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## Memorandum

TO: ANDY McDONALD, APOGEE – CLIMATE & ENERGY TRANSITIONS  
FROM: DR. THOMAS VITOLO, SYNAPSE ENERGY ECONOMICS  
(617) 453-7036 TVITOLO@SYNAPSE-ENERGY.COM  
DATE: SEPTEMBER 24, 2020  
RE: PUBLIC COMMENTS AT SEPTEMBER 24, 2020 KYMEA MEETING

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On September 24, 2020, Dr. Thomas Vitolo addressed the KYMEA leadership via WebEx during the public comment portion of the meeting. Although Dr. Vitolo offered to respond to questions, none were asked. His complete comments are detailed below.

### Public Comments

“Thank you, Andy. My name is Dr. Thomas Vitolo, and like so many others my home is now both an office and a school, so I beg forgiveness if we have a 4<sup>th</sup> grade interruption. Although I serve as a State Representative in Massachusetts, I am not here today in that role. Rather, I join you as a Senior Associate with Synapse Energy Economics. In that role I’ve reviewed IRPs and other planning decisions in many states including Alabama, Georgia, Illinois, Mississippi, Missouri, North Carolina, Tennessee, Virginia, and Kentucky.

The timing of KYMEA’s IRP couldn’t be better. While there are some planning decisions to be made before the end of 2020, the bulk of important decisions must be in place for 2022 and 2027, time horizons for which good planning now will yield the rewards of lower risk and ultimately, lower costs for ratepayers. Kudos to KYMEA leadership for moving forward with a resource planning process, despite all of the challenges we’re all facing.

I have reviewed many KYMEA publicly facing documents, including the June 24<sup>th</sup> and September 2<sup>nd</sup> presentations, meeting minutes, news articles, and KYMEA data on load, capacity and energy positions, and transmission. Upon doing so, I drafted a 14-page memo detailing a number of suggestions that would allow for a stronger IRP process for KYMEA, one with better results. Those comments are available right now, to KYMEA, the public, and the press, at

<http://www.synapse-energy.com/KYMEAIRP>

**My first comment of substance relates to this information: as an organization designed to serve the public, KYMEA should take further steps in making this process more available to the public.** Every planning document not required to be redacted due to trade secret should be made public. While I appreciate that KYMEA was able to respond to some data requests in just a few days, none of that

process should be necessary – all of the documentation should be available to every member of the public and the press.

KYMEA's adjacency to the Midcontinent Independent System Operator territory provides important advantages for the 2020s. Both capacity and energy prices in MISO are quite low, and both are projected to remain low for a long time. In some cases, those low prices are directly available to KYMEA; in other cases those low prices will help pressure suppliers within Kentucky to keep their prices low as well. **My second comment relates to the MISO proximity: due to fuel cost exposure, unit age, and regulatory risk, fossil-fuel contracts in excess of three years are far riskier than the MISO marketplace and should be avoided. Existing contracts that allow KYMEA to drop over-priced capacity, such as the PPS capacity contract, must be weighed against the low-priced capacity marketplace. Other contracts that are out-of-the-money should be aggressively renegotiated and done so in a way that doesn't simply extend overpriced obligations out more years in the future.** I'd add that it's very difficult to imagine a so-called "balanced portfolio" that includes fossil-fuel energy sources by 2030, precisely because the risks associated with long term fossil-fuel positions will only continue to grow relative to renewables and batteries.

In my professional opinion, perhaps the only opportunities that have less regulatory or price risk than MISO is in-state solar PV. Because the sun shines free of charge, solar PV PPAs can be arranged for 15-, 20-, even 25-year terms at fixed prices. **My third comment is to encourage KYMEA to actively seek additional solar PV, via PPAs, from in-state Kentucky developments, at a price of approximately 3 cents per kWh or less.** We're seeing developments with these sorts of prices, and importantly, KYMEA should strive for prices equal or less than the MISO marketplace. Wind is an option as well, however at the moment there are not strong prospects for low-cost wind generated within Kentucky; procuring wind from deep in the MISO marketplace includes risks that in-state solar doesn't include. Still, KYMEA should keep an eye on the potential for wind PPAs within MISO that are electrically close to its load, such as in Southern Indiana and Illinois. This procurement need not happen at just one project; on the contrary, contracts from different installations throughout the Commonwealth, with different timing, allow for risk mitigation and help reduce rate shock in the future.

There several other actions that KYMEA can take to put downward pressure on costs, reduce risks, and help the local economies of its members. Energy efficiency programs can help customers lower bills and, if implemented with an eye on planning, can push down on rates by helping to shave generation or transmission capacity needs or reduce the calls for higher-priced energy. Customer-sited solar, or ground-mounted solar PV installations a few megawatts in size within member municipalities should also be considered. The price of batteries continues to fall, and KYMEA should consider batteries for frequency regulation and other ancillary services in the near-term, and for capacity and shaping in the mid-term. **My fourth comment is this: we're 20 years into the 21<sup>st</sup> century, and modern technology has matured or is rapidly maturing. KYMEA should actively pursue a more distributed set of resources, including EE, PV within member communities, and storage, because doing so will serve to reduce risk, increase reliability, and allow a more nimble management to find cost savings and other value opportunities.**



My family moved to Roanoke Virginia when I was a kid, I attended North Carolina State University, and I lived in Cincinnati Ohio as a young adult. I am hopeful that our nation defeats COVID-19 soon enough for me to come down to Louisville, Frankfort, and Lexington to pay y'all a visit in person. Thank you for your time, and I'd be happy to answer any questions you have now or at a later date. I can be reached at 617-453-7036, and at [tvitolo@synapse-energy.com](mailto:tvitolo@synapse-energy.com)."

