

IL EE Stakeholder Advisory Group Large Group SAG Meeting

Tuesday, November 19, 2019

10:30 am – 3:45 pm

Midwest Energy Efficiency Alliance
20 N. Wacker Drive, Suite 1301, Chicago IL

Attendee List and Meeting Notes

Attendees (in-person)

Celia Johnson, SAG Facilitator
Samarth Medakkar, Midwest Energy Efficiency Alliance (MEEA) – Meeting Support
Mary Ann Dickinson, Alliance for Water Efficiency
Bill Christiansen, Alliance for Water Efficiency
Jacob Stoll, ComEd
Jim Fay, ComEd
Randy Gunn, Navigant
Rob Neumann, Navigant
Mark Szygiel, Nicor Gas
Chris Vaughn, Nicor Gas
Alberto Rincon, Future Energy Enterprises
Theo Okiro, Future Energy Enterprises
Brittney Zwicker, CLEARresult
Jenny George, Leidos
Deb Perry, Ameren Illinois
Andy Vaughn, Leidos
Matt Armstrong, Ameren Illinois
Jean Gibson, Peoples Gas & North Shore Gas
Omayra Garcia, Peoples Gas & North Shore Gas
Kristen Platt Kalamian, Resource Innovations
Lance Escue, Ameren Illinois
Brianna Parker, Elevate Energy
Mark Milby, ComEd
Molly Lunn, ComEd
Kristol Simms, Ameren Illinois
Chris Neme, Energy Futures Group, representing NRDC
Phil Mosenthal, Optimal Energy, representing Attorney General's Office
Laura Goldberg, NRDC
Noelle Gilbreath, Community Investment Corp.
Larry Dawson, IL Association of Community Action Agencies (IACAA)
Taso Tsiganos, IL Attorney General's Office
Abby Miner, IL Attorney General's Office
Leanne DeMar, Nicor Gas
Cate York, Citizens Utility Board
Brett Bridgeland, Slipstream
Stacey Paradis, MEEA
Molly Graham, MEEA
Nick Dreher, MEEA

Attendees (by webinar)

Jane Colby, Cadmus Group
Ryan Curry, 360 Energy Group
Kegan Daugherty, Resource Innovations
Erin Daughton, ComEd
Shaun Dentice, CLEARResult
Atticus Doman, Resource Innovations
K.C. Doyle, ComEd
Jason Fegley, Leidos
Zachary Froio, Applied Energy Group
Kevin Grabner, Navigant
Andrey Gribovich, DNV-GL
Mary Ellen Guest, Chicago Bungalow Association
Amir Haghghat, CLEARResult
Travis Hinck, GDS Associates
Hannah Howard, Opinion Dynamics
Jeff Hurley, Blue Green Alliance
Tammy Jackson, Ameren Illinois
Cheryl Jenkins, VEIC – IL-TRM Administrator
Amy Jewel, Institute for Market Transformation / City of Chicago Mayor's Office
Neb Kistic, CLEARResult
Jonathan Kleinman, Aiqueous
Chester Kolodziej, Northern IL Energy Summits and Expos
Larry Kotewa, Elevate Energy
Ed Kriz, Nicor Gas
Ryan Kroll, Michaels Energy
Steven McCracken, Bidgely
Rebecca McNish, ComEd
Cheryl Miller, Ameren Illinois
Zenia Montero, ICF
Jennifer Moore, Ameren Illinois
Jennifer Morris, ICC Staff
Agnes Mrozowski, Ameren Illinois
Sam Mueller, Nexant
Patricia Plympton, Navigant
Ashley Palladino, Resource Innovations
Hilary Polis, Opinion Dynamics
Zach Ross, Opinion Dynamics
Elena Savona, Elevate Energy
Edward Schmidt Jr., MCR Group
Leah Scull, CLEARResult
Hardik Shah, Gas Technology Institute
Benjamin Shorofsky, Green Print Partners
Milos Stefanovic, ComEd
Erin Stitz, Applied Energy Group
Bryan Tillman, 360 Energy Group
Ted Weaver, First Tracks Consulting, on behalf of Nicor Gas
Ken Woolcutt, Ameren Illinois
Angie Ziech-Malek, CLEARResult
Jennifer Michael, Ameren Illinois

Nick Hromalik, MEEA
Connor Jansen, Slipstream

Meeting Notes

- Follow-up items are identified **in red** throughout the notes.
- A summary of follow-up items can be found at the end of this notes document (page 12).

