and property impacts of any of these alternatives would be much greater than the impacts associated with the co-located corridor as planned.

J. Individual Private Campsites

Individual private campsites are not part of the MPRP.

K. Mineral Exploration and Extraction

Mineral exploration or extraction is not part of the MPRP.

L. Parking Areas

Parking lots or areas are not part of the MPRP.

M. Piers, Docks, Wharves, etc.

Piers, docks, wharves, and other similar structures extending over or beyond waterbodies are not part of the MPRP.

N. Principal and Accessory Structures

- 1.) Not applicable.
- 2.) Not applicable. Structures with no floor area are exempted from the 35 foot height restriction.

O. Roads and Driveways

Not applicable. Permanent roads and driveways are not part of the MPRP.

P. Septic Waste Disposal

The existing septic system at the Orrington Substation will be used for on-site wastewater disposal. The MPRP will not increase wastewater flows at the substation so the existing system does not need to be expanded or upgraded under the *State of Maine Subsurface Wastewater Disposal Rules*.

Q. Soils

Soils within the MPRP project area are suitable for the proposed uses. Soils within the MPRP project area and their characteristics are discussed in the preceding "Written Supporting Information" portion of this application under the "Soils" subheading.

R. Special Exception

The MPRP is not a special exception land use.

S. Storm Water Runoff

Within the shoreland zone in Orrington, concrete or paved impervious surface areas related to the MPRP will be limited to 120 square foot foundations around two H-frames. The MPRP transmission corridor will be maintained in a vegetated shrub-meadow cover type subsequent to construction. Accordingly the MPRP will not significantly increase stormwater runoff.

T. Timber Harvesting

Not applicable. Timber harvesting as a principal land use or activity is not part of the MPRP. Please refer to criterion "F. Clearing of Vegetation for Development" for additional information.

U. Water Quality

The MPRP will not have an adverse impact on water quality. Please refer to the discussions of surface water, groundwater, pollution, stormwater, and water quality in the preceding sections of this application.

Article 7. Floodplain Management

Portions of the MPRP will be located within areas of special flood hazard designated as Zone A by the FEMA. The specific location of these areas and the project activities proposed within them are described within the preceding “Article 4 – Performance Standards” under criterion “3. Floodplain and/or Mudslide Hazard Areas”.

No structures, as defined for the purposes of floodplain management, are proposed within flood hazard development areas. Only minor development including the installation of the transmission line H-frames, vegetation management, and temporary access ways incidental to project construction are proposed. The proposed infrastructure within the MPRP corridor would be safe from flood damage and would not increase flood hazards in Orrington or downstream areas.

CMP will consult with the CEO regarding the need for a Flood Hazard Development Permit prior to the start of construction, and will either obtain a Flood Hazard Development Permit from the CEO or obtain a written determination from the CEO that no permit is necessary.

EXHIBIT 1
Documentation of Title, Right, or Interest

EXHIBIT 2
Project Mapping

Project Overview Map

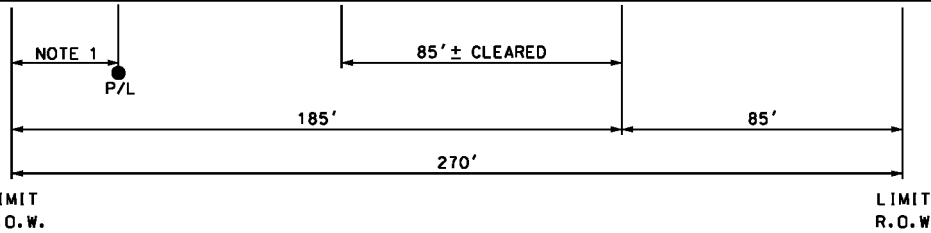
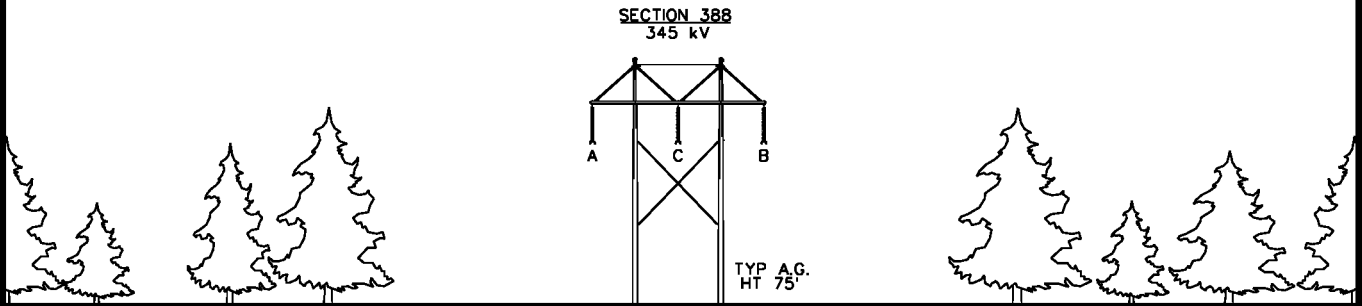
Project Scope and Natural Resources Maps

