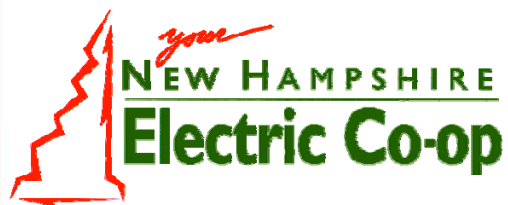


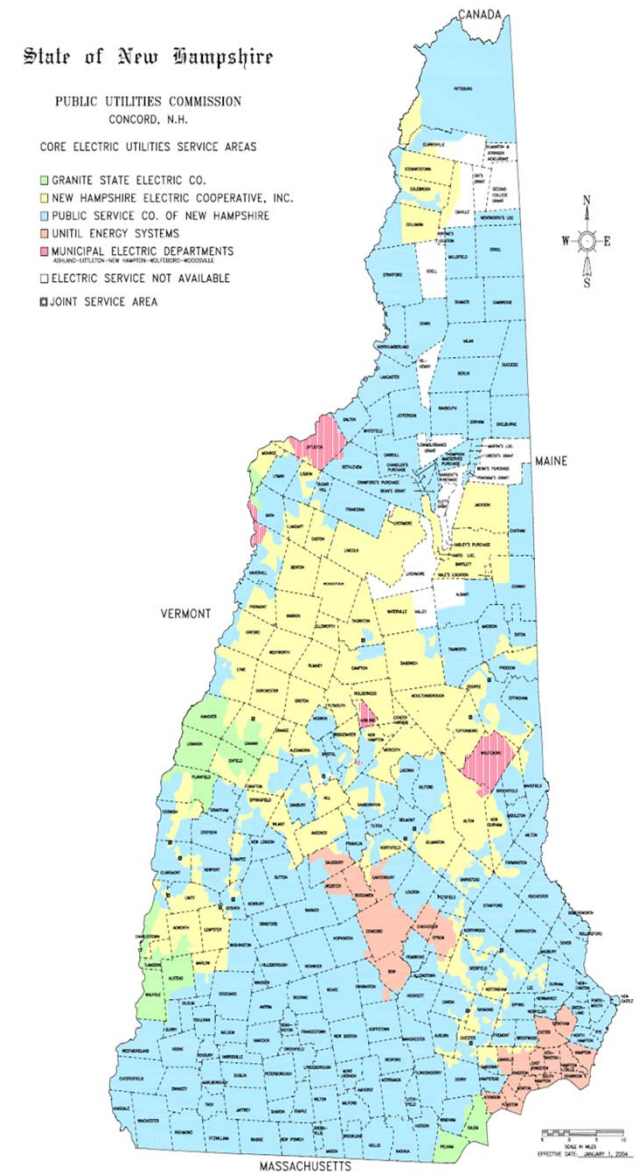
New Hampshire Electric Cooperative

Heather Manypenny
Rates Interest Group
April 3, 2017



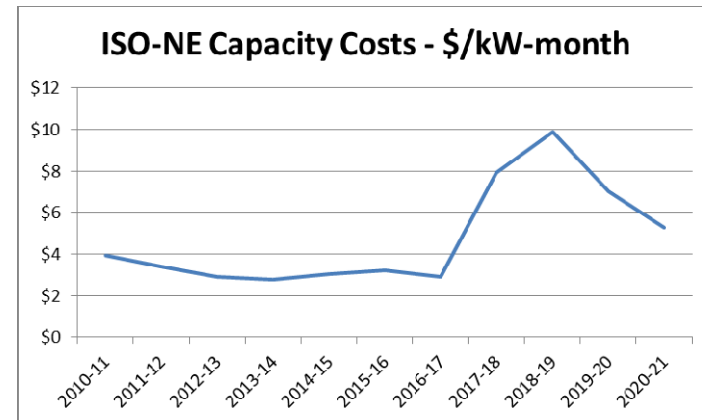
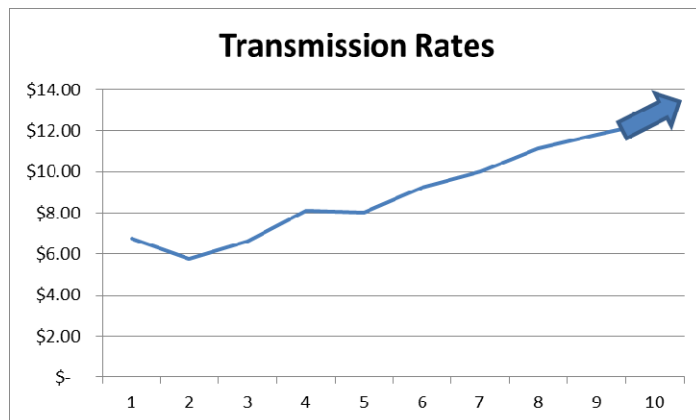
Background on NHEC

- Service territory: approximately 1/3 of New Hampshire (shown in yellow on map to the right)
- Second largest electric utility in New Hampshire
- Member accounts: 80,000+
- “Self-regulated” by member-elected board of directors (mostly)



