Illinois Energy Efficiency Stakeholder Advisory Group
Large Group Meeting
Friday, September 11, 2020
10:00 am – 12:00 pm

Teleconference Meeting:
Annual Net-to-Gross (NTG) Update Process: NTG Meeting #2

Meeting Notes

Information about this year's NTG update process can be found on the 2021 NTG page.

Attendees (by webinar)
Celia Johnson, SAG Facilitator
Greg Ehrendreich, Midwest Energy Efficiency Alliance (MEEA) – Meeting Support
Jennifer Alvarado, Franklin Energy
David Brightwell, ICC Staff
Ben Campbell, Energy Resources Center, UIC
Jane Colby, Apex Analyticsllc
Salina Colon, CEDA
Leanne DeMar, Nicor Gas
Sam Dent, VEIC (IL-TRM Administrator)
Gabe Duarte, CLEAResult
Deb Dynako, Slipstream
Jeff Erickson, Guidehouse
Jason Fegley, Ameren Illinois
Scott Fotre, CMC Energy
Michael Freed, Guidehouse
Jean Gibson, Peoples Gas & North Shore Gas
Kevin Grabner, Guidehouse
Andrey Gribovich, DNV-GL
Walid Guerfali, ICF
Randy Gunn, Guidehouse
Vince Gutierrez, ComEd
Dave Hernandez, ComEd
Amalia Hicks, Cadmus Group
Travis Hinck, GDS Associates
Hannah Howard, Opinion Dynamics
Amy Jewel, Elevate Energy
Lalita Kalita, ComEd
Haley Keegan, Resource Innovations
Larry Kotewa, Elevate Energy
Ryan Kroll, Driftless Energy
John Lavallee, Leidos
Bruce Liu, Nicor Gas
Marlon McClinton, Utilivate
Rebecca McNish, ComEd
Samarth Medakkar, MEEA
Cheryl Miller, Ameren Illinois
Jennifer Morris, ICC Staff

Phil Mosenthal, Optimal Energy, on behalf of IL Attorney General's Office
Rob Neumann, Guidehouse
Dantawn Nicholson, ComEd
Victoria Nielsen, Applied Energy Group
Lorelei Obermeyer, CLEAResult
Randy Opdyke, Nicor Gas
Katie Parkinson, Apex Analytics
Michael Pittman, Ameren Illinois
Zach Ross, Opinion Dynamics
Cheryl Seruto, Guidehouse
Ramandeep Singh, ICF
Jacob Stoll, ComEd
Evan Tincknell, Opinion Dynamics
Desiree Vasquez, Franklin Energy
Andy Vaughn, Ameren Illinois
Chris Vaughn, Nicor Gas
Ted Weaver, First Tracks Consulting, on behalf of Nicor Gas
Shelita Wellmaker, Ameren Illinois
Christina Pagnusat, Peoples Gas & North Shore Gas
Patricia Plympton, Guidehouse
Arvind Singh, DNV-GL

Meeting Notes
Follow-up items identified in red.

Opening & Introductions
Celia Johnson, SAG Facilitator

Purpose of Meeting: To discuss follow-up on evaluator Net-to-Gross recommendations for the 2021 program year, identified during NTG meeting #1 on Sept. 3, 2020.

Follow-Up on Open NTG Values
Zach Ross, Opinion Dynamics
Kevin Grabner, Guidehouse

Ameren Illinois Follow-Up on NTG Values
Zach Ross, Opinion Dynamics

- Opinion Dynamics is still awaiting results from standard/small business direct install and will provide at NTG meeting #3.
- Mid-stream lighting NTG recommendations: Current recommended values are 91.6% from PY9. Research this fall will be conducted. Currently recommending using the existing value. Phil had expressed that this was maybe too high.

