2024 Climate Act Stakeholder Session 4

May 5, 2025

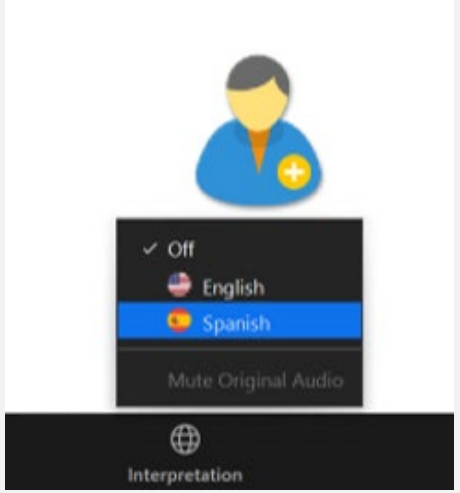
Hybrid Meeting

April 17, 2025

Interpretation Logistics

- **Language Interpretation is being offered in: Español, Português, Kreyòl ayisyen, Kriolu, Tiếng Việt, 普通话, ,عربي, русский, ខ្មែរ, 한국어, français, and American Sign Language (ASL).**
  - To participate in English, click the “Interpretation” icon and select English.
  - Para entrar no canal em português, clique no ícone “Interpretation” e selecione “Portuguese”.
  - Si alguien desea interpretación en español, haga clic en “Interpretation” y seleccione “Spanish”.
  - Pou rantre nan chanèl kreyòl ayisyen an, klike sou ikòn “Interpretation” an epi chwazi “Haitian Creole”.
  - Pa partisipa na Kriolu, klika na íkone "Intirpretason" y silisiona "Cape Verdean Kriolu".
  - 要以普通话参加会议，请单击口语图标并选择 "Chinese”.
  - Để vào kênh bằng tiếng Việt, hãy nhấp vào biểu tượng “Interpretation” và chọn “Vietnamese”.
  - للمشاركة باللغة العربية اضغط على أيقونة "الترجمة الفورية" ثم اختر “Arabic“.
  - Чтобы принять участие на Русский языке, нажмите на ярлык «Устный перевод» и выберите “Russian”.
  - ដើម្បីចូលរួមជាភាសាខ្មែរ សូមចុច រូបតំណាងការបកស្រាយ ហើយជ្រើសរើសភាសា”Khmer"។
  - 한국어로 참여하려면 "통역" 아이콘을 클릭하고 “Korean"를 선택하세요.
  - Pour participer en français, cliquez sur l’icône « Interprétation » puis choisissez « French ».

- **Please speak slowly.**
- **All attendees must select a language channel, even if viewing the presentation in English.**



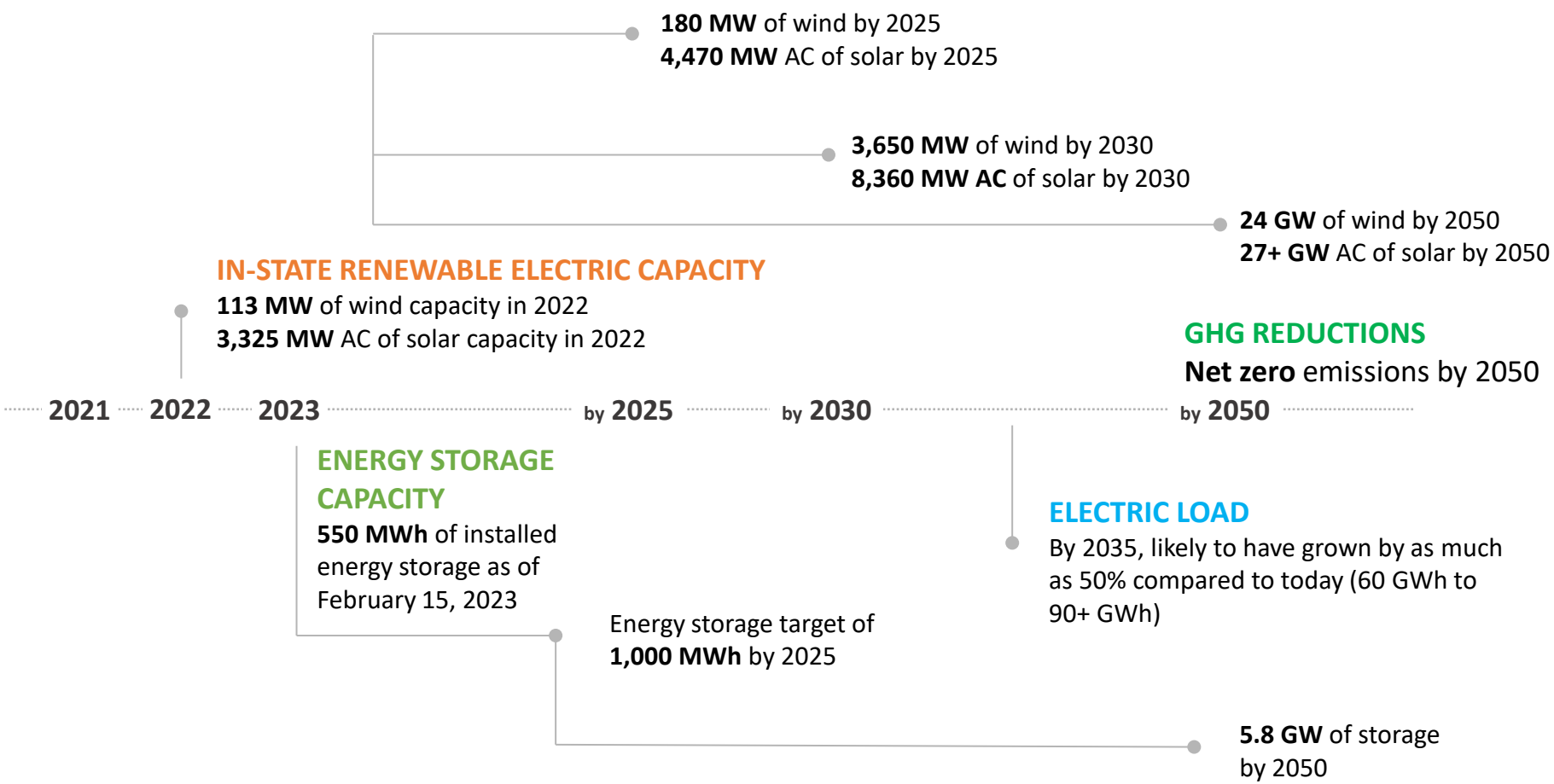
Today's Agenda

- 5:30: Interpretation Overview
- 5:40: Welcome by Neighbor to Neighbor
- 5:45: Opening Remarks – María Belén Power, Undersecretary of Environmental Justice & Equity, EEA and Staci Rubin, DPU Commissioner
- 5:55: Overview of 2024 Climate Act – Michael Judge, Undersecretary of Energy, EEA
- 6:05: DOER Presentation – Rick Collins, Director, Clean Energy Siting and Permitting, DOER
- 6:15: Short Q&A
- 6:20: Site Suitability Straw Proposal - Michael Judge, Undersecretary of Energy, EEA
- 6:40: Short Q&A
- 6:55: Break
- 7:10: Cumulative Impact Analysis Guidance - María Belén Power, Undersecretary of Environmental Justice and Equity, EEA, and Crystal Johnson, Assistant Secretary of EJ, Office of Environmental Justice and Equity, EEA
- 7:35: Short Q&A
- 7:40: EFSB Introduction – Daniel Keleher, Counsel II, Siting Division
- 7:45: Cumulative Impact Analysis Proposal – Tim Reilly, Energy Siting Specialist, Siting Division
- 8:05: Q&A
- 8:25: Closing Remarks

Energy Facilities Siting Board Implementation

- Straw Proposals/Stakeholder Sessions – **Spring 2025**
- Public Hearings on Proposed Regulations – **Fall 2025**
- Regulation and Guidance Promulgation – **2025 – early 2026**
- New Regulations – **March 1, 2026**
- New Applications – **July 1, 2026**

Massachusetts Clean Energy Needs



Challenges with Existing Permitting Procedures

- Permitting processes are lengthy, unpredictable, and sometimes duplicative.
  - Timelines vary significantly and some projects have taken up to a decade to complete.
  - Historically, it has taken the Energy Facilities Siting Board (EFSB) between 1 and 4 years to issue approval to construct, after which the project still needs to obtain all state and local permits individually.
- Opportunities for appeal of each separate permit can cause years of delays.
- Communities feel they often do not have sufficient or impactful input into the siting of major infrastructure projects.
- Communities may not have the resources necessary to fully engage in permitting processes.
- **Massachusetts will not meet our GHG reduction limits without reforms.**

Commission on Energy Infrastructure Siting and Permitting

- Commission was established by Executive Order 620
- Required to advise the Governor on:
  1. **accelerating the responsible deployment of clean energy infrastructure through siting and permitting reform** in a manner consistent with applicable legal requirements and the Clean Energy and Climate Plan;
  2. **facilitating community input** into the siting and permitting of clean energy infrastructure; and
  3. **ensuring that the benefits of the clean energy transition are shared equitably** among all residents of the Commonwealth.
- Two public listening sessions held and over 1,500 public comments received.
- Recommendations sent to Governor Healey on March 29, 2024.
- The Commission's recommendations were largely passed into law through *An Act promoting a clean energy grid, advancing equity, and protecting ratepayers* (2024 Climate Act), signed by Governor Healey in November 2024.

