SHEI – VPPSA & BED COMMENTS

Vermont System Planning Committee

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SHEI – Types of Effects

- Who is affected
  - I would argue all VT distribution utilities – one way or the other

- How are they affected
  - Curtailment
    - Loss of generation that would otherwise have occurred
    - Owned resources that are in the ISO-NE energy market are primarily affected

  - LMP Suppression
    - Nodal - Reduction in the value of resources delivered to the ISO-NE energy market – hurts generator “owners”
    - Zonal - Has an effect on the charges VT utilities are assessed for load – helps “load serving” entities
    - Affects owned and contractual resources that are in the ISO-NE energy market are both impacted

  - Possible Constraint on Building Local Generation

- Magnitude of Effects
  - Relative magnitudes and types of impacts a utility is exposed to determine the net economic impact
  - Load charge reduction versus resource payment reduction

What kinds of potential solutions are being discussed?

- Load Building
  - The more the hypothetical load looked like the curtailments and times of suppressed energy prices the better – which is tough to count on – and the probability that load will be added at other times indicates caution
- Storage
  - Can act like a dispatchable load but - How much – how long – where – who will control when it charges and discharges are in question – and to work, there need to be times when it can discharge – which will effectively increase the resources in the area
- Transmission
  - “Always available” – But who will be allowed to use any increased transfer capability is a question – what if a project is proposed in the SHEI area that will sell power to CT, after Vermont consumers pay for a transmission upgrade to allow the export

What kinds of potential solutions are being discussed? - Continued

- Contractual
  - Could resolve some of the economic impacts for purchase power agreements – but not perhaps easily in the three to four year window
- Operational
  - Some improvements have happened in outage scheduling – what else can be changed about how the system and resources are operating to relieve constraints
- Software?
  - Cutting edge / next generational software alternatives
  - Software optimization of production and consumption of energy (but whose optimum)

Final Comments

- This is an economic problem – and a constraint on energy deliverability of future resources – Not a traditional reliability problem

- Anyone who says this can be solved by just _____ is over-simplifying
  - If this were simply solvable – with the magnitude affects you are hearing about (or will hear about) – it would have been solved by now

- Who pays for any solutions will be a point of discussion at some point