1.7 COMPARISON OF PREFERRED AND NOTICED-ALTERNATIVE 345-kV LINE ROUTES

Based on CL&P and WMECO studies, the Preferred Northern Route is superior to the Noticed-Alternative Southern Route on two key selection factors - costs and environmental impacts. Those studies show that the Preferred Northern Route is approximately $52 million less costly than the Noticed-Alternative Southern Route. A cost savings of this nature will ultimately reflect directly in regional rates for transmission service. Moreover, the Preferred Northern Route represents a practical alternative for completing a 345-kV loop between the North Bloomfield Substation and Ludlow Substation with lower environmental impacts that the Noticed-Alternative Southern Route. Specifically, the Preferred Northern Route will minimize the overall amount of construction required in both Massachusetts and Connecticut.

As described in Section 1.8 and 6, most of the existing 115-kV lines currently located within the ROWs along the paths of the Preferred Northern Route in Massachusetts (and for a very small segment in Connecticut), must be reconstructed for the GSRP. Such reconstruction will be required regardless of whether the Preferred Northern Route or the Noticed-Alternative Southern Route is selected for the new 345-kV Ludlow to Agawam line. However, using the Preferred Northern Route for this 345-kV line allows WMECO to coordinate the 115-kV line reconstruction with the 345-kV line installation. As a result, the new 345-kV line can be constructed on a set of common structures along with one of the 115-kV circuits, so that the number of structures on the existing ROW is minimized. In contrast, selection of the Noticed-Alternative Southern Route would require the installation of the new 345-kV line along the existing ROW from Agawam Substation to South Agawam Junction to Hampden Junction to Ludlow Substation and the reconstruction of the existing 115-kV lines along the Preferred Northern Route ROW between the Connecticut/Massachusetts border and Ludlow Substation. The separate construction of the 115-kV lines along the Preferred Northern Route would essentially result in the same general types of environmental and social impacts as would occur if such reconstruction were coordinated with the installation of the 345-kV line.

On balance, the selection of the Noticed-Alternative Southern Route would result in both higher costs and significantly greater environmental and social impacts.

1.8 ROUTE SELECTION AND COMPARISION FOR 115-kV IMPROVEMENTS

As described in detail in Section 6, WMECO employed a similar route selection methodology as that described in Section 4 for the proposed 345-kV lines, to identify and assess preferred and alternative routes for the necessary upgrades to existing 115-kV transmission lines. Since all of the 115-kV upgrades