Consolidated State Permitting

- All state, regional, and local permits for Large Clean Energy Infrastructure Facilities combined into **one consolidated permit** issued by the EFSB.
- All state and local agencies that would otherwise have a permitting role are able to **automatically intervene and participate** by issuing statements of recommended permit conditions.
- All projects must submit cumulative impact analysis as part of application to EFSB.
- Permit decision must be issued in **less then 15 months** from determination of application completeness.
- EFSB decisions can be appealed directly to the Supreme Judicial Court.

- Applies to generation facilities >25 MW, storage facilities >100 MWh, offshore wind related infrastructure, and large new transmission projects

Consolidated Local Permitting

- Local governments (municipalities and regional commissions such as the Cape Cod and Martha's Vineyard Commissions) **retain all permitting powers for projects not subject to review by the EFSB**.
- Local governments **may continue to run separate approval processes** concurrently (e.g., wetlands, zoning, etc.), but are required to **issue a single permit** that includes individual approvals for clean energy infrastructure.
- Permit decision must be issued in **within 12 months**.
- Local governments can refer permitting review directly to the EFSB if they do not have sufficient resources.
- Permit applications can also be reviewed by EFSB following a local government's final decision if a review is requested by parties that can demonstrate they are substantially and specifically impacted by the decision, then further appealed directly to the Supreme Judicial Court.
- DOER is responsible for **creating a standard municipal permit application and a uniform set of baseline health, safety, and environmental standards** to be used by local decision makers when permitting clean energy infrastructure.

- Applies to generation facilities <25 MW, storage facilities <100 MWh, and non-EFSB jurisdictional transmission and distribution projects

More Meaningful & Just Community Engagement

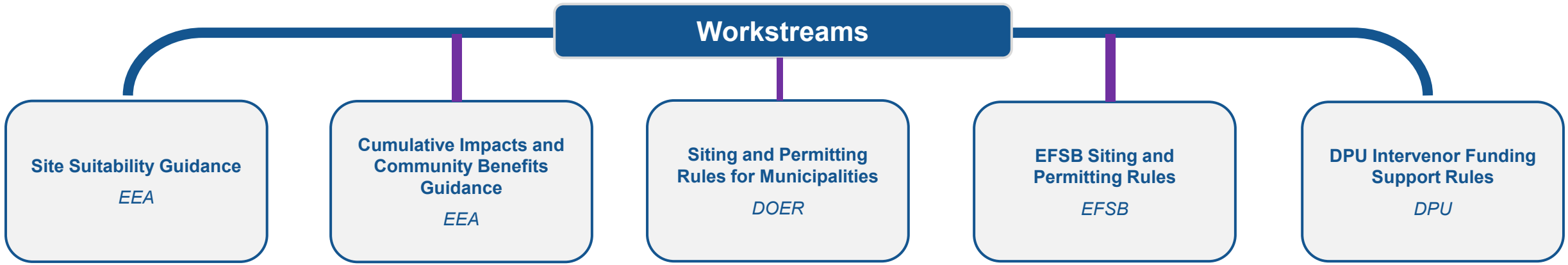
- Formal establishment of the Office of Environmental Justice and Equity in statute, with a specific mandate to develop guidance regarding community benefits agreement and cumulative impact analyses.
- First-ever mandatory community engagement requirements, including documentation of efforts to involve community organizations and demonstration of efforts to develop community benefit agreements.
- New Division of Public Participation at DPU to assist communities and project applicants with engagement and process questions in DPU and EFSB proceedings.
- New Division of Siting and Permitting at DOER to assist communities and project applicants with engagement and process questions in local permitting.
- Intervenor financial support is available to under-resourced organizations that wish to participate in an EFSB proceeding and are granted intervenor status. Municipalities with a population of 7,500 or less are automatically eligible for financial support.

Additional Reforms

- EEA required to establish site suitability methodology and guidance to inform state and local permitting processes about the suitability of sites for clean energy development, and help developers to avoid, minimize and mitigate environmental impacts.
- Five new seats on EFSB:
  - Commissioner of Department of Fish and Game;
  - Commissioner of Public Health;
  - Representative of Massachusetts Municipal Association;
  - Representative of Massachusetts Association of Regional Planning Associations; and
  - Representative with expertise in environmental justice and/or Indigenous sovereignty.
- EFSB-jurisdictional clean energy infrastructure exempted from Massachusetts Environmental Policy Act (MEPA) review.
- Legacy DPU siting authority (e.g., comprehensive zoning permits and eminent domain for transmission and pipelines) transferred to EFSB.

Roles and Responsibilities

- There are five workstreams that stem from the bill that are being administered by three different agencies: EEA, DPU, and DOER
- Most of these are interrelated in some way but each serve a separate purpose and meet specific statutory requirements
- All three agencies are in close communication with each other
- Other state agencies that have significant energy permitting roles have also been consulted as proposals are being developed



Next Steps

- Regulations are required to be promulgated by March 1, 2026.
  - Governor's supplemental FY25 budget filed on April 2nd proposes extending this deadline to May 1, 2026.
- EEA, DPU, and EFSB have scheduled four stakeholder meetings for April and May, and are releasing straw proposals on specific topics ahead of these meetings.
- Draft regulations will be released for public comment likely in late summer/early fall.
- DOER and DPU are hiring new staff.
- More information on process can be found at: www.mass.gov/energypermitting
- Questions can be directed to energypermitting@mass.gov

Our Mission

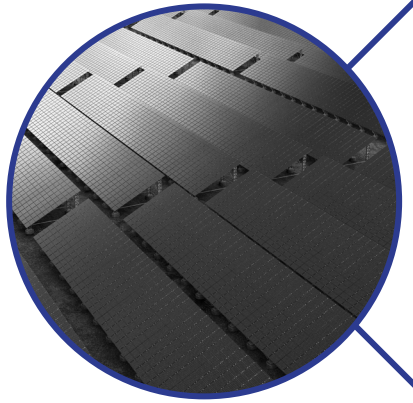
The Department of Energy Resources' (DOER) mission is to create a clean, affordable, resilient, and equitable energy future for all in the Commonwealth.

Who We Are: As the State Energy Office, DOER is the primary energy policy agency for the Commonwealth. DOER supports the Commonwealth's clean energy goals as part of a comprehensive Administration-wide response to the threat of climate change. DOER focuses on transitioning our energy supply to lower emissions and costs, reducing and shaping energy demand, and improving our energy system infrastructure.

What We Do: To meet our objectives, DOER connects and collaborates with energy stakeholders to develop effective policy. DOER implements this policy through planning, regulation, and providing funding. DOER provides tools to individuals, organizations, and communities to support their clean energy goals. DOER is committed to transparency and education, supporting access to energy information and knowledge.

Clean Energy Siting & Permitting Responsibilities

The 2024 Climate Law's siting and permitting sections consolidated review and permit approval processes at the state and local level



Large Projects – Energy Facilities Siting Board (EFSB)

- **Single, consolidated permit** from the ESFB rather than multiple state, regional, and local permits
- Decision **within 15 months**

Small Projects – Municipalities

- **Single, consolidated permit from municipal entities** rather than multiple local permits
- Decision **within 12 months**

DOER's Role

The law created a new role – and a new Division – for DOER to support the local siting and permitting process for small clean energy infrastructure.

The Division of Clean Energy Siting & Permitting will develop regulations and provide technical support and assistance to municipalities, project proponents, and other stakeholders.

Within the regulations, DOER is required to establish:

- Public health, safety, and environmental standards
- A common standard application
- Pre-filing requirements
- Standards for applying site suitability guidance
- Consolidated permit
- Guidance for procedures / timelines
- Responsible parties subject to enforcement
- Processes for municipal fees for compensatory environmental mitigation (not required)
- Common conditions and requirements

2025 Timeline

DOER's siting and permitting work in 2025 will have three phases:

01

Stand Up New Division

Winter-Summer:
Hiring and onboarding

02

Stakeholder Engagement

Spring-Summer:
Internal and external
Targeted to more broad

03

Draft Regulations

Late Summer/Fall:
Publish draft regulations
(Final Regs due March 1, 2026)

Contact Us

100 Cambridge St. - 9th Floor - Boston, MA 02114

doer.siting.permitting@mass.gov

(617) 626-7300

x.com/massdoer

bsky.app/profile/massdoer.bsky.social

www.mass.gov/orgs/massachusetts-department-of-energy-resources

We look forward to hearing from you.

Commonwealth of Massachusetts

Executive Office of
Energy and Environmental Affairs

Site Suitability Methodology for Energy Infrastructure
Straw Proposal

2024 Climate Act Stakeholder Meeting, Session #4
Holyoke Heritage State Park Visitor Center, Holyoke, MA
May 5, 2025

2024 Climate Act Requirements

The 2024 Climate Act (St. 2024 c. 239 § 5) requires the Executive Office of Energy and Environmental Affairs (EEA) to develop the following, to be completed by March 1, 2026:

- A methodology for determining the suitability of sites for clean energy generation facilities, clean energy storage facilities and clean transmission and distribution infrastructure facilities in newly established rights of way. The methodology must include multiple geospatial screening criteria to evaluate sites for: (i) development potential; (ii) climate change resilience; (iii) carbon storage and sequestration; (iv) biodiversity; and (v) social and environmental benefits and burdens; and

- Guidance to inform state, regional and local regulations, ordinances, by-laws and permitting processes on ways to avoid, minimize or mitigate impacts on the environment and people to the greatest extent practicable.

