GWSA Implementation Advisory Committee (IAC) Meeting
March 28, 2024, 2:00 PM – 3:30 PM
Virtual Meeting on Zoom
Meeting Minutes – *Approved*

Welcome, approving the 12/14/23 IAC meeting minutes, agenda overview

Undersecretary Antos called the meeting together at 2:05pm with quorum reached. Undersecretary Antos introduced 2 new members of the IAC. Manikka Bowman is the new State Director for the Nature Conservancy. Manikka has built a career as a land use nonprofit, government, and political leader. She will be TNC's official member while Steve Long will continue to serve as delegate and co-chair of NWL WG. Noelle Eckley Selin is the replacement for Dr. Sebastian Eastham. Noelle is the Professor and Interim Director of the Institute for Data, Systems and Society at Massachusetts Institute of Technology. Dr. Selin's research uses modeling and data analysis to inform decision-making on sustainability challenges, including air pollution, climate change, and hazardous substances such as mercury and persistent organic pollutants (POPs).

Undersecretary Antos also provided some highlights from the administration and the EEA:

- The administration recently announced the Office of the Energy Transformation (OET) and the appointment of Melissa Lavinson as its Executive Director. The Office will be housed within the Executive Office of Energy and Environmental Affairs and is charged with the hands-on execution of the clean energy transition, including ensuring the availability and readiness of electrical infrastructure, electric and gas transition coordination, and a just transition for impacted workers and businesses.
- The Office of Climate Science (OCS) purpose is to increase state agency, municipal, and public access and understanding of statewide climate change projections and trends and to provide technical assistance and guidance. The administration launched a Climate Science Advisory Panel through the new Massachusetts Office of Climate Science (OCS) to provide expertise on statewide climate science and future projections used to inform state and local climate adaptation planning and projects.
- The Community Climate Advisory Council is a group of engagement experts from municipalities, regional planning agencies and community organizations across the state who are advancing local climate action and will help support the EEA Climate Team.
- Massachusetts submitted its state Priority Climate Action Plan (PCAP) on March 1, 2024. The Commonwealth is applying for three CPRG implementation grants:
    - In-state proposal to electrify medium- and heavy-duty fleet vehicles
    - Coalition proposal with NH, RI, ME & CT to deploy heat pumps via mid-stream rebates and a quick-start program
    - Coalition proposal with ME to unlock floating offshore wind in the Gulf of Maine via port development
    - Applications for implementation grants are due April 1, 2024.

No discussion of the draft minutes for the last IAC meeting. Meeting minutes were approved by majority.

EEA Project Spotlight: Launch of Climate Campaign

Patrick Forde (EEA) presented details on the launch of the EEA's Climate Campaign. "Climate Action is for All of Us" is an integrated marketing campaign to raise awareness and inspire climate action. Based on market research, it drives residents toward resources for programs including EEA's energy efficiency, weatherization, electric vehicle adoption, and residential solar programs.

Creative assets developed for this campaign include:

- Campaign Landing Page
- YouTube Video
- Digital and Transit Ads
- Social Media Content
- In Language Promotional Flyers

Assets drive viewers to resources such as:

- Mass Save
- Clean Energy Lives Here educational resources
- MOR-EV
- DCR Forest Stewardship Program
- Storm-related flooding toolkits

Massachusetts EEA Sector Workplans

Melissa Mittleman led a presentation explaining the purpose and goals of the EEA Sector Workplans.

Building Decarbonization

- We follow these strategies:
    - Energy Efficiency
    - Electrification
    - Alternative Fuel Use
- With these policy levers:
    - Planning and Building Market Capacity (CECPs, workforce development, building benchmarking, rate design)
    - Education & Awareness (Mass Save, Campaign, Clearinghouse)
    - Incentives (Mass Save, DOER grants, C-PACE, Climate Bank, tax credits, Solar for All)
    - Standards & Mandates (Clean Heat Standard, Building Codes)
    - Pilots & Market Accelerators (BETA, Climate Finance pilots)
- And measure progress against these indicators:
    - Number of residential heat pump installations
    - # of communities which have adopted specialized and stretch codes
    - Number of residential audits; Number of weatherization projects, broken into income-eligible and all others.

