ComEd® Energy Efficiency Program

Incorporating an Upstream and Midstream Strategy in Energy Efficiency

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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

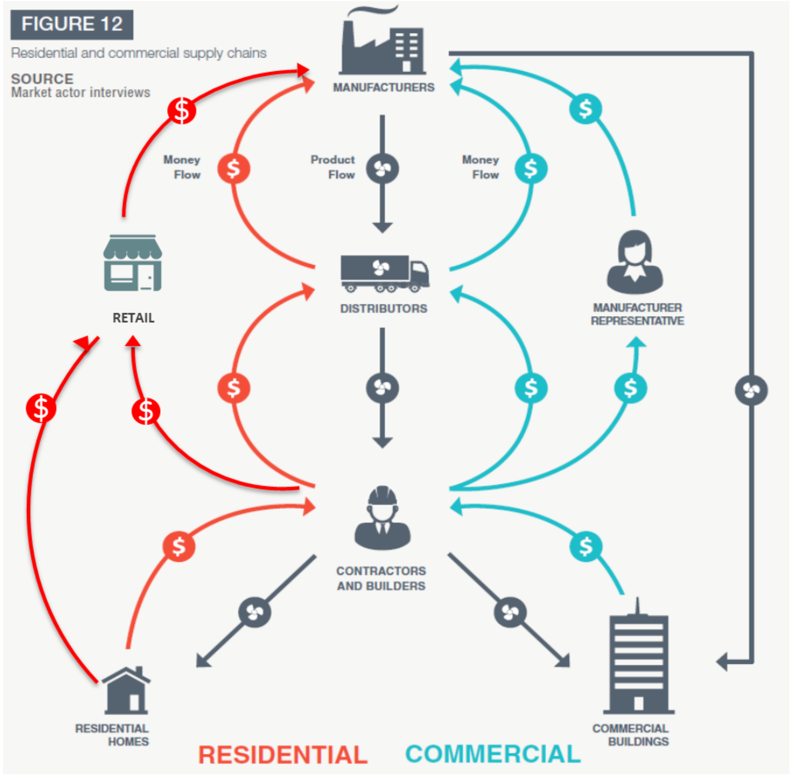
- **Upstream =**
  Programs that pay incentives to those who do *not* sell directly to end users (incentives to manufacturers)
- **Midstream =**
  Programs that direct incentive payment to those who sell directly to end users (incentives to distributors and/or retailers)