Objectives

- Encourage energy infrastructure development in desirable areas, including in the existing built environment; on previously developed, impacted, or otherwise lower conservation-value lands; and/or in areas of anticipated and otherwise desirable new development and load growth;
- Avoid, minimize, and mitigate impacts to ecologically important natural and working lands and the ecosystem services they provide;
- Ensure long-term resilience of energy infrastructure by steering development away from areas with high potential for climate or other environmental hazards;
- Ensure long-term viability of distributed energy resource (DER) development in the Commonwealth;
- Ensure communities who already bear a disproportionate environmental and public health burden do not carry a disproportionate burden of energy infrastructure; and
- Support the issuance of consolidated state and local permits by serving as a screening tool for developers and a tool for jurisdictional authorities that informs the agency's final decision.

Related Efforts

SMART Incentive Program Land Use Proposal

- Site suitability proposal aligns with and builds upon the DOER's land use proposal under the forthcoming changes to the Solar Massachusetts Renewable Target program (SMART 3.0)
- Under DOER's proposal, most ground-mounted solar projects over 250 kW that are sited on not previously developed land would be required to pay a mitigation fee based on the impact of their development, calculated using weighted criteria.

Energy Facilities Siting Board (EFSB) - Siting and Permitting Regulations

- The EFSB is developing regulations governing the siting and permitting of large, and in certain circumstances, small clean energy infrastructure facilities subject to the review of the EFSB.
- In its regulations, the EFSB must apply the site suitability criteria developed by EEA to evaluate the social and environmental impacts of proposed large clean energy infrastructure project sites and include a mitigation hierarchy to be applied during the permitting process. EFSB will also require use of a separate Route/Site Scoring Tool with its applications that integrates Cumulative Impact Analysis and other factors.

Department of Energy Resources (DOER) - Siting and Permitting Regulations

- DOER is responsible for promulgating regulations establishing standard conditions, criteria, and requirements for the siting and permitting of small clean energy infrastructure facilities by local governments.
- In its regulations, DOER must include standards for applying the site suitability criteria developed by EEA.

Cumulative Impacts Analysis

- Cumulative impact analyses will now be required for clean energy infrastructure subject to the review of the EFSB, which will include assessment of existing and anticipated disproportionate adverse environmental, public health, and climate resilience impacts in an effected area.

Methodology

- EEA has proposed a number of criteria that would be inputs into the site suitability methodology.
- EEA proposes calculating for each site both a *Total Site Suitability Score*, which represents how suitable a site is for a given energy infrastructure project across all criteria, and *Criteria-Specific Suitability Scores*, which represent the suitability of a site for a given energy infrastructure project with respect to each criterion.
- Project impacts will be scored for each criterion, and criteria will be weighted based on expert, stakeholder, and public input.
- Criteria site suitability scores will be calculated for a proposed site based on the area-weighted average score across the entire site footprint.

$$\begin{aligned} \textit{Total Site Suitability Score} = \quad & \textit{Criteria 1 Weight} \times \textit{Criteria 1 Site Suitability Score} + \\ & \textit{Criteria 2 Weight} \times \textit{Criteria 2 Site Suitability Score} + \\ & \textit{Criteria N Weight} \times \textit{Criteria N Site Suitability Score} \end{aligned}$$

- Higher suitability scores would indicate more suitable locations for energy infrastructure development.

Criteria and Scoring

Criteria	Reason	Potential Suitability Scoring Methods	Potential Data Source
Carbon Sequestration and Storage	• Carbon storage is critical to achieving net zero emissions in 2050 • Required by 2024 Climate Act	0-10, scaled to maximum and minimum total ecosystem carbon storage, plus 30 or 50-year sequestration potential.	National Forest Carbon Monitoring System
Biodiversity	• Protecting habitat for the plants, animals, and other living organisms is essential for conserving the state's biological diversity. • Required by 2024 Climate Act	0 : Areas in BioMap Core Habitat 1.0 to 5.0: Areas covered by other BioMap elements (e.g. Critical Natural Landscape, Regional, or Local components), with scores based on number of elements and/or index of ecological integrity. 6.0-10.0: Areas outside of BioMap, scored based on index of ecological integrity.	MassWildlife BioMap: Core Habitat, Critical Natural Landscapes, and other components UMass Conservation Assessment and Prioritization System, Index of Ecological Integrity

Criteria and Scoring

Criteria	Reason	Potential Suitability Scoring Methods	Potential Data Source
Agricultural production potential	• Productive farmland is an essential, limited, and diminishing resource for Massachusetts' local food economy.	• 0.5: areas designated as Prime Farmland (based on soil attributes) • 1.5: areas designated Farmland of Statewide Importance (based on soil attributes) • 2.5: areas designated as Farmland of Unique Importance • 10.0: areas outside farmland/soils designations	MassGIS NRCS SSURGO-certified soils data for Massachusetts: Prime Farmland Soils
Climate resilience	• Ensuring the resilience of energy infrastructure as our climate changes • Required by 2024 Climate Act	Climate Resilience Design Standards Tool climate exposure scores • Riverine exposure score TBD • Sea level rise exposure score TBD	Climate Resilience Design Standards Tool
Development potential (generation projects)	• Measuring the development potential of generation projects using grid alignment could help reduce interconnection challenges or unnecessary grid upgrades. • Required by 2024 Climate Act	Score based on distance from grid infrastructure or inclusion in a CIP Area or ESMP investment area. Project >5 miles from current or planned substation score 0.	Capital Investment Project (CIP) or Electric Sector Modernization Plan (ESMP) investment area

Criteria and Scoring

Criteria	Reason	Potential Suitability Scoring Methods	Potential Data Source
Development potential (utility infrastructure)	• Would help align new grid capacity with areas of expected load growth • Required by 2024 Climate Act	Receive points based on the amount of load projected for that area in the future.	ESMP load projections or EEA's planned building electrification load projection analysis
Social and environmental burdens	• Important to consider any burdens a community faces when hosting infrastructure, and community's existing burdens • Required by 2024 Climate Act	Score = Facility Impact × Existing Burden × Population Vulnerability	OEJE Environmental Burdens Mapping Tool Various data sources under review from MassDEP, MA DPH, MassGIS, USEPA, and other resources
Social and environmental benefits	• Important to also consider any benefits a clean energy infrastructure project provides a community • Required by 2024 Climate Act	Projects could add up to 2.5 points to their score for each of the following project components: • Located on a brownfield • Located on previously disturbed lands • Expected habitat benefits (as confirmed by MassWildlife) • Improves outdoor air quality in specific geographic area by displacing emitting source • Creates expanded recreational opportunities • Creates local jobs	Under review

Guidance and Process

- Clean Energy Infrastructure Facility projects applying to the EFSB or municipalities for Consolidated Local Permit approval will be required to use the site suitability framework to score their projects.

- Developers should use the scoring framework to determine their project's score before submitting their permit application. This would allow the methodology to work as a pre-filing screening tool that discourages developers from submitting applications for sites with low scores, and encourages developers to incorporate proactive mitigation measures into their project plan.

- During the Consolidated Local Permitting process, the permitting municipality can use the score to determine permit conditions, institute requirements, assess a mitigation fee, or possibly deny a permit, provided such actions are consistent with DOER's regulations. The score for each criterion, the "Criteria-Specific Suitability Score," can be taken into account separately as well as collectively.

- Projects seeking EFSB Consolidated State and Local Permits will use the Site Suitability scoring during the pre-filing process as an initial screening tool. EFSB will require use of a separate Route/Site Scoring Tool with its applications that integrates Cumulative Impact Analysis and other factors. EFSB will use the Site Suitability scoring results in conjunction with the EFSB-specific Route/Site Scoring Tool and give due consideration to each set of results in its decisions.

Mitigation Hierarchy

Avoid

As a screening tool, the methodology would help developers avoid areas in which infrastructure development would result in high adverse environmental and social impacts.

Minimize

Permit conditions or requirements could be instituted based on the project's Total Site Suitability Score or Criteria Site Suitability scores, encouraging developers to minimize the project footprint's overlap with sensitive areas.

Mitigate

If the project's overlap with unsuitable areas cannot be avoided or minimized, the project could be required to take mitigation actions and/or to pay a mitigation fee.

Discussion Questions

- Are the proposed evaluation criteria and associated metrics appropriate? Are there other criteria that should be added (e.g., public health, safety, or welfare-related metrics)?
- Are there criteria that should be applied to certain types of infrastructure and not others?
- What weights should be assigned to each criteria for the purposes of scoring?
- How should project footprint, or the boundaries of a project's footprint, be measured?
- What kinds of requirements or permit conditions should a permitting agency be able to institute based on a project's site suitability score to ensure project developers avoid, minimize, and/or mitigate environmental impacts?
- EEA proposes to assess social and environmental burdens by screening areas for existing burdens, proximity to vulnerable populations, and impacts of specific infrastructure types.
  - Is this the right way to assess social and environmental burdens? Would this be duplicative of the cumulative impact analysis requirements?

The meeting will resume at 7:10 p.m.

