MA ENERGY EFFICIENCY ADVISORY COUNCIL

→ CONSULTANT TEAM

OVERVIEW OF 2022-2024 UPDATED PLAN

▶ **October 13, 2021**

www.ma-eeac.org

AGENDA

- Introduction
- Summary Metrics
- Portfolio GHG Savings
- C&I Updates
- Residential Updates
- Income Eligible Updates
- Active Demand
- Conclusions

INTRODUCTION

- **Presentation intended to help the Council understand changes made to the April draft Plan and identify outstanding considerations**
  - September 15* revised benefit-cost ratio (BCR) models and data tables
  - October 6 revised Plan narrative
  - Data exchanged with PAs as part of key drivers process and on-going discussions
  - Thorough analysis of 2022-2024 Plan TRM
- **Presentation largely focused on key cross-cutting priorities:**
  - Greenhouse gas (GHG) goal
  - Electrification
  - Equity
  - Workforce Development
  - Active Demand Management (ADM)

*Numbers presented by PAs at September 22 Council meeting with some adjustments.

SUMMARY OF CONSULTANT VIEWS

- **The Sept 15/Oct 6 updated Plan is a significant step towards better addressing Council priorities and coming closer to achieving GHG emissions reduction goals**
- **Some outstanding issues that require additional consideration by the PAs and Council:**
  - Achieving GHG emissions reduction goals
  - Reducing fossil fuel heating and increasing heat pumps, heat pump water heater units, and investments in envelop for the income eligible sector
  - Phasing out IES lighting
  - Shifting spending on C&I lighting to more cost-effective measures and those that contribute to GHG reduction goal
  - Finalizing equity targets

2022-2024 PLAN TRM REVIEW SUMMARY

- **Reviewed a redline version of the TRM reflecting all revisions made by the PAs since the 2020 Report version (1000+ pages)**
  - 134 individual comments
  - Used Sept 15 BCR models to identify top measures accounting for 70% of 2030 cumulative GHG impacts, conducted a detailed, comprehensive review of these measures
  - Conducted a full page turn of the document to review all redline changes (with focus on EM&V-driven changes)
  - Targeted review for incorporation other key documents (e.g., MA State Standards, federal appliance standards, 2021 Comprehensive TRM Review Study)
- **Draft TRM generally reflects a 'good faith' effort to incorporate EM&V-driven changes and changes driven by other pertinent developments.**

2022-2024 ELECTRIC PROGRAM SUMMARY

	April Draft Plan	September Draft Plan	% Change from April Draft
Lifetime MWh (no fuel switching)	9,818,089	12,814,555	30.5%
Lifetime MMBtu (site)	90,080,264	102,471,597	13.8%
Summer kW (including Active Demand)	523,648	550,138	5.1%
Benefits ($M)	$4,972	$8,785	76.7%*
Budget ($M)	$1,961	$2,781	41.8%
CO2e Reductions	285,937	451,538	57.9%

*Some of the change in benefits are due to the inclusion of higher social cost of carbon in benefits calculations than was included in the April Draft Plan benefits calculations.

2022-2024 GAS PROGRAM SUMMARY

	April Draft Plan	September Draft Plan	% Change from April Draft
Lifetime Therms (no fuel switching)	1,090,423,640	1,075,848,756	-1.3%
Lifetime MMBtu (site)	109,890,726	116,689,303	6.2%
Benefits ($M)	$2,469	$4,032	63.3%*
Budget ($M)	$975	$1,267	29.9%
CO2e Reductions	328,495	375,762	14.4%

*Some of the change in benefits are due to the inclusion of higher social cost of carbon in benefits calculations than was included in the April Draft Plan benefits calculations.

GHG SAVINGS METRIC IN THE 2022-2024 PLAN

- **Secretary's goal is denominated in metric tons of CO2e saved in 2030**

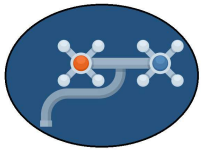
Table 1: Greenhouse Gas Emissions Reduction Goal

	2022–2024 Joint Statewide Energy Efficiency Plan (electric)	2022–2024 Joint Statewide Gas Efficiency Plan (gas)
Emissions Reductions in metric tons of CO_2e	504,000	341,000

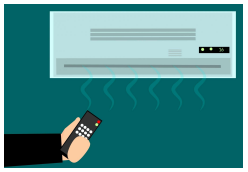
- **CO2e is a way of representing savings of any greenhouse gas based on its relative impact to CO2**
  - As every different greenhouse gas has unique impacts, having a comparable baseline unit is valuable
- **For example, 1 unit of methane is equivalent to 25 units of CO2**

GHG SAVINGS EXAMPLE

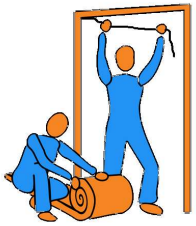
A typical oil heated home in the Commonwealth has many opportunities for GHG savings



