MVC POLICY FOR DRI REVIEW

Energy

May 2021; updated June 2023

This policy is one of a series prepared to help applicants and members of the public understand how the MVC evaluates proposed Developments of Regional Impact (DRIs), as mandated by its enabling legislation, Chapter 831 of the Acts of 1977 as amended.

The Commission is mandated to weigh the benefits and detriments of certain proposals to determine whether they should be approved, approved with conditions, or denied. Consult the Commission's website (mvcommission.org/DRI), or call the office at (508) 693-3453, to obtain the other necessary documents.

This policy reflects MVC practices in reviewing developments over the past generation. It is set forth in order to assist applicants in preparing proposals that address the Commission's concerns.

The Commission will use this policy during review of the benefits and detriments of a DRI, and to formulate conditions attached to DRIs that are approved. It should therefore be used by applicants to help design projects, and could serve as the basis of proposals or "offers" to offset anticipated detriments. Applicants are invited to consult the MVC staff for help in identifying which policies apply to their project.

This policy is generally a good indication of the Commission's concerns and can help the Commission evaluate the merits of a proposal. However, the Commission weighs the overall benefits and detriments of all aspects of a project, and evaluates each proposal on its own merits. Based on the particular circumstances of each proposal, the Commission could deny a project that respects some or even all of the policy, or might approve one that does not meet all parts of the policy. The Commission recognizes that there might be special circumstances whereby deviations from the policy are appropriate.

The Commission intends to review and update this policy at least once every five years.

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Adopted by the Martha's Vineyard Commission on May 6, 2021; updated June 22, 2023

1. BACKGROUND

The MVC and Climate Change

Chapter 831 of the Acts of 1977, as amended (the "MVC Act") charges the MVC with protecting the health, safety and general welfare of Island residents and visitors and ensuring that land usages permitted on Martha's Vineyard will not be unduly detrimental to the unique natural, historical, ecological, scientific, and cultural values of Martha's Vineyard or to the economy of the Island. The accelerating climate crisis poses real, documented threats to the Island's unique values, including its renowned natural environment as well as its existing built environment; if left unchecked, climate change also threatens the health of our population and the Island's tourist economy. As further detailed below, reducing dependency on fossil fuels will not only help mitigate the impacts of climate change, but will also provide numerous benefits with respect to transportation, cost of living, and energy reliability on the Island.

It is now widely recognized across the Commonwealth of Massachusetts – and globally – that reducing consumption of fossil fuels is critical to mitigating the climate crisis. Massachusetts requires utilities to provide an increasing percentage of their power from renewable sources in the coming years, and the state's 2021 Climate Law and associated Clean Energy and Climate Plan aim to reduce greenhouse gas emissions 33% below 1990 levels by 2025, 50% by 2030, and 100% (net-zero emissions) by 2050.

In 2019, the Martha's Vineyard Commission adopted an Emergency Climate Crisis Resolution (see attachment), agreeing to develop a framework for reviewing DRIs in light of the potential impacts of climate change on the Island, and to pursue official policies to that end.[1] In line with the resolution, the MVC in 2022 completed the Vineyard Climate Action Plan (CAP), a comprehensive roadmap for eliminating fossil fuel use on the Island by 2040 and adapting to the local effects of climate change.

Consistent with both the resolution and CAP, this policy aims to reduce fossil fuel usage, increase renewable energy generation, and improve energy resilience on the Island.

Current Energy Sources

Energy sources on the Vineyard include oil, propane, gasoline, diesel, jet fuel, and electricity, with at least one third of that energy used for the heating and cooling of buildings. As of 2022, about 6% of the electricity on Martha's Vineyard is generated by on-Island solar arrays and small wind turbines, and the rest is generated off-Island from a combination of natural gas, nuclear, oil, hydroelectric, and renewable sources.

Benefits to the Island of Reducing the Consumption of Fossil Fuels

Reducing our consumption of fossil fuels benefits the Island in several ways:

- ***Climate change mitigation:*** Widespread energy and greenhouse-gas emissions reduction by way of efficiency, conservation, and renewable energy generation will help reduce the effects of climate change, which include more frequent and severe storms and flooding, the loss of coastal areas and infrastructure to sea-level rise, higher average temperatures, increased drought, and the risk of increased vector-borne diseases including Lyme and other tick-borne diseases.
- ***Reliability of supply:*** Because the Island depends almost entirely on imported energy, we face higher energy costs, and concerns about reliability. For example, fossil fuel prices are subject to fluctuation and volatility, and increased storms and flooding expose us to periodic interruptions in the power supply.

