

#### 4.4 ROUTE SELECTION OBJECTIVES

To assist in the initial identification of potential routes for the defined Massachusetts portion of the GSRP (that is, between the Massachusetts border and the Ludlow Substation, with an interconnection at the Agawam Substation), WMECO applied a set of established route-selection objectives for transmission lines. These objectives were developed based on the experience of utilities in Massachusetts, Connecticut, and other states to guide transmission line siting. The objectives are as follows:

- Comply with all statutory requirements, regulations and state and federal siting agency policies
- Achieve a reliable, operable, constructible and cost-effective solution
- Maximize the reasonable, practical and feasible use of existing linear corridors (e.g., transmission lines, highways, roadways, pipelines)
- Minimize the need to acquire property by eminent domain
- Minimize adverse effects on sensitive environmental resources
- Minimize adverse effects on significant cultural resources (archaeological and historical)
- Minimize adverse effects on designated scenic resources
- Minimize conflicts with local, state and federal land use plans and resource policies
- Maintain public health and safety

Since existing overhead transmission line corridors are available, the huge cost differential between overhead and underground line construction led WMECO to focus on maximizing the potential use of existing overhead line corridors for the upgrading of replacement overhead lines that could meet the subject needs (See Figure 4-4<sup>2</sup>). Different factors would have been considered in evaluating the feasibility of each type of line configuration and associated routing for the Project if there had been a reason to analyze potential underground options in comparison to potential overhead line configurations for the GSRP. See the discussion of the all underground 345-kV option in Section 3.3.5.

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<sup>2</sup> Figure 4-5 depicts the 115-kV overhead transmission line upgrades proposed as an integral part of the Project. The proposed 115-kV overhead transmission line upgrades are all the re-building and re-conductoring of existing overhead lines on existing rights-of-way. Route and facility alternatives for these upgrades, when the proposed 345-kV overhead transmission line is placed on the same existing rights-of-way, are discussed in detail in Sections 6 and 7, below.



**Figure 4-5: 115-kV Transmission Line Improvements**