    - Reduced emission intensity of building fuels
    - Buildings investments going to EJ communities
- With these modeled targets, where applicable:
    - At least 100,000 homes install heat pumps between 2020 and 2025 and at least 500,000 homes between 2020 and 2030.
    - At least 300,000 sq. ft of commercial space retrofitted with heat pumps between 2020 and 2030
    - 1.5 million units with upgraded envelopes†
    - Delivered heating oil contains minimal fossil blend by 2050

Decarbonization Program and Policy Landscape

Policy/ Lever	Current	Planned
Planning and Building Market Capacity	• **Workforce Training and Education	• Joint Energy System Planning • **Electric Rate Reform
Education/ Awareness	• Clean Energy Lives Here • **Mass Save • Green Communities & Climate Leaders • Leading by Example	• Climate Campaign • **Decarbonization Clearinghouse • Building Benchmarking
Incentive/ Financing	• **Mass Save • **Affordable Housing Grants • Federal Grants & Incentives • SMART/APS • Commercial PACE • Green Communities & Climate Leaders	• **Community Climate Bank • **Federal Grants, Rebates and Credits
Standard/ Mandate	• Building Code (*new construction & major renovations only*)	• Clean Heat Standard

Natural & Working Lands

- We follow these strategies:
    - Protect NWL
    - Manage NWL (incl. Sustainable Wood Use)
    - Restore NWL
    - Explore Additional Sequestration
- With these policy levers:
    - State actions (land acquisition & stewardship; proactive wetland restoration; infrastructure investment & siting decisions)

    - Education, Outreach, Technical Assistance (Service Foresters; Wetlands Circuit Riders; Farmer Consultant Program; nutrient management)
    - Incentives (grants for land acquisition, climate-oriented management, tree planting & retention, wetland restoration, planning assistance; Chapter 61 current use tax rate; tax credits for land conservation and cranberry bog renovation)
    - Regulations (WPA permits, forest cutting plan reviews, MEPA environmental reviews, mitigation measures/fees, in-lieu fees, plant nutrient management)
    - Policy mechanism TBD for hybrid/engineered carbon dioxide removal and/or interstate carbon purchase
- And measure progress against these goals and indicators:
    - 28% of MA permanently conserved by 2025, 30% by 2030, 40% by 2050
    - Land conversion reduction goal TBD
    - 20% of private forests & farms adopting climate-smart practices by 2030
    - 5% improvement between 2025-2030 in durable wood product recovery of harvested timber
    - 5,000 acres of new riparian/urban trees by 2025, 16,100 acres by 2030, and 64,400 acres by 2050
    - No net loss of carbon storage in wetlands by 2030

Natural & Working Lands Program and Policy Landscape

Policy/ Lever	Current	Planned
State Actions	• Land acquisition & stewardship by DCR & DFG • Proactive restoration by DFG/DER • Infrastructure investment & siting decisions • Net Zero emissions accounting framework	• Multi-state net zero emissions accounting framework
Education, Outreach, Technical Assistance	• DCR's Working Forest Initiative - Service Forestry Program • MassDEP's Wetlands Circuit Rider Program • MDAR's Coordinated Soil Health Program, Farmer Consultant Program • Nutrient management plans via NRCS & UMass Ag. Ext.	• **DCR's Underserved Forest Landowner Program • Online portal connecting forest landowners and businesses to resources
Incentives	• *EEA's land acquisition grant programs, planning assistance grant program, and MVP Action grants for nature-based projects • **EEA & DCR's grant programs for urban tree planting • *EEA & MDAR's healthy soils grant programs • DCR's grant programs for climate forestry • MDAR's grant program for agrivoltaic systems	• *EEA's riparian tree planting grant program • DFG's blue carbon finance program • DCR's grants for forest soil protection • Incentives for use of native lumber in buildings

