

**DSM Potential Study:
Advisory Committee Meeting #4 Meeting Notes
May 15, 2018, 10:30am – 1:30 pm**

Meeting Kick-Off –Carl Nelson (CEE)

10:35 Policy Discussion – Carl Nelson (CEE)

- **Comments received so far**
 - CEE has done interviews and completed two rounds of policy comments with stakeholders
 - 1st round of comments have been shared with the advisory committee
 - 2nd round of comments will be shared with the advisory committee
 - 2nd round are deeper dives on many of the topics from the first round
 - Policy recommendations will reflect areas of common ground on the topics. Final recommendations will be justified based on additional stakeholder feedback and supported by the potential study analysis findings.
 - Many of the comments received are contradictory – that is to be expected – CEE is drafting straw man policy proposals
 - Also, it is important to understand where the differences are with the stakeholders – CEE will present and include these findings in the final report
 - CEE expects that there may be some people who will not be satisfied with some of the strawman proposals
- **Presentation and discussion of strawman policy recommendations**
 - **Create a standing AC group to provide input to Commerce on CIP policy/regulatory issues**
 - Not all issues will be resolved during this potential study process so this group could help keep the conversation going
 - There are many potential topics the group could begin to review – i.e code compliance, operational savings etc.
 - DER will be initiating a fuel switching stakeholder group; the first meeting will take place on May 30th
 - **Policy makers should review utility CIP savings targets and consider how to place greater emphasis on lifetime energy savings**
 - This does not mean a wholesale shift from first- year savings
 - This could be a regulatory solution – to make lifetime more of a focus or incorporated in CIP plans
 - Question: does this get down to the cost-effectiveness question? b/c cost effectiveness testing for IOUs and financial incentive considers lifetime savings

- **For electric utilities serving a large proportion of residential customers, approved annual CIP goals should better reflect the cost-effective EE potential available to the utility**
 - KEY: More results will be forthcoming from the potential study showing the changing residential sector – so there may still be enough residential EE potential.
- **“What does CIP mean” means different things to diff stakeholders**
 - CIP is regulator overseen by Commerce, cost recovery, 1.5% savings etc.
- **Electrification and demand response utility programs could be incorporated into the CIP regulatory framework**
 - Including department regulatory oversight, tracker, cost-recovery
 - Separate metrics and criteria for DR and Electrification unless they cost-effectively reduce energy use
 - Question: any conversations with PUC staff? CEE has not spoken with anyone. In general, PUC staff may be less thrilled with more tracker accounts.

Discussion of process for finalizing policy recommendations

- **Discussion on updating CIP definition and policy objective & incorporating DR and Electrification in CIP framework**
 - Policy recommendations will reflect areas of common ground on the topics. Final recommendations will be justified based on additional stakeholder feedback and supported by the potential study’s analysis findings.
 - Consensus will not be reached today – committee members can think about these going forward.
 - The issues these recommendations address are known topics / discussion points for CIP
 - Point: Need to figure out how these policy interact/overlap, and what the overall objective is between the overarching policy recommendations.
 - Point: the fact that there are number of issues to be worked through means that any one of these proposals could not have consensus given the conflicting nature of some of the suggestions e.g. fuel-switching
 - CEE is trying to get a sense about the salient issues and get feedback from the advisors to better hone the policy recommendations
 - DR and Electrifications have some overlap with traditional CIP DSM - however there are significant differences – but our research has shown that stakeholders like DER’s oversight
 - Question: what objective are we trying to achieve with CIP and other activities – DR and electrification. E.g. providing least cost resource, environmental benefits, and financial benefits for the company.
 - Will conservation be a least cost resource forever? Maybe not?
 - Wind kWh is getting close to cost of DSM – in terms of levelized cost – which includes many factors including capacity costs.
 - There may be different least cost resources depending on time and location.

