



Energy Efficiency Program

Incorporating an Upstream and Midstream Strategy in Energy Efficiency

Kelly Gunn & Jim Fay

SAG Upstream Working Group

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Agenda

Mid/Upstream Strategy Development

1. Background
 - Define “Midstream” and “Upstream”
 - Supporting Information & Benchmarking
2. Considerations
 - Opportunities and Challenges
3. Planning Timeline
4. Plan Scope
5. Initiative Updates

EE Mid/Upstream Strategy Development Background

Background

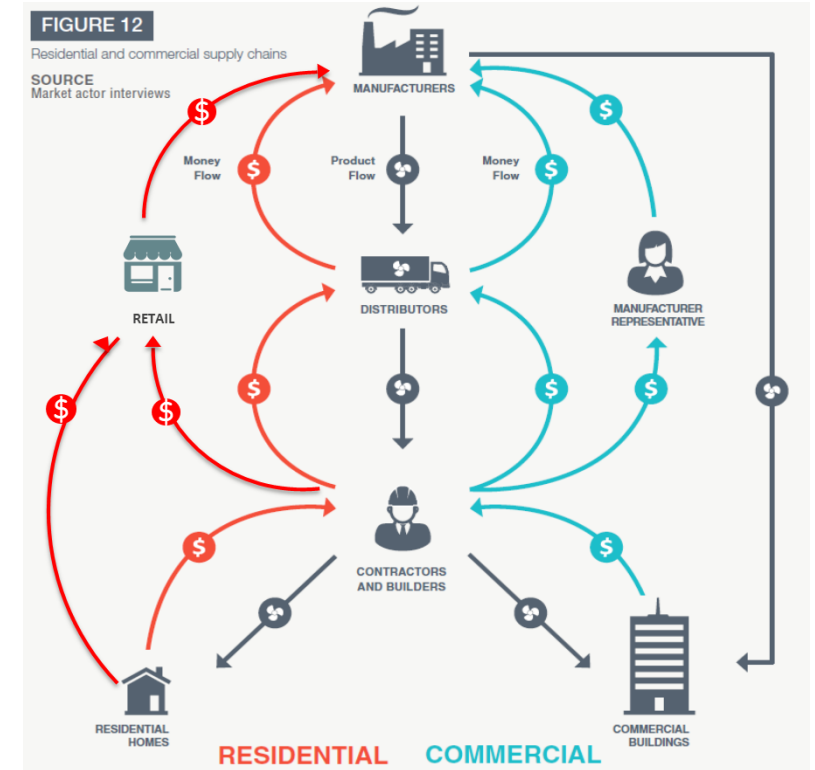
- **Upstream =**
Programs that pay incentives to those who do *not* sell directly to end users (incentives to manufacturers)
- **Midstream =**
Programs that direct incentive payment to those who sell directly to end users (incentives to distributors and/or retailers)
End User: utilizes product or equipment (typically contractors, installers, builders, owners, and res/C&I customers)

In the industry, the term “upstream” is often utilized as a broad term for any incentive channel that doesn’t provide rebates directly to an end user (upstream → moving rebates ‘up the stream’ → anything not downstream)

- **Supply Chain =**
Simplified path of purchase for products/equipment
 - Supply chain shows us the complications in capturing full market sales and potential need for multiple designs



