

August 15, 2018

## **Re: Non-Emitting Resource Subcommittee: Comments on July 24 Meeting and Materials**

Energy Storage Canada is pleased to provide some further comments on the meeting discussion and materials from the meeting held on July 24, 2018. It is important that the results of the RFI offer a reasonable reflection of the situation and risks for non-emitting resources and recognizes the unique characteristics of storage. In addition, we also support the IESO in the efforts of the Energy Storage Advisory Group (ESAG) to examine barriers to storage and potentially a participation model for the growing number of DERS. We have some additional comments that are relevant to this initiative:

### **1. Omission of Load Services**

In the IESO's presentation, **Slide 22, Investment Risk**, that outlines "Services NERs are technologically able to provide," one key contribution that is missing is "**Load Services**" which energy storage is capable of providing – unlike any of the other technologies listed on the chart. The genesis of the energy storage industry has been based on the need to store electricity that is surplus to demand by acting as a load to absorb the energy, retaining the energy and delivering it back to the system when it is needed. None of the traditional forms of generation has this capability.

Missing the fundamental premise for which energy storage exists significantly understates the role of the technology on the system.

While DR may be able to provide this service to a certain extent, energy storage is the only technology that can provide flexible dispatchable loads to support the energy system when required. In fact, we would argue that Load Services represent a service/value to the system that is consistent with energy, capacity, regulation/OR/flexibility. As listed in the chart, "Environment" is more of an attribute than a service, but we understand why it is listed. As "load" is not currently a defined service, we could accept seeing the chart including "dispatchable load capability." **Slide 20** also omits load services as a potential service in a new market along with environmental attributes and flexibility.

### **2. Challenges for Capital Intensive Projects**

We would like to emphasize that the model should be able to account for a range of resource types and sizes, including the unique characteristics of storage (load and generation.) As part of this, on **Slide 24 – Challenges for Capital Intensive Projects**, ESC maintains that the IESO should look at all possible supply/capacity scenarios, including those resources with longer lifespans and operating horizons. By using the term "capital intensive", the IESO is only looking at these resources from one perspective: shorter-term cost. It ignores the economies of scale and lower long-term costs associated with capital intensive resources (e.g., nuclear and large-



scale hydro). If the overall economics are advantageous to the ratepayer, why would these resources not be considered in the “foreseeable future”? This means there is a potential disconnect between long term planning and the market redesign that will also be in place for many years to come.