



June 3, 2010

To: Lydia Hseih, Bill Ware

From: Rick Morgan, Morgan Marketing Partner

## **MEMD Recommended Guidelines**

This memo is to help with the discussion about the policies concerning use and upkeep of the Michigan Energy Measures Database. This is provided in hopes that it will help clarify the discussion of the Michigan EM&V Collaborative around this issue.

### **Annual Update**

As originally outlined, we recommend that the MEMD be updated with new measures and adjustments to existing measures annually in the fall. New measures would be added at the request of the Collaborative and its member utilities. A listing of desired measures should be produced in September to allow time for the analysis. These new measures might be individual measures added by the programs over the year that they would like to have included, or groups of measures as you enter new markets (ex: Agriculture sector measures).

Measure updates occur to for two reasons. The first is a change in the measure standards or baselines. Many of the measure standards are based on other organization's requirements such as CEE and Energy Star, so those measures need to be adjusted. The second reason for change is based on what is happening in the field in Michigan. Those can be market changes (practice changes), code changes or EM&V results (see further discussion below).

The development of the new updated MEMD should take about two months.

After these new measures are added and old measures updated, I recommend a review period where members of the EM&V Collaborative can ask questions or point out errors. I believe giving members one month after the draft is released should be adequate and still be completed for the new year. We further recommend that the new numbers be used on a forward basis and not retroactive.

### **Semi-Annual Corrections**

The MEMD is a very large database with many different scenarios included. While we strive to be error free, there have been some errors found. I recommend that the corrections (not updates or adjustments) be "adopted" into the MEMD twice per year. That will be during the annual update and then six months later. If



the annual update review occurs, there should be fewer corrections required. Those corrections midyear would be retroactive to the first of the year. Note that we have been providing version numbers and update indicators within the files to try to keep version conflicts from happening. If you adopt a specific time for these updates to apply, then version issues will be lessened.

## **New Measures during the Year**

During the year new measures may be used by programs that are not in the MEMD. It is our recommendation that the programs document the savings information used to make their estimate and use that estimate during the year. Then at the time of the Annual Update, these measures will be reviewed and added. If the original numbers differ from the MEMD final number, the original numbers should still be used for that historic program year and the MEMD number be used going forward.

## **Evaluation Adjustments**

Evaluation adjustments should be included where appropriate in the MEMD Annual Update. NOTE THAT THE MEMD IS A MEASURES DATABASE. IT IS NOT APPROPRIATE TO APPLY PROGRAM ADJUSTMENTS SUCH AS FREERIDERSHIP, SPILLOVER OR INSTALL RATES INTO THE MEMD. These three adjustments are reflective of the program delivery and market application, not the measures themselves. They are very unique to the program offering of each individual utility and thus the results will be different. For example it has been shown that CFL install rates are different when you give a bulb away versus its purchase. Free ridership rates are different for the same measures given different marketing and targeting. Consequently the MEMD should focus on measure savings and not program specific adjustments. Those adjustments should be made outside the MEMD and applied to the savings during reconciliation. Evaluation information that can apply include operating hours, building types, and measures replaced.

## **Weather Sensitive Weighted Averages**

There has been general misunderstanding about the use of the weather sensitive measures spreadsheet. Within the workbook there are several tabs by sector that give the individual results of a measure by weather zone and building type. We provide a tool in the workbook called the "Weighted Results" which allows the user to easily calculate averages based on their weather and building type mix. These weighted results are best used for planning purposes for that individual utility but must be adjusted with that utility's weather and building mix first. Where I have seen confusion is that people don't realize this adjustment is necessary and just go to the PSC website and take the numbers given, without adjustment. They also are using these averages for their deemed savings when they should reference the actual weather zone and building for that specific measure's savings.



## Sizes

Many of the measures within the database are based on a unit size because of the variability of the application. This occurs in both weather sensitive and non weather sensitive measures but mostly impacts weather sensitive measures. Examples include furnace sizes (per kBTU), motors (HP) and insulation (per 1000 sq ft). The savings and costs calculations are based on this basic “unit” of measure provided. We also provide an average installation size. The EM&V Collaborative should discuss a policy of appropriate application of the measure savings and units. The Collaborative should determine if the program should use the unit size within the MEMD (1000 sq ft.) or adjust these savings based on the actual size (80kBTU furnace versus the 100kBTU “unit” size or 1100 sq ft versus 1000 sq ft unit size). A determination should also be made as to how exact the measurement should be (which decimal place to use or how you should be rounding numbers). For most measures, the MEMD can be scaled up or down based on size as a multiplier so this is really a policy and tracking issue that you should discuss.

These are all the issues that I wanted to clarify or that have been brought to my attention. I hope that this is helpful in the discussion. If you have questions please let me know. If you would like my involvement in the EM&V Collaborative discussion, please let me know.