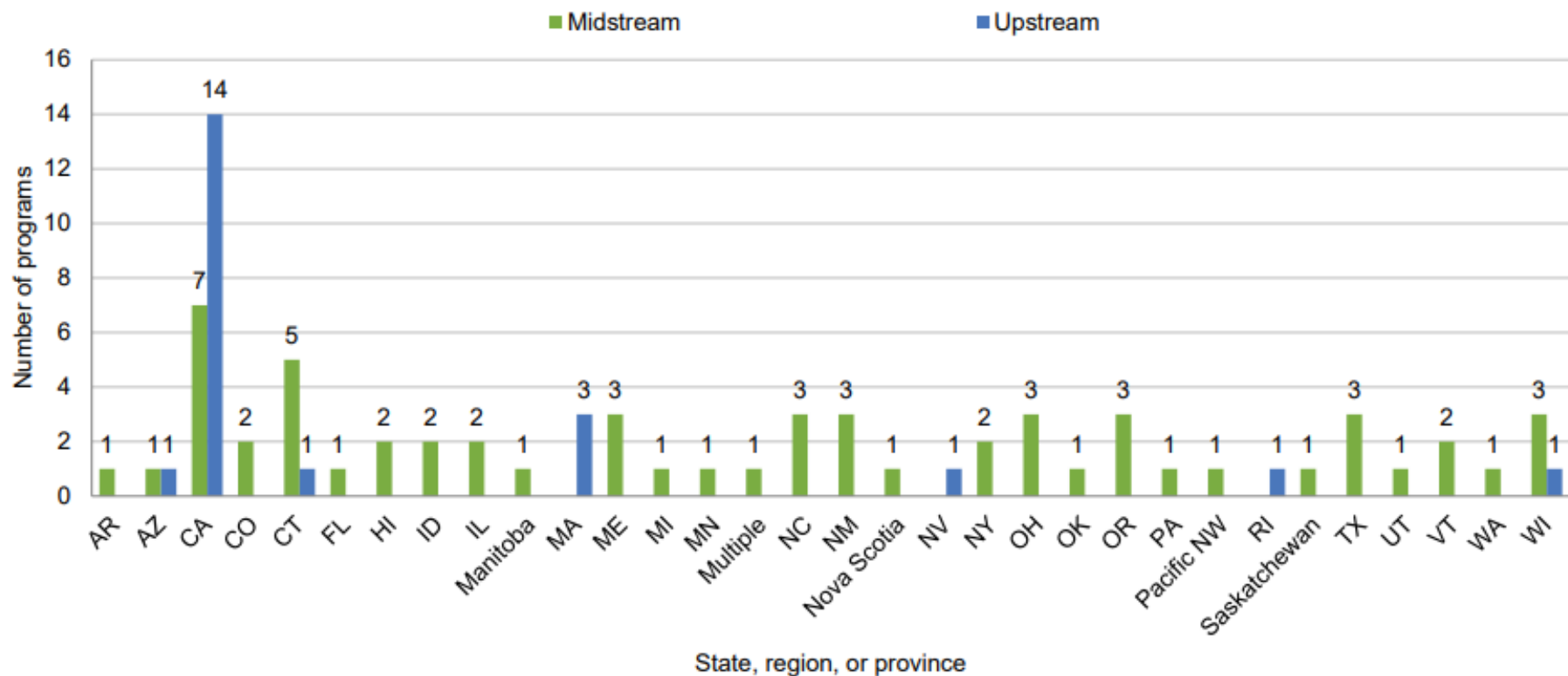
HVAC Supply Chain



*2016 HVAC Market Intelligence Booklet (modified)

Background

Distribution of Utility Midstream / Upstream Programs:

