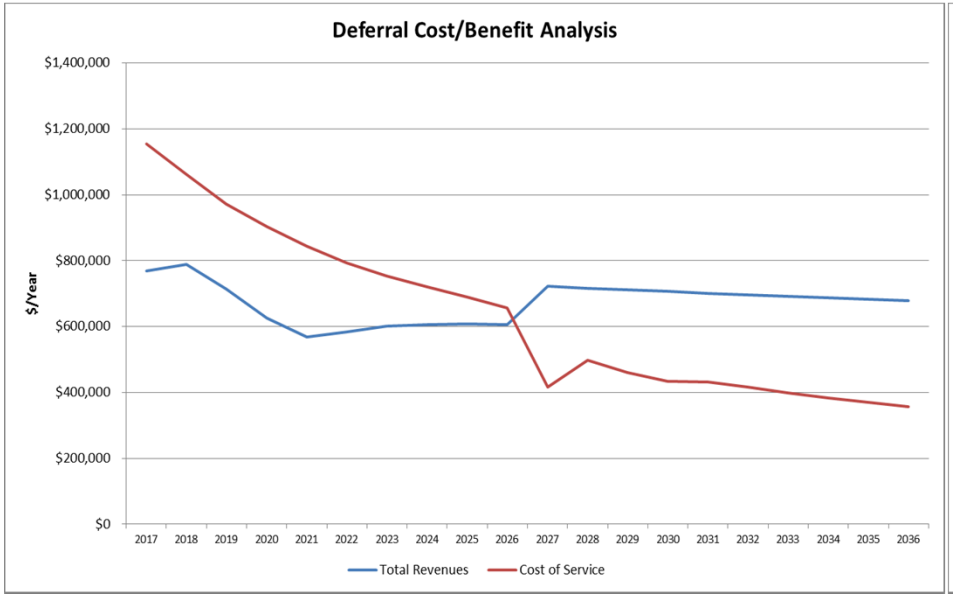
T&D Deferral – Hinesburg
DRAFT

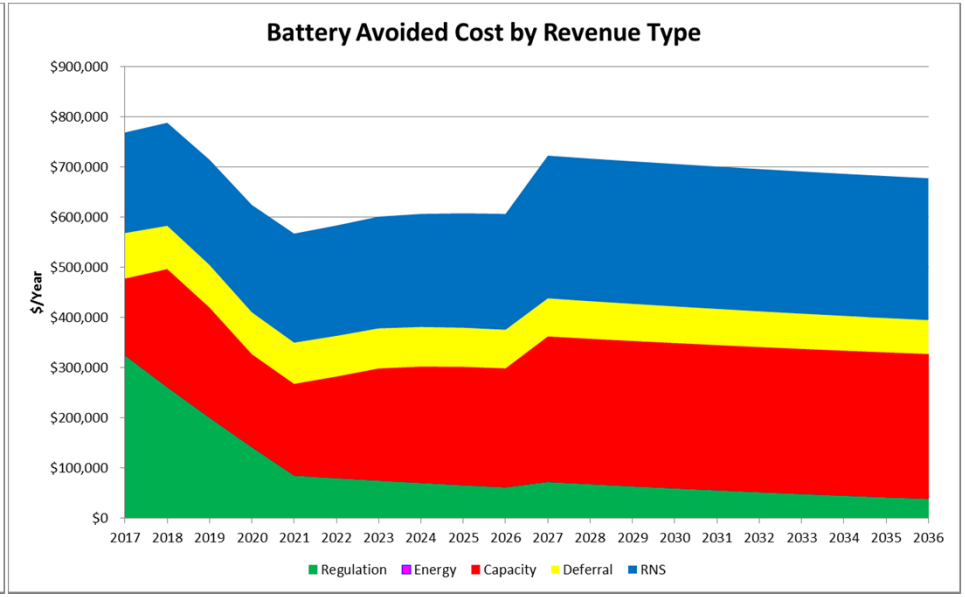
September 21, 2016

Assumptions

- Scenario 1
  - 500 kW load growth every year for five years
  - Limited reliability use – a few hours per year
  - Hit 90% of peaks for capacity and transmission
  - Available for regulation 90% of hours
- Scenario 2
  - 500 kW load growth every year for ten years
  - Reliability support 450/hours per year
  - Hit 40% of peaks
  - Available for regulation 75% of hours
- Both assume:
  - Limited Regulation market benefit
  - Deferral benefit
  - 3 MW battery with 6 MWh output
    - Run for 3 hours at 2 MW for peak shaving
  - Battery repowered after 10 years which is why the expenses dip in year 11
  - Rate base model

