

**IL EE Stakeholder Advisory Group
Non-Energy Impacts Working Group**

Thursday, March 5, 2020
10:00 am – 12:00 pm
Teleconference Meeting

Attendees and Meeting Notes

Attendees (by webinar)

Celia Johnson, SAG Facilitator
Samarth Medakkar, Midwest Energy Efficiency Alliance (MEEA) – Meeting Support
Aadil Ahasan, Franklin Energy
Matt Armstrong, Ameren Illinois
Ann Collier, Opinion Dynamics
Erin Daughton, ComEd
Ram Dharmarajan, Gas Technology Institute
Kevin Dick, Delta Institute
Nick Dreher, MEEA
Gabriel Duarte, CLEAResult
Brian Eakin, Guidehouse
Greg Ehrendreich, MEEA
Jeff Erickson, Guidehouse
Jason Fegley, Leidos
Kevin Grabner, Guidehouse
Mary Ellen Guest, Chicago Bungalow Association
Sophie Gunderson, Guidehouse
Randy Gunn, Guidehouse
Vince Gutierrez, ComEd
Grace Halbach, Guidehouse
Sara Hayes, ACEEE
Hannah Howard, Opinion Dynamics
Katherine Johnson, Johnson Consulting
Cheryl Jenkins, VEIC
Lalita Kalita, ComEd
Anna Kelly, Power Takeoff
Bruce Liu, Nicor Gas
Abigail Miner, IL Attorney General's Office
Fernando Morales, Ameren Illinois
Jennifer Morris, ICC Staff
Phil Mosenthal, Optimal Energy, on behalf of IL Attorney General's Office
Chris Neme, Energy Futures Group, on behalf of NRDC
Rob Neumann, Guidehouse
Victoria Nielsen, Applied Energy Group
Theo Okiro, Future Energy Enterprises
Randy Opdyke, Nicor Gas
Patricia Plympton, Guidehouse
Christina Pagnusat, Peoples Gas & North Shore Gas
Alberto Rincon, Future Energy Enterprises
Zach Ross, Opinion Dynamics
Shannon Stendel, Slipstream

Erin Stitz, Applied Energy Group
Mark Szczygiel, Nicor Gas
Taso Tsiganos, IL Attorney General's Office
Andy Vaughn, Ameren Illinois
Brian Yeung, Slipstream
Cate York, Citizens Utility Board
Chris Vaughn, Nicor Gas
Monique Leonard, Ameren Illinois

Meeting Notes

Follow-up items are indicated **in red** and summarized at the end of the meeting notes.

Opening and Introductions

Celia Johnson, SAG Facilitator

Purpose of this meeting:

1. For the SAG Facilitator to provide an overview of NEI Working Group activities in 2020.
2. To hold a follow-up discussion with the Ameren Illinois and ComEd evaluators on economic impact study methodologies and results. (methods update, follow-up from November Mtg)
3. To determine next steps for annual utility economic impact reporting.
4. To discuss next steps for potentially incorporating non-energy impact results into EE portfolio cost-effectiveness.

Overview of Working Group Plan and Schedule for 2020

Celia Johnson, SAG Facilitator

- Refresh & past activity:
 - Group created back in 2018
 - Focus on discussing research plan and draft results from any NEI study and methodology
 - May use research to make suggestions on TRM, policy manual
 - Celia's objective for 2020: Consensus and discussion on if and how to utilize NEI research results for 2022 and 2025 portfolio C/E test
- Reviewed 2020 meeting schedule and activities
 - The Working Group needs to add a meeting in early June (Monday, June 1st) because there may be a need to discuss options for including results in portfolio C/E testing.
- **Next Step for 2020 Working Group Plan:** If Working Group participants have any questions or comments on the final draft 2020 Working Group Plan, please send to Celia@CeliaJohnsonConsulting.com **by COB on Friday, March 20.**

