

Illinois EE Stakeholder Advisory Group Fuel Conversion Working Group

Thursday, July 15, 2021 (Meeting #6)

9:30 am – 12:00 pm

Teleconference

Attendees and Meeting Notes

Meeting Materials

- Posted on the [July 15 Meeting page](#):
 - [July 15, 2021 Fuel Conversion Working Group Agenda](#)
 - [Heat Rate Proposal from PG/NSG and Nicor Gas \(6/25/2021\)](#)
 - [Fuel Conversion Next Steps: Comments from Interested Parties \(7/8/2021\)](#)
 - Responses to Fuel Conversion Policy Questions from June 21 Meeting:
 - [Summary Table – Responses to Fuel Conversion Policy Questions \(compiled by SAG Facilitator\)](#)
 - [Ameren Illinois Responses](#)
 - [ComEd Responses](#)
 - [ICC Staff Responses](#)
 - [Illinois Attorney General's Office Responses](#)
 - [Natural Resources Defense Council Responses](#)
 - [National Consumer Law Center Responses](#)
 - [Nicor Gas Responses](#)
 - [Peoples Gas & North Shore Gas Responses](#)

Attendees (by webinar)

Celia Johnson, SAG Facilitator

Samarth Medakkar, Midwest Energy Efficiency Alliance (MEEA) – Meeting Support

Hannah Brown, MEEA

Patrick Burns, Brightline Group

Ben Campbell, Energy Resources Center, UIC

Sam Dent, VEIC

Ram Dharmarajan, Gas Technology Institute

Nick Dreher, MEEA

Michael Drennan, CLEAResult

Allen Dusault, Franklin Energy

Jim Fay, ComEd

Scott Fotre, CMC Energy

Pace Goodman, ILLUME Advising

Vince Gutierrez, ComEd

Amir Haghghat, CLEAResult

Travis Hinck, GDS Associates

Tarun Kapoor, Energy Solutions

Thomas Manjarres, Peoples Gas & North Shore Gas

Abigail Miner, IL Attorney General's Office

Jennifer Morris, ICC Staff

Phil Mosenthal, Optimal Energy, on behalf of National Consumer Law Center

Chris Neme, Energy Futures Group, on behalf of NRDC

Victoria Nielsen, Applied Energy Group
Eric O'Neill, Michaels Energy
Randy Opdyke, Nicor Gas
Christina Pagnusat, Peoples Gas & North Shore Gas
Joe Reilly, Applied Energy Group
Zach Ross, Opinion Dynamics
Tyler Sellner, Opinion Dynamics
Hardik Shah, Gas Technology Institute
Grant Snyder, IL Attorney General's Office
Jacob Stoll, ComEd
Mark Szczygiel, Nicor Gas
Taso Tsiganos, IL Attorney General's Office
Andy Vaughn, Leidos
Ted Weaver, First Tracks Consulting, on behalf of Nicor Gas
Ken Woolcutt, Ameren Illinois
Brittany Zwicker, CLEAResult
Chris Vaughn, Nicor Gas

Meeting Notes

Action items are indicated in **red font**.

Opening and Introductions

Celia Johnson, SAG Facilitator

The purpose of the July 15th Meeting:

1. To discuss the heat rate proposal from gas utilities and feedback;
2. To provide a brief overview of comments on fuel conversion next steps; and
3. To discuss responses to fuel conversion policy questions from interested parties.

Heat Rate Proposal from Gas Utilities

Thomas Manjarres, PG / NSG; Ted Weaver, First Tracks Consulting on behalf of Nicor Gas

Sam Dent, VEIC: Key question needed to be addressed: IL-TRM TAC is looking for this group to decide whether or not we should apply a future heat rate or estimated for a current year, for savings claims.

[Ted Weaver] If this group arrives at a decision that future heat rate should be used, an alternative to average, is it should be a string of annual values that change in the future.

[Phil Mosenthal] That's assuming we're using source for savings claims.

[Sam Dent] Not sure that's true. The current proposal is to pause discussion on site vs. source, and therefore continue with the existing methodology in the TRM.

[Phil Mosenthal] I was referring to VEIC proposal before the discussion of pausing. We haven't worked out questions on savings claims.

