

BEPSDC Task Force

May 25, 2021

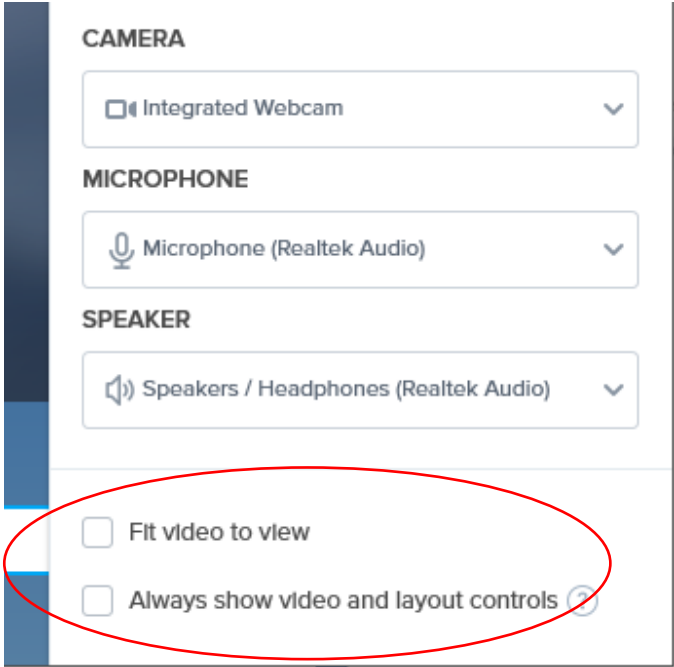
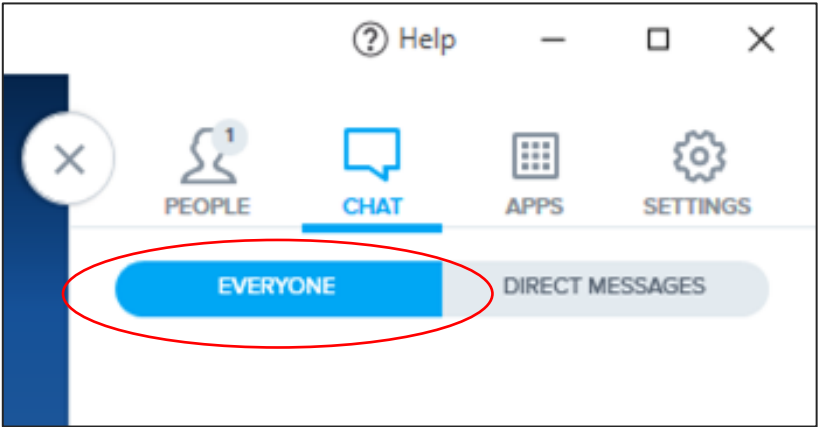
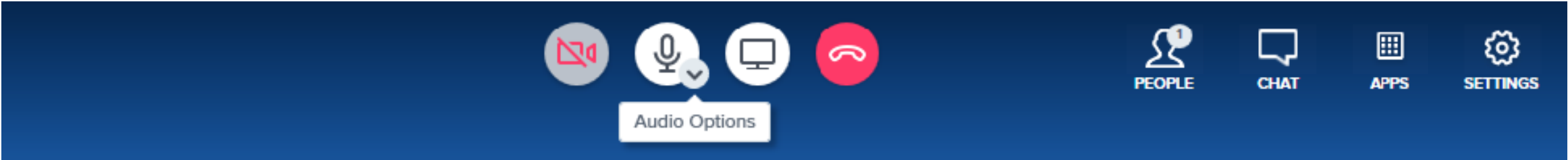


@DOEE_DC
#BEPSDC

*** DEPARTMENT
OF ENERGY &
ENVIRONMENT
GOVERNMENT OF THE DISTRICT OF COLUMBIA

*** WE ARE
WASHINGTON
DC GOVERNMENT OF THE
DISTRICT OF COLUMBIA
MURIEL BOWSER, MAYOR

BLUEJEANS TOUR



ONLINE MEETING ETIQUETTE

- The meeting is being recorded and will be posted to our website
- Questions and Comments throughout the meeting:
 - All attendees will control their own mute function but could be muted by the facilitator due to background noise
 - Task Force Members – can comment at any time
 - Non-Task Force Members - please use the chat box to request to talk
- Attendance
 - Non-Task Force Member – please use the chat box at this time to register your name, organization and email to “sign in”
 - Task Force Members - roll call (will also use this for voting)