  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

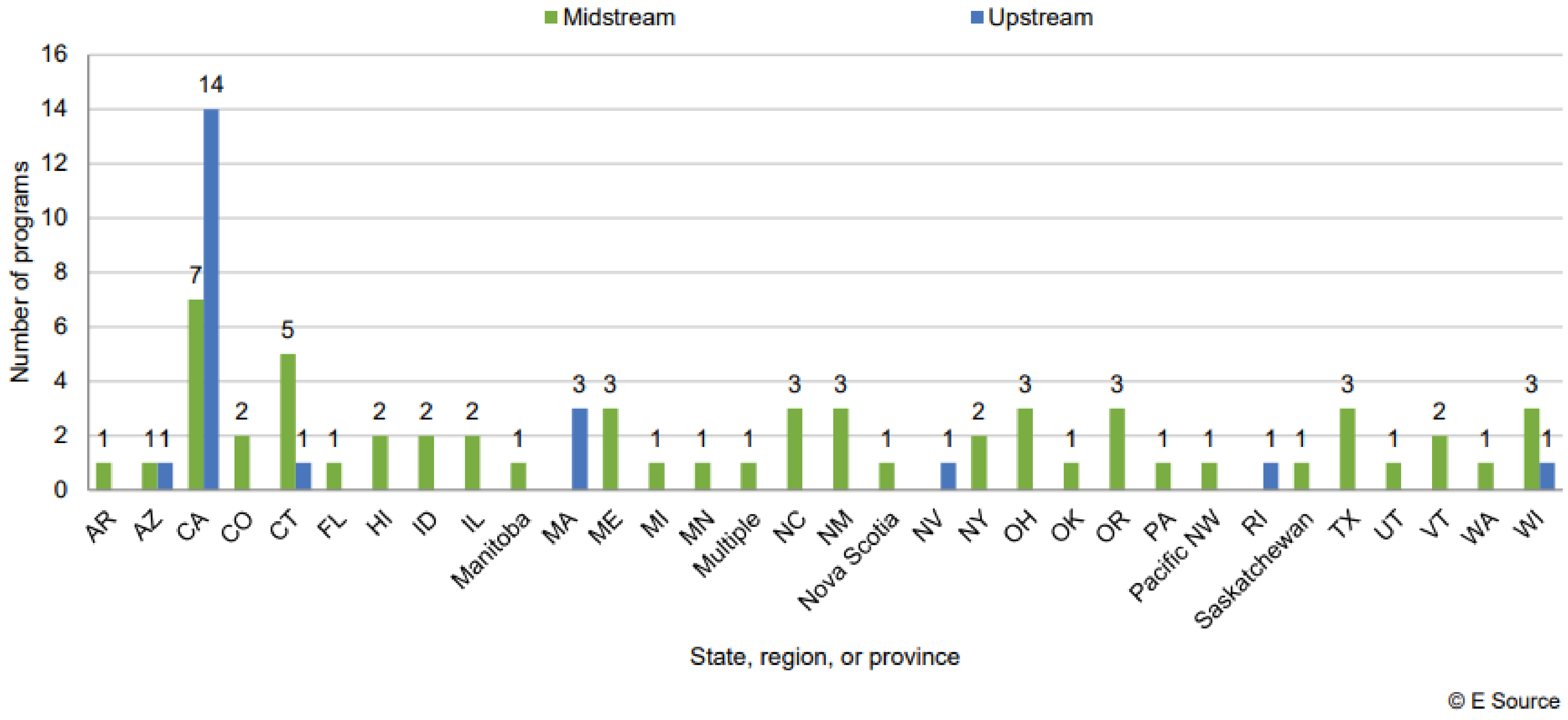
HVAC Supply Chain



**2016 HVAC Market Intelligence Booklet (modified)*

Background

