Capacity Market Improvement Suggestion -- "Customized Reliability"

For the December 5, 2017 Market Issues Working Group (MIWG), the NYISO prepared information concerning "Market Assessment with 50% Renewable Generation". The following statement was a part of that document:

"Potential Market Products or Changes to the Existing Market Structure -- The NYISO is considering a broad spectrum of market product and structure enhancements that may be necessary to incent market participants to meet the reliability needs anticipated as a result of NYS policy to adopt 50% renewable generation by 2030."

Within that context, the capacity market was addressed as follows:

"Potential Market Products or Changes to the Existing Market Structure -- Potential capacity market rules that could be modified or enhanced".

An item listed under that category, "Reliability criteria (i.e., LOLE 0.1)", had been suggested by Market Participant Rich Felak -- and his initial draft description of it was posted on the NYISO's web site for the November 2, 2017 MIWG. It is downloadable via this link:

http://www.nyiso.com/public/webdocs/markets_operations/committees/bic_miwg/meeting_materials /2017-11-02/Rich%20Felak%20Independent%20End%20Use%20Consumer.pdf

Among other things, his document pointed out that the LOLE currently in use by the NYISO (0.1 days/year) is approximately 50 years old, and it does not include cost/benefit considerations. When 0.1 days/year was originally selected the regulatory, technical, commercial, and economic factors which existed were vastly different than today's situation. For example, the value of reliability is significantly different now because the impact of outages on our lives is much greater than it used to be -- and some of today's impacts didn't even exist before.

Within that context, the NYPSC has required Transmission Owners to develop and apply the VDER (Value of Distributed Energy Resources) approach -- which addresses the requirement that capacity costs incurred to meet reliability standards must be cost-beneficial. However, if the reliability standard's selection and application is inflexible, and does not take cost/benefit into account, then there will be an inefficient and unstable misalignment between the NYISO market participants' incentives to meet reliability needs -- and the actual value that is placed on reliability. The net result of this situation will be that, as a group, capacity providers will not have enough useful information and meaningful guidelines to facilitate being correctly "incented" -- to keep existing capacity in service, and/or to build new facilities.

A major reason that this conundrum comes about is because LOLE is currently selected and administered as a "top-down" process when, in today's environment, it should be "bottoms up". Where before it may not have been feasible or practical to do so, the physical devices and communication capabilities comprising the power system today (and the software which controls them) have evolved and it is now possible to provide reliability service in response to its value. That is, LOLE can be one of the outputs of the NYISO's market process -- not only an input to it. Hence, to bring the application of LOLE up to today's requirements, the NYISO should consider providing a new capacity product -- "Customized Reliability" -- whereby (if desired) the statewide bulk network could still use 0.10 days/year, but any metering point could optionally choose a different reliability level.

Other products such as EDRP and DADRP might still be useful in the future - - albeit possibly in modified form. However, as contrasted to such ad-hoc constructs, among the key features of Customized Reliability would be its holistic nature and continuous applicability (i.e., 365 X 24). It would also be capable of providing explicit, not merely implicit, pricing signals -- because the cost and benefit of the reliability criterion chosen would be known by the party contracting for it.

I stand ready to discuss any aspect of this suggestion for the creation of a NYISO "Customized Reliability" capacity market product with all interested parties.

Richard Felak Independent Member of the NYISO End Use Consumer Sector felak@verizon.net 1.518.3743855

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