For Discussion Purposes
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August 24, 2021

OEB Framework for Energy Innovation Working Group

Criteria for selecting use cases

This is intended to guide a discussion in the working group of possible criteria for selecting and comparing use cases.

Across the top of the table are some dimensions of a use case, a stepwise process to describe a use case in sufficient detail considering the interests the case intends to satisfy.

What is the technology? What is the scope of that technology? If it's not hardware, is it an operating practice or something else of interest that differentiates the use case. Where to put it and how to size it? How can it scale? Can our understanding of it aid others in replicating it? The question of business arrangements is more than who owns what, it is who provides what service to whom, how costs are recovered, and where lie the risks and rewards. Practical things we make sure we don't miss; as visionary as wished for the future, but a plan realistically for what can be delivered in the near term. Our mandate includes equity considerations and environmental implications.

The column on the right represents a kind of checklist for a use case, touchpoints.

When we are zeroing in on technology, scope, siting, sizing, contracting, …, what are the regulatory issues we need to think about? Who is and is not a regulated participant? What does the Distributor need to do on its own network to integrate what DERs? How much visibility of what? How much control? Does that mean dispatch? What does the Distributor need to do to integrate a customer? What grid services might a customer provide, and how might those kilowatts operate in markets? How does the Distributor offer to connect customers and how do those customers participate in markets?

A good use case will have data behind it, not only to produce robust analysis, but to demonstrate the data requirements to realize the potential future value at scale. We look at issues relating to market integration and operability between the Distributor and the IESO. We make sure when we do, we have an eye to the United States, across Canada, to Europe, the UK and Scandinavia, for compatibility, to drive towards future global standards. We ought to make sure we can characterize each use case in outcomes that are quantifiable in electrical units, dollars, and emissions over time. As well as counting private benefits and costs we need to consider public and social benefits and costs, including system benefits, benefits from promoting market participation, efficiency gains from competition, and appropriate allocation of risks and rewards.

Technology Scope	Siting and size	Potential for Scale	Business Arrangements	Practical Concerns	Equity Considerations	Environmental Implications	
							REGULATORY issues for the Distributor, for the IESO, for Market Participants
							DISTRIBUTION NETWORK INTEGRATION within the distribution system
							DER INTEGRATION between the Distributor and the customer
							GRID SERVICES and MARKET MODELS
							Capacity
							Energy
							Ancillary services
							Reliability
							Resilience
							Losses
							CUSTOMER CONNECTION to the distribution system and **PARTICIPATION** in IESO markets.
							DATA REQUIREMENTS
							IESO MARKET INTEGRATION AND OPERABILITY between a Distributor and the IESO-administered markets
							FERC 2222 COMPATIBILITY between distributor-level local energy markets, IESO-administered markets, and FERC regulated markets (RTOs/ISOs)
							QUANTIFIABLE OUTCOMES measurable outcomes in kVA, kWh and $ over time
							ECONOMICS of distributed energy resource integration
							Delivered cost to customer
							System benefits
							Market effects
							Risk