

**NOVEMBER 28, 2019**

# Retrofit Update, Achievable Potential Study and Q&As

**Retrofit Webinar**



# Agenda

- About the IESO and Save on Energy programs
- Retrofit Program Update
- Achievable Potential Study
- Your Questions
- Webinar Q&A Session

# IESO: Who We Are and What We Do



Reliably operate Ontario's province-wide system 24/7



Support innovation



Create electricity market efficiencies



Work closely with communities to explore sustainable options



Plan for Ontario's future energy needs



Enable province-wide energy efficiency

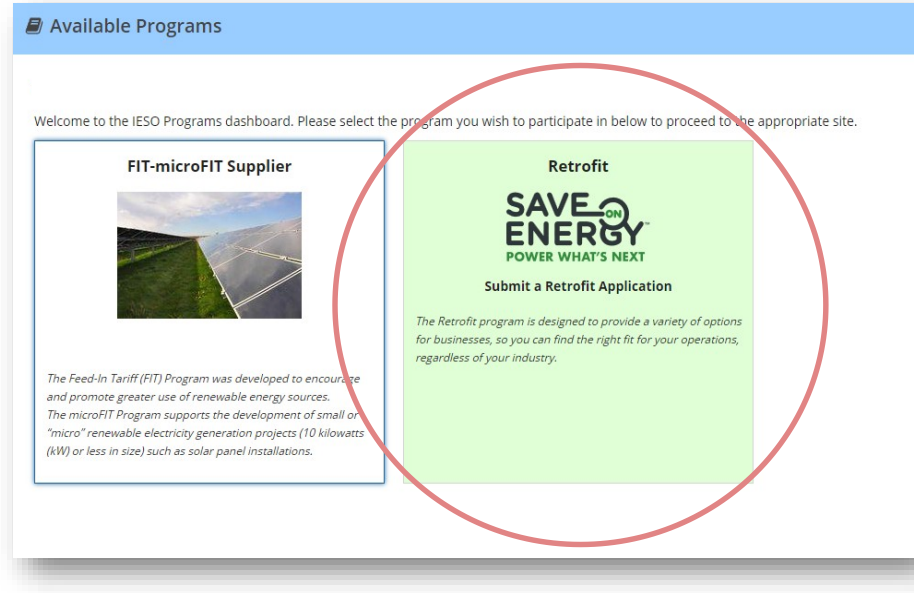
# 2019-2020 Energy Efficiency Interim Framework

- The IESO is delivering a suite of energy-efficiency programs from April 1, 2019, to December 31, 2020, with support of various delivery partners
- Focused on reducing the cost of program delivery, while ensuring the availability of energy efficiency to support consumers and the electricity system



# The Retrofit Portal

- Retrofit Portal is used to submit Retrofit Applications and is accessible through Save on Energy website.
- If you're having trouble accessing, or have questions, call 1-844-303-5542 or email [retrofit@ieso.ca](mailto:retrofit@ieso.ca)




The screenshot shows the 'Available Programs' section of the IESO Programs dashboard. The page has a blue header with the text 'Available Programs'. Below the header, a welcome message reads: 'Welcome to the IESO Programs dashboard. Please select the program you wish to participate in below to proceed to the appropriate site.' There are two program cards. The first card is titled 'FIT-microFIT Supplier' and features an image of solar panels. The second card is titled 'Retrofit' and features the 'SAVE ON ENERGY' logo with the tagline 'POWER WHAT'S NEXT'. Below the logo, it says 'Submit a Retrofit Application' and provides a description: 'The Retrofit program is designed to provide a variety of options for businesses, so you can find the right fit for your operations, regardless of your industry.' A red circle is drawn around the 'Retrofit' card.

**Available Programs**

Welcome to the IESO Programs dashboard. Please select the program you wish to participate in below to proceed to the appropriate site.