A heat pump water heater displacing an oil water heater saves 1.40 tons of CO2e

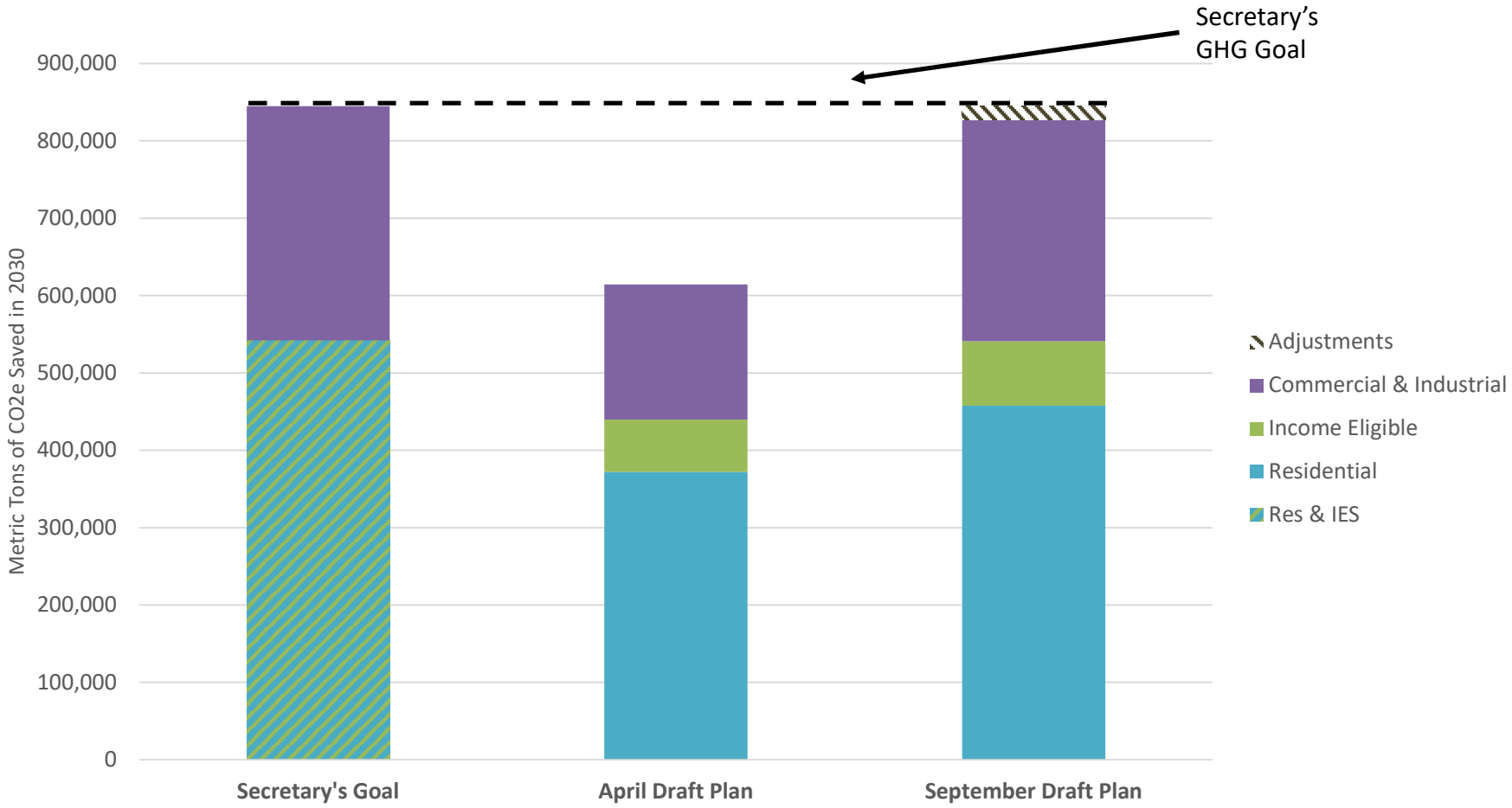


A central heat pump fully displacing an oil furnace saves 6.97 Tons of CO2e

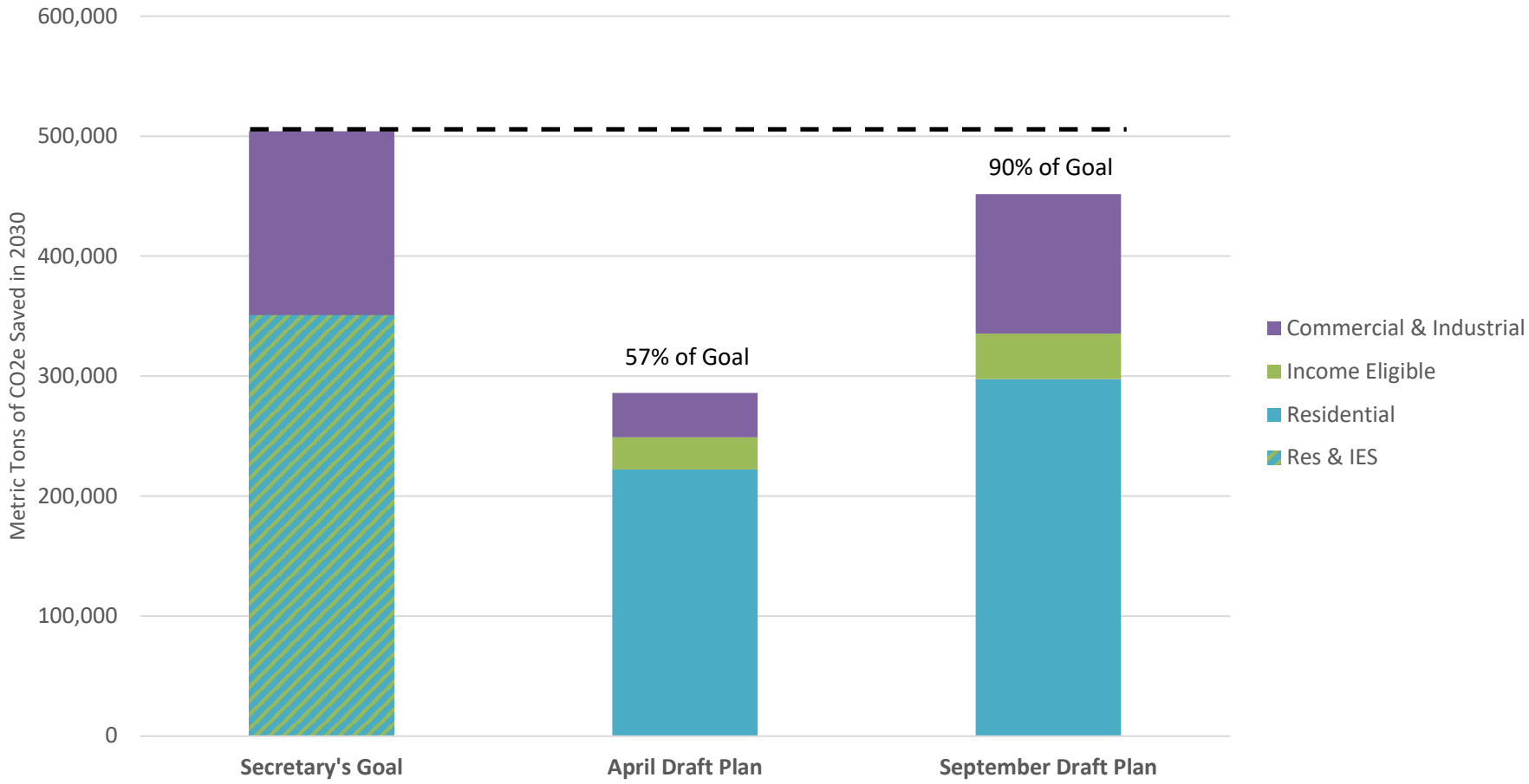


Insulation and airsealing together save 1.05 tons of CO2e

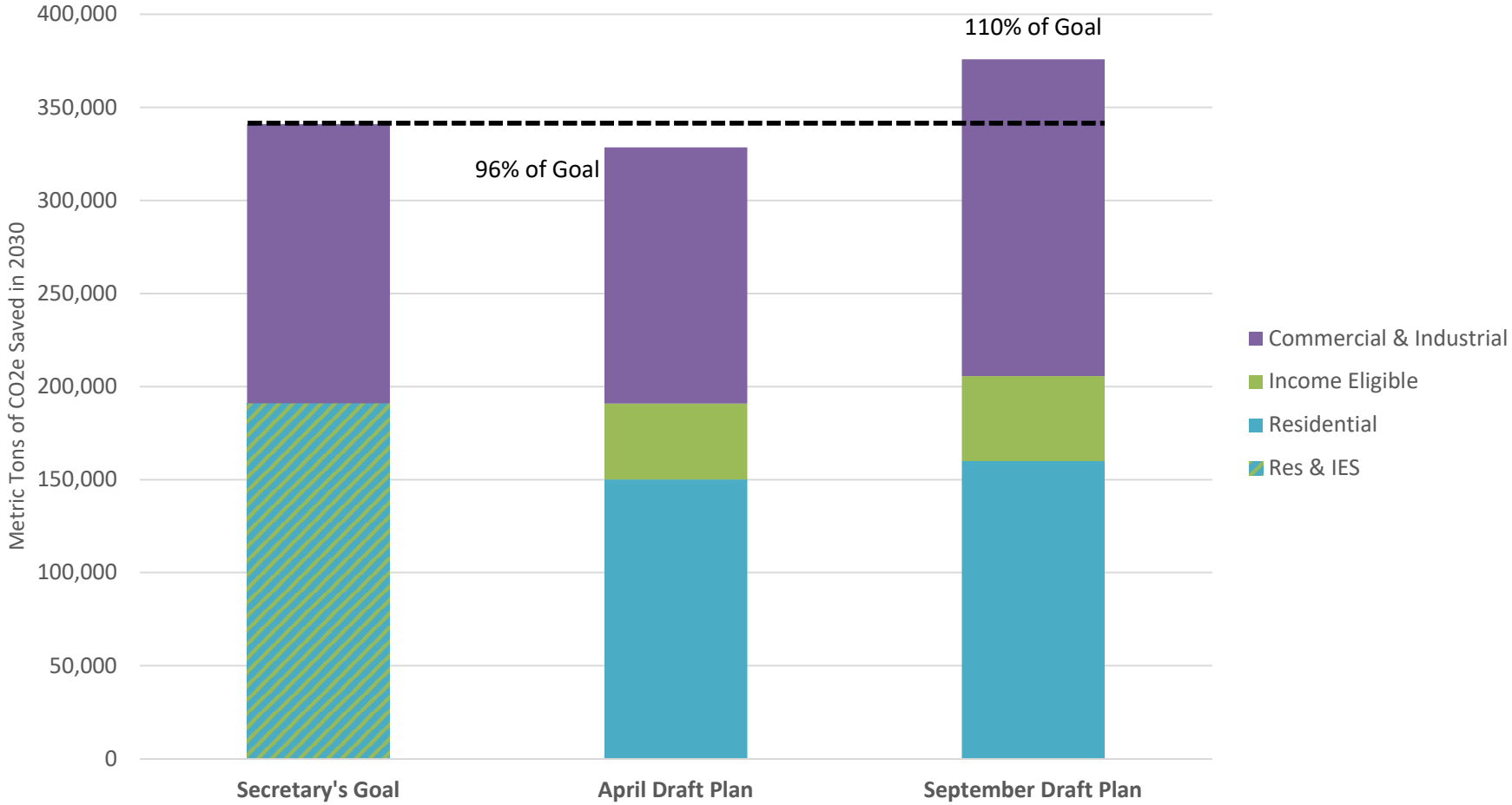
2022-2024 TOTAL (GAS AND ELECTRIC COMBINED) PROGRAM CONTRIBUTION TO GHG SAVINGS GOALS