ROLE OF TASK FORCE

- Advise DOEE on creation of an implementation plan for the Building Energy Performance Program;
 - Recommend amendments to proposed regulations issued by DOEE;
 - Recommend complementary programs or policies.
-
- If topic needs in-depth discussion, anyone can suggest moving to a sub-committee
 - This is an open meeting - everyone is allowed to participate

AGENDA

- Administrative Items
- Workforce development intro – *Full workforce development presentation and discussion moved to June 22 @ 11am*
- Retro-commissioning Subcommittee recommendations
- Pepco presentation and discussion on proposed EE programs
- Announcements

BEPS PROGRAM TIMELINE

- BEPS Cost/Benefit Study broken down into 2 parts. Part 1 working through approval process.
- BEPS Establishment Regulations effective January 1, 2021. Final rulemaking posted in the [DC Register](#) on April 30, 2021.
- Building Energy Performance [disclosure](#) with columns on whether buildings meet the BEPS. [Variance form](#) now available.
- DOE posted public comments received on BEPS [website](#).
- BEPS Compliance Rulemaking and Guidebook (with response to public comments) moving through approval process.

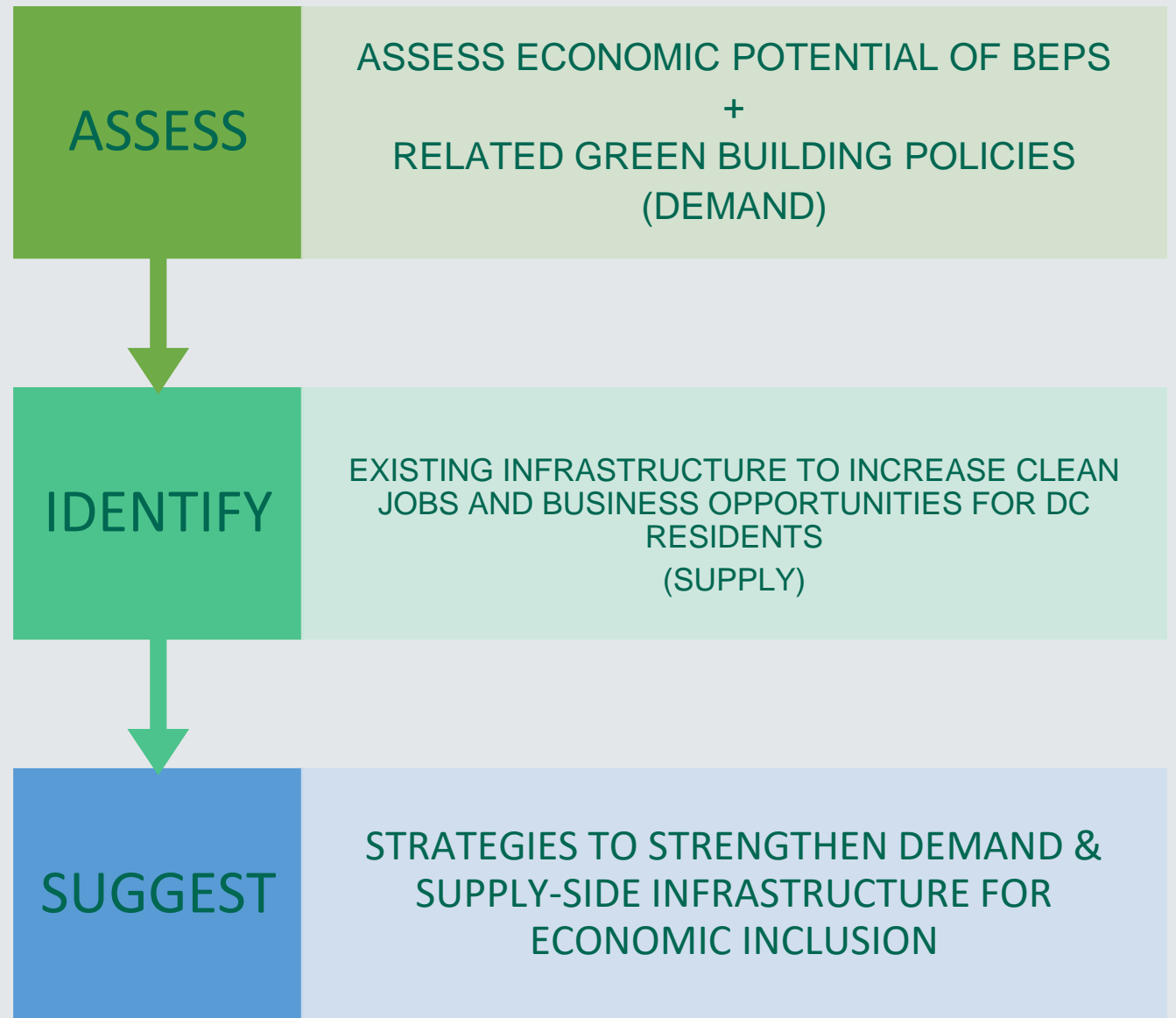
				PROPERTY				
	BEPS	BEPS_METRIC_	BEPS_PROPERTY_	PROPERTY	PROPERTY	MEETS_	DISTANCE_F	PERFORMANCE
		TYPE	GROUP	_BEP_ME	_BEP_ME	BEPS	ROM_BEPS_	_REQUIREMENT
				TRIC_YEA	TRIC		ESTIMATED	_EST
				R				
1	71	ENERGYSTARSC	Office/Bank/Financ	2019	68	No	-5%	-5%
0	71	ENERGYSTARSC	Office/Bank/Financ	2019	43	No	-32%	-20%
0	71	ENERGYSTARSC	Office/Bank/Financ	2019	46	No	-30%	-20%
4	71	ENERGYSTARSC	Office/Bank/Financ	2019	47	No	-29%	-20%