Shoreland Zoning Maps

EXHIBIT 3
Transmission Corridor Cross Sections

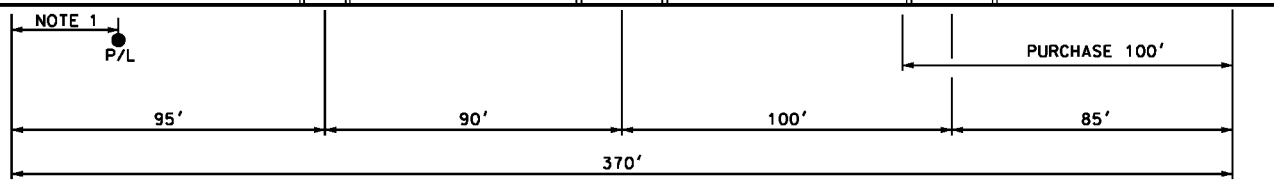
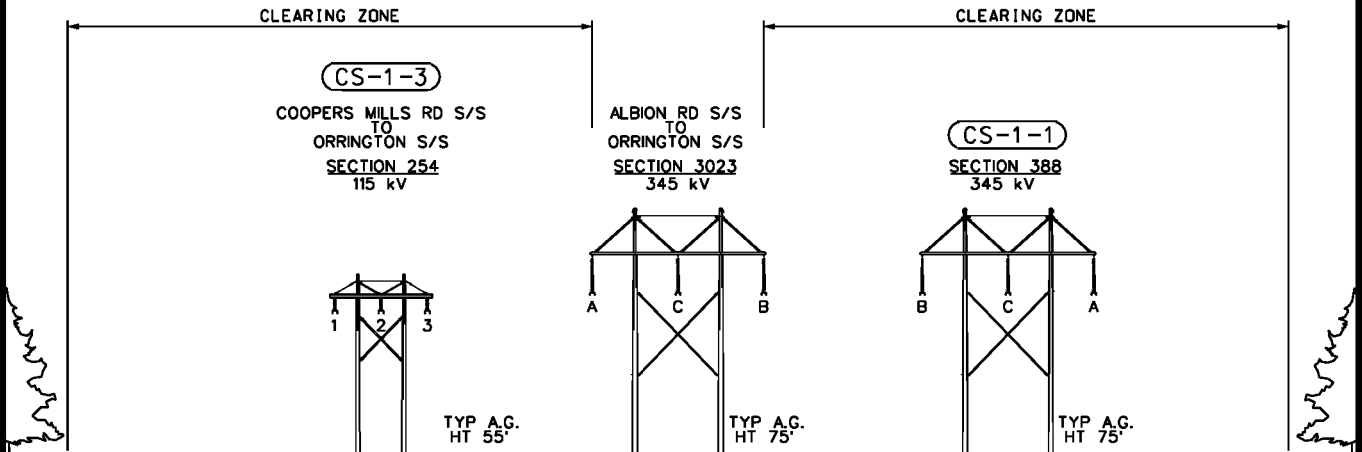
NOTE 1: GAS PIPELINE LOCATION
VARIES ALONG R.O.W.

EXISTING



LOOKING FROM COOPERS MILLS RD S/S TOWARDS ORRINGTON S/S
(APPROX. 3.0 MILES)

PROPOSED



LOOKING FROM COOPERS MILLS RD S/S TOWARDS ORRINGTON S/S
(APPROX. 3.0 MILES)

THIS DRAWING SHALL
BE REVISED ON THE
CADD SYSTEM ONLY

**-DRAFT-
FOR REVIEW ONLY**

ENG. CONTRACTOR			
G	REVISED CLEARING ZONE	2/12/10	PEI
F	REVISED S254 STRUCTURE/SPACING/ REVISED S3023 & S388/CLEARING ZONE	12/1/09	PEI
E	ADDED CLEARING ZONE	9/23/09	PEI
D	ADDED SEQUENCING/PHASING UPDATED STATION NAME	8/7/09	PEI
C	REVISED STRUCTURES	2/05/09	PEI
B	ADDED SECTION NO.	4/11/08	PEI
NO.	REVISION	DATE	BY