[Sam Dent] The proposal we put together was a strawman that didn't have consensus for moving forward. That was a suggestion, not VEIC's official position. Assuming we have agreement to pause conversation on site vs source, then the existing method using source is going to be in the TRM v10, so a heat rate would be moot.

Thomas Manjarres: Policy questions have been raised as a result of a proposal brought forward in the TAC – to use a forward-looking heat rate that was calculated by a Guidehouse model (labor intensive, raises cost-share questions) and before the TAC had decided on that route, this group should consider the implications:

1. Should we base algorithm off first year savings? Including screening test.
2. If we are going to forecast future heat rate to calculate the source energy consumption over the lifetime of a measure, there are some additional policy questions.
 - a. If yes, then what that means, that unlocks a host of policy questions that this group needs to address.
- The gas company's proposal is a way of delaying the discussion on all of these policy questions until we have more certain legislative language. This proposal is a middle ground where we don't have to address these questions now, instead we can address after legislation passes (or not).
- Proposal: To use the current year's heat rate in the energy source savings test agreed upon in the IL TRM v9 instead of the two-year old heat rates published by the U.S. EPA. For example, if the updated TRM will be effective in 2022, develop a heat rate for the grid in 2022. This would delay answering the related policy questions.

Reviewed policy questions that arise, and can be avoided by this proposal:

1. We would have to reconcile that we would claim savings that we know are different than the true first-year savings.
2. How do we handle a measure that, according to year-over-year heat rate, causes an increase in source energy for the first several years, but then, as the grid gets cleaner, those savings don't materialize? How does this work with our four-year planning cycle? If over the lifetime, source savings materialize in year 6, can programs claim savings in year 1? Or as Ted mentioned, would it make sense to use yearly numbers to claim savings. A measure that passes a lifetime source energy test may save energy over the long run but not in the first few years. If a program were to implement this measure, the consequence would be claiming negative savings.

[Phil Mosenthal] It seems that the proposal is essentially a hybrid between pausing and not pausing. If we agreed to pause, we are keeping the TRM as is. Are you suggesting we change some of the TRM and pause other parts?

[Thomas Manjarres] This proposal is a direct result of where we ended the last meeting, broad consensus that we should probably wait until legislation passes or doesn't pass. This proposal is an attempt at consensus due to concerns with heat rate in TRM, because it updates the heat rate piece, from 2 years old to current, but it doesn't expose us to the policy questions that would need to be answered.

[Phil Mosenthal] We would just update to a current number but keep other aspects of the TRM the same?

[Thomas Manjarres] Correct. The reason for listing all these policy questions is to draw focus on the proposal because we weren't convinced that it was common knowledge that there were even looming policy questions.

[Phil Mosenthal] It might make sense to decide what we're using site and source for.

[Taso Tsiganos] Throughout the potential legislation, the words CO2 reduction and environmental are referenced. From a legal perspective, I see implications with implementing measures that would save energy later and not in the short-term. The AG has made it clear that accuracy is the goal here. When we're saying heat rate, we're talking about the amount of energy required to generate a kWh of electricity and then to distribute that energy. A lower heat rate implies cleaner energy; a reflection of the generation. I understand an RPS factor. But main concern is, if we're talking about carbon reduction, measures that would possibly increase electricity consumption, are we suggesting we ignore the heat rate as it is now, with the presumption that we will be at a point certain? Some reservations with this.

[Sam Dent] Responding to Phil's question on why tackle some TRM issues and not others. In my perspective, we've separated out technical items for the TAC and policy issues – CAN we use a future one? This is what we wanted SAG to tackle. Those are the questions that don't make sense to discuss if legislation passes within a year. But we can still discuss the purely technical aspects.

[Allen Dusault] Fuel switching is primarily gas to electric. In the next few years, will have an increase in emissions, and in subsequent years, reduced emissions. Another scenario could be heat rate going down and emissions going up. Reduced emissions might not be borne out in certain scenarios.

