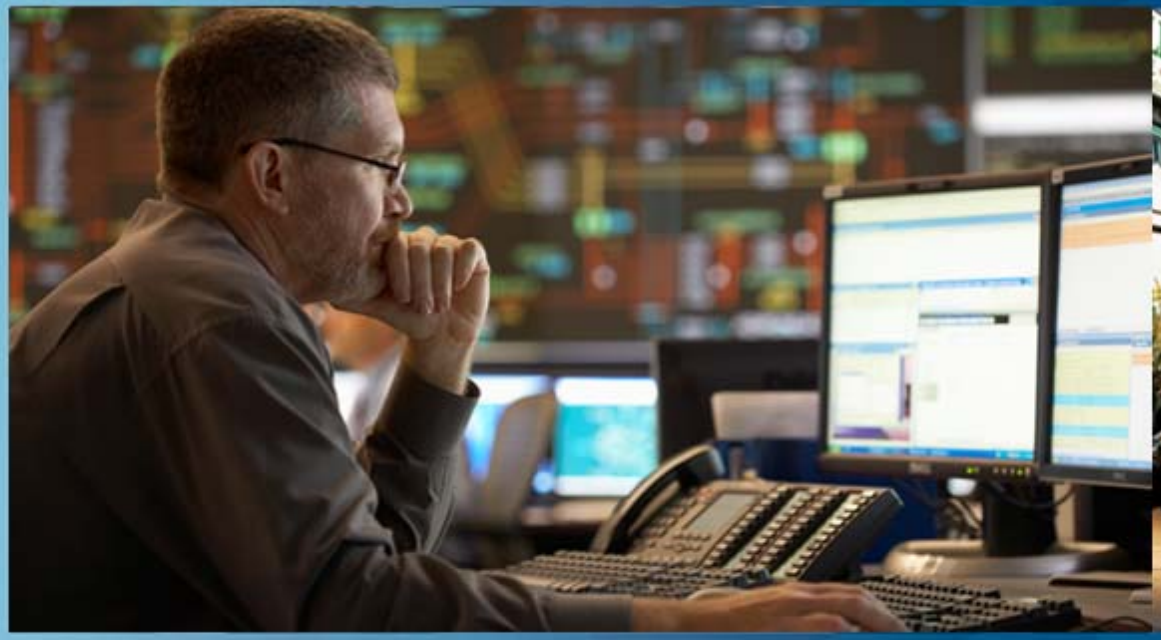
ieso
Power to Ontario.
On Demand.

Export Settlement Treatment –
Exports and Negative Prices

Inter-Jurisdictional Trading SC
April 12th 2012



The Issue… The Proposal

- Given the current hybrid market, exporting during negative prices is increasing the consumer bill with limited benefit.

- It is proposed to limit the export settlement to not less than $0/MW, eliminating payments to exporters during negative pricing.

How does this happen….

- Ontario generator contracts and financial arrangements insulate* suppliers from negative prices.
- Generators are paid full contract rate regardless of the prevailing price.
- Baseload generation is at times paid forgone energy payments when dispatched off by the IESO.

* OPG non-prescribed assets not withstanding

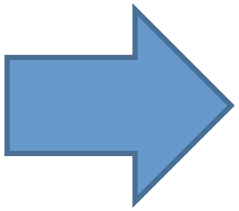
Market Settlement - *Today*

100MW

Generator Settlement

- Pays IESO $40*100 MW
- OPA pays $110*100 MW (assume $70 contract & $-40 MCP)

Net receives $70*100 MW



100MW

Export Settlement

- IESO pays $40*100 MW

Rate Payer Impact

- Pays via Global Adjustment the net generator $110/MW payment.

Market Settlement – *Proposed*

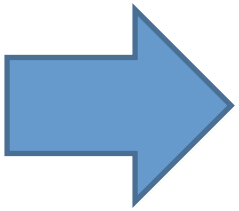
…with reduced exports

0MW

Generator Settlement

- Pays IESO $0
- OPA pays $70*100 MW (assume $70 contract & $-40 MCP)

Net receives $70*100 MW



0MW

Export Settlement

- Paid/pays $0

Rate Payer Impact

- Pays via Global Adjustment the net generator $70 payment.

Market Settlement – *Proposed*

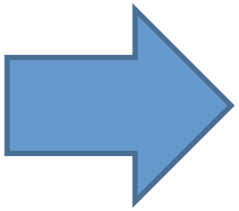
…with continuing exports

100MW

Generator Settlement

- Pays IESO $40*100 MW
- OPA pays $110*100 MW (assume $70 contract & $-40 MCP)

Net receives $70*100 MW



100MW

Export Settlement

- Paid/pays $0

Rate Payer Impact

- Pays via Global Adjustment the generator $110/MW payment.

- $40 energy surplus in the IAM netted against the uplift energy imbalance.