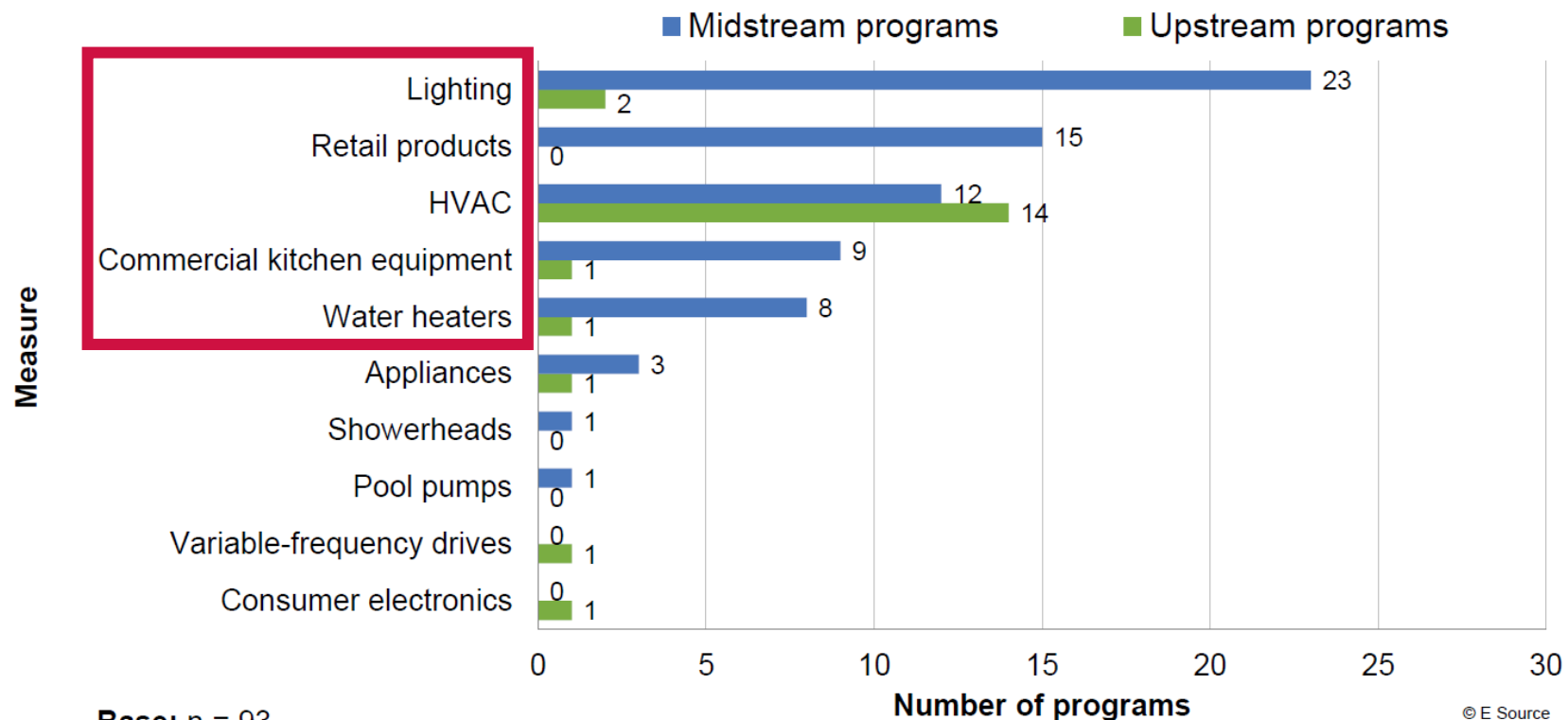


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Source: E Source, 2019
(see final slide references)

Background

Utility Midstream / Upstream Program Types:

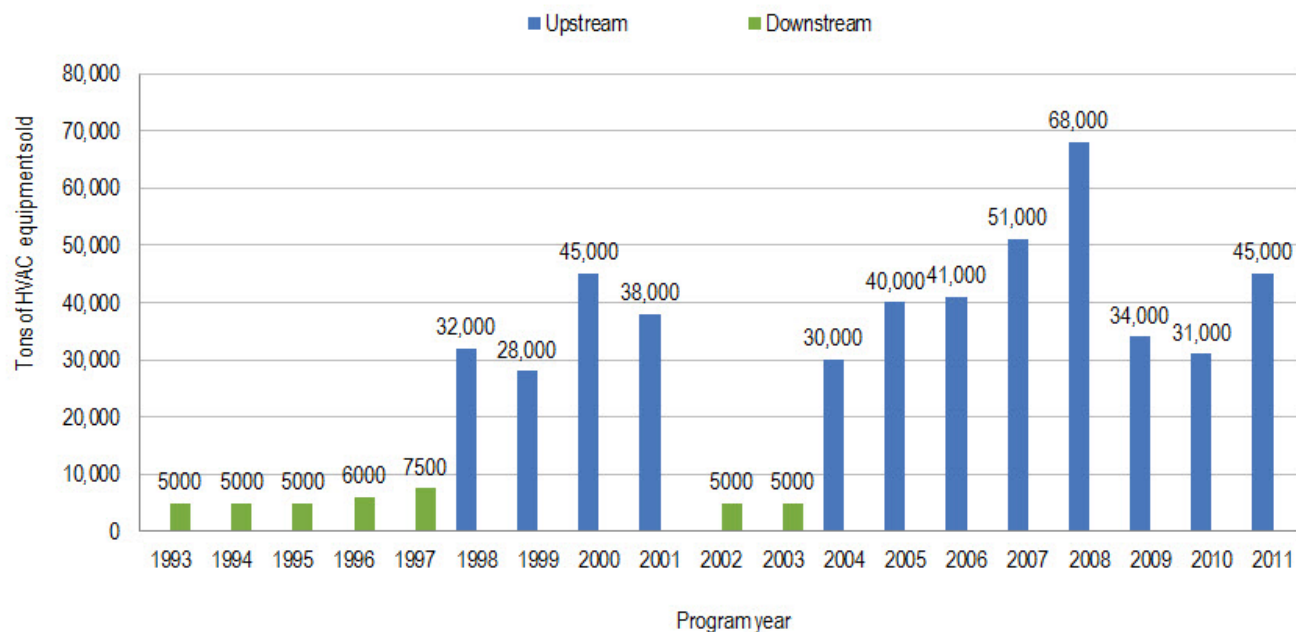


Source: E Source, 2019
(see final slide references)

Background

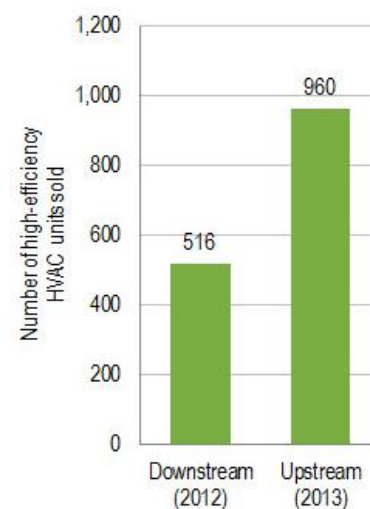
Utility Mid/Upstream Success:

A. California



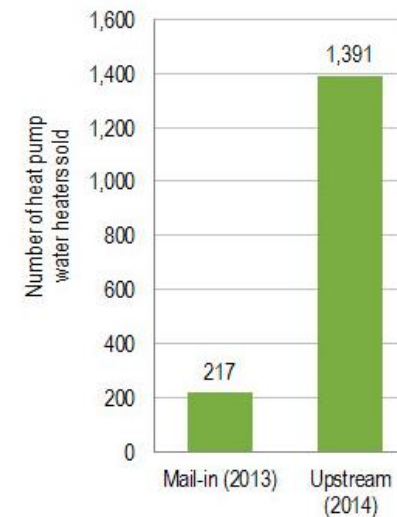
© E Source; data from "Upstream Approaches to Commercial and Industrial Lighting Programs," American Council for an Energy-Efficient Economy

B. Massachusetts



© E Source; data from "The End of Prescriptive Rebate Forms? Massachusetts Moves Upstream," American Council for an Energy-Efficient Economy

C. Connecticut



© E Source; data from American Council for an Energy-Efficient Economy Hot Water Forum

Background

Benchmarking Discussions with Other Utilities:

- Overall Experience
- Keys to Success
- Pitfalls to Avoid
- Timing
- Distributor Pushback



EE Mid/Upstream Strategy Development Considerations

Considerations

Purpose of midstream and upstream programs:

- Capture more market share
 - Facilitate market transformation
 - Simplify the rebate application process
 - Reduce administrative costs
-
- Specifically, all ComEd EE midstream/upstream initiatives must pursue the following two goals on behalf of the EE portfolio:
 - 1. Lower the program delivery costs (\$/lifetime kWh)**
 - 2. Increase program participation**

Considerations

Opportunities and Challenges

Customers

- Addressing the emergency replacement market
- Influencing the new construction market
- Distanced / disconnected from end users