SECTION 388 POLE 433 TO 460 STA. 3984+43.3 TO 4142+92=4142+93

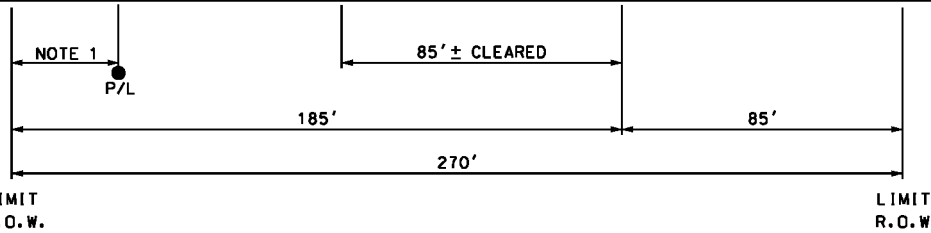
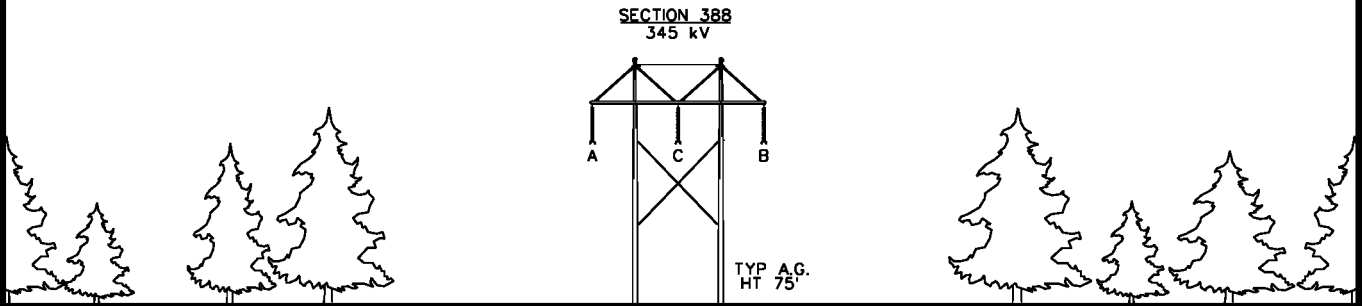
MAINE POWER RELIABILITY PROGRAM
EXISTING AND PROPOSED R.O.W.
ALTERNATIVE N5 FOR N-1-1 ANALYSIS

CHECKED		DESIGNED KJF	DATE 8/27/07
SGW	8/4/09	DRAWN SAT	APPR.
		CENTRAL MAINE POWER CO.	
		TRANSMISSION ENGINEERING	
SCALE	NTS		

SEGMENT 1
SHEET N5-1-10

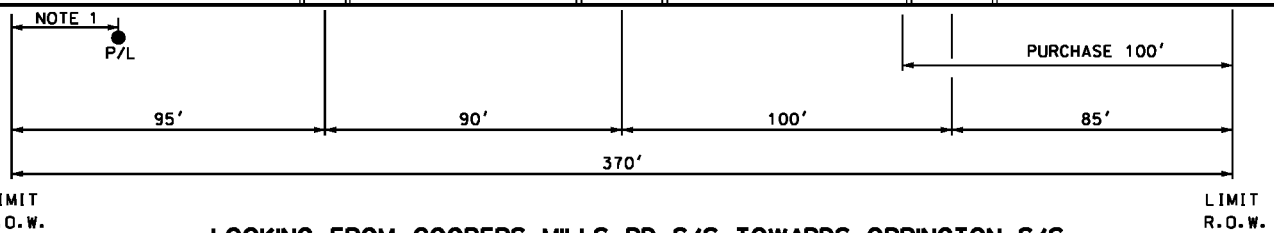
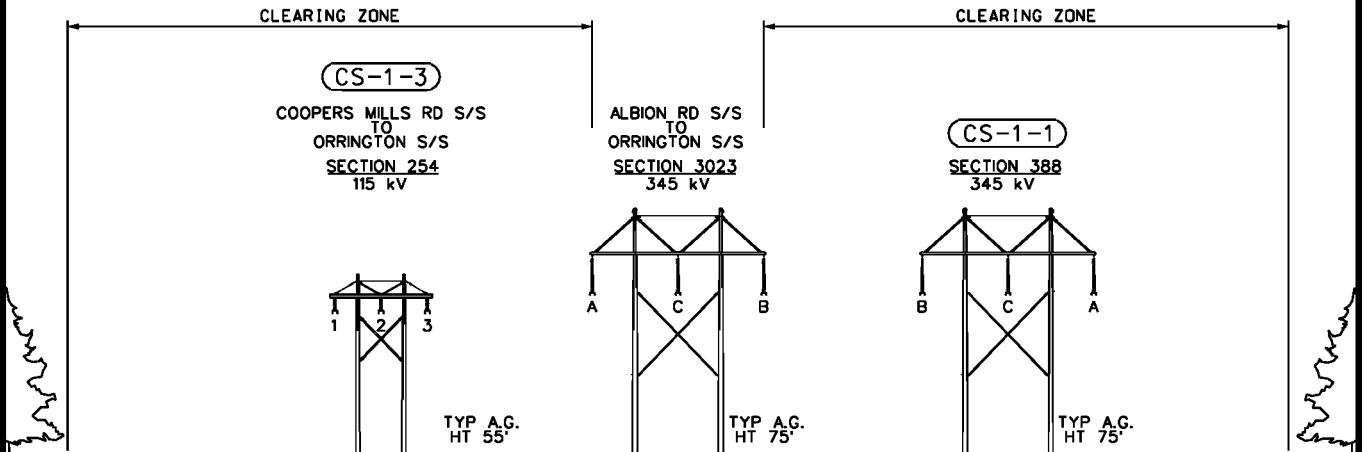
NOTE 1: GAS PIPELINE LOCATION
VARIES ALONG R.O.W.