**FIT-microFIT Supplier**



*The Feed-In Tariff (FIT) Program was developed to encourage and promote greater use of renewable energy sources. The microFIT Program supports the development of small or "micro" renewable electricity generation projects (10 kilowatts (kW) or less in size) such as solar panel installations.*

**Retrofit**

**SAVE ON ENERGY**  
POWER WHAT'S NEXT

**Submit a Retrofit Application**

*The Retrofit program is designed to provide a variety of options for businesses, so you can find the right fit for your operations, regardless of your industry.*

# Past IESO Webinars for Retrofit

- Our monthly webinar series is available online at [SaveOnEnergy.ca](https://www.saveonenergy.ca). Previous webinars have provided information on a variety of topics.
- **August:** Retrofit 101 – top tips for a smooth application process
- **September:** Answers to the help desk's most asked questions and invoice requirements
- **October:** Retrofit application process and unique selling features of the program



## Resources and support

Take advantage of our [Retrofit training and resources](#) to help you successfully complete your project application.



# Retrofit Program

# Retrofit Program

The Retrofit program continues to be a popular option for Ontario businesses, enabling them to upgrade to more energy-efficient equipment.

As we approach the end of the year, now is a prime opportunity to follow up with your customers. This is an opportunity to:

- Follow up on projects you may have quoted on.
- See if your customer is ready to start their project.



## Retrofit Program (continued)

- Help your customer if they've received a request for more information on their application.
- Help your customer process their incentives.

## Retrofit Program – Pre-Approval

In some instances, customers may have open applications that require more information in order to receive pre-approval. This is a great opportunity to help you move projects from concept to completion.

A few notes to consider:

- If your application is submitted with all complete documents, the review time is 2 to 3 weeks.
  - For applications that have been submitted but have not received pre-approval, check to see if you or your customer has received an email request from the technical reviewer asking for missing information.

## Retrofit Program (continued)

- Note: If you have submitted an application and have started the project, you still need pre-approval to ensure that you have the right documentation for post-approval and to confirm how much your incentive could be.

Keep in mind that inactive or dormant applications may be cancelled in the future, so act now.

## Retrofit Program – Post-Approval

- For projects where an application has been submitted and pre-approval granted, now is an ideal time to follow up and keep the momentum going with your customer.
- You can follow up by reminding your customer that they are “leaving energy savings on the table” by not finishing their project and submitting a post-project submission and or invoice for their incentive.
- For applicant representatives, don’t forget to submit all of your paperwork to ensure your customer receives their incentive payment.



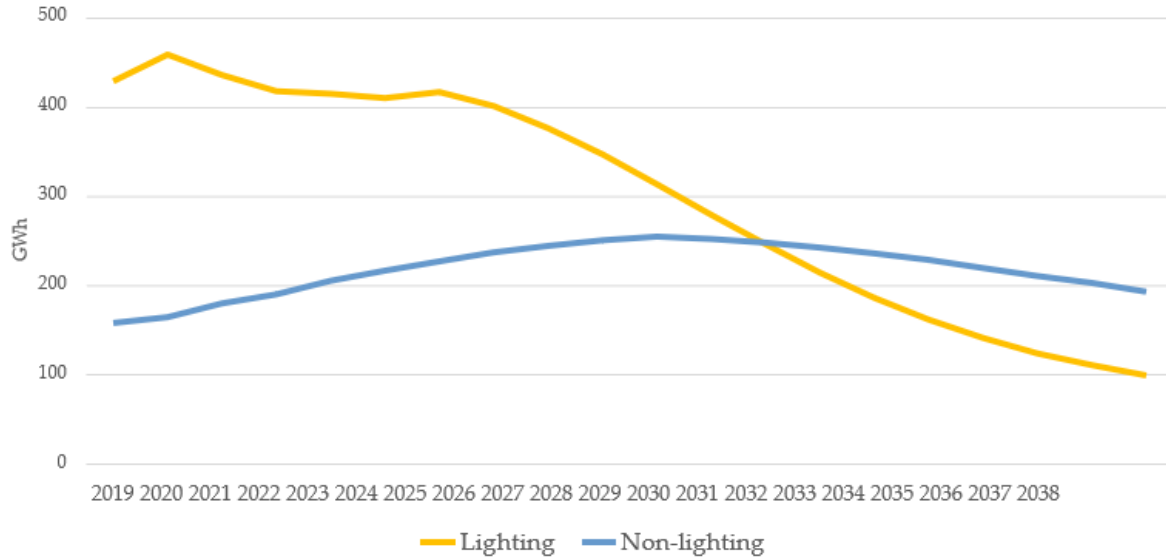
# 2019 Achievable Potential Study

## 2019 Achievable Potential Study

- The IESO released the 2019 achievable potential study, highlighting opportunities for energy efficiency across the province from 2019 to 2038.
- This study shows that energy efficiency will continue to be a cost-effective resource for the province's power system, and also provides valuable insights to channel allies on what types of potential exist.
- The full study is available for download at [IESO.ca](https://www.ieso.ca), and provides insights into both electric and gas saving opportunities.