Guidelines and Standards for Cumulative Impact Analysis (CIA)

Executive Office of Energy and Environmental Affairs (EEA)
Office of Environmental Justice and Equity (OEJE)

May 2025

Draft: For Policy Development Purposes

Overview

- Key Concepts
- Purpose of Guidance
- How to Develop a Cumulative Impact Analysis (CIA)
- Principles
- Resources
- Questions & Answers / Discussion

The Office of Environmental Justice and Equity

- The **Massachusetts Office of Environmental Justice and Equity (OEJE)** is responsible for implementing environmental justice principles, as defined in the General Laws, chapter 30, section 62, in the operation of each office and agency under the executive office. Environmental justice principles are:
  1. the meaningful involvement of all people with respect to the development, implementation and enforcement of environmental laws, regulations and policies, including climate change policies; and
  2. the equitable distribution of energy and environmental benefits and environmental burdens.

- The **2024 Climate Act** enshrined OEJE into statute, with a specific mandate to develop standards and guidelines governing the potential use and applicability of community benefits plans and agreements, and cumulative impact analysis.

Key Concepts

- ✓ **Environmental Justice (EJ):** Environmental justice is the equal protection and meaningful involvement of all people and communities with respect to the development, implementation, and enforcement of energy, climate change, and environmental laws, regulations, and policies and the equitable distribution of energy and environmental benefits and burdens

- ✓ **Indicators:** Specific indicators or stressors are used to assemble quantitative and/or qualitative measures of conditions and trends to assess the state of the environment, public health, socioeconomic, cultural and built environment to gauge progress toward specific goals

- ✓ **Just Transition:** Economic and social shift to clean energy that centers equity, environmental justice, workers and frontline communities

- ✓ **Meaningful Engagement:** Early, continuous, accessible, and culturally competent public involvement that allows for community input to inform decision-making and public policy

- ✓ **Unfairly Burdened Area (UBA):** An area or population that is impacted by existing “unfair or inequitable” environmental burden and related public health consequences as compared to the general population of the state.

What is a Cumulative Impact Analysis (CIA)?

- The 2024 Climate Act required OEJE to develop standards and guidelines governing **cumulative impact analysis**.

- A "**cumulative impact analysis**" (CIA) is a written report produced by the applicant assessing impacts and burdens, including but not limited to any **existing environmental burden** and **public health consequences** impacting a specific geographical area in which a facility, large clean energy infrastructure facility or small clean energy infrastructure facility is proposed from any prior or current private, industrial, commercial, state or municipal operation or project; provided, that if the analysis indicates that such a geographical area is subject to an existing unfair or inequitable environmental burden or related health consequence, the analysis shall identify any:

  (i) **environmental and public health impact** from the proposed project that would likely result in a disproportionate adverse effect on such geographical area;
  (ii) potential impact or consequence from the proposed project that would **increase or reduce the effects of climate change on such geographical area**; and
  (iii) **proposed potential remedial actions** to address any disproportionate adverse impacts to the environment, public health and climate resilience of such geographical area that may be attributable to the proposed project.

Purpose of this Guidance

- The purpose of this guidance is to establish a **clear and consistent framework** for evaluating the combined effects of burdens from a multitude of sources, including energy infrastructure projects on communities, particularly those already experiencing existing unfair or inequitable burdens

- Outlines **core principles** of the newly required CIA and provides a **practical roadmap** for integrating those principles in the regulatory and decision-making processes of the EFSB

- Advances environmental justice, **mitigates inequities** for unfairly burdened areas, and **fosters sustainable and inclusive outcomes** in energy and utility decision-making

How to Develop a CIA

- Evaluate the combined effects of environmental stressors, social determinants of health, and historical inequities on communities, ensuring that energy projects do not exacerbate existing disparities or add new burdens
- Establish a clear methodology for identifying and addressing cumulative impacts, the EFSB will promulgate regulations that align with the 2024 Climate Act, environmental justice goals, protect vulnerable populations, and support Massachusetts' clean energy objectives
- Highlights the importance of thoughtful planning and community engagement in fostering inclusive progress
- Key components:
  - ✓ Identifying State and Community Baseline for Comparison
  - ✓ Indicators and Stressors
  - ✓ Understanding Existing and Foreseeable Future Projects and their impacts
  - ✓ Geographical and Temporal Boundaries

Identifying Community Baseline for Comparison

- A foundational step in a CIA is establishing a clear baseline of existing environmental, health, and socioeconomic conditions within a community and as it relates to a statewide baseline

- The Office of Environmental Justice and Equity developing a screening tool similar to California's *CalEnviroScreen* - a standardized resource to identify baseline conditions, highlight disadvantaged communities, and support consistent evaluation across projects and geographies

- This baseline enables regulators and project proponents to compare proposed project impacts against current conditions and identify the extent to which a project may exacerbate existing burdens or create additional burdens

- The mapping tool uses standard population risk model, which is a formula for cumulative impact = existing burden X population vulnerability

- By integrating a mapping tool like the *CalEnviroScreen* into the cumulative impact analysis process, project proponents will have access to a reliable, data-driven foundation for understanding existing community burdens, informing more equitable assessments of project impacts

Indicators and Stressors

Many candidate indicators identified; currently assessing additional indicators:

- **Built Environment:** Strain on or changes to infrastructure, land use, housing, and essential services that support daily life and community functioning
- **Climate Change Impacts**: Impacts from flooding, sea level rise, storm surge, wildfire, heat/extreme temperatures, and other climate-related impacts
- **Natural Environment:** Impacts on and access to ecosystems, natural resources, and overall environmental quality, connectivity, including changes to air, water, land, and biodiversity
- **Population Characteristics**: indicators characterizing public health (impacts on physical and mental health outcomes resulting from environmental exposures, health disparities, and access to care), socio-economic (influences on economic opportunity, community stability, and social equity, particularly for disadvantaged communities, and recognizes disruptions to cultural heritage) conditions, sensitive populations, and cultural resources

Examples of Potential Indicators

Built Environment	Climate Change
• MassDEP air permit facilities • M.G.L. c. 21E sites • “Tier II” toxics use reporting facilities • Wastewater treatment plants • Traffic proximity and volume by block group • Airports, Ports, Freight Rail Yards • Hazardous Waste Treatment, Storage, Disposal Facilities • MassDEP sites with AULs • MassDEP groundwater discharge permits • Underground storage tanks • Road Infrastructure and Transportation Infrastructure • Energy Generation and Supply • Large Quantity Toxic Users • Transfer Stations (Large and Small) • Transmission lines • Brownfields	• Ozone summer seasonal average of daily maximum 8-hour concentration in air in parts per billion (ppb) • Area within sea level rise inundation above Mean Higher High Water Level • Area under Special Flood Hazard Zone • Climate Risk Rating • Area under Moderate to Low Flood Risk • Flood Factor/ Flood Risk • Storm surge • Maximum annual daily rainfall within overall project useful life • Area within mean High Water shoreline • Area within the 1% annual coastal flood exceedance probability • Urban Heat Factor

Examples of Potential Indicators

Natural Environment	Population Characteristics
• Index of Ecological Integrity • Ecological Connections • Increase in Impervious Land Cover Area • Change in Open Water area • Change in Protected Open Spaces • Change in Recreational open spaces • Decrease in Wetland Area • Decrease in Forest Area • Impacted Priority Habitats of Rare Species • Impacted Areas of Critical Environmental Concern • Impacted Surface Water Supply Watershed area • Impacted Sole Source Aquifer Area • Impacted Wetland Resource Area • Protected Open space impacted • Recreational Open area impacted • Area within FEMA Q3 flood zone boundary	• Ultrafine Particulate and Particulate Matter (PM) 2.5 Levels • Diesel PM level and state percentile • Air toxics Cancer Risk and Respiratory Hazard Index • Annual nitrogen dioxide levels • Heart Attack Hospitalization • Childhood Lead Exposure • Low Birth Weight • Childhood Asthma Emergency Hospital Visits • Current Asthma • Low Life Expectancy • Chronic Obstructive Pulmonary Disease • Median household income • Unemployment rate • Persons with Disabilities • Families below poverty • Persons with education less than high school diploma

Awareness of Combined Impact

- No resident lives a single-issue life. Impacts from different sectors create burdens and benefits. By fostering an awareness of how various stressors interact and compound over time, the EFSB can properly assess disparities, require appropriate mitigation, and ensure that its decisions promote environmental justice, mitigate inequities for unfairly burdened areas, and protect vulnerable populations
- Each stressor category should be assessed cumulatively - meaning not just based on one project, but in combination with past, present, and reasonably foreseeable actions in a given specific geographic area or affecting a particular population
- CIAs provide a vital framework for understanding how multiple stressors intersect to affect communities, particularly those already facing systemic inequities, and can help contribute to a just transition
- Recognizing these combined impacts is critical to creating policies that balance development goals with equity and sustainability
- While this guidance does not provide an exhaustive list of indicators, the selection should be rooted in evidence-based research, locally relevant data, and community input. Emphasis should be placed on stressors that have a known or likely compounding effect when layered with new project impacts

Understanding Existing and Foreseeable Future Projects

- CIAs must account for not just the proposed project, but also the impacts of other existing or planned developments in the area
- Evaluating reasonably foreseeable future projects helps identify potential compounding impacts and avoid blind spots in project assessments
- Ensures combined effects of multiple developments, both current and planned, are thoroughly assessed to identify potential stressors and inequities.
- By evaluating the potential interactions and cumulative stressors resulting from multiple projects, the EFSB can mitigate adverse outcomes, promote equitable solutions, and align infrastructure planning with environmental justice principles