2022-2024 ELECTRIC PROGRAM CONTRIBUTION TO GHG SAVINGS GOALS



2022-2024 GAS PROGRAM CONTRIBUTION TO GHG SAVINGS GOALS

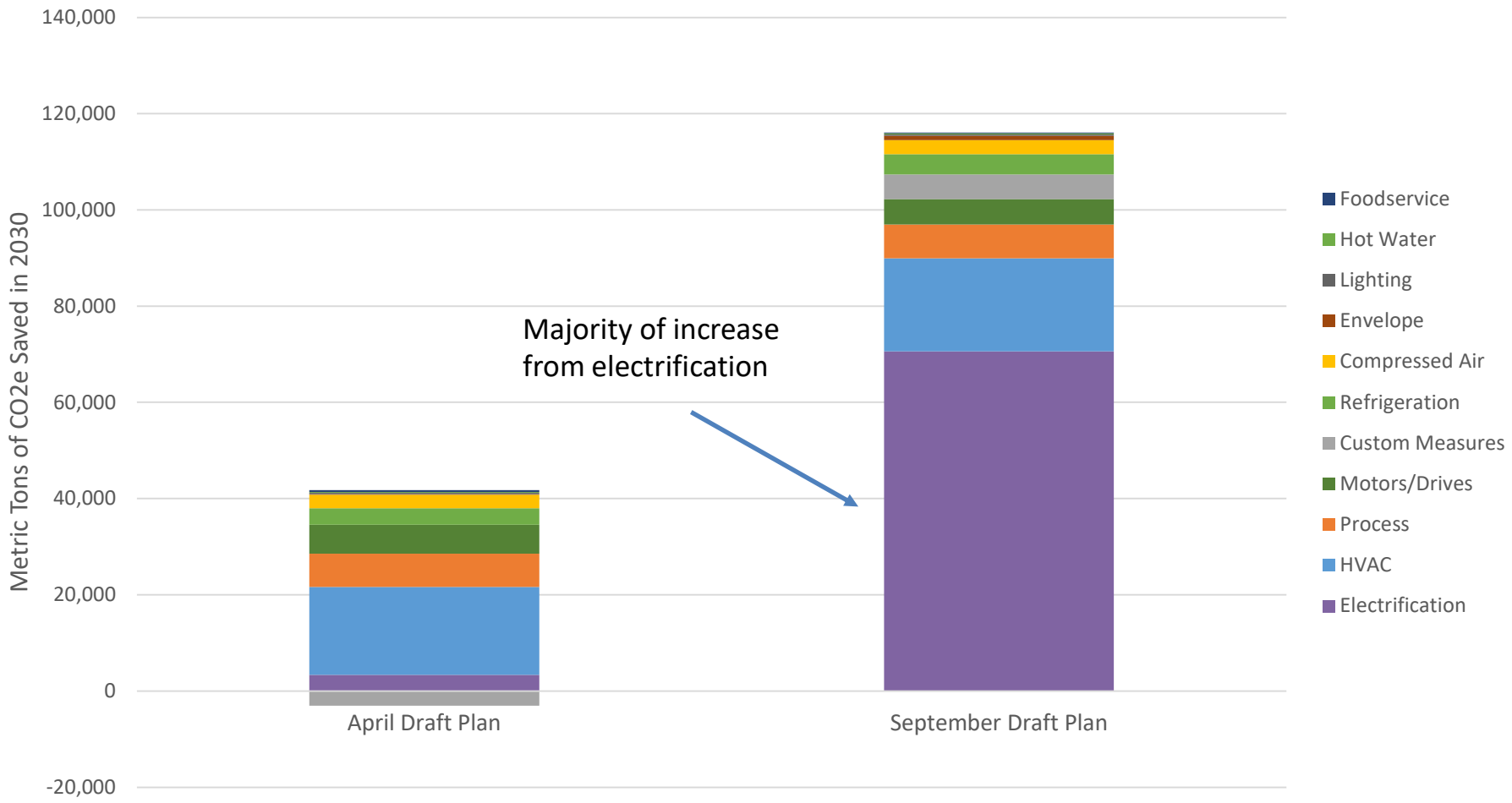


COMMERCIAL & INDUSTRIAL

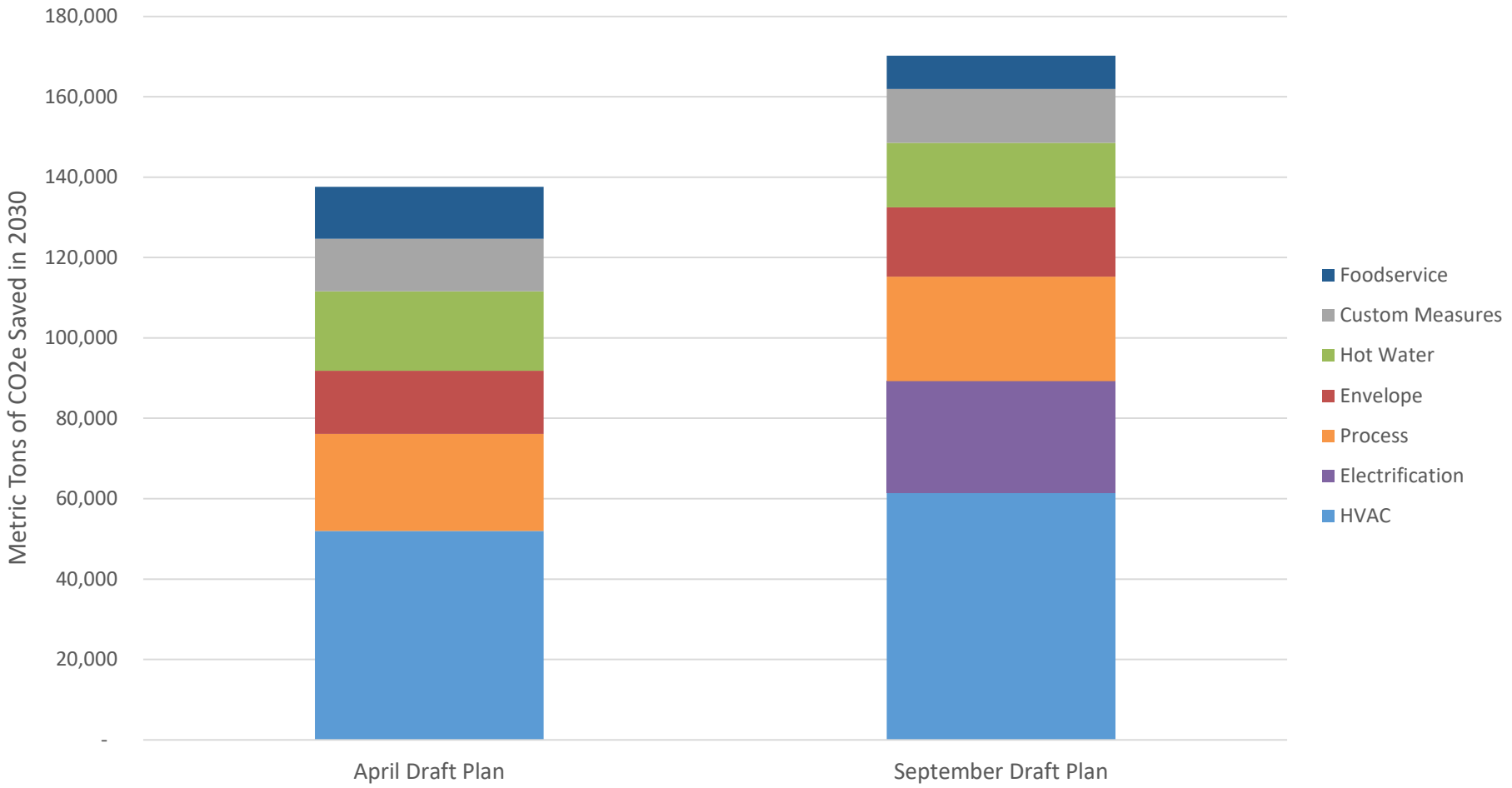
C&I SUMMARY – INCREASE IN BUDGET AND GHG REDUCTIONS, PARTICULARLY FROM ELECTRIFICATION

- **Dramatic increase in budget and GHG reduction above April draft**
  - Most of increase from C&I electrification
  - Little change to electric EE, and still 56% of incentive spend on lighting measures
  - 19% increase to gas EE measures, more than half of which coming from envelope measures
  - Modest increase to small business turnkey spend (~6%), with much of this coming from envelope measures
- **Commitment to Deep Energy Retrofit Offering**
- **Commitment to C&I Working Group**
  - Not reflected in plan narrative yet

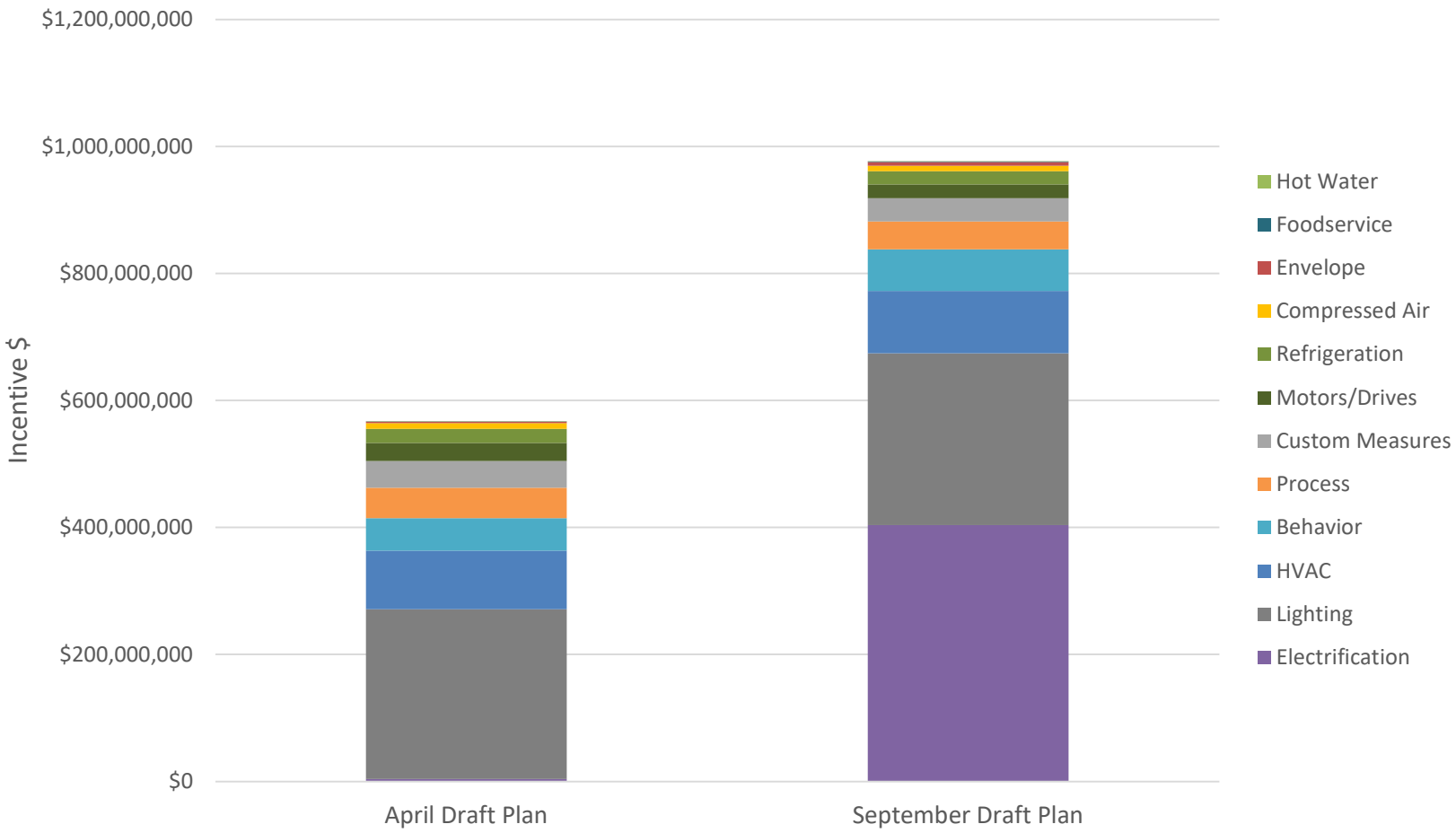
2022-2024 C&I ELECTRIC GHG SAVINGS GOALS BY END USE



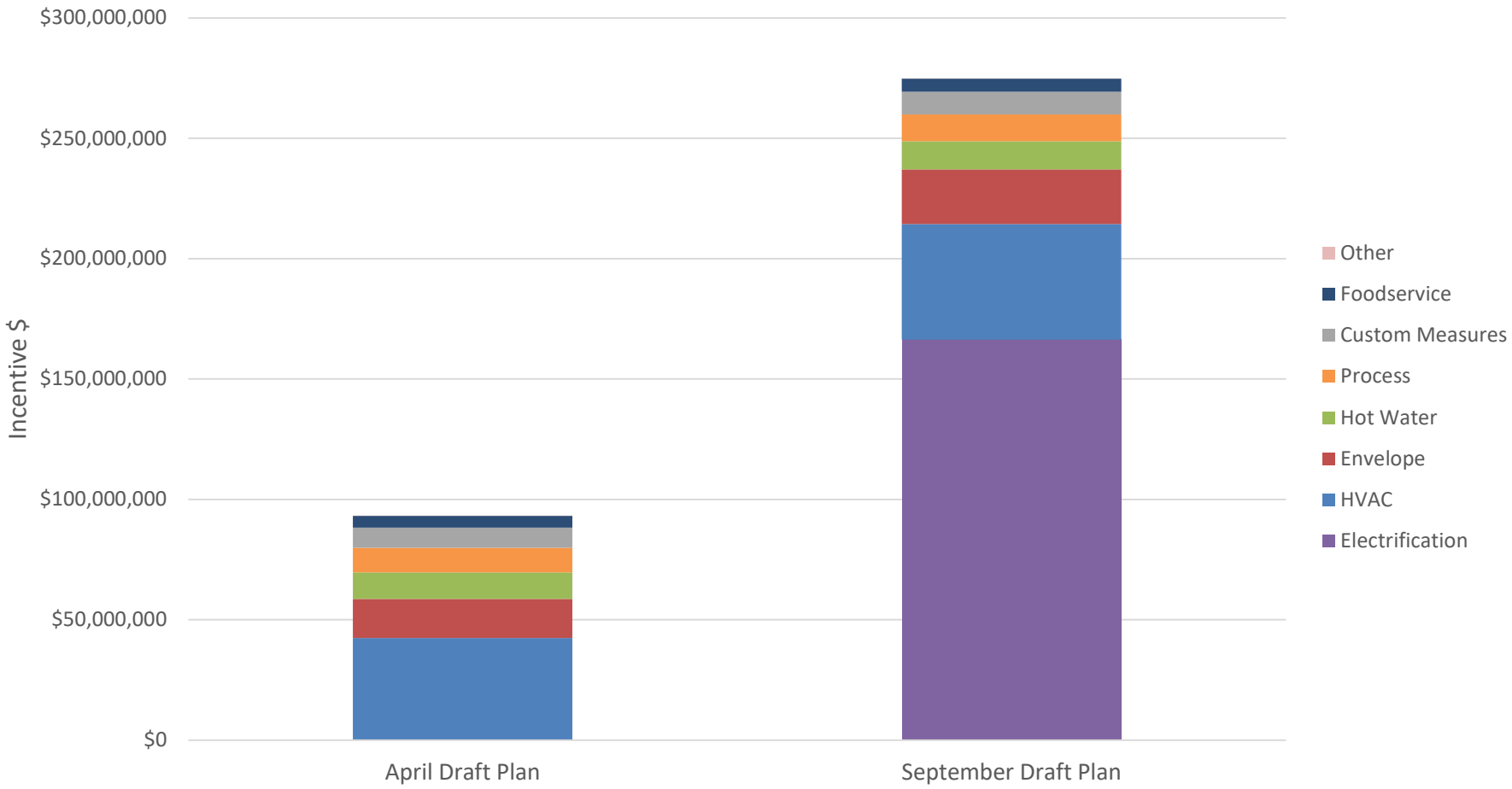
2022-2024 C&I GAS GHG SAVINGS GOALS BY END USE