Economic Impact Study Methods for Ameren Illinois and ComEd 2018 EE Portfolios

Brian Eakin, Guidehouse & Zach Ross, Opinion Dynamics

Link to Presentation: [Economic Impact Research Update Presentation \(Guidehouse and Opinion Dynamics\)](#)

- Purpose: Update the Working Group on economic impact analysis for ComEd & Ameren IL 2018 Portfolios
- Refresh on recent discussions:

- It's been a few months; evaluators will recap methodology, highlight some updates made to the methodology, and lead into the future of the NEI studies
- Up to this point, the group has discussed options for this type of analysis for utilities in IL, introduced a methodology and made adjustments to model based on stakeholder feedback
- Ongoing are discussions with gas utilities relating to conducting the same type analysis done for ComEd and Ameren IL
- Refresh on analysis:
 - Economic assessment of statewide impacts and developing understanding how the utility programs impact on utility territory economy
 - Utility portfolio impacts can be aggregated
 - Modeled impacts to anything directly impacted by utility programs
 - New: look at how bill savings is being modeled in terms of change in revenue from utility
 - Take change in revenue to utility (to avoid formula rate, fixed/var) looked at impact on source fuel (fuel procurement expenditures for coal and natural gas programs)
 - Nuclear is a baseload so assumption that consumption here isn't being impacted.

Discussion

- Phil Mosenthal: Are you treating all generation as being within the state?
 - A (Brian Eakin): No, the standpoint is from product procured so some portions of generation within and outside state. Based on economic data from Bureau of Economic Analysis, taking info on the expenditures and where they're coming from. This includes what's coming from state of Illinois, the fuel mix and how much utility revenue expended on fuel.
- Phil Mosenthal: On average, T&D costs are supposed to reflect savings from utility programs, should they be included? (And avoided generation?)
 - A (Brian Eakin): Data availability may be an issue.
- Chris Neme: Utilities have assumptions reported in their C/E test for avoided T&D and avoided generation.
 - A (Brian Eakin): Need to determine whether utilities want to include that level of detail.
- Chris Neme: Is the implicit suggestion that the effect on the utilities' revenue is the net bill savings minus the utility fuel purchases to generators?
 - A (Brian Eakin): What's implicit is that when it comes to fixed costs of utility, they're made whole, so the only impact to utility will be the changes to fuel procured. There's likely a long-term deferral of generation and avoided T&D, benefit to non-participants and participants; the additional change in bill savings would be offset by deferral in capitals, avoided costs. That's another level of detail down, trying to get that info to quantify net bill savings.
- Chris Neme: Is the bill savings only associated with avoided energy (retail rate x reduction in kwh)?
- Phil Mosenthal: You're countering for avoided costs (fixed costs) ultimately aren't being saved. You're subtracting only the fuel (stand-in for variable costs) of that total bill savings
 - A (Brian Eakin): If programs are deferring generation (whether they're reduction in fixed costs etc.) that'll provide value to both participants and non-participant. That'll offset deferral in timing of generation of fixed assets.

