Illinois EE Stakeholder Advisory Group
Market Transformation Savings Working Group
Code Advancement Small Group

Monday, May 7, 2021
10:00 am – 12:00 pm
Teleconference

Attendees and Meeting Notes

Meeting Materials

- Posted on the May 7 meeting page:
  - Friday, May 7 MT Code Advancement Small Group Meeting Agenda
  - Energy Codes & Building Performance Standards Presentation (Slipstream, MEEA and Guidehouse)

Attendees (by webinar)

Celia Johnson, SAG Facilitator
Samarth Medakkar, Midwest Energy Efficiency Alliance (MEEA) – Meeting Support
Chris Burgess, MEEA
Kegan Daugherty, Resource Innovations
Erin Daughton, ComEd
Nick Dreher, MEEA
Allen Dusault, Franklin Energy
Crystal Egelkamp, MEEA
Jeff Erickson, Guidehouse
Jean Gibson, Peoples Gas & North Shore Gas
Kevin Grabner, Guidehouse
Molly Graham, MEEA
Vince Gutierrez, ComEd
Hannah Howard, Opinion Dynamics
Stefan Johnson, Guidehouse
Jeannette LeZaks, Slipstream
Alison Lindburg, MEEA
Thomas Manjarres, Peoples Gas & North Shore Gas
Rohith Mannam, Nicor Gas
Mark Milby, ComEd
Jennifer Morris, ICC Staff
Chris Neme, Energy Futures Group, on behalf of NRDC
Stacey Paradis, MEEA
Michael Pittman, Ameren Illinois
Patricia Plympton, Guidehouse
Arlis Reynolds, Opinion Dynamics
Leah Scull, CLEAResult
Jacob Stoll, ComEd
Mark Szczygiel, Nicor Gas
Rick Tonielli, ComEd
Ted Weaver, First Tracks Consulting, on behalf of Nicor Gas
Jim Dillon, Ameren Illinois

Keith Downes, Guidehouse
Stu Slote, Guidehouse

Meeting Notes
Action items are indicated in red font.

Opening and Introductions
Celia Johnson, SAG Facilitator

The purpose of the May 7th meeting:
- To hold a follow-up small group discussion on the potential Code Advancement market transformation (MT) initiative, including Energy Codes and Building Performance Standards. This is a follow-up discussion to the Q1 Market Transformation Working Group meeting that was held on March 17th.

Follow-Up Discussion – Energy Stretch Codes
Jeannette LeZaks, Slipstream; Alison Lindburg, MEEA; Keith Downes, Guidehouse

Background
- Presentation includes slides from both Slipstream and MEEA.
- We went through phase1 results in the March MT Working Group meeting. Goal is to dive into evaluation and attribution for stretch codes and building performance standards.
- Goal is to determine clear next steps to create potential MT attribution and savings models for the workgroup to review.

Considerations for Discussion
- Stretch codes and BPS both have two aspects. 1. Policy advancement (utilities having a role in moving policy forward 2. Support (also compliance)
- Addl consideration, there are already having conversations on policy advancement so that is why this discussion is timely.
- Compliance in this context means opportunity for supporting policy implementation. Policy must be passed by local jurisdiction.
- As a reminder, we're talking about market transformation. Stretch codes and building performance standards (BPS) help move to final market transformation penetration. MT programming often refers to supporting measures to eventually get them into the policy and code (like BPS). This concept is in the TRM.

Reviewed Market Transformation per the TRM
- There are differences between the methods in a resource acquisition (RA) program and MT program
- It's generally agreed by the group that MT programs will be different that MT programs.
- One of the goals for today is to agree on what the system for evaluation and attribution and defensible methods.

Shared Key Questions for Working Group
- See slide

    [Jennifer Morris] Do you have proposed answers to these questions?

[Jeannette LeZaks] We do have ideas we can move forward with, but we want to hear initial thoughts and prepare a document to provide more details.

[Jennifer Morris] Will that be circulated?

