



February 6, 2006

Mr. Philip Tatro  
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National Grid  
25 Research Drive  
Westborough, MA 01582

**Re: NEP-05-TCA-02: Request for Pool-Supported PTF Cost Treatment  
for the Relocation of the 115 kV Transmission Line E-183W; ISO  
New England Written Finding and Determination**

Dear Mr. Tatro:

This letter is being sent in accordance with Section 1 of Schedule 12C of Part II of the ISO New England Inc. ("ISO") Transmission, Markets and Services Tariff (the "Tariff") and ISO New England Planning Procedure No. 4 ("PP4").<sup>1</sup>

## **I. BACKGROUND AND TCA APPLICATION**

The New England Power Company ("NEP"), on behalf of the Narragansett Electric Company ("NECO"), has been asked by the Rhode Island Department of Transportation ("RIDOT") to relocate the E-183W transmission line to accommodate RIDOT's relocation of Interstate highway Route 195 in Providence, RI. The E-183W transmission line is part of a 16.1-mile overhead 115 kV transmission circuit between the Manchester Street and Brayton Point generating plants that provides energy to Providence and the New England regional bulk power system and which crosses the Providence and Seekonk Rivers on approximately forty (40) and eighty (80) year old towers respectively. To satisfy the RIDOT's request, NEP will relocate a portion of the E-183W line underground. NEP also will upgrade the circuit and place it under both the Providence and Seekonk Rivers, from Franklin Square to the Phillipsdale tap in East Providence – a distance of approximately 1.2 miles.<sup>2</sup> While the Project timing is based on the RIDOT's

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<sup>1</sup> Capitalized terms not defined in this letter have the meanings ascribed thereto in the Tariff.

<sup>2</sup> The proposed relocation by NEP is referred to herein as the "Project."

need to relocate the transmission facilities, the Project also accommodates NECO's desire to upgrade the existing Providence and Seekonk River crossings in order to address reliability and maintenance concerns associated with the Providence and Seekonk crossings.

On February 17, 2005, NEP filed a transmission cost allocation application (the "TCA Application") pursuant to Schedule 12C of Part II of the Tariff ("Schedule 12C") requesting that \$3.775 million of the total Project cost of \$16.724 million be recovered through the regional transmission rate. NEP explains that state and/or local governmental sources will bear the cost responsibility for the remaining Project costs, totaling approximately \$12.949 million. As required by Schedule 12C, NEP identified transmission alternatives to its preferred underground Project (*i.e.*, the Project actually being built). Specifically, NEP identified four overhead transmission alternatives. In determining which Project costs should be recovered through regional transmission rates, and which (if any) are deemed Localized Costs, the ISO also examined these transmission alternatives.

## **II. OVERVIEW OF SCHEDULE 12C AND PP4**

Schedule 12C provides that "[t]he ISO shall determine what those reasonable requirements are that are consistent with Good Utility Practice and the current engineering design and construction practices in the area in which the Transmission Upgrade is built [and that] [t]he costs of Transmission Upgrades that exceed those reasonable requirements . . . shall be deemed Localized Costs." Schedule 12 of the Tariff provides that Localized Costs "shall not be included in the Pool-Supported PTF costs recoverable under this OATT . . . ."

To determine Localized Costs, Schedule 12C provides that, with advisory input from the Reliability Committee ("RC"), the ISO will consider the reasonableness of the proposed design and construction method with respect to: Good Utility Practice; current engineering design and construction practices in the area in which the transmission upgrade is proposed to be built/is being built; allowing for appropriate expansion and load growth; alternate feasible and practical transmission alternatives; and the relative costs, operation, efficiency, reliability and timing of implementation of the proposed upgrade. PP4 provides further guidance regarding the types of expenditures that might constitute Localized Costs, noting that a feasible and practical transmission alternative means a transmission alternative that is feasible and practical from an engineering design and construction perspective.

## **III. RELIABILITY COMMITTEE EVALUATION**

Pursuant to Schedule 12C, the RC reviewed the TCA Application and, on April 5, 2005, recommended that the ISO approve NEP's application to treat \$600,000 of the total estimated Project cost of \$16.724 million as Pool-Supported PTF costs. However, NEP requested further consideration by the Participants Committee ("PC") and at its meeting

on May 8, 2005, the PC directed the RC to reconsider and re-vote its initial decision on this application. On June 14, 2005 the RC voted to recommend that the ISO include \$1.5 million as Pool-Supported PTF costs, which superseded its previous recommendation.

