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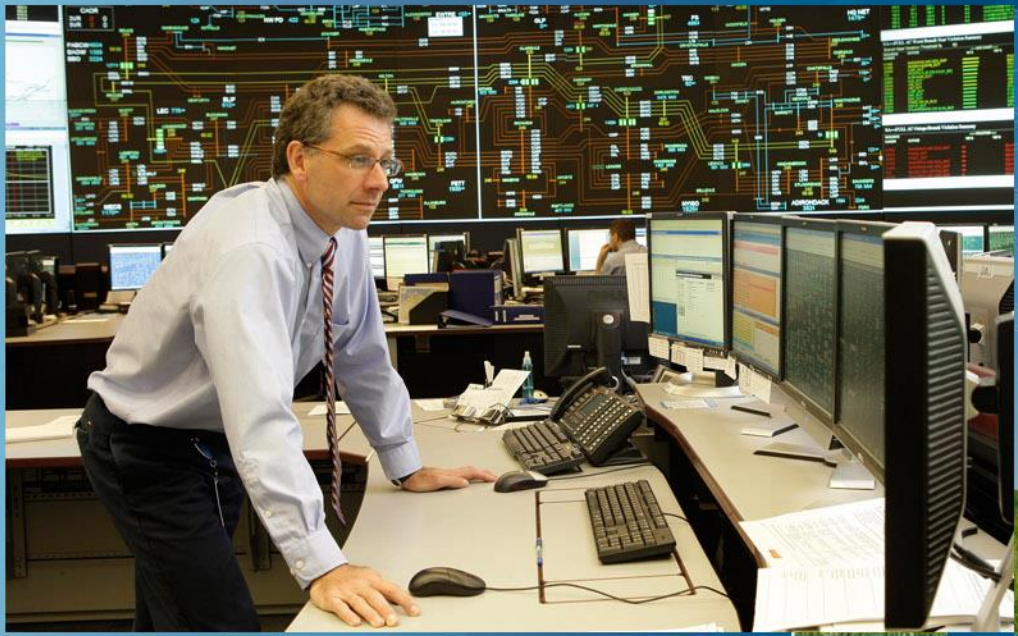
Prudential Framework Review

Presentation to the Stakeholder Advisory Committee

August 2013



Contents

History - Previous Prudential Reviews

- In 2007, established a minimum of a tri-annual review of the framework, and 2013 is the third review
- 2007 - lead to many framework changes including:
  – Accepted a new framework balance where a higher risk of default / default levies was offset by reduced collateral/costs;
  – Recognized that Distributors have a lower risk profile;
  – Overall prudential support reduced by an estimated $200 million providing participants with a net annual cost savings of $1 million.
- 2010 lead to no changes:
  – Incidence of defaults expected to rise following the 2008 credit crisis, and average cost of obtaining collateral had increased
- 2013 - IESO commences Stakeholder Engagement 107

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History – SE 107

IESO implemented a comprehensive Stakeholder Engagement (SE-107) for the 2013 framework review:

- Engaged Navigant Consulting to assist the IESO;
- Feb 2013 – kick-off meeting, MPs gave feedback to help define the 2013 scope (see slide # 6)
- Conducted analysis, modelling, and reviewed practices of other ISOs
- June 2013 – IESO presented findings and recommendations
- July 2013 – Stakeholders provided feedback to IESO

2013 Stakeholder Engagement & Scope

Changes to the framework to be guided by the following principles:

- The framework should strike a balance between costs/savings, risk, and fairness; and
- A transparent understanding of the credit risks borne by market participants

2013 Stakeholder Engagement & Scope

The 2013 Prudential Review's scope was defined with stakeholder input as follows:

- Review other forms of collateral;
- Review the total level of prudential support held by the IESO as compared against the actual experience of defaults and default levies (i.e. costs vs. risks);
- Review the benefits and costs of an in-house credit assessment department; and
- Review the existing levels of reduction available for credit ratings and good payment history.

Types of Collateral

- IESO accepts: Letters of Credit and T-Bills
- US and Canada ISOs accept the following types of collateral:
  - Deposits of cash and/or marketable securities
  - Letters of Credit
- ERCOT accepts surety bonds, and CAISO recently stopped accepting surety bonds;
- ISO-NE utilizes a credit insurance overlay program

Types of Collateral – Conclusion

IESO Conclusion:

- No change to types of collateral
  - other collateral options (surety bonds, insurance, claim on assets) did not meet requirement to retain payment on demand
- Commit to working with stakeholders to further explore surety bond product
- Stakeholder feedback received supports the IESO conclusion

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Review of Actual Experience

From market opening in 2002 to 2007

- 4 defaults with a combined exposure of ~$2 million
- No default levies issued

From 2008 to 2013 (YTD)

- 12 defaults with a combined exposure of ~$12 million
- ~$9 million of the ~$12 million occurred in 2009
- 2 default levies issued for total of ~$350,000

Actual default experience is consistent with Moody’s default rates which have been higher since 2008

Review of Actual Experience

Collateral Highlights (2008 to 2013)

- Fees for posting collateral have remained stable as compared to the 2007 review (fees rose sharply during 2009 and have since come down)

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Review of Actual Experience

Conclusions:

- Risk of defaults has increased;
- Fees on collateral / cost of the framework – generally remain stable;
- Default levy amounts have been lower than expected:
  - No LDC defaults – model assumes Moody's default rate (credit rated or industry rated)
  - # of Non-LDC defaults have been aligned with expectation but default levy amounts have been smaller than expected
  - Conclusion: an opportunity to increase risk in return for cost savings;