# Commercial Sector Potential (Lighting and Non-Lighting)

Maximum achievable first year energy savings over time



# Commercial Sector by Segment and End Use

## Lighting

Highest end use potential

## Whole building and ventilation

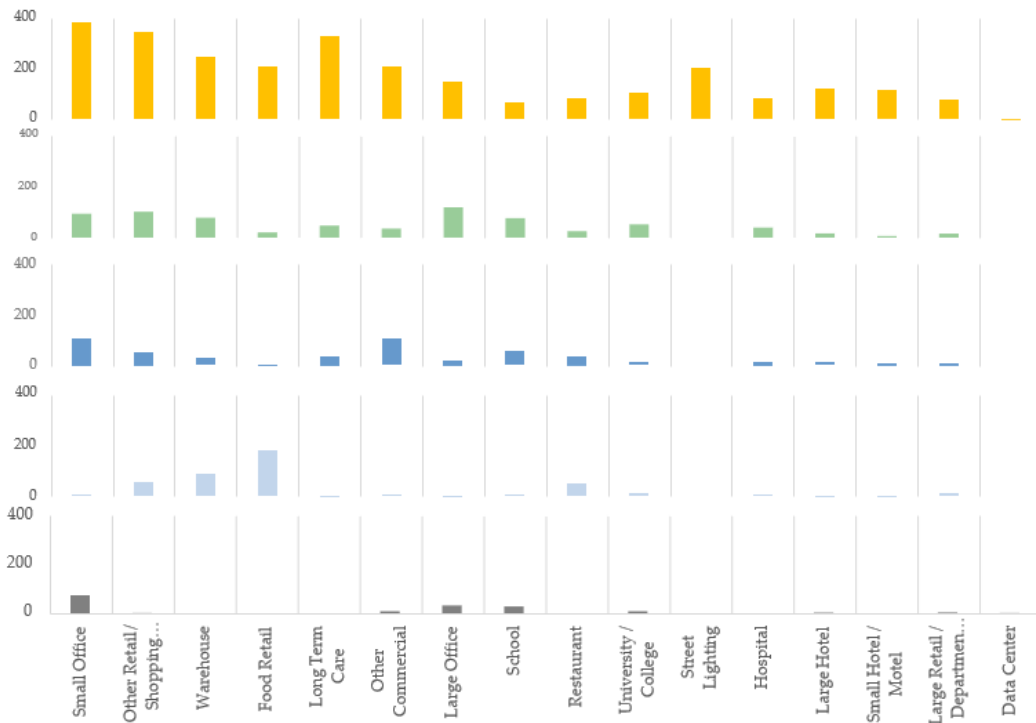
## Space heating and cooling

## Refrigeration

Highest in retail, warehouses and restaurants

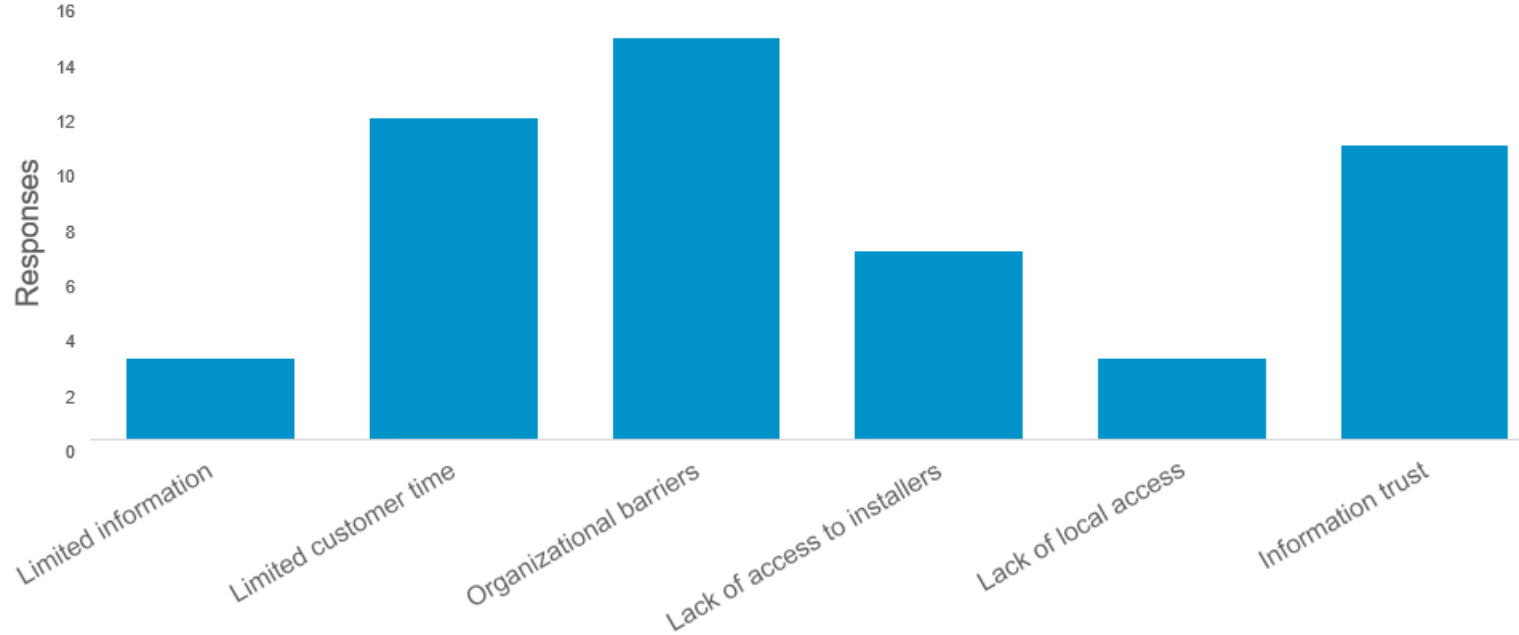
