

ComEd Emerging Technologies

Update on Income Eligible Projects

2/8/19 – Mark Milby, Noel Corral & pilot vendors

Agenda

- ✓ Background on ComEd Emerging Tech
- ✓ Updates on 2 Income Eligible projects
 - All-Electric Multifamily Ductless Heat Pumps
 - Affordable Multifamily Passive House
- ✓ Update on 2018 *Call for Ideas* solicitation
- ✓ Updates on selected *Call for Ideas* projects
 - Health & Energy Efficiency projects
 - High Energy User Needs Assessment

What is Emerging Tech?

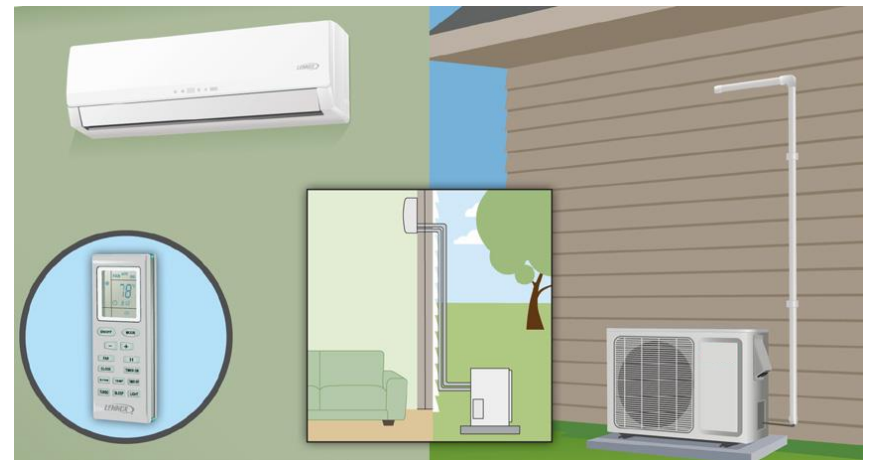
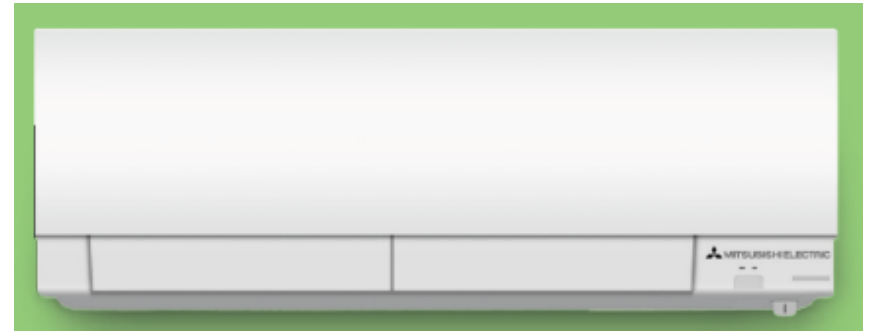
- ✓ FEJA permits ComEd to spend a certain portion of its Energy Efficiency budget for “research, development or pilot deployment of new equipment or measures.”
- ✓ Identify, test, validate and integrate the next generation of energy efficiency technologies and program delivery strategies into the ComEd portfolio

Why Emerging Tech?

- ✓ Reasons R&D is needed:
 - Expand engagement of income eligible, public sector and public housing customers
 - New FEJA-mandated energy savings goals
 - Baselines are rising, removing low hanging fruit
 - Find new technologies and solutions that appeal to customers and save energy

Ductless Heat Pumps

- ✓ Partners: CMC Energy, Franklin Energy
- ✓ Pilot to evaluate performance, recruitment & costs of high performance cold climate ductless heat pumps
- ✓ 80 heat pumps have been installed in 7 low-rise, multi-family buildings with income eligible residents
- ✓ Help to understand customer experience with the technology
- ✓ Potential to better understand this technology in our climate zone



Ductless Heat Pumps



Ductless Heat Pumps



Ductless Heat Pumps



Passive House

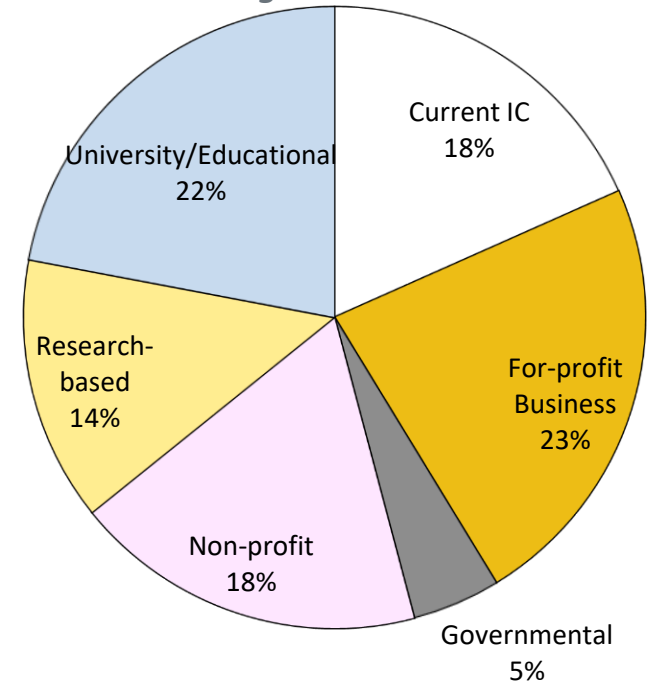
- ✓ Partners: LUCHA, Slipstream
- ✓ *Passive House* demonstration project with local developer
- ✓ Affordable multifamily development with standard new construction comparison
- ✓ Analyzing energy performance, cost data and tenant experience
- ✓ Potential to rethink how ComEd supports affordable housing new construction
- ✓ Construction and resident move-in completed Q4 2018; monitoring and resident surveys across 2019