Geographical and Temporal Boundaries

- Establishing clear geographic and temporal boundaries is a fundamental component of cumulative impact analysis

- These boundaries help define the scope of analysis, ensuring that assessments appropriately capture the spatial extent and timeframe of environmental, social, and public health impacts

- Geographic boundaries allow the EFSB to focus on specific communities affected by existing or proposed projects, while temporal boundaries account for historical, current, and reasonably foreseeable future impacts over time

Principles

Grounding principles to serve as guidelines for EFSB's cumulative impact analysis policy design include:

1. Applicable to new and modified energy infrastructure
2. Engaging the Community Early and Often in the Process
3. Tools and Methods for Assessing Cumulative Impacts
4. Cumulative Impact Analysis Process
5. Cumulative Impact Analysis Report

Principle #1: Applicability

- All EFSB-jurisdictional energy projects will need to complete a CIA
- CIAs should aim to provide a comprehensive understanding of the community where energy infrastructure is proposed to be sited
- CIAs should foster sustained, community-focused coordination across multiple decisions to reduce disproportionate and adverse burdens
- By establishing criteria that emphasize the scale, location, and combined effects of projects, OEJE can ensure its policies align with equity, transparency, and sustainability while proactively addressing potential cumulative impacts

Principle #2: Community Engagement

1. Why Community Engagement Matters

- Involving community members ensures the analysis reflects lived experiences, concerns, and priorities of those directly affected by proposed projects
- By fostering transparent communication and active participation, OEJE, EFSB and project proponents can identify hidden challenges, build trust, and incorporate diverse perspectives into decision-making

2. How to Involve Local Residents and Organizations

- Process could include outreach efforts (defined in pre-filing regulations) before project design such as public forums, surveys, and stakeholder meetings to gather diverse input, foster collaboration, and build trust
- Engage communities and incorporate their lived experience and communicate early, broadly, often and throughout siting and permitting processes

3. Sharing Information

- Effective communication of cumulative impact analysis findings is essential for fostering trust and transparency between OEJE, ESFB, project proponents and the communities served
- Sharing information in accessible formats ensures that all stakeholders, including historically disadvantaged or overburdened populations, can engage in a meaningful way

Principle #2: Community Engagement (*continued*)

4. Integrating Qualitative Data into the Analysis

- Incorporating qualitative data is essential for a comprehensive cumulative impact
- Quantitative data provides a measurable and verifiable basis for assessing and understanding the combined effects of various stressors over time and across different geographic areas
- Qualitative data, such as personal testimonies, community narratives, and stakeholder insights, provide valuable context that complements quantitative metrics

5. Community Benefits Plans

- An effective CIA can help to inform a well-developed and meaningful Community Benefits Plan to help communities affected by proposed developments receive tangible, equitable benefits that address their specific needs and priorities
- By fostering transparent collaboration between project developers and local residents, a community benefits plan can potentially mitigate adverse impacts, prevent project opposition, promote environmental justice, and strengthen trust

Principle #3: Tools

1. Data Collection Tools

- Tools may include surveys, GIS mapping, air and water quality monitoring systems, environmental and public health databases, and stakeholder interviews
- Data collection tools should be required to capture the diverse experiences and challenges faced by disadvantaged and overburdened communities. Potential tools include:
  - Community surveys to gather firsthand insights, Geographic Information Systems (GIS) for mapping disparities, and social vulnerability indices to highlight inequities; and,
  - Public health databases, environmental monitoring systems, and stakeholder interviews, which provide critical data to assess cumulative impacts comprehensively

2. Modeling and Software Tools

- To advance equity through CIAs, specialized modeling and software tools may be required to capture and assess disparities among communities
- OEJE is working on a tool similar to the *CalEnviroScreen* which proponents will be directed to use. Project proponents should also utilize data visualization platforms to communicate findings transparently, and predictive models to evaluate long-term impacts on underrepresented groups, where appropriate

Principle #3: Tools (*continued*)

3. Community Involvement and Consultation

- Actively engaging community members ensures the perspectives, concerns, and priorities of those most affected by proposed projects are at the center of the decision-making process and feed into the CIA.
- By incorporating a variety of methods such as public meetings, focus groups, surveys, and partnerships with local organizations, OEJE, EFSB and project proponents can create an inclusive and collaborative process that aligns with environmental justice principles and also ensures equitable outcomes for all stakeholders

4. Data Availability and Census Block Group Data

- Data availability and the use of Census Block Group data are critical to conducting a granular and equitable cumulative impact analysis and provide detailed insights into demographic, socioeconomic, and environmental conditions at a localized level, helping identify disparities and prioritize disadvantaged communities
- By ensuring access to accurate, comprehensive, and current data, project proponents, OEJE, and EFSB can effectively measure cumulative impacts and address inequities. Integrating Census Block Group data into the analysis allows for a targeted approach that reflects the unique needs of specific populations, fostering transparent, data-driven decisions

Principle #4: Cumulative Impact Analysis Process

Step 1: Gather Baseline Data

Step 2: In Consultation with Communities, Identify Potential Impacts of the Proposed Project

Step 3: Evaluate the Significance of Impacts

Step 4: Score and Rank Each Site or Route for Cumulative Impacts

Step 5: Assess Mitigation and Management Strategies

Step 6: Share Draft Report for Feedback and Finalize (develop draft report and update it during the EFSB siting and permitting process)

Project proponents should be engaged in meaningful and consistent collaboration with community-based organizations, municipal representatives, and residents most impacted.

What is the Energy Facilities Siting Board?

- An independent Board; created approximately 50 years ago (was EFSC)
- Consisting of nine members: six ex officio members and three public members; Chaired by Secretary of Energy and Environmental Affairs.
  - Siting Board jurisdiction is over large energy facilities defined by statute:
    - Generating facilities equal to or more than 100 MW and ancillary structures (this threshold is reduced to 25 MW in the 2024 Climate Act)
    - Electric transmission lines
      - For new corridor: ≥ 69 kV **and** ≥ 1 mile in length
      - Existing corridor: ≥ 115 kV **and** ≥ 10 miles in length, except for reconductoring or rebuilding at same voltage
    - Intrastate gas pipelines over 100 psig **and** over one-mile length, except for rebuilding or relaying of existing pipelines
    - Gas storage facilities (LNG or CNG) over 25,000 gallons
    - Oil facilities/pipelines over 1 mile in length; new storage tanks over 500,000 barrels
- The Siting Board conducts adjudicatory proceedings; issues decisions on petitions to construct and certificates of environmental impact and public interest, for jurisdictional facilities; also exercises zoning exemption authority.
- Siting Board decisions can be appealed directly to the Supreme Judicial Court.
- Department of Public Utilities (DPU) Siting Division serve as staff to the EFSB and DPU Commission

Major Siting and Permitting Provisions of the 2024 Climate Act

- Expands the Siting Board from nine to eleven members; establishes a new mandate, scope of review, and required findings.
- Creates a new category of infrastructure: clean energy infrastructure facilities (CEIF).
- Creates two Consolidated Permit programs.
  - A Consolidated Permit is a permit that includes all state, regional, and local permits that would otherwise be needed to construct and operate a CEIF. This definition excludes certain federal permits.
    - Large CEIF - Consolidated Permit to be issued by the Siting Board.
    - Small CEIF – Local Consolidated Permit to be issued by the municipality.
- Provides a deadline for review of CEIF, and constructive approval if the deadlines are not met.
- Establishes new requirements for applicants proposing CEIF, including:
  - Pre-filing consultation and engagement.
  - Cumulative Impact Assessments (CIA) (also required for non-CEIF).
- Moves certain Department of Public Utilities siting jurisdiction to the Siting Board consolidating siting responsibilities at the Siting Board.

New Requirements for the Siting Board

- Revises the Siting Board membership. G.L. c. 164, § 69H.
  - Adds two new ex officio positions – Department of Fish and Game, and the Department of Public Health (and reduces Department of Public Utilities to one seat).
  - Increases public member seats from three to four: Mass. Association of Regional Planning Agencies; Mass. Municipal Association; environmental justice/Indigenous sovereignty; and labor (and deletes public members representing energy and environment).
- Expands Siting Board jurisdiction. For example, adds jurisdiction over battery energy storage systems.
- Creates new categories and new rules for CEIF.
- Creates a new process for the Siting Board to issue Consolidated Permits.

New Requirements for the Siting Board (cont.)

- Defines new statutory mandate and scope of review for the Siting Board.
  - Siting Board currently determines whether a project will provide a reliable energy supply with a minimum impact on the environment at the lowest possible cost.
  - Under the 2024 Climate Act, when reviewing proposed projects, the Siting Board must consider among other things, cumulative burdens on a host community, public health impacts, and climate change impacts. 2024 Climate Act also included a list of findings that the Siting Board must make in its decisions on proposed projects.
- Adds statutory deadlines for Siting Board review of proposed CEIF.
  - If the Siting Board does not issue a decision by the required deadline (no more than 15 months), a project would be constructively approved, and its consolidated permit issued with standard conditions.
- Additional requirements
    - Creation of Dashboard
    - Siting Board to meet in hybrid public Siting Board meetings
    - Common Standard Application

Cumulative Impact Analysis for EFSB Energy Facilities

EFSB Staff Perspective and Considerations

2024 Climate Act Stakeholder Meeting, Session #4

Holyoke Heritage State Park Visitor Center, Holyoke, MA

May 5, 2025

What is a Cumulative Impact?

