

# Zero Net Carbon Building Zoning Renewable Energy Procurement TAG Meeting #4 – May 19, 2021

## *Presentation - Discussion Notes*



# Zoom Meeting Guidance

**The BPDA will record this meeting** and post it on BPDA's Zero Net Carbon Building Zoning webpage. The recording will include the presentations, discussions and a transcript of Q&A / Chat comments.

It is possible that participants may be recording this meeting as well.

**If you prefer not to be recorded during the meeting, please turn off your microphone and camera.**

# Zoom Meeting Guidance

- Help us ensure that this conversation is a pleasant experience for all.
  - Please mute your mics during the presentation to avoid background noise.
  - It's great to see you! Participant video can be on during the meeting.
  - **Use the Chat** feature for questions and comments during the presentation.
  - Use the Raise Hand feature during the discussion segment.
  - Please be respectful of each other's time.
- 
- As always please feel free to reach out to me directly!  
John Dalzell, AIA, LEED Fellow at [John.Dalzell@Boston.gov](mailto:John.Dalzell@Boston.gov)

# COVID-19 Resources

Stay up-to-date with COVID-19 related announcements, City of Boston reopening plans, and resources for you and your community at:

[boston.gov/coronavirus](https://boston.gov/coronavirus)



The screenshot shows the City of Boston website header with the logo, Mayor Martin J. Walsh's name, and navigation links for 'PAY AND APPLY' and 'PUBLIC NOTICES'. The main heading is 'CORONAVIRUS DISEASE (COVID-19) IN BOSTON'. Below the heading, a paragraph states: 'The state has updated guidance on the Reopening Massachusetts website. We also continue to update City-specific guidance for Boston on our reopening website.' To the right, it says 'July 12, 2020' and 'PUBLISHED BY: PUBLIC HEALTH COMMISSION'. A section for 'MULTILINGUAL CONTENT' lists various languages: العربية (Arabic), Kriolu (Cabo Verdean creole), 中文 (Chinese), Français (French), Kreyòl ayisyen (Haitian Creole), Português (Portuguese), and Русский (Russian). At the bottom, there are navigation links for 'TOPICS', 'COVID-19 UPDATES', and 'LATEST PRESS CONFERENCE'. Below that, it says 'BOSTON (AS OF FRIDAY, JULY 10)' and '13,673 CASES | 9,683 RECOVERED'.

# Renewable Energy Procurement

*Vincent Martinez, Chief Operation Officer*

*Architecture 2030*

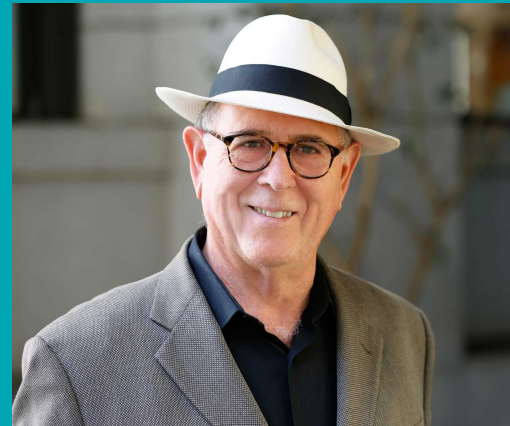
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*Architecture 2030*

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# ZNC BUILDING ZONING UPDATE

**Boston Carbon Neutral 2050 – Climate Action Plan**

***“Strengthen Article 37 Green Building Zoning requirements to a zero net carbon standard”***

*Policy Framework: Zero = Bldg Emissions – On-site and Procured Renewable Energy*

