



Central Maine Power

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January 9, 2009

Karen Geraghty
Administrative Director
Maine Public Utilities Commission
State House Station #18
242 State Street
Augusta, Maine 04333-0018

Re: CENTRAL MAINE POWER COMPANY and PUBLIC SERVICE COMPANY
OF NEW HAMPSHIRE, Request for Certificate of Public Convenience and
Necessity for Maine Power Reliability Program Consisting of Construction of
Approximately 350 miles of 345 kV and 115 kV Transmission Lines,
Docket No. 2008-255

Dear Ms. Geraghty:

Enclosed for filing in the above-captioned proceeding are Central Maine Power
Company's response to the following data request:

- **ODR-03-15, Updated**

Sincerely,

Ruth Harris
Analyst, Regulatory & Tariffs

cc: All Parties

equal opportunity employer

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An Energy East Company

**CENTRAL MAINE POWER COMPANY
RESPONSE TO ORAL DATA REQUEST NO. 3
DOCKET No. 2008-255**

January 9, 2009

ODR-03-15, Updated

- Q.** Provide an estimate of the costs for the West Falmouth option described by Alison Beyea.
- A.** This proposed alternative is interpreted to include a new 345kV/115kV substation located at a point near the intersection of the Section 386,164 and 165 corridor with the Section 166 and 167 corridor in West Falmouth. This new W. Falmouth substation would split Section 386, creating two sections, and receive a new 345kV line from Surowiec. This new substation would also interconnect Sections 164 and 165, similar to the Elm Street Option. A 345kV/115kV autotransformer would be located at this new station.

Using the estimating approach implemented during the MPRP alternatives analysis, a comparative cost estimate for this alternative has been developed and is summarized in the following table, along with the costs of the equivalent components of the S1-Elm, and S1-Moshers alternatives.

Description	W. Falmouth	Elm St.	Moshers
	Estimated Costs, \$/1000		
345kV/115kV Substation	\$31,000 ¹	\$31,000 ¹	\$31,000 ¹
Transmission Lines (Surowiec to new 345kV station)	\$48,800 ²	\$41,700 ³	\$75,200 ⁴
115kV S. Portland Loop (new 345kv Station to Cape S/S)	\$55,900 ²	\$63,600 ³	\$46,100 ⁴
Elm St to E. Deering 115kV reinforcement	\$35,200 ⁵	-	\$35,200 ⁵
Total	\$170,900	\$136,300	\$187,500

1. Substation costs taken from 2007 comparative estimate. For details see the Petition, Volume I, page 56 and response to EX-07-02
2. Details for the Surowiec to W. Falmouth to Moshers to Cape estimated transmission costs are included in Attachment 1
3. For details of the Surowiec to Elm St. to Cape estimated transmission costs, see the Petition, Volume I, Page 55, Segments 18, 19, 36 and 36B
4. For details of the Surowiec to Moshers to Cape estimated transmission costs, see EX-07-02, Attachment 1 page 6, segments 18, 21 and 21A
5. Details for the Elm St to E. Deering 115kV reinforcement estimated costs are included in Attachment 2

The above table includes the estimated costs for establishing the South Portland loop to the Cape Substation from each of the three alternatives. While the South Portland Loop is not part of the MPRP, studies have shown this reinforcement is likely to be required sometime in the future. As such, the comparative costs for the later reinforcement of that section are included here.

ODR-03-15, continued

Furthermore, estimated costs for reinforcing the East Deering area have also been added to the W. Falmouth and Moshers options in order to bring each alternative to an equal footing with regard to local area reinforcements. For those two options, these reinforcements include a breaker-and-a-half 115kV substation located near the existing Elm Street substation, interconnecting Sections 164, 164A and a new 115kV line to E. Deering.

It should be noted that very limited field investigation has been completed for the site of the proposed W. Falmouth substation. To fully evaluate the feasibility of this site, environmental, real estate and topographic surveys would need to be completed and engineering analysis initiated.

Updated:

- 1) The estimating approach utilized in ODR-03-15 is wholly consistent with the 2007 comparative estimating approach utilized in evaluating the MPRP transmission alternatives, as well as the response provided in ODR-01-23. The Yarmouth Intervenor's calculation of the cost per mile for the additional 8 miles of 345kV transmission required for the Mosher's option is flawed. The incremental \$15,979,787 cost of the Moshers option over the Elm St option presented in the response to ODR-01-23 is not completely attributable to the additional 345kV transmission required for the Moshers option. There are other offsetting components of cost in the two options, namely the South Portland Loop and 115kV rebuilds required to get the 345kV line to Moshers without additional real estate. If the estimated cost of the South Portland Loop were removed from both the Moshers and Elm St. options the cost differential would be increased to approximately \$33.5M (the difference between line two in the table included in ODR-03-15 for the Moshers and Elm St. Options). This incremental cost can still not be used to assess the estimated cost per mile of the 345kV lines, as the differential includes costs associated with the additional 8 miles of 345kV line required for the Moshers alternative, as well as 9.7 miles of 115kV rebuild required to make space in the existing corridor for the new 345kV line between the W. Falmouth site and Moshers. Given the segment approach used in developing the comparative estimate, separating the costs in this segment by line section is not possible, and therefore extracting cost per mile numbers from the comparative estimate must be done with extreme caution.