[Chris Neme] First, depending on the direction of fuel switch, it's likely that carbon emissions go down, even modestly in a fuel switch. Second, there's been a mixture of discussion on emissions and heat rate, suggest that they aren't quite the same thing. All things being equal, if heat rate improves, emissions go down, but not necessarily always the case. Depends on WHY the heat rate is going down. We need to be careful about mixing heat rate and emissions. I appreciate Thomas' suggestion. I have reservations about the proposal; if we're asking a question about a long-life measure qualifies; there's really good reason to believe that the grid will continue to get cleaner, absent legislation. We're not dependent on future legislation, rather market forces. It would seem problematic to exclude measures that are significantly

[Thomas Manjarres] Question is whether legislative framework allows that.

[Chris Neme] I'm not sure why it doesn't.

[Ted Weaver] I think we can avoid a lot of pain by updating the heat rate from e-grid. Avoiding discussion on how to forecast heat rate in a way that makes sense.

[Phil Mosenthal] I wonder if we should hold this until we have consensus on pausing.

[Allen Dusault] I think we do have consensus on pausing. The question is, how do we update the heat rate. The proposal has an interim solution for updating the heat rate to current, recognize that future forecasting deserves more discussion. Practically, it's unlikely we can come to this consensus in the time remaining. The proposal is consistent with the pause.

[Chris Neme] Thomas, if you're proposal is accepted (changing heat rate to a current heat rate (next years') what else would change?

[Thomas Manjarres] This is a target proposal for how to address the heat rate. Leaving it as is, moving to forecasting an avg over lifetime, or using next years.

[Sam Dent] Still want to make sure everyone is comfortable with calculations, adding gas loss factors. I don't see an agreement to use the current year heat rate would prevent any other discussion from continuing in the TAC group.

[Chris Neme] Allocation of impacts from these measures when it's between electric and gas utilities. Also, the question of any changes around CHP. It's hard for me to agree to take something off the table without knowing everything that's off the table.

[Sam Dent] From my perspective, everything remains on the table outside of using source or savings for savings claims. The heat rate discussion would be paused if we go with the gas utilities proposal. Everything else related to the actual algorithms related to the TRM is still on the table.

[Chris Neme] For heat pumps?

[Sam Dent] For CHP, don't know yet what technical questions would be on the table. The question for change methodology from carbon equivalency decision should be paused as well. For CHP, unless one says we should discuss this, I suggest we pause.

[Phil Mosenthal] Wouldn't the carbon equivalency value be updated as well?

[Sam Dent] Sure, if there's a need to update, someone should come up with a proposal. Technical issue, not policy issue.

[Ted Weaver] If we agree on an allocation approach for CHP that's based on incentives % paid, that would apply to heat pump and CHP?

[Sam Dent] I feel more comfortable with heat pumps. The reason we put that proposal forward is that the allocation of savings and risk did not seem fair to me. It seemed like there would be a better approach. But for CHP, how savings are allocated currently, I don't know if there's the same equity issues as with heat pumps.

[Ted Weaver] On the electric side of CHP, utility claims total net BTU savings, but if it's 100% gas, utility claims fraction of that. Seems like a simple fix.

[Chris Neme] Disagree, NRDC will have a huge issue if there is a change to the CHP allocation mechanism that allows gas utilities to claim therm equivalent for electricity savings.

[Phil Mosenthal] 1. Seems like a policy issue; 2. Would change the algorithm

[Ted Weaver] I agree it wouldn't be simple but if there's a way to simply address the allocation issue. It's identical language on what constitutes a measure and fuel switch.

[Chris Neme] I think there are serious legal and policy questions if gas utilities are claiming therm equivalent kWh savings.

[Taso Tsigano] Can you clarify savings allocations for each utility for CHP measures?

[Ted Weaver] Net BTU savings get converted to a number for electric utilities. Gas utility CHP measure allocates only a portion of Net Btu savings.

[Chris Neme] There's a reason for that. In the electric case, the electric utility is actually seeing 100 units in electricity production on the grid. The Formula accounts for extra on-site energy use. The gas utility essentially gets to claim the incremental efficiency improvement savings. You're allowing gas utility that saw increase in sales.

[Sam Dent] Why is that different than with heat pumps?