2022-2024 C&I ELECTRIC INCENTIVE BUDGET BY END USE



2022-2024 C&I GAS INCENTIVE BUDGET BY END USE



STILL FOCUSED ON LIGHTING DESPITE NEED FOR MARKET TRANSFORMATION TO HVAC

- **Huge amount of money being spent on lighting despite short measure lives and relatively low BCRs**

Existing Building Retrofit	C&I Lighting (electric)	Retro-Commissioning (electric + gas)
Average Measure Life	6yrs	5yrs
Average BCR	3.5	7.2
$/Net Lifetime MWh	$91	$94 (electric only)
PA Incentives	$265M	$2.1M

- **Consultants recommend prioritizing Retro-commissioning and HVAC system optimization, which delivers comparable benefits and is where market transformation is needed**

C&I DEEP ENERGY RETROFITS OFFERING A WORK IN PROGRESS

- **Commitment to: "Design and implement a Deep Energy Retrofit offering to enable as part of a more comprehensive approach to helping customers managing energy investments and usage."**
  - Target a 50% energy reduction over time (1 or more plan cycles)
  - Technical assistance/engineering support to be provided
  - Competitions among specific customer and/or building types
  - PAs still unclear on exact implementation and reporting
- **Consultant Recommend PA Report**
  - Savings and incentives by measure or end use
  - Participation (new and continuing by year)
  - Spending on technical assistance/engineering support

C&I ELECTRIFICATION A MAJOR PART OF UPDATED PLAN

- **Significant increase in C&I electrification in both electric and gas programs (April draft = $4M)**
  - Significantly higher incentive coverage
  - Gas to electric fuel switching primarily targeting organizations w/ climate commitments (public entities, colleges, private sector)
  - Small equipment = electrifying gasoline powered forklifts and other light industrial vehicles

Category	Electric Incentives (Delivered fuel to HPs)	Gas Incentives (Gas to electric HPs)
Custom Electrification	$188.6M	$164.6M
Small/Prescriptive Electrification	$26.6M	$1.7M
Small Equipment	$1.8M	
Total C&I Electrification	$405.6M	$166.4M

SMALL BUSINESS TURNKEY BUDGETS STABLE BUT RELIANT ON LIGHTING

- **Electric turnkey spend is strong but reliant on lighting**
- **Proportion of spending on gas envelope is great but overall spending is low**

	Incentive ($)	% of Incentives	Total Resource Cost ($)	Benefits ($)	Benefit Cost Ratio
Custom Measures	$1,050,206	1%	$1,410,276	$2,247,015	1.6
Hot Water	$120,000	0%	$160,293	$3,984,216	24.9
HVAC	$6,968,030	4%	$7,753,127	$16,917,632	2.2
Lighting	$135,356,017	81%	$158,091,433	$301,756,752	1.9
Motors/Drives	$10,533,828	6%	$14,145,427	$65,818,034	4.7
Process	$3,469,436	2%	$4,657,749	$20,875,836	4.5
Refrigeration	$10,629,823	6%	$14,243,889	$49,615,928	3.5
Electric Total	$168,127,340	100%	$200,462,194	$461,215,413	2.3
Custom Measures	$226,880	2%	$303,138	$2,869,790	9.5
Envelope	$8,479,224	62%	$11,145,920	$39,298,193	3.5
Hot Water	$1,152,797	8%	$869,895	$16,949,448	19.5
HVAC	$3,599,220	26%	$4,406,034	$14,814,065	3.4
Process	$166,823	1%	$222,934	$1,513,332	6.8
Gas Total	$13,624,944	100%	$16,947,922	$75,444,829	4.5

C&I WORKING GROUP DETAILS STILL BEING NEGOTIATED

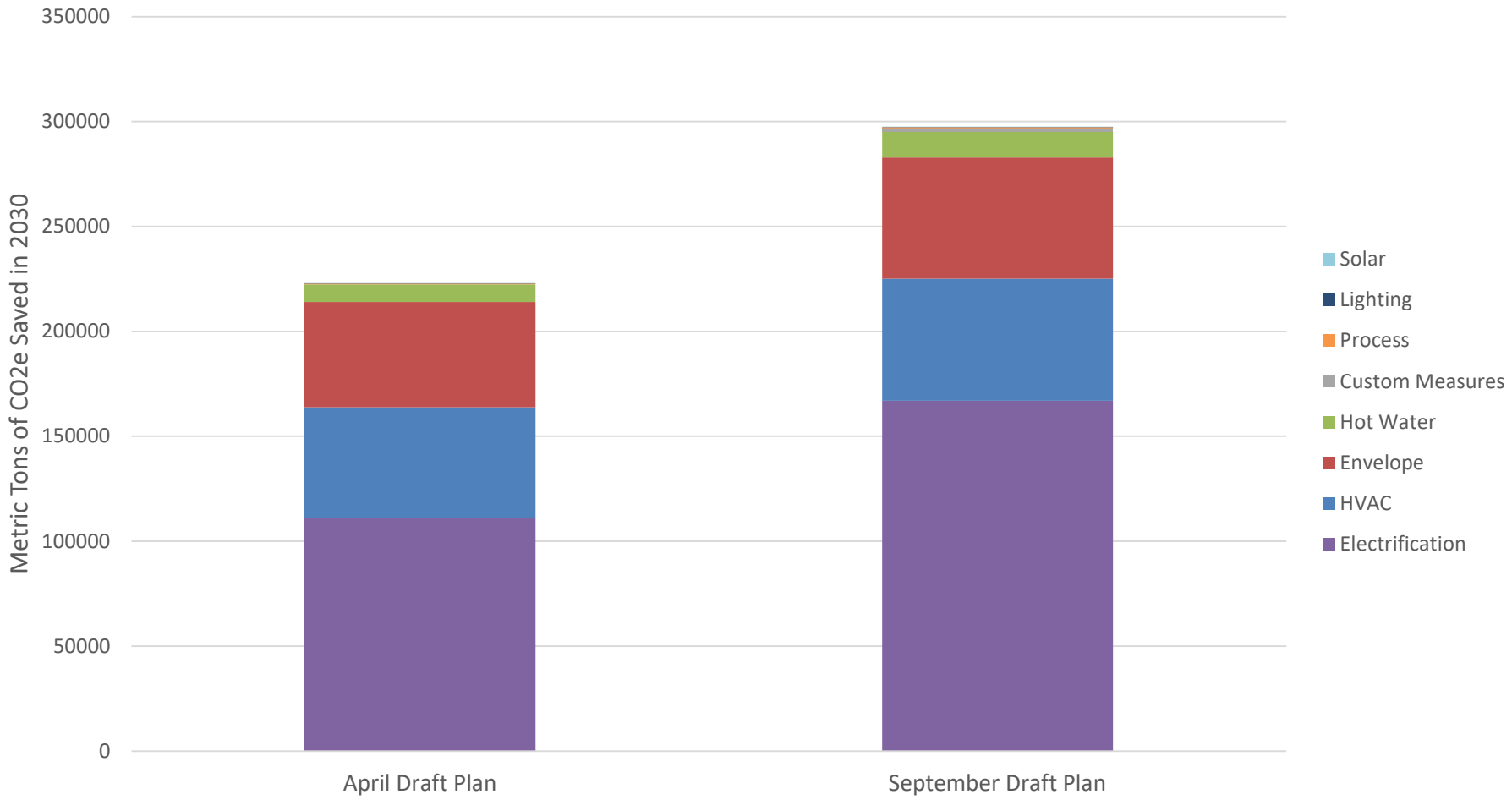
- **Ongoing discussions w/ PAs around structure and substance of a C&I working group**
- **DOER/EEAC Consultants have proposed**
  - Formation of a group to be co-managed by PAs and DOER
  - Stakeholders to include customers, industry groups/trade associations, C&I focused councilors, and EEAC consultants
  - 2hr meetings quarterly w/ 1 open hour to allow for customer input and questions about programs
  - Initial focus on custom application process
  - List of other topics to be taken from public comments and feedback from customers/surveys

RESIDENTIAL SECTOR

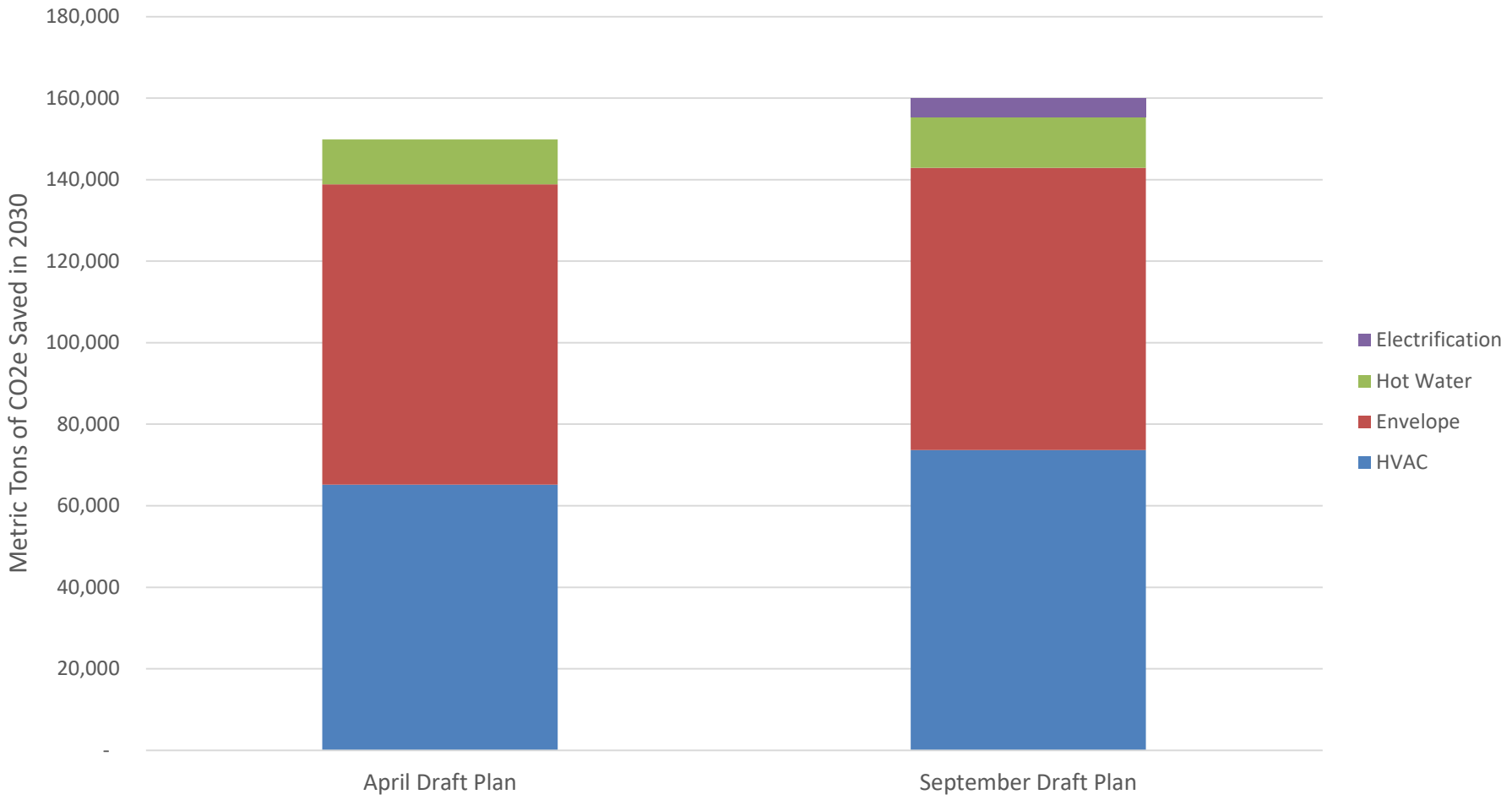
RES SUMMARY – ADDITIONAL INCREASES FOR ELECTRIFICATION AND ENVELOPE

- **The September numbers include an additional $100 million for space heating electrification in existing buildings, resulting in an additional 60 thousand CO2e of GHG emissions reductions**
  - HP unit numbers increased by approx. 40%
- **Envelope investments are up more than $50 million from April**
  - $40 million for electric, $13 million for gas
  - April numbers already represented an increase of $185 million from the 2019-2021 plan