Distribution of Utility Midstream / Upstream Programs:



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

ComEd
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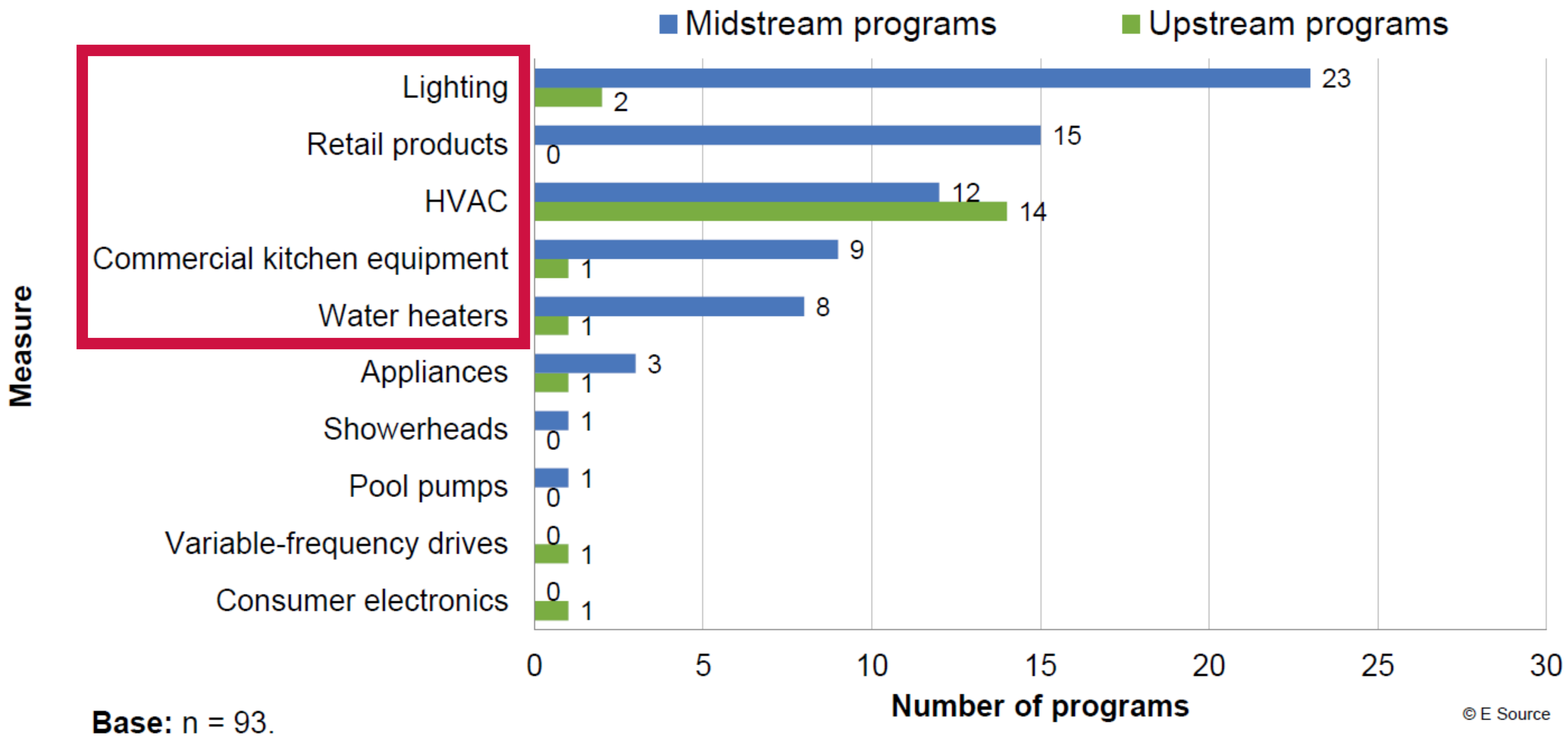
Background