Market Actors

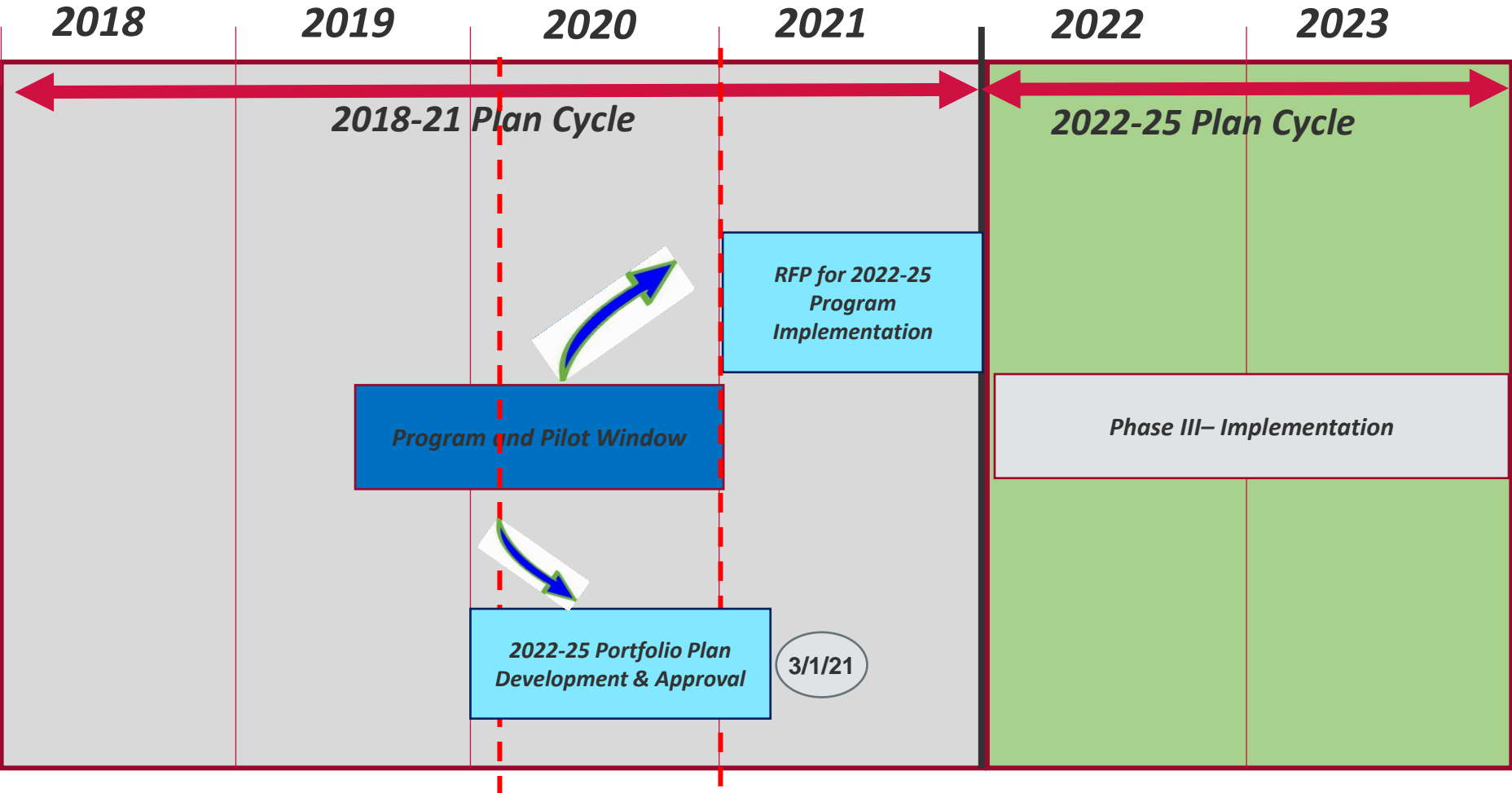
- Improve distributor stocking practices
- Boost program participation
- Drive uptake of higher efficiency equipment
- Restrictions on incentives risk inhibiting distributors
- Limited leverage over HVAC installation quality