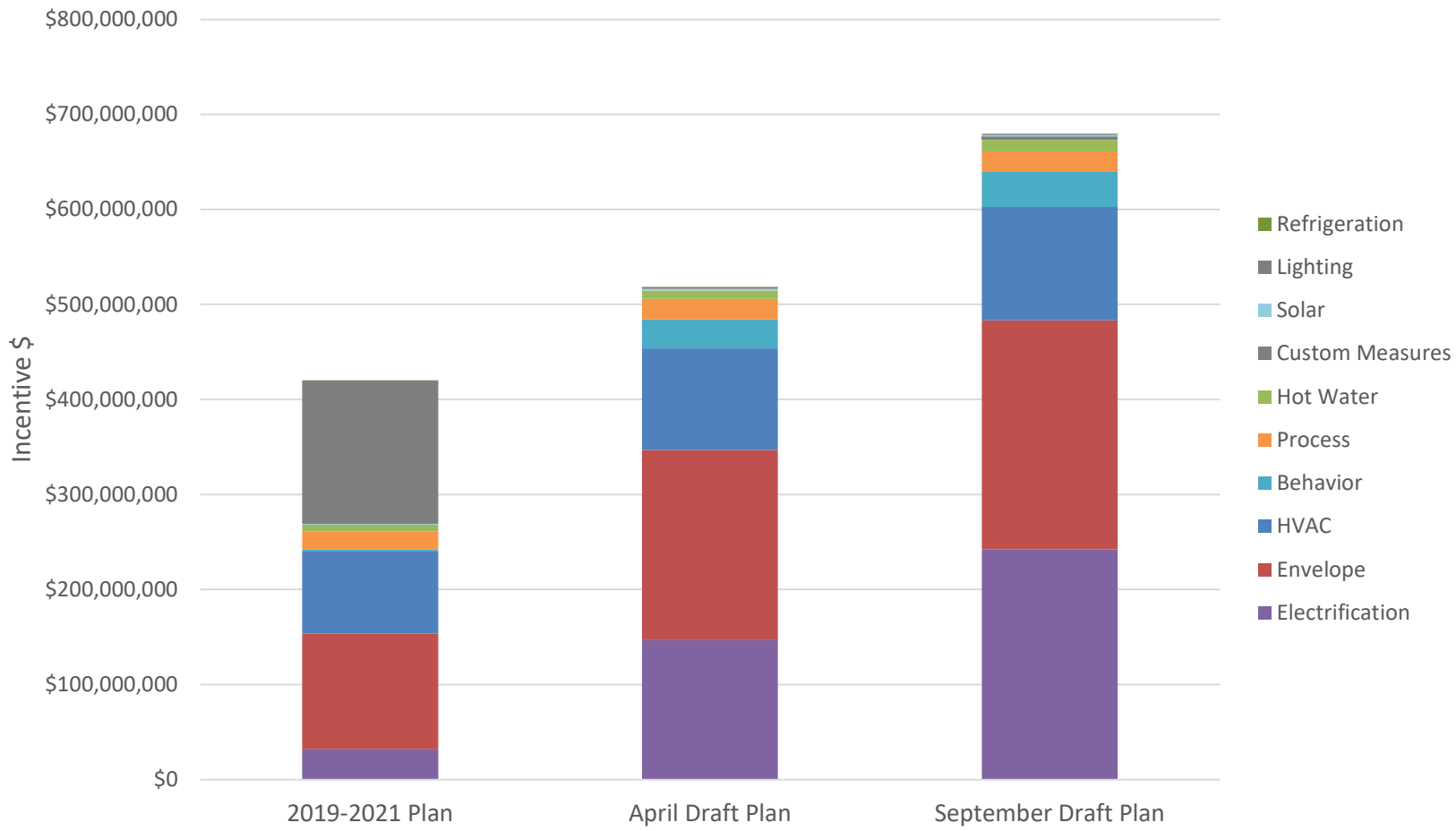
2022-2024 RESIDENTIAL ELECTRIC GHG SAVINGS GOALS BY END USE



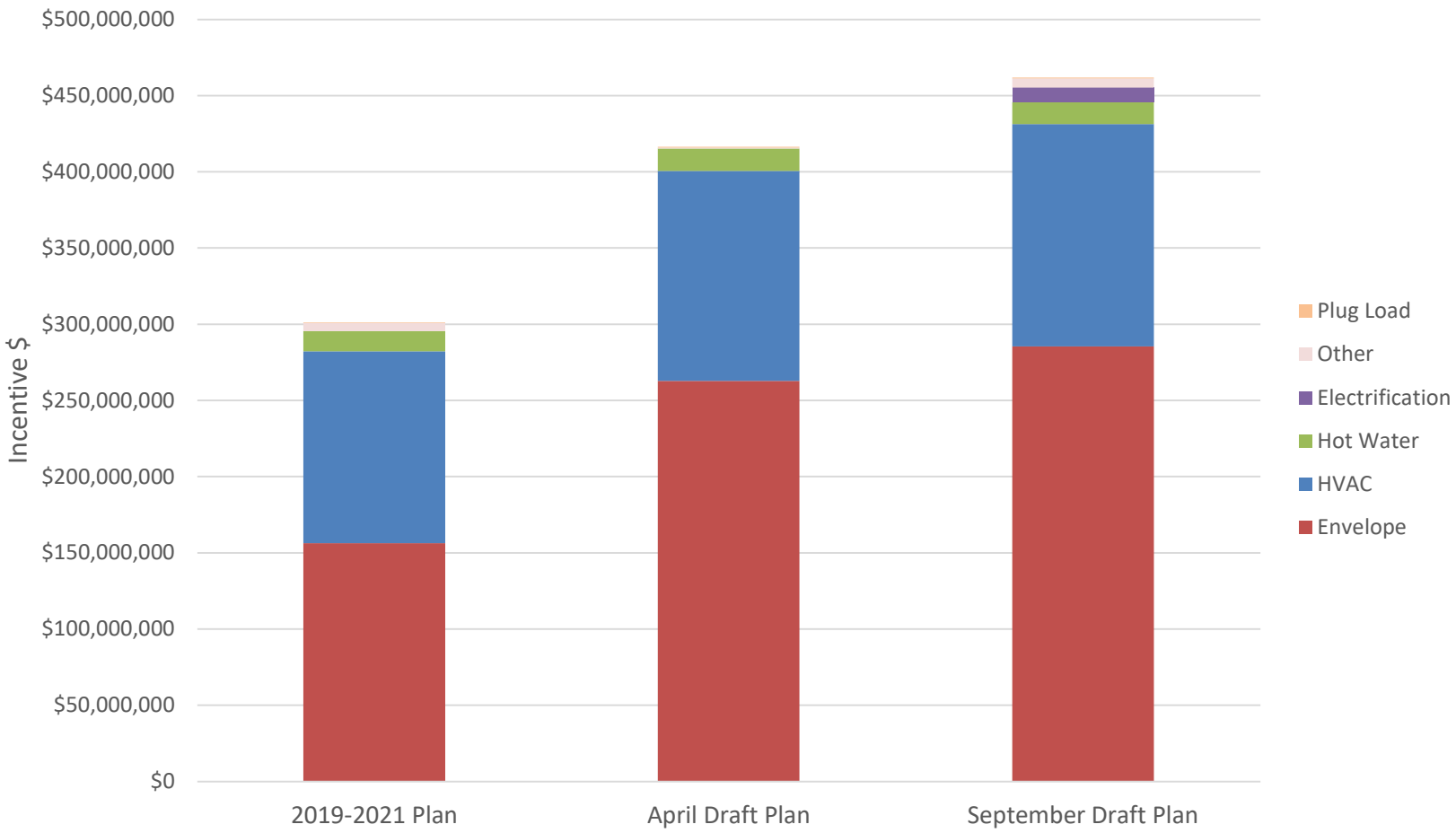
2022-2024 RESIDENTIAL GAS GHG SAVINGS GOALS BY END USE



2022-2024 RESIDENTIAL ELECTRIC INCENTIVE BUDGET BY END USE



2022-2024 RESIDENTIAL GAS INCENTIVE BUDGET BY END USE



ADDITIONAL COMMITMENT TO ELECTRIFICATION NEEDED FOR NEW CONSTRUCTION

- **Commitments to:**
  - A new all-electric Path to Zero 1-4 initiative
  - A new Zero Energy Modular Homes offering
  - Integration of active demand reduction measures
- **Consultants recommend higher (2x+) planned production for all-electric 1-4 initiative to capture higher share of new homes that would otherwise use fossil fuels**

PAs' Sept. Plans		2022	2023	2024	2022-2024
Electric	RNC Heating - All-Electric	125	275	475	875
	RNC Heating (High Rise)	3,000	2,900	2,900	8,800
	RNC Heating (Low Rise)	4,867	4,864	4,863	14,594
	RNC Heating (Passive House)	160	561	711	1,432
Gas	Heating (High Rise)	1,750	1,750	1,750	5,250
	Heating(NewConstruction)	3,604	3,607	3,608	10,819