Options To Reduce Collateral

Options for reducing collateral:

A. Establish in-house credit assessment
B. Establish a Default Pool
C. Retain framework with increase in unsecured amounts

In-house Credit Assessment

- An in-house credit assessment function should enable the IESO to better assess individual MP credit risk

Pros:

- Increase MPs individualized credit assessments and creditworthiness

Cons:

- Increased administrative costs to MPs and IESO
- May not reduce current collateral postings for individual MPs
- No industry standard approach to assessment / formulas

In-house Credit Assessment

<table>
<tr><th>Costs / Time</th><th>Credit Assessment vs. Today</th><th>Risks (Defaults, losses)</th><th>MPs’ Savings – collateral</th></tr>
<tr><td>IESO : $300K to $400K / year</td><td rowspan="2">Improved because of individual creditworthiness</td><td rowspan="2">Improved on an individual participant basis but may have to result in increased overall risk if total collateral reduced</td><td rowspan="2">$ uncertain</td></tr>
<tr><td>MPs: Increased cost/time to provide information</td></tr>
</table>

Default Pool

MPs pay non-refundable fees into a default pool. Since MPs spend approximately $4 million per year on providing letters of credit, it may be useful if the IESO collects some of these fees that would otherwise go to the banks which in turn can be utilized to pay any future IESO defaults

Pros:

- Costs and capital savings to MPs
- Keeps much of the existing framework, easy to understand

Cons:

- Significantly increases unsecured credit / risks
- Complex to manage
- Increases IESO costs

Default Pool

3rd tier: Default Levy

2nd tier: Default Pool

1st tier: MP collateral

Default Pool

Costs / Time	Credit Assessment vs. Today	Risks (Defaults, losses)	MPs’ Savings – collateral
IESO: increased administration cost and complexity	Increase in unsecured credit	Default levy risk is increased	Releases capital, and smaller fee paid by MP into the Default Pool

Modify Unsecured Amounts

Retain framework with an increase in unsecured amounts:

- Increase credit rating reductions
- Increase GPH reductions
- MPs post less collateral and therefore save in fees
- No increase in costs for the IESO

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Modify Unsecured Amounts

Costs / Time	Credit Assessment vs. Today	Risks (Defaults, losses)	MPs' Savings – collateral
IESO: no change	Moderate increase in unsecured credit	Default levy risk increased	Less collateral posted, and therefore cost savings to MPs

Summary of Options

Option	Cost to IESO	MPs' Credit Assessment Quality	MPs' Individual Costs	MPs' Individual Collateral	Risk / Amount of Default Levies
In-house Credit Assessment	↑	↑	↕	↕	↕
Default Pool	↑	=	↓	↓	↑
Keep existing framework and increase unsecured credit	=	=	↓	↓	↑

Summary of Feedback

- Received written feedback from 5 stakeholders
- Majority of feedback (both loads and generator) supports keeping the existing framework and increase reductions for credit ratings and GPH
  - Most feedback from loads supports further unsecured reductions than those discussed by the IESO on June 26, since loads have expressed that default levies risk is overstated by the default model.

Summary of Feedback

- One LDC and one non-LDC were supportive of the Default Pool or at least continued exploration of this option. Both noted that this option provides clear savings to MPs, is easy understand, and keeps most of the existing framework.

IESO Recommendation

The IESO recommends to continue with the existing framework and increase unsecured credit amounts (credit ratings, and Good Payment History).

- Majority of stakeholders support this recommendation
- IESO presented initial proposal for increasing unsecured credit amounts
- Stakeholder feedback suggested this proposal was too conservative
- IESO will use guiding principles (slide #5) to develop additional proposals to increase amount of unsecured credit

Modify Unsecured Amounts

Credit Rating Reductions* scenario - June 26

$millions	Current				Proposed – changes only**			
	% Load $		% LDC $		% Load $		% LDC $	
AAA	100%		100%	-				
AA	100%		100%	-				
A	85%	$25	90%	$30	90%	$37.5	95%	$45
BBB	60%	$10	75%	$15	65%	$15	80%	$22.5
BB	25%	$3	50%	$5	30%	$4.5	55%	$7.5
B	0%	-	0%	-				

*maximum of % or $

** Proposed = only shows changes

Modify Unsecured Amounts

Good Payment History Reductions* scenario – June 26

$millions	Current				Proposed – changes only**			
	% Load $		% LDC $		% Load $		% LDC $	
6yr	40%	$6	70%	$7	45%	$9	75%	$10.5
5yr	25%	$5	60%	$6	30%	$7.5	65%	$9
4yr	20%	$4	40%	$5	25%	$6	45%	$7.5
3yr	15%	$3	30%	$4	20%	$4.5	35%	$6
2yr	10%	$2	20%	$3	15%	$3	25%	$4.5
1yr	0%	-	0%	-				

*lesser of % or $

** Proposed = only shows changes

Modify Unsecured Amounts

Proposed framework scenario – June 26

$millions	Collateral	Cost	Avg Loss	Avg Default Levy
LDCs	$250	$1.8	$2.7	$1.8
Loads	$159	$1.8	$2.9	$0.4
Total	**$409 (prior $529)**	**$3.6 (prior $4.5)**	**$5.6 (no change)**	**$2.2 (prior $2.0)**
				Probability %
				$0 : 50%
				$0 to $5M : 44%
				$5M to $10M : 4%
				> $10M : 2%

Next Steps

- Further to feedback from stakeholders, the IESO will examine other appropriate scenarios for increases in unsecured credit, finalize recommendation, and issue a report to stakeholders in August 2013

- Stakeholders will have an opportunity to provide feedback on the report