#### **IV. ISO DETERMINATION AND ANALYSIS**

In order to determine whether the \$3.775 million requested should be recovered through the regional transmission rate as Pool-Supported PTF costs, the ISO considered, with advisory input from the RC, the reasonableness of the proposed design and construction method with respect to: Good Utility Practice; current engineering design and construction practices in the area in which the Project is being built; appropriate expansion for load growth; practical and feasible transmission alternatives; and the relative costs, operation, efficiency, reliability and timing of implementation of the proposed Project.

Following review of the Project and the aforementioned overhead transmission alternatives, the ISO finds that the overhead alternative #1 “Bridge Alignment North” identified in the TCA Application, with an estimated total cost of \$3.775 million, represents a less-expensive, practical and feasible alternative to the Project, and therefore uses this hypothetical alternative as the baseline for its Localized Cost analysis. As explained further below, the ISO finds that replacement of existing river crossings is justified based on regional reliability needs.

Other overhead alternatives presented by NEP do not provide benefits similar to the “Bridge Alignment North” alternative. For example, the replacement of the Seekonk River crossing on the existing routing with the same 177-foot tall towers would lead to increased costs and slower response for maintenance because of the need to use non-standard maintenance equipment. Moreover, replacement of the Seekonk River crossing at the same location with standard 120-foot towers would pose navigational hazards due to the use of the river by tall ships up to the Washington Bridge. This means that the use of 120-foot towers north of the Washington Bridge (*i.e.*, where tall ships cannot sail) and – consequently – the Bridge Alignment North routing of which it is a part, is the practical and feasible alternative that should be examined for Localized Cost purposes. This routing would require the construction of the Phillipsdale Tap portion of the Bridge Alignment North, as well.

Of the total estimated cost of \$3.775 million of the entire Bridge Alignment North alternative, the ISO finds that the estimated cost of \$2.275 million associated with the “Park Section” of the “Bridge Alignment North” overhead routing constitutes Localized Costs. The ISO reaches this conclusion because this portion of the Project (to which the \$2.275 million relates) is needed at this time *only because* of RIDOT’s Route 195 Highway Relocation project, and not to address regional reliability needs. Specifically, based on the information provided in the TCA Application, the ISO has concluded that the E-183W transmission line does not require upgrading at this time, or in the near future, to address area load, nor is it plagued by frequent mis-operations such that it

would be considered a reliability concern from an operations perspective. The ISO notes, as specified in PP4, that an alternative that is not or may not be approved by a siting or local review board may still be considered a feasible and practical transmission alternative.

By contrast, the ISO finds that the proposed expenditures associated with replacing the Seekonk River and Providence River crossings and the Phillipsdale tap segment do not constitute Localized Costs. In making this determination, the ISO considered: the age, condition and present height of the towers; estimated life analysis as submitted by NEP; reliability needs; maintenance advantages and fault response time. Costs incurred to replace the deteriorated Providence and Seekonk River crossings, which are approximately 40 and 80 years old respectively, do not exceed reasonable maintenance standards. Fundamentally, replacing the current 177-foot tall Seekonk River crossing towers with 120-foot towers will provide additional bulk-power system benefits, such as reducing maintenance and fault response times by allowing the use of standard maintenance equipment, and the location of the 120-foot towers north of the Washington Bridge avoids Federal issues regarding impedance of navigation.

## V. CONCLUSION

The ISO agrees with the RC that \$1.5 million should be treated as Pool-Supported PTF costs, and that the remainder of Project costs should be treated as Localized Costs for reimbursement as determined by NEP. The \$1.5 million figure represents the estimated costs of the "Bridge Alignment North" routing (*i.e.*, the feasible and practical alternative from a construction and engineering perspective to the underground Project that is actually being constructed), less the costs of replacement of the "Park Section" (*i.e.*, from pole #1 to pole #7). Specifically, the \$1.5 million represent the estimated costs of the following efforts: (i) removal and replacement of the portion of the existing E-183 line in India Point Park (beyond pole #7) to a point across the Seekonk River, including a new Seekonk River crossing on a route north of the Washington Bridge, and rebuilding the Phillipsdale Tap (for a total of \$1.2 million); and (ii) rebuilding the Providence River crossing (\$0.3 million). These efforts would: provide a regional reliability benefit, be consistent with Good Utility Practice, provide an operations and maintenance advantage, and be consistent with current engineering and design practices in the area in which the Project is being constructed.

Sincerely,



Stephen G. Whitley  
Senior Vice President and Chief Operating Officer

cc: TCA apps