[1] Additional or supplemental policies consistent with the resolution may be adopted in the future.

- ***Economic impacts:*** Energy costs on the Vineyard are especially high and contribute significantly to our higher cost of living. Island gasoline and electricity prices are among the highest in the nation, and oil and propane bills are among the primary expenses for Island households. Furthermore, money spent on fossil fuel energy could instead be spent on local goods and services including renewable energy, as well as expanding business opportunities and renewable energy development on the Island.
- ***Traffic and infrastructure:*** Reducing the number of tank trucks delivering fuels on the Vineyard will improve the quality and safety of Island roads, reduce pressure on Steamship Authority ferries, and further reduce carbon emissions.
- ***Other environmental and health consequences:*** Burning fossil fuels, in addition to exacerbating climate change, results in air and water pollution that is changing the natural environment and endangering public health. In the past, the Cape and Islands have experienced some of the poorest summer air quality in Massachusetts.

2. GOALS

This policy applies to all residential and commercial projects, new construction, modifications, and parking areas reviewed by the Commission. As required by the MVC Act, in determining whether to approve a DRI project, the MVC assesses the overall benefits and detriments of a project. As part of that assessment, a project's impact in regard to fossil fuel consumption will also be considered.

The goals of this policy are to

1) reduce or eliminate the consumption of fossil fuels, and the emission of greenhouse gases, associated with DRIs
2) maximize the energy efficiency of DRI buildings, parking areas, and other structures
3) improve energy resilience, mostly by way of onsite renewable energy generation

3. STRATEGIES

This policy is in keeping with the State Building Code and standards, including the Stretch Code[2], Home Energy Rating System (HERS) standards for residential structures, and COMcheck standards for commercial structures, and makes suggestions as to further strategies to meet the stated goals.

To encourage improved energy practices, this policy puts forth the following strategies, as further described in sections 4-6:

- Design and build efficient all-electric structures for new residential and commercial construction (while also discouraging onsite fossil fuel use for residential and commercial renovations).
- Increase energy efficiency by using current best practices.
- Advance the development of on-Island renewable energy by incorporating onsite solar to the extent feasible to achieve net-zero. Onsite generation exceeding net-zero requirements may be considered a further benefit.
- Facilitate the adoption of electric vehicles by providing pedestal-ready or installed electric vehicle chargers.
- Reduce the overall size of conditioned spaces to reduce energy consumption.
- Incorporate the power source preferences in section 4 below.
- Incorporate the planning and design principles in section 5 below.

[2] All Island towns have adopted the Stretch Code.

4. POWER SOURCE PREFERENCES

When assessing the benefits and detriments of a DRI, the MVC will evaluate the extent to which the application addresses the goals of this policy, including incorporation of the following power source preferences:

	Power source preference
1. RESIDENTIAL	
New construction	• All electric, including pools (excluding cooking and generators) • Onsite solar*
Modifications (all sizes)	• No additional fossil fuel-using equipment to be installed • Onsite solar for additional electricity usage*
2. COMMERCIAL	
New construction, including residential components of commercial developments	• All electric, including pools (excluding cooking and generators) • Onsite solar*
Modifications that amount to more than 50% of the existing floor area or 50% of the current assessed value	• No additional fossil fuel-using equipment installed • Onsite solar for additional electricity usage*
Modifications that amount to less than 50% of floor area or 50% of the current assessed value	• No additional fossil fuel-using equipment installed
3. PARKING	
Stand-alone (under DRI Checklist 3.1) or associated with another residential or commercial project	• Pedestal-ready or installed electric vehicle charging stations, for all residential and fleet vehicle parking areas • LED for all parking lot lighting

*To the extent feasible so as to achieve net-zero. Onsite generation exceeding net zero requirements may be considered a further benefit.

5. PLANNING AND DESIGN PRINCIPLES

In addition to energy efficiency and greenhouse-gas reduction associated with a building's operation, all DRI applicants should aim to minimize their project's energy consumption by incorporating the following planning and design elements:

- ***Location and land use:*** Locate development (and incorporate mixed land uses such as commercial and residential development) to minimize reliance on vehicles and encourage walking and biking.

- ***Transportation:*** Wherever possible locate projects within a half-mile of basic services, and encourage use of public transit, cycling, walking, and fuel-efficient vehicles.

- ***Building size:*** Design buildings to maximize space efficiency and minimize the amount of area in order to reduce the amount of conditioned space.

- ***Building location and orientation:*** Locate and orient buildings to maximize solar gain for heating, daylighting, and generating electricity.