[Jeannette LeZaks] Yes that more formal review is one of the next steps.

[Alison Lindburg] We're hoping to have more discussion today. We want to get into more detail, answer these broader questions, and form a market transformation implementation plan, which would then go to the larger SAG MT Savings WG to review.

[Patricia Plympton] We've been collaborating with this team and we're trying to move this forward with the end in mind. It will continue to be discussed options for evaluation.

[Jennifer Morris] If you could include the Ameren evaluation team in the meetings that would be helpful.

[Michael Pittman] No final decision has been made, but we would like to be involved and get more information.

Reviewed ways utilities could be involved
- Policy influence/advancement and program support or compliance

Potential options for utilities demonstrating influence (applies to both SC and BPS):
- Note colors on figure
  - Green – policy advancement
  - Purple – compliance
- Illinois code adoption process is beginning soon. Let's say that (hypothetical, but possible) someone proposes a stretch code in appendix chapter.
- Utility involvement
  - Participating in stretch code development and developing program based on the stretch code.
  - In doing so push the policy forward. It's possible that this program support would help pass the policy.
  - If a stretch code is passed in the appendix, the stretch code would be the same for all jurisdiction, whereas right now, stretch codes are passed individually, so there's less certainty for utility.
- Municipalities must adopt the stretch code after the code is passed. Utility can help adoption of local jurisdictions by demonstrating support for compliance.
- How do you demonstrate influence?
  - Slide contains examples of ways involvement can be demonstrating
  - Question needed to be answered: If it wasn't going to pass at all, and the utility was the deciding factor, or was there less influence in passage?

[Chris Neme] On working with munis, the utility could play a role in getting adoption, and for a certain number of years, the utility will agree to work with the municipality to achieve goals. We need to be careful that it's appropriate and that we're not double-counting savings. There could be complex ways in which this rolls out where there might be both RA and MT savings being claimed, and we have to make sure we're not double-counting.

[Jennifer Morris] Similar questions. If utility proves that their influencing policy advancement, then they can claim RA savings, but recalling the MT model diagram, how does this work with RA savings?

[Chris Neme] It can happen in multiple ways. Another scenario could be that no one's allowed to participate in the program but the utility claims savings for market transformation savings. Its possible different savings are being counted in different areas.

[Mark Milby] Team is actively reviewing this. Part of it depends on what the municipality needs. If the muni feels that customers will need incentives, we'd need to adopt a model that provides flexibility. Not too much mix and matching. Model that changes over time.

[Chris Neme] Agreed, need to be open to multiple pathways. It's important that we ensure flexibility.

[Jeannette LeZaks] Regarding a more detailed proposal, by flexibility do you mean flexibility in the options provided or based on the policy?

[Chris Neme] Whichever utility is doing this with the municipality needs to make the path the thing that makes the most sense for both the muni and utility.

[Keith Downes] Absolutely agree that we have to be careful on double counting. Assuming there still a need for incentives for some part of the market, meeting the stretch code or going beyond it, one concerning thing this might be if we're attributing all MT savings and we're only counting incremental savings above stretch code as part of resource acquisition, cost effectiveness can be impacted. Have to ensure utilities have proper incentives, doesn't erode their ability to provide programs.

[Chris Neme] You're saying that if they get a muni to adopt a stretch code, they only offer savings for building above savings, they would be able to claim savings for all new construction up between regular code and stretch code, and an addl RA savings for going beyond stretch code, which would be challenging to be cost-effective. In IL, we don't require individual programs to be cost effective, just that the portfolios are, so we can make a case to address this upon rolling out.

Stretch Code Attribution and Evaluation
- Schematic. MT savings bucket; phase one study
- Code advancement and compliance are separate. If you were to imagine a market, stretch code has been placed, quantify total savings, it could be divided into NOMAD and savings that happen from compliance support, resource acquisition for buildings that go beyond stretch code.

