

Regional Technical Forum Meeting Notes

April 10, 2007

DRAFT

1. *Greetings and Introductions.*

The April 10 meeting of the Regional Technical Forum was chaired by Tom Eckman. The following is a summary of the topics discussed and decisions made at this meeting. Anyone with questions or comments about these notes should contact Eckman at 503-222-5161.

1. Meeting notes for the February 20, 2007 were not available for review so approval of the prior meetings minutes was deferred to the May meeting which as set for May 22nd in Portland.

2. ***Review of Premium Commercial HVAC Equipment Cost and Savings*** - Tim Steel and Charlie Grist explained the methodology proposed to establish the savings from higher efficiency commercial HVAC equipment. The computer building simulation model DOE-2 is being used to “back out” the impact on use of higher performance equipment. Grist and Steel asked the RTF to comment on some of the input assumptions to DOE-2 that are critical to determining savings. Harris recommended that it be assumed that economizers don’t work. Baylon recommended that economizer performance inputs should be a function of unit size, with the larger units assumed to perform better. Reid Hart suggested that the cut-over temperature for economizer use also be a function of size, with 55 F for small, 60 F for medium and 65 F for large.

Grist asked for volunteers to help secure and review HVAC equipment cost. Will Miller, Mark Jerome and Jeff Cole agreed to serve on a review subcommittee. Grist then asked for volunteers serve on a cost-effectiveness review subcommittee. Tim Steele, Reid Hart, Dave Baylon along with Will Miller, Mark Jerome, Jeff Cole agreed to assist Grist in this effort.

Grist then indicated that it might be possible to develop a “deemed calculator” to estimate savings from installing high efficiency HVAC equipment in existing buildings based a calibration to their billing histories using EZ Sim or similar tool. No RTF action was needed on this approach.

3. Review of Proposed Methodology for estimating savings from efficiency measures in the Hotel/Motel market

Greg Stiles and Charlie Grist introduced this topic by indicating that the Energy Trust of Oregon (ETO) in planning on launching an initiative targeted at hotels and motels. Greg indicated that they intended to use the Food Technology Test Center in California as the independent source of energy savings data for food preparation equipment. After some discussion, the RTF agreed that this Center is likely one of the most credible sources of information in the country.

Greg then asked the RTF to consider establishing deemed savings value for a “night light” occupancy sensor control. My Ton asked why this measure was selected. Stiles indicated that it was because it offered more programmatic possibilities. From food service to lodging. Stiles distributed an evaluation performed of the sensor in a California hotel. Savings were \$148 kWh/yr for an incremental cost of \$38 to \$58. Stiles also indicated that the ETO will be evaluating the savings and cost-effectiveness of efficiency improvements in PTACs. They intend to use EZ Sim to compare pre and post-measure installation use with billing histories. Several RTF members offered recommendations on the evaluation. Bruce Manclark, Jack Callahan and Adam Hadley agreed to serve as a subcommittee to review the ETO’s evaluation approach and results.

The RTF agreed to accept the “night light” occupancy sensor control savings of 148 kWh and asked that staff (Grist) review the cost-effectiveness of this measure using the range of cost observed in the California evaluation.

4. Energy Smart Grocer Deemed Measure Savings Estimates

Grist introduced this agenda item by explaining that PECI was implementing the Energy Smart Grocer program across many utility service areas in the region. The RTF is being asked to review and approve PECI’s estimate deemed savings and approach to calculating savings from interactive measures. Steve Cofer from PECI presented their proposed approach to computing savings from interactive measures. After some discussion the RTF agreed to accept PECI’s methodology which “de-rates” the savings for each measure in a package based in the ratio of package savings to the sum of all individual measure savings.

Grist then lead the RTF though a review of all of the deemed savings values proposed by PECI for use in the Energy Smart Grocer program. The RTF decisions on these measures are documented in the spreadsheet entitled “041007_EnergySmartGrocer_Decisions.xls”

A subcommittee consisting of Tim Steele, Bruce Cody, Dave Baylon, Steve Cofer, Paul Warila and Charlie Grist was established to assist in the further review of the ESG measure savings.

5. Availability of non-TP-1 Compliant Transformers

Nelly Leap presented information on the number of non-TP-1 low voltage transformers in the region. Her data indicated that vendors had less than one years stock of such transformers. Eckman reported that Jim Williams had sent him an e-mail summarizing the results of his survey of transformers to the industrial sector. Williams had found that only 1138 such transformers were in inventory nationwide. Eckman stated that the analysis presented at the prior RTF meeting indicated that an “early replacement” program for transformers was not cost-effective no further action was needed on this measure.

6. Business Plan

Eckman indicated that the RTF had not received any comments on its draft business plan for 2007. The RTF adopted the April 10, 2007 version of the business plan, after the total funding amount was corrected to read \$285,000.

7. Geothermal Heat Pump

Adam Hadley led the RTF through proposed revisions to its specifications for geothermal heat pump. The specification was approved as presented with a modification to include an outdoor thermostat. A subcommittee consisting of Mark Jerome, Adam Hadley, Bruce Manclark, Bob Davis and Jim Maunder was established to create a geothermal heat pump commissioning form for next RTF meeting.

8. Deemed Savings to Move Ducts Inside Conditioned Space

Eckman presented proposed revised standards for Energy Star homes with crawlspaces and crawlspace homes where the HVAC air handler and duct work are located inside the conditioned space. The first of these revisions is needed to reflect adopted changes to the Washington code and recent results from a NEEA survey of new homes characteristics regarding residential lighting power densities and duct tightness. The proposed savings for “Interior HVAC” is being considered to establish a differential savings for going beyond just PTCS duct sealing in new homes. The RTF adopted the deemed savings as proposed by Eckman. Eckman indicated that revised savings for Energy Star homes with basements at the next RTF meeting.

9. Deemed Savings for Early Replacement and Recycling of Residential Freezers

Eckman presented a proposal to establish deemed savings for the early replacement of residential freezers. He indicated that his analysis of the savings from this measure used the same methodology used to establish the savings for the early replacement of residential refrigerators previously adopted by the RTF. Eckman stated he had used a remaining measure life of six years, (the same as for refrigerators) even though a recent evaluation of the Snohomish Pod’s early

replacement program revealed that the remaining measure life was eight years. Since the measure is cost-effective using a 6-year remaining measure life the RTF approved the deemed savings for freezer early replacement, decommissioning and recycling as presented.

10. Deemed Savings for Low Flow Showerheads in Single Family Homes

Debra Tachibana from Seattle City Light presented the results of a research project they recently completed to determine energy savings from the installation of lower flow (2.0 gpm maximum) showerheads in existing single family homes. Based on the results of this analysis it appears that installing such showerheads could result in a 0.4 gpm reduction in water use. Electricity savings were estimated at between 88 and 172 kWh per year depending upon whether the showerhead being replaced is in the primary or secondary bath. Savings are based on a “fulfillment of customer request” program delivery where 90% of the requested showerheads are installed.

Eckman then presented his analysis of the cost-effectiveness this measure. The measure is cost-effective using the regional hot water heating “fuel share” weighted average electricity site savings of 75 kWh/yr and a total resource cost of \$24.20 (assumes showerhead cost of \$16.95 and program delivery cost of \$11.13) at 5 to 15 year measure lives. The RTF adopted the showerhead deemed savings values presented by Seattle City Light and Eckman’s cost-effectiveness analysis.

3. *Next RTF Meeting Date.*

The next meeting of the Regional Technical Forum was set for Tuesday, May 22, 2007.

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