1	64	ENERGYSTARSC	Retail Store/Whole	2019	85	Yes		
4	71	ENERGYSTARSC	Office/Bank/Financ	2019	52	No	-24%	-20%
5	71	ENERGYSTARSC	Office/Bank/Financ	2019	61	No	-14%	-14%
3	71	ENERGYSTARSC	Office/Bank/Financ	2019	52	No	-24%	-20%
9	71	ENERGYSTARSC	Office/Bank/Financ	2019	71	Yes		
7	71	ENERGYSTARSC	Office/Bank/Financ	2019	42	No	-33%	-20%
1	54	ENERGYSTARSC	Hotel	2019	56	Yes		
4	71	ENERGYSTARSC	Office/Bank/Financ	2019	60	No	-15%	-15%
2	71	ENERGYSTARSC	Office/Bank/Financ	2019	75	Yes		
3	66	ENERGYSTARSC	Multifamily Housin	2019	29	No	-22%	-20%
8	66	ENERGYSTARSC	Multifamily Housin	2019	81	Yes		



BEPS ECONOMIC INCLUSION POTENTIAL

American Cities Climate Challenge
By
Emerald Cities Collaborative Advisors

PROJECT GOALS



METHODOLOGY

SECONDARY RESEARCH/DESK AUDITS

- City Reports/Documents
- Website

PRIMARY RESEARCH

- Agency Interviews
- Industry interviews
- Community based/workforce & small biz orgs

ANALYSES: BEPS JOB PROJECTIONS + GAP & ISSUES

Proposed Report Outline

- Executive Summary
- Study Methodology
- Demand-side Analyses - Major Drivers
 - DC Green Building Policies
 - Public & Private Sector Investments
- BEPS Job Estimates
- Supply-Side Infrastructure Assessments
 - Workforce Eco-system
 - Small Business Eco-system
- Gaps/Issues/Opportunities
- Recommendations
 - Driving Demand for Local Hire & Procurement
 - Strengthening Supply-side Infrastructure

RETRO-COMMISSIONING SUBCOMMITTEE

- Met 3 times over the course of 3 months
 - Evaluated existing guidelines from ASHRAE and other jurisdictions
 - Delineated different types of assessments
 - Provided recommendations on building systems and elements
 - Developed sampling protocol