- One recommendation may be to get a better sense of the cost-effectiveness for the EE that companies may want to incorporate.
 - Definitions may need to improve – the tools currently are pretty good for at least the electric side.
 - Looking forward the grid is getting more complex.
- Regulation is set up to benefit the utilities who perform in terms of what is best for the customer- so there is potential to better define what is best for the customer.
 - However, there are munis and coops who are part of the policy but may have different objectives and incentives to participate in CIP.
 - For Munis, pure kW/capacity incentive was used to sell the programs to meet the CIP objective.
 - Does DR and Electrification need to be complicated by being placed in the CIP – because they are already good business for utilities.
 - Munis and Coops have different regulatory frameworks so may need different recommendations this will be a continuing conversation.
- Overall, people agree that it is important to better define CIP and the goal of CIP from a public policy standpoint.
- **Discussion on recommendation dealing with changing the goals for more residential customers**
 - Idea is that rather than doing individual potential studies for every utility – the customer mixture could be a proxy for adjusting goals.
 - In general, it is more difficult to get savings in this sector – there are code issues, tech issues, and socioeconomic issues.
 - Low-income carve out already in CIP – which is generally not cost-effective – because there are public benefits for serving low-income customers.
 - Goal is based on total kWh – including low-income customer loads.
 - Question: do any other states have a flexible resource standard?
 - CEE – the statute already allows for flexibility for residential cost-effectiveness
 - There needs to be a balance because in statute there are standards utilities need to be met in order to get a lower goal.
 - Census data may help prorate / simplify the change in goal.
 - Utilities would need to justify a lower goal based on the statutory requirements listed for requesting an adjusted CIP goals. Need to figure out what the standards would be for this type of recommendation.
 - Goal is that utilities should not have to do CIP if it is not cost-effective.
 - However, this would be administratively challenging.
 - Also, there may be a public policy objective to keep the goal the same because there are other reasons to achieve levels of EE.
 - Potentially, the statute could change to get rid of the 1% floor – and then the dept. could provide guidance to help achieve more flexibility.

- Do not need an individual potential study for each utility to understand that with the change in lighting standards that it will be harder to reach savings for the residential segment.
 - Question: could munis and coops still hit the low-income goal with lowering EE goal?
 - Smaller area territories – with small low-income spending goals e.g. a couple thousands it is a lower priority – but in general not too difficult in hitting the low-income spending floor.
 - COUs generally have low incentives for achieving energy efficiency – the main benefit is changing load shapes in order to optimize load shapes – they do not need resources.
 - More data will be forthcoming from the potential study to get more clarity on metrics that could be used as proxies for adjusting goals.
- **Recommendation discussion on lifetime savings methodology review**
 - This recommendation came directly from the interviews, surveys and comments from responses.
 - Statutory – first – year savings – can incentivize going for less cost-effective measure, i.e. behavioral measures that need to be kept being incentivized.
 - It is not clear that the current statutory framework – incentivizes non-cost effective energy savings.
 - Lifetime may be more flexible to incorporate weather and other performance level metrics.
 - In IL the change was catalyzed due to the high first year savings made utilities go after behavioral which have higher first year savings.
 - IL shifted to cumulative savings.
 - Cumulative savings may also help level off the variance year to year.
 - People would like discussing this more. Need to better understand issues like what would be the reporting requirements be.
- **Discussion on the recommendation to create standing advisory committees – not enough time to discuss this one in depth**
- This was the start of the process – the project team intends to hold additional policy discussions before the next advisory committee meeting – but data is coming.

Lunch and presentation from Kevin Bright on the Destination Medical Center and Rochester’s sustainability efforts

Economic Potential, Preliminary Results – Matt Socks (Optimal Energy)

- Review of avoided cost methodology for economic potential.
 - Avoided cost methodology memo has been sent out to the committee for review and questions.