EXISTING



LOOKING FROM COOPERS MILLS RD S/S TOWARDS ORRINGTON S/S
(APPROX. 0.5 MILES)

PROPOSED



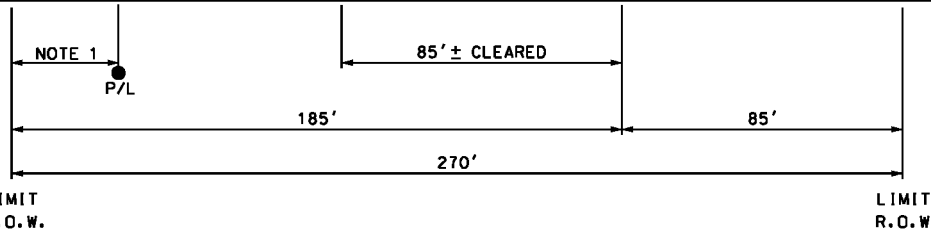
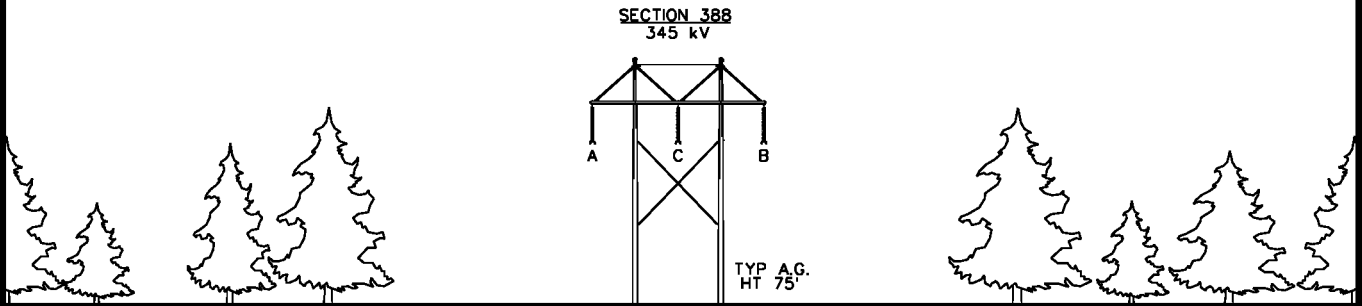
LOOKING FROM COOPERS MILLS RD S/S TOWARDS ORRINGTON S/S
(APPROX. 0.5 MILES)

THIS DRAWING SHALL BE REVISED ON THE CADD SYSTEM ONLY

- DRAFT - FOR REVIEW ONLY				SECTION 388		POLE 460 TO 465		STA. 4142+92-4142+93 TO 4170+47.6	
MAINE POWER RELIABILITY PROGRAM				EXISTING AND PROPOSED R.O.W. ALTERNATIVE N5 FOR N-1-1 ANALYSIS					
ENG. CONTRACTOR									
E	REVISED CLEARING ZONE	2/12/10	PEI	CHECKED SGW 8/4/09 DESIGNED KJF SAT DATE 2/04/09 DRAWN SAT APPR.					
D	REVISED S254 STRUCTURE/SPACING/ REVISED S3023 & S388/CLEARING ZONE	12/1/09	PEI						
C	ADDED CLEARING ZONE	9/23/09	PEI						
B	ADDED SEQUENCING/PHASING UPDATED STATION NAME	8/7/09	PEI						
A	ISSUED FOR REVIEW	2/05/09	PEI						
NO. REVISION DATE BY SCALE NTS				CENTRAL MAINE POWER CO. TRANSMISSION ENGINEERING					
				SEGMENT 1					
				SHEET N5-1-11					

