
MARCH 22, 2023

Energy Affordability Program (EAP) Roundtable

Information Item: IESO Business Updates, See supporting materials

Presenters:

Andy Chhoeu, Program Advisor – IESO

John Canella, Marketing Advisor – IESO

EAP Operational Updates

Key Message:

EAP participation and savings achievement are expected to increase in 2023 with program enhancements and expanded marketing to make up for lower savings achieved in 2022.

2022 Achievements:

- In 2022, the EAP served 30,000 participants, exceeding the 22,350-participant target by 115%
- Despite reaching participants, the savings achieved were lower than expected due to the types of energy efficiency upgrades undertaken; 8.97 GWh savings (64% of 14 GWh target) and 0.73 MW savings (66% of 7.5 MW target) were achieved
- To address the savings gap, the IESO is identifying opportunities to increase savings per home to ensure all opportunities are being leveraged (e.g., maximizing offerings and weatherization)

EAP Operational Update

2023 Progress:

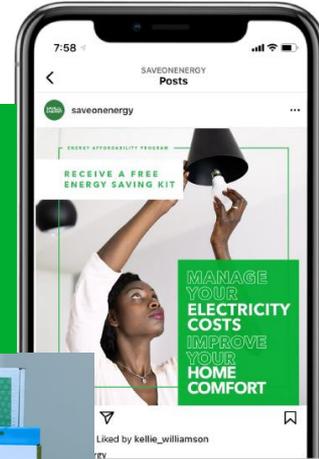
So far, participation is increasing and expected to do so month-over-month

- 2023 CDM plan targets: 49 GWh; 7.5 MW
- Achievements as of February 2023: 3,115 participants; 1.68 GWh; 0.124 MW
- The IESO continues to focus on:
 - Implementing enhanced marketing and building awareness through multi-pronged outreach
 - Expanding energy advisor and contractor networks to broaden program reach
 - Adding more appliance models to enhance customer choice
 - Exploring the inclusion of additional measures (e.g., Air Source Heat Pumps)

EAP Marketing Update

Since the last roundtable, several marketing-related activities were undertaken to enhance awareness of the program among eligible participants, including:

- Refreshed website to improve the overall experience for visitors - tenets of the program made clearer for prospective participants, including the availability of the energy saving kit.
- Paid social media ad campaign - included advertisements to draw awareness and consideration of both the comprehensive support stream and the free energy saving kits. Campaign reached more than 800,000 Ontarians on social media.
- Ongoing organic promotion of the EAP on SOE-owned channels including social media feeds and quarterly residential newsletter to more than 44,000 subscribers.
- Marketing activities resulted in a 25 percent increase in traffic to the site compared to the previous quarter.



EAP Marketing Update

- Finalizing enhanced marketing strategy with SOE's new advertising agency.
- New strategy involves looking beyond our existing digital approaches and promoting the program to more effectively build program awareness and encourage participation among the target customer segment.
- Non-digital approaches are being considered to target more rural areas of the province, including Northern Ontario – local radio ads, community newspaper ads, ads in transit shelters, as well as posters/leave behinds in community facilities such as food banks, community centres, post offices, among others.
- Continued focus will be placed on generating awareness of the availability of the kits, as well as the comprehensive support stream. Partnership between Enbridge and SOE providing consumers with automatic qualification of both the EAP and HWP will also be a focus.
- Plan is to begin deploying tactics in Q2 and throughout 2023. Update to be provided at next EAP roundtable.



Information Item: Enbridge Business Updates – Verbal Update, No Supporting Materials

Presenters:

Corrie Morton, Supervisor Affordable Housing - Enbridge

Amanda Ku, Energy Advisor - Enbridge



Information Item: Ontario - Find Benefits and Programs Online Tool – Verbal Update, No Supporting Materials

Presenters:

Jawhar Kassam, Manager of Income Testing Services -
Ministry of Finance (MOF)

Kim Corrigan-Guest, Senior Project Analyst – MOF



Information Update: EAP Roundtable Participant Spotlight – Ontario Aboriginal Housing Services (OAHS), See supporting materials

Presenters:

Rob Hargain, Senior Manager, Property Management
Madison Fourgere, Energy Supervisor – OAHS

