2022 Prudential Framework Report

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1. Overview

In order to participate in the IESO Administered Markets, market participants must meet and maintain certain credit requirements, including providing collateral support as necessary. The IESO's full credit requirements, market rules and credit processes are collectively referred to as the IESO's Prudential Framework.[1]

The Prudential Framework is designed to provide cost-effective credit risk mitigation for the IESO's wholesale electricity market. It is intended to balance (i) fairness to all market participants, (ii) the overall estimated cost to market participants of providing collateral and (iii) the estimated cost and risk of payment of default levies.[2]

In 2007, the IESO conducted its first formal Prudential Framework review, and has since conducted regular reviews on a three-year cycle. This report summarizes the sixth formal Prudential Framework review.

The 2022 review has concluded that the existing prudential framework meets the stated objectives outlined above and therefore no changes are recommended at this time.

The above conclusion is supported by this report.

[1] The Market Rules, specifically Chapter 2, provide complete details on prudential requirements.

[2] As explained in the Market Rules, Chapter 2, default levies allocate any amounts not recoverable from a defaulting market participant(s) to all remaining IESO market participants.

2. The 2022 Prudential Review

2.1 Objective

When a market participant defaults[3] in the IESO Administered Markets, the IESO takes available and increasing measures/steps to recover the outstanding obligation from the defaulting market participants, including if necessary the draw on any collateral posted with the IESO. In the event that the IESO is not able to recover the full outstanding obligation even with a full draw on collateral, the IESO will issue a default levy to all remaining non-defaulting market participants for the remaining obligation of the defaulting market participant.

2.1.1 Approach

For some of the previous Prudential Framework reviews, the IESO conducted a stakeholder engagement initiative and the market participants were invited to provide comments and feedback to the IESO. For the 2022 Prudential Review, the IESO is not conducting a formal 2022 stakeholder engagement because the Prudential Framework will be fully assessed through stakeholder engagement as part of the implementation of the Market Renewal Program.[4] The Market Renewal Program is expected to require changes to the current Prudential Framework in part due to the addition of new credit risk from the introduction of the new features in the market.

2.1.2 Scope

The scope of 2022 Prudential Review includes all aspect of the Prudential Framework for the real-time wholesale market and the Demand Response (capacity) auction/market. As is the practice since inception, the Transmission Rights market prudential framework has been excluded since there is no credit risk that can be apportioned to all market participants.

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[3] Example: does not pay IESO invoices or margin calls as due.

[4] The Market Renewal is introducing fundamental reforms to the province's electricity markets to improve how we supply, schedule and price electricity to meet Ontario's future needs at the lowest cost. Market Renewal webpages can be found at ieso.ca/Market-Renewal.

2.2 Defaults Experience

In general, the IESO experiences the following three types (or severities) of payment defaults:

a) defaults that are administrative in nature and are cured quickly within a few days

b) defaults that involve significant delays in payment and requires IESO action to resolve but are ultimately cured without drawing upon the market participant's collateral

c) defaults that involve non-payment from the market participant.[5] Therefore, a draw on the market participant's collateral by the IESO is needed, which may include issuance of a default levy if all collateral is exhausted.

The first two default types (a) and (b) take time and effort to address but are resolved in due course. The last type (c) is the most serious since these types of defaults generally lead to lengthy credit risk and enforcement actions by the IESO.

The following historical experience summarizes the IESO's defaults involving ((c) type above) non-payment by a market participant and a draw on collateral:

- Between the IESO's market opening (May 2002) and 2007, the IESO experienced four defaults and no default levies.
- From 2008 to early 2013, there were twelve defaults (likely impacted by the global financial crisis that began in late 2008) including three default levies.
- From mid-2013 to mid-2016, there were four defaults and no default levies.
- From mid-2016 to mid-2019, there were three defaults and no default levies.
- From mid-2019 to mid-2022, there were three defaults and no default levies.

As supported by Table 1 below, the IESO utilizes estimated probability of corporate default rates to model expected market participants default rates. The IESO has determined that the current expected default rates are generally aligned with those established during the most recent 2019 Prudential Review and, therefore, no action on default expectations are recommended for 2022. The peaks and troughs of credit cycles can be difficult to forecast, which is why the IESO utilizes long-term trends to assess future default expectations. In addition, different industries are likely to incur different or asymmetrical credit cycles, which likely do not align with other industries' experiences. The long-term trends provide for a fair assessment of potential credit risks.

[5] Example: market participant files for Companies' Creditors Arrangement Act (CCAA) or the Bankruptcy and Insolvency Act (BIA)

Although the estimated probability of corporate default rates, for some of the rating grades, have declined since the 2019 Prudential Review, Moody's expects default rates in general to rise in 2022 from the actual 2021 levels and to exceed the historical average. Credit conditions continue to deteriorate primarily driven by companies facing increasingly challenging headwinds from rising interest rates, tighter liquidity conditions, slowing economic growth, high inflation and continued geopolitical risks. Moody's also expects central banks to continue to tighten monetary policy in the face of high inflation.[6]

Table 1 | Moody's equivalent rating (annual volume-weighted corporate bond default rates by letter rating, 1994-2021)

Credit Rating	Probability of Default - 2019	Probability of Default - 2022
AAA	0.00%	0.00%
AA-, AA, AA+	0.04%	0.03%
A-, A, A+	0.24%	0.22%
BBB-, BBB, BBB+	0.25%	0.25%
BB-, BB, BB+	1.08%	0.96%
B+, B, B-	3.00%	2.87%

In addition, the Market Renewal Program will introduce fundamental changes to the market, including the ability to participate in the Day Ahead Market which will potentially change activity in the IESO Administered Markets and will require further observation/analysis when fully implemented to understand the impact on prudential requirements.

2.3 Conclusion

Since 2007 the IESO has materially reduced the levels of collateral required by market participants. Each reduction in collateral levels likely raises the expected risk/burden that market participants will pay for default levies. As such, the IESO is careful to examine the levels of collateral, and the IESO believes it has a current Prudential Framework that takes into account the market participants credit risks and expected default rates, which will endure over a complete credit cycle.

[6] Source: Moody's: September 2022 Default Report

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