**Low Carbon Buildings** Establish Emission Targets and Pathways

**On-site Renewable Energy**

On-site Energy Generation Standard

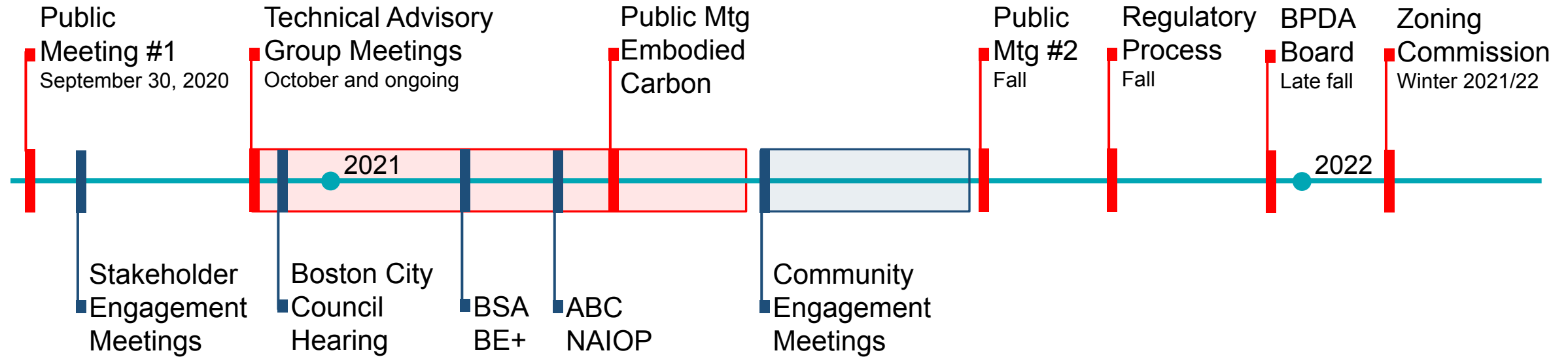
**Renewable Energy Procurement** *(this TAG)*

Determine Options & Reporting



# ZNC Building Zoning

## PUBLIC PROCESS TIMELINE



- Community Engagement Meetings - *to be scheduled*
- Open House and Office Hours events - *to be scheduled*
- Organizational Meetings – *ongoing as requested*

# RE Procurement TAG Process

## TAG Meetings:

- Meeting 1 – Framework and Pathways
- Meeting 2 – Deep Dive on Procurement Options & Minimum Requirements
- Meeting 3 – Draft Recommendations for Procurement Options & Minimum Requirements + Discuss additional Classification Criteria, including Community Concerns
- **Meeting 4 – (today) Review Draft Recommendations for Procurement Options & Minimum Requirements + Equity in Renewable Energy Procurement**



# Renewable Energy Procurement TAG

## May 19th, 2021 Meeting Agenda

- **Review Draft Recommendations for Renewable Energy Procurement Options and Minimum Requirements**
- **Equity Framework**
- **BERDO Update**
- **Equity in Renewable Energy Procurement Discussion**
- **Next Steps**

# Members

- **Vincent Martinez, Architecture 2030, COO**
- **Charles Eley, Architecture 2030, Senior Fellow**
- **Erin McDade, Architecture 2030, Senior Program Director**
- **Dennis Carlberg, Boston University**
- **Scott Johnstone, VHB**
- **Scott McBurney, Vicinity Energy**
- Seth Federspiel, City of Cambridge
- **Cameron Peterson, MAPC**
- **Yve Torrie, A Better City**
- Debra Perry, Cadmus
- **Joelle Jahn, WSP Engineering**
- Ben Myers, Boston Property
- Patrick Haswell, Vicinity Energy
- **Angela Oconnor, Vicinity Energy**



# City Staff

- Aidan Smith
- Alison Brizius
- Anna Demina
- **Barry Reeves**
- Chris Busch
- **Christopher Kramer**
- **David Musselman**
- **Joseph LaRusso**
- **Katherine Eshel**
- **Kathleen Pedersen**
- **Manuel Esquivel**
- **Maura Zlody**
- **Richard McGuinness**



# Draft Renewable Energy Procurement Options

- Direct Ownership / Self-owned, off-site project
- Power Purchase Agreements (PPAs) / Virtual Power Purchase Agreements (VPPAs)
- Unbundled Renewable Energy Certificates / Credits (RECs)
- Green Retail Tariffs / Green Pricing / Green Municipal Aggregation
- Utility Renewable Energy Contract / Direct Access to the Wholesale Markets
- Renewable Energy Investment Fund
- SMART Program-Funded