Introduction to New SAG Website

Celia Johnson, SAG Facilitator

- Tour of new SAG website re-design: www.ILSAG.info
- The website includes advanced search functionality for final evaluation materials and large group SAG meeting materials (currently for 2018-2019 – prior years will be searchable by the end of Q1 2020).
 1. For the advanced search, do not use Internet Explorer 11. Other web browsers work well.
- RFP was released in August 2018 for the re-design. Fullsteam Labs was selected as the web developer.
- **If you have any website questions or find a document that does not open, please reach out to the SAG Facilitator (Celia@CeliaJohnsonConsulting.com).**

Water Energy Nexus

Water Efficiency as a Partner to Energy Efficiency

Mary Ann Dickinson, Alliance for Water Efficiency

- Introduction to Alliance for Water Efficiency (AWE)
 - AWE located in Chicago, founded in 2007
 - Work in the west (CA), works in wet areas such as MA
 - Involved in IL Water Works Association
 - AWE is a membership organization
 - 70% are water utilities looking to work on best business case programs design
 - Network of members and provide resources
 - Works with ACEEE, ASE, advocates in Congress
 - Specific expertise to members, go to resource on water efficiency
 - Regular meetings, water efficiency research committee – cooling research came from that committee
 - Committee on water appliances (codes) & regulatory management of water fixtures – collaborates with DOE
 - Most are water suppliers, plumbing and appliance manufacturers
 - Government reps & reps from energy community
- Water Conservation
 - Wanted to make sure good ROI policies for water utilities similar to EE
 - Early years of water conservation didn't have the rigor of EE, AWE supports that analysis
 - PNNL doing a study for AWE – quantifying for those utilities, an inventory of cooling towers, cooling load, and consumptively measure cooling load, and altering load can produce savings for HVC
- Water conservation tracking tool

- Emissions, and energy, energy intensity, geographically based, model has a simple walkthrough set of questions
- How much energy savings and interaction w/ energy
- Convened experts to outline recommendations to better connect the dots for water and energy for policymakers and advocates
- Involved in CA
 - Looked at the energy intensity of water (2005). How many kwh embedded in x gallons of water?
 - Opportunity arose from lack of cold water conservation or energy savings understanding
 - Hot water component was paid out of EE portfolios, however, savings from cold water conservation programs not incentivized
 - Not many utilities are offering cold water conservation incentives – IL is the first to do that. Utilities aren't claiming savings, except IL.
 - See slide for joint efficiency opportunities – a lot to be done in this area.
- Pilots
 - What proxy value given wide range of values in CA?
 - See slides: pilots with highest energy savings
 - The trick is what these savings mean for the people funding it – water utility community and ratepayers
 - Water suppliers are active in optimizing drinking and wastewater facilities
 - Demand can be managed for water and energy benefits – more coordination and partnership needed
- What does this mean?
 - Calculations & data collected by various organizations – so much low hanging fruit – 95% of goals through just cold water efficiency (CWE) at just over 50% of the cost
 - Why hasn't this happened? It's an accounting problem
 - Perception that the energy ratepayer paying for the public benefits rate charge is not returned
 - See UC Davis data on comparisons for EE and water energy savings
 - UC Davis – leveled chart on water efficiency longer term programs are cheaper, when savings are documented, particularly through fixture savings, it proves to be a C/E investment
- Takeaways
 - AWE wants to see better coordination – it's a big issue in communities – energy load in water and wastewater systems
 - For water utilities, first bill is labor, second bill is energy
 - Help their customers reduce their energy load

Discussion

- Chris Neme: How long do savings last? How much is behavioral and how much is redesign of infrastructure?
 - When there is a long-term restriction (on landscaping irrigation), permanent, long term savings
 - AWE just completed a study on landscape transformation
 - Replacing landscape
 - Found increase in savings, ripple effect in community,
 - When you physically change out the landscape, longer term savings
 - Fixture replacement and decay rates