  [Phil Mosenthal] We all know linear LED market is transforming. Study it is based on is 2017 participants when the tubes were more expensive and less well known. We do have some IL specific data on this that is more recent – ComEd survey last year of people that still have T12s. People least likely to do efficiency, probably. 38% said they would buy T-LEDs. Market share data shows last quarter 30% market share

nationally. Market share was 25% in Q4 2019. Seems like it is rapidly growing. Projections report between 2020 and 2025. A number around 65% would be more reasonable.

[Zach Ross] I talked to ComEd about their midstream initiative. Their recommendation for linear LEDs was around 0.71. Your suggestion seems low considering that. Would say that we thought about what we could do here and we're uncomfortable with an arbitrary adjustment to NTG. Want to make recommendations off of actual IL data. 2 options. First, maintain this value the way we normally handle these, and update next year when research is available. Other potential possibility, outside of bounds of the way we normally do this, have a planned survey that would be ready roughly at close of calendar year. Can maybe accelerate that to November and then chose to use the results of that research for 2021. That puts it outside of the timeframe of this process and doesn't give the opportunity to discuss the same.

[Phil Mosenthal] I could live with that. Also interested in hearing how Ameren's midstream program is different than ComEd's. I'm not sure why Ameren's natural penetration would be very different from ComEd. The 0.71 value does seem much more in the ballpark. I would be okay with just adopting ComEd's as well.

[Zach Ross] As to the difference between the programs is that ComEd has been operating since, I think, PY5 or PY6. Ameren didn't begin until PY8.

[Jennifer Morris] ComEd started with just CFLs and has evolved.

[Zach Ross] There are other differences as well, incentive levels or the way the program operates. I know the program collects account numbers and info from all participants, not like a typical point of sale program. I'd like to hear from Ameren before we commit to a potential option of using the value from our research that will be completed

[Andy Vaughn] One of the major things that we think we have done [for Ameren IL] is promote this as an early replacement measure. We have a strong marketing campaign in this area. Another thing is an installation incentive beyond the midstream incentive for some customers to help promote that they should install the technology prior to burnout. Strong marketing pieces makes it different, though don't know all the details about how the ComEd program works. Believe these would lead to a higher NTG.

[Phil Mosenthal] You say this is a midstream program. Is this buying down at retail outlets where it would pick up other TLED markets as well?

[Andy Vaughn] We're buying down at distributor locations, not at traditional retailers. Working with the major electrical distributors. Majority of sales are form local distributors that only serve Ameren territory. Some of the national companies are actually smaller component of this. Because we are working with local distributors, they are pushing it and we provide them lots of marketing materials to push it as well. Recognize the point it is likely lower, but don't think some of those other references are the best ones to use.

[Phil Mosenthal] Who is being surveyed?

[Zach Ross] Participants in the program – because Ameren collects purchaser information, that is how we do the research for this program. Standard business free-ridership battery from NTG TRM protocols.

[Phil Mosenthal] Is it acceptable to Ameren to wait for the results from the survey to determine this value?

[Andy Vaughn] I think that sounds like a good compromise and hopefully here before we launch for 2021 so we can adjust if there are any surprises. I think it is a good idea.

[Phil Mosenthal] I'm comfortable with that. While ComEd's program has been around for a while, that might influence the NEMA national data, and most states don't have any at all. IL might still be higher than the national average.

[Zach Ross] I agree in terms of the national results. At NTG meeting #3 we can present a specific timeline about when we will have that value and how we will distribute it, who needs to be copied on the distribution like Phil.

[Phil Mosenthal] All makes sense. The other two line-items there, are those screw in LEDs?

[Zach Ross] May just be legacy values – never made a huge portion of the incentives to begin with but they are there still in case they come back.

[Andy Vaughn] Not currently part of incentives, some consideration of bringing them back. Because of Ameren's high 2021 goals, might try to bring them back as we watch participation levels throughout the 2021 year. Over 90% is linear LEDs and the rest is the specialty categories.

[Phil Mosenthal] So that's separate from the retail buydown, where you might pick up some commercial customers?