## Plug load

Highest in large and small offices and schools

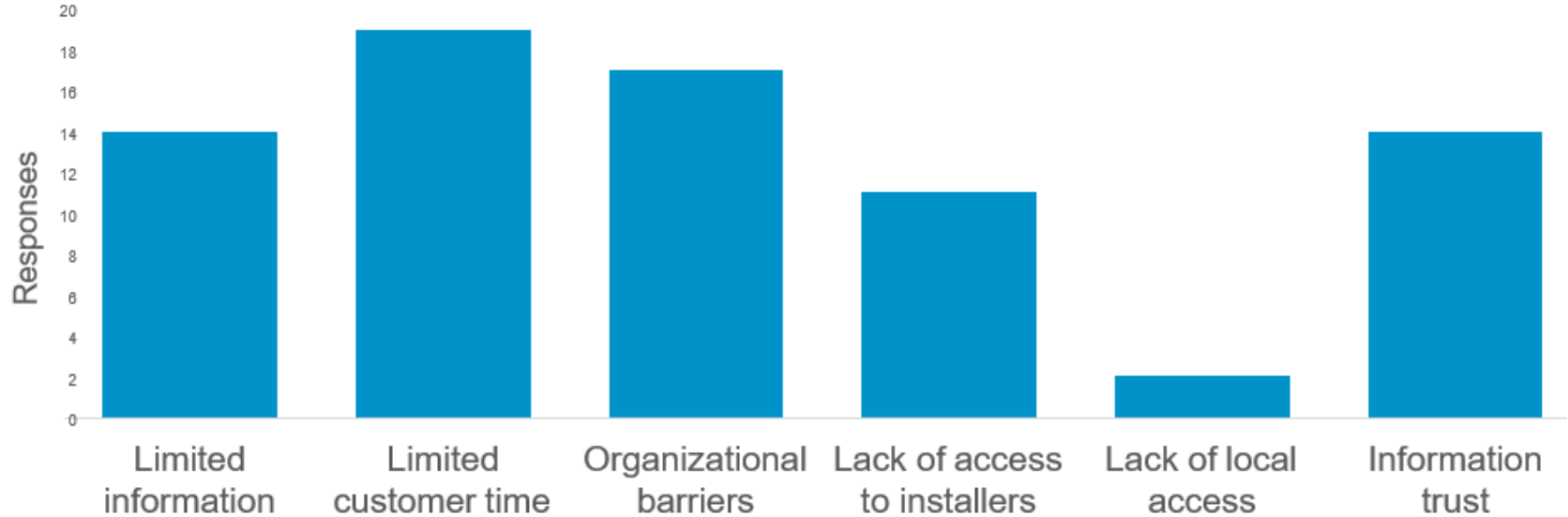




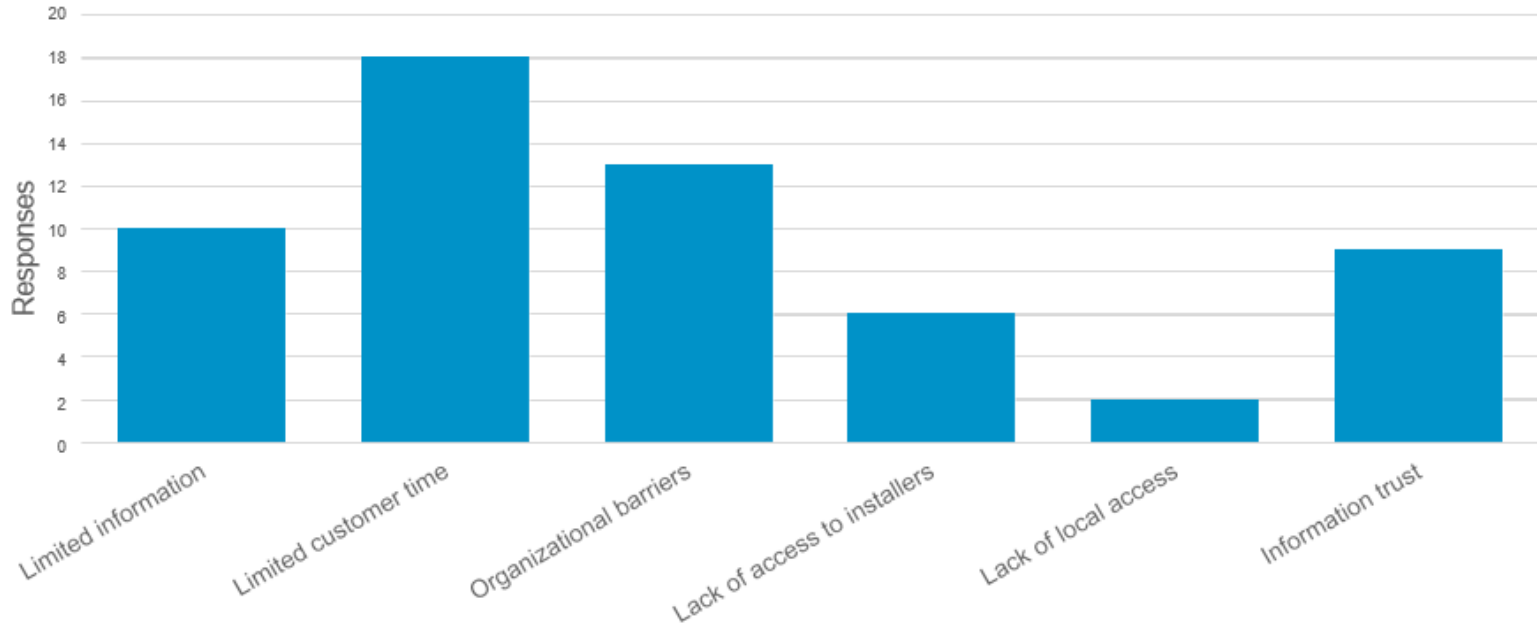
# Commercial Sector Market Barriers – LED Adoption