	• DFG/DER's grant programs for ecosystem restoration • Chapter 61, 61A, 61B current use tax rate • Tax credit programs for land conservation & cranberry bog renovation	
Regulations	• *MA Environmental Policy Act (MEPA) • Forest Cutting Practices Act • Wetlands Protection Act (WPA) • In Lieu Fee Program • Plant Nutrient Management	• WPA reg. updates requiring organic soils in replicated wetlands • Streamlined permitting for proactive wetland restoration

Transportation Decarbonization Strategy

- We follow these strategies:
  - Electrification
  - Mode Shift (VMT Reduction)
  - Alternative Solutions for Hard-to-Decarbonize
- With these policy levers:
  - Incentives (MOR-EV, MOR-EV Truck, ACT: V4H)
  - Regulations (Advanced Clean Cars II, Advanced Clean Trucks
  - Infrastructure (EDC programs, EVICC, EVIP)
  - Technical Support (Fleet Advisor, School Bus)
  - Market Demonstration Projects (ACT4All)
  - Zoning (MBTA Communities)
  - Incentives (Complete Streets, e-bikes)
  - Public Transit (MBTA Bus Modernization)
  - Regulation (existing Rideshare regulation)
  - Market Planning (Hydrogen Roadmap)
  - Market Demonstration Projects (Short haul aviation pilot)
- And measure progress against these indicators:
  - # of Light Duty EVs
  - # Medium/Heavy Duty EVs
  - Number of installed electric vehicle public charging ports
  - Light Duty VMT
  - Medium/Heavy Duty VMT
  - Jet fuel consumption
  - Marine diesel oil fuel consumption
- With these modeled targets, where applicable:
  - 900,000 total EVs on the road by 2030
  - 15,000 public charging station ports by 2025 and 75,000 by 2030
  - Annual VMT per household declines from 21,000 in 2015 to 20,400 in 2030
  - Reductions in jet fuel and marine diesel oil based on international agreements

Policy/ Lever	Current	Planned
Vehicle Incentives	• MOR-EV and MOR-EV Truck • ** MOR-EV+ • ** ACT: Vehicles for Hire	• ** Expanded MDHD incentive program • ** E-Bike rebates
Infrastructure Support	• Utility programs ($400M for home, public workplace, fleet depot charging) • EVIP	• ** Curbside charging • ** TNC charging support • Additional support for state fleet EVSE.
Innovation, Technical Support and Market Demonstration	• Mass Fleet Advisor • ** ACT: School bus • ** ACT4All • ** Workforce Support • Technology Innovation	• ** Vehicle to grid demonstration projects • Mobile charging for MDHD • H2 Roadmap
Regulations	• Advanced Clean Cars II • Advanced Clean Trucks • Building codes • Rideshare	• ** TNC electrification requirements
Land Use	• MBTA Communities • Complete Streets	• Holistic Land Use Study • MEPA Mobile Source

Decarbonization Strategy

- We follow these strategies:
  - Deploy Clean Energy
  - Cap Fossil Fuel Generation
  - Manage Load
  - Modernize the Grid
- With these policy levers:
  - Clean Energy Procurements
  - Incentives (SMART, grants)
  - Portfolio Standards
  - Siting and Permitting Reform
  - Infrastructure, Supply Chain and Equitable Workforce Development
  - RGGI Program and In-state Generator Cap
  - Energy Efficiency (Connected Solutions, Energy Codes)
  - Clean Peak Standard
  - Rate Design
  - Distribution Planning (Grid Modernization Plans, ESMPs and CIPs)
  - Transmission Planning Reform
- And measure progress against these indicators:

    - Wind Capacity
    - Solar Capacity
    - Energy Storage Capacity
    - Share of electric load generated by renewables
    - Tons of CO_2 emitted from power generation
    - Capacity of Distributed Energy Resources (DER) able to provide grid services
    - Reduction in electric load spikes at peak times
    - Electrification Capacity
    - Reduction in time to interconnect
    - Total Transmission Import Capacity (In GW)
- With these modeled targets, where applicable:
    - 3,650 MW of wind and 8,360 MW of solar by 2030
    - 24 GW of wind and 27 GW of solar by 2050
    - 5.8 GW of storage by 2050
    - 90% of the state's electricity consumption met with clean sources by 2030
    - 100% of the state's electricity consumption met with clean sources by 2050
    - Total transmission import capacity of 34 GW

Policy/ Lever	Current	Planned
Incentives	• SMART program • Net metering • Energy storage grants • **Low-Income Services Solar Program • **MassSave • Connected Solutions	• SMART program review • **Solar4All
Standards and Mandates	• Renewable Portfolio Standard • Alternative Energy Portfolio Standard • Clean Energy Standard • Clean Peak Standard • RGGI • In-state generator cap	• RGGI program review • Clean Peak Standard review
Clean Energy Development	• Clean energy procurements (Sections 83, 83A, 83C, and 83D)	• Siting and permitting reform • Hydrogen roadmap • Energy storage study • **Community Shared Solar Marketplace
Grid and Rates Modernization	• Electric Sector Modernization Plans (ESMPs)	• GRIP funding • Transmission reform • Siting and permitting reform • Virtual Power Plant Roadmap

	• Capital Investment Projects (CIPs) • Rate design study	• Grid Services & DER Compensation Study
Workforce, Infrastructure and Supply Chain Development	• Offshore Wind Port Redevelopment • **Offshore Wind Works • Offshore Energy Marine Energy Innovation and Research Center, Marine Commerce Terminal, Wind Technology Testing Center	

Undersecretary Antos explained the areas of specific IAC engagement. This includes:

- Transportation
    - VMT reduction: How can the state be more ambitious in reducing VMT, whether as part of the holistic land use study or other efforts on transportation and housing.
    - Managing grid impacts of electric vehicles: How can we best manage EV load and overcome some of the constraints that we see limiting the deployment of electric vehicle charging stations.
    - How can we support electrification of RTA buses
- Buildings
    - In support of the Building Decarbonization Clearinghouse visioning process underway with the consultant VEIC to establish recommendations regarding the scope and structure of a future clearinghouse, feedback from the IAC Buildings WG on the recommendations and future options for Mass Save will be helpful during the external stakeholder engagement phase expected to roll out late summer and early fall.
- Power
    - The Commission on Energy Infrastructure Siting and Permitting will submit recommendations to the Governor on measures to streamline the siting and permitting process for clean energy infrastructure projects by March 31. EEA would like to ask the IAC to review the recommendations, provide feedback to the Commission and EEA following the release of the recommendations and during any resulting rulemakings and policy developments.
    - EEA has proposed legislative changes to expand clean energy procurement authority for DOER to ensure the Commonwealth can procure needed clean energy resources at any time. EEA asks the IAC to review this proposal.
    - The Interagency Rates Working Group are working with a consultant to conduct a study of electric rates and recommend near- and long-term rate designs that are aligned with the Commonwealth's decarbonization goals. During this process, EEA asks the IAC to engage in stakeholder sessions and provide the working group feedback on ways to create better electric rate design to meet the Commonwealth's clean energy goals.
- NWL

- Discuss possible statewide goals to reduce emissions and enhance carbon sequestration on NWL, in light of the findings of the Forest Carbon Study.
- Discuss strategies to achieve Net Zero in 2050, including the possibility of using out-of-state carbon sequestration to supplement in-state resources to offset residual GHG emissions.
- Exchange data, resources, and feedback on the scoping and development of the Holistic Land Use Strategy.