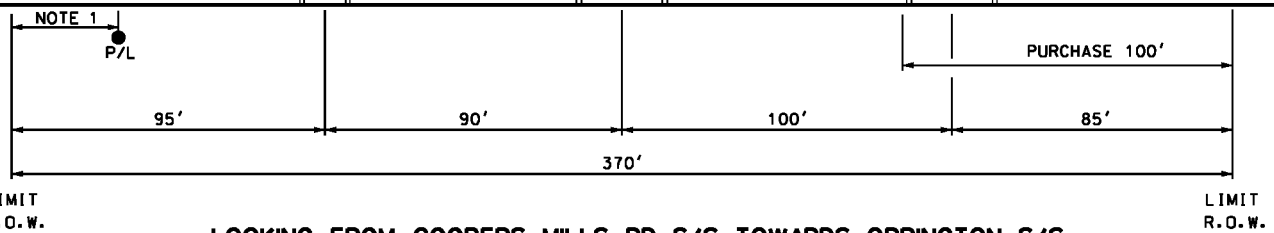
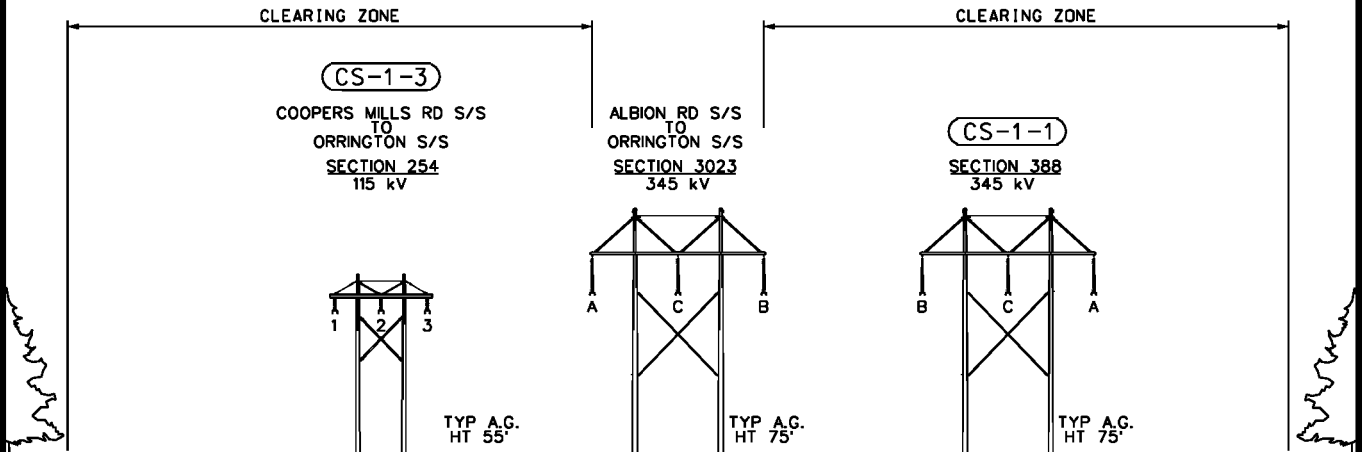
NOTE 1: GAS PIPELINE LOCATION
VARIES ALONG R.O.W.

EXISTING



LOOKING FROM COOPERS MILLS RD S/S TOWARDS ORRINGTON S/S
(APPROX. 0.9 MILES)

PROPOSED



LOOKING FROM COOPERS MILLS RD S/S TOWARDS ORRINGTON S/S
(APPROX. 0.9 MILES)

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ENG. CONTRACTOR			
NO.	REVISION	DATE	BY
E	REVISED CLEARING ZONE	2/12/10	PEI
D	REVISED S254 STRUCTURE/SPACING/ REVISED S3023 & S388/CLEARING ZONE	12/1/09	PEI
C	ADDED CLEARING ZONE	9/23/09	PEI
B	ADDED SEQUENCING/PHASING UPDATED STATION NAME	8/7/09	PEI
A	ISSUED FOR REVIEW	2/05/09	PEI