[Andy Vaughn] Yes, this is distributors only. On Retail Products, it's more 50/50 standard and specialty LEDs. 5-6% there gets allocated to commercial.

[Zach Ross] We sample in proportion to the preponderance of measures in the population and weight to the share they have had in the past.

[Phil Mosenthal] I could live with a single number for all of these.

[Jennifer Morris] It looks like advanced thermostats are listed. Has that been in the program?

[Zach Ross] Ameren is thinking about adding that into the program. Are we in agreement on how to proceed on midstream lighting? [Yes – in NTG meeting #3 Opinion Dynamics will provide a proposed path forward/timing for survey results]

- Advanced Thermostats: Business advanced thermostat is tied to how the TRM characterizes the measure. Some of the analyses to determine the values already incorporates net effects. The matched comparison group against non-participants already incorporates some free rider effects. Consistent with past treatment, we think the

best treatment is to not apply an additional NTG adjustment. We changed how business advanced thermostats were categorized in TRM 9.

[Jennifer Morris] It would be good to hear from the ComEd team whether they had a recommendation this year.

[Zach Ross] This is also tied to the residential side as well.

[Phil Mosenthal] Not sure about the study for the heating side. Ameren hasn't committed to fully adopting the results of the Guidehouse study on the cooling side. Is that the study you are referencing? The comparison group there was with people who did become participants and wouldn't represent a net number.

[Zach Ross] The business side study was a small commercial thermostat study that Guidehouse did. Only includes results form programable thermostats. We think it is the best current study. It was compared against current year nonparticipants. How that characterizes it in the TRM, seems like not having a NTG adjustment is appropriate. Residential is different. We'll discuss that next.

[Jeff Erickson] As a point of reference, I don't believe we have a recommended NTG value for business thermostats at all – not in our spreadsheet.

[Zach Ross] I reached out to Laura [from Guidehouse] to discuss.

[Jennifer Morris] Jeff is yours "N/A" like this?

[Jeff Erickson] This value is not in our ComEd spreadsheet at all.

[Phil Mosenthal] On the commercial study, you said it was for programmable thermostats. Therefore, the savings estimate is for manual to programmable. Is there any adjustment to the TRM to reflect participants that may already have a programmable t-stat? If not, that should maybe be captured in the NTG value.

[Zach Ross] I don't remember where we landed on that issue, can we pick this one back up in meeting #3 to make sure we and Guidehouse are on the same page?

Follow-up: Discuss business advanced thermostats in NTG meeting #3.

- [Zach Ross] We added a VRCx recommendation; same as ComEd.
- David asked about the Income Qualified pool pump recommendation. We think it is appropriate if we find out that any pool pumps were rebated to income qualified. We will have to look carefully before we apply any to IQ, but we'd like to keep it in if needed.
- Residential Advanced Thermostat: recommendation based on almost final TRM deliverable from earlier this week. Characterized same as in v7 & v8. 8% cooling reduction for electric energy and demand, so we think we should maintain the value we have traditionally used. If the Ameren characterization changes in the final TRM, then we can revisit this but no basis to change anything now.

  [Phil Mosenthal] If Ameren adopts the new TRM value [for res advanced thermostats], what is their position is going to be?

  [Andy Vaughn] As far as I understand, Ameren does not have a decision on that at this point.

[Zach Ross] Should Ameren change their characterization, we will revisit. We think there will be differences on the net adjustment for heating and cooling because they are from different studies and methodologies. We have submitted comments to VEIC speaking to this. The TRM NTG attachment does say that we need to clarify this in the TRM measures.

[Phil Mosenthal] It's different between electric only and gas-electric.

[Zach Ross] We will revisit this as soon as we know if there is any change in how the measure will be characterized.

[Sam Dent] With NTG different for heating and cooling, is that implementable?

[Zach Ross] On the evaluation side it is, don't know about implementation side. I will send our detailed comments.