- ***Solar-ready design:*** Design all buildings to allow for the installation of solar hot water and/or solar electric panels on the roof (either now or in the future), unless doing so would be impossible or inappropriate due to site conditions or historic context. Solar canopies should be considered for large parking areas to provide electricity generation and shading.

- ***Landscaping:*** Make landscaping choices that reduce heating and cooling demands (e.g. shading and wind breaks) for associated structures; and the need for mowing and irrigation (e.g. the use of native and drought-resistant species and the reduction of lawn area), which are typically energy intensive.

6. SUBMITTAL REQUIREMENTS

All DRI applicants must submit the following documents as part of the DRI application.

Note: In the case of a DRI where the MVC will not be reviewing building plans (e.g. a residential subdivision), this policy shall nevertheless apply to all future buildings on the site. In such cases, the applicant should outline a procedure by which the builders of subsequent buildings, or a qualified building performance analyst, will demonstrate to the MVC that they are adhering to this policy. The MVC may also stipulate this measure in its conditions of approval.

1) Narrative regarding how the project is designed to incorporate applicable energy reduction/efficiency measures.

Applicants will be required to submit a narrative outline of how each element of this policy is addressed.

2) Projections regarding energy efficiency (if applicable)

State building codes establish minimum standards for energy efficiency which applicants are expected to meet. (These codes include the MA Base Energy Code and Stretch Energy Code as applicable.)

For energy-intensive commercial or residential projects, applicants may be asked to submit, as part of their application materials, additional design review and/or energy modeling by an independent building performance analyst. Increased energy efficiency may be considered as an additional benefit by the Commission as it weighs the benefits and detriments of a DRI pursuant to section 14 of the MVC Act.

3) Consistent with the goals of this policy and the strategies set out in sections 2 and 3, provide information showing the design and specifications for any structures and any onsite renewable energy generation (if abblicable), or other mitigation measures.

For projects with existing onsite fossil-fuel-powered equipment, applicants must provide information regarding the plans for replacement of existing equipment at the end of its useful life. The Commission may also require more detailed plans prior to issuance of a building permit.

4) Provide a description of how the planning and design elements in section 5 of this policy have been addressed.

The planning and design elements outlined in section 5 should be described in a one- or two-page narrative submitted with the DRI application. In developing this narrative, the applicant may also consider the embodied carbon, or overall carbon footprint, of the proposed materials. The MVC may also request a narrative outlining the project's future transition to all-electric power.

5) Provide a plan for electric vehicle charging stations (parking areas only).

The MVC may also request a plan for the future installation of charging stations, if such installations are not proposed at the time of review.

See sections 3 and 4.

Martha's Vineyard Commission 2019 Climate Crisis Resolution

The continued burning of fossil fuels, resulting in the emission of greenhouse gases, and the consequences of unsustainable development and extraction of resources are having a detrimental impact on the environment and are threatening the livability of our planet and, more relevantly, our island. Specifically, these factors are contributing to rising sea levels; extreme climate disruption; ocean acidification; adverse health impacts; economic destabilization; increased pollution and, ultimately, human survivability.

Chapter 831 of the Massachusetts 1977 Acts and Resolves, as amended, vests in the Martha's Vineyard Commission authority to protect the Island's "unique natural, historical, ecological, scientific, cultural, and other values." Chapter 831 recognizes that "[t]hese values are being threatened and may be irreversibly damaged by uncoordinated or inappropriate uses of the land". The Commission believes it is necessary and appropriate to exercise its authority to protect Island values in the face of the climate crisis.

Accordingly, the Commission RESOLVES to:

Develop a framework to enable the Commission to factor into its review and consideration of Developments of Regional Impact and regional policy and planning initiatives the imperative to reduce the detrimental impacts of the climate crisis on the Island and to secure the benefits of policies designed to minimize those impacts – to the intent of protecting the Island values, its people, economy and environment.

Support the non-binding resolution, to be presented at the spring Town Meeting of each Island Town by each Town's Energy Committee, the goals of which are to:

- Reduce fossil fuel use on the Island (from a 2018 baseline) by 50% by 2030 and by 100% by 2040;
  Increase the fraction of our electricity use that is renewable by 50% by 2030 and by 100% by 2040; and
  Foster biosphere carbon capture through:
  - » Adoption of regenerative agriculture and landscaping;
  - » Protection and expansion of wetlands; and
  - » Preservation of woodland resources.

Draft a Commission Master Energy Plan that is consistent with the goals set out in the non-binding resolution and that will assist the Island in meeting those goals.

Draft a Commission Master Adaptation Plan that will facilitate both Town and regional planning and implementation initiatives designed to improve resiliency in the face of the climate crisis.