- Survey
 - What would have happened anyway on the code and what the utility's role was
 - Comparison of one-year savings in EE and water – what portion of electricity consumption is tied to water
 - 19 % of the electricity load and 32% of the gas load is pumping water
 - How much in Illinois?
 - IL has low hanging fruit because they've done less
- Phil Mosenthal: Is EE credit not given to CWE for energy intensity savings? Utilities have custom programs.
 - Programs do provide rebates for more efficient pumping systems. But this is different than reducing amount pumped.
 - Water utilities in CA do not receive credit for savings energy, and no GHG reduction credit.
- Rob Neumann: Do you work with water reclamation districts?
 - AWE is starting to focus on water reclamation districts
 - Nothing definite to report but this intersects with wastewater
 - Starting to work with UC Davis to roll out water and wastewater model

ComEd Emerging Tech: Energy-Water Nexus Update
Jim Fay & Mark Milby, ComEd

- Context – water efficiency industry today looks like the young EE industry.
- Presenters will review two water energy studies ComEd commissioned.
- There is a significant amount of energy used for pumping and purification (processing the water and filtration, for both ground and surface water), and energy used for wastewater treatment.
- There is a lot of energy used in the water treatment loop; there is a significant opportunity for energy savings. What is in front of us is designing programs that are cost-effective.
- First study – Axiom Consulting
 - See three research questions on slide
 - What tech is available?
 - Results will be available soon.
 - Study scope: Quality and quantity of info developed was very robust
 - See schematic – Mapping water delivery by territory
 - Where does water come from? groundwaters, surface, lake Michigan
 - Lake MI water infrastructure is extensive. This infrastructure is growing.
 - Water used for cooling and power generation doesn't follow the loop
 - Distribution and water purification (see schematic)
 - Water comes into water supply system – millions of gallons per day
 - Significant leakage
 - Treatment system: Cook County and non-Cook County, in terms of gallons/day
 - Energy consumption
 - Pumping, purification, etc.
 - Opportunities for energy savings

- Bottom line – a lot of energy used in water treatment loop. How to design programs to capture that energy savings cost-effectively?
- Second study – Green Print Partners, they specialize in green stormwater infrastructure. This is designed to capture runoff associated with stormwater and prevent that runoff from going into a treatment facility, which reduces pumping, facility time, etc.
 - Prevent the water from going into the treatment plant
 - Infrastructure itself look like greenspaces and provide community benefits
 - Snapshot of criteria used to select munis
 - Those struggling with stormwater infrastructure & best opportunities
 - Munis represented best opportunities to save energy
 - Range of potential energy savings
 - Includes a reduction in kwh, TRM v7 vs v8
 - Is this enough and what can ComEd do to implement the savings potential?
 - How does this fit in EE programs? NEBs – a lot of benefits.
 - GPP did journey mapping – where could additional support/ ComEd resources be inserted in the chain?
- Questions under consideration: What can we do with this information? What are the efficiency measures that will be cost-effective? What could a potential program design look like? ComEd team is still exploring whether a program would be cost-effective; review is in preliminary stages. The team is still working to identify what measures may be opportunities.

Discussion

- Theo Okiro: How does this achieve crime reduction?
 - Kristol Simms: Helps stabilize communities, facilitates better housing opportunities due to relocation. This group needs to consider the policies related to disadvantaged communities, and the alternatives to not partnering on this type of effort to help struggling communities.
- Molly Lunn: Due to the savings potential (IL-TRM) this type of program may not end up making sense.
- Phil Mosenthal: Are you aware of any other funding mechanism? Are there opportunities to braid funding for this?
 - There are some cities with surcharges on customer bills to fund water conservation such as a public benefits goods charge.
- Kristol Simms: This is highly localized.
 - Peak load is the big problem for water utilities – irrigation systems aren't programed properly to irrigate off-peak.
- Laura Goldberg: There may be an opportunity to do some piloting with munis. Has this been investigated? Especially in IQ sector.
 - Rain barrel giveaways are the only measure ComEd is aware of.
- Chris Neme: Have you looked at savings opportunities within water treatment through biogas CHP?
 - ComEd has a CHP offering. For water treatment, measure upgrades include pumping, aeration (examples). There is a higher incentive level for wastewater treatment. There hasn't been much interest in CHP.
 - From Ameren's perspective, ROI for munis are out of bounds, projects ready to go but ROI is between 5 and 10 years, a lot of money up front.
- Phil Mosenthal: Has ComEd completed cost-effectiveness screening on this? For example, replacing toilets in IQ communities seems like it would make sense.
 - There are challenges in the C/E screening, such as administrative costs.