# Generation Source (follow MA E-Z Code 2.0)

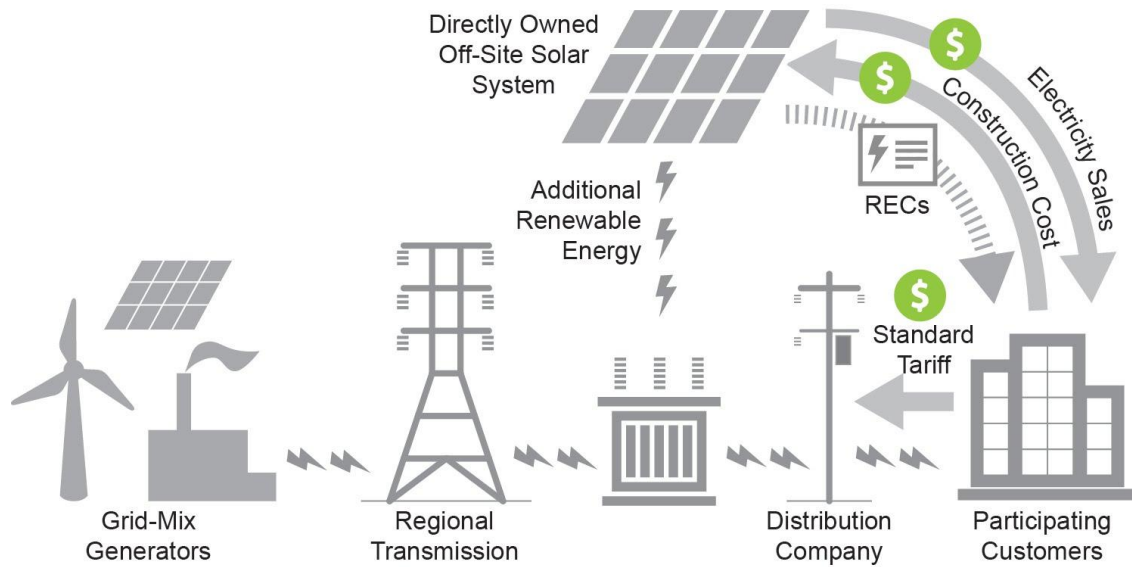
- The following renewable energy systems are acceptable.

1. ~~MA Class I (Inclusive of the Following Types)~~

- a) Solar photovoltaic
- b) Solar thermal electric
- c) Wind energy
- d) Small hydropower
- e) Marine or hydrokinetic energy
- f) Geothermal energy (without vapor compression cycle)

*Exception: For existing district energy plants that serve thermal energy to multiple buildings, all MA Class I renewable energy sources are acceptable, including: landfill methane, anaerobic digester gas, and eligible biomass fuel.*

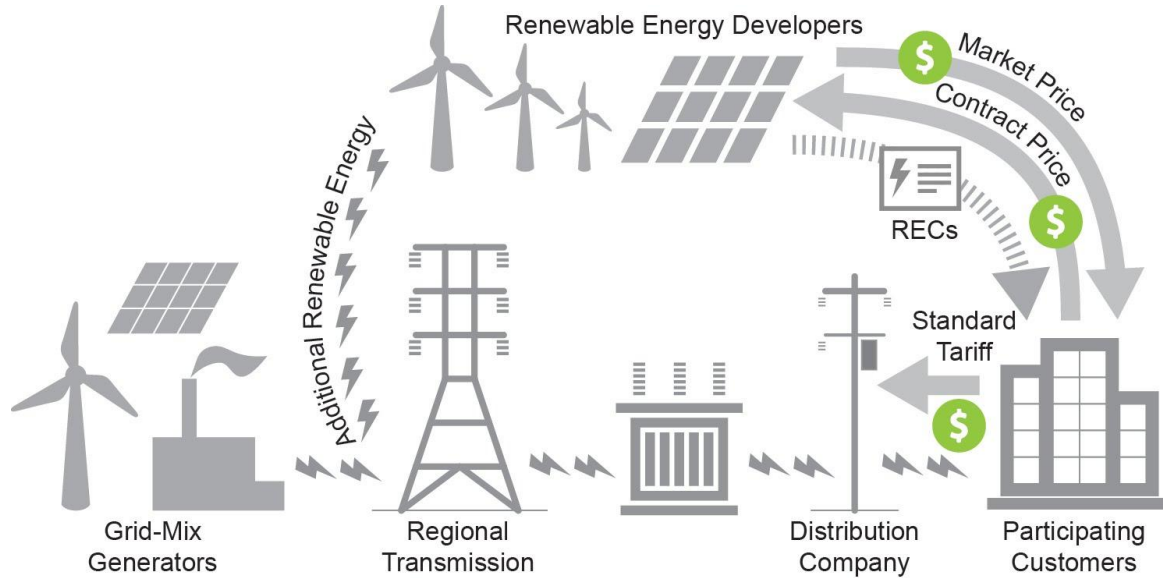
# Direct Ownership / Self-owned



## Minimum Requirements:

- Generation Source (follow MA E-Z Code 2.0)
- Class I MA RECs
- Exception for lease or direct PPA if on another site under the proponent's ownership
- **SMART Program-funded does not qualify under this procurement option as the RECs must go to the LDCs (see SMART Program-funded option)**

