

5.8 RELIABILITY OF PREFERRED NORTHERN AND NOTICED-ALTERNATIVE SOUTHERN ROUTES

The new and upgraded circuit segments on either the Preferred Northern or the Noticed-Alternative Southern Route would provide comparable system reliability. Basically the same overhead transmission line technology would be employed on either route, albeit in different combinations, and the substation and switching station improvements are the same for each routing alternative. The overhead line technologies have long been reliably used on the New England transmission grid. The primary differences are that a new 345-kV line using the Noticed-Alternative Southern Route would be somewhat longer than a new 345-kV line using the Preferred Northern Route, the line designs over the Preferred Northern Route incorporate more sharing of line structures by 345- and 115-kV circuits than would the line designs over the Noticed-Alternative Southern Route, and 345-kV circuits (new and existing) would be together on common right-of-way sections for the Noticed-Alternative Southern Route but not for the Preferred Northern Route. Notwithstanding these differences, each design would result in a transmission system which fully meets the requirements of the relevant reliability standards and would provide comparable system reliability.

5.9 CONCLUSION

After identifying Preferred Northern and Noticed-Alternative Southern Routes, WMECO conducted an analysis of the potential environmental impacts of each route with regard to both the transmission line corridors and the ancillary facilities. WMECO also performed an analysis of the relative cost and reliability of the Preferred Northern and Noticed-Alternative Southern Routes. Based on these analyses, WMECO has concluded that the Preferred Northern Route is superior to the Noticed-Alternative Southern Route in providing the requisite level of reliability, at a lower cost to consumers, while minimizing environmental impacts.