Program Management

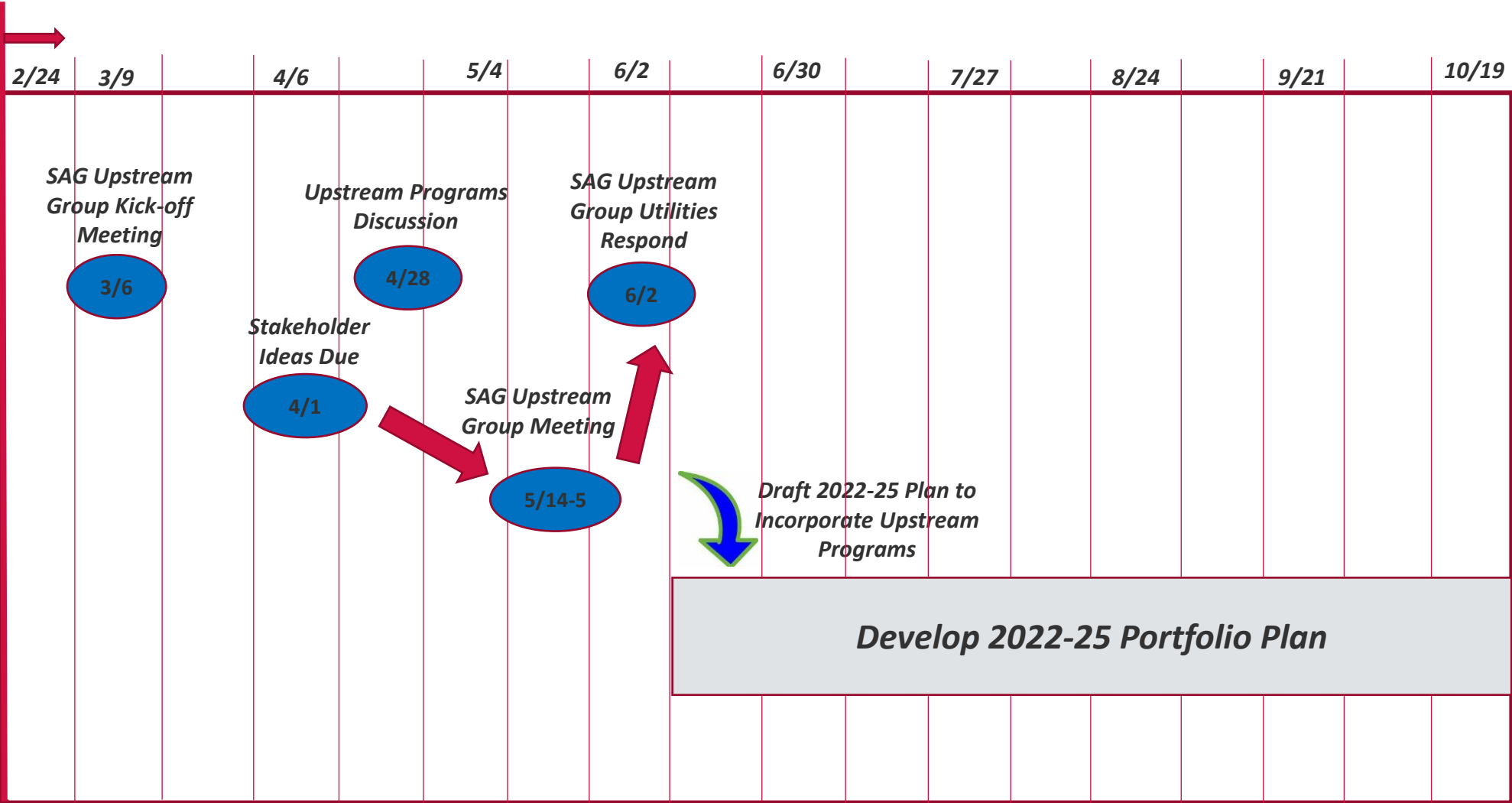
- Distributor unwillingness to share sales data
- Double-counting program savings
- Evaluation risk

EE Mid/Upstream Strategy Development Timeline

Planning Timeline - Long-Term



Planning Timeline - Short-Term

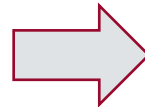


EE Mid/Upstream Strategy Development Scope

Plan Scope

Questions ComEd 2020 pilots & initiatives will answer:

- Do we believe that we can lower cost and increase participation vs. downstream program alternatives?
- Can we create a back office platform and incentive structure that allow distributors to participate?