- Phil Mosenthal: Seems to me that the generation fuel should be expanded to anything used in short to medium variable costs
 - A (Zach Ross): I recommend a sidebar conversation to talk about this with Chris and Phil.
 - Chris Neme: This issue has come up in the past, would be good to talk through. There is an implicit assumption in the model that the value of avoided T&D and Gen (which puts downward pressure on bills) is equal to the elements of the efficiency programs that put upward pressure on rates (assuming they cancel each other) if that's true then the model works but that's a significant leap in faith.
 - A (Brian Eakin): That's correct - goes down to level of detail in quantifying what that difference is, the timing of when bill savings occur or assets deferred - analysis may be more difficult
 - Chris Neme: The economic study is looking at impacts to the economy regarding jobs, where mine and Phil's questions are focused on making sure there isn't something missed that could impact the answer to this question significantly.
 - A (Brian Eakin): We need to make sure the results are not an order of magnitude different. If the results are close to netting out, then trying to get more detailed may not be worth the effort.
 - Chris Neme: Shouldn't we divide the 1.75 cents by .44 (44% of generation is fossil fuel, and you assume all EE goes to reduction in fossil fuel)?
 - A (Brian Eakin): Good point, we will remember this and revisit/revise if necessary.
- Kevin Dick: Is the study accounting for hourly pricing customers or assuming avg rate?
 - A (Brian Eakin): We are assuming the avg rate but evaluators will take a look at this.
 - Kevin Dick: This is something to potentially track as solar PV becomes more common on SFH, there may be an uptick with either positive or negative effects. I don't think it's a large population. Capacity charges are about \$6-\$18/mo, and \$0 for solar PV customers.
- Chris Neme: Of the 45 cents, if we parse that out into say, 20/45 cents is avoided costs of gen and T&D, this number would itself have a result of lost economic activity of not building out assets.
 - A (Brian Eakin): This isn't taken into account, but this level of complexity could be added.
 - Chris Neme: Ok leaving for now, but we could refine in the future/discuss whether it makes sense.
- Chris Neme: How does the model treat the question of whether the products or services (EE measures sold part of net incremental costs, sold by trade allies) are provided/manufactured in or out of state? What's assumed about these? For example, if you only had one measure - air sealing, job and econ impacts would be different than if you were doing nothing but providing a product made in Iowa.
 - A (Brian Eakin): Correct - right now net incremental costs and rebates are being modeled as big box retailers, HVAC contractors, insulation contractors - all being modeled as one segment. We're not going at a measure by measure level. The multipliers being used to convert expenditures on net incremental costs or rebates to contracts are being accounted for as a mix of those specific actors in the segment.
- Chris Neme: IMPLAN has an embedded assumption that for every dollar going to this segment, there's a cascading breakdown of how much of the dollar going to trade ally bucket, where there's additional NEI impacts?

- A (Brian Eakin): Correct - IMPLAN sees how much is economic leakage and how much remains in the local economy.
- Chris Neme: Do you make the suggestion or tell IMPLAN which categories of trade allies to bundle together or is it already a fixed category in IMPLAN?
 - A (Brian Eakin): It's a fixed category - an industry classification, mapping effects on this classification. Combines multiple sources of economic data.
- Chris Neme: Can you go to that level of detail? How much is being allocated for a specific program or each trade ally?
 - A (Brian Eakin): Yes, say you're doing a program and contractors have to operate within the state - that's a great opportunity to tweak the assumptions in this model.
- Zach Ross: For other clients, a sensitivity analysis has been completed on how granular the impacts on industry may be - exception would be in the case that you know a very specific detail about a program (i.e. Ameren Market Development Initiative - if savings are being claimed later, you know something about the trade allies that you can then incorporate) but they haven't seen a major impact in other jurisdiction
- Chris Neme: To the extent that utilities are spending more than in other jurisdictions, more dollars on weatherization for example, which is very labor intensive, that differs from another type of program, such as the appliance rebate program.
 - A (Brian Eakin): Great point – there could be some value to go through the programs and measures and see where there are specific places where we should consider different assumptions. For example, the Community Action Agency weatherization model includes a higher proportion of in-state labor than for other trade allies.
- Chris Neme: What are the units?
 - A (Brian Eakin): Jobs and income are # of jobs created, and annual income (incremental labor income) and these jobs would be created at some point between now and the end of measure lives, jobs are created over time, net present value. 40% of jobs created are in year 1, 16 % indirect, 44% induced; so 60% created after first year. This is induced based on expenditures by businesses and induced are from household expenditures. What's in the first year is determined by the rate of transaction.
 - A (Brian Eakin): IMPLAN isn't a model with an explicit time dimension (velocity of economy, speed of transaction needed to know when a job is created, if not when how many, the timing is more complicated. It's reasonable to assume that a certain amount will be made.
- Brian Eakin: There is a net increase in gas consumption because of how much lighting programs save.
- Chris Neme: Surprised to see that top industries don't include the deliver industry (thinking of home renovations, retrofits, contractors). Does construction category include repairs?
 - A (Zach Ross): To some degree - this could be a product of mapping specific industries. Opportunities to make better, but when doing this for Ameren, they decided not to report these granular results, and that's going to require mapping industries. If we only care about the top-level number, a lot of this is noise.
 - Chris Neme: For the first time around, top level is important, but it would be useful to find out which jobs are being created. If the new is clarified, then everything is intuitive.