SECTION 388 POLE 465 TO 472 STA. 4170+47.6 TO 4215+37.4

MAINE POWER RELIABILITY PROGRAM
EXISTING AND PROPOSED R.O.W.
ALTERNATIVE N5 FOR N-1-1 ANALYSIS

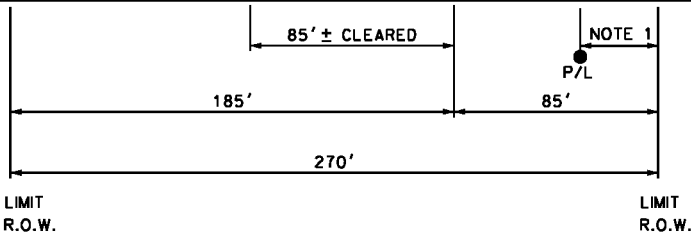
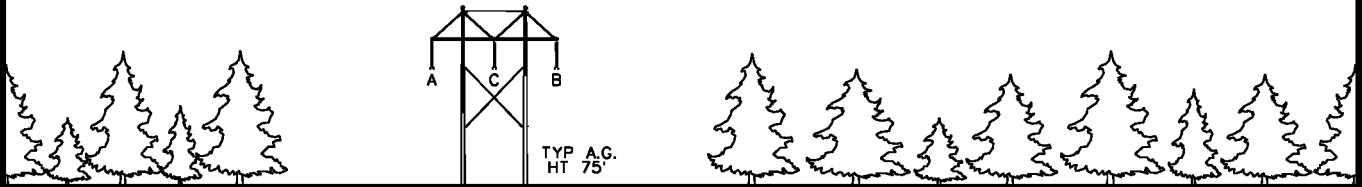
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SGW	8/4/09	DRAWN SAT	APPR.
CENTRAL MAINE POWER CO.			SEGMENT 1
TRANSMISSION ENGINEERING			
NO.	REVISION	DATE	BY
SCALE NTS			

SEGMENT 1
SHEET N5-1-12

NOTE 1: GAS PIPELINE LOCATION
VARIES ALONG R.O.W.

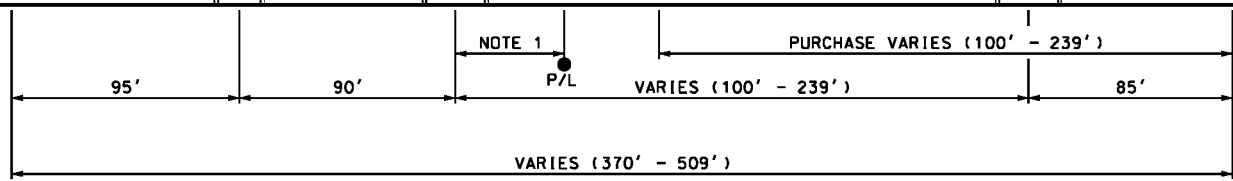
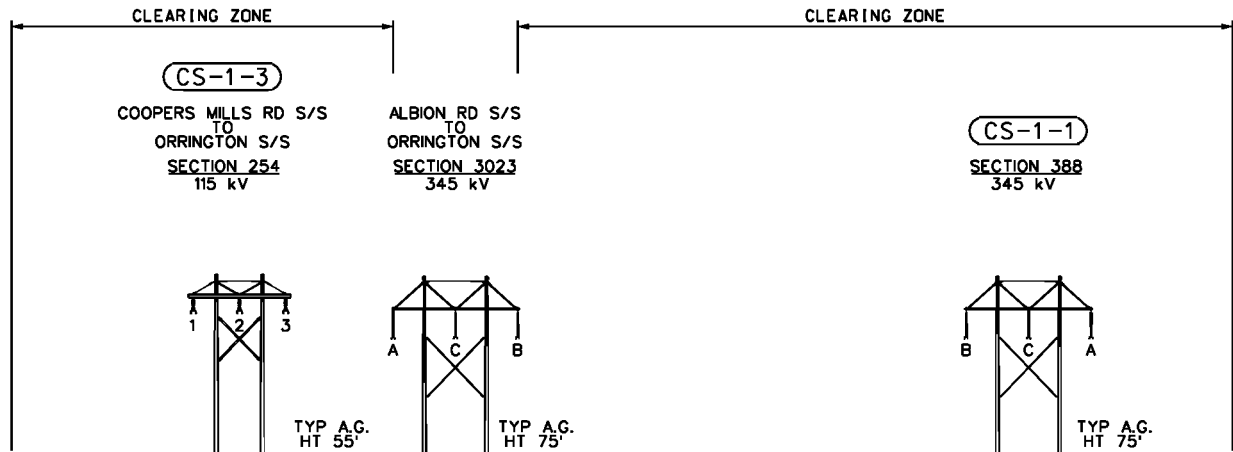
EXISTING