Questions to answer in ComEd Plan 6 :

- What should be the incentive levels?
- What should be the implementation and program administration cost?
- What participation levels should we expect?

Current EE Mid/Upstream Initiative Update

Commercial Lighting Rebates

- Status: On-going Program Success – underway since 2010
 - Consistently delivers over 200 net GWh/yr with increasing participation
- Lessons Learned:
 - Early lesson learned from starting a midstream channel = anticipate two-year start-up period
 - Meet customer in the channel where they make their purchase
 - Distributor networks driven by entrepreneurs (large, national distributors are slow to sign up and slow to become large players)
 - Specifically in lighting which has a large number of distributors in ComEd service area
- Challenges:
 - Historic all-in cost \$/net kWh slowly increasing (with removal of omnis mid-2019 and strong market interest in TLEDs, a measure with comparatively lower savings/lamp):
 - 2018 \$.060
 - 2019 \$.073
 - 2020 \$.083 (forecast)
 - Evaluation risks & double counting
 - Scaled quickly and never required account numbers
 - Highest level of spillover among programs: ~10%
 - Cross-over with existing ComEd Small Biz offering
 - Higher NTG for LED lighting than standard (not expected from midstream lighting programs)
 - Customer attribution
 - Rebate amount must be on invoice at TOS, but not *required* to carry to customer (building)
 - Still investigating options to make customer aware (specifically purchase through distributor)

Type	% of 2019 Total Incentives
EndUser	64%
Contractor	36%

Foodservice Equipment Rebates (FER)

- Status: Newly launched Pilot
 - Required implementation per FEJA stipulation requirement
 - Joint project with Nicor & Peoples Gas
 - Phase I Launched July 2019: Analysis of Market Structure and Savings Potential & Pilot Design
 - Phase II Launched January 2020: Pilot Implementation
 - Reached target number of participating distributors: 19 to-date
 - Rebate processing underway: 9 complete, 13 in process
- Lessons Learned:
 - Good initial feedback on Platform
 - Identified 3 market segments
 - Independent restaurants (43% of FSE customers), restaurant chains (35%), and institutional (22%)
- Challenges:
 - Big distributors have regional or national focus – work in ComEd territory enough for movement
 - Unique customer challenges:
 - Independent restaurants are notoriously capital-constrained
 - Chains have corporate decision-makers
 - Institutional FSE customers have a more complex decision structure using designers

Residential HVAC Rebates

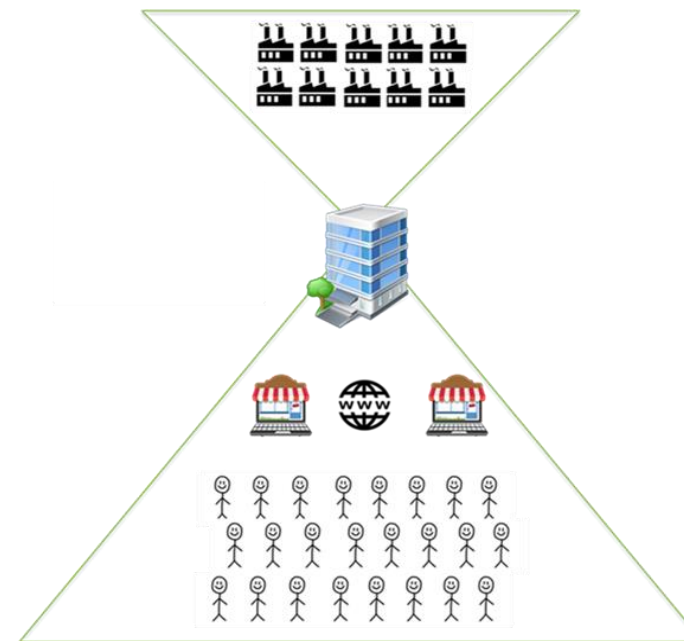
- Status: Newly launched Program Initiative – launched January 2020
 - Residential Central Air Conditioners only (CACs)
 - Initial Program Success: 15 distributors and 14 rebates processed to-date
 - Incentive “fully-passed down” to contractor + admin fee to distributor
 - Contractor not required to pass down incentive
- Objectives:
 - Investigate success to expand to other HVAC measures
 - Compare 2019 vs. 2020 sale data from distributors
 - Collect and understand level of satisfaction with implementation
 - Planned survey to collect feedback from:
 - Distributors: on platform and admin work
 - Contractors: on sales and need for installation information at POS
- Lessons Learned / Challenges to-date:
 - Distributors reluctant to join at start due to data collection and processing requirements
 - But once contractors show interest then influenced to join – may allow for future reduction of admin costs once “up to speed”
 - Customer attribution / experience
 - Investigating how to influence the pass down of rebate for end-use customer benefit
 - Calling customers (small %) during QA/QC and ask about rebate
 - May mail/e-mail “thank you” for purchasing EE CAC, testing how close loop
 - Implementation of QA/QC for midstream – seeking feedback from Guidehouse