Scenario 1 – Limited Reliability Use

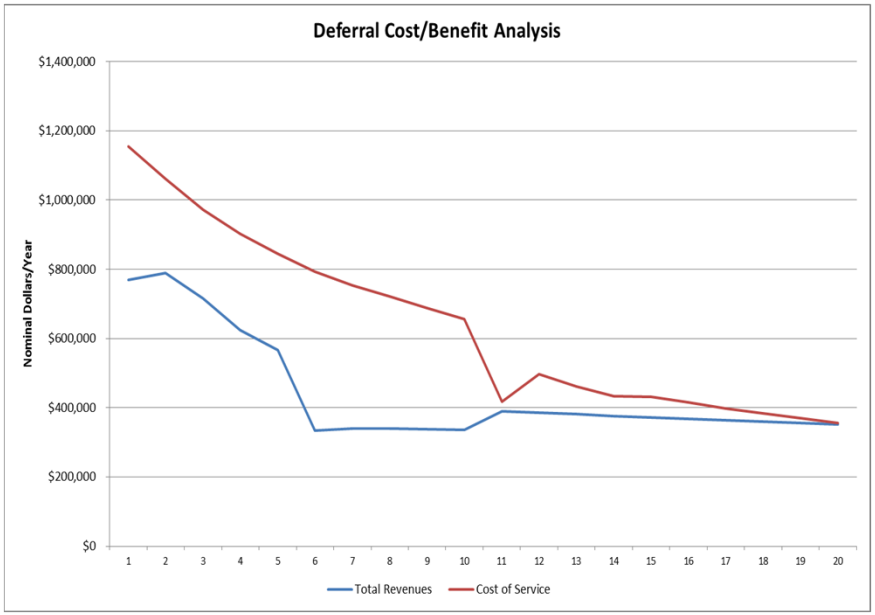


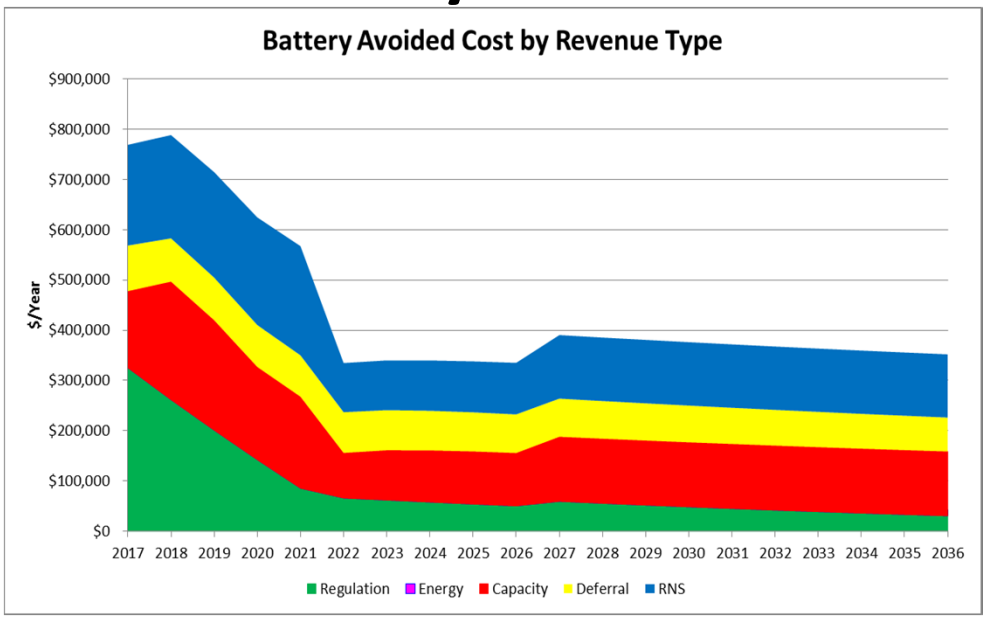


NPV Analysis	
Levelized Benefit	$7,115,660
Levelized Cost	$7,721,646
Net	($605,986)

- Limited use for reliability allows battery to focus on merchant activities

Scenario 2 – Reliability Use





NPV Analysis	
Levelized Benefit	$5,177,976
Levelized Cost	$7,721,646
Net	($2,543,670)

- Reliability use for approximately 450 hours per year starting in year six
- Limited ability to shave peaks due to reliability support during high load periods which generally match capacity and transmission (RNS) peaks