



Figure 6: NEEM Geographic Regions

HQ and Maritimes are not represented by economic and power sector models in MRN-NEEM; therefore, the generating resources in those regions were modeled as "pseudo-generators." These pseudo-generation models were used to represent expansion in those regions that would be exported to other NEEM-represented regions.

As mentioned earlier in this section, the interregional transfer limits in NEEM are reliability limits, not the actual capacity of transmission projects. When these limits are expanded via the analysis described in this report, the actual transmission capacity of projects will be much greater than the power transfer capability due to reliability constraints and parallel loop flows inherent in networked alternating current (AC) systems.

### 2.3 Task 3 – Production Cost Analysis of Regional Plans

The project SOPO initially called for economic analysis of the integrated regional plans using production cost modeling. The production cost analysis would assess all hours of the future year and would forecast energy production costs, constraints limiting dispatch and interregional transactions, anticipated emissions, renewable energy production, and other pertinent information. In addition, the production cost analysis would use a model that simulates the hour-by-hour operation of the transmission and generation system in the Eastern Interconnection, incorporating transmission reliability and environmental considerations. One of the key inputs for Task 3 was to include the results from Task 2 development of the Eastern Interconnection-wide model based on integration (roll-up) of the existing regional plans. The subtasks defined in the SOPO for Task 3 were: