

Illinois EE Stakeholder Advisory Group Large Group SAG: NTG Meeting #3

Wednesday, September 22, 2021

9:30 am – 12:30 pm

Attendee List and Notes

Meeting Materials

- Posted on the [2022 NTG page](#):
 - [Wednesday, September 22, 2021 SAG Agenda](#)
 - Updated Recommendation Spreadsheets for Meeting #3:
 - [Draft Evaluator Ameren Illinois NTG Recommendations for 2022 for Meeting 3](#)
 - [Draft Evaluator ComEd NTG Recommendations for 2022 for Meeting 3](#)
 - [Draft Evaluator Nicor Gas NTG Recommendations for 2022 for Meeting 3](#)
 - [Draft Evaluator Peoples Gas & North Shore Gas NTG Recommendations for 2022 for Meeting 3](#)

Attendee List

Celia Johnson, SAG Facilitator
Greg Ehrendreich, Midwest Energy Efficiency Alliance (MEEA) – Meeting Support
Brian A'Hearn, CLEAResult
Laura Agapay-Read, Guidehouse
Matt Armstrong, Ameren Illinois
Nancy Barba
Anthony Brown, Ameren Illinois
Jane Colby, Apex Analytics
Hannah Collins, Leidos
Salina Colon, CEDA
Erin Daughton, ComEd
Deb Dynako, Slipstream
Jeff Erickson, Guidehouse
Jim Fay, ComEd
Jason Fegley, Leidos
Mike Frischmann, Econometric Consulting
Diana Fuller, IACAA
Heidi Gorrill, Slipstream
Kevin Grabner, Guidehouse
Andrey Gribovich, DNV-GL
Walid Guerfali, ICF
Vince Gutierrez, ComEd
Amir Haghghat, CLEAResult
Travis Hinck, GDS Associates
Jim Jerozal, Nicor Gas
Haley Keegan, Resource Innovations
Anna Kelly, Power Takeoff
Larry Kotewa, Elevate Energy

Ryan Kroll, Driftless Energy
John Lavalley, Leidos
Rohith Mannam, Nicor Gas
Marlon McClinton, Utilivate
Brady McNall, DNV-GL
Abby Miner, IL Attorney General's Office
Jennifer Morris, ICC Staff
Phil Mosenthal, Optimal Energy, on behalf of IL Attorney General's Office
Sharon Mullen, Guidehouse
Rob Neumann, Guidehouse
Dantawn Nicholson, ComEd
Victoria Nielsen, Applied Energy Group
Gregory Norris, Aces 4 Youth
Lorelei Obermeyer, CLEAResult
Randy Opdyke, Nicor Gas
Christina Pagnusat, Peoples Gas & North Shore Gas
Patricia Plympton, Guidehouse
Zach Ross, Opinion Dynamics
Clayton Schroeder, Resource Innovations
Tyler Sellner, Opinion Dynamics
Cherlyn Seruto, Guidehouse
Arvind Singh, DNV-GL
Melanie Steen, Ameren Illinois
Jacob Stoll, ComEd
Mark Szczygiel, Nicor Gas
Andy Vaughn, Leidos
Marques Vaughn, Ameren Illinois
Ted Weaver, First Tracks Consulting, on behalf of Nicor Gas
Peter Widmer, Power Takeoff
Ken Woolcutt, Ameren Illinois
Hameed Yusuf, Resource Innovations
Qianmin Zhang, ComEd
Katie Parkinson, Apex Analytics

Meeting Notes

Follow-up items marked **in red**.

Purpose of Meeting: To discuss follow-up on Net-to-Gross (NTG) recommendations for the 2022 program year, on items flagged during NTG meetings 1 and 2.

Ameren Illinois NTG Values

Zach Ross, Opinion Dynamics

Business Custom: Recommended electric and gas values – left open because there was a comment period on the research. The memo is now finalized and will mark as consensus. [No objections]

Virtual Commissioning: Deferring to Guidehouse and ComEd

[Peter Widmer] Propose that SAG consider a 1.0 on this because of the unique design. Receives interval meter data and is analyzed to find

opportunities that have existed for at least 12 months, some have existed longer. Identified opportunities are direct outreach – no advertising or outreach and no self-selection. One of the first questions is are they planning on any EE upgrades or in discussion – this is to reduce duplication with other programs and to establish the NTG. We don't work with them until they have completed other planned projects so we can verify the savings through a regression model approach based on at least 12 months of past data compared to post intervention data. The program structure helps to solve free ridership problems. So, we request the 1.0 with no free ridership impact as allowed.

[Jennifer Morris] In a prior discussion, some survey responses were essentially that they employed someone to look for savings and would have gotten around to it. A value of 1.0 might not be appropriate from those. Could we compromise with evaluator results combined with the proposal?

[Peter Widmer] Can appreciate that and willing to compromise.

[Zach Ross] Is Jennifer's proposal that we cut the free ridership (F-R) in half and deem at 96.25? We'd be okay with that if Guidehouse is. We think the F-R is probably infrequent or very small.

[Phil Mosenthal] Can you talk about the research? Was F-R found?

[Zach Ross] I have to defer to Guidehouse. Ameren did interview with participants in the pilot – a handful of them in the pilot, not deep research. Small to no F-R, we had been using 1.0 previously.

[Guidehouse] Talked to participants representing 35% of savings. A fairly lengthy discussion to tweak the algorithms to represent the details of the program but was basically the standard study-based F-R protocol. The program theory tries to vet out the F-R by asking up front if they are already looking into it or working with a trade ally – strong screening process and not really an opt-in. I think a lot of the cases where people may not be a fan of the results (e.g. Non-Res New Construction) the theory and implementation here is a lot different.

[Phil Mosenthal] Arguable that the low F-R rate reflects that and it is doing a good job of screening it.

[Guidehouse] Could flag for final follow up in last meeting with the two options of 93 or 96.25 and have a final discussion.

[Peter Widmer] The difference is that when people are engaged, we made contact 18 months ago and they have to remember what they were planning to do that long ago. Very different from prescriptive programs.

[Phil Mosenthal] The regression analysis – pre/post data – does it span the pandemic period?

[Peter Widmer] Yes. We try to vet them for everything that happens, COVID or not. Also takes into account the baseline period so we can explain that in the data. Very detailed discussion on historic usage and current operations to build the regression model to verify the savings.

[Phil Mosenthal] Baseline is pre pandemic?

[Peter Widmer] Depends on if they were open during the pandemic or not – for example a pharmacy that stayed open. Could be a mix of pre and post.

[Zach Ross] Also interested in discussing how we treat these types of programs going forward and is NTG research needed? Peter thinks the program theory means we don't need it; evaluators need to know whether we are going to settle on this or do ongoing research.

Efficient Choice Tool: Discussed in Meeting 2, won't go through in depth on program design. Recommended retrospectively applying values, ICC Staff raised concerns. We think deeming is better. Our research to date gives us the deemed value – not a full calendar year research yet but it consistent with historical data. One recommended value for all measures in the program.

[Jennifer Morris] After thinking it over, on the ComEd side there were several measures where there was more precision. For those measures, could Ameren use the ComEd researched value and then use this deemed for the rest?

[Zach Ross] Happy to leave that open, but my initial reaction is that it isn't advisable because then we should go back and look at the recommended value less those measures and recompute. We tried to make a reasonable estimate of everything and could need to readjust this. Can look at it before the next call but I don't think the data we have currently will lead to that level of precision.

[Jennifer Morris] Concern with Ameren research is that some of it happened just after marketing started and isn't a full year. ComEd is from 18 months, so it's further along.

[Zach Ross] There may also be differences with Ameren customers. Follow-up in meeting #4.

Market Rate Multifamily: NTG ratios for non-DI measures. Discussed at meeting and changed to using the default values because it is a new program design with no research yet. Any objections to consensus? [No objections]

Business Standard: Several values marked for follow up. Research won't be available, and we'll maintain our values from what they have been in the sheet all along. Haven't had any discussion on those yet. Any concerns with consensus there? [No objections]

Lighting – Market Rate Multifamily: On last call Phil asked why there were separate recommendations for whole building and DI common area. I theorized it was an error, but it isn't. It reflects Ameren's filed plan. I believe the common area lighting DI measure reflects direct

install lighting replacements whereas whole building is a more downstream rebate approach for larger, more complex retrofits. It goes through both of these channels.

[Zach Ross] Any further discussion on the in-unit LED multifamily DI?

[Phil Mosenthal] Less issue with that – the in-unit with a 5-year measure life and an older evaluation. Most of these tenants are likely to be buying LEDs but I'm less concerned. Maybe we can have a more general discussion on LEDs?

[Zach Ross] Actually a 10-year measure life but with a mid-life adjustment to account for changing purchase behavior. Broader conversation – standard core lighting, Core lighting, etc. – I think they are somewhat higher values than you expect.

[Phil Mosenthal] Was initially surprised how high they were – market share saturation seems to be around 70% range from other data. Market share in states without programs is within a few percent of states that do. Seems surprising we think so few of these participants would be buying LEDs over the next several years. We are following the process we all agreed to, and it's all Illinois studies. The older ones, the market has probably progressed. We're falling on the side of "we can live with them" and would like to talk about the protocols down the road and when we might want to be sunseting screw ins and linear lamps. Have looked at others, e.g., MA has ratios much lower.

[Zach Ross] Can I suggest we mark the business values – mostly not screw ins – as consensus and then we talk more about residential?

[Phil Mosenthal] That's fine. I think linear tubular lamps are a large portion of business lighting and market data indicates there is natural adoption.

[Zach Ross] This research was recently completed with Ameren customers and it's hard for me to see any argument to move away from that. I will point out that we've exchanged some emails with the ComEd team. The residential screw in value is quite dated and we've discussed what to do moving forward. The only protocol the TRM allows is intercepts and we're not sure we can even do those anymore because of the product mix. Since the measure is still here, it is still a little problematic with the old value. Don't recommend any 2022 changes, but we will be thinking about that for the next cycle and how to do the research.

[Phil Mosenthal] Agreed. I think there may be action in 2022 on the federal standard which will affect baselines too. We should have conversations about sunseting these measures.

[Jennifer Morris] Should we be deviating for Virtual Commissioning due to concerns over the results, and also deviating here where the results may not be believable? There was an email yesterday about the SEM program and then it turned out it isn't regression based and maybe it should use the Virtual Commissioning results, but the evaluators thought there should theory-wise

be a higher NTG than the Virtual Commissioning. Maybe for that we can do this and stick with the evaluated results.

[Phil Mosenthal] I'm ok with that. Reasonable argument that SEM engages deeper over time than Virtual Commissioning and has a lower F-R rate. Not sure how much faith we can have in regression without a control group during the pandemic.

[Zach Ross] I think that's a non-NTG issue.

[Peter Widmer] One quick comment – it's interval meter data, not 12-month billing data. Because consumption analysis data programs are so different, there is that clause in the TRM that states that unless justification is given...I think trying to apply one uniform standard for all programs is difficult...allows some of these data-based programs to differ.

[Phil Mosenthal] It seems to help with some of the issues.

[Peter Widmer] We're comfortable with the value. It could be next year, if we have to have them confirm more that they weren't aware, and we could alleviate that.

[Jennifer Morris] I think Phil wasn't okay with that compromise unless we can also deviate for lighting. Probably better to just go with the evaluated results and not deviate.

[Zach Ross] ODC is fine maintaining the 93% Virtual Commissioning. Would be worth having some discussion next year, per Peter's point. That's different from diverging from the research per se if it is a program design issue of whether we should be doing NTG research on this at all.

[Jennifer Morris] Sounds like on Ameren side we do have consensus on all of these?

[Zach Ross] We're fine with the 93% on Virtual Commissioning and our recommendation on all the lighting values.

[Andy Vaughn] Question on Virtual Commissioning – not being familiar with research – was there several scoring factors that maybe something shouldn't have been a factor? With a lot of these NTG algorithms, you are often averaging multiple scores together. Someone who hasn't even seen the scores on the scoring factors, maybe one of those just didn't make sense as a question? Is it really the right scoring?

[Erin Guidehouse] Would like Guidehouse to respond to that. My understanding of the F-R is that it is based on people who say "we would have come up with it eventually" – it's a self-reporting issue. Since Virtual Commissioning is not an opt-in, I think it should be 1.0. Guidehouse did follow the protocol, but I question the reliability of people saying they would eventually get around to it.

[Guidehouse] Questions are all reported in the NTG memo. First there is program influence component – how influential was energy advisor in making these actions. Then there is the no-program score – if program wasn't available how likely you would have done on your own. Also, a question on prior to engagement, did you conduct any 30-minute time increment analysis of your energy consumption. Another question what would have been most likely scenario if didn't participate (business as usual, would have done something, would have done same thing, etc.) and how likely it would have been. Tried to get it from a variety of ways.

[Erin Daughton] We build our surveys with assumption there will be some sociability bias – so if they say they had plans we follow up with questions on those plans to add color to their scores. We don't just take one answer to one question alone.

[Guidehouse] Wasn't one of the only factors but that kind of response was one of the red herrings that backed up the result that was indicated by the research.

[Phil Mosenthal] Some issues with relying on self-reports. But having looked at some of these LED ones some of these same issues are there. A lot indicate they would sell less without incentives, so that grows, but trade allies in non-program states are growing too.

[Jennifer Morris] For one of the largest programs – Standard – had huge spillover from self-reports from trade allies. Huge impact on portfolio. Can you trust what they are saying? The results are what they are. If we are going to start nit-picking, then it opens the question do we believe the standard results or the lighting results... We should address the methodology in the NTG working group. It's time consuming to debate in this process.

[Erin Daughton] I don't want to question results just because we don't believe in them, this is a new methodology. We can accept as long as next year we can work on the methods.

[Andy Vaughn] I agree. Don't want to revisit the whole algorithm right here. Something for next year.

[Jennifer Morris] Summary: We have consensus now on everything but Efficient Choice Tool which Zach is going to follow up on.

[Zach Ross] And we will talk about the methods for future evaluation next year.

[Phil Mosenthal] Okay with that but also want to have that conversation about evaluation of LEDs and revising some of the older studies.

[Zach Ross] Happy to commit to discussion of methodology for lighting but may have method issues that prevent updating the lighting but will have to fix the issues first – related to the ability to get the number of customers to

participate in intercepts following commission approved protocols to get the precision we need in our results. Couldn't get enough specialty to get a defensible value compared to omni lamps. Still an issue.

[Phil Mosenthal] Could include broader discussion of evaluation planning for these measures – recent non-IL research, other market share evaluation.

[Zach Ross] Anyone have any more objections to marking everything but Efficient Choice as consensus? [No objections]

Follow-up items for Ameren Illinois:

- Efficient Choice Tool

Nicor Gas NTG Values

Kevin Grabner, Guidehouse

Residential – Home Energy Rebate Program: Any further discussion needed?

[Phil Mosenthal] Similar to LED issue – I think natural market share is pretty high now. But they are based on studies. Would like to talk going forward about appropriateness of continuing to rebate these, what we assume the baseline is. Recent research in other state – customers already with condensing furnace will almost always replace with condensing furnace. Happy to live with these results that followed the process, though. Both for TRM and program design.

[Kevin Grabner] Values marked as consensus.

Joint Non-Residential New Construction: Updated gas value for F-R changing the NTG value – plan to discuss during ComEd. Gas will use whatever the consensus result is for the joint program.

[Erin Daughton] ComEd shared a question with Guidehouse on one project. We should follow-up in the 4th meeting.

Virtual RCx: Marking it as consensus – not offering currently and if there is a future program then we would recommend based on the ComEd research.

Emerging Technologies: NTG of 1. This was originally marked as consensus but there was some discussion that came up. Emerging Tech program for Nicor Gas looks at new and unproven tech and value of 1.0 is a historical value that goes back several years. The logic is that technologies are not commercialized and not commercially available and thus if savings are claimed for the program for the research project, then those would be assigned a 1.0.

Question to discuss: Whether this should be described as pilot-specific with a discussion before evaluators assign a NTG for it?

[Jennifer Morris] I'm not sure Nicor has even claimed savings since 2017 on this. Issue is ComEd has R&D funds and Nicor does this with their R&D funds, and there is language in the policy manual about pilots and new programs that evaluators would recommend a new NTG as soon as possible. Guidehouse

could provide a NTG mid-year. If we're already doing it there, let's do it on the Nicor side as well.

[Phil Mosenthal] I could support that. Important to think about what the actual pilot project is – lots of different things could get bundled under R&D.

[Jennifer Morris] Historically Nicor's emerging tech has been a little different from the other utilities – very much new emerging measures not just testing delivery. They have flexibility and could do that in the future, maybe wouldn't be just a 1.0 for a delivery testing. I support recommendations as they are needed.

[Kevin Grabner] That's similar to what we have for Market Transformation – program specific values to be determined early if possible or default of 0.8. We're comfortable copying that language over to the emerging technologies.

[Jim Jerozal] Agreed. We focus on technology research and data and try to get into the TRM process. We don't do a lot of beta testing of delivery strategies. This is consistent and makes sense.

[Randy Opdyke] Agreed. We don't claim savings today, it's really about the pipeline. It's hard enough to get adoption rates and education to people. We're fine to look at it on a pilot-specific basis.

[Kevin Grabner] This wouldn't change our recommendation or thinking for a non-commercialized technology with no market for it. We'd still be inclined for that NTG of 1.

[Jennifer Morris] Could we delete that second sentence – if evaluators can't come up with something that's laid out in the policy manual. We have the default regardless of whether we state it here – that's in the scope of the evaluator's job.

[Kevin Grabner] Yes.

Follow-up items for Nicor Gas:

- Joint Non-Residential New Construction Program
- Strategic Energy Management

Peoples Gas & North Shore Gas NTG Values

Kevin Grabner, Guidehouse

Virtually identical items to Nicor Gas.

Home Energy Rebate: No objections to consensus.

Virtual Commissioning: If no objection on this side will change it to what we have for Nicor and copy that over.

Emerging Technology: Same language on pilot specific.

Joint Non-Residential New Construction: Open item for meeting #4.

Follow-up items for Peoples Gas & North Shore Gas:

- Joint Non-Residential New Construction Program
- Strategic Energy Management

ComEd NTG Values

Laura Agapay-Read, Guidehouse

Residential Single Family Assessments: Updated our recommendation for LEDs on the basis of our recent research – using the F-R from recent research value for SF assessments and spillover from a similar study for Ameren Missouri.

[Jennifer Morris] I thought that original recommendation was to use Ameren Missouri Elementary Education with same TRM algorithm as IL and relatively recent. Seems like delivery strategy is the name. So why would we swap over to a program with a different delivery strategy?

[Laura Agapay-Read] Driver was the kind of LED bulbs. Missouri was omnis, ComEd is specialty bulbs. We expect lower F-R for specialty than omnis.

[Phil Mosenthal] Assume that we include reflectors – that market share is higher than omnis. Lower for globes and candelabras.

[Laura Agapay-Read] Not sure the mix of reflector. Understand that the omni/specialty mix is about half and half for SF assessments. Could go back and look specifically at the share of bulbs that are reflectors if you think that is critical

[Phil Mosenthal] Not necessarily critical. Responding to the point that other study included omnis. Doesn't mean it is necessarily different from specialties these days.

[Jennifer Morris] Ameren Missouri didn't have any specialty?

[Laura Agapay-Read] Yes, all omnidirectional.

[Vince Guterrez] I thought recommendation was based on the res lighting program – the original recommendation.

[Jennifer Morris] I thought it was based on Ameren Elementary Ed program. For LED vouchers and specialty – is there no chance that there will be omnis in the educational program next year?

[Vince Guterrez] We don't have them in there now. There is a 3-way A lamp which is closest to the omnis.

[Phil Mosenthal] These are school kits? [A: Yes] Did this recommendation change?

[Laura Agapay-Read] Most recent is to use both F-R and spillover from Ameren Missouri study. Current proposal is to use the recent ComEd single family assessment program for the F-R portion.

[Phil Mosenthal] Might make more sense, assume single family assessment is DI?

[Laura Agapay-Read] In COVID environment is a mix of DI and kits. Ameren MO F-R was 0.56.

[Jennifer Morris] Pretty significant difference.

[Phil Mosenthal] DI tends to be higher because we know for sure as of that date customer hadn't bought one. Not a huge issue either way.

[Laura Agapay-Read] Can forward our public memo and discuss at Meeting 4

[Jennifer Morris] Wondering if we can find a way to meet in the middle on this because there is no primary ComEd research for this specific program. Seems like there are two reasonable sources and we could meet in the middle of those values.

[Laura Agapay-Read] I need to get the revised memo out, can circulate after this call. Has a F-R of 0.26 like showing in the spreadsheet today.

[Jennifer Morris] I propose averaging the two F-R ratios to get a F-R value and then still use the Ameren Missouri spillover. 0.41 if my math is right. Overall, 0.61 NTG I think.

[Laura Agapay-Read] Will make that revision

[Jennifer Morris] The compromise is all recent research and lighting market moves fast so this is better than relying on 3-year-old res lighting one.

[Laura Agapay-Read] Making a note to update the note to reflect the average of the two studies.

[Jennifer Morris] What is the rationale for the voucher value – based on what Vince mentioned a number of those look like specialty.

[Laura Agapay-Read] Voucher delivery is different – it's a piece of paper to redeem for a bulb. That's substantially different than giving them a bulb in a kit.

[Phil Mosenthal] More like upstream – lower NTG because customer has to be willing to go out and buy one. Otherwise, they are just getting one whether they thought about it or not.

[Laura Agapay-Read] Right. We looked for research on voucher programs in school kits and didn't find any.

[Phil Mosenthal] What about an in-service rate? What rate of voucher use?

[Laura Agapay-Read] I don't have access to that.

[Vince Guitierrez] I presume we only claim for vouchers that are redeemed.

[Phil Mosenthal] Makes sense. Agree with Jennifer that adopting the 0.61 makes more sense. If anything would expect it to be a little lower.

[Phil Mosenthal] Might look the most like midstream which is even lower and includes omnibus, so this seems like a reasonable compromise.

LED Nightlight:

[Jennifer Morris] Any updated secondary research? [A: No] Maybe better to use the default value, 0.8.

[Laura Agapay-Read] Is there consensus on that?

[Vince Guitierrez] What was the initial logic for 1.0 there?

[Jennifer Morris] SAG thought all elementary ed has a 1.0 but it wasn't for the lighting ones. Haven't seen the research. Could go either way with 0.61 or 0.8.

[Phil Mosenthal] Seems like the procedure would be to use 0.8 with no research. Don't care a whole lot either way. Likelihood of anyone having planned to go out and buy a nightlight anyway is probably pretty small.

No objections to using 0.8.

Small Business Kits: Single value rather than measure specific. No objections.

Non-Res New Construction: Working on some additional information and review to inform discussion in Meeting 4.

LEDs:

[Phil Mosenthal] Same issues. Willing to go along with these since they are relatively recent. Worth discussing next year about when we start phasing out some of the lamps or better evaluation of NTG on them.

Remaining LEDs – all lighting for standard:

[Phil Mosenthal] Ok with this. For low income multifamily the proposals were to adopt 1.0 because it is low income. But if is common area that landlord is buying instead of DI, then it should be considered differently going forward. More like commercial purchase decision than a low-income purchase decision. We don't need to discuss now.

[Laura Agapay-Read] Will note reviewing common area measures for income eligible multifamily lighting.

Virtual Commissioning: No additional discussion needed.

Common Area Omnidirectional: Study based on building managers and property owners – not direct install. Consensus on these multifamily as approved last year? [No objections]

Business Third Party Behavior / SEM: Changes to program names for plan 6.

[Erin Daughton] In ComEd's plan 6, there are plan 6 program names – the descriptions say what components are in each program. For example, program name for Business Behavior includes SEM. ComEd had a question about the evaluation of SEM and how that aligns with the Virtual Commissioning – need to do research on SEM next year because we haven't done that before.

[Phil Mosenthal] Is the 1.0 really an N/A – how we calculate savings is inherently calculating net?

[Jennifer Morris] I thought the NTG for this process might be closer to the virtual commissioning, but the evaluator said that SEM would have a higher NTG than virtual commissioning. I suggested splitting it because I think in years past when we deemed this, it was evaluated to produce net savings. That's why I was comfortable with it. Guidehouse has since said that it is not producing net savings and that isn't appropriate.

[Phil Mosenthal] If it is gross, then why not the default?

[Jeff Erickson] Discussion that happened was that it was sort of like RCx with a 0.97, but we thought it was more hands-on than RCx to it seemed like it should have a higher NTG – and 1.0 is just a little higher. Not sure we did secondary research and a memo, just had that conversation and that's where we landed.

[Jim Jerozal] Doesn't SEM model the savings without all the custom or other projects – what is left is the behavior change and it's a net number because it is looking at billing changes?

[Jennifer Morris] Agreed.

[Jeff Erickson] What changed is we got more precise in how we define net and gross doing this data analysis savings. It's not spelled out in the TRM. The analysis we do for SEM is billing data but there isn't a method there that corrects for a non-participant population.

[Jennifer Morris] What is the RCx NTG for this year? [A: 0.94] Seems like there is a number between there.

[Phil Mosenthal] Sounds like Jennifer's proposal is reasonable. We agree it's more hands on than virtual commissioning. Splitting the difference seems reasonable to me.

[Laura Agapay-Read] F-R should be really small in this – only the behavior aspects left in this analysis. Control group and non-participants would have made the same changes with this hands-on activity and work being done. F

[Phil Mosenthal] I agree. 0.96 reflects a very low F-R.

[Jennifer Morris] I would support the 0.96. Does this impact the gas utilities then?

[Jim Jerozal] We partner with ComEd. Some joint, some gas only, some electric only. Anyone from the Nicor team think differently, seems like SEM with the heavy hands-on process, seems like maybe 0.96 is even maybe too conservative on the F-R. Is there evidence to show it is something lower?

[Jennifer Morris] Can you explain this program more?

[Jim Jerozal] We engage with the large customer. Get an energy champion established in the organization – c-suite person and an energy team. We do baseline modeling. Then we have workshops to bring a cohort together and go through model, facilitate discussion, disaggregate projects from baselines. Lots of facilitating activities – can't conceive that anyone would go through that kind of effort outside the program. We fund the implementation contractor who is setting it up. Not like an employee of the entity getting funded.

[Erin Daughton] I don't think we have enough information to change this. Propose we do the research next year.

[Phil Mosenthal] 0.96 is pretty generous since the rule says 0.8 default if we don't have a study.

[Jennifer Morris] Guidehouse said they thought it was higher than RCx which used to be 0.97 and is now 0.94 so 0.6 is between that and 1.0. Can we table decision on this for the next meeting?

[Jim Jerozal] I think that would be the way to go. Would like to talk with Guidehouse about what changed.

[Jennifer Morris] Jeff said we dug into whether all consumption analysis results in net savings and the TRM now clarifies when it's between net and gross like the smart thermostats.

[Jeff Erickson] Agreed. We didn't change our recommendation. I recall a discussion that it was based on the NTG of RCx rather than the regression analysis. This fine-tuned when we think a building-based regression analysis includes net savings – we were less clear on that at the beginning.

[Jennifer Morris] In previous discussions large customers have said they didn't need the programs and were doing it anyway – paying into it and might as well leverage it. There could be some F-R there.

[Jim Jerozal] I get what you are saying – some customers say they would do it, but when they get into SEM their eyes get opened to realize they really wouldn't have.

[Laura Agapay-Read] It's pre-post analysis so the customers weren't doing it.

[Phil Mosenthal] A pretty big-time commitment so companies that are potentially interested and might have done some of it on their own.

[Laura Agapay-Read] I understand that the spillover is accounted for in the pre-post.

[Jennifer Morris] There could be one-time research to see if it really is true that the customers wouldn't have done it without this process.

[Laura Agapay-Read] Agreeing then that SEM needs NTG research next year and we will decide in Meeting 4 on a value.

Business New Construction:

[Cherlyn Seruto] There are 4 values that we were discussing. The Guidehouse team proposes no change to 1, drop another from the analysis. Issue of what are we considering the baseline, realized there might have been some confusion for respondents on that question. Third one where owner had initially been connected and said design team was influential but actually hadn't discussed it with them. Then there was a 4th where respondent rated their first wave as highly influential. Some discussion back and forth. Continuing those discussions. Seems like prior experience is a factor in the F-R. But the counterfactual responses did indicate a fairly high level of F-R. Discussing how to weigh.

[Jennifer Morris] I thought prior experience was a program factor and incorporated into the score.

[Cherlyn Seruto] Evaluation team thinks there won't be any changes based on that factor, we just haven't had a chance to fully flesh it out for this meeting. Current recommendation is as shown.

[Laura Agapay-Read] NTG Working Group method – very few changes for study group mechanism. These numbers reflect the working group algorithm – overall how much influence was the program.

[Jennifer Morris] As a heads-up Phil, the working group algorithm is a proposed change from what is in the TRM. Would streamline and make surveys less confusing/burdensome. Not officially adopted yet because working group is still discussing.

[Cherlyn Seruto] It's rare to get a max lower than 8-10, proposed to no longer take that. Phrased differently with the questions depending on the program.

[Erin Daughton] We asked Guidehouse for NTG under current algorithm and was higher and we pushed for that. But explanation was that they didn't think TRM value was right because they compared the two approaches and found they were fundamentally the same across all programs.

[Cherlyn Seruto] That's correct. Across all programs it's the same result but different approach for going about it

[Jennifer Morris] Comparison for a number of programs with the new algorithm. In all cases recommended using the working group version,

including a lot we already agreed on. This is one of the rare cases where the commission-approved version gives a higher NTG. We should be consistent.

[Erin Daughton] ComEd was involved but it was evaluation driven.

[Cherlyn Seruto] Evaluators were looking for improvements to Non-Res New Construction algorithm – opened a pandoras box of what was working and what isn't and what is the true estimate.

[Erin Daughton] Obviously we were hoping for a better outcome. The fact that custom and non-res new construction that have large projects that extend over a year and the lower ratios make me think there are more tweaks needed. NTG ratios are much lower this year.

[Phil Mosenthal] Using 4-year averages?

[Erin Daughton] Is there something fundamental about these bigger long-term projects that isn't being captured by the NTG protocol? Might make our teams feel better if we look into this more.

[Jennifer Morris] Across the utilities, are there lessons to be learned about the program designs?

[Erin Daughton] Went with a three-year average to get a higher ration. Ameren's value was 0.8 and ours was like 0.34. ComEd also offers higher incentives. When there is an increase or a big decrease in the recommendation, we want to know the reasons behind that.

[Cherlyn Seruto] To close out TRM question – difference is about 0.4 between the two methodologies and 0.3 for gas – well within the noise of the standard deviation

[Jane Colby] Long projects, understanding differences at customer level between code and above code...need to continue to dig in on this because it is so complex. Just because numbers came out close doesn't confirm protocol is fine, but that more work needs to be done.

[Erin Daughton] Would like to talk about the difference Cher describes as in the noise – a 0.4 difference there but a previous one had a 0.5 difference – is that noise too? Maybe a compromise that tries to breach the difference between those two numbers – the working group version and TRM version.

[Phil Mosenthal] I think we want to go with studies if the evaluators think they are reasonable studies. Don't necessarily trust the self-reports – there are flaws in every methodology and significant error bands. But we should try to be consistent with either accepting results or not accepting results.

[Erin Daughton] Agree generally, but this is a new protocol that was tested this year. Seems to open the door a little bit for negotiation.

Discuss further in meeting #4.

Follow-up items for ComEd:

- Joint Non-Residential New Construction Program
- Strategic Energy Management

Closing & Next Steps

- NTG Meeting #4 (final discussion): Monday, September 27 (10:00 am – 12:00 pm)

Follow-up items for Meeting #4:

- Ameren Illinois
 - Efficient Choice Tool
- ComEd, Nicor Gas, Peoples Gas & North Shore Gas:
 - Joint Non-Residential New Construction Program
 - Strategic Energy Management