Reviewed Development of Attribution Score
- For each point in the attribution score, these are some suggested methods to do them. We've looked at other jurisdiction on how they've delt with attribution scores.
- For determining SC compliance, it could be a baseline study don't every 3 to 6 years with primary data collection over a period of time. Or use a delphi panel of experts, which can be done in concert with primary data to understand compliance levels.

- Often times you want to determine relative importance of measures within the SC.
- Recognize that there are efforts of other organizations to advance these policies as well for example to support decarbonization.
- More detail in the appendix

[Erin Daughton] Regarding baseline study, is this based on self-reporting from municipalities or researchers going around during development of buildings to ensure measures are being added?

[Jeannette LeZaks] Typically the latter, on site inspection at stages of construction.

[Keith Downes] I have seen baseline studies where it isn't necessarily a code officer, someone with engineering experience and assessing how well they're complying with the code.

[Alison Lindburg] There were field studies conducted by MEEA and Slipstream in the last few years. Studies for SF Res, Low-rise MF and commercial buildings in Illinois. A typical process is a compliance study with 3 or 6 year cycles. If they do 6 year cycle, a Delphi panel can convene. Less time intensive but possible less accurate.

Reviewed State Examples
- RI and MA: Attribution of savings is through code compliance. Quantify what are the utilities' contribution to the code compliance rates. Utility programs can include trainings, classroom, in-field, resource development and delivery, third-party support for compliance.
- In terms of process, RI and MA go through the same steps to come up with gross technical potential savings of stretch code compliance on each measure advanced beyond statewide code. This is multiplied by new construction growth.
- From there, RI and MA split
  - MA is largely taking a Delphi panel approach. RI is doing it through a data-driven model, but has uncertainties associated. They have panel interjections when it's difficult to quantify data.
  - Delphi panel in MA determines a portion of technical potential applicable to utilities. Instead, RI has a model base and they're using code compliance checklist point systems to give weight to various measures, the efforts would normally focus on envelope, lighting and hvac rather than nuanced measures. They leverage baseline studies to help determine areas where stretch code or advancement hasn't affected the NOMAD.
  - You can argue that RI approach is more defensible, given data-driven. However there is a cost to gathering data and uncertainties with model.
  - Reviewed CA, AZ and adoption across multiple states
    - CA has been doing this for the longest, with the most established basis. AZ doesn't have a statewide code. An expert panel negotiated that utilities can claim no more than a third of savings, and there's a process to demonstrate at least one third of savings.
    - CA gets savings from appliance standards advancement

[Jennifer Morris] I think we would need a rigorous approach that isn't too expensive.

[Keith Downes] That's the question. Have to determine what's an appropriate budget. And consider the gap between when savings are attributed.

[Chris Neme] Seems to be a difficult question to answer. Can't quantitatively measure influence. This is a different question from attribution. Attribution of what? What did advance, what's the savings relative to baseline. This is more quantitative.

[Keith Downes] Like you said, coming up with the savings is more mathematically based. There could be an approach where a panel driven attribution on the early end of MT programming but panels could be identified in areas that are quantifiable in following years which adjusts the attribution factor. And re measuring policy influence; in RI, they are measuring how much time is spent on measures of the stretch code; where more time is spent on certain parts of stretch code, this is plugged into the model.

[Alison Lindburg] We didn't give something specific to react to. This was by design, we heard from multiple stakeholders that they wanted discussion. Did any methods jump out as inappropriate?

[Jennifer Morris] One concern is with AZ's approach. They determined utilities can claim a maximum of 1/3 savings from policy. This number shouldn't be arbitrary, we should have a data-driven process. If Guidehouse and ODC can discuss and put together two option, include pros and cons and bring to the group, this would be helpful.

[Jennifer Morris] We don't want evaluation costs to be more expensive than the actual program. One benefit of an approach that we should be presented with is where program cost-effectiveness is affected significantly.

[Patricia Plympton] This makes complete sense. My understanding is that the ODC team is meeting with the Ameren team next week, so we will be coordinating on this.