In the analysis presented in ODR-03-15, the 345kV mileage differential considered between the Elm St. and W. Falmouth alternatives was 2.2 miles (total of 12.4 for Elm St and 14.6 for W. Falmouth), and the cost differential for the 345kV transmission is \$7.1M. In this case, all of the \$7.1M is attributable to the

ODR-03-15, continued

2.2 miles of 345kV transmission, and therefore it is appropriate to extract the estimated cost per mile of approximately \$3.2M per mile in this scenario.

- 2) As identified in the response to ODR-03-15, the inclusion of the S. Portland Loop and the E. Deering reinforcements are included in the evaluation to bring each alternative to an equal footing. Although the Petitioners are not seeking a certificate of public convenience and necessity for these facilities at this time, they have been identified as facilities potentially required in the future. In selecting the location for a multimillion dollar 345kV/115kV substation CMP believes that it is sound planning practice to consider the proximity to areas with a high concentration of customer load and the ability of the proposed facility to economically serve/reinforce that need in the future. Undoubtedly, the facilities to serve these future needs would be the subject of future planning studies, and would be evaluated against other potential transmission and non-transmission alternatives.

Regarding the request to “augment” the Elm St. alternative, on September 26, 2008, CMP filed in this docket its detailed deterministic/probabilistic cost estimate for the entire MPRP. This estimate, which is based on inputs available from nearly a year of detailed design initiated in the fall of 2007, reflects a 2008 deterministic estimated cost for the Elm St. substation of \$39,846,000. Variations between the deterministic and comparative estimate are largely a result of refined *site grading, real estate, equipment and labor estimated costs*.

The comparative estimated cost for the W. Falmouth alternative used in the response to ODR-03-15 is adequate for use in comparative evaluations with the Elm St. alternative as both stations require the same facilities and equipment. Furthermore, CMP has no reason to believe that either option would result in significantly different real estate or environmental compliance costs. Therefore in this comparative analysis, CMP has no basis by which to assign additional costs to one alternative over another. Finally, were CMP to initiate detailed design work on a W. Falmouth substation, there is no information that indicates that the W. Falmouth alternative would not be subject to the same increase in cost that was seen following initiation of detailed design for the Elm St alternative.

ODR-03-15, continued

- 3) The \$25.1M¹ in estimated costs associated with the 115kV line from Elm St to E. Deering (Segment 36) are included in the costs summarized in ODR-03-15 for all three alternatives. These costs are included in the Elm St. option as part of the S. Portland Loop. The \$63,600,000 listed in line three of the Elm St option includes both segments 36 and 36B, as clearly stated in footnote 3 to the table.

Response Prepared and Submitted By:

Steve Walker, PE
POWER Engineers, Inc.

Attachments:

1. Surowiec to W. Falmouth to Cape Transmission Cost detail
2. Elm St to E. Deering 115kV Reinforcement Cost detail

¹ The Yarmouth Interveners have identified that the cost of segment 36 included in the Petition in \$25.2M, while the response to ODR-03-15 lists the estimated cost of this segment as \$25.1M. The difference is a result of rounding error introduced in the evaluation. If additional significant digits are carried thru the analysis the results indicate the estimate cost of the segment is \$25.13M.

Surowiec to West Falmouth to Cape, Estimated Cost by Segment, \$/1000					
	18	21A	21B	30B	
	345kV Line Surowiec SS - Intersection 102/166/167	115kV Moshers's S/S - Cape 115kV	345kV Intersection 102/166/167 - Intersection 386/166/167	115kV Line Intersection 166/167/386 - Moshers	Total
Construction					
Labor	\$12,500	\$21,200	\$10,000	\$4,600	\$48,300
Material	\$8,400	\$14,200	\$6,600	\$3,000	\$32,200
General	\$6,200	\$10,500	\$4,900	\$2,200	\$23,800
Administrative	\$100	\$200	\$100	\$0	\$400
Land	\$0	\$0	\$0	\$0	\$0
Total	\$27,200	\$46,100	\$21,600	\$9,800	\$104,700

Elm St to E. Deering, Estimated 115kV Reinforcement Costs, \$/1000			
		36	
	New Elm 115kV Substation	115kV Elm St to East Deering	Total
Construction			
Labor	\$3,800	\$7,100	\$10,900
Material	\$4,800	\$4,700	\$9,500
General	\$1,200	\$5,700	\$6,900
Administrative	\$0	\$100	\$100
Land	\$300	\$7,500	\$7,800
Total	\$10,100	\$25,100	\$35,200

**CENTRAL MAINE POWER COMPANY
RESPONSE TO ORAL DATA REQUEST NO. 3
DOCKET No. 2008-255**

December 22, 2008

ODR-03-15

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