# Power Purchase Agreements (PPA / VPPA)

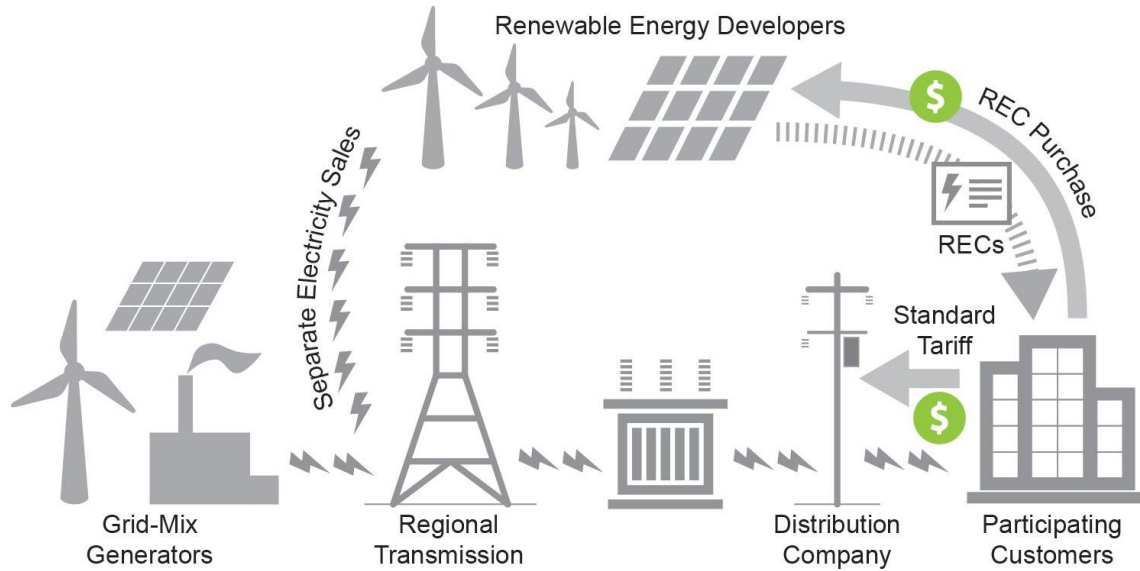


## Minimum Requirements :

- Generation Source (follow MA E-Z Code 2.0)
- Class I MA RECs *or* RECs from a grid with higher GHG intensity than ISO NE (aligns with BERDO update)

Aggregation with multiple parties is allowed via this procurement option

# Unbundled Renewable Energy Certificates

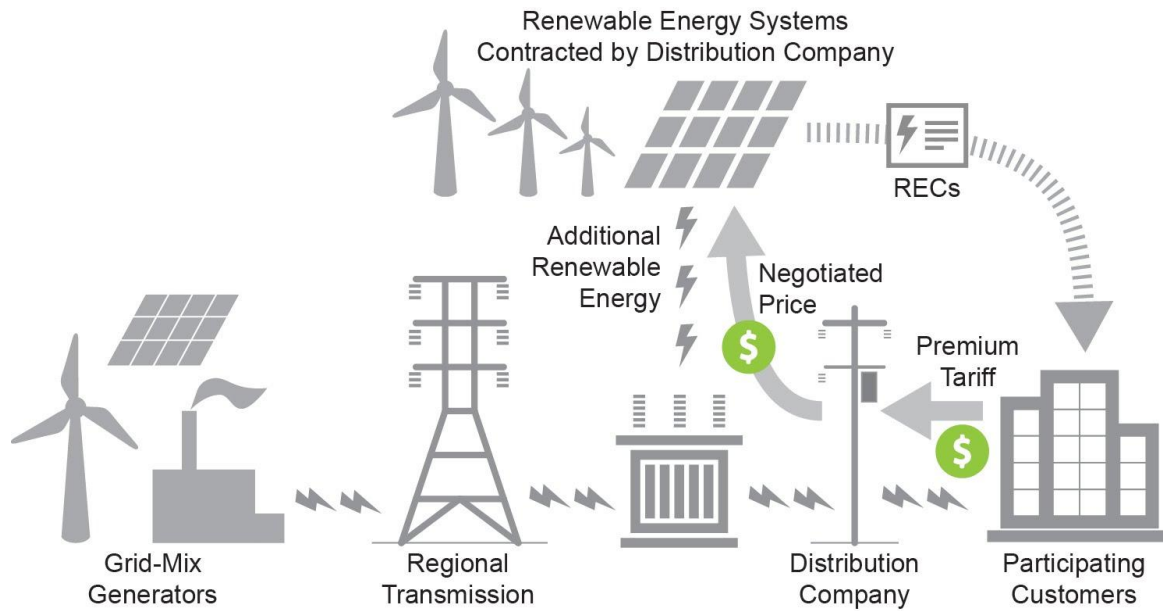


## Minimum Requirements:

- Generation Source (follow MA E-Z Code 2.0)
- Class I **non-emitting** MA RECs (aligns with proposed BERDO update)