Utility Midstream / Upstream Program Types:



Source: E Source, 2019
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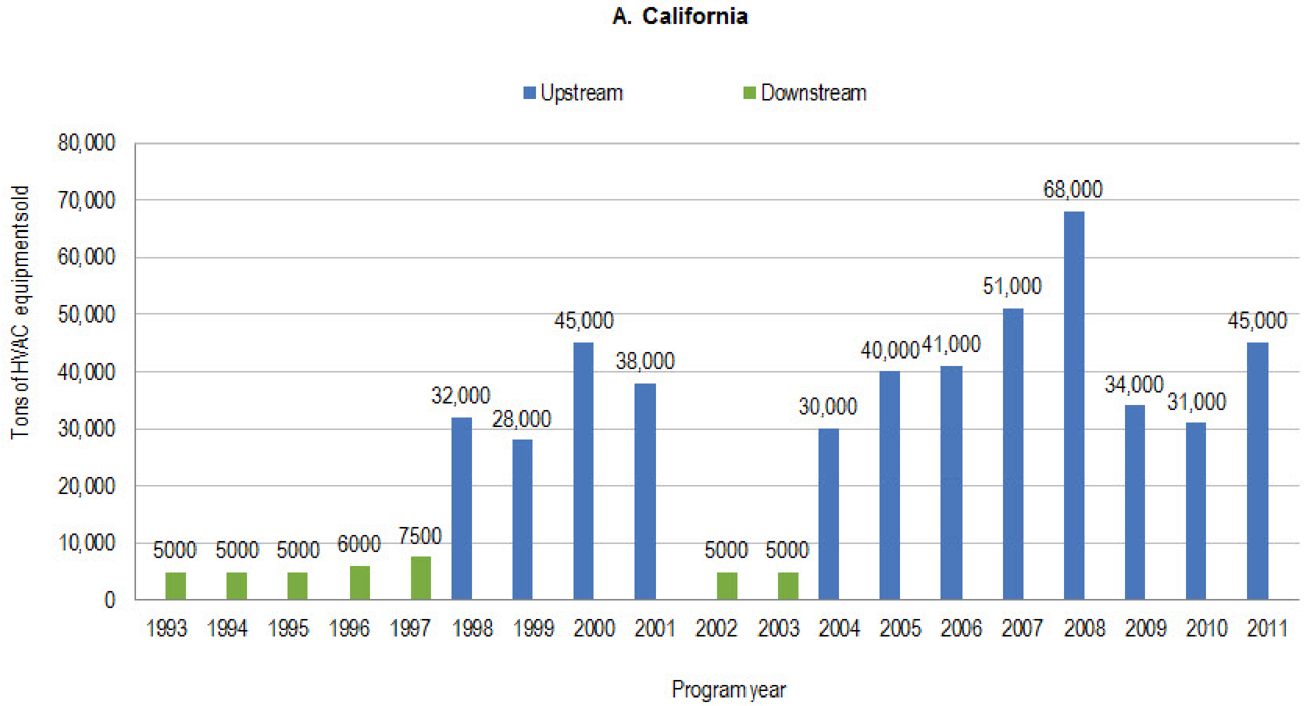
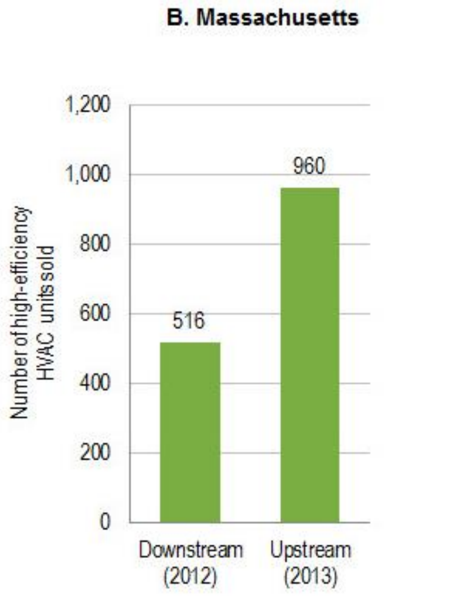
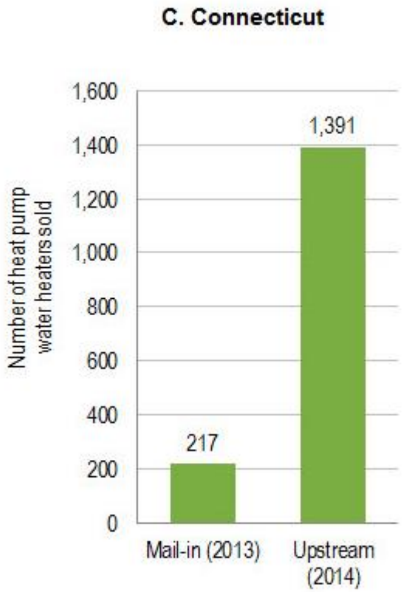
Utility Mid/Upstream Success:



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



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



© 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

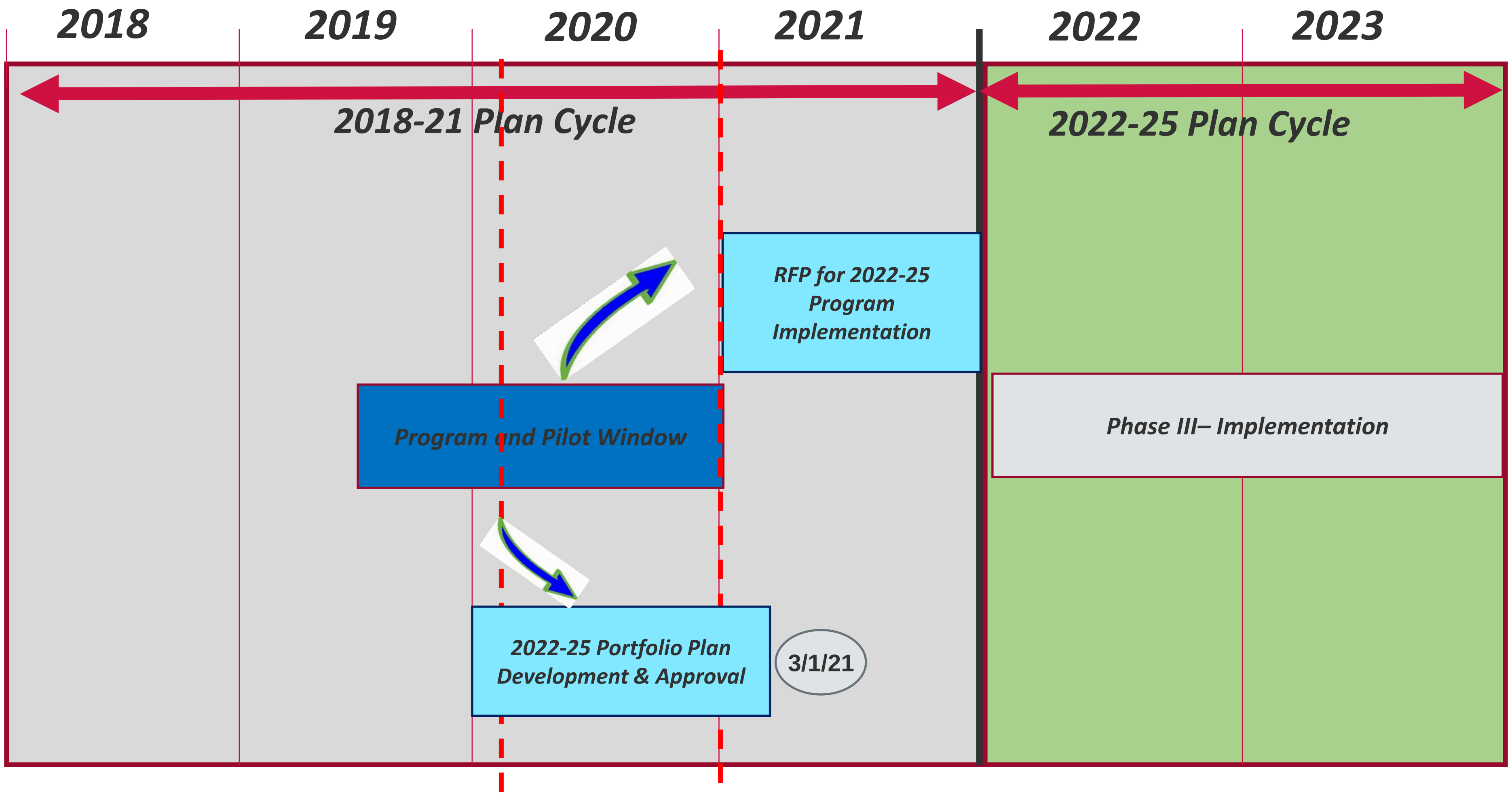
- Improve distributor stocking practices
- Boost program participation
- Drive uptake of higher efficiency equipment
- Restrictions on incentives risk inhibiting distributors
- Limited leverage over HVAC installation quality