2019 program activity	
Electric	696
Gas	3,591
Oil	73
Propane	1,951

SPACE AND WATER HEATING ELECTRIFICATION IS STRONG FOCUS

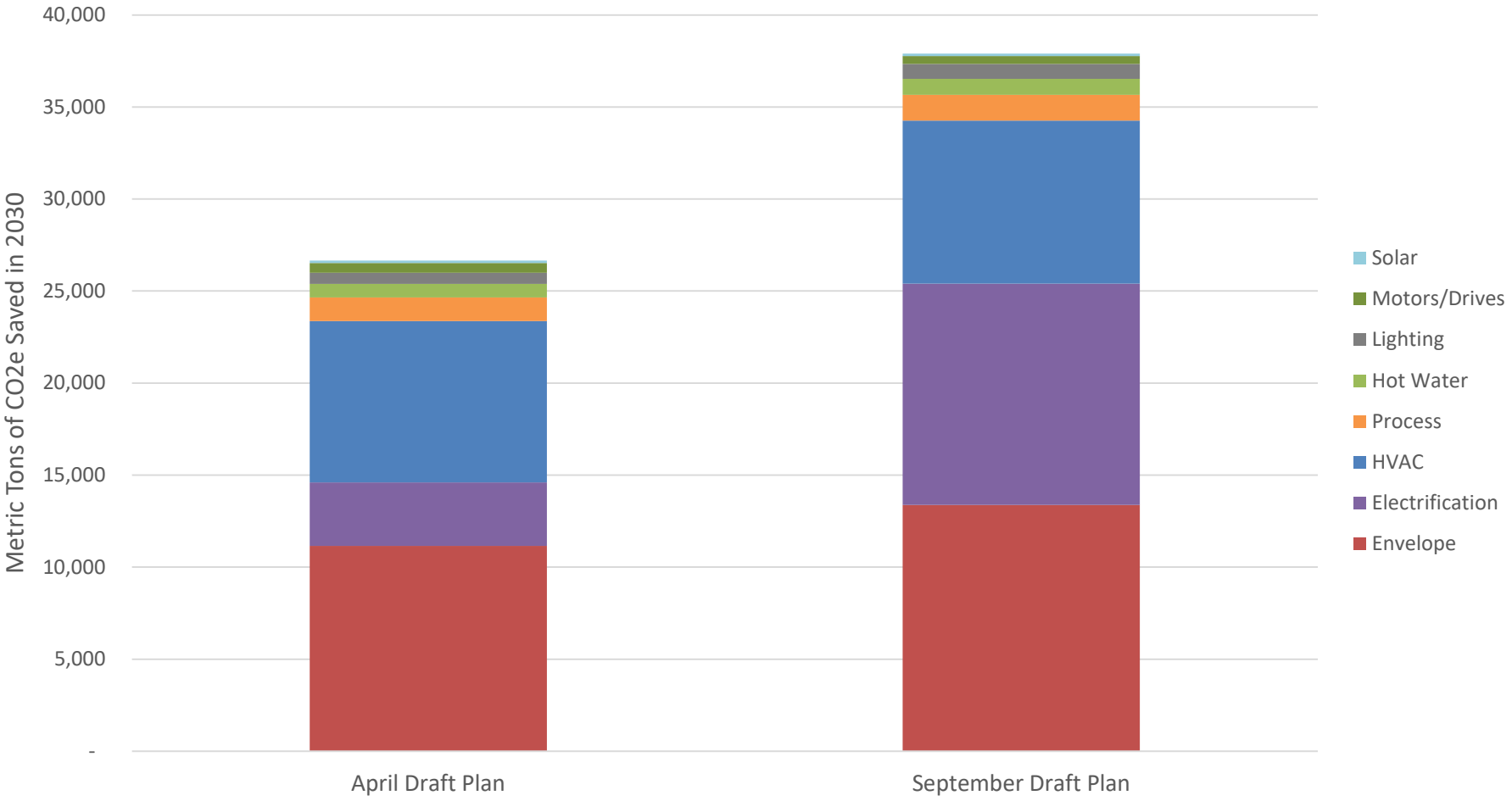
- **Commitments to:**
  - Work with distributors to encourage stocking of high efficiency equipment
  - Establish a formalized network of heat pump installers trained on program offerings, heat pump technologies, and quality heat pump installations
  - Provide guided customer HVAC support in form of a pathway for customers interested in cold climate heat pumps to have a targeted discussion with an HVAC specialist
  - Increase customer education and awareness of heat pump technology
  - Provide a whole-home incentive for full displacement
  - Provide an incentive for displacement of central gas heating with heat pumps

INCOMPLETE STRATEGY FOR CO-DELIVERY OF WEATHERIZATION AND HEAT PUMPS

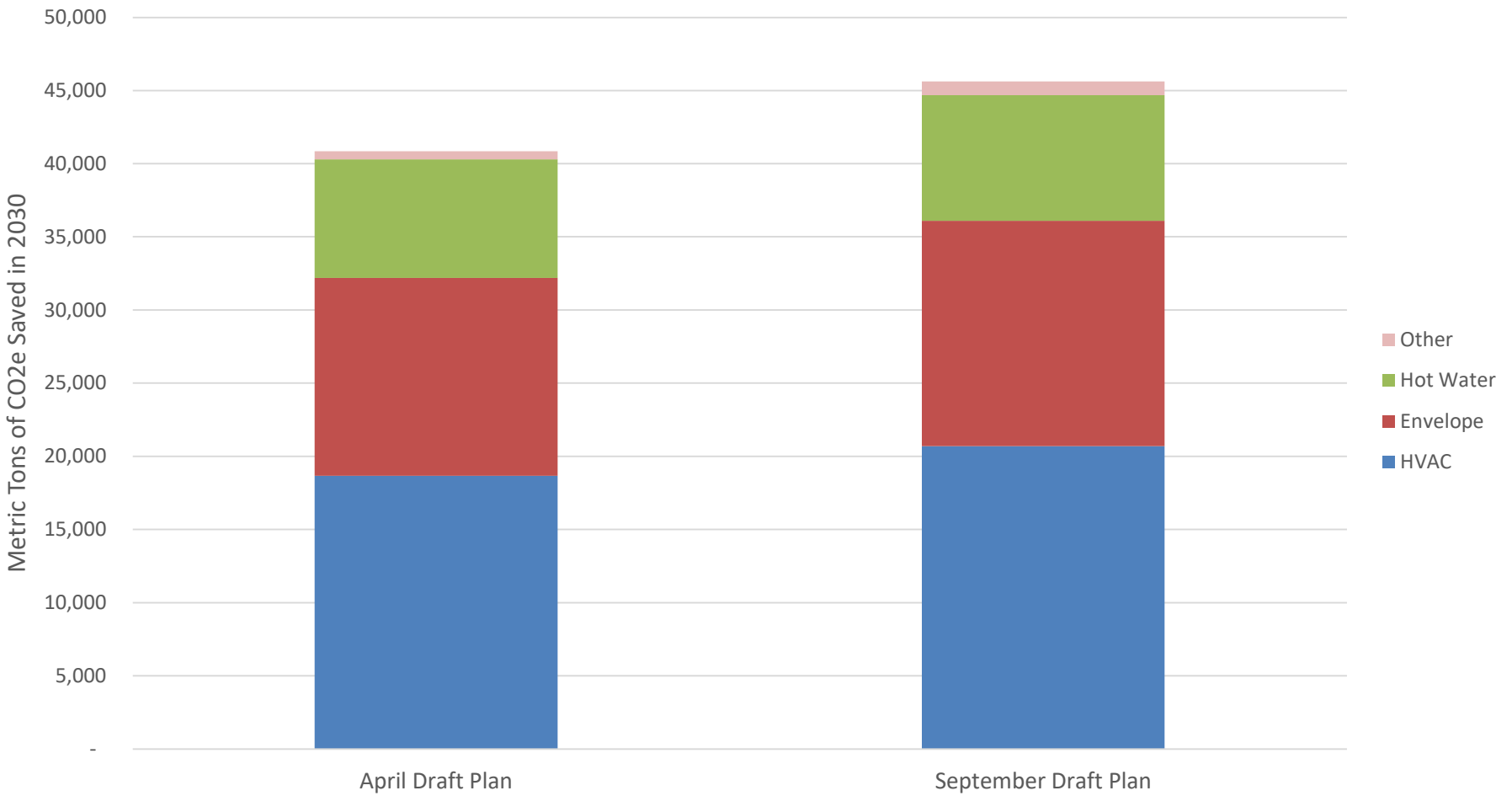
- **Commitments to:**
  - Provide an enhanced incentive to customers to weatherize their homes prior to installation of a heat pump
  - Continue aggressive weatherization efforts and target heat pump promotions to customers who have already weatherized
  - Train heat pump installers participating in network in proper sizing, specification, and installation
- **Consultants recommend implementation of a performance-based program design to spur more comprehensive approaches and encourage strategic partnerships between weatherization contractors and heat pump installers**
  - Models include DOER's Home MVP or a revised version of the PAs' Renovations and Additions offer