SECTION 388
345 kV



LOOKING FROM COOPERS MILLS RD S/S TOWARDS ORRINGTON S/S
(APPROX. 0.9 MILES)

PROPOSED



LOOKING FROM COOPERS MILLS RD S/S TOWARDS ORRINGTON S/S
(APPROX. 0.9 MILES)

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BE REVISED ON THE
CADD SYSTEM ONLY

**-DRAFT-
FOR REVIEW ONLY**

SECTION 388 POLE 472 TO 480 STA. 4215+37.4 TO 4261+88

ENG. CONTRACTOR			
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F	REVISED S254 STRUCTURE/SPACING/ REVISED S3023 & S388/CLEARING ZONE	12/1/09	PEI
E	ADDED CLEARING ZONE	9/23/09	PEI
D	ADDED SEQUENCING/PHASING UPDATED STATION NAME	8/7/09	PEI
C	REVISED STRUCTURE	2/05/09	PEI
B	ADDED SECTION NO.	4/11/08	PEI

MAINE POWER RELIABILITY PROGRAM
EXISTING AND PROPOSED R.O.W.
ALTERNATIVE N5 FOR N-1-1 ANALYSIS

CHECKED		DESIGNED KJF	DATE 8/27/07
SGW	8/4/09	DRAWN SAT	APPR.

SEGMENT 1

CENTRAL MAINE POWER CO.
TRANSMISSION ENGINEERING

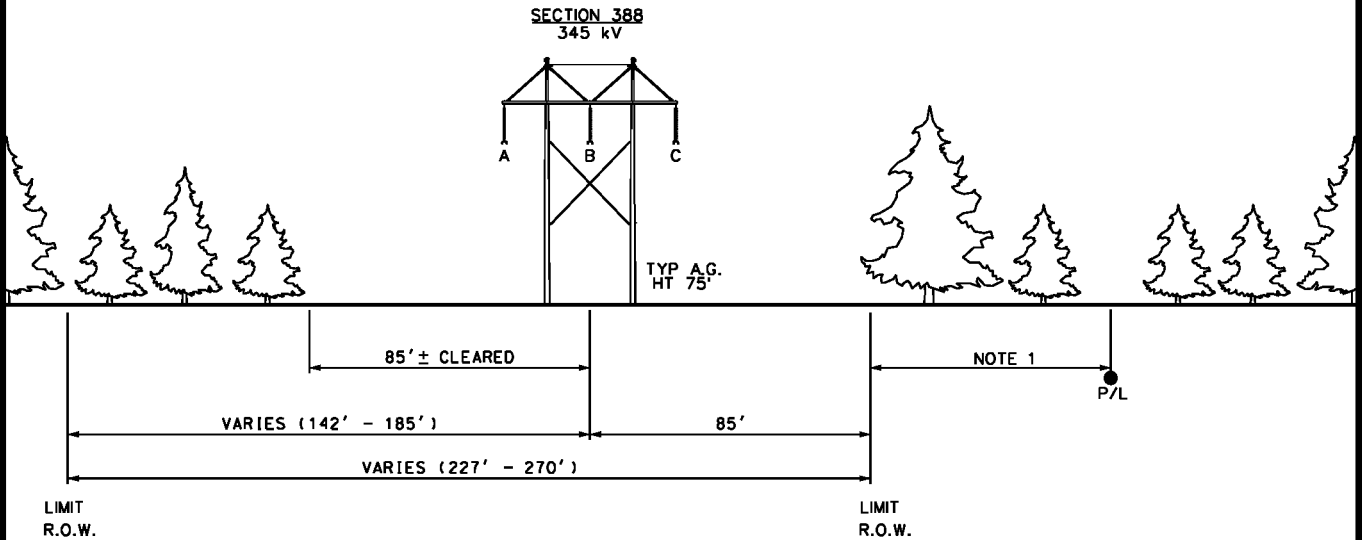
NO.	REVISION	DATE	BY
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SCALE NTS