Commercial HVAC Rebates

- Status: Program Initiative, final planning underway – planned launch Q2 2020 (April 2020)
 - Commercial Central Air Conditioners only (CACs)
 - 75% of incentive passed down to contractor with remainder to distributor (use as choose – incentive, marketing, admin)
 - Contractor not required to pass down incentive
- Objectives:
 - Investigate success to expand / add other HVAC measures
 - Establish a strong relationship between ComEd Energy Efficiency and commercial HVAC industry – this does not currently exist.
 - Influence distributor stocking practices
 - Distributor profit more off higher cost EE sales, so plan to work on economical benefits for influence
 - Collect and understand level of satisfaction with implementation
- Lessons Learned / Challenges to-date:
 - More hurdles to overcome (vs. comm lighting) due to higher risk stocking EE HVAC equipment
 - Comm HVAC market focuses on 5-10 units – currently no EE CACs are stocked
 - Typical “1 for 1” replacement in Comm HVAC sales
 - Customer attribution / experience

Other Potential Initiatives

- Plumbing –
 - HPWH Not Enough as Stand-alone Measure
 - But Entire EE Plumbing Offerings within Supply Chain may have potential (Recirculation Pumps + HPWHs)
- Appliances –
 - Current Program at Retail
 - Retail Products Platform
 - National Effort with 12+ Utilities
 - Works with Headquarters of National Chains – Lowe’s, Home Depot, Best Buy
 - ComEd Will Pilot in 2020 as Market Transformation
 - RPP Collects Store Appliance Sales Data on All Sales in ComEd Territory
 - Can we Lower Rebates to Retailer?
 - What are Efficiencies of Working Directly with National Retailer?
- Pool Pumps –
 - Collecting Pool Pump Market Analysis Data
 - Above-Ground Pool Pumps Now ESTAR (new for 2020)
 - May Test Upstream Program Model in 2020
 - Federal Efficiency Standards May End Program



Next Steps

- **March – June 2020**

- SAG – Upstream Working Group discussions

- ComEd team: oversee on-going initiatives and provide support for mid/upstream program decisions

- *Must lower the program delivery costs (\$/lifetime kWh) & increase program participation*

- **June 2020**

- Develop & submit first draft (strawman) Plan, including mid/upstream program assumptions

- **Oct 2020**

- Update draft Plan, based on SAG input, with final decisions on mid/upstream program offerings

Questions?

Sources

- **E Source:**

“State of the Midstream DSM Market” posted April 30, 2019:

<https://www.esource.com/10065-005/state-midstream-dsm-market> https://www.esource.com/system/files/esource-state-of-the-midstream-dsm-market_1.pdf

“Commercial Midstream Programs” posted March 22, 2017

<https://www.esource.com/iv-dsm-answer-332/commercial-midstream-programs>