Energy Services

About OAHS



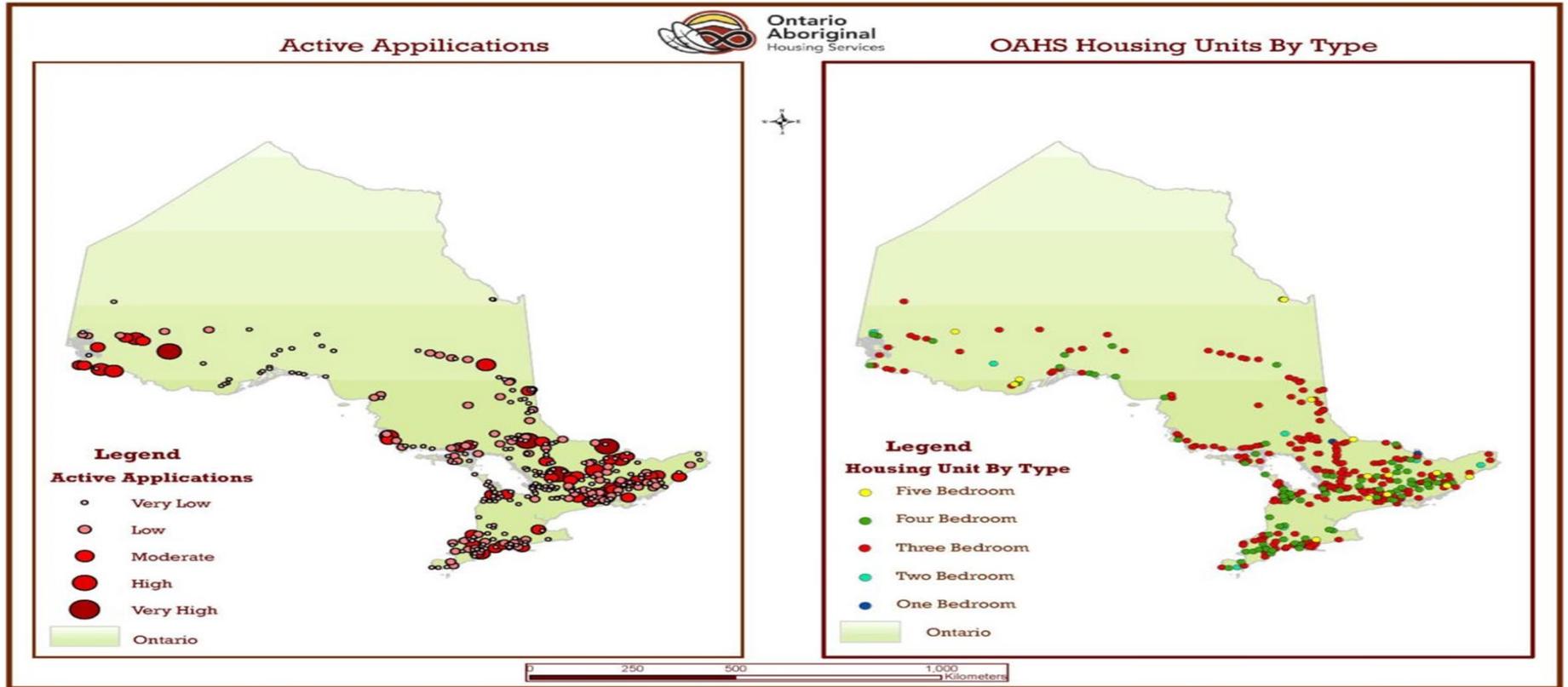
Ontario
Aboriginal
Housing Services

- **Serve over 11,000 people**
- **Approximately 3600 units.**
- **Have different types of housing across all of Ontario excluding GTA.**
- **Largest off reserve Indigenous Housing Organization in Canada**
- **Offer different forms of Affordable Housing such as Transitional, Supportive, Light supportive, Rent Geared to Income, Affordable and Market**
- **Priority is First Nations, Inuit & Metis but serve Non-Indigenous as well. Roughly 50/50**
- **Also offer Repair and Home Ownership program to indigenous clients outside of our tenant base.**
- **Started off with 4 employees 27 years ago. Now almost 200.**

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Energy Services

The Team



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Tenant Assistant Program Reps (TAP)

The Front Line of the Energy Program.

- Calling tenants to explain our Energy Program
- Conducting pre-surveys for energy measures
- Assistance in applying to utility rebate and credit programs
- Booking energy measures with tenants and explaining items
- Collecting utility info and bills
- Answering inbound energy calls and questions
- Initial follow up with tenant energy concerns



Energy Services

The Team



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Community Energy Champion (CEC)

- Escalated Tenant Calls from TAPS (More Technical)
- Tenant Education Sessions
- Identification and support of energy initiatives
- Install follow up with tenants (New Measures)
- New Tenant move in education
- Support in assessing energy opportunities in orgs
- Tracking results and Follow Up
- In Field Support

Energy Services

Goals

- **Reducing Energy Consumption and GHG's to lower our environmental impact**
- **Reducing Utility Costs for both Tenants and OAHS**
- **Building Better Tenant Relationships**
- **Increased Tenant Supports**
- **Evictions Prevention**
- **Lowering Maintenance Costs**
- **Repeated Positive Interactions with Tenants**
- **Become the leader in Energy Efficiency in Social Housing**