2018 Income Eligible Call for Ideas

- ✓ Goals: Identify new ideas that can benefit IE customers and cast a wide net to reach new sources of ideas
- ✓ Received 109 ideas in Q2 2018
 - 51 unique organizations representing many new partners for ComEd
 - Over half of the ideas were not tech-focused
- ✓ Down-selected to 21 projects by cross-departmental teams; currently launching and finalizing SOWs
- ✓ Since Q3 2018, the ET team has been working on developing each project
- ✓ As of today, 14 projects launched or in final contracting phase

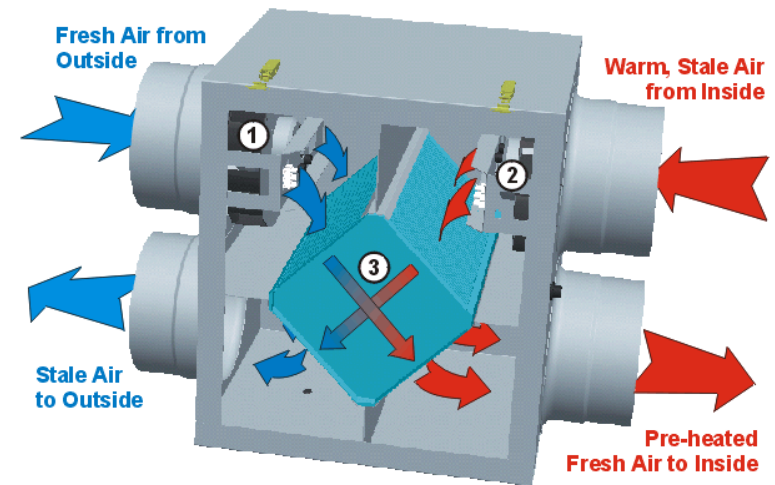
Submissions by Type of Organization



Breathe Easy US HUD Study

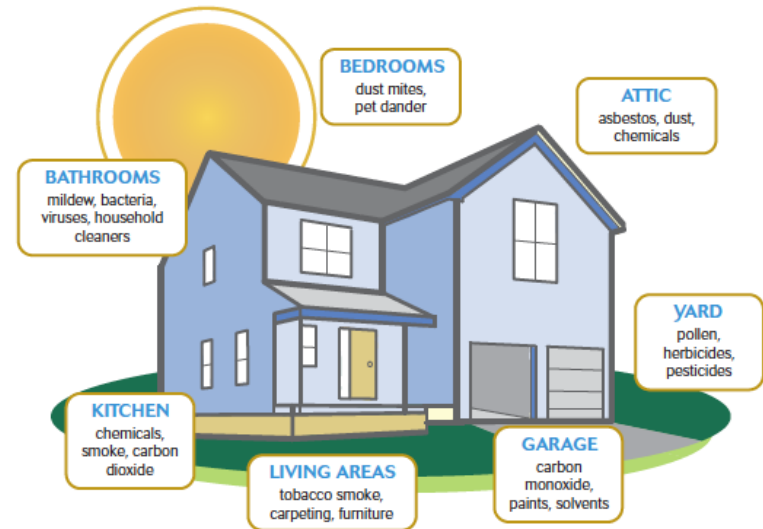
- ✓ Partners: Elevate Energy, IIT, US Dept. of Housing & Urban Development
- ✓ Investigate the effectiveness of three approaches to upgrading residential mechanical ventilation systems in existing homes to reduce indoor pollutants
- ✓ Recruited 44 income eligible homeowners with an asthmatic resident
- ✓ This study will provide the first known data in the U.S. on asthma outcomes associated with different types of ventilation systems
- ✓ All systems will be installed 2/15/2019

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Healthy Homes

- ✓ Partners: Elevate Energy, Green & Healthy Home Initiative, Presence Health System
- ✓ Develop and validate scalable approaches to collaborate with the healthcare industry
- ✓ Joint health-energy assessments and upgrades in 20 units within two multifamily buildings
- ✓ Assessments will focus on asthma triggers and energy efficiency opportunities at same time
- ✓ Two energy assessors trained as Healthy Home Evaluators



Green & Healthy Homes Initiative[®]



ComEd[®]

An Exelon Company

High Energy User Needs Assessment

- ✓ Partner: Evergreen Economics
- ✓ Using energy usage data to identify customers who are Income Eligible and have high energy usage
- ✓ Conduct ethnographic study through surveys and interviews
- ✓ Analyze housing characteristics, geography, energy end uses and resident behaviors/needs
- ✓ Identify factors limiting access to the ComEd Energy Efficiency Program and understand how to better serve this customer segment



Other *Call for Ideas* Pilots

- ✓ Direct Install for Income Eligible Seniors (*launched*)
 - Green Home Experts
- ✓ Tunable LED Lighting for Income Eligible Senior Living Facilities (*in development*)
 - Slipstream Group
- ✓ Using Benchmarking Data to Target Large Multifamily Buildings (*in development*)
 - Institute for Market Transformation, Elevate Energy, City of Chicago
- ✓ **Next month: Webinar overview of all projects**