Residential Lighting & New Construction

CRAC Webinar
January 16, 2015
Update on Where We Are

- General consensus was to:
  - Keep high-efficiency lighting in supply curve
  - Use 45 lm/Watt as baseline for 2020+ GSL
  - For SSL, project cost/efficacy to 2017 based on PNL report

- Outstanding questions
  - What is the current saturation?
  - What should the efficient measure be for EISA-exempt lighting?
  - How to model in RPM?

Current Saturation

- How to estimate current saturation?
  - Use RBSA data? 3 years old
  - Use NEEA shelf study? Not weighted by sales volume
  - Sales data? Only have a limited sample

- Suggested approach (from BPA/NEEA)
  - Use Sales+Shelf data to approximate flow
  - Supplement with NEEA general population survey on installations of LEDs (will be done ~April)
Measures

- General service lighting:
  - Pre-2020 baseline: halogena/CFL mix
  - Post-2020 baseline: 45 lm/Watt CFL
  - Measure is 90 lm/Watt LED
- Specialty lighting
  - Should we include CFLs as a measure?
  - Propose: No
    - CFLs have not garnered significant penetration in this area
    - LEDs seem to fit this niche with more varieties

Modeling in RPM

- Once savings from a cost group is built, the savings persist over planning horizon
- Given EISA standards, GSL savings from 2016-2019 do not persist past 2020
- We will need to bundle these separately, treat 2016-2019 savings as a power purchase agreement
Modeling Approach

- **UEC**
  - 22kWh
  - 14kWh
  - 7kWh

- **Halogen/CFL mix**
- **PPA ~150 aMW**
- **EISA 2020**
- **LED**
- **Supply Curve ~140 aMW**

- **Year**
  - 2016
  - 2020
  - 2035

**SINGLE-FAMILY NEW CONSTRUCTION**
Where is the market?

- State building codes have improved since 6th Plan!
- Expectations are above-code shell improvements are not cost-effective
- Focus for RNC will be on equipment and lighting improvements
- Plus Heat Recovery Ventilation