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The Numbers



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Items	#'s
Tenants For Energy Pre-survey	1846
Energy Audits Booked (or requested booking)	669
Referrals to Credit programs	749
Smart stats Installed	350
Weatherization Completed (22 more to go in Hamilton)	95
Units Qualified for Appliances	97
New Tenant Education Sessions Completed	213
New Install CEC follow up calls	265
Ductless Mini Splits Installed (This past year)	58
Inbound Energy Calls	725
Tenants willing to provide positive feedback on energy measures	165

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What Does this mean for our tenants

- Better relationships and regular positive interactions (Touch Points)
- Increased Savings for them (for those that pay utilities)
- Increased comfort (LED, AC, Cooler/Warmer Homes)
- Part of Positive Environmental impact (Culture & Stewardship)
- Evictions Prevention



Energy Services

The Process



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Initial contact

1. Explanation of program
2. Pre-survey
3. Capture of bill
4. Credit programs



EAP Pre-Book Audit

1. Explanation of Audit and delivery agent,
2. Pre-Book for agent
3. Capture of bill (if not completed)
4. Credit programs



EAP Pre-Book Measure

1. Explanation of Measure & delivery agent & Prep work required.
2. Pre-Book for agent
3. Capture of bill (if not completed)
4. Credit programs



EAP Pre-Book Additional Measures

1. Explanation of Next Measure & delivery agent & Prep work required.
2. Pre-Book for agent
3. Capture of bill (if not completed)
4. Credit programs



EAP Pre-Book Additional Measures (x as qualifies)

1. Explanation of Next Measure & delivery agent & Prep work required.
2. Pre-Book for agent
3. Capture of bill (if not completed)
4. Credit programs



CEC Follow Up

1. CEC follow up via phone regarding measures
2. Provide other initiatives
3. Set up for in person education
4. Follow up on credits & Bills



CEC In person Education

1. In person Education for measures and Energy opportunities
2. Follow up with other resources
3. Post measures Bill



TAP Post education Call

1. Follow up on Education and opportunities
2. Post Education Bill
3. New Opportunities
4. Post Survey and referrals

Energy Services



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- <https://www.youtube.com/watch?v=dJi84Jc9ZLM>



Information Update: First Nations Conservation Program Evaluations – 2021 Results, See supporting materials

Presenter:

Arwa Sayyadi, Senior Analyst – IESO

Background

- In response to an ask from an EAP Roundtable participant during the November 3, 2022 meeting, the IESO has put together the following summary of the First Nation Conservation Program 2021 Evaluation Results.
- The First Nations Conservation Program (FNCP) was offered from 2016 – 2021 and provides the same benefits of the previous Save on Energy Home Assistance Program (now EAP) with no income-eligibility requirements.
- To date, more than 8,400 homes have participated in the FNCP program.



Summary

Evaluation Action Items Addressed

- IESO is gathering data via Statistics Canada to better understand First Nations participation in Save on Energy programs
- IESO is continuing to expand upon the data that is being tracked by the delivery partners
- IESO carries out a regular review and scan of measures to incorporate into similar programs (e.g., First Nations Remotes)
- Currently working with IESO Community Energy Champions within First Nations Communities to support direct community engagement



Impact Approach

- Review of Program Data
 - Verification of reported savings calculation
- In-Service Rates (ISR) and Hours of Use (HOU) Analysis
 - ISR values were applied to verified savings calculations
 - HOU updates applied to certain measures
- Desk Reviews
 - Used entire population
 - Developed Realization Rates to apply to reported savings



Impact Evaluation-Results

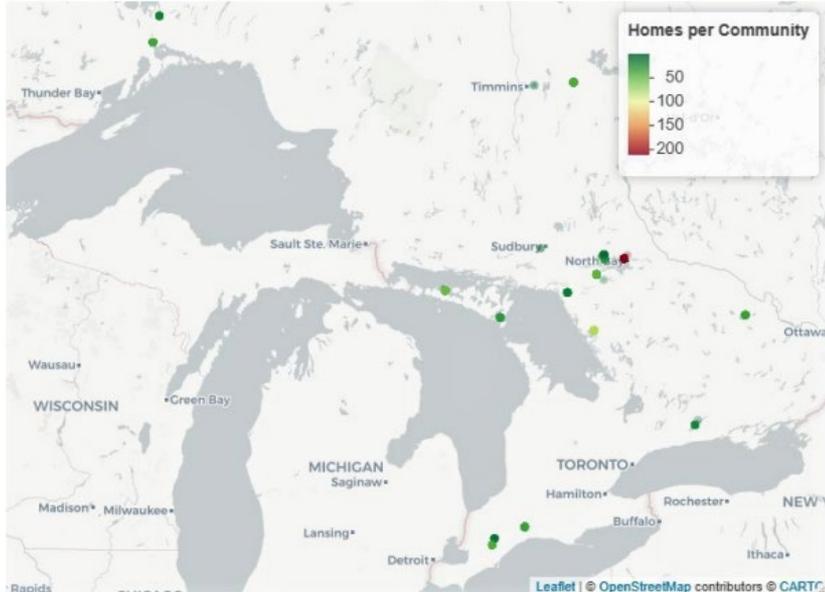
Metric	Units	Evaluated
Participation	Projects	784
Participation	Homes	718
Reported Energy Savings	MWh	964
Reported Demand Savings	MW	0.07
Gross Energy RR		0.63
Gross Demand RR		0.83
Gross Verified Energy Savings	MWh	607
Gross Verified Demand Savings	MW	0.06
Net-to-Gross (NTG) Ratio	--	1.00
Net Verified Annual Energy Savings (First Year)	MWh	607
Net Verified Annual Demand Savings (First Year)	MW	0.06
Net Verified Persisting Energy Savings to PY2022	MWh	607
Net Verified Persisting Demand Savings to PY2022	MW	0.06
Program Administrator Cost (PAC) Test Ratio	--	0.13
Levelized Delivery Cost (Energy)	\$/kWh	0.36
Levelized Delivery Cost (Demand)	\$/kW	3,739