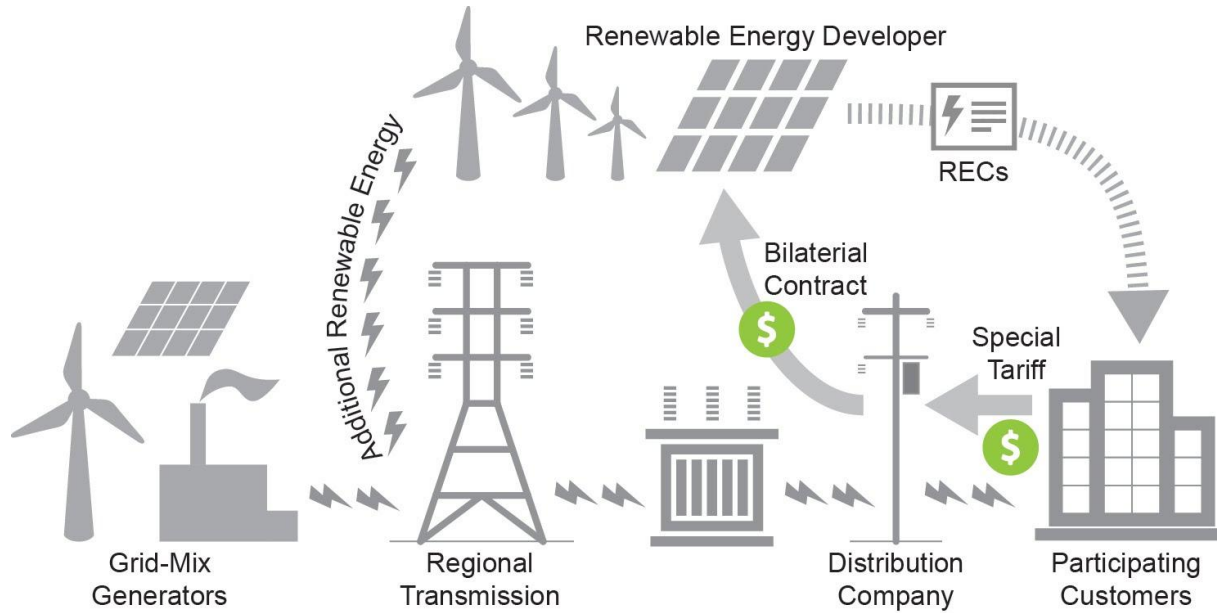
# Green Retail Tariffs / Green Pricing / Green Municipal Aggregation



## Minimum Requirements :

- Opt-Up to 100% Renewable Energy Option in the Boston's Community Choice Electricity  
*(18% RPS minimum (for 2021) + 82% MA Class I non-emitting)*  
*(Class I MA RECs are retired on behalf of the customer)*

