

**Illinois EE Stakeholder Advisory Group
Large Group SAG Meeting
Thursday, February 6, 2020
10:00am to 12:00pm
Teleconference**

Attendee List and Meeting Notes

Attendees (by webinar)

Celia Johnson, SAG Facilitator
Nick Hromalik, Midwest Energy Efficiency Alliance (MEEA) – Meeting Support
Matt Armstrong, Ameren Illinois
Katie Baehring, Franklin Energy
Rick Berry, Guidehouse
Brian Bowen, Uplight
David Brightwell, ICC Staff
David Bryant
Madeline Caldwell, CLEARResult
Ben Campbell, Energy Resources Center, UIC
Salina Colon, CEDA
Ryan Curry, 360 Energy Group
Erin Daughton, ComEd
Leanne DeMar, Nicor Gas
Shaun Dentice, CLEARResult
Atticus Doman, Resource Innovations
Gabriel Duarte, CLEARResult
Allen Dusault, Franklin Energy
Jeff Erickson, Guidehouse
Jim Fay, ComEd
Jason Fegley, Leidos
Eljona Fiorita, ComEd
Omy Garcia, Peoples Gas & North Shore Gas
Jean Gibson, Peoples Gas & North Shore Gas
Andrey Gribovich, DNV-GL
Mary Ellen Guest, Chicago Bungalow Association
Randy Gunn, Guidehouse
David Hernandez, ComEd
Amir Haghghat, CLEARResult
Jan Harris, Guidehouse
Travis Hinck, GDS Associates
Jeff Hurley, Blue Green Alliance
Kevin Johnston, Green Homes Illinois
Haley Keegan, Resource Innovations
Anna Kelly, Power Takeoff
Larry Kotewa, Elevate Energy
Ryan Kroll, Michaels Energy
Karen Luson, National Consumer Law Center
Mathieu Lévesque, Dunsky
Dan Maksymiw, CEDA

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
Rob Neumann, Guidehouse
Theo Okiro, Future Energy Enterprises
Randy Opdyke, Nicor Gas
Patricia Plympton, Guidehouse
Christina Pagnusat, Peoples Gas & North Shore Gas
Ingrid Rohmund, Applied Energy Group
Joe Reilly, Applied Energy Group
Alberto Rincon, Future Energy Enterprises
Adam Roche, Franklin Energy
Zach Ross, Opinion Dynamics
Barb Ryan, Applied Energy Group
Anthony Santarelli, Smart Energy Design Assistance Center (SEDAC)
Clayton Schroeder, Nexant
Leah Scull, CLEAResult
Sue Stefanovich, DNV-GL
Mark Szczygiel, Nicor Gas
Mike Ting, Itron
Andy Vaughn, Leidos
Chris Vaughn, Nicor Gas
Kirk Voegtlin, Applied Energy Group
Ted Weaver, First Tracks Consulting, on behalf of Nicor Gas
Shelita Wellmaker, Ameren Illinois
Angie Ziech-Malek, CLEAResult
Maria Onesto Moran, Green Home Experts
John Pady, CEDA
Arvind Singh, DNV-GL
Sara Wist, Cadmus Group
James Carlton, People for Community Recovery
Scott Fotre, CMC Energy
John Lavallee, Leidos
Andrea Salazar, Michaels Energy
Edward Schmidt, MCR Group
Hardik Shah, Gas Technology Institute
Karen Weigert, Slipstream

Opening and Introductions

Celia Johnson, SAG Facilitator

- The purpose of this meeting is for ComEd's consultant Itron to present an overview of results from the ComEd baseline study.
- Jim Fay, ComEd: We have completed previous baseline studies, both in 2009 and 2012. This next baseline is a continuation of those studies and the data that was collected.

ComEd Baseline Study Results

Michael Ting, Itron

- Goal was to collect detailed data.
- Overall scope is for a potential study.

- The ComEd Potential Study will be handled by a subcontractor Dunsky Energy Consulting.

