






Renewable Dispatch

Ministry of Energy

October 11, 2011

Agenda

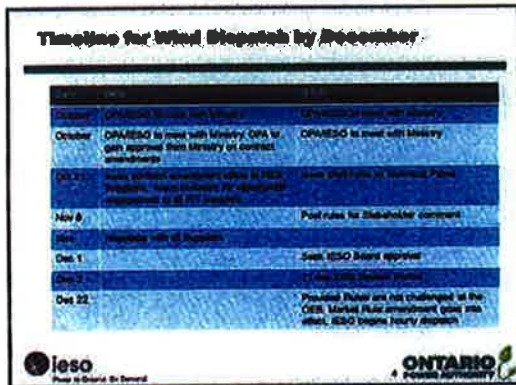
- **Recap**
- **Required Timeline**
- **SBG Scenarios, Solutions and Their Costs**
- **OPA Contract Curtailment Provisions**
- **OPA Proposed Contract Amendment**
- **Next Steps**

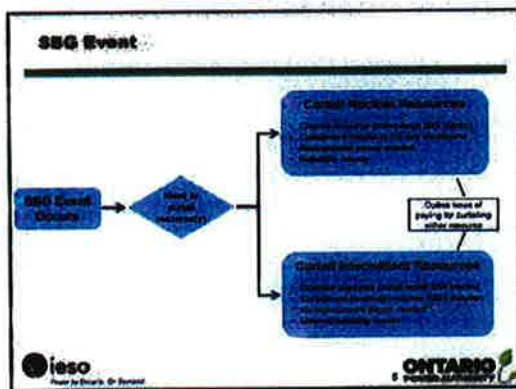



Bottom Line

- Last spoke in Spring 2011
- Without wind dispatch to manage SBG, we have incurred significant market and operational inefficiencies and contract costs
- SBG will persist and is expected to increase
- The occurrence and management of SBG will remain a prevalent story and will be highlighted going forward
 - Auditor General Report
 - FIT Review
 - IPSP
- SE-91 is continuing but wind dispatch is required before it will be completed
- We are targeting hourly wind dispatch for the December holiday period
- Going Forward -- assume we will not get wind dispatch rules through without a contract amendment offer without, without a light at the technical panel and the OES










OPA Contract Cost Comparison of Nuclear vs Wind Dispatch for SSG < 900 MW

- The following table outlines the curtailment costs under each scenario, if wind was available to dispatch and was paid their contract price for their foregone energy.
- The calculation is based on an average weighted contract price of the current RES fleet.

SSG < 900 MW	Nuclear vs Dispatched RES	OPA Cost
Nuclear Shutdown		
Wind Dispatch		
Difference		
Difference in OPA Cost per Year		



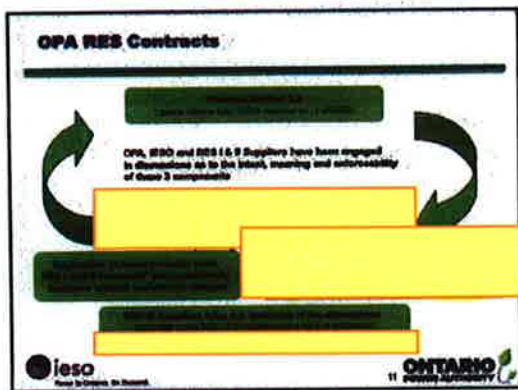

OPA Contract Cost Comparison of Nuclear vs Wind Dispatch for SSG > 900 MW

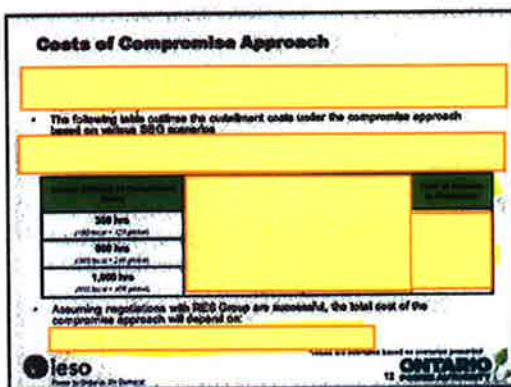
- The following table outlines the curtailment costs under each scenario, if wind was available to dispatch and was paid their contract price for their foregone energy.
- The calculation is based on an average weighted contract price of the current RES fleet.

SSG > 900 MW	Nuclear vs Dispatched RES	OPA Cost
Nuclear Shutdown		
Wind Dispatch		
Difference in OPA Cost		
Difference in OPA Cost per Year		







OPA FIT Contract Provisions

- FIT suppliers get paid for every MW that they generate
- There are contract provisions which incent them to curtail during global SBG and negative prices.
 - When FIT suppliers operate during a negative priced hour, their contract price is reduced by the negative market price
 - If they change their offer price to signal a willingness to go off and are curtailed they will receive their contract price.
- There is currently no provision in the contract for curtailment during times of local SBG, when the market price is positive.

This proposal remains significantly more efficient than the current state of dispatching nuclear

Contract Amendment Recap



Next Steps

Mitigation Options for Increasing Future SBQ

The following options are still being considered and pursued to manage increasing SBQ in the future, but are not a solution to the current operational state

- IESO Integrating Renewables (SS-61)
- Planned Outages to preserve nuclear life
- Re-contracting MUOs
- Load Management
- Timing of new wind contracts

Timeline for Wind Dispatch by December

Date	Event	Event
October	OPWESO to meet with Ministry. OPE to give approval from Ministry on revised attendance.	OPWESO to meet with Ministry.
Oct 11	Renewables Commission report to OPE. OPE to give approval from Ministry on revised attendance.	Renewables Commission report to OPE.
Nov 8	Final rule for SBQ market	Final rule for SBQ market
Nov	Regulatory work on SBQ	Regulatory work on SBQ
Oct 1	Seek IESO Board approval	Seek IESO Board approval
Oct 1	Final OPE report to OPE	Final OPE report to OPE
Oct 22	Final OPE report to OPE	Final OPE report to OPE

Appendix