Total number of participating communities: 18



Impact Evaluation-Results

Interim Framework FNCP Participant Home Distribution Across Ontario



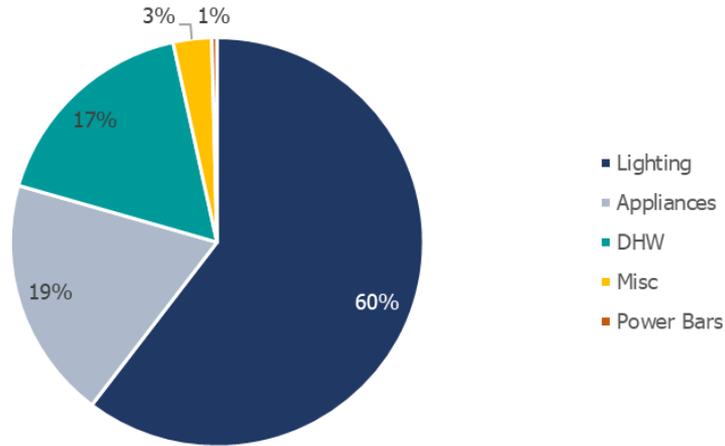
Green dots represent buildings where there are few other FNCP participant projects within the same community, while red dots represent higher densities of participant homes.

North Bay was most represented among FNCP participants. North Bay was also the only community with a building count surpassing 200.

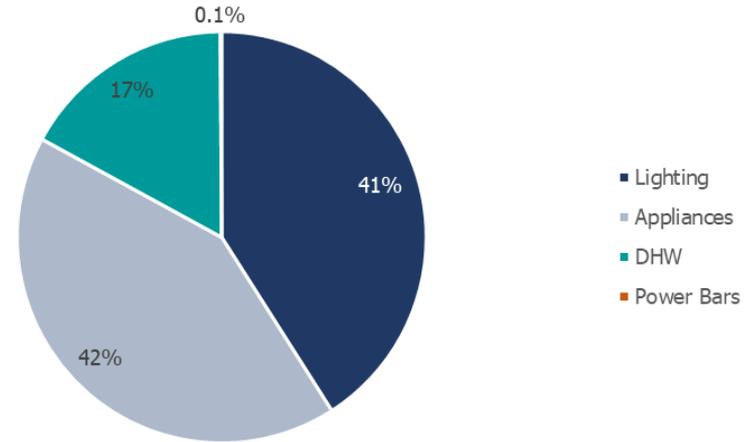


Impact Evaluation-Results

Gross Verified Energy Savings by End-use (kWH/year)



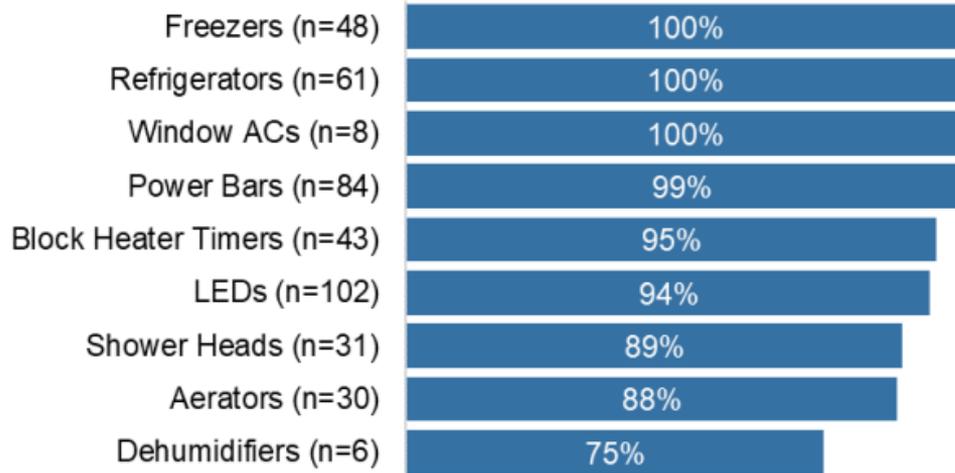
Gross Verified Demand Savings by End-use (kW/year)





Impact Evaluation-Results

Figure 11: Energy-Efficiency Upgrade ISRs



*Does not sum to 100% due to multiple response.