INCOME ELIGIBLE SECTOR

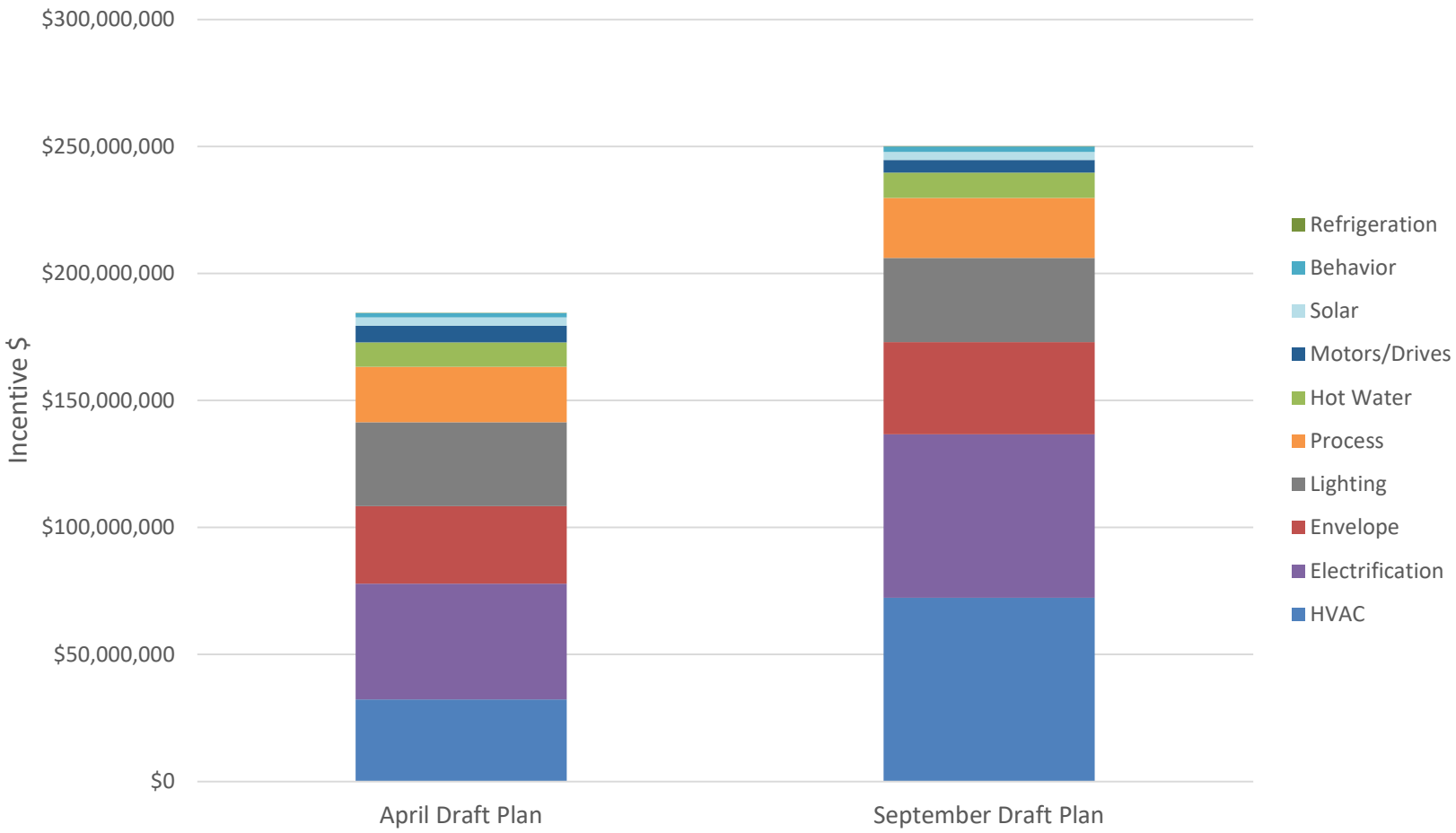
2022-2024 IES ELECTRIC GHG SAVINGS GOALS BY END USE



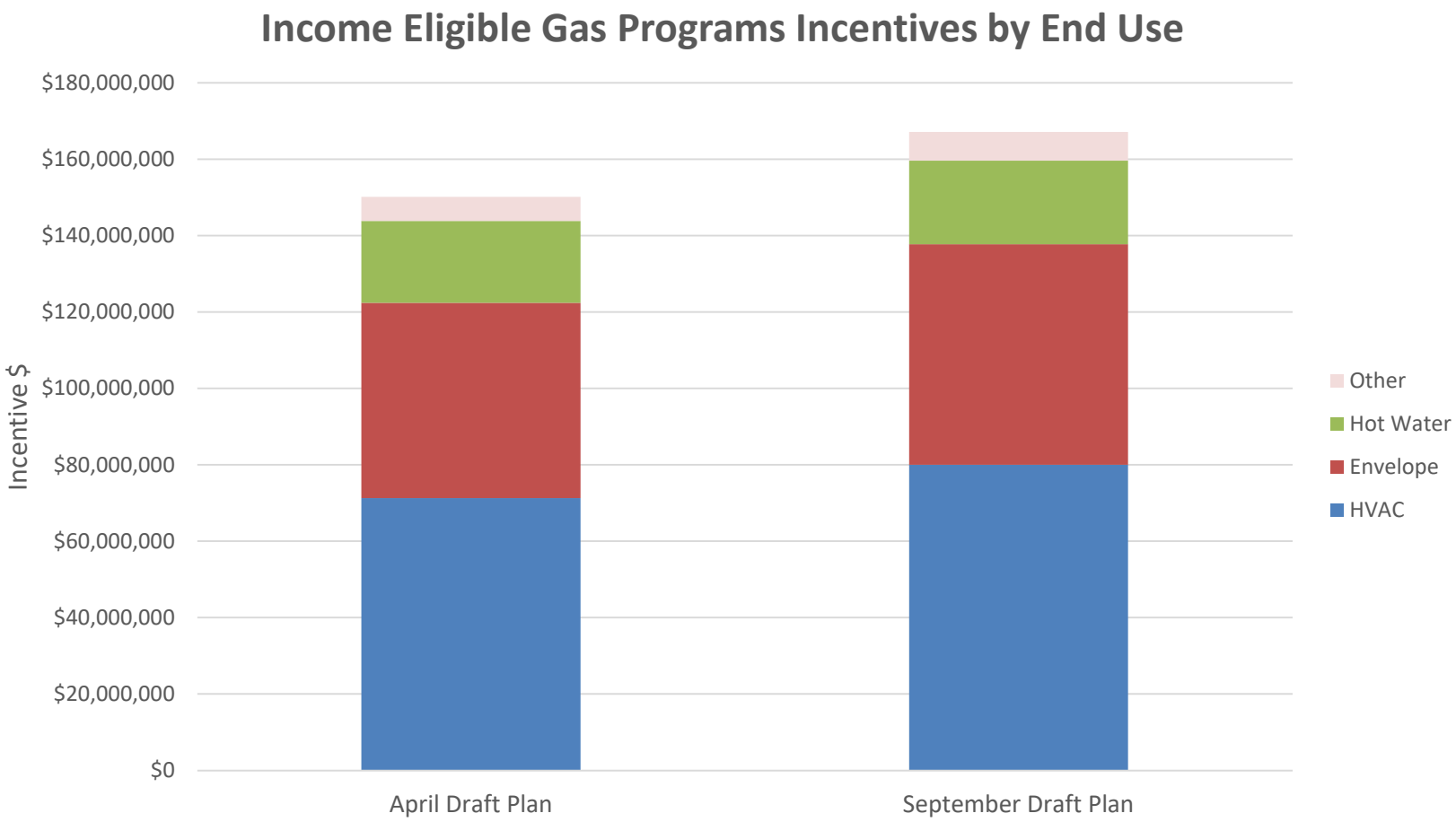
2022-2024 IES GAS GHG SAVINGS GOALS BY END USE



2022-2024 IES ELECTRIC INCENTIVE BUDGET BY END USE



2022-2024 IES GAS INCENTIVE BUDGET BY END USE



IES SUMMARY – SEPT IMPROVED OVER APRIL, BUT MORE NEEDED

- **Some notable areas of improvement from April draft:**
  - Heat pumps (up $50+ million) (Increased to 6,000 units from 4,000)
  - WiFi thermostats (up from 850 to 1,500)
  - Envelope (up 13%)
- **More movement still needed:**
  - Reduce fossil fuel heating and increase heat pumps
  - Increase # of heat pump water heater units (HPWHs)
  - Phaseout plan for lighting
  - Further increase investments in envelope to prepare for future heat pump installations

SPACE HEATING—TOO MUCH FOSSIL FUELS IN ELECTRIC SECTOR

- **September heat pump numbers are 913 short of July resolution goal of 7,000**
  - Cost reductions will yield another 198 units
- **July resolution calls for a $15 million shift from IES fossil fuel equipment budget to electrification**
- **September numbers:**
  - Fossil fuel equipment (space heating only) in electric budget reduced $360,000 from April
- **Remaining opportunity to shift fossil fuel units/incentives:**

FF HVAC in IES Electric Sector	Units	Incentives
TOTAL	**4,352**	**$21,975,686**
Heating System Retrofit, Boiler, Oil (Single Family)	2,743	$14,384,174
Heating System Retrofit, Boiler, Other (Single Family)	74	$439,065
Heating System Retrofit, Furnace, Oil (Single Family)	1,215	$5,947,596
Heating System Retrofit, Furnace, Other (Single Family)	229	$1,060,456
Custom - HVAC (Multifamily) Eversource	91	$144,394

MORE HEAT PUMP WATER HEATERS NEEDED

- **Heat pump water heater (HPWH) units increased from 279 (April) to 323 (September)**
  - **Units should increase to at least 1,500 for the term**
- **HPWHs have been successfully installed for all income levels across the country. To support the increase in installations, the PAs and LEAN should:**
  - Develop installation guidelines to identify most appropriate opportunities and achieve successful outcomes
  - Enhance workforce training for this measure
  - Prepare customer education strategy (see Efficiency Maine's resources)

MORE AGGRESSIVE PHASE OUT OF IES LIGHTING

- **$33.1M in incentives proposed in IES lighting over the Plan's three years**
  - Two-thirds of proposed units are bulbs; 85% of incentives are for fixtures
- **Indications are that the overall residential lighting market is largely transformed**
- **Market rate and low income homes look increasingly similar in terms of efficient lamp saturation, stocking patterns and replacement behavior**
- **Ceasing reflector bulb replacements at end and all other bulb replacements at end of 2022 saves $3.2 million for heating electrification**
- **Ceasing screw-in fixture replacements on a similar schedule saves another $4.8 million for reallocation**

ENVELOPE MEASURES SHOULD BE FURTHER INCREASED

Sector	Unit type	Insulation Units (electric and gas)	% of Insulation Units (Res + IE)
Residential 73% of MA households	Single family	116,180	85%
	Attached low rise (2+ units, up to 3 stories)	24,915	
	High rise (4 stories+)	18,453	
Income Eligible 27% of MA households	Single family (1-4 units)	14,745	15%
	Multifamily (5+ units)	13,146	

- IES Sector is underinvesting in insulation, particularly in comparison to Residential Sector.
- Approx. 25,000 heating systems are planned to be installed during term. Preparing for future HP installs requires a much higher weatherization production than indicated here.
- **At a minimum, shift $8 million from increased gas HVAC budget to gas weatherization instead and $440k from lighting to weatherization—approx. 1,700 units**

ADDITIONAL PROGRAMMATIC PRIORITIES NEED MORE DETAILS

- **Multifamily Deep Energy Retrofits**
  - Targeted toward comprehensive projects undergoing significant capital investment
  - Maximize leveraged funding
  - Flexible, non-measure-specific incentives requested by developers to optimize success and returns
- **Smaller Multifamily Housing**
  - Underserved market segment
  - Includes naturally occurring affordable housing
  - Mixed income protocol details lacking

EQUITY

EQUITY INVESTMENTS HAVE INCREASED SINCE APRIL

Investment area	July Amount**	Sept. Amount**
Moderate Income*	$ 113,112,776	$ 136,074,730
Renters and Landlords*	$ 33,541,565	$ 44,306,061
Income Eligible Renters & Landlords	$ 194,156,310	$ 208,238,560
Language Isolated Customers***	N/A	$ 9,141,743
Small Businesses	$ 174,893,850	$ 185,108,288
Pre-weatherization barriers, market rate	$ 8,640,342	$ 22,965,893
Pre-weatherization barriers, IE		$ 6,331,445
Partnerships****	$ 3,600,000	$ 6,300,000
Workforce Development	$ 48,000,000	$ 49,585,835
TOTAL	$ 575,944,843	$ 668,052,254

*There will be some overlap of Moderate Income and renter/landlord and Pre-Wx incentives.
**Investments above are Incentive spending except for Partnerships and WFD.

***Includes projected marketing spend, language access plan, and costs associated with interpretation services for customers
****Includes 20 teams across 30+ municipalities.