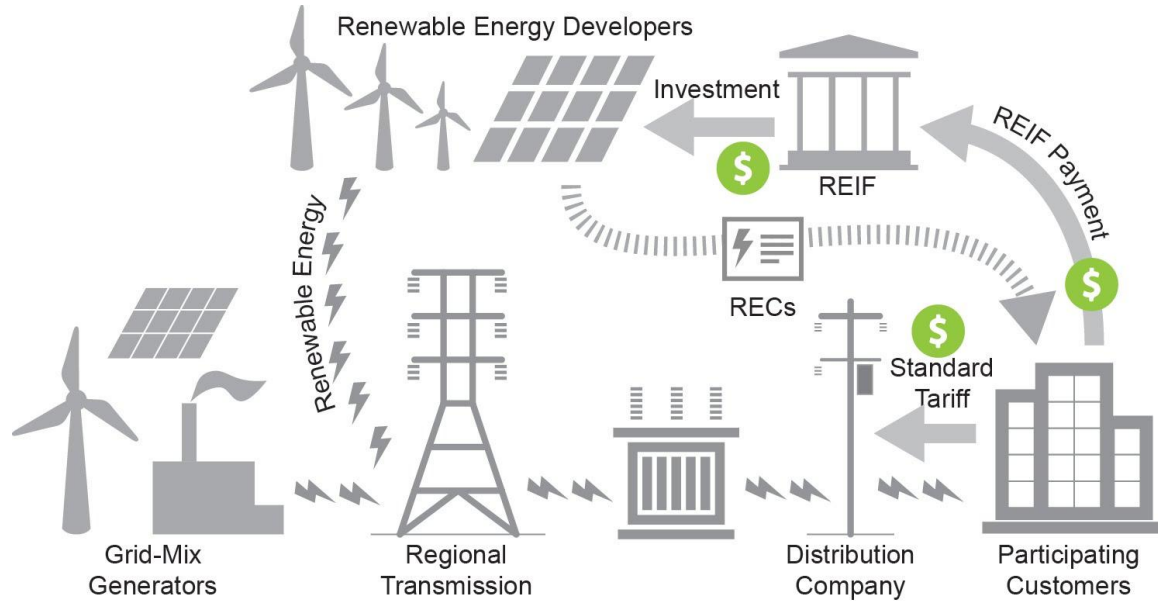
# Utility Renewable Energy Contract / Direct Access to the Wholesale Markets



## Minimum Requirements :

- Generation Source (follow MA E-Z Code 2.0)
- Class I MA RECs

# Renewable Energy Investment Fund

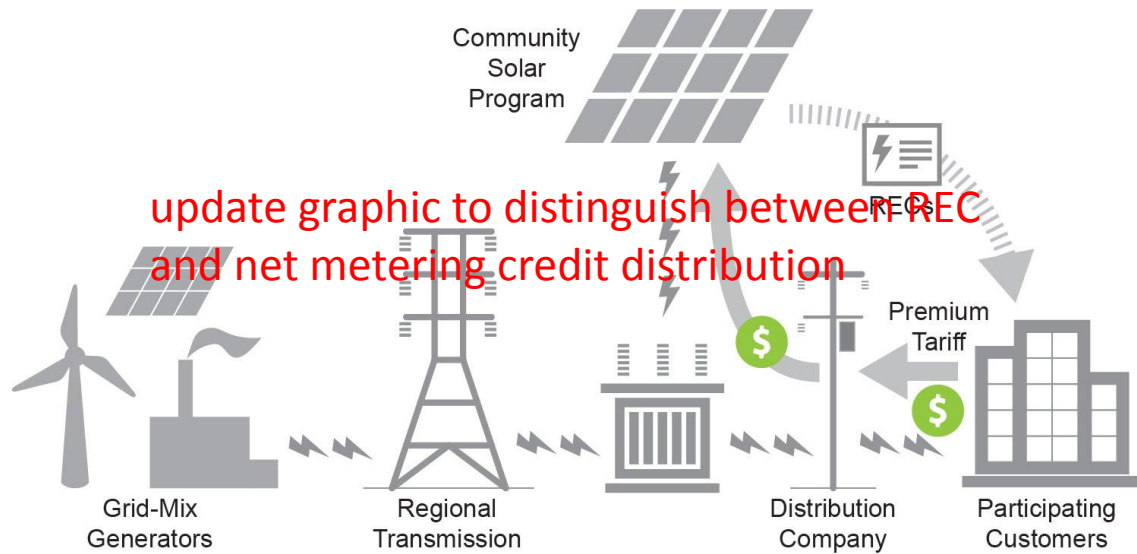


## Minimum Requirements (TBD by Entity Managing):

- Generation Source (follow MA E-Z Code 2.0)
- Class I MA RECs *or* from a grid with higher GHG intensity than ISO NE (aligns with the proposed BERDO update)

The proposed BERDO update is establishing a similar fund

# SMART Program, Solar Share



## DISCUSSION:

### Minimum Requirements :

- Generation Source (follow MA E-Z Code 2.0)
- Should there be constraints on this option five the RECs must go to the LDCs, examples:
  - Geographic
  - Type of building
- Unknown how proposed BERDO update will treat off-site SMART-funding projects

# Commitments / Compliance Via Cooperation Agreement

Maintain participation or have a contract for renewable energy procurement for all electricity consumption under one or more of the following mechanisms:

- Direct Ownership / Self-owned, off-site project
- Power Purchase Agreements (PPAs) / Virtual Power Purchase Agreements (VPPAs)
- Unbundled Renewable Energy Certificates / Credits (RECs)
- Green Retail Tariffs / Green Pricing / Green Municipal Aggregation
- Utility Renewable Energy Contract / Direct Access to the Wholesale Markets
- Renewable Energy Investment Fund
- SMART Program-Funded

\*Reporting occurs annually via BERDO

# Equity Framework

The Zero Net Carbon Building framework is the equity framework to improve planning, decision-making, and resource allocation to create more equitable policies and program.