- **Cumulative Impact (or burden), as described in the 2024 Climate Act**
  - "impacts and burdens, including but not limited to any existing environmental burden and public health consequences impacting a specific geographical area in which a facility, large clean energy infrastructure facility or small clean energy infrastructure facility is proposed from any prior or current private, industrial, commercial, state or municipal operation or project" G.L. c. 164, § 69G (per St. 2024, c. 239, § 53)
  - The Siting Board must give due consideration of "cumulative burdens on host communities and efforts that must be taken to avoid or minimize or, if impacts cannot be avoided or minimized, efforts to mitigate such burdens. In considering and issuing a decision, the board shall also consider reasonably foreseeable climate change impacts, including additional greenhouse gas or other pollutant emissions known to have negative health impacts, predicted sea level rise, flooding and any other disproportionate adverse effects on a specific geographical area"

  G.L. c. 164, § 69H (per St. 2024, c. 239, § 60)
- EFSB Staff's proposed definition of Cumulative Impact: "The combined effect on the public health, natural environment, climate change resilience, and built environment in a specific geographical area, of past and present projects and activities, likely future projects, and the proposed energy project."

EFSB Staff Preliminary Work on CIA

- EFSB is required to issue regulations by March 1, 2026, implementing cumulative impact analysis (CIA), based on guidance to be established by the Office of Environmental Justice and Equity (OEJE)
- In preparation, EFSB Staff has begun:
  - Research on CIA in regulations, programs, and academic literature
  - Consultations with OEJE and other EEA agencies
  - Legal review of CIA requirements; and
  - Creating case studies to test preliminary concepts
- Restructuring Act (1997) required EFSB to evaluate "local and regional cumulative health impact" for generating facilities under G.L. c. 164, § 69J¼. The analysis did not include comprehensive consideration of a range of environmental and health impacts

Comparison of CIA Requirements

	2021 Climate Act (interpreted by MEPA Office)	2024 Climate Act
Subject Population	EJ Populations (defined by demographic criteria of language, income, and race/ethnicity). Can be precisely and unambiguously mapped (e.g. Massachusetts EJ Viewer Map).	Any "specific geographic area" (SGA) of Massachusetts where there is an "existing unfair or inequitable burden or related health consequence" A regulatory definition and data analysis needed to map these areas. [EFSB Staff idea: Unfairly Burdened Area (UBA), by census block group]
Subject area	Area within 1 (or sometimes 5) miles of project.	SGA – the area expected to be impacted by the proposed project (no specific distance prescribed).
Burdens	Proponent assesses "existing . . . environmental burden and related public health consequences" impacting the area's EJ Population(s), if any. Per MEPA Office protocol, proponent measures burdens as % of state average.	The proponent assesses existing "environmental burdens and public health consequences" (and perhaps other burdens) for the entire SGA.
Unfair or Inequitable Burden	The proponent assesses whether the EJ population is subject to "any existing **unfair or inequitable** environmental burden or related health consequence." MEPA Office sets threshold at 110% of statewide average for DPH indicators; other indicators compared to statewide average without a particular threshold value.	The proponent assesses whether the SGA is "subject to an existing **unfair or inequitable** environmental burden or related health consequence." The 2024 Climate Act does not specify a burden threshold.
Disproportionate Adverse Impact	The proponent must consider whether the proposed project would "likely result in a **disproportionate adverse effect"** on proximate EJ Populations. MEPA Office utilizes a "material exacerbation" standard.	For any SGA subject to such unfair or inequitable burden, the proponent must consider whether the proposed project would "likely result in a **disproportionate adverse effect"** on the SGA. The 2024 Act does not define "disproportionate."

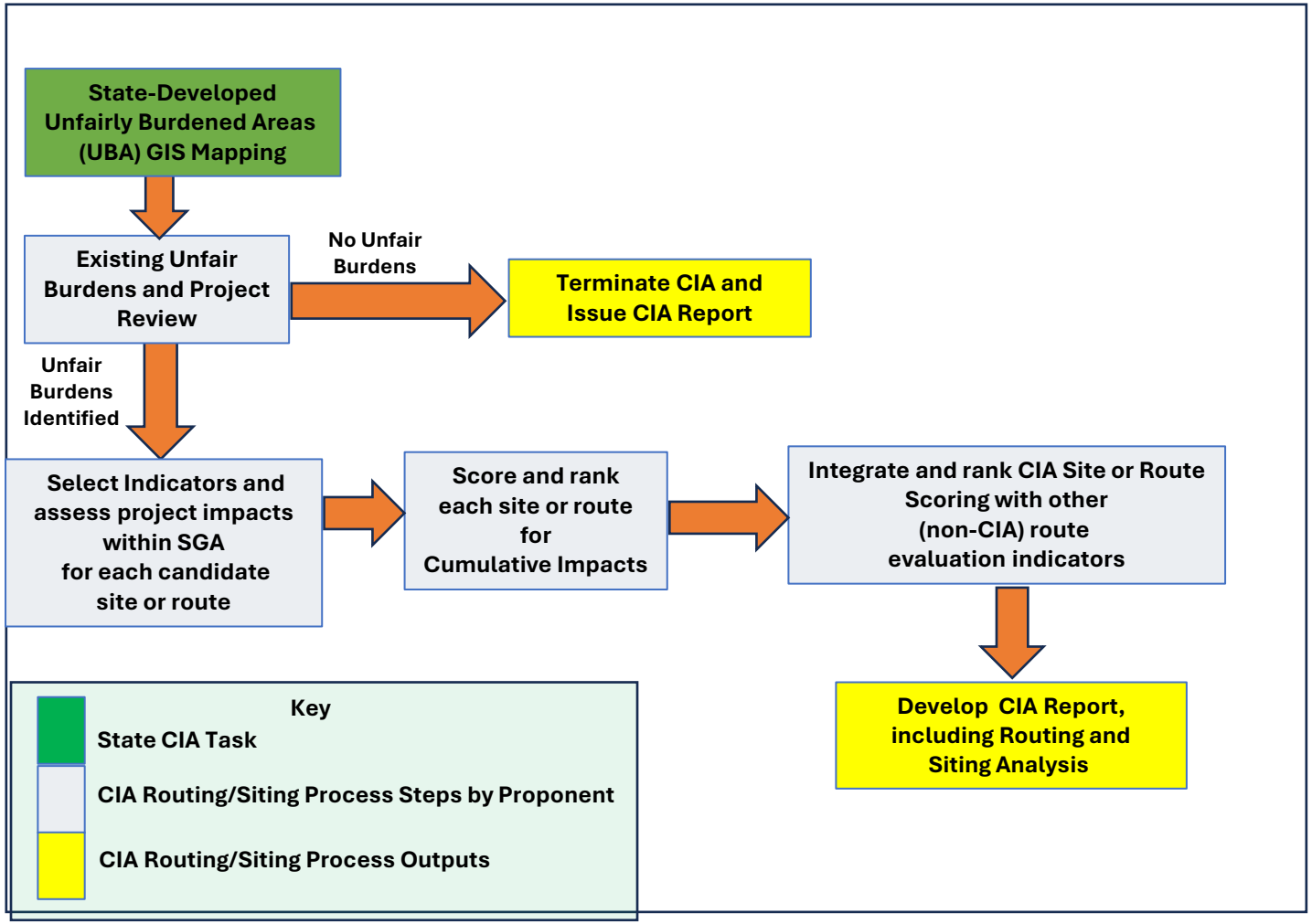
Additional CIA Objectives of EFSB Staff

- "Actionable" use of CIA – not just a report. The goal is to improve siting outcomes by incorporating a CIA
- Use CIA analytics throughout the siting process – from early stages of project design (pre-filing) to EFSB review and decision
- Explore use of CIA as part of a site/route scoring system, that builds on longstanding route/site scoring approaches used by EFSB
- Ensure that EFSB's CIA approach complements related energy and environmental policies and programs, including OEJE CIA guidance, EEA Site Suitability criteria, and EEA Environmental Justice Policy

CIA Building Blocks: Policies, Guidelines, and Programs

- OEJE CIA Guidelines (in development)
- EEA Site Suitability Criteria (in development)
- MEPA & MassDEP implementation of cumulative impact analysis in EJ-related regulations and protocols
- MassGIS data layers and mapping tools
- New mapping tool similar to CalEnviroScreen

Overview of CIA Scoring and Report Flow Chart



CIA Methodologies Under Evaluation

- Identify UBAs and assess energy project cumulative impacts (during construction and facility operation) relative to baseline conditions
- Models and state data under consideration help power and inform UBA and CIA analyses:
  - Population Characteristics: For example, a mapping tool similar to CalEnviroScreen
  - Flood, extreme heat, wildfire risks (e.g., First Street Foundation, RMAT)
  - MassCAPS and ecoConnect models (UMass)
  - Other data sources: e.g., MDPH, MassGIS, MassDEP, MEPA, USEPA

