

TRM Meeting 5 August 2015

Sharepoint space: MG will re-send the link, if there are additional people that need to be added to list let MG know; one-way sharing for now, for now send materials to MG, DER and Franklin will be working on site format

Gas Non-HVAC & Envelope

Draft Workpapers

- Com Water Heater (DHW)
 - Updated to new standards
 - Savings vary by size, under and over 55 gal
 - Open item: water temperature
 - There was past discussion of incorporating how to handle when water usage is beyond the capacity of the tank size, not incorporated currently, Rick from Franklin will follow-up with MG
 - Table 2: Gal/1000 sqft per day value for “other commercial” is very low compared to other building types. Rick says that value is from ASHRAE and will look into it.
 - Allison: suggested there be a value in Table 2 for MF buildings, George said that is typical in other TRMs, Franklin will look into including that.
- Com Dishwasher
 - Straight from EnergyStar calculator
 - There is a lot of variability between types of dishwasher so it’s difficult to come up with a single summary value
- Thermostatic Shower Valve
 - Same assumptions as showerhead, about a minute of savings
 - Workpaper assumes it is only an add-on to a LF showerhead, default value of 1.5 gpm
- Loading Dock Seals
 - Complications: number of shifts versus 24/7, need a typical value for leakage area
 - AC savings not included, Franklin could look into that, also could be relevant for refrigerated areas, may be better dealt with in custom programs

General

- Confirming water temps
 - Aerators, showerheads, spray values
 - Past request to review ground water temperatures, group thought assumption was too low; 46/49/53 for zone 1/2/3 currently so maybe that change has been made, MG and Franklin will check history

TRM Updates, Schedule, Timelines

- TRM 2.0 (2016) in progress
- RFP for 2017-2019 TRM awarded to Franklin
 - Eval and update load profiles
 - Build smart measures

Codes & Standards

- Summary spreadsheet of current C&S changes and of all measures by relevant C&S will be shared
- New commercial code adopted in Jan 2015 (has an ASHRAE options even though code adopted IECC 2012, there are some differences but TRM mostly uses baseline values which are the same)
- Economizers: code is not that RTUs above a certain size economizers are required, TRM will note that savings are not eligible in those situations.

- Res DWH: need to go to HP DHW for greater than 55 gal, storage DHW should be phased out; there is now a provision for grid-interactive water heaters, Franklin will look into that
- 2020: CFLs become lighting baseline
- Builders would like HERS code compliance; MN legislature passed a law that there will be no code update for 6 year but DOLI can make incremental changes during that time.

HVAC Measures

Com Boiler – Algorithm changes

- change from HDD to load hours; not a lot of spread on the heating side since it's so weather dependent; CPE thinks balance point should be 55 b/c that's what systems are spec'ed to
- Possible change to go to average annual hours rather than broken down by bldg. type: benefit to keep building type amounts; add a general or average options in case bldg. type is not known

Com Boilers - modifications

- List of requirements for boiler tune-ups: utilities should compare to their requirements and send comments to Franklin

Condensing Unit Heater

- Standard: 80% eff, 90/93% for high efficiency

ERV

-

Parking garage controls

-

Guest room controls

-

Duct Sealing

- Locations included now
- Generally handled as air sealing measures, delta CFM measurement

Furnace tune-up

- Uses before and after combustion testing from Franklin's work in IL

Mini-split

- This measure can represent a lot of different types of equipment, and a lot of different scenarios of what is being replaced
- On heating side, should accommodate delivered fuel option as displaced fuel
- Window AC would be an expected existing condition

Res GSHP

- Desuperheater: should it be included as an option, should it be a different measure?
- Could include a measure of just upgrading the GSHP unit (mechanical unit, not the loop field)

Com AC – incorporates IEER for EER

- Size differentiation determines use of SEER, EER, or IEER

Thermostats

- Request to look at smart thermostats
- Franklin doing pilots in IL
- Three tiers: programmable, communicating, analytics capable

Residential HVAC QI/QM

- Awaiting results of Seventhwave research results
- For elc utilities AC drives peak load but there are only 800-1000 hour of use a year so there are not a lot of kWh savings

Lighting

- New standard for T8 ballasts that is comparable to premium T8/high performance T8 level, this becomes the new baseline; There were similar dynamics with T12, this was handled by reducing the measure lives
- CF review: several TRM have updated theirs
- ISR (in service rates): several TRMs include this metric, some are by program type (e.g. aerators in DI programs = .95 in IL)
- Re motion sensors: potential new measure
- Costs: Franklin will be reviewing, costs are coming down

Other electric measures

- Ag measures: engine block timers, fans (high speed), lighting, livestock waterer
- Compressed Air leak repair:
- Com Electronically Commutated Circulators: for pumps (DHW circulators, heating or cooling circulators), more and more products are coming out with EC motors functions
- VSD pool pumps: savings based on pool size, pumps required a certain amount of turnover, operating hours vary

Next meeting/next steps

- Next meeting will be in combination with an EUI meeting
- Mark will work on the logistics with the Sharepoint site