
APPENDIX E

Market Management System (MMS)

MARKET MANAGEMENT SYSTEM SOFTWARE REPLACEMENT PROJECT

The current Market Management system (“MMS”) software is over 25 years old. It is based on a non-linear algorithm and was originally designed to optimize only production costs. It has limited capability resulting in less efficient dispatch of resources. More specifically, the current software does not have the functionality to:

1. perform complete co-optimization of energy and ancillary services;
2. perform unit commitment;
3. consider start-up costs, minimum run costs or minimum run time; or
4. perform multi-period capability runs, i.e., 7-day/28 per day.

Additionally, current software lacks the capability for longer term operational assessment and planning. In short, the current software is inadequate to efficiently and effectively meet current needs and cannot possibly keep pace with the continued development of the New Brunswick electricity market.

A new MMS system will provide:

1. full unit commitment capability providing increased market efficiency and reliability;
2. a greatly enhanced optimization algorithm, resulting in better dispatch instructions - leading directly to lower redispatch costs;
3. the technology required to sustain and help develop the market; and
4. more efficient utilization of transmission and generation assets.

The overall impact of a new system will be increased price transparency for Market Participants and more accurate allocation of costs and revenues. It is conservatively estimated that a new system will reduce Residual Monthly Cost allocations by up to \$3 million annually; an improvement of 15-20%.

Against this background, the Board of Directors of the NBSO has approved a capital expenditure of \$2 million for the purchase of new MMS software. Once the technical specifications have been developed, the new MMS software will be acquired through a Request for Proposal process. As noted in the Executive Summary, amortization charges with respect to this capital expenditure are expected to begin in the 2012/13 fiscal year.