[Chris Neme] Clarifying comments on cost-effectiveness. We have to be careful that about requiring individual component of program to be cost-effective. If you combined a stretch code MT initiative with a higher tier efficiency incentive, but that incentive might not be cost-effective, but if delivered as part of code compliance support, we should consider the cost-effectiveness as a whole.

[Ted Weaver] On board with Jennifer's solution. Agree with Jeannette's point on laying out the options. This has been a helpful first step. Re prospective vs retrospectives of approaches. Delphi would be retrospective, look at data. Can some of this be prospective? For ex, a rubric to give utilities certainties for where to allocate resources. If we make it too complex or risky, we won't get the savings. It would be helpful for Guidehouse and ODC's proposals to include how to codify through the TRM. And are there any examples of this from other states?

[Jeannette LeZaks] There is a way to identify which code elements are most impactful. If you do an evaluation of the stretch code, you could identify elements that are more impactful, then consider whether driving people to do those more weighted measures.

[Ted Weaver] Agreed this is a good approach. Two parts, where are the gross savings coming from and attribution. How much are the savings – lock in the rates.

[Jeannette LeZaks] Slipstream runs a new construction program, and we know what activities we're doing and what impacts we're having. Can be done for other new construction programs.

[Keith Downes] RE lessons learned from other states; they're improving the process over the years. When things are subjective, having a standard, transparent process that's consistent is a best practice. C&I is more difficult than Res side to quantify. Different building types that are using measures differently. Savings on different buildings types might be very different. C&I model can be more expensive and intensive, but we would be looking at other lessons learned. There are papers out on best improvements recommended today which we can include going forward.

Follow-up: Building Performance Standards (BPS)
- These are relatively new policies, and we're still seeing how utilities are getting involved. Not a lot of data.
- We considered model similar to stretch codes for evaluation of BPS
  - Key difference; BPS is built on having a benchmarking policy. Not all munis have benchmarking policies, this data would be a way to understand baseline building performance. Some benchmarking ordinances are hard to advance on the muni level, businesses don't want to do the extra work. So not all municipalities are going embrace BPS. They need to do significant stakeholder engagement. And utility involvement I important because often commercial businesses see a mandate as an extra cost, and knowing there's incentives and support makes the policy more palatable.
  - Once benchmarking policy is in place, potential savings calculation is more easy.
  - Over what period of time to we calculate savings?
    - Possible free-ridership
- Shared example of technical assistance in Washington State.
- Example to address free-ridership issue did an early adopter incentive program. One way to ensure a section of savings don't overlap, and that has driven compliance with the policy. There's a timeframe for buildings to comply, and this program has driven more compliance.
- MF buildings are being considered for BPS policies in IL.

[Chris Neme] Back in 2010, the city of Boulder adopted a rental energy ordinance, required residential property owners to meet an efficiency standard 10 years in the future. They had ARRA money for early adopters. Consistent with Washington example, and instead, utilities can provide incentive dollars rather than federal government. Like a BPS for residential rental buildings, requires a certain efficiency score. The measure of efficiency is different than munis that have adopted BPS for commercial buildings which are more based on energy star portfolio score but same concept. Might be worth considering from an equity perspective, since beneficiaries will be mostly low-income households.

[Keith Downes] Does anyone have strong feelings on whether this should be treated differently than the market transformation for the stretch code?

[Chris Neme] Gut reaction is that they're very similar.

[Keith Downes] With the proposal going forward, should we include proposals from Guidehouse and ODC on BPS?

[Jennifer Morris] Yes.

[Celia Johnson] What would be a timeline from bringing proposals to this group?

[Jeannette LeZaks] Relatively soon, perhaps within the next couple of months. Teams will coordinate.

Closing and Next Steps
Celia Johnson, SAG Facilitator
- A written proposal with options to consider will be prepared and circulated to the Code Advancement Small Group within the next few months. SAG Facilitator to coordinate with presenters on meeting timing options.