

November 21, 2018

Independent Electricity System Operator
1600, 120 Adelaide Street West
Toronto, Ontario
M5H 1T1

Attention: Barbara Ellard, Director of Markets

Dear Ms. Ellard,

**Re: Independent Electricity System Operator (“IESO”)
Market Renewal Program (“MRP”)
Single Schedule Market (“SSM”) High Level Design (“HLD”)**

Capital Power Corporation (“Capital Power”) appreciates the opportunity to participate in the IESO stakeholder engagement on the MRP. The IESO’s initiatives to improve the overall design of Ontario’s electricity market are an important step to achieve “*foundational and wide-reaching reforms*”¹ that will benefit all market participants in Ontario. Following extensive consultation, the SSM HLD is a key element of this work, and will provide confidence to investors through improvements to price formation and competition. Capital Power is supportive of the IESO’s efforts on the MRP and submits the following comments for consideration in the redesign of the province’s wholesale electricity markets.

Strategic Considerations for the Market Renewal Program

In support of our specific recommendations on the HLD, Capital Power submits the following comments for consideration. These comments are important context to Capital Power’s detailed comments and will require additional consideration in MRP.

Energy Market Efficiency

To achieve the objectives of the MRP of having a stable and reliable supply of electricity, the IESO is proposing fundamental changes that will enhance overall efficiency and competitiveness of the electricity market. As prices provide a better reflection of competitive market outcomes, the IESO

¹ IESO Single Schedule Market High-Level Design (page 1)

will realize improvements to the investment signals in the market, supporting an efficient market that delivers reliable electricity.

Within the energy stream, fundamental changes will be implemented that change the way energy is priced, scheduled and dispatched. As a central component of the market design, the SSM workstream proposes to introduce locational marginal prices (“LMP”). These LMPs will price energy more efficiently, sending a signal to market participants based on the combined effect of congestion, losses, and energy. In isolation, the SSM HLD provides a blueprint for improving price formation that is consistent with best-practices in many jurisdictions. In commenting on the HLD, however, additional consideration is needed for the combined effect of the changes proposed in the Enhanced Real-Time Unit Commitment (“ERUC”) and Day-Ahead Market (“DAM”) workstreams.

As the only jurisdiction that continues to operate a two-schedule market, Ontario is currently required to manage a system that has significant divergence between prices and asset dispatches. The result of this system is a complex system of financial payments that bridge the gap between price and dispatch to maintain reliability.

The extent to which the SSM HLD is successful in achieving the principles outlined above relies heavily on the ERUC and DAM design decisions. As the mechanisms that will optimize asset dispatch, the ERUC and DAM design will be the key determinant of whether the IESO is successful in minimizing the dislocations identified in the SSM. As mechanical calculations, the LMPs and associated issues of price formation, will ultimately reflect the level of optimization achieved through improvements to asset scheduling and dispatch.

Governance & Decision-Making

General Governance

In seeking to improve efficiency and competitive outcomes in the electricity market, the IESO and stakeholders recognized the need to enhance the current governance and decision-making framework. With the scope of the ongoing consultation focused on the market rule and manual amendment process, as well as the dispute resolution mechanisms², the IESO is taking important steps to acknowledge the necessary reforms that will improve investor confidence and encourage ongoing investment in the province. Capital Power supports the IESO’s efforts in this regard, and maintains that a transparent and timely process to review recommendations of the Advisory Group and implement changes must accompany the broader MRP.

SSM Governance – Market Power Mitigation

As with the other major market reforms being considered through the MRP, Capital Power submits the market power mitigation (“MPM”) discussion should include consideration of governance reforms. The governance framework for the MPM framework should be codified to clearly articulate roles, responsibilities, and expectations of the IESO and market participants. Included in the governance framework should be mechanisms for stakeholders to engage with the IESO to ensure they are treated fairly. The MPM should be subject to regular review to ensure it continues to meet the desired objectives.

² An Advisory Group was formed in August 2018 to inform recommendations to the IESO Board
<http://www.ieso.ca/en/Sector-Participants/Engagement-Initiatives/Engagements/IESO-Governance-and-Decision-Making>

Investigation and enforcement action taken by a market monitor will require proper governance. Clear accountability and transparent processes are required for investigation, enforcement, and adjudication of actions taken against market participants. A public information document outlining the investigation procedures should be developed to clearly articulate these aspects of the MPM framework.

Detailed Comments on High Level Design

The attached document provides Capital Power's detailed comments and discussion of key design elements of the SSM.

Capital Power looks forward to further engagement with the IESO as MRP advances to detailed design. Should you have questions relating the Capital Power's submission, please contact the undersigned at (780) 392-5169 or cmrobb@capitalpower.com.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Colin Robb". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

Colin Robb
Senior Advisor, Regulatory & Environmental Policy
Capital Power Corporation

Attachment

Cc: Jason Comandante, Capital Power Corporation
Kelly Lail, Capital Power Corporation

MRP - Single Schedule Market | High Level Design

Stakeholder Feedback Form

<p>Date Submitted: November 21, 2018</p> <p>Feedback Due: November 22, 2018</p>	<p>Feedback provided by:</p> <p>Company Name: <u>Capital Power Corporation</u></p> <p>Contact Name: <u>Colin Robb</u></p> <p>Phone: <u>(780) 392-5169</u></p> <p>Email: <u>cmrobb@capitalpower.com</u></p>
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The Market Renewal Project (MRP) released a draft of the High Level Design (HLD) for the Single Schedule Market (SSM) on **September 27, 2018**. In order to allow interested parties an opportunity to provide meaningful feedback on the HLD, the IESO has provided an eight week review period which concludes on **November 22, 2018**.