- **Next Steps:** SAG Facilitator to follow-up with ComEd on sharing water study results / green stormwater infrastructure report when finalized.

ComEd 2019 Q3 Update
Molly Lunn, ComEd

- Street Lighting: processing of applications from City of Chicago.
- Third Party programs have been slow to ramp up; we are discontinuing one program.
 - Chris Neme: Are there any implications on sunseting a program per the statute? Is there flexibility to catch up on spending?
 - The statute references a “budgeted” amount. We will likely not spend all of it and will transfer it to other programs.
- Residential Programs
 - Lowered incentive for smart thermostats earlier in the year, but participants remains the same
 - Will no longer be offering (non-income eligible) weatherization. Gas utilities will still offer on their own.
 - Will be offering a net zero homes program
 - HVAC shifting certain measures to midstream, adding tune-up
 - Shifting advanced power strips to copay
 - In MF, shifting some measures to copay
 - MF has been performing very strongly – shifting to copay should continue to increase demands
 - CEDA started offering utility-only weatherization for ComEd.
 - IACAA completed a statewide staffing survey of IHWAP Community Action Agencies throughout the state.
 - Larry Dawson: All of the staffing challenges have been addressed at this time, compared to 2018 when there was a need to hire additional staff. For the most part Agencies are at the capacity that they need to be to handle the number of projects. The survey also looked at longer-term planning to support Agencies.
 - Kristol Simms: Did CEDA share any concerns on the shared equipment issue?
 - Larry Dawson: All of the CAAs did share some concern.
 - Chris Neme: Is underserved synonymous with economically disadvantaged?
 - Essentially the same here.
 - Kristol Simms: Ameren IL also considers other populations such as seniors, language barriers, etc. as economically disadvantaged.
- Business Programs
 - Launched an online app portal for ComEd standard program – 218 applications since launch in June, expected to grow, amount of administrative time for application was extensive.
 - Industrial system program now offering Compressed Air EIMS, monitoring, to identify savings.
- Other Updates
 - Public Sector, small business and instant discounts have experienced high demand.
 - ComEd A/C cycling program will no longer receive EE funding;
- Income Eligible Programs

- Retailers not on board with new manufactured housing. Reducing omnis through that program.
- Removing omnis from big box stores, due to finding from Navigant research.
- Shifting more funding from SF to MF- there are significantly more LI customers in MF – better aligned with the market.
- New measures will be added to kits and foodbank programs (different types of LEDs + furnace filter).
 - Different kind of LEDs; furnace filter
- Chris Neme: Are the utilities looking for ways to cut costs and increase participation, such as through statewide offerings? We should have a more extensive conversation about this during the upcoming planning process.
 - SAG Facilitator to add statewide programs to the list for discussion in 2020.
- Phil Mosenthal: Is there an opportunity to train participating Trade Allies?
 - There is a quality install program measure in the TRM currently.
- Does the midstream rebate go to the distributor or contractor?
 - Incentive goes to the contractor, but distributor relationship is stronger. In the future ComEd looks to work with customers on services and increase midstream work for appliances.

Ameren 2019 Q3 Update

Kristol Simms & Deb Perry, Ameren Illinois

- Last quarterly update provided in May. Q3 report is available on the SAG website.
- Performance
 - Predicting to end the year at 93% of the electric goal and well over 100% of gas
 - Close to 100 percent on electric spend
- Residential Initiatives
 - Behavior modification was successful (however not successful in looking at long-term savings).
 - School kit program was successful – targeted income qualified communities in 2019.
 - Retail products initiative is on track to meet goal.
 - HVAC is doing well – we incentivized twice as many smart thermostats in 2019 compared to 2018, this is a 100% ally-driven channel
 - Customers can choose between two types of units
 - Strong economic development component
 - Prioritize diverse vendors and allies
 - Almost at 5600 thermostats
 - A lot of interest from customers
 - Appliance recycling is successful – in income qualified communities, kit is used as entry to programs.
- Income Qualified Initiatives
 - SF, MF, CAA channels
 - SF is at capacity
 - Instant savers assessment introduced for customers who are beyond the number they planned
 - Allowed to use a certain amount of funds in conversion
 - Instant savers assessment – idea is to re-approach those customers for building envelope measures
 - Program supposed to address all the customers who needed a program,

