



Comments on Storage Report Outline

The Windham Regional Commission energy staff discussed the outline amongst ourselves and produced the below comments for the DPS:

- 1) What is missing or should otherwise be modified in the proposed report [outline](#)?
 - a) Not seeing system resilience as a purpose for storage, and what that might look like at different levels (i.e., individual residence or business to entire areas of the state).
 - b) Explore the impact of storage on the grid especially with all the solar the state is planning for with the energy goals.
 - c) Case studies: What policies have other nations pursued, or are they considering pursuing, to ensure grid stability, reliability, and resilience?
 - d) Is there a “cradle to cradle” approach rather than a “cradle to grave” approach that can be taken with the different technologies?
- 2) What are the most compelling reasons for deploying energy storage in Vermont?
 - a) Storage could play a large role in reaching the State’s 90x50 goal and would aid towns with their targets (in the context of Act 174).
 - b) Grid resilience
 - c) Economic benefits of peak shaving
 - d) Opportunity for microgrids
 - e) Establish Vermont as a forerunner in Energy research and development
 - f) Would storage assist with resilience in event of coronal mass ejections/solar flares? This may seem like an “alarmist” issue, but it’s a natural disaster that we know is going to happen at some point and if storage can help Vermont bounce back from it more quickly, we need to think through what that design and engineering looks like.
- 3) What are the biggest barriers to deploying energy storage in Vermont?
- 4) How should the costs and benefits of storage be evaluated?
 - a) Local, state, national and international environmental and ecological concerns associated with different storage technologies. What are the full costs of different technologies, including negative externalities and social/environmental justice concerns, associated with the storage technology life cycle (from mining to manufacturing to installation/operation to disposal)?
 - b) Microgrids could result in greater community resilience opportunities during an event where the greater grid is compromised
- 5) How can Vermont policies, programs, and regulations best be used or modified to better accommodate or encourage storage?

- a) Hydro storage should be closed loop only. The Northfield Pump Storage Facility causes far too much bank erosion and disruption of the riparian ecosystem.
- 6) Please provide any information you believe is relevant to inform each proposed section of the report, being specific to the Vermont context wherever possible.