The SSM HLD first draft can be accessed [here](#).

This feedback form is intended to help organize stakeholder feedback in two key areas of interest to the IESO. If stakeholders have additional input, they are encouraged to provide those thoughts in the “Other Feedback/Considerations” section of the form.

Stakeholder feedback is due by Thursday November 22, 2018 to IESO Engagement at: engagement@ieso.ca

High Level Design - Single Schedule Market
Stakeholder Feedback Form

Design Element	HLD Page Reference	Stakeholder Feedback	
		Request for Clarification/Education	Considerations for Detailed Design
Price Formation	8-32		<p>Out-of-Market Operator Actions Capital Power supports the IESO's decisions in respect of out-of-market operator actions and managing the impact on price formation. In establishing the detailed design for the proposed actions, Capital Power submits that where possible, the design should ensure actions are applied consistently and transparently. These measures will encourage greater price formation and competition.</p> <p>To ensure consistency, the IESO should work to articulate and detail the specific conditions that will precipitate out-of-market operator actions. Any actions taken by the system operators should be applied consistently within the market. In circumstances where the system operator employs out-of-market actions, the IESO should produce appropriate reporting that demonstrates to all market participants the actions taken, and the conditions that warranted the response.</p> <p>As the IESO indicates in the HLD, the make-whole payments needed to compensate for these actions are a key design element. The IESO must ensure that the actions taken by system operators that impact generators are appropriately compensated.</p>

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			<p>Price-Setting Eligibility/Operating Restrictions The IESO has determined that it will not allow the minimum loading point output of a resource to set the LMP. Notwithstanding this decision, the IESO will continue to monitor developments in other jurisdictions related to intra-hour units and their ability to set price.</p> <p>Capital Power submits that further discussion on this matter is warranted, specifically related to quick-start generating units. Allowing these operating restrictions to set price in specific circumstances improves price transparency and the investment signal that will encourage the development and sustained presence of flexible assets.</p> <p>Supplier Pricing In establishing new methods to schedule, dispatch and price electricity, the IESO is seeking to achieve competitive market outcomes. Capital Power supports these objectives, however, there is a recognition that the renewed market structure may provide locational signals to select generators that may create revenue sufficiency concerns because prevailing market conditions will push LMPs severely negative. The frequency and degree to which prices are negative must be</p>

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			considered through the detailed design of the energy workstreams.

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Market Power Mitigation	33-42		<p>Capital Power submits that through detailed design, a holistic consideration of MPM frameworks across energy, operating reserves, and capacity markets is necessary. Broad consideration for MPM across markets is necessary to ensure there is revenue sufficiency for merchant generators that will be required to meet long term system needs.</p> <p>Mitigation Process As previously communicated, Capital Power recommends additional consideration should be given to complementary structural mitigation that could support the proposed conduct and impact tests. Capital Power submits that consideration is still warranted to determine whether a pivotal supplier screen, applied in advance of conduct and impacts tests, would improve efficiency and market outcomes.</p> <p>Global Market Power The IESO indicates in the HLD that circumstances where the market is susceptible to global market power, including scarcity in flexible capacity, will require tests to assess whether mitigation may be necessary. Capital Power submits that additional detail is necessary on the expected frequency and severity of these circumstances. Additional consultation with market participants is necessary</p>

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			<p>in detailed design to fully assess the scope of the concerns related to global market power.</p> <p>Out-of-Market Payments Consistent with many jurisdictions across North America, consideration should be given to how to manage the impact that out-of-market payments have on competitive market outcomes. Mechanisms are required to ensure that subsidized resources are not unfairly impacting the ability of other resources to earn sufficient revenues to continue operating in the market. Absent these measures, subsidized resources risk causing premature retirements of resources that would otherwise be economic. Capital Power recommends that the market impact of subsidized resources be considered and addressed as part of the detailed design to ensure undistorted price formation and revenue sufficiency</p> <p>Reference Levels Capital Power supports the IESO's detailed design considerations in respect of reference level determination. To establish cost-based reference levels, consultation with stakeholders should establish clear guidance on permissible costs by fuel-type and technology. Capital Power emphasizes the importance of cost-based reference levels for quick-start generators, as the</p>

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			<p>current bidding requires start costs to be amortized over a minimum run time. As this process is unlike other three-part offers in the market, specific consideration is required for these units in detailed design.</p> <p>Consistent with the IESO's comments in the HLD, Capital Power supports the governance considerations highlighted. The MPM framework should allow for stakeholders to contest reference levels if they are not reflective of their true costs. Due to the approximate nature of administratively-determined reference levels, market participants require a process by which they can justify their costs. This process should allow market participants to submit confidential information to substantiate their requests for an alternative reference level.</p>
Load Pricing	43-52		Capital Power has no comments at this time.

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Settlement Topics	53-56		<p>Make-Whole Payments Consistent with Capital Power’s strategic considerations for MRP, the use of make-whole payments will be closely linked to the optimization achieved through the DAM and ERUC designs. The inclusion of make-whole payments is positive and is a critical component of the wholesale market. While the payments are a critical element of the design, efforts to have market fundamentals reflected in wholesale prices should be the preference when considering design options. Where design cannot fully reflect fundamentals in wholesale prices, make-whole payments are necessary and an important feature of the market. These payments should be applied consistently and transparently to all market participants.</p>

Other Feedback / Considerations

Capital Power has no further comments at this time.