- MF numbers: combination of market rate and IQ. Dedicated outreach person, going to meet the property owners
- Business Initiatives
 - Jarvis electric, advisor program ally, SBDI is successful as a result
 - Custom goal Is 100% higher in 2019 than 2018, needs significant ramp up
 - Leidos team working on energy advisors
 - Pulling out all the stops to establish a strong custom program
- Other Updates
 - Completing a research project on billing data, AMI data, and customer data to identify electric heat source customers and target them with specific initiatives.
 - Public Housing Authority Initiative: Biggest challenge is resource constraints. We would like to see a lot more interest in the smart t-stat measure. We would like to see this go deeper.
 - One barrier is a lack of resources for Public Housing Authorities to be present on-site for smart t-stat installs.
 - Street Lighting
 - Engaged a diverse vendor; expect to meet goal.
 - Market Development Initiative
 - Workforce development
 - Diverse and local vendors
 - Offers scholarships with follow through – holistic career support
 - Wrap around effect to keep them engaged and employed in the EE sector
 - Partnerships with CAAs
 - Expanding PIP and LIHEAP education for customers
- Chris Neme: Your prior potential study found that half of your MF and more than 60% LI electric heated, but more gas participation?
 - Leveraged data science team to use customer billing data to target customers with opportunities
- Why the disparity between electric and gas?
 - Large gas users are no longer in the program next year, so we will see a shift in savings. Large gas users often have custom projects, which is driving significant savings.
- Streetlight initiatives
 - Engaged a diverse vendor
 - They think they'll still meet the goal
 - They think this one will turn out well
- Multifamily One Stop Shop Update
 - Customers may not know that they are eligible for other measures/incentives
 - Website isn't crosslinked to provide customers with their view that they are eligible for
 - Meeting needs for properties – PHA, combine savings for properties and tenants
 - One stop shop assessment – energy advisors will look at properties as a whole, not appliance by appliance, but talking with managers after a thorough walkthrough
 - Website will cater to property manager, PHA and tenants.
 - Online store component.
 - Goal is to make the website a place the customers revisit because it's a resource.
 - Laura Goldberg: This speaks to a lot of the Energy Efficiency for All suggestions which is great to see. What is the connection to financing? How does this

translate to the in-person process for applications? How does this differ for IQ vs. market rate MF?

- The focus will be on identifying IQ and PHA and what they really need EE. Helping them format the project schedule – help them visualize and not get overwhelmed. The goal is to make this offering as easy as possible.
- Will be providing on-bill financing soon with the new vendor under contract.

Chris Neme: For on-bill financing, do you anticipate the same model used before, qualifying customers based on bill payment issues?

- In order to get OBF back into the market quickly, we went with the standard model.
- Stakeholders are interested in more information about qualifying customers based on bill payment history; Ameren IL previously piloted this. The new contractor (Slipstream) can share how customers are qualified in other jurisdictions. SAG Facilitator to schedule OBF for discussion in 2020.

Peoples Gas & North Shore Gas 2019 Q3 Update ***Omy Garcia and Jean Gibson, Peoples Gas & North Shore Gas***

- Participation has ramped up this year. We are seeing positive results for income qualified offerings.
- Business Programs
 - Big change – allow medium-sized customers access to trade allies.
 - Public sector – great outreach in connecting with the big groups- City of Chicago, CTA, Cook County buildings, public library.
 - Dedicated outreach and relationship building, strong support system/
 - Increasing trade ally engagement, facilitating workshops, webinars, one on one relationships, count has gone up, summit had more than 100 in attendance.
 - Public Sector
 - Bundling projects
 - Moving incentives around
 - Retrofits Chicago
 - Developing relationships with key leaders and c suites
 - Energy advisor dedicated to public sector
- Residential Programs
 - Overview of market rate programs.
- Chris Neme: Is your outreach team yours alone or shared with ComEd? It would be useful to understand whether outreach is shared amongst utilities/implementers. From the customer's perspective, it may be useful to offer a 'one stop shop' approach, such as with a facility assessment.
 - Not sure if outreach team is shared, but they are both Franklin Energy.
- Is on-bill financing being offered?
 - Yes, the new contractor for financing is being onboarded and the program will be available soon.
- 2020 planning:
 - Closely monitoring high cost programs
 - Smart thermostats and home energy reports (Oracle) – customers receive reports in fall and winter months
- Follow-up questions:
 - Phil Mosenthal: What measures are provided in restaurant kits?