Program Management

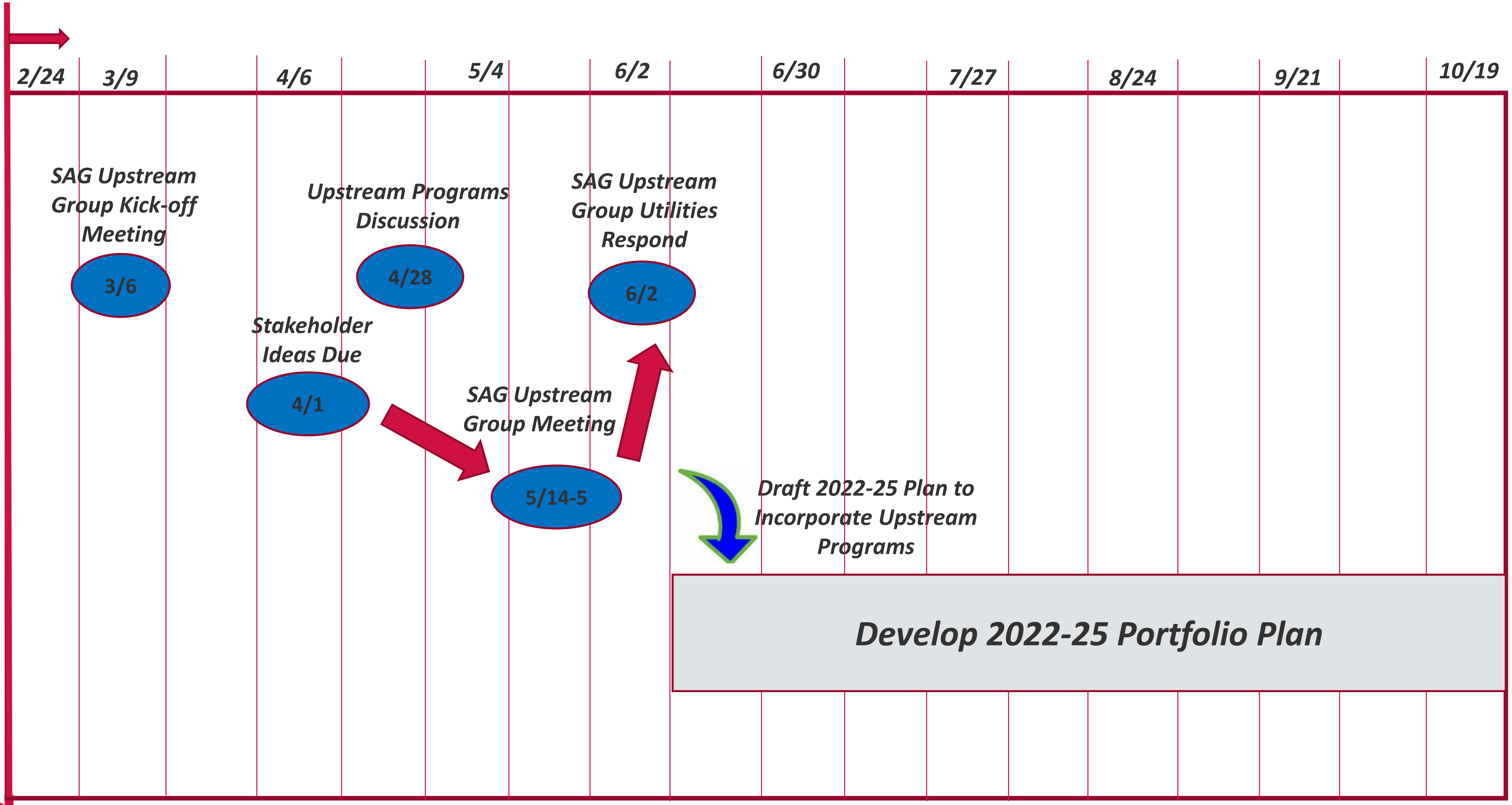
- Distributor unwillingness to share sales data
- Double-counting program savings
- Evaluation risk

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 QAQC 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

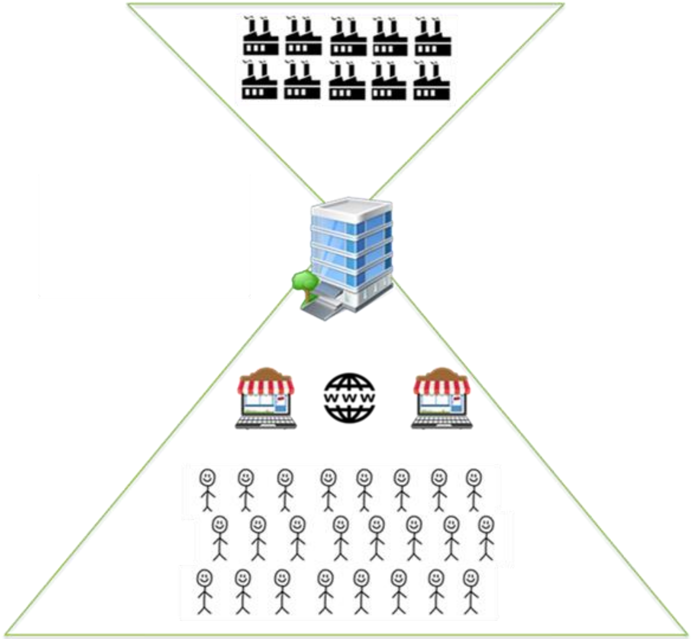
- Lessons Learned / Challenges to-date:
  - More hurdles to overcome (vs. comm lighting) due to higher risk stocking EE HVAC equipment
    - Comm HVAC market focuses on 5-10 units – currently no EE CACs are stocked
      - Typical “1 for 1” replacement in Comm HVAC sales
  - Customer attribution / experience

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