# Con Edison Transmission NYISO Budget and Priorities Working Group

March 24, 2021

#### MARKET RULES FOR INTERNAL HVDC TRANSMISSION LINES

#### **Background**

- HVDC is a growing technology, and HVDC projects are being pursued across the country and around the globe
- Multiple developers have proposed or are considering HVDC transmission projects that would both source and sink within the NYCA
- At present, the NYISO has rules in place for inter-regional HVDC transmission, internal AC transmission, and internal AC transmission controlled by PARs
- The Market Services Tariff establishes the construct of internal UDRs, but NYISO does not currently have in place market rules, procedures or software regarding internal HVDC transmission



#### MARKET RULES FOR INTERNAL HVDC TRANSMISSION LINES Problem

- The NYISO and the NYISO's rules should be technology agnostic
- HVDC can be an elegant solution to connecting upstate renewable resources to downstate load centers
- The lack of market rules for internal HVDC transmission act as a barrier to that technology, and the barrier should be removed
- Inter-regional HVDC transmission has been treated as a capacity resource, but a hybrid approach may be more appropriate for an internal HVDC transmission line (ie, generation flowing over the line should be able to sell capacity at the line's terminus, while the line is dispatched by the NYISO as part of the Bulk Power System)



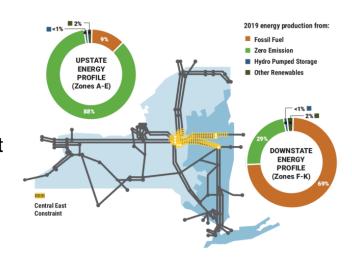
## MARKET RULES FOR INTERNAL HVDC TRANSMISSION LINES Project

- Our proposal is a market design project to revise existing rules and develop new rules, as needed, to allow internal HVDC transmission lines to participate in the NYISO's markets
- Examples of the rules needed include:
  - Bidding
  - Scheduling
  - Dispatch
  - Settlement
  - Operational Control
  - Application of TCCs
  - Delivery of UCAP via internal UDRs



## MARKET RULES FOR INTERNAL HVDC TRANSMISSION LINES Project justification

- The NYISO markets should facilitate achievement of State public policies and not create barriers to new technologies that will advance State public policy goals
- Internal HVDC can help eliminate the "Two Grid" transmission system in New York and more efficiently utilize upstate renewable resources
- The NYISO Tariff's inclusion of provisions authorizing internal UDRs but omitting rules for their implementation and operation is a deficiency that must be ameliorated
- There are multiple projects in the interconnection queue that propose internal HVDC transmission lines, meaning that there is a clear and impending need for market rules to accommodate such projects
- As to timing, these rules likely will be essential for a Tier 4 project



#### Thank you