All the **freezers, refrigerators, and window ACs** (100%) respondents received were still installed and functional at the time of the survey.

Nearly all the **power bars** (99%), **block heater timers** (95%), and **LEDs** (94%) respondents received were still installed and functional.

Only three upgrades had ISRs less than 90%: **shower heads** (89%), **aerators** (88%), and **dehumidifiers** (75%).



Impact Findings & Recommendations

The number of projects completed under FNCP during the Interim Framework (2019-2021) was 784. The size of the FNCP program population suggests that this is a relatively small program and participants are hard-to-reach.

Recommendation: Conduct an analysis to understand the potential size of the remaining First Nations population that could be supported by program activities.



Impact Findings & Recommendations

FNCP program tracking does not typically include key characteristics that are collected during audits such as building or equipment type.

Recommendation a. Continue to include variables that can be used to identify unique projects and measures within the tracking data.

Recommendation b. Work with program staff and implementation contractors to incorporate additional details into the tracking data



Cost Effectiveness Results

Ratio	Total Resource Cost Ratio	Program Administrator Cost Ratio	Levelized Delivery Cost/Kwh	Levelized Delivery Cost/kw
Total Interim Framework Results	0.15	0.13	0.36	3,739

- Program follows a modified TRC
- At the measure level, the measures with the highest PAC ratio were measures that served lighting, hot water heating, and plug load end uses.
- The measures with the lowest PAC ratio were appliance measures.



Process Evaluation Results

Figure 5: Factors Influencing FNCP Participation (n=131)

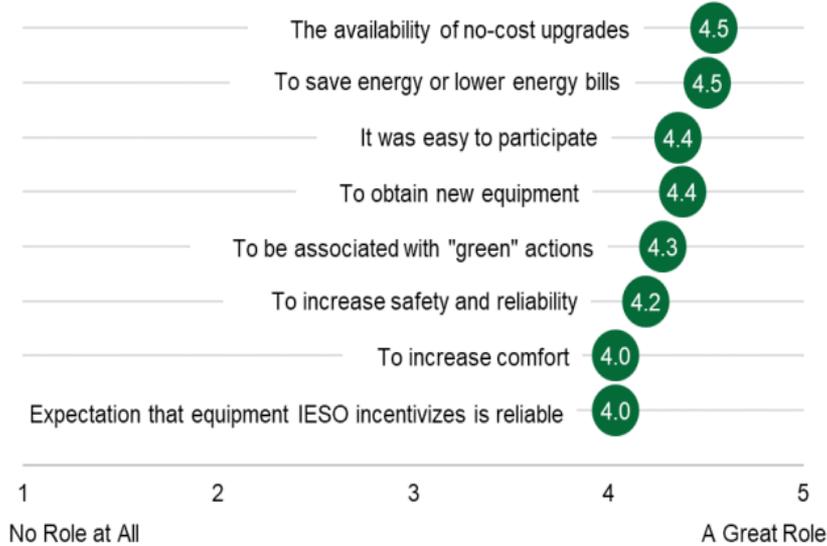
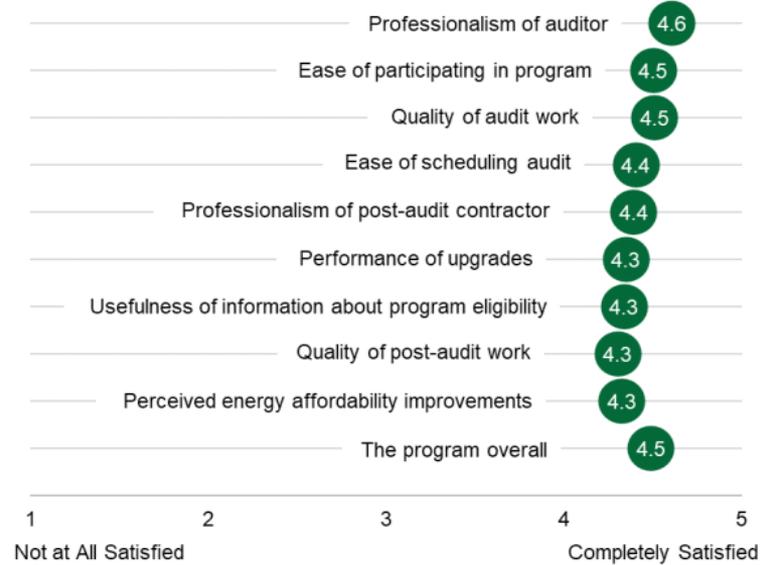