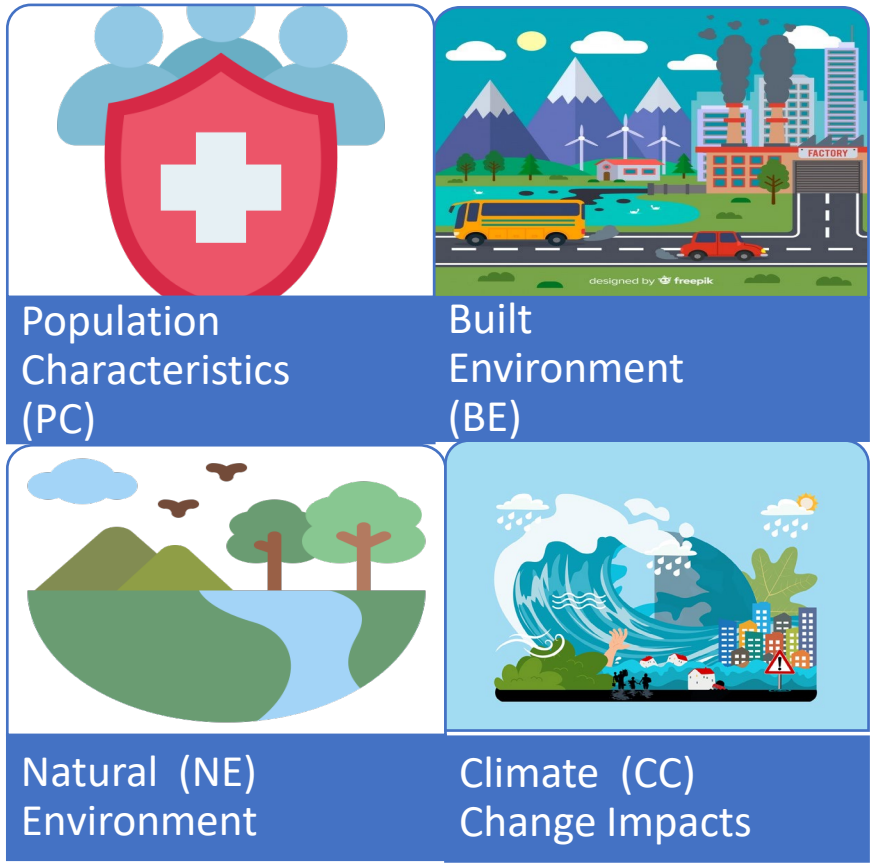
Massachusetts Environmental Policy Act Office (MEPA)

Indicator Selection

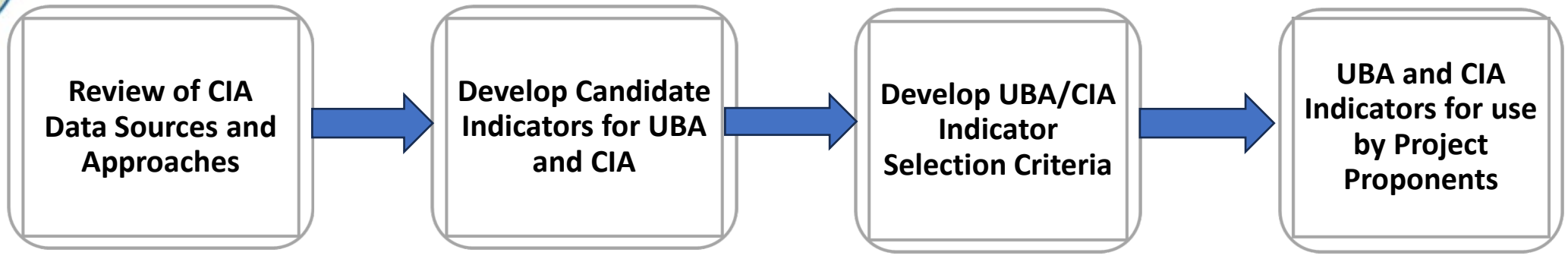
Many candidate indicators identified; currently assessing additional indicators

- **Population Characteristics (PC)**: indicators characterizing public health, socio-economic conditions, sensitive populations, and cultural resources
- **Built Environment (BE)**: addressing major pollution sources
- **Climate Change (CC) Impacts**: addressing flooding, sea level rise, wildfire, heat exposure
- **Natural Environment (NE)** – Addresses ecological integrity, connectivity, and biodiversity

EFSB Indicator Categories



EFSB Selection of Indicators for UBA and CIA



Indicator Selection Criteria

- **Nexus:** Indicator describes a discernible relationship between energy facility and impacts, especially environmental, public health, and climate impacts
- **Availability of data** (typically from databases maintained by State and Federal Agencies)
- **Spatial resolution**, i.e., data at census block group level
- **Timeliness of data**, i.e., data that is current and available when needed
- **Compatibility** of available data with scoring methodology
- **Reliability and Validity** of the data (used by other State Agencies)

Preferred Assessment Programs and Data Sources

- **Mapping Tool (currently being developed),** similar to CalEnviroScreen
- **UMASS CAPS**: UBA identification and CIA analysis
- **BioMap**: Rare species and natural community biodiversity data
- **Resilient Mass (RMAT):** CIA analysis
- **First Street Foundation:** UBA identification and CIA analysis

CIA Indicator Categories and Examples of Specific Indicators

- To assist EFSB in identifying existing burdens, the EFSB will rely on a variety of indicators (environmental, public health, climate change, etc.) from a variety of sources
- Assessment programs and example indicators
  - Mapping Tool (similar to CalEnviroScreen): e.g., diesel particulate matter, groundwater threats, pediatric asthma, poverty, etc.
  - UMASS CAPS: e.g., Traffic, nitrogen enrichment, hydrologic alterations, salt marsh ditching
  - BioMap: Spatial data identifying intact fish and wildlife communities, habitats, and ecosystems
  - First Street Foundation: e.g., Flooding, Wildfire, Extreme Heat, etc.
  - RMAT: e.g., Storm Surge, Flooding, Extreme Heat, etc.
- Recent Federal actions may complicate this task
- Potential tie-ins with other data/mapping tools as a compatible “foundation” of EFSB CIA approach

Indicator Selection: UBA Identification vs. Project CIA

Criteria	UBA Identification	Project CIA
Addresses Impact Categories (Population Characteristics, Built Environment, Climate Change, Natural Environment)	✓	✓
Characterizes Existing Environmental Burden and Public Health Consequences (Baseline)	✓	✓
Characterizes (Forward-Looking) Project Impacts		✓
Characterizes Other (Placed-Based) Impacts		✓

Proposed SGAs for Energy Facilities CIA

Energy Technology	Proposed SGA Major Site Work[1]	Proposed SGA: Minor Site Work[2]	Rationale
Transmission lines	1 Mile (Radius)	½ Mile (Radius)	Construction and visual impacts attenuate beyond this radius
Battery Energy Storage System (BESS)	1 Mile (Radius)	½ Mile (Radius)	BESS-related fire evacuation area considerations; Construction and visual impacts attenuate beyond this radius
Substation	1 Mile (Radius)	½ Mile (Radius)	Construction and visual impacts attenuate beyond this radius
Solar Farm	½ Mile (Radius)	¼ Mile (Radius)	Construction and visual impacts attenuate beyond this radius
Wind Farm	2 Mile (Radius)	1 Mile (Radius)	Construction, operations, and visual impacts attenuate beyond this radius
Anaerobic Digester	2 Mile (Radius)	1 Mile (Radius)	Construction, operations (emissions), and visual impacts attenuate after this radius
Fossil Fuel	5 Mile	2 ½ Mile (Radius)	Construction, operations (emissions), and visual impacts attenuate beyond this radius.
Networked (Community) Geothermal	½ Mile (Radius)	¼ Mile (Radius)	Construction and visual impacts attenuate beyond this radius
Other Energy Technology	TBD	TBD	SGA to be proposed (TBD) by Project Proponent based on specific energy technology proposed.