Net pays ~$70*100 MW

Summary

- Comparing the current and proposed settlement process, the consumer is "better off" to curtail baseload generation and forgo the export as they are exposed to an additional cost equal to the negative price for every MW exported.
- Settling exports at a $0/MW floor will hold consumers to that same cost when exports flow during what would have otherwise been negative prices.

Assessments and Design

- Quantification
- Surplus Management
- Energy and CMSC Settlement
- Transmission Rights Market
- Future Evolution

Quantification

- In 2011 the rate payer costs related to paying exporters was $17.2M and 2012* it has cost $4M.

- These costs have occurred as a result of 2852 intervals of negative zonal prices over 281 hours in 2012* and 2820 intervals over 485 hours in 2011.

*(up to and including March 22nd)

Surplus Management

- Export volumes may or may not change and if they remain, SBG management is not affected by this proposal.
- Should exports be reduced it is not expected that it will be a complete withdrawal and in any case the current capabilities of the Ontario fleet (wind/nuclear/hydro-electric) provide sufficient flexibility to manage SBG reliably at a lower cost to the consumer relative to the export alternative.

Energy & CMSC Settlement

....Energy Treatment

- Simply, the energy Zonal Clearing Price (ZCP) for all export transactions will be set to $0/MW regardless of congestion*.
- With this treatment exporters would no longer be paid when exporting, regardless of the prevailing ZCP.
- Linked Wheels are excluded from this treatment.

* TR implications are discussed in later slides.

Energy & CMSC Settlement

....Constrained ON

- Chapter 9 Section 3.5.6A currently limits exports that are bid negatively to a bid price for CMSC to a defined level.
- For exports constrained on with bid prices below that level have their bid price changed to the lesser of ZCP or the defined level.
- Currently this bid floor for these exports is $-125/MW and this will be adjusted to $0/MW.

Energy & CMSC Settlement

....Constrained OFF

- New rules will be introduced similar to Chapter 9 Section 3.5.6A but in this case they will limit constrained OFF payments in such a way that exports are compensated to a level that reflects a $0/MW energy settlement price.
- For these exports when the ZCP is negative, the ZCP for CMSC settlement will be adjusted to the lesser of the bid price or $0/MW.

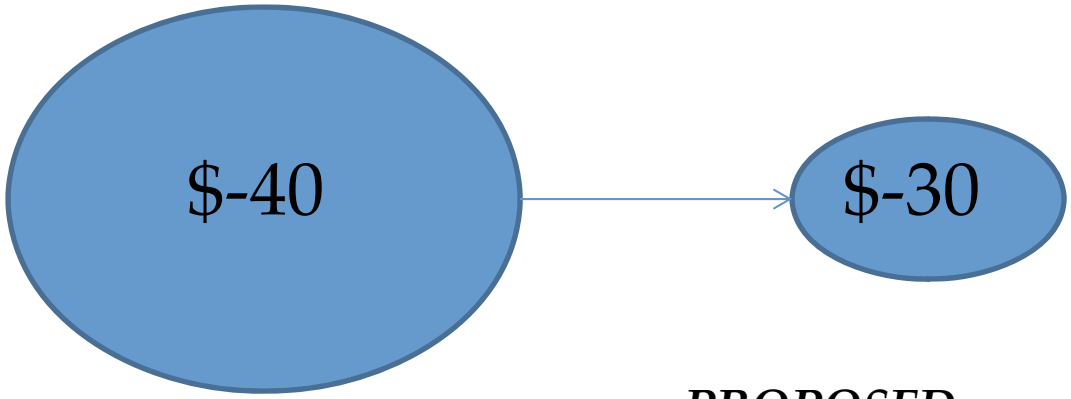
Energy & CMSC Settlement

....Constrained OFF cont'd

	ZCP	MS	CS	Bid	CMSC
A - Today	$-40	10	0	$15	$65/MW
A - Proposed	~~$-40~~-$0	10	0	$15	$15/MW
B - Today	$-40	10	0	$-25	$15/MW
B - Proposed	~~$-40~~-$-25	10	0	$-25	$0/MW
C - Today	$-20	10	0	$-25	$-5/MW
C – Proposed	~~$-40~~-$-25	10	0	$-25	$0/MW

TR Markets

- This export treatment may result in rent surplus.
- Currently surpluses are used to support the sale of additional rights.



TODAY
Ontario Generators pay $40
Exporters would have been paid $30
Rent = Payout at $10

PROPOSED
Ontario Generators pay $40
Exporters exit at $0
Rent = $40 Payout = $10
Surplus funds additional TRs

Future Evolution

- With the development of comprehensive rules, processes and protocols for a more efficient and economic renewable dispatch as well as experience with the recently announced nuclear flexibility at the Bruce facilities, it is possible that these measures may not be required.

- The IESO proposal includes a requirement to review the need for these rules in early 2014.

Questions of Stakeholders

- The IESO is seeking input from intertie traders and other stakeholders on the following:
  - How do the benefits of exports outweigh the costs during negative prices?
  - What other legitimate and timely alternatives should be considered in relation to consumer costs and exports?
  - What other considerations with respect to this export treatment should be evaluated?