- Chris Neme: How many in the SEM cohort?
- Chris Neme: 64 projects completed in Peoples Gas territory, with more than 6,000 multi-family units served. Why so many MF units served with so few weatherization projects? Is there data available on why some of the 6,000 customers did not move forward with any weatherization projects?
- Laura Goldberg: Can you provide a breakdown of what is included in the 11,204 unit multi-family participation number?
- Of the 4,000 Home Energy Jumpstart participants (slide 12), how many had the potential to cost-effectively add building envelope measures?

Energy Efficiency Considerations for Recreational Cannabis **Stacey Paradis & Molly Graham, MEEA**

- Background
 - IL cannabis statute goes into effect Jan. 1, 2020
 - Law requires ductless mini-splits, energy report with application, lighting power density (essentially mandating LEDs)
 - Licensing is through IL Dept. of Agriculture
- What is the opportunity for IL EE programs?
 - Cannabis is an energy intensive crop – requires dry and hot environments
 - Flowering is the third and longest and most energy intensive phase of product
 - The addition of indoor agriculture facilities will likely lead to unanticipated load growth for utilities
 - Cannabis cultivators are planning their facilities now
 - Department of Ag needs to understand that there needs to be more EE, i.e. system designs. Dept. has not released their emergency rules yet
 - MEEA is concerned there will be non-compliance, which will result in high energy expenditures
 - Growers need to be educated on who their utility provider is, and EE opportunities
 - Opportunity for utilities to support HVAC designs that are good at dehumidifying
 - Navigant is completing research comparing IL-TRM to cannabis opportunities; TRM appears to cover most of what's in there
 - SAG Facilitator will invite Navigant to present research in early 2020.
 - Note: Opinion Dynamics is also completing cannabis research as the Ameren IL evaluator, with results expected at the end of Q1 2020.
 - Kristol Simms: Need to consider that new facilities being built now may be exempt for the next EE Plan cycle (starting in 2022), if they are over the 10MW threshold.
- Massachusetts Baseline Study
 - MA first state to implement in EE in cannabis legislation.
 - MA baseline study will be complete likely in Jan.
 - SAG Facilitator to follow-up with Chris Neme on draft ERS study.
- Chris Neme: There may be a few opportunities to claim savings, such as within market transformation / code compliance effort. We need to discuss what the appropriate baseline is; this group could help with that.

Closing and Next Steps

- The next in-person SAG meeting will be held on **Tuesday, January 28** in Springfield, focused on IHWAP weatherization programs.

- Summary of follow-up items:
 1. **Introduction to New SAG Website:** If you have any website questions or find a document that does not open, please reach out to the SAG Facilitator (Celia@CeliaJohnsonConsulting.com).
 2. **Water-Energy Nexus:** SAG Facilitator to follow-up with ComEd on sharing water study results / green stormwater infrastructure report when finalized.
 3. **Utility Q3 Updates (ComEd, Ameren IL, Peoples Gas & North Shore Gas):**
 - Stakeholders are interested in more information about qualifying customers based on bill payment history; Ameren IL previously piloted this. The new contractor (Slipstream) can share how customers are qualified in other jurisdictions. SAG Facilitator to schedule OBF for discussion in 2020.
 - SAG Facilitator to add statewide programs to the list for discussion in 2020 (planning process).
 - See pages 10-11 of notes for specific follow-up questions for PG & NSG. SAG Facilitator will follow-up with PG & NSG to answer open questions.
 4. **EE Considerations for Recreational Cannabis:** A follow-up teleconference meeting will be scheduled in early 2020, specifically to discuss:
 - Navigant presentation on cannabis measure research compared to IL-TRM.
 - MEEA update on cannabis considerations.