# Commercial Sector Market Barriers – Advanced Controls



# Commercial Sector Market Barriers – Heating Equipment



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# Your Questions

# Your Questions

## **What are some HVAC-specific opportunities?**

The Retrofit program provides many opportunities for upgrades to HVAC equipment. A few of these upgrades include:

- Incentives for rooftop units (RTU)
- Variable Speed Drives (VSD) / Variable Frequency Drives (VFD)
- Occupancy sensors that can control HVAC systems

# Your Questions (continued)

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Ballast Factor (As Specified)			
Lamp Type	Lamp Qty	Ballast Factor	Input Wattage
4' - T8 32W	1	0.95	35
	2	0.99	74

**T8 Lamps - Magnetic Rapid Start Ballast**

Normal Ballast Factor			
Lamp Type	Lamp Qty	Ballast Factor	Input Wattage
4' - T8 25W	1	0.88	23
	2	0.88	46
	3	0.88	67
4' - T8 28W	1	0.88	26
	2	0.88	52
	3	0.88	76
4' - T8 30W	1	0.88	98
	2	0.88	28
	3	0.88	81
4' - T8 32W	1	0.88	105
	2	0.88	30
	3	0.88	59

**T8 Lamps - Electronic Instant Start Ballast**

Normal Ballast Factor			
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4' - T8 25W	1	0.88	23
	2	0.88	46
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	4	0.88	98
4' - T8 30W	1	0.88	28
	2	0.88	55
	3	0.88	81
	4	0.88	105
4' - T8 32W	1	0.88	30
	2	0.88	59
	3	0.88	86
	4	0.88	112

Low Ballast Factor			
Lamp Type	Lamp Qty	Ballast Factor	Input Wattage
4' - T8 25W	1	0.78	22
	2	0.78	40
	3	0.78	59
	4	0.78	77
4' - T8 28W	1	0.78	25
	2	0.78	45
	3	0.78	67
	4	0.78	86
4' - T8 30W	1	0.78	26
	2	0.78	48
	3	0.78	71
	4	0.78	92
4' - T8 32W	1	0.78	28
	2	0.78	51
	3	0.78	75
	4	0.78	98

High Ballast Factor			
Lamp Type	Lamp Qty	Ballast Factor	Input Wattage
4' - T8 25W	1	1.20	32
	2	1.20	61
	3	1.20	89
4' - T8 28W	1	1.20	36
	2	1.20	69
	3	1.20	100
4' - T8 30W	1	1.20	39
	2	1.20	73
	3	1.20	107
4' - T8 32W	1	1.20	41
	2	1.20	78
	3	1.20	114

**T8 Lamps - Electronic Instant Start Ballast (High Efficiency)**

Normal Ballast Factor			
Lamp Type	Lamp Qty	Ballast Factor	Input Wattage
4' - T8 25W	1	0.88	22
	2	0.88	43
	3	0.88	65

Low Ballast Factor			
Lamp Type	Lamp Qty	Ballast Factor	Input Wattage
4' - T8 25W	1	0.78	20
	2	0.78	37
	3	0.78	55

High Ballast Factor			
Lamp Type	Lamp Qty	Ballast Factor	Input Wattage
4' - T8 25W	1	1.20	30
	2	1.20	58
	3	1.20	87

# Your Questions (continued)

**Is there information on what ballast tables are being used as some reviewers are rejecting wattages on the engineered ballast table?**

Project worksheets are available on the [SaveOnEnergy.ca](http://SaveOnEnergy.ca) website. Look for the engineered lighting worksheet, which will provide information on ballast tables.

T8 Lamps - Magnetic Rapid Start Ballast

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# Your Questions (continued)

## How do I apply?

To help understand the application process, we've created an infographic that outlines the steps and timelines for approvals. You can also refer back to our October 31<sup>st</sup> webinar where we walked through the application process. Here is the download to the infographic – [Application Process](#).





# Helpful Resources

## Call Centre

1-844-303-5542 or [retrofit@ieso.ca](mailto:retrofit@ieso.ca)

## Immediate Support

- General Program Info
  - rules, eligibility, framework nuances
- Technical Support
  - retrofit portal navigation, login troubleshooting
- Application support
  - custom calculations, support with M&V plans



# Questions

Please type any questions you have into the Q&A field



# Thank You

We will return in the new year with more webinars.