Adam Shirvinski – A2 Services
Roger Chang - DLR Group
Paul Tseng – ABP Cx
Philip Wright – ABP Cx
Justin Baker – Lilker Energy
Mat Lindquist – RE Tech Advisors
Patti Boyd – DCSEU
Sarah Newman – PNNL
Supriya Goel - PNNL
Scott Emery – Baumann Consulting

PRESCRIPTIVE PATHWAY RETRO-COMMISSIONING

Proposed

Assessments

- On-site – physical site walk-through required
- Trend – analysis of activity over 4-6 months

Corrective Actions

- Implement energy efficiency actions with paybacks less than 3 years or estimated savings of up to 5% whole building consumption
- Implement indoor environmental quality actions

Points Awarded out of 25

- 5 points for one assessment and corrective actions
- 8 points for both assessments and corrective actions

RCx Professional must have one of these credentials:

- Professional Engineer (PE) – licensed in any U.S. State
- Building Operator Certification (BOC) Level II
- Certified Energy Manager (CEM)
- Meets minimum qual. for DCRA Approved Commissioning Agent

Reports Due:

- Preliminary RCx Report at end of Phase 2
- Final RCx Report at end of Phase 4

RCX ASSESSMENT: SAMPLING PROTOCOL

Proposed

- Follow FEMP M&V sampling size determination:
 - For On-site Assessment: Aim for statistical sample with a confidence level of at least 80% and 20% margin of error
 - For Trend Assessment: Aim for statistical sample with a confidence level of at least 95% and a 20% margin of error
 - For Both: apply the appropriate sampling protocol based on how the element was assessed

Population size	On-site assessment sample size	Trend assessment Sample size
1	1	1
5	4	5
10	6	8
15	7	10
20	7	11
25	8	13
50	9	17
100	10	20
Confidence	80%	95%
Margin of Error	20%	20%

Examples for limited number of populations:
DOEE can provide a calculator

RCX ASSESSMENT: BUILDING SYSTEM ELEMENTS

Proposed

System	System Element
HVAC	Setpoints, Schedules, Sensors, Controls, Load Distribution, Ventilation, Distribution Balancing, Oversized/Undersized equipment, Fan/Pump Pressure, Valves, Damper, Actuators, Economizer, Simultaneous Heating and Cooling, Distribution piping and ductwork
Lighting	Schedules, Sensors, Controls
Domestic Water	Setpoints, Schedules, Sensors, Controls, Load Distribution, Pumps
Envelope	Roof, Ductwork, Insulation, Shading, Windows
BMS/BAS	Setpoints, Schedules, Sensors, Controls, System Automatic Reset Functions, Economizer, Simultaneous Heating and Cooling
Commercial Kitchens	Ventilation, Commercial Freezers/Refrigerators, Demand Control Ventilation

PRELIMINARY RCX REPORT

Proposed

- Report provided by certified professional to building owner the includes the following information:
 - Date of assessment
 - Building system elements assessed
 - Method of assessment
 - Number of units in system (aka population of sample size)
 - % of system sampled (or % of units sampled)
 - Description of deficiencies observed
 - Potential of corrective actions and improvements
 - Annual estimated energy and cost savings by fuel type
 - Simple payback of potential corrective actions and improvements

Due to DOEE as part of Final EEM package to determine eligible savings (DOEE will provide a template)

BUILDING OWNER ACTION: CORRECTIVE ACTIONS

Proposed

- Building owners will need to implement one of the following:
 - All corrective actions with a payback period of less than 3 years; or
 - A combination of corrective actions with estimated savings adding up to 5% total building site energy consumption.
- Additionally, building owners will need to implement all indoor environmental quality related corrections
- Must be completed and verified by the before end of compliance cycle and before report is submitted
- Completion of actions and end condition must be verified by a certified professional

FINAL RCX REPORT

Proposed

- Report submitted to DOEE by building owner the includes the following information:
 - Date of assessment
 - Building system elements assessed
 - Method of assessment
 - Number of units in system (aka population of sample size)
 - % of system sampled (or % of units sampled)
 - Description of deficiencies observed
 - Description of corrective actions proposed and taken
 - Verified by certified professional
 - Status of correction
 - End condition/current condition
 - Annual estimated energy and cost savings by fuel type
 - Simple payback

Due at end of Phase 4 to award points on Prescriptive Pathway (DOEE will provide template)



