

## Minnesota TRM Lighting Workgroup

May 27, 2014

Attendees (via web conference):

Joe Plummer, Jessica Burdette, Mark Garofano, Mary Sue Lobenstein, Laura Silver (Commerce); George Roemer (Franklin Energy Services); Rich Szydlowski (Center for Energy and Environment); Jeff Haase (Great River Energy); Kevin Disse (Otter Tail Power); John O'Neil (SMMPA); Travis Hinck (GDS Associates); Kurt Hauser (MRES); Kim Lillyblad (MMPA); Will Nissen (Fresh Energy)

Presenter: Joe Plummer

- Agenda
  - What's happening since last meeting
  - C/I lighting coincidence factors
  - Possible changes to lighting measures
  - Next steps
- What's Happened
  - 201 TRM Smart Measure library released
    - Based on TRM v1.1
      - Utilities can use v1.0 or v1.1 for this year
    - Includes residential LEDs
    - Added Stairwell Fixtures with Integral Occupancy Sensors
    - There are a total of 21 lighting measures
  - Appendix B (C/I Lighting Table)
    - Edits to incandescent wattage due to market lag of EISA standards
    - Final table will be distributed in May
  - Residential Lighting tweaks
    - Baseline wattage increased slightly for residential lighting measures
    - This was done to be consistent with Xcel order in February 2012
  - Miscellaneous Lighting Updates
    - Energy Star CFL Fixtures
      - Incremental cost, measure life specified
    - LED Traffic Lights
      - Additional signal types added
    - LED Holiday Lights
      - Revised to include C7/C9 strings
      - Proposal to increase measure life to 16 years
      - California DEER says 16 years, but that seems long
    - Revised specs will be sent to lighting group for review
  - C/I Coincidence Factors
    - Table with adjustments based on other studies from George Roemer
      - TRM is comparable with other sources, slightly higher



- John from SMMPA
  - Likes this, it works well for them
- Laura from Commerce
  - Depending on how the kit is being delivered can change things
  - Delivered upon request
  - Delivered through schools
    - Third party does follow up survey with student's household
    - More detailed information
  - Should they use Direct Install or Kits?
    - Have looked at increasing IOU M&V requirements
    - Handle on case by case basis
- Consider adding In-Service Rate (ISR) to algorithms
  - ISR represents % of bulbs installed within one year
  - Primarily affects upstream, giveaways and kits
  - Factors affecting ISR
    - Giveaways/Kits
      - Customer responsible
      - May not have requested device
    - Upstream Programs
      - Deeply discounted price
      - Multipacks
      - Bulbs burned out before replace
    - CA study found 99% of upstream program installed within three years
    - ISR taken into account by:
      - Discount future savings
      - Stagger timing of savings claims
    - Thoughts?
      - Jason from OTP
        - Would have to look at what percent overall is our savings coming from for Resource Planning
      - John from SMMPA
        - Would have to look at potential impacts
        - Administratively could be a headache, might not be worth it if savings are not large
      - Commerce
        - Would provide deemed ISR for each program model for a 3 year period
        - Different ISRs for each year
        - Full cost in year 1, savings spread over 3 years
        - Would take some effort to build in
      - Kurt from Missouri River
        - Fine with doing that
      - Jason from OTP
        - Did California adopt this ISR?

- Not sure if California has adopted
    - Is included in Uniform Methods protocol
  - Laura from Commerce
    - What does discounting future savings mean?
      - If installed in Year 3, discount savings back to Year 1. This isn't really an indication of what is happening in reality.
    - Potential to true up savings from Year 1 from previous years?
      - Nope, only savings looking forward.
  - Any other primary concerns besides time and effort?
    - Jason OTP (Different ways we are distributing them)
  - Additional thoughts please contact Joe Plummer via phone or email
- Other Factors Affecting Savings
  - Cross-Customer Class Sales
    - Small Commercial doing Residential
  - Cross-Service Area Sales
    - Bulbs can go to other utilities, but you will get some from other utilities as well
- Uniform Methods Protocols does not recommend evaluation of these factors for residential lighting
  - Research limitations
  - Will offset each other
- Next Steps
  - 1. TRM v1.1 to post within 2 weeks
    - New grocery store coincident factor
  - 2. JP to distribute new LED traffic signals, LED holiday lights and CFL fixtures specs for review
  - 3. Utilities provide info for lighting changes
    - JP to distribute forms
    - JP provide results to Franklin Energy
  - 4. Franklin develop new res lighting measure spec
    - JP to distribute for review
  - 5. Online Meeting for items 2 & 4 in July or August