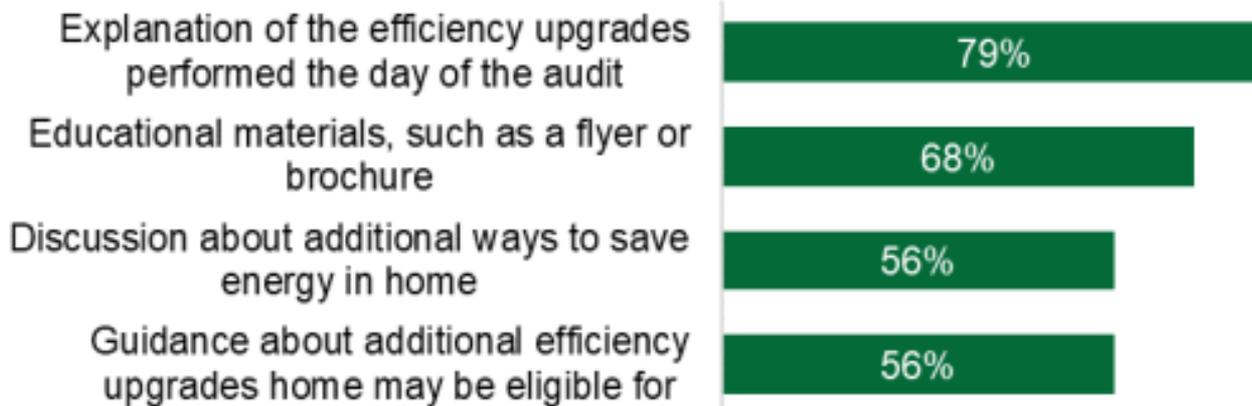
Figure 7: Satisfaction with Program Aspects (n=131)





Process Evaluation Results

What resources were provided by Energy Auditor:

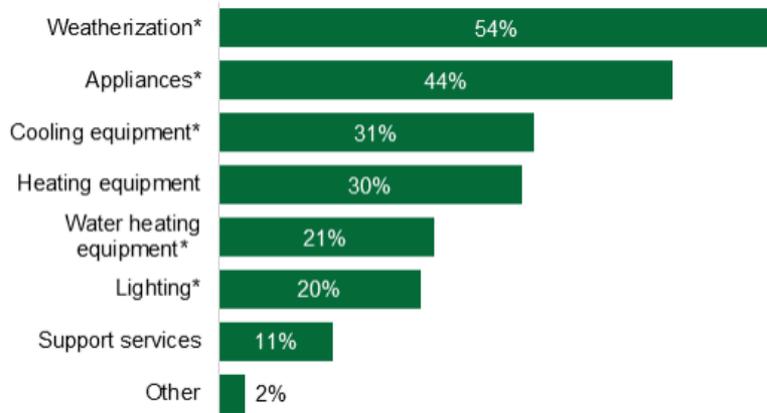


*Does not sum to 100% due to multiple response.



Process Evaluation Results

What additional measures did respondents recommend for the program:



*Some or all the upgrades in this category are already offered by the program.

**Does not sum to 100% due to multiple response.

The most frequently recommended types of equipment not already offered by the program include windows and doors, stoves, water heaters, clothes washers and dryers and fans



Process Evaluation Results

Other key takeaways from Process Evaluation

- Distrust of outside organizations or individuals was a barrier to participation mentioned by both IESO and program delivery partners. To help address this, the program hired local and a First Nations-affiliated delivery partner.
- Other common program barriers identified were a reluctance to replace appliances that had been reliable, to accept new appliance warranty terms, to learn new technologies, or to change the aesthetics of the home



Process Evaluations Recommendations

The FNCP measure offerings are limited compared to other income eligible direct-install programs in IESO territory.

Recommendation a. Weatherization upgrades can provide important savings opportunities and health upgrades for participants.

Recommendation b. Consider offering smart power bar products to eligible FNCP participants in the future.

Recommendation c. Consider offering eligible participants indoor clothes drying racks.

Recommendation d. Consider offering either programmable or smart thermostats for eligible participants.

Recommendation e. Further consider the relative cost effectiveness (CE) of these potential new measures



Process Evaluations Recommendations

Directly engaging with community members is critical to the success of the program.

- **Recommendation:** If the program is offered in the future, continue to hire and train local community members as canvassers, auditors, and contractors and continue to engage with the community through in-person enrollment events.