DISCUSSION

PSC FORMAL CASE 1160

- The CleanEnergy DC Act clarifies that Pepco and Washington Gas may administer energy efficiency and demand response (EEDR) programs in the District, provided that the programs not be “substantially similar to programs offered or under development by the SEU, unless the SEU supports such programs”.
- The Public Service Commission (PSC) convened an EEDR Working Group to recommend a regulatory framework to guide utility EEDR investment and coordination between the utilities and the DCSEU. The first and second reports from the EEDR Working Group are available in PSC [Formal Case 1160](#).
- Pepco will file a 3-year EEDR plan by June 26. Washington Gas will file its own EEDR plan at a later date.
- Pepco's EEDR portfolio will be funded through a volumetric surcharge on customer utility bills, must pass a cost-effectiveness screen, and will be subject to an independent evaluation.
- In consultation with DOEE and DCSEU, Pepco has developed a BEPS Support Program that would provide prescriptive and custom rebates for energy efficiency measures and retro-commissioning services to support buildings subject to BEPS.



BEPS Task Force: Pepco Presentation

May 25, 2021

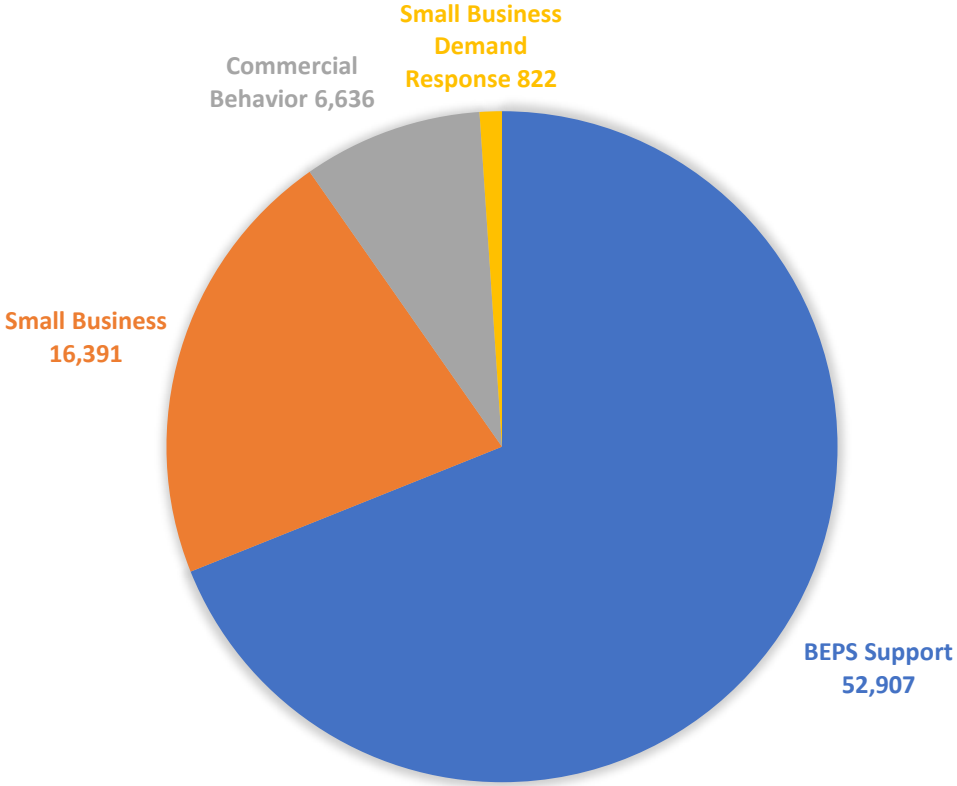


An Exelon Company

Pepco's Commercial Portfolio

Program	Coordination Required with SEU or DOEE	Cross-Promotion with SEU
BEPS Support	Yes	Yes
Commercial Behavior		
Small Business	Yes	Yes
Small Business Demand Response		

PROJECTED ENERGY SAVINGS BY PY 3 (MWH)



BEPS Support: DCSEU and Pepco Agreement

- Pepco and the DCSEU reached an agreement to both offer BEPS Support offerings, with each entity serving roughly half the non-compliance market.
- Pepco has been assigned 484 buildings, totaling nearly 90 million sq ft of space.
- BEPS non-compliant buildings were initially assigned to the DCSEU or Pepco, based on market segment and prior relationships; however, buildings may request to be served by the other entity at any point.
- The DCSEU and Pepco have the option to negotiate an exchange of buildings to better serve the customer as well