- Goes through avoided costs through 2059 – with hourly cost data, when possible, to create 7 different models – including North and South Munis and Coops.
- Slides will be sent out to the group if people have question about any specific inputs.
- Carbon values have been updated to reflect PUC cost update that increased societal costs of carbon.
- Presentation of preliminary results one model (Xcel’s electric territory w/natural gas).
- Going through Economic Results - how much energy savings could happen screening for cost-effectiveness with the Societal Cost Tests - so one step further than technical potential.
 - Winner take all approach the higher energy savings measure will go forward when measures are going after the same energy use.
 - Achievable potential does not take on the winner take all approach – different penetrations are allocated to measures.
 - Questions: about measures that are not mutually exclusive and go after some of the same savings e.g. insulation and furnaces. Optimal: the model has interactions that account for those situations.
 - Retrofits are spread out 10% a year to allow for cumulative potential to better align with achievable and allow for market driven savings to accumulate when equipment is at the end of life.
 - Preliminarily economic results for Xcel electric and natural gas consumed in the electric territory.
 - There are known issues with the model that the team is working on – dealing with over 300 measures and 21 segments.
 - Overall, Industrial savings is coming in lower in terms of economic and technical potential than expected.
 - Electric Commercial tech is about 55% cumulative savings- 33% economic.
 - Gas 67% tech and 42% economic.
 - Electric Residential tech is about 37% cumulative savings – 29% economic.
 - Gas 43% tech and 29% economic.
 - At the commercial segment (bld. type) level – economic savings potential are around the 25%-30%.
 - Question: Opt-outs are taken out of these numbers – however forecasts growth included opt-outs, so if people think that the forecast would drastically change with opt-outs, then that is a limitation of the study.
 - Residential sectors (bld types dominated by single family and LI single family) are around economic 25-30%.
 - Residential lighting is going to go down due to lighting standards changes that have not been incorporated in the model yet – the thought is most res lighting will go away after year two.
 - Space heating, refrigeration and cooling were the largest end uses.
 - Commercial sector – bld design, lighting, deep energy retrofits,
 - Industrial – motor applications are the biggest end uses – pumps and compressed air are also large energy savers.

- C&I gas savings by sector (blg types) are around 40% economic potential savings.
- Residential Gas savings by sector are fairly consistent around 25-30% by economic.
 - Dominated by space heating and some sig from water heating.
 - Question: where were was the data collection coming from by end-use?
 - There was primary data collection done around the state – residential phone surveys/ site visits & commercial phone/site visits that were used in conjunction with other secondary studies to inform the disaggregation and modeling.
 - May be more opportunities that the DER can accommodate going forward to get better data for the.
- Commercial Gas savings – dominated by Space Heating and Whole bld. measures – water heating savings seems low and we will take another look at it.
 - Industrial gas savings comes from process heating and space heating.
- More refined data at the measure level is available on measure assumptions.
- Measure level BCRs for 340 measures in the model – may be the most useful for the advisory committee members to review and give feedback.
 - In general, cost assumptions in the TRM are outdated – so that would hurt cost – effectiveness – we have been reviewing some of those measures.
 - Project team is identifying where they deviate from the TRM with additional sources.
 - By looking at ben-cost measures the group could point out measures that do not look right at first glance – the project team then can do a deeper dive in the measures.
- Questions: How have you dealt with the interaction between deep energy retrofits – with all the other measures?
 - We carved a special energy usage specifically for deep energy retrofits – some small potential for some double counting – working on alleviating this issue – there will be no double counting in the maximum achievable results.

Program Sensitivity Analysis – Carl Nelson (CEE)

- Discussion of options for doing sensitivity analysis on maximum achievable scenario.
- Definition of the program potential is up in the air – we are doing one run of program potential.
 - Few Options: dial back incentive levels (e.g. 50% inc costs), constrain overall budgets (based on historical spending), overall savings target (e.g. the 1.5% target or a cost-effective target lower than 1.5%).
 - Could do a combination of these.
 - Point: Depending on how the programs are designed the costs could be dramatically different.
 - Most common is changing the incentive levels in terms of other potential studies
 - Point: For munis generally 50% is the starting inc. cost that they cover – can be higher for emerging tech that needs more incentive.

- Consensus from the group is to use the differencing cover of inc. costs – 50% seems like a reasonable assumption from the group.
- Group has about two weeks to think about this more and get recommendations to the project team.

Wrap Up & Next Works

- Work is still ongoing for the QA of the economic run and that is ongoing.
- Plan to have the max achievable draft done by the next advisory committee.
- Planning on mid-late July for last meeting – the team will wait until the results are close to being ready before setting up the meeting – the AC members should have time to review draft final results before the meeting in July.
- Slides will be put up on the project website with accompanying materials