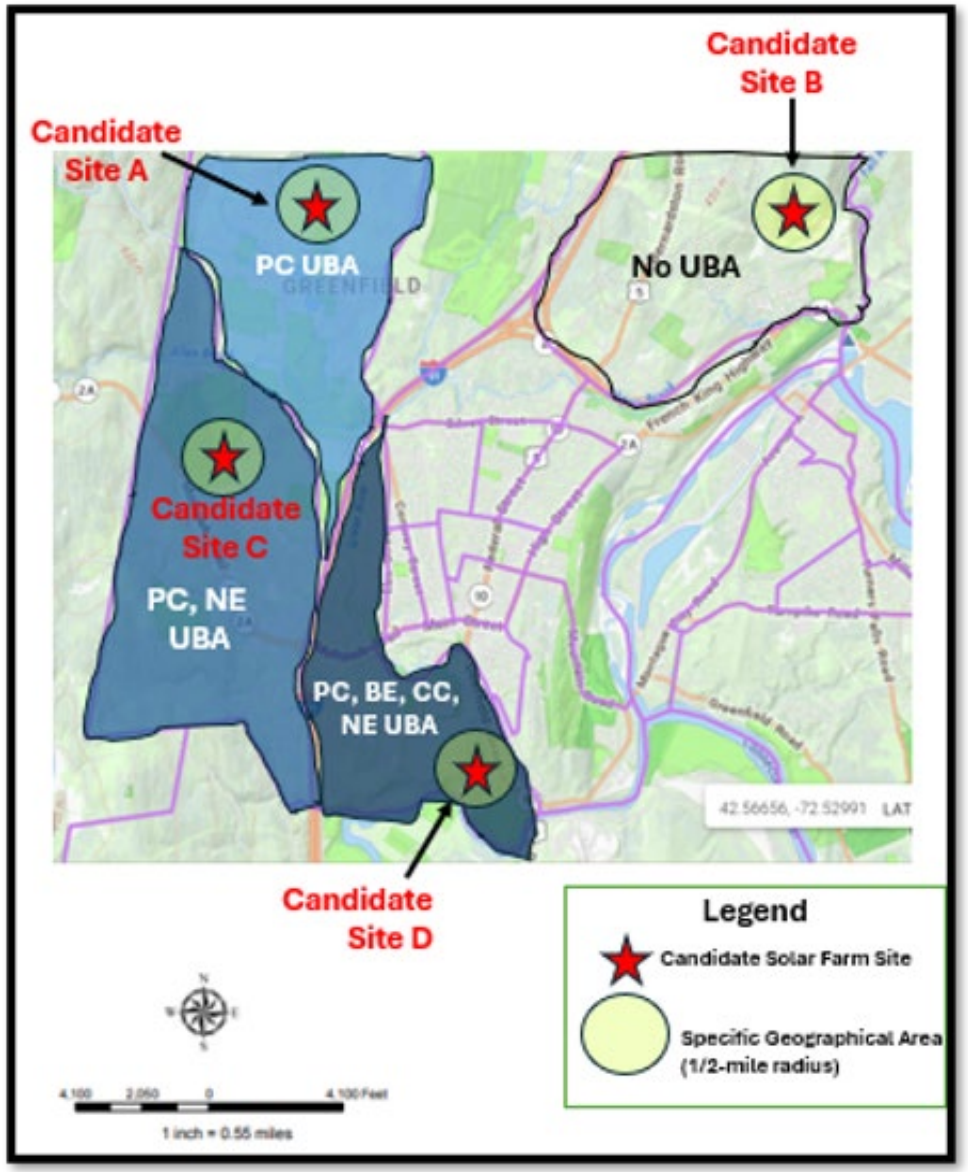
[1] Proposed SGA Major Site Work: New Construction and Major Site/Equipment Upgrades

[2] Proposed SGA Minor Site Work: for lower impact projects, as permitted by the EFSB

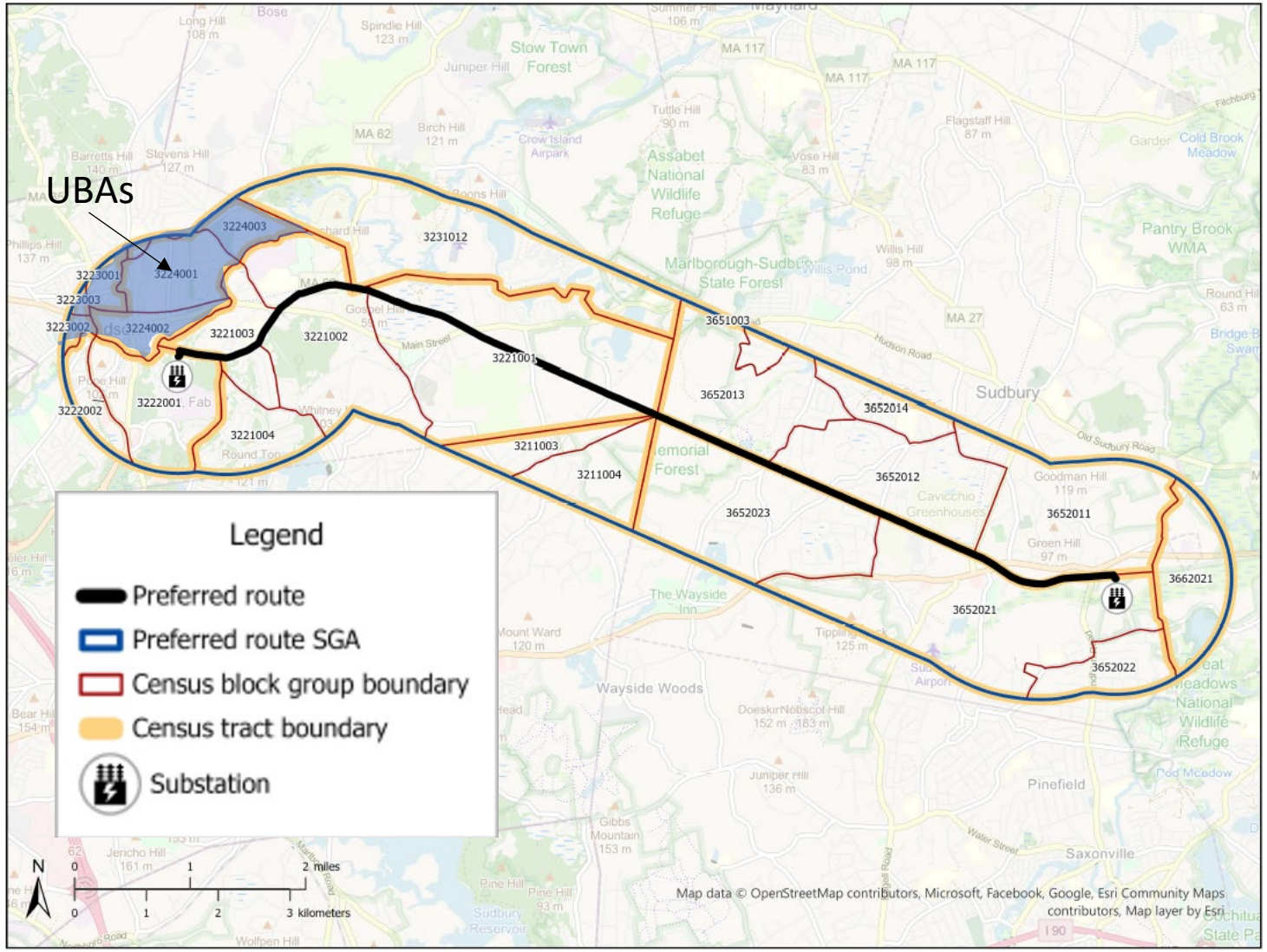
UBA Mapping Example: Greenfield Solar Project

Unfairly Burdened Area (UBA) Mapping of Census Block Groups for Candidate Site

<u>UBA Map Key</u>:
PC- Population Characteristic indicators including public health, socio-economic conditions, sensitive populations, and cultural resources
BE – Built Environment
CC – Climate Change Impacts
NE – Natural Environment



Case Study: Sudbury-Hudson T&D Project



Sudbury-Hudson Transmission Line

- 9-mile new transmission line with substation modifications on each end
- Three alternatives (two in MBTA rail corridor, one in roadways)
- Preferred Route (and Rail Trail) shown; use of inactive MBTA rail corridor
- UBAs in northwest portion (Hudson); > 20 Census Block Groups impacted

Future Projects May Change Baseline Conditions

- Proponents assess the Project's incremental impacts relative to baseline conditions to assess the cumulative impacts associated with a project
- Proponents also need to consider impacts to, but not necessarily mitigate for, other likely future projects that may change baseline conditions.

Cumulative Impacts =  +  + 

Baseline Conditions

Other Likely Future Projects

Proposed Project

Integration of CIA and Other Indicators for a Comprehensive Scoring of Site/Route Impacts

- Route/Site scoring results provide a substantial indication of project impacts, but not a conclusive answer regarding the most/least impacted sites
- Scoring is informative and "actionable" during pre-filing through EFSB final decision
- "Other indicators" are included in scoring - e.g., site suitability criteria, constructability; number of high-impact crossings; historical and archaeological resource impacts; wetland impacts; proximity to sensitive receptors; impacted residential land use parcels; sub-surface contamination; public water supplies; Areas of Critical Environmental Concern (ACEC); state-listed rare species habitat; BioMap core habitat, impacts to public shade trees; traffic congestion

Development of Tools for Agency, Applicant, and Public Use

- GIS Mapping tools that provide CIA-related data layers
- Statewide maps of UBAs
- Sample spreadsheets for use by applicants, including cumulative impact algorithms (see below)
  - Spreadsheets for deriving cumulative impacts
  - Spreadsheets for deriving impacts from other indicators
  - Spreadsheet for combining all indicators in **Total Index Score**
- EFSB regulations/guidance on specified data layers and possible weighting factors approaches (expert and community input)

Next Steps for EFSB CIA Implementation

- Incorporate early-stage OEJE CIA guidance and EEA Site Suitability Criteria recommendations
- Refine conceptual CIA model and integration with other impact measurements
- Receive and incorporate additional stakeholder input
- Test scoring system with case studies
- Develop required content of CIA Report for forthcoming EFSB regulations and guidance
- Develop CIA-based regulations and guidance documents

Request for Comments

- What indicators do you recommend including in the CIA model?
- What weights should be assigned to each indicator for the purposes of scoring?
- What do you think of the proposed distances of SGAs for energy facilities? Should they be broader or narrower or different for different project types?
- What do you think of the models proposed for Cumulative Impact Analysis?
- How should the EFSB best integrate EEA's Site Suitability criteria into its overall scoring process?

Questions and Comments?

www.mass.gov/climateact

sitingboard.filing@mass.gov (DPU/EFSB)
energypermitting@mass.gov (EEA)
doer.siting.permitting@mass.gov (DOER)