- One further advanced thermostat note – there is a separate recommendation for Smart Savers – currently N/A as we discussed. Because it is an IQ measure it will still have an effective 1.0 recommendation for that program even if the characterization changes.

  [Phil Mosenthal] Issue with LEDs was specific to midstream and would understand a DI would use a different number that would be higher.

  [Jennifer Morris] I'm concerned about the residential advanced thermostats. If Ameren decides they aren't going to adopt the ComEd Study, even that study shows savings are a little less than in TRM, it seems then like there should be an adjustment to that 8% that isn't based on a specific study. I would like to see an adjustment on the electric side. On the heating side, I understand that's from the Guidehouse study.

  [Phil Mosenthal] I agree. That 8% is from a lit review and the market share is growing over time.

  [Zach Ross] I understand those positions but why would we adjust the 8% value that we used in 2018-2020 and discussed that it was inappropriate to apply to that value?

  [Jennifer Morris] We have new evidence from an AMI study now, robustly developed, and showing that the savings are less than the gross amount.

  [Zach Ross] It's not a net number, we can't parse out what effect in that value is net and what is gross. I understand what you are saying and that there is new evidence. I'm having a hard time thinking about how research we have would be used to adjust the 8% value. Don't know what net effects really are or are not accounted for. We agreed as a group not to apply a net adjustment. Would be ideal to have a robust Ameren specific gross number and apply a robust Ameren NTG adjustment.

  [Jennifer Morris] I believe there is an Ameren Missouri study.

  [Zach Ross] We have some exploratory research we did for Ameren Illinois – participant process research. No formal reporting in this fashion, but we collected some free ridership data.

[Jennifer Morris] I thought you had seen a number of early adopters – potentially NTG would be less than one. Could you provide that result and look at Ameren Missouri to see how their program compares? That would be helpful for the discussion.

[Zach Ross] Yes.

- Appliance Rebates NTG Recommendations

  [Cheryl Miller] Ameren IL is not comfortable with these appliance NTG recommendation results. We haven't seen the report to support the results. Ameren Illinois Retail Products has similar program design and implementer as ComEd and we're surprised by the disparity in those values. Also wanted to bring up that this is very recent (July-August) timeframe for this research. Is there a COVID impact on this? Is this an abnormal year? What was found or was that considered? We don't know because we haven't seen the report yet. We are interested in reviewing the results.

  [Zach Ross] As Cheryl said this was very recent research. We're hoping to deliver the memo with results this week. I suggest we table this for NTG meeting #4 to give time to review the memo.

- Midstream HVAC Residential: Ameren is thinking they may have a midstream offering next year. No recent or any research because no similar programs offered before, so we recommended the default. Phil raised whether AC and Heat Pump could use our recent Residential HVAC research, but I think the program designs are different and default is better here.

  [Phil Mosenthal] My sense was these were both trade-ally driven and so that central AC value of 0.71 which was also trade ally driven so it seems like that would be more likely to be in the ballpark.

  [Andy Vaughn] There is a difference. Previous program was trade-ally driven at the contractor level, selling to residential customers. New model is at the distributor level – distributors selling to trade allies.

  [Phil Mosenthal] It seems like you are capturing more of the market that way and could collect more free riders than under the other approach.

  [Hannah Howard] I think that is not necessarily a different position on the recommendation, would talk to distributors to develop this value. We haven't found comparable values on the residential side. Starting some research for Ameren Missouri and that would be part of our methodology for updating this. Hard to say where this might end up.

  [Phil Mosenthal] Are you anticipating any results before the end of the year?

  [Hannah Howard] It's unlikely we will have that until next year.

  [Zach Ross] This will be a high priority item for us to do this research as soon as we can because this is a significantly different program design. I don't think this 0.8 value will languish for many years or anything like that.

[Phil Mosenthal] I would like to think about reconsidering this one if we can get a value by the end of the year, otherwise would be okay with waiting.

- Last item to note as a change since NTG Meeting #1 is that we added an IQ recommendation for direct distribution of efficient products – using 100% for all measures there. Kept the non-IQ recommendation just in case Ameren returns to a non-IQ model in the future.

  [Jennifer Morris] Has Ameren checked to make sure all measures they are considering for the next EE Plans have been included in this spreadsheet?

  [Zach Ross] I would need to check on that.

  [Note: Upon further discussion, it is not a requirement of the Policy Manual to include planned NTG values in this year's NTG process for the next EE Plans].

Nicor Gas NTG Follow-up

Kevin Grabner, Guidehouse

- For both gas utilities, I have two additions to address. First is adding in Virtual RCx for the gas utilities on the business side. VRCx with NTG of 100%. And need to clarify the business programmable thermostat and advanced thermostat – clarify what NTG if any should be applied to those pieces of equipment.
- Home Energy Rebates program – inactive trade ally spillover value of 11% in column R. For those measures there is an inactive trade ally spillover value added, and questions came up on first meeting. One was at the time of the inactive spillover research, was there also active trade ally spillover. Answer to that is yes. Number of active trade ally change over the years from the early years – we researched those counts.
  - Active trade ally spillover research in PY1 and repeated with 2019. PY1 active was 6% spillover value, from the sample of active allies not ratioed up to the population (would expect that to go down a bit if applied to the entire program). The active trade ally research was also repeated with 2019 trade allies. For Nicor that is 2% and it is scaled to the population. For PG/NSG that was 5%. So inactive trade ally spillover is 2-5x higher than active trade ally spillover. Process research along with the NTG research shows that most of the inactive trade ally spillover is from drop-out trade allies. Feedback they gave that the incentive wasn't worth the paperwork hassle and it wasn't completed by the trade ally or the customer. Incentive is consistent in the $200-300 range, based on cost of implemental improvement. But not much compared to the cost of the whole project, so the rebate for that is something where they don't feel its worth the paperwork. The inactive/drop-out trade allies had high program awareness reported. One trade ally mentioned there is sometimes a split incentive so the person paying for the furnace is not the person named on the gas bill who would get the rebate – owner/tenant issue. Happens "more than I would have thought" according to trade ally. That could explain non-participant spillover. The logic in all of this is that the active trade allies are more willing to complete the paperwork, so lower spillover. We did check with other jurisdictions and some

secondary research. CA 23%, NY 25%, MA 24% values, so other jurisdictions are seeing nonparticipant spillover as well. That's the story of why these look the way they do.

- Number of trade allies – active 2019 compared to PY3. In PY 3 Nicor had 2800 unique active trade ally phone numbers, in 2019 we found about 1700 unique trade allies in the tracking data. Number of active trade allies has gone down over the years. PG/NSG also has this component and we have good set of data on their trade ally activity. In 2013, 1075 unique active trade allies; 2019 was 289. So has dropped quite a bit. Looking deeper, the counts were highest in PY2-4, leveled out PY5-current year. Tracks with portfolio funding. Thought the number has gone down, active trade allies that produce the most projects have been active in all the years. So it is mostly small volume trade allies that have dropped out. Doesn't appear that the active trade allies are expanding over the years.

[David Brightwell] Sounds like they were evaluated around the same time. No further questions.