Row Labels	Count of PMPROPERTYID	Sum of TAXRECORDFLOORAREA	Sum of ELECTRICITYUSE_GRID_KWH	Average of ENERGYSTARSORE
Pepco_Multifamily Housing	174	26,736,359	330,705,431	37
Pepco_Office	167	40,080,536	658,788,923	53
Pepco_Affordable Housing_Aheld	60	11,050,827	105,574,941	43
Pepco_DOEE List_non-DCHA	23	3,137,266	33,212,206	42
Pepco_Worship Facility	7	1,217,127	20,552,733	9
Pepco_Senior Care Community	6	516,933	10,231,289	22
Grand Total	474	88,714,813	1,277,422,379	41

Pepco's BEPS Support Offering

- Pepco's BEPS Support will offer three incentive pathways targeting the 484 buildings that need to come into compliance, focusing on:
 - Re-Tuning
 - Custom
 - Prescriptive
- Most buildings will first undergo a re-tuning: Whereby, a qualified tune-up specialist will visit the non-compliant facility and will document need for corrective actions in the following areas: system maintenance and repair, HVAC operations, lighting system and controls, building envelope, and domestic hot water
- Buildings in need of additional BEPS support will then be directed to either custom and/or prescriptive rebates to achieve deeper savings
- Affordable multi-family (23 buildings assigned to Pepco) would also take advantage of Assisted Home Performance for in-unit energy savings



BEPS Coordination

Agreed upon coordination efforts between Pepco and the DCSEU:

- The DCSEU, Pepco and DOEE will develop a joint BEPS roadmap and conduct monthly coordination meetings to monitor progress, coordinate implementation, and collaborate on marketing and outreach
- Pepco and the DCSEU agreed to use the EM&V working group process to ensure alignment on incentive levels to the extent possible to ensure customers don't cherry-pick between entities
- Both the DCSEU and Pepco will offer enhanced incentives to target under resourced market segments, such as affordable multifamily buildings as well as worship facilities
- Buildings assigned to Pepco's BEPS Support program can take advantage of DCSEU-led education efforts, (e.g. SEM webinars and treasure-hunts), and vice versa. Neither the DCSEU nor Pepco will claim savings from this type of support and will refer customers back to its designated entity for incentives

Pepco's BEPS Marketing and Outreach

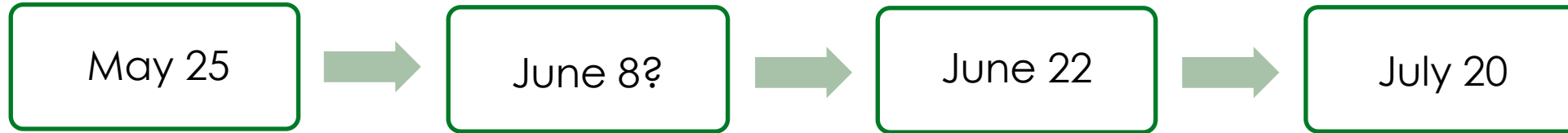
- Utilize Pepco's Large Commercial Services Team to educate their assigned accounts on BEPS and help prepare them for their compliance journey
- Utilize Commercial My Account and our proposed Behavior program to message non-compliant buildings about potential offerings and incentives to help make it towards compliance
- Pepco could leverage its billing and AML data to inform a customer whether they are either "on" or "off" target of meeting their goals. Wouldn't serve as a the "official" M&V of compliance, but could give a building owner some peace of mind after partaking in a BEPS support offering.



DISCUSSION



OVERALL SCHEDULE



Tentative Agenda Items

- Workforce Development discussion – June 22
- Cost/benefit study
- Compliance Guidebook presentation
- Public Service Commission updates – as needed
- Complementary program evaluation; Pathway review session

NEXT MEETING



June 22 @ 11:00am

- Emerald Cities presents BEPS jobs analysis and workforce development/economic inclusion recommendations

June 8 @ 2:30pm – holding tentative for one more week





ANNOUNCEMENTS

