

2014 Summer Operations

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- 18 Month Summer Outlook
- Ontario – Michigan Phase Angle Regulators
- Supply Mix Changes
- More Tools in the Toolbox
- Protocols/Reminders

- Demand Forecast:
 - Normal Weather Peak: 23,025 MW
 - Extreme Weather Peak: 24,958 MW
- Capacity Assessment:
 - No capacity adequacy issues expected this summer
- Energy Assessment:
 - No energy adequacy issues expected this summer

- Transmission Assessment:
 - Load supply capability to the GTA expected to be adequate this summer
 - Grid voltage management required in Northeast and Southern Ontario
- Major Transmission Outages:
 - Bowmanville SS outage first week of May 2014, bottling
 - ESSA TS outage in May 2014, Flow North/Flow South bottling
 - Lennox TS/X523A outage in May/June 2014, Flow Into Ottawa limit reduced

- In-service since April 2012
- Controlled flows to within ± 200 MW of the schedule 75% of the time
- Absent PAR control, flows would have been within ± 200 MW only 48% of the time



- No Coal Generation
- Additional Wind Generation
- Northeast Hydro expansion

- Variable Generation Forecasting
 - Grid-Connected
 - Embedded
- Variable Generation Dispatch
- Demand Response – DR3
- NUGs transitioning to dispatchable

- Reliability Directives
 - NERC Reliability Standard - COM 002
- Extreme Conditions Alert
 - Market Manual 7.1, Section 4.9
 - http://www.ieso.ca/imoweb/pubs/systemOps/so_SystemsOperations.pdf
- Emergency Operating State Control Actions
 - Market Manual 7.4, Appendix E
 - http://www.ieso.ca/imoweb/pubs/systemOps/so_GridOpPolicies.pdf