Residential Study:

- Overview of key activities.
- Operations Optimizer: a system already fully developed that has all the info we need to dive into sample design.
- Four basic sample design:
 - Building type (SF and MF)
 - Whole home consumption (low, medium, and high)
 - Location (Chicago, suburban, and other/rural)
 - Income eligibility (low income eligible, non-low income eligible)
- 36 total sample strata, population numbers in certain strata are small (i.e. all of the MF/rural strata are small).
- We used a multi model approach:
 - Mass mailing of postcards with a link to a URL for a web survey, but also ability to be used on a mobile device
 - Asked participants to take pictures of equipment
 - Equipment info is combined with other self-report data
 - This combined info generates onsite quality at scale. This also leverages the cheapness of surveys but at scale.
 - We tried to limit the self-report data, and to only be those questions that accuracy would be fairly certain (how many people live in the home, do you rent or own, etc.)
 - We had back office workflow to verify the technology and used location tracking to confirm the survey was where they said they were located.
 - Sent 5000 postcards, offered additional \$50 Amazon gift card incentive to participate in on-site verification.
 - Completed 46 on-site verifications
- Did a second wave of 30,000 postcards
- Overall had 2000 click-ins, about 3,000 nameplate images submitted
- Analytic sample set varies from 1,700 to 800 due to participants trailing off near end of survey.
- Andy Vaughn: For advanced power strips, was one of the questions if the customer had previously participated in an EE program?
 - A: No, we do not have previous customer participation questions or information.
 - Jim Fay: We have that program history data for those that were incentivized for the advanced power strip, but it is not shown in this presentation.
- Key findings for residential study:
 - LEDs have become the dominant residential lighting technology, demonstrating a significant market transformation.
 - Small increase in CAC efficiency, but little evidence of fuel switching away from gas.
 - Strong evidence of impact of ComEd's appliance recycling programs.
 - Laundry appliance stock turnover likely to be highest in near-term (compared to other appliances).
 - Penetration of "new" consumer technologies is already significant.

Commercial Study:

- Same overall modeling approach and data collection that was used for residential, see notes above.
- 10 MW customers removed from sample.
- Primary sampling variable was building type (based on NAICS code mapping)
- ComEd requested FEJA-defined “public” vs “private” customers, which we incorporated into our study.
- On-site survey approach using a team of locally-based field engineers
- Survey implementation was Jan-June 2019.
- Erin Daughton: In the “other commercial” category, does this include smaller businesses like dry cleaners?
 - A: I don’t know by size if the distribution is different. But I think “other” is things like religious buildings, as one example.
- Key findings:
 - Higher penetration of LEDs compared to 2012 (27% vs 2%).
 - Split and packaged DX systems are the dominant central cooling technologies in most segments.
 - Average efficiency of split and packaged systems increased significantly since 2012.
 - Control systems are concentrated in the public segment.
 - Strong evidence of significant barriers and area for improvement/opportunity.

Industrial Study:

- About 17% of total nonresidential load and less than 8% total load (removing 10 MW customers), so small overall.
- This group is heterogeneous.
- The cost per site is high.
- Hybrid approach for data collection: small sample of in-depth interviews, and then leveraging 2012 study and 2014 EIA data.
- For modeling: we plugged in these data sources in two different ways: we split the deemed from custom measures (specific to industrial).
 - HVAC and lighting treated as deemed because we have enough data to do this.
 - Different approach for custom: it builds off of our customer-level data
 - Calculate “eligible” load by high level project type
 - Calculate average project savings as a share of total customer load by project type
 - Then multiple eligible load by the average percent savings by project type (kWh potential)
 - Results is roughly gross max achievable potential
- Phil Mosenthal: Usually “max achievable” is defined as the most you can achieve, and modeled as you can cover 100% of the program costs with incentives. So how does that figure in to your calculation?
 - A: This is all driven off of historical customer participation. For all of those projects the rebate cost is only a portion of the total cost. There are also free riders in there. ComEd is interested in doing something different. This is my characterization of what this number means, but happy to come up with a different characterization if needed.

Closing and Next Steps

Celia Johnson, SAG Facilitator

- If you have questions about the ComEd baseline study, reach out to Mike Ting, Itron: michael.ting@itron.com and Jim Fay, ComEd: james.fay@exeloncorp.com
- The final ComEd baseline study report will be shared with SAG when results are finalized.
- A SAG teleconference to discuss ComEd Potential Study results is scheduled on Tuesday, June 23.