[Chris Neme] It is the same in a sense. I think there are two differences. 1. There's clear indication in FEJA that suggests that there's intent to allow electric utilities to claim other fuel savings. 2. There's a policy rationale that we feel strongly, from a climate policy perspective, we don't see how increasing gas sales is a good idea.

[Thomas Manjarres] There's an extra safeguard in the CHP algorithm to ensure reduced GHG emissions. The only time anyone's claiming savings is when the project shows a net reduction. That same safeguard is no in the ASHP algorithm. We don't see why gas utilities shouldn't claim full GHG savings credit.

[Chris Neme] 1. You're right, except that it's only with respect to GHG reduction in year one. Given that the grid is getting cleaner, I suspect that that will be challenging for CHP systems. 2. Should be have a GHG emissions reduction req for heat pump? If we're doing this on a lifecycle basis, I wouldn't be opposed to that.

[Phil Mosenthal] Are you using weighted avg lifecycle emissions or not? This is the main question. It sounds like there is general consensus on a pause, just want to make sure that NCLC is supportive of this, under the condition that changes are "errata" where we can make mid-year changes if legislation passes.

Comments on Fuel Conversion Next Steps

Celia Johnson, SAG Facilitator

- At June Working Group meeting, SAG discussed pausing discussions on site vs. source and IL AG's legal analysis due to pending energy bill. Is everyone in agreement on pausing?
 - ComEd: Agrees with pause as long as heat rate issue gets addressed in TRM.
 - NRDC: Agrees with pause
 - Ameren IL: Agrees with pause
 - NCLC: Agrees with pause as long as any changes to TRM are errata.
 - ICC Staff: Agrees with pausing; however we think it's worth adding a footnote for electric fuel switching measures about if legislation dictates site conversion factor, that will be adopted. In our initial comment, we're interpreting pausing for source conversion for electric fuel conversion measures. We would also be comfortable with pausing discussion on CHP savings allocation, but believe that heat rate should be updated. Difference between this suggestion for a footnote and NCLC's suggestion for errata changes is there would be less need for discussion.
 - IL AG's Office: Agrees with pause with respect to site vs source and ASHP measure. In light of Sam's comments, we are OK with continuing technical discussions in the TAC.
 - Nicor Gas: Agrees with pause

- SAG reached consensus on pausing policy discussions on site vs source savings and IL AG's legal analysis discussion due to pending energy bill.

Additional discussion:

[Ted Weaver] Proposes that we define the pause to include the application of all of those tests. Next step should be we focus on the minimum update to the TRM that makes sense. Then go back to Thomas' proposal.

[Thomas Manjarres] Maybe we should clearly delineate the very high-level question that we're trying to answer here. We all have a good idea of what we're trying to accomplish overall, but we may need a mission statement – i.e. define the relative value to IL ratepayers of a conserved kWh and conserved therm. This may keep us organized even if we're in agreement.

[Jennifer Morris] I agree with Ted's analysis; we seem far apart on everything. Are people ok with focusing on what we need to get through this year [in the TRM]?

[Jim Fay] We're fine with pausing everything except resolution on heat rate. Let Sam submit a proposal to the group, and whether we agree or disagree, we can discuss.

[Jennifer Morris] Are stakeholders ok with using available data instead of Guidehouse's projection model? I'm open to avoiding the extra costs.

[Jim Fay] Yes

[Thomas Manjarres] Yes

[Chris Neme] I agree, appreciate Ted's proposal to pause unnecessary discussions, and support pausing any TRM savings allocation changes to CHP.

[Allen Dusault] If we're doing forecasting, and assumption on mix, it reopens questions that we came to consensus that we don't agree on. This introduces contention.

[Ted Weaver] Agree. If heat rate is changing year to year, are electric utilities taking a hit on their AAIG?

[Jim Fay] I don't see the contingency here. What is the heat rate in the TRM and should we come up with a better one?

[Phil Mosenthal] One path is Sam determines a heat rate that's appropriate.

[Jim Fay] I don't see an issue with this.

[Thomas Manjarres] The issue is not with being physically able to do this, more the policy implications of doing so. Should we use an avg over the lifetime and disregard first year savings? If so, we need to have that policy question.

[Phil Mosenthal] We've always used a projection.