NHEC motivators for DR including dynamic pricing

- Peak costs on the rise....
 - ISO-NE Forward Capacity Market
 - Transmission Rates



Provide members with choices and opportunities to save on their bills



2012-2014 Pilot

- Smart Grid Investment Grant (SGIG) to deploy AMI to all meters
 - Committed to pilot dynamic rates with In-Home Displays (IHDs)
 - Pilot was conducted from November 2012 through October 2014
- Direct mail with letter, pamphlet, return postcard to 5700 eligible members
 - 567 volunteers (~10%)
 - Randomly assigned to 4 pilot groups
 - IHD-only (106)
 - TOU (176)
 - TOU-CPP (183)
 - Control (102)
 - 444 remained at end of 2 years

2016-2017 TOU-CPP

- “Peak Planner” TOUCPP rate introduced in spring 2016 as part of a multi-program DR roll-out
 - First TOUCPP bills June 2016
 - As of 3/28/2017, NHEC board of directors, as management recommended, decided to discontinue the program after participants receive their May 2017 bills.
- Multiple marketing channels to all members (emails, newsletters, bill stuffers, limited direct mail) with online enrollment portal
 - ~ 400 enrolled (~0.5%)
 - 230 remain as of March 2017

2012-2014 Pilot

- On-peak rate included transmission and higher energy costs
 - Summer weekdays: noon to 8:00 pm
 - Winter weekdays: 4:00 pm to 8:00 pm
 - About 20% of all hours
- Critical peak included all capacity costs
 - Noon to 5:00 p.m. on designated day(s)
 - Events called by noon day before
 - Up to 12 events per summer allowed
 - 9 in 2013
 - 2 in 2104

¢/kWh	Standard	On-Peak	Off-Peak	CPP
Winter	13.34	28.01	10.92	
Summer	14.12	24.13	8.93	132.40

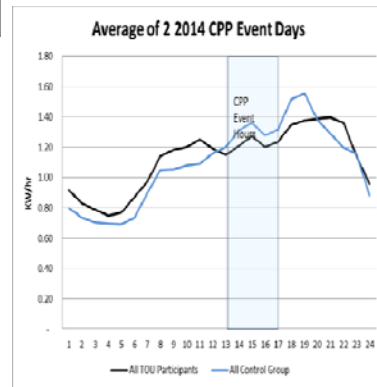
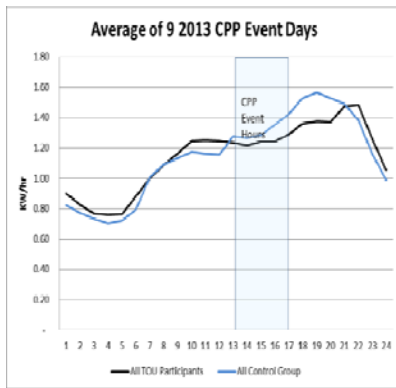
2016-2017 TOU-CPP

- On-peak rate includes transmission costs
 - Summer weekdays: 2:00 to 7:00 pm
 - Winter weekdays: 5:00 pm to 9:00 pm
 - <15% of all hours
- Critical peak includes all capacity costs
 - Up to 5 hours each between noon & 8:00 pm
 - Events called by 8:00 pm day before
 - Up to 15 events per summer allowed
 - 8 events in 2016

¢/kWh	Standard	On-Peak	Off-Peak	CPP
Winter	14.66	31.49	11.31	
Summer	12.12	24.32	9.18	543.69

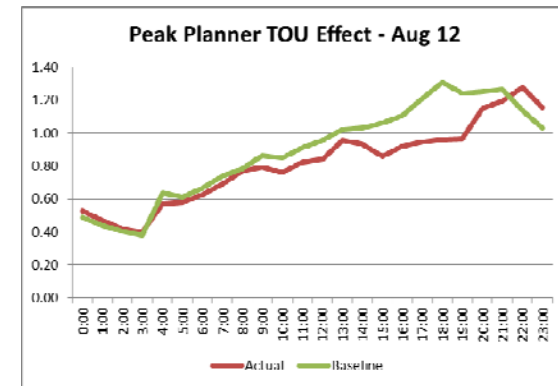
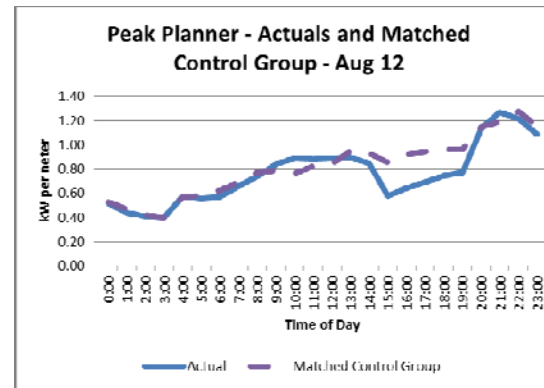
2012-2014 Pilot

- 19.4% load reduction at time of ISO-NE peak hour



2016-2017 TOU-CPP

- 46% load reduction at time of ISO-NE peak hour





Heather Manypenny
manypennyh@nhec.com