Next Steps for IL Utility Economic Impact Studies

Questions for Discussion:

1. Will evaluators be responsible for performing or verifying the annual analyses regarding economic development and employment impacts?
2. How often should economic impact analysis be completed (annually, once per Plan cycle)?
3. Should geographic impacts be modeled in economically disadvantaged communities?

Discussion

- Chris Neme: One option is running the IMPLAN model at the beginning of each 4-year portfolio to update results, and completing a simple deemed value model for the remaining 3 years.
- Zach Ross: We still need to discuss what to do with study results, for NEIs. The likelihood of using economic impact results in C/E testing or elsewhere is minimal; there are double-counting concerns.
- Jenifer Morris: In what form will the economic impact study results be shared (2018 Ameren IL and ComEd studies, for examples). Will a report be prepared? It will be easier to provide comments in a traditional report format. I would also like numbers on direct, indirect, and induced jobs to be included in the report.
 - Evaluators to discuss internally on the form of the final report. There may be budgetary constraints.
- Randy Opdyke, Nicor Gas: What is the plan for gas utility economic impact analysis?
 - A (Patricia Plympton): Evaluators are currently talking with gas utilities about this.
- **Next steps:**
 1. Evaluators to discuss internally on the form of the final report. There may be budgetary constraints.
 2. SAG Facilitator to work with evaluators on a proposed summary of next steps for economic impact studies; this will be circulated to the Working Group for review and discussed at the May meeting.

Introducing Topic: Potential for Including NEI Research Results in Utilities' EE Portfolio C/E Tests

Patricia Plympton, Guidehouse

- Goal: Understand how NEIs are used in other jurisdictions.
- 2 scopes of NEI impact:
 - Environment – water air, fauna, flora
 - Societal NEIs
- Presentation included list of initial resources and findings:
 - 16 states are including environmental impacts in cost effectiveness test
 - Examples in this type of category are avoided compliance costs, water savings, reduced heavy metal in water sources
 - Chris Neme: New Jersey does this as well.
 - Phil Mosenthal: For SOx and NOx, these are built in in avoided costs
- Participant health impacts:
 - These include outdoor air quality, PM, improved indoor air quality, improved comfort – reduced medical costs from heat and cold stress.
- **Next step: Guidehouse is preparing a memo for circulation in April, describing how non-energy impacts are included in EE portfolio cost-effectiveness tests in other jurisdictions.**

Summary of Follow-Up and Next Steps

1. 2020 NEI Working Group Plan
 - a. If Working Group participants have any questions or comments on the final draft 2020 Working Group Plan, please send to Celia@CeliaJohnsonConsulting.com by COB on Friday, March 20.
2. Economic Impact Study Reporting
 - a. Evaluators to discuss internally on the form of the final report.
 - b. SAG Facilitator to work with evaluators on a proposed summary of next steps for economic impact studies; this will be circulated to the Working Group for review and discussed at the May meeting.
3. How Other Jurisdictions Utilize NEI Results in Portfolio Cost-Effectiveness
 - a. Guidehouse is preparing a memo for circulation in April, describing how non-energy impacts are included in EE portfolio cost-effectiveness tests in other jurisdictions.
4. May 5th NEI Working Group Meeting
 - a. Review preliminary IQ NEI results for Ameren Illinois and ComEd studies.
 - b. Initial discussion of Guidehouse memo on how other jurisdictions utilize NEI results.
 - c. Discuss proposed next steps for economic impact reporting, including how often studies will be completed, and the anticipated form of reporting.