[Thomas Manjarres] when you run a fuel switch through the avoided cost framework, savings claimed by utility don't reflect the bill.

[Chris Neme] I think it's clear that the conversion to electricity equivalent has nothing to do with C/E. Even for the gas savings for electric utilities, the benefits of gas savings are calculated using gas avoided cost.

[Phil Mosenthal] And avoided cost is based on a forecast.

[Thomas Manjarres] It also concerns the blended baseline. How do we treat that at some point the furnace would have died anyway, would the customer have gone with the more efficient ASHP?

[Jim Fay] Wouldn't this be addressed by TRM Administrator?

[Allen Dusault] I think this is why we are far apart. Let's take a few months to pause these discussions, and in the next few months, go with an interim update to heat rate. After legislation passes or doesn't, let's have these discussions.

[Ted Weaver] I agree but to kick this over to Sam, given we have all this disagreement, this may not be the way to go. I think we should calculate the short term heat rate.

[Phil Mosenthal] I disagree; the policy is when we don't have consensus, VEIC makes the call.

[Allen Dusault] The policy overlay is substantial. This would be problematic.

[Jim Fay] I agree with Phil. There's a value in the current year's TRM. The gas utilities have recommended it change. The question should be what the new heat rate should be and I think it's VEIC's role to determine this value.

[Celia Johnson] To be clear, this conversation would be in the TAC?

[Jim Fay] That's my position.

[Ted Weaver] If Sam is going to have a forecasted heat rate, that should not be an average. I support Thomas' compromise proposal.

[Jim Fay] I disagree; does the measure save energy in a lifecycle basis? Heat rate should reflect this.

[Ted Weaver] This would be like a dual baseline, just happens to have one year after year.

[Phil Mosenthal] With lighting we decided to take an average because the market was moving so fast.

[Ted Weaver] We're looking at some savings in the first few years and greater savings down the road. I think it's not good policy to assume greater savings down the road.

[Taso Tsiganos] Agrees with Ted that this isn't good policy.

[Sam Dent] We've always said VEIC's role is technical. For us to make policy determinations to me is a slippery slope. Something we've tried to avoid. Having said that, we're at a point where there won't be consensus on policy. VEIC will bring forth a proposal in TAC working group.

[Jennifer Morris] Will you put options on the table comparing current and forecasted heat rate and your recommendation?

[Sam Dent] I will try to compare the different options to demonstrate the impact they have on savings and screening.

[Chris Neme] I think Jennifer and I suggested a pause on CHP allocation modifications. I'd like to take the temperature on this. I personally would be willing to pause any change to CHP, heat rate or carbon equivalency.

[Jennifer Morris] Just updating the heat rate?

[Chris Neme] Pause this as well. Changing the heat rate for CHP would require looking at how that changes the overall the way CHP savings estimation and allocation is made. Suggesting we don't change anything with CHP.

[Jennifer Morris] I thought this would be an easy update.

[Chris Neme] No, the CHP TRM characterization currently is different for electric and gas utilities.

[Sam Dent] To Jennifer's point, updates to heat rate have just transferred to CHP.

[Ted Weaver] This is really an allocation question. In those CHP calculations, all the btu allocation equivalents are asymmetrical. We should allow VEIC to look at this. Instead of directing Sam to not look at this, we should have Sam make a recommendation on this as well.

[Sam Dent] I struggle with the CHP methodology. I can try but if anyone is willing to come up with a proposal that can be discussed, that would be helpful.

[Ted Weaver] We will provide a proposal.

Gas Utilities' Proposal on Heat Rate: Any additional comments?

- ICC Staff: Would like to see VEIC's proposal first.
- IL AG's Office: Agrees with ICC Staff.
- NRDC: We're inclined to think that the answer is to look at longer life cycle impacts. I appreciate the simplicity of the proposal; reserve final judgement to see Sam's proposal.

Closing & Next Steps

- SAG Fuel Conversion Working Group will pause policy discussions at this time due to lack of consensus and pending energy bill in IL. A follow-up meeting will be scheduled in the future, if needed.
- TAC Fuel Conversion Working Group continues to discuss potential methodology changes for IL-TRM Version10.0.