Many current inequities are sustained by historical legacies and systems that repeat patterns of exclusion. Institutions and structures have continued to create and perpetuate these inequities, despite the lack of explicit intentions.

Integrating equity into the consideration will help those strategies be more effective.

The Equity Framework applies principles, goals, and processes to address inequity at all levels of the agency. Institutionalizing use of an equity tool provides the opportunity to develop thoughtful, realistic strategies and timelines to advance equity.

# Equity Framework

Communities of color, immigrants, refugees, people with low incomes, youth and limited English-proficiency individuals tend to live, work, play, and learn in specific areas of our City. Targeted investments will likely be necessary to advance the goals and strategies of the Agenda in these geographic areas to address disparities, mitigate impacts, and share benefits while minimizing displacement.

However, geographic considerations should not substitute for race, as many of the concerns of communities would persist even if they moved to a new location.

Specific cultural and population approaches that are not geographically based must remain a priority, especially as communities move to new areas and new people arrive. Additionally, actions must focus on multi-generational approaches, especially the engagement of and support of youth.

# Equity Framework

## The goals of the Equity Framework

- Institutionalize structures for community decision-making, transparency, leadership, and influence on design of environmental programs and policies.
- Refine environmental policies/programs so that the distribution of individuals and grassroots organizations that participate in and benefit from these programs is equitable and reflective of communities of color, immigrants, refugees, people with low-incomes and limited-English proficiency individuals.



# Equity Framework

The Equity Framework strives to understand and assess the impact of the agency's policies, programs, and operations by applying essential inquiries:

- **Stakeholder engagement:** Who is affected by the policy, program, practice, or decision and how can they be involved?
- **Systems and data analysis:** What has caused or contributed to the inequity and what does the data say?
- **Developing equitable solutions:** What are the desired results and outcomes? What are the best strategies for advancing racial equity or mitigating unintended consequences?
- **Accountability and communication:** How will we ensure accountability, communicate, and evaluate results?

# BEPS - Resident Advisory Group

The City is developing a building emissions performance standard (BEPS), building on the Building Energy Reporting and Disclosure Ordinance (BERDO).

**Goal:** Develop a building emissions standard that minimizes harm and maximizes benefits and opportunities for Boston's frontline populations most affected by the proposed policy.

Approach:

- Receive community expertise and feedback,
- Raise awareness of potential impacts and opportunities,
- Collaborate with and center communities impacted by the policy.

The resident advisory group has met three times.



# BEPS - What we heard from residents

Residents want to make sure that the policy includes these priorities:



Improves  
air quality  
for residents



Reduces  
renter  
energy bills



Does not  
contribute to  
displacement



Improves  
heating +  
cooling in  
homes



Creates  
jobs for  
residents



Is good  
for the  
environment

# BEPS - Designing for Equity

- Community oversight
- Funding for emissions reduction projects in environmental justice populations in Boston
- Support for economic inclusion
- Transparency and accountability
- Connecting residents and building owners to resources



# BEPS - Equity in RECs and ACP

In addition to onsite retrofits and fuel switching, building owners would have additional compliance mechanisms:

- Clean electricity purchase: source of RECs, definition of renewable, local benefits versus non-local impacts. *Ensure vintage of recs aligns w/ year of desired offset; trying to ensure emissions reduction in Boston so locality of recs important*
- Alternative compliance payment: funds would be used to support local emission reduction projects that benefit environmental justice populations in Boston and support community priorities, with oversight by a review board with  $\frac{2}{3}$  community representatives.