Conclusion

- 95% of respondents said they were likely to recommend the program to others, factors such as auditor professionalism, ease of engagement in the program, and educational materials were highly rated by participants
- Program measure mix, population reach, data tracking and stronger community engagement were identified as opportunities for the IESO to consider.
- The IESO will continue to incorporate evaluation findings into the current suite of Save on Energy First Nation programs where applicable.
- Link to 2021 FNCP Evaluation report: <https://www.ieso.ca/en/Sector-Participants/Energy-Efficiency/Evaluation-Measurement-and-Verification>



Information Item: Potential Inclusion of Air Source Heat Pumps, See supporting materials

Presenter:

Haneef Ansari, Senior Analyst Program Design - IESO

Purpose

- As part of the 2021-2024 Conservation Demand Management (CDM) Mid-Term Review (MTR), a customer needs review was undertaken (including stakeholder engagement, a jurisdictional scan and primary market research) to identify opportunities to enhance the EAP. One of the opportunities identified was to include cold climate air source heat pumps (ccASHPs).
- The purpose of this update is to share an overview of the IESO's implementation plan for Air Source Heat Pumps.

Guiding Principles — Implementing ASHPs

- Aimed at customers that are most in need:
 - Meet comprehensive support eligibility thresholds; and
 - Only for electrically heated homes
- Enable a positive customer experience, including energy cost savings and comfort;
- Managing IESO program budget limits;
- 100% direct install at no-cost to participants; and
- Be able to meet program implementation timelines.

Proposed Eligibility

To be eligible, participants must:

- Meet comprehensive support eligibility thresholds
- Have primary electric resistance heating, including electric baseboard or furnace, with or without AC cooling

Household Size (including dependents)	Maximum Gross Annual Income
1 occupant	\$55,654
2 occupants	\$67,409
3 occupants	\$79,164
4 occupants	\$90,919
5 occupants	\$102,674
6 occupants	\$114,429
7 or more occupants	\$126,184

Highlights of Offering

- The offering will be available for single family homes, including detached, semi-detached, duplex, triplex and townhouses (allowing flexibility for some social housing)
- The post-weatherization audit will pre-qualify the home for an HVAC assessment;
- Includes annual equipment maintenance for a two-year period following installation (\$275 annually)
- Includes budget for a supplemental electrical panel (i.e., pony panel) if needed (~\$3,000); projected for 10% of participants
- One ccASHP system per home and max number of heads for mini-split system per home (to be determined)

Anticipated Timelines

- The following are the major milestone activities and planned completion dates for the inclusion of ccASHP in the EAP:

Major Milestone Activities	Planned Completion Dates
Engage with the marketplace	Q1 2023
Program Development	March 31
Contractor & Installer Training	Q2/Q3
Participant educational content develop	Q2/Q3
Contractor engagement	On-going
Program Launch	Fall 2023



Discussion Item: EAP Roundtable Participant Survey,
See supporting materials

Presenter:
David Forgione, Advisor, Market Research – IESO

Methodology



Objectives

The IESO commissioned Forum Research to conduct In-Depth-Interviews with current EAP Roundtable members to gain feedback on: 1) the meeting structure, 2) frequency, 3) the quality of information shared, 4) prioritization of program enhancements, and 5) future direction of the EAP Roundtable.

Approach

- In-Depth-Interviews were conducted between February 9th – February 27th
- A total of 10 interviews were completed across the following organization types:
 - Municipalities
 - Government
 - Associations
 - On and off-reserve First Nation Social Services and Housing Agencies
 - Social Housing Providers
 - Conservation Authorities

Key Findings

- According to most EAP roundtable members, the IESO has been successful in structuring meetings, providing detail, updates, and feedback to stakeholders.
- There are opportunities to evolve the roundtable structure to enable more open dialogue and small-group discussions.
- Roundtable members noted strong interest in the streamlined social housing provided application process, and hearing more about the pros and cons of using and installing heat pumps.
- It was suggested that the membership could be expanded to include social services organizations, environmental groups and more Indigenous groups.
- It was recommended that the IESO visit some of the Indigenous and underserved communities as firsthand to engaging with them and establishing a relationship.
- Roundtable members expressed an increasing need for climate change resiliency measures be added to the program.

Discussion Question

- Have we accurately captured your feedback in the summary report?
- Did we miss anything?
- Are there any additional agenda topics for consideration at future meetings?

Meeting Frequency, Length & Sharing of Materials

What We heard:

- Most EAP roundtable members feel the IESO has been successful in structuring meetings, providing detailed updates, and feedback to roundtable members.
- The current quarterly schedule seemed to suffice for most, however, some suggested three meetings a year with a summer break would also work.
- Three hours was the maximum number for most members, providing ample time, and the ability to get through a lot of content.
- Providing agenda and materials at least one week in advance of the meetings is working well.

Opportunities for Improvement:

1. Clearly delineate what materials are must reads, items requiring feedback/discussion, and those for review only, etc.
2. Provide the names of speakers or those delivering information for each item in advance so that Roundtable members can associate agenda topics with speakers.