RENTERS AND LANDLORDS

- **Equity targets:**
  - Increase renter participation in Residential Coordinated Delivery
  - Increase # of renter units served in attached low rise buildings for both the Res and Income Eligible Coordinated Delivery initiatives
- **Example tactics are unchanged from April. They include:**
  - Making 100% weatherization incentive permanent
  - Providing updated approach to mixed income protocol
  - Conducting targeted outreach to owners of 5-25 unit buildings in municipalities with high density of rental units
- **Unmet requests of Equity Working Group include:**
  - Implementation strategies for directly engaging with residential and commercial landlords
  - Details on mixed income protocol
  - More innovative approaches for engaging landlords
  - Integrated service delivery plans & 1 point of contact for landlords

DISPROPORTIONATELY LOW INVESTMENTS IN RENTERS

Residential, moderate income, IES incentives in 2022-2024 Plan TOTAL	**$1.6 billion**
Income eligible renter budget	$208 million
Residential renter budget	$44 million

Renters comprise 38% of Massachusetts households

- **Consultants recommend PAs:**
  - Increase investments in renters by reallocating budget from residential single family to more fully serve the renter segment
  - Develop a detailed rental property engagement strategy to guide increased investments

MODERATE INCOME

- **Equity targets:**
  - Increase # of moderate income weatherization jobs
  - Increase # of moderate income heating systems replaced
- **Example tactics include:**
  - Continuing 100% weatherization incentive and adding a new enhanced incentive for HVAC
  - Streamlining the income verification process
  - Streamlined bundling of enhanced weatherization and HVAC incentives (weatherization is required for extra HVAC incentive)
- **Unmet requests of Equity Working Group include:**
  - Detailed implementation strategy, including income verification
  - Increase in value of heat pump incentives
  - Differentiation of incentives for electric and fossil fuel heating systems such that heat pumps are competitive up-front
- **Consultants recommend enhanced incentive for HPWHs**

LANGUAGE ISOLATED CUSTOMERS

- **Equity targets:**
  - Increase # of participants receiving an audit in Spanish or Portuguese
  - Increase # of weatherization jobs by participants receiving an audit in Spanish or Portuguese
  - Develop language access plan
  - Offer audits in Spanish, Portuguese, Mandarin, Cantonese, and Haitian Creole by end of 2024
- **Example tactics include:**
  - Partnering with community-based organizations
  - Administering community-based social marketing strategy
- **Unmet requests of Equity Working Group include:**
  - Additional details on how language assistance will be provided across PAs

ENVIRONMENTAL JUSTICE COMMUNITIES

- **Equity targets:**
  - Environmental Justice (EJ) is a focus of Equity performance incentive (PI)
  - Increase investment by each PA in EJ municipalities
  - Increase # of participants in EJ municipalities
- **PA Plan includes commitments to prioritizing EJ communities for:**
  - Main Street Program
  - Clean Energy Pathways
  - Work Force Development
  - Supplier Diversity
  - CBOs

PARTNERSHIPS

- **Equity targets:**
  - Provide equity partnerships in 75% of EJ municipalities
  - Increase # of participants in EJ municipalities
- **PA Plan includes commitments to:**
  - Prioritizing partnerships that focus on:
    - Increasing program participation rates
    - Increasing engagement in EJ communities
    - Reaching LMI customers, renters, and English-isolated customers
  - Hiring a lead vendor to coordinate implementation of the Community First Partnership Program
  - Including greater opportunities for community partners to develop their own marketing materials with streamlined approval process
  - Providing a new financial incentive for each community partner that is fixed annually based on their participation goals and annual achievement review

WORKFORCE DEVELOPMENT

- **WFD focuses on the following key areas:**
  - Grow and upskill contractors, existing workers, and new entrants
  - Train and retain new and diverse candidates
    - Clean Energy Pathways
    - Disadvantaged Business Enterprises (DBEs)
  - Build market capacity to scale electrification
- **MassCEC**
  - PAs to work collaboratively with MassCEC

WORKFORCE DEVELOPMENT *CONTINUED*

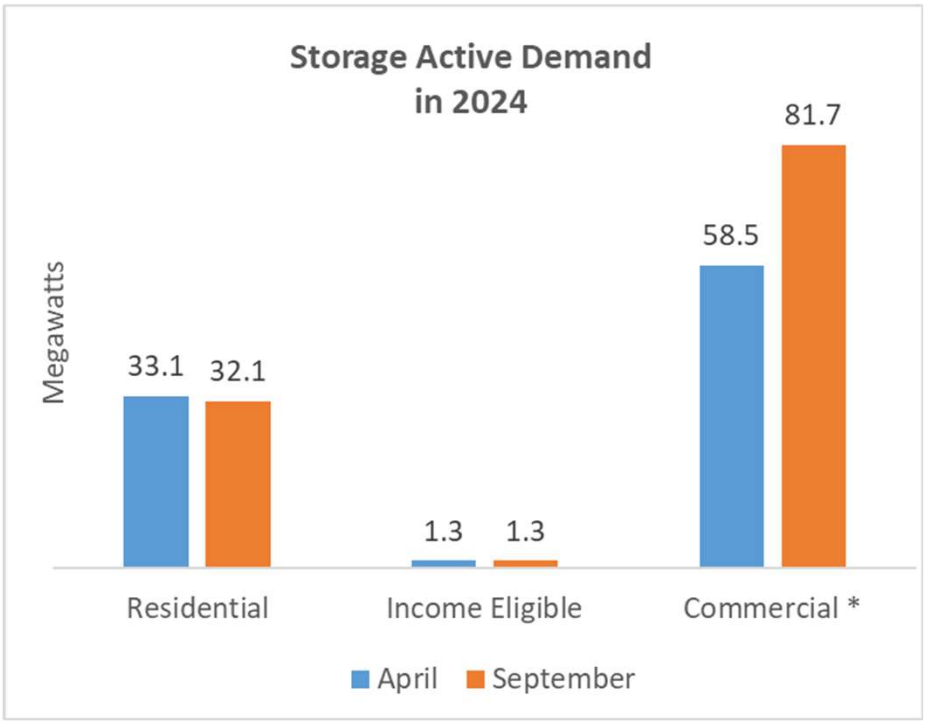
- **PA Clean Energy Pathways commitment in Plan:**
  - Over the three-year term, at least 120 new and diverse candidates will complete training and be placed in relevant industry positions
- **Equity Targets:**
  - At least 90 people being Women, BIPOC, fluent in language(s) other than English, and/or from EJ block groups at time of enrollment
  - Emphasize the value of retention in both training and job placement

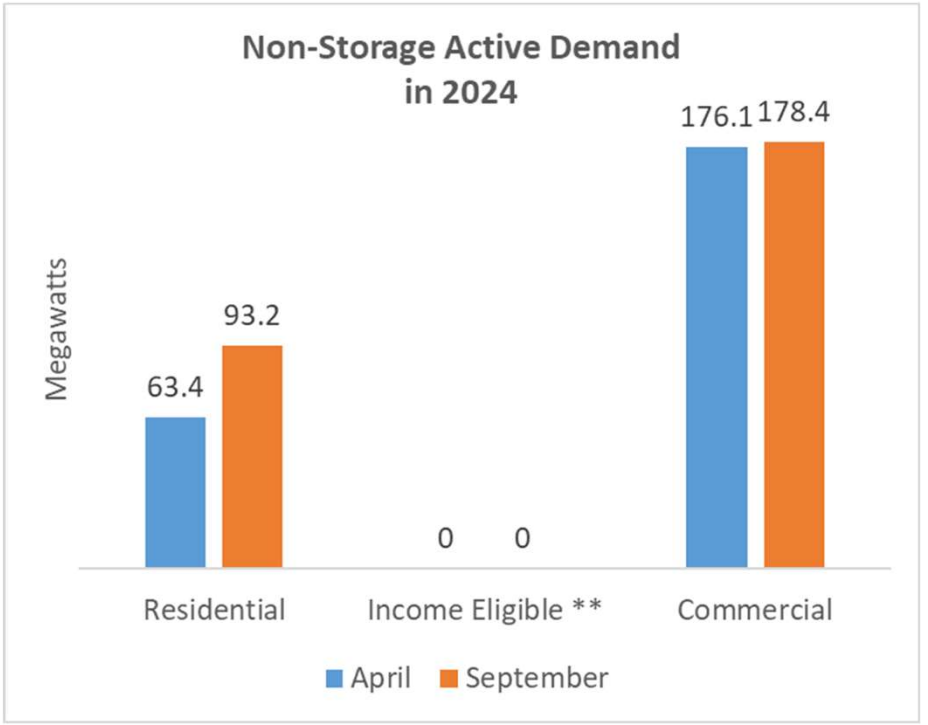
WORKFORCE DEVELOPMENT *CONTINUED*

- **PA Commitments to DBEs in Plan:**
  - DBEs: Minority-owned business enterprises, women-owned business enterprises, LGBTQI+, veteran-owned business enterprises, and small business enterprises
  - Develop and host educational contractor workshops
  - Establish an online vendor network
  - Increasing outreach and encouragement of DBEs to participate in RFP, RFI, RFQ
- **Equity Targets:**
  - Conduct EM&V study and share results in 2022 to analyze disparities
  - Track and report annually on the # of Minority and Woman-owned businesses (M/WBE) contracts and spend for vendor and direct contracts
  - Hold at least two workshops per year for contractors to provide educational on PA programs to increase participation
  - Perform direct targeted outreach to all MA-certified M/WBEs about services/equipment contracts, subcontracts, or incentives

ACTIVE DEMAND

ACTIVE DEMAND UPDATES SINCE APRIL DRAFT PLAN





(*) NGrid's Commercial "Battery Storage Daily Dispatch" (49.5MW) is mostly non-storage assets such as gas and diesel generators, as well as some storage and traditional curtailment measures

(**) No income eligible ADM other than CVEO explicitly listed in the plan, however PAs agree to promote Wi-Fi T-stats for IES customers and tentatively agree report out "Discount Rate" accounts

SUMMARY OF ACTIVE DEMAND UPDATES

- **Storage falls short of Commonwealth Storage goal but plan provides some clarity on 5-year incentive lock**
- **Income Eligible Active Demand**
  - No explicit plans to serve these customers other than CVEO
  - PA reporting of "Discount Rate" Wi-Fi thermostats is a good proxy measure for IES customer participation but no goals are being set
  - Multi-family Affordable Housing storage would show up under C&I
- **Integration w/ EE still leaning on cross-promotion**
  - But incremental progress: "*PAs may also offer higher incentives for purchasing some controllable tiers of technologies*"
- **Consultant Recommendations**
  - Integrate EE/DR through co-delivery and incentive structure
  - Do not support NGrid's enrollment of generators in Daily Dispatch
  - IES active demand should be more formally developed

CONCLUSIONS AND NEXT STEPS

- The Sept 15/Oct 6 updated Plan is closer to addressing Council priorities and achieving GHG emissions reduction goals compared to the April draft
- The Consultant Team will continue to work with the PAs to address the outstanding issues identified in this presentation
- PAs will work with DOER, AGO, and Consultant Team to finalize a term sheet for the Plan
- Council will vote on Plan resolution at the October 27 special EEAC meeting

MA ENERGY EFFICIENCY ADVISORY COUNCIL

→ CONSULTANT TEAM

THANK YOU

Questions?

▶ October 13, 2021

www.ma-eeac.org