# Equity in Renewable Energy Procurement Discussion

Equity Indicators we should use:

- **Air quality** (indoor and outdoor)
- **Health impact of materials and (de)construction processes**
- **Energy cost burden**
  - Upfront costs of development – are costs increased w/ these requirements? Who is burdened by these additional costs?
  - Operational costs (utility bills/costs of energy and procurement)
- **Workforce development**
  - Pathway program: young people exposed to program and these pathways for employment
- **Business/economic development**
- **Process indicators:**
  - How is community involved in conversations?
- **Resilience (climate, economic, etc.)**

[MAPC Equity Goals and Indicators](#)

[MAPC Equity Framework](#)

DC Precedents

# Equity in Renewable Energy Procurement Discussion

Equity Indicators we should use cont...:

- **Access**
  - To programs
  - To benefits (access can be limited by a number of factors)
  - Leadership: mentorship so (future/potential) leaders have the opportunity to lead
- **Wealth:** creation, generation, accrument
- **Data:** make sure we're capturing what we need to measure progress, have accountability and transparency

# Equity in Renewable Energy Procurement Discussion

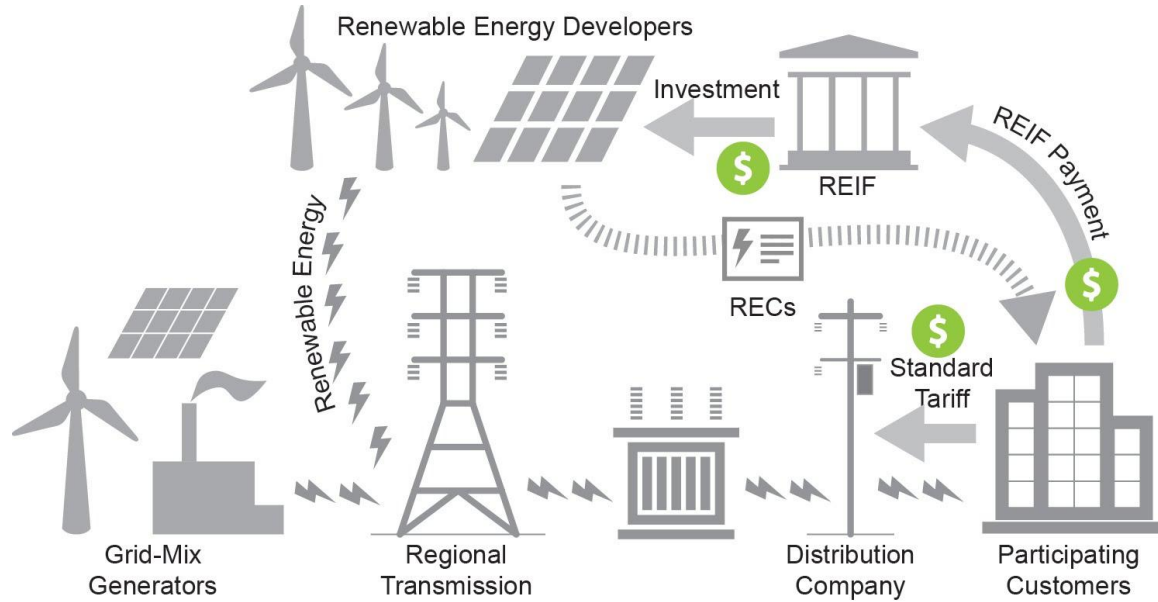
Biggest barrier(s) for increasing equity:

- Access for impacted communities to, and understanding of, opportunities and potential impact created by proposed policies
- Education on how to take advantage of programs/opportunities
- Burdens of actually engaging in programs
  - Compensate community members for time
  - Create many different opportunities and means for engagement
- Don't just build policies – build programs w/ longevity that build legacies; build pipelines for ongoing access to programs, pathways for ongoing equity improvement
- Synergy between gov agencies and ngo efforts: required for longevity of programs and successful achievement of short- and long-term goals
- How can city leverage access and resources to further efforts (e.g. city has data on minority-owned businesses that can be used for “matchmaking” for project implementation)
- Greater representation from off-site renewable energy developers in this convo, to understand barriers and opportunities
- Who you buy the energy from, not just type of energy you buy, is important (community workforce agreement)





# Renewable Energy Investment Fund



## EQUITY DISCUSSION:

- New fund, or build on BES work?
  - One system less confusing?
- What else can BES fund be used for beyond renewables?
  - Energy efficiency and renewables, not much else right now
  - “Energy efficiency” can capture a bunch of potential projects
  - BES: “funds would be used to support local emission reduction projects that benefit environmental justice populations in Boston and support community priorities, with oversight by a review board with  $\frac{2}{3}$  community representatives.”

# RE Procurement TAG Process

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- **Meeting 4 – (today) Review Draft Recommendations for Procurement Options & Minimum Requirements + Equity in Renewable Energy Procurement**
- Meeting 5 – (New) Finalizing Recommendations - TBD