Meeting Structure & Format

What We Heard:

- Overall members report that the meetings are well organized and informative.
- At times the Roundtable format feels overly structured and seemed more like a check-in more than a dialogue. Some felt that this limited opportunities to ask questions, and explore different perspectives or push the boundaries about what is possible.
- Some members expressed that although virtual meetings are convenient, they felt that eliciting feedback was “tricky”.
- Some did like the in-person meetings before the pandemic as there was a higher level of engagement and provided an opportunity to have more in-depth discussions.

Opportunities for Improvement:

1. Allow more time for discussion at the end of the meetings to foster open dialogue and perspectives.
2. Organize smaller break-out sessions to facilitate more detailed discussions.
3. Consider organizing at least one in-person session a year.
4. Consider creating smaller working group on specific topics where stakeholders can provide their experience and knowledge to help the IESO develop solutions and/or program enhancements.

Membership & Sector Representation

What We Heard:

- There was an observation that IESO has improved upon their membership over time.
- Roundtable members felt that there is good collaboration between members and representation from the sector.
- There was an observation that there are too many observers in the meetings.
- Roundtable members expressed an interest in hearing more about the policy objectives of the Ministry and OEB.
- There is interest in hearing perspectives from other provinces about how they are delivering programs to low income households.
- There is interest in gaining a more detailed perspective from program participants to highlight the voice of the customers.

Opportunities for Improvement:

1. It was suggested that the membership could be expanded to include the following:
 1. Community and social services agencies – LEAP and ODSP
 2. More Indigenous groups
 3. Environmental organizations
2. Explore how to provide more information on the customer perspective to highlight the voice of the customer.

Quality of Information Provided

What We Heard:

- Most of the EAP roundtable members felt that they received a sufficient level of detail via PowerPoint decks and/or verbally.
- There was a consensus that the information was not overly detailed or lacking in detail.
- There was also the view that the IESO could do a better job explaining things in layman's terms.
- There is also the view that IESO could do a better job providing and explaining statistics.

Opportunities for Improvements:

1. Spend additional time going through program statistics and technical details.
2. Consider providing marketing materials for distribution within communities.
3. Provide more information on how the program will be delivered to on-reserve First Nations.
4. Invite speakers from other jurisdictions to speak about their programs and/or best practices.
5. Provide more detail on program delivery activities throughout the province.

Feedback on Planned Program Enhancements

What We Heard:

- Generally respondents agreed the IESO is on the right track with the enhancement being pursued.
- A top priority for many is the streamlined social housing application process to create a one- window approach (rather than having to apply to both Retrofit and EAP).
- There is strong interest in heat pump technology for both heating and cooling. Many of the EAP members wanted to hear more about the pros and cons of using heat pumps and real-world implementation of heat pumps.
- Training and education of on-site staff, especially in social housing, was seen as a missed opportunity.

Opportunities for additional Program Enhancements :

1. Accelerate the streamlining of the social housing application process or provide clear timelines as to when the enhancement will be implemented.
2. Provide more details on the pros and cons of heat pumps, and guidance on implementation.
3. Consider offering training, education and awareness to on-site staff of Social Housing Providers and possibly community members.

Reaching Underserved Communities

What We Heard:

- Respondents mentioned a lack of auditors across the province, especially in rural areas.
- “Doing enough” to reach underserved communities is a big task, and it was suggested that the IESO work directly with local partners.
- Visiting communities could be seen as a first step to engaging with underserved communities.
- Respondents mentioned that low income and marginalized communities have increased vulnerability to climate change which is currently not being addressed.

Opportunities for Improvement to better reach underserved communities:

1. Develop a suite of resilience and adaptation measures to help vulnerable and marginalized communities better adapt to climate change, specifically to address heat stress in summer months.
2. Develop a strategy for reaching communities outside of Toronto and the GTHA and partner with local organizations to enhance delivery.
3. Consider translating EAP documents into more languages like Hindi and Mandarin, etc. to increase accessibility.
4. Provide more information on both the IESOs and delivery vendors community engagement strategies and action plans.

Future Topics for EAP Roundtables

Roundtable members suggested the following topics for future Roundtable meetings:

- How to implement efficient electrification in buildings and homes;
- Effective ways to deliver EAP in multi-family buildings (MURBs);
- Approaches to enhance tenant education and awareness;
- Provide details on delivery strategies to increase participation;
- How to plan for climate resilience in neighborhoods and communities. In particular, how to provide more cooling to vulnerable and marginalized communities to avoid excess heat deaths;
- Provide more details on First Nations programming and invite First Nations speakers to Roundtable meetings; and
- Provide details on how IESO's funding mechanisms are developed.

Next Steps

1. The IESO will review and prioritize the list of opportunities identified and develop an action plan; and,
2. The IESO will provide a report back, at the next EAP Roundtable on the action plan, including any progress achieved.