Energy Storage Design Project – Feedback Form

June 24, 2020

Date Submitted:	**Feedback Provided By:**	
2020/07/15	Company Name:	TC Energy
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Following the June 24, 2020 Energy Storage Advisory Group (ESAG) meeting to discuss the Energy Storage Design Project, the IESO is seeking feedback from participants on the draft redlined Market Rules and Manuals and the recommended approach to uplift charges. The IESO will work to consider feedback and incorporate comments as appropriate and post responses on the engagement webpage. The referenced presentation and associated redlined Market Rules and Manuals can be found under the June 24, 2020 entry on the ESAG webpage.

Please provide comments relating to the section of the draft amendments in the corresponding box in table 1 below. Please include any views on whether the draft language clearly articulates the requirements for either the IESO or market participants, and provide any alternative language by inserting the draft language and red-lining the suggested changes (example below). Further, please provide comments relating to the uplift proposal in table 2 below.

Redlined Market Rules and Market Manuals		
Chapter or MM Name	**Section Reference**	**Stakeholder Comments**
E.g., Ch7	*E.g., Section 21.2*	*Stakeholder comment*
E.g., MM 4.2	*E.g., Section 1.2*	*Stakeholder comment*

Please provide feedback by **July 15, 2020** to **engagement@ieso.ca.** Please use subject: *Feedback: Energy Storage Design Project*. To promote transparency, this feedback will be posted on the ESAG webpage unless otherwise requested by the sender.

Thank you for your time.

Table 1

Redlined Market Rules and Market Manuals		
Chapter or Market Manual Name	**Section Reference**	**Stakeholder Comments**
MR Chapter 7: System Operations and Physical Markets	2.2.9A	In the May 20th ESAG presentation, the IESO stated that the threshold for self-scheduling for energy storage resources must be 10 MW because the issue affects multiple resources types. Stakeholders, including TC Energy, had expressed a need to consider a no self-scheduling option for energy storage resources to support the design principles (i.e., the MRP design principles) and ensure energy storage resources are full participants in the IESO-Administered Market. The only exemption in the interim design would be for storage resources providing regulation service which would be self-scheduling up to a capacity of 50 MW. The proposed Market Rules amendments do not show any impact on other resources for the 1 MW to 10 MW self-scheduling selection. Instead, the proposed market rule amendments have a specific carve-out for self-scheduling for energy storage facilities. TC Energy continues to recommend that self-scheduling should not be available for energy storage facilities (except for the regulation service exemption). Energy storage facilities from 1 MW to 10 MW have the potential to impact non-dispatchable demand expectations and if self-scheduling, would have a negative impact on IESO-Administered Market design principles: Efficiency – self-scheduling resources are not obligated to follow dispatch instructions and therefore lead to potential variance from expected consumption/injection behaviour that will decrease the efficiency of the IESO-Administered markets Competition – self-scheduling allows some energy storage facilities to have an unfair competitive advantage compared to other resources. Self-scheduling for generation facilities is typically granted because there are external factors that would influence those generators' actions outside of market pressures (e.g., hydroelectric generation must occur for river flow requirements, biomass facilities must run to meet requirements aligned with thermal energy needs, etc.). For energy storage, these reasons are not required and therefore fair and equal competition with other dispatchable resources should be the objective.

Chapter or Market Manual Name	Section Reference	Stakeholder Comments
		Implementability – the proposed Market Rule amendment shows dispatchable energy storage under the interim design changes is achievable and therefore should be applied to all energy storage facilities except for those providing regulation service. Certainty – requiring all energy storage facilities to be dispatchable provides certainty on the requirements for directly-connected energy storage to participate in the IESO-Administered Markets and reduces the potential for energy storage facilities to be sized (or split) in a manner to avoid the dispatchable requirements (e.g., target 9.9 MW to avoid the dispatchable requirement) Transparency – Requiring energy storage facilities to be dispatchable means their actions and interactions with market mechanisms will be clear and transparent. As drafted, TC Energy does not agree with the IESO's assertion that removing the self-scheduling options for non-regulation service energy storage facilities would have an impact on other resource types. The IESO should revisit the issue and consider the five design principles when assessing the appropriate solution.
Market Manual 7.8	2.2.6	Section 2.2.6 describes the criteria for energy storage facilities to be restoration participants. The size requirements are determined based on being "electrically south of Barrie". This definition is used for generation facilities; however, the definition is ambiguous since flows into Barrie do not recognize definitions. Further, Barrie is not a major network node and it is unclear if the IESO means Barrie TS or the city of Barrie. TC Energy recommends that either the IESO zones (i.e., the 10 internal transfer zones) or a major network interface be used instead.
Market Rules Chapter 11: Definitions	1.	Aggregated electricity storage facility size is determined by the sum of all maximum injection capabilities. TC Energy believes this definition is for an energy storage facility located at the same connection point and not for an aggregation of energy storage facilities located at multiple connection points. The IESO should confirm aggregated energy storage facilities are for the same physical connection point and general location.

Table 2

Uplift Charges	
Topic	**Feedback**
Proposal: Storage should be exempt from uplift charges on 'fuel'	TC Energy supports the proposal that energy storage should be exempt from uplift charges. As described by the IESO, energy storage facilities act an intermediary in the electricity system and are not end-use customers. Applying uplift charges to energy storage increases their costs, which are passed on to end-use customers. TC Energy requires greater clarity from the IESO on how they will determine which MWhs are identified for other purposes and therefore must pay uplift charges. For example, will separate metering be required to measure the other purpose MWhs? Further, will the IESO provide a definitive list of services (e.g., cooling, lighting, station services) that are exposed to uplift charges?

General Comments/Feedback:

There are a number of proposed amendments to the Market Rules and Market Manuals through the interim Storage Design Project. TC Energy has previously raised the issue that coordination between the SDP and MRP is required to ensure the interim design proposals from SDP are reflected in the detailed design documents for MRP. TC Energy requests that the IESO MRP and SDP teams provide a clear and complete summary of how the interim design proposal will be incorporated into the MRP detailed design.

TC Energy also recommends that the IESO seek to launch a joint engagement session with the OEB to explore similar exemptions for energy storage to the proposed approach for uplifts. As mentioned in the TC Energy comments above, energy storage facilities are not end-use customers and therefore should be provided unique treatment to ensure end-use customers are not paying "fuel taxes" for the benefits of energy storage. Many of the changes require coordination between the IESO and OEB to enact and therefore the IESO should seek to work with the OEB as soon as possible.