SHEET N5-1-13

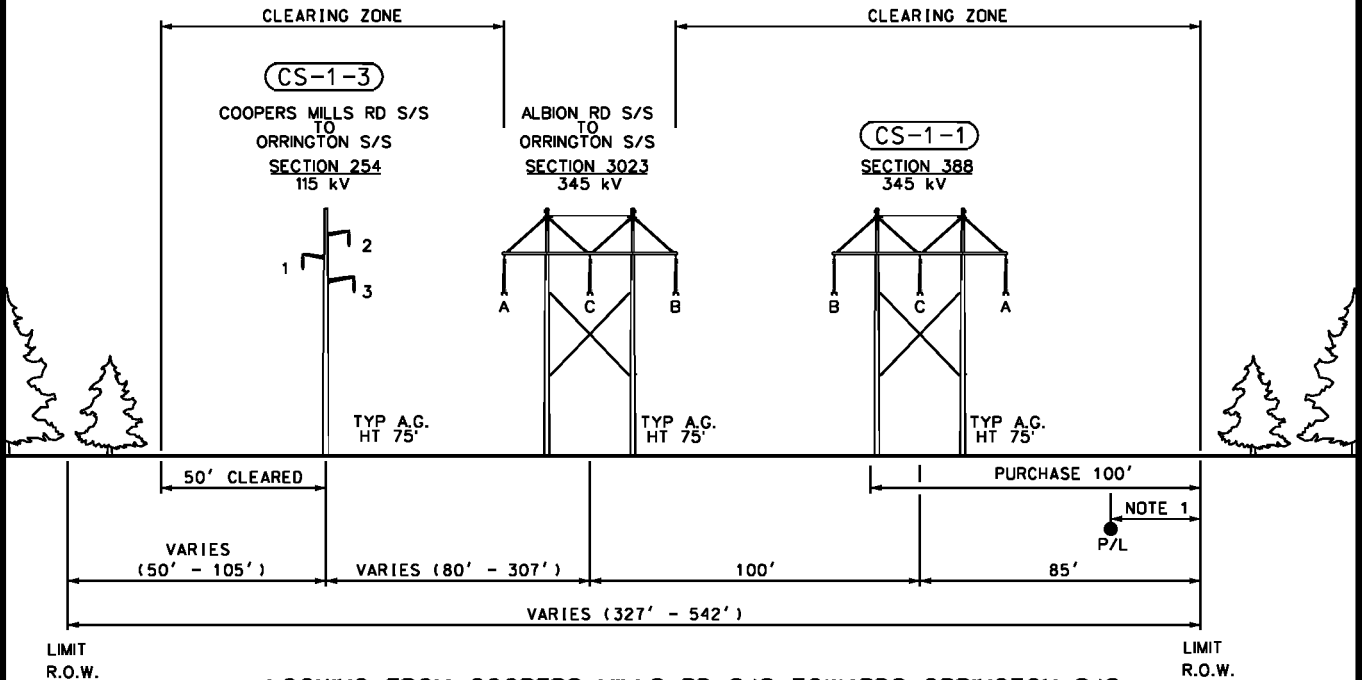
NOTE 1: GAS PIPELINE LOCATION
VARIES ALONG R.O.W.

EXISTING



LOOKING FROM COOPERS MILLS RD S/S TOWARDS ORRINGTON S/S
(APPROX. 0.2 MILES)

PROPOSED



LOOKING FROM COOPERS MILLS RD S/S TOWARDS ORRINGTON S/S
(APPROX. 0.2 MILES)

THIS DRAWING SHALL BE REVISED ON THE CADD SYSTEM ONLY

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FOR REVIEW ONLY**

ENG. CONTRACTOR			
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D	ADDED SEQUENCING/PHASING UPDATED STATION NAME	8/7/09	PEI
C	REVISED STRUCTURE	2/05/09	PEI
B	ADDED SECTION NO.	4/11/08	PEI

SECTION 388 POLE 480 TO S/S STA. 4261+88 TO 4272+44

MAINE POWER RELIABILITY PROGRAM

**EXISTING AND PROPOSED R.O.W.
ALTERNATIVE N5 FOR N-1-1 ANALYSIS**

CHECKED

DESIGNED KJF

DATE 8/27/07

SGW 8/4/09

DRAWN SAT

APPR.

SEGMENT 1

**CENTRAL MAINE POWER CO.
TRANSMISSION ENGINEERING**

NO. REVISION DATE BY SCALE NTS

SHEET N5-1-14

EXHIBIT 4
Range in Transmission Line Support Heights in the Town of
Orrington, Maine

EXHIBIT 5
Environmental Guidelines for Construction and Maintenance
Activities on Transmission Line and Substation Projects

EXHIBIT 6
Environmental Control Requirements for Contractors and
Subcontractors of Central Maine Power Company – Oil and
Hazardous Material

EXHIBIT 7
**List of Properties and Landowners Abutting the MPRP in the Town
of Orrington, Maine**