Undersecretary Antos also outlined the proposed GWSA IAC Work Plan for the coming year:

- June
  - Advancing CEISP recommendations
  - Refining clean energy procurement strategy
  - Holistic Land Use Strategy
- September
  - Refining concepts for the Building Decarbonization Clearinghouse and its relationship to Mass Save
  - Managing grid impacts of EVs
- December
  - Discussing Forest Carbon Study & its implications for Natural and Working Lands goals

A summary of questions, comments and responses is below.

- Sarah Simon noted the importance of grid impact and VMT reduction and the need for RTA involvement in transportation planning.
- Michelle Manion discussed how the holistic land use strategy factors in all sectors.
- Cutler Cleveland informed the group that a program out of Boston University would interest the Climate Justice Chairs with environmental justice work in future.
- Kurt Roth asked if the target of 300,000 ft2 of commercial floorspace retrofitted with heat pumps correct? Correction is over 300 million square feet of efficient electric heating installs in the 2020-2030 decade.
- Steve Long introduced Manikka Bowman and also highlighted the importance of funding in the future success of NWL sector.

Public Comments

- Seth Gadbois
  - We're being told that MDHD electrification is the furthest behind other transportation emission reduction measures. But VMT, which we are supposed to be reducing, is not only behind but increasing - per CECP modeling, specifically reflected in the climate report card: 55,229 million miles in 2021 —> 57,900 million in 2025 —> 59,100 million in 2030. Why are we not using CPRG funds for T3 for transit alternatives and reducing VMT?

Undersecretary Antos asked for a motion to adjourn. Steve Long motioned, Kurt Roth seconded. Meeting adjourned at 3:26PM.

Documents or exhibits used at the meeting (posted online afterwards)

1. Meeting Agenda
2. Meeting Minutes of December 14, 2023
3. Meeting Slides

Attendance 3/28/2024

IAC Member/Delegates in attendance:

Organization	Name
A Better City (ABC)	Caitlin Allen-Connelly
Boston University	Cutler Cleveland
City of Boston	Alison Brizius
Conservation Law Foundation (CLF)	Caitlin Peale Sloan
Commonwealth Green Low Income Housing Coalition	Dave McMahon
Environmental Entrepreneurs (E2)	Sarah Simon
Environmental League of Massachusetts (ELM)	Amy Boyd-Rabin
Eversource	Tracy Gionfriddo
Fraunhofer USA	Kurt Roth
Mass Audubon	Michelle Manion
Massachusetts Institute of Technology (MIT)	Noelle Eckley Selin
Massachusetts Municipal Wholesale Electric Company (MMWEC)	Jason Viadero
Metropolitan Area Planning Council (MAPC)	Julie Kurti
National Grid	Kevin O'Shea
Northeast Clean Energy Council (NECEC)	Tim Snyder
The Nature Conservancy (TNC)	Manikka Bowman
Union of Concerned Scientists (UCS)	Paula García
Cambridge Health Alliance	Gaurab Basu
Clean Water Action	Vernon Walker

Others in Attendance

Audrey Horst
Aurora Edington, DOER
Cathy Kristofferson
Courtney L Forrester

David Lyons
David Zeek
Dunbar Carpenter, MA EEA
Eric Friedman-DOER
Fred Heyes
Fred Heyes
Galen Nelson
Hanh Chu, MA EEA
Hannah Payne
Ian Finlayson, DOER
Isabella Gambill, A Better City
Jake Friedman EEA
Jay Harrington
Jeff Clark
Jessica Rodriguez
John Meiklejohn
Katherine Lee Goyette
leslie anderson
Maria Belen Power EEA
Marian Harkavy - Policy, Planning & Analysis
Martha Grover, EEA
Melissa Mittelman, EEA
Oleander Stone
Oleander Stone EEA
Paul I Reisberg
Paulina Muratore
Roger Luckmann
Sarah Basham, MA EEA
Seth Federspiel MA DOER
Seth Gadbois
Sherry Morgan, South Deerfield, MA
Shevie Brown, DOER
Sophia Vitello
Steve Long
Will Space
Yve Torrie