- [Kevin Grabner] Residential New Construction: in the spreadsheet it was named Prescriptive New Construction but that's a misnomer. It's a package of prescriptive measures delivered through builders. We considered the earlier NTG value of 0.65 from joint program, the default 0.8, and secondary when we came up with this. Background on the 0.65 was 2015/PY4 research from joint program. That was with ComEd and was performance based with HERS raters and building energy modeling to verify the savings. When we diagnosed the NTG at that time, we had some conclusions that programs with higher NTG required more training to expand number of builders and relied on HERS raters to recruit builders. In sample we saw larger trade allies with free ridership. Recommended casting a wider net for more buildings. At that time the spillover was 0 for that program. New program is streamlined delivery, doesn't have the rating and modeling. They have 3 measure packages that represent the opportunities in the current code. Should allow easier participation and allow town homes and slab-on-grade to participate in the program and broaden the base. Catch more types of builders and constructions, free ridership could be lower on that. Secondary research couldn't find a direct comparable value. Time of sale offerings were in the 0.76 range. New construction performance based combined had values that were quite high – 0.92 to over 1.0 with high spillover. Difference between the program delivery and market focus, we felt the default 0.8 was the best starting point for this new effort.
- Commercial Food Service: update there was to how we would handle food service market transformation effort. Until there is an MT savings estimate made, the way we handle the small number of projects is to use the NTG of the program they are being rebated under. Until there is an MT estimate, it's evaluated as a resource acquisition savings.
- We will want to add the VRCx and address the thermostats as well.
- Joint Non-Residential New Construction. Last item where there was a question. Switched from a retrospective NTG value, then prospective, then in PY6 moved to a

three-year average. For 2020 moved to a four-year average. That was the logic in switching that the projects could take 2-3 years from application to savings. Projects completed and claimed could have different starting years and would fall under different codes. NTG for this program on gas side is based on a small sample year to year and is quite variable over time. Free ridership in any given research year varied from 67% to 8%. In any given year you could have projects that initiated from years, so the average would better represent long-lasting projects. The NTG and free ridership has gone up and down from year to year. On the gas side free ridership has gone up slightly year to year. For ComEd it also went up in last estimate. Depends on the mix of projects that come in.

Follow-up in NTG Meeting #3: Business Advanced Thermostats

- If there is a business advanced t-stat value, it would need to be added for the gas utilities for the business energy efficiency rebate and small business programs.
- The savings for that measure for the heating side for commercial thermostats – standard and advanced – is based on the residential savings value which is a net savings value.
- The question is whether you apply a NTG on the commercial side that references that value – no NTG applied on the residential.

  [Katie Parkinson] Can we also get information on what we think we are going to base any new non-residential NTG on if that's going to be under discussion? If you are going to add NTG to business thermostats, is there research out there we are thinking of applying?

  [Kevin Grabner] The questions is whether or not to apply a NTG. Currently if it came through on commercial side if it was on small business, we would apply that program NTG and if it was on the business rebate program, we would apply that program NTG. Discussion from today sounded like there should not be an NTG applied to those thermostats because the underlying value comes from residential where there isn't an NTG applied.

  [Jennifer Morris] Any recommendation on programmable thermostats for Ameren?

  [Zach Ross] There hasn't been a program for that on the Ameren side for several years, so no recommendation.

  [Kevin Grabner] On this both programmable and advanced get the same value. On residential there are two different measures with different numbers here.

Peoples Gas & North Shore Gas NTG Follow-up

Kevin Grabner, Guidehouse

- No additional comments or questions – as noted above, follow-up on business advanced thermostats will be discussed in NTG meeting #3.

Closing & Next Steps

Celia Johnson, SAG Facilitator

- NTG meeting #3 will be held on Friday, September 18 (10:00 am – 12:00 pm).

NTG Meeting #3 Follow-up Items:

- ***ComEd:***
  - Follow-up from NTG meeting #1 open NTG values (custom, standard, and business instant discounts).
- ***Ameren Illinois:***
  - Commercial Midstream Lighting (Instant Incentives): ODC will present a specific timeline for next steps for the Ameren IL survey.
  - Business advanced thermostats
  - Note – the following Ameren IL NTG follow-up will be discussed in meeting #4:
    - Residential HVAC
    - Retail Products
- ***Nicor Gas:***
  - Follow-up on business advanced thermostats.
- ***Peoples Gas & North Shore Gas:***
  - Follow-up on business advanced thermostats.