



March 3, 2020

Cape Cod Commission
Attention: Jon Idman
P.O. Box 226
Barnstable, MA 02630

RE: AMP Energy Development of Regional Impact

Dear Members of the Cape Cod Commission:

The Association to Preserve Cape Cod (APCC) has reviewed the Development of Regional Impact application for the proposed AMP Energy project in Sandwich and has concluded that the likely detriments to the Cape Cod region outweigh any benefits the project may provide.

Founded in 1968, APCC is the leading regional nonprofit environmental advocacy and education organization on Cape Cod. Supported by thousands of members from every Cape Cod town, APCC's mission is to promote policies and programs that foster the preservation of the Cape's natural resources. APCC focuses its efforts on the protection of groundwater, surface water, and wetland resources, preservation of open space, the promotion of responsible, planned growth and the achievement of an environmental ethic.

As a leading environmental voice on Cape Cod calling for more aggressive climate policies on the local, regional, state and federal levels, APCC has been a strong regional advocate for increases in renewable energy production. Solar energy is a vital part of the Commonwealth's renewable energy portfolio and there is a great need for more responsible solar energy production on Cape Cod. Enormous opportunity exists for increased use of solar, especially over parking lots, on existing and new rooftops, and—for larger scale solar arrays—on landfills, mining sites and brownfields.

Natural Area Placetype Classification

The AMP Energy project applicant proposes to develop an approximately 18.8-acre undeveloped, forested parcel by installing an approximately 5 MWdc solar photovoltaic array. The project plan calls for clearing all trees and vegetation on the interior 10.85 acres of the site. The undeveloped property is located within a Wellhead Protection Area (WHPA) and, as such, is identified as a "Natural Area" Placetype by the criteria established in the 2018 Regional Policy Plan (RPP).¹

According to the February 21, 2020 Cape Cod Commission staff report for this project, Commission staff makes the recommendation that the project site is best represented by the "Rural Development Area" Placetype classification instead of the "Natural Area" classification because a large percentage of the surrounding land use is residential.

APCC disagrees with this Commission staff recommendation. The remaining undeveloped land within a WHPA, particularly land of any significant acreage such as the site of the proposed project, should be

¹ Cape Cod Regional Policy Plan, December 2018



afforded high priority protection status, especially when there is developed land surrounding it that has the potential to compromise the quality of the water resource that the WHPA status is meant to protect. Indeed, APCC must assume this was the very purpose for including “undeveloped lands in wellhead protection areas” in the RPP Natural Areas Placetype classification and identifying one of the Natural Areas Placetype strategies as being to “limit development to protect natural resource functions.”² APCC urges the Commission members to make a determination that this parcel retain its mapped “Natural Area” classification. In addition to the loss of other important ecological services, clearing forested land within a WHPA compromises the aquifer recharge abilities of the land, especially when development has occurred elsewhere in the WHPA; therefore, this particular site characteristic should be protected.

Ground-mounted Solar Array Impacts on Forest Lands

Mass Audubon's *Losing Ground* 2020 edition study on the status of Massachusetts land use and open space protection reports that ground-based solar represents roughly 6,000 acres of land developed in Massachusetts between 2012 and 2017—or one quarter of all development in the state.³ The Massachusetts Department of Energy Resources (DOER) estimates that, of the land developed by solar within the last 10 to 15 years, approximately 2,500 acres represent forestlands that have been cut down.⁴ This off-Cape trend should not be established as a precedent on Cape Cod, where our few remaining undeveloped and unprotected landscapes face continued threats from development. By the Cape Cod Commission's own estimates, the Cape lost 2,300 acres of forest between 2001 and 2011, which over the course of the decade represented a loss of 2.5 percent of the Cape’s forest cover.⁵

APCC joins Mass Audubon and other conservation organizations in the conviction that the continued growth of solar energy must be encouraged while emphasizing rooftops, parking lot canopy systems and brownfield sites rather than ground-mounted arrays that consume open space, degrade wildlife habitat and the other important resource values of our natural lands. Until every rooftop, parking lot, landfill, or gravel pit on Cape Cod is covered in solar, clearcutting our remaining open, forested lands should not be an option.

State Policy on Solar Placement

Massachusetts state policy on solar placement is increasingly moving in a direction that discourages forest clearcutting for solar. The state's DOER Solar Massachusetts Renewable Target (SMART) program, which was established to create a long-term sustainable solar incentive program that promotes cost-effective solar development in Massachusetts, has adopted a policy that increases financial incentives for projects proposed for rooftops, parking lots, and brownfield sites, and reduces incentives for projects on undeveloped sites. It has recently sought to provide further disincentives to discourage forest clearing for solar.⁶

Furthermore, DOER's model bylaw for siting solar states that, "Where a solar facility is sited, as well as placement on the site once selected, is an important consideration, particularly in regard to large-scale ground mounted facilities. DOER strongly discourages locations that result in significant loss of land and natural resources, including farm and forest land, and encourages rooftop siting, as well as locations in industrial and commercial districts, or on vacant, disturbed land. Significant tree cutting is problematic

² Cape Cod Regional Policy Plan, December 2018

³ Ricci, E.H., J. Collins, J. Clarke, P. Dolci, and L. de la Parra. 2020. *Losing Ground: Nature’s Value in a Changing Climate*. Massachusetts Audubon Society, Inc., Lincoln, Massachusetts

⁴ <https://www.wgbh.org/news/local-news/2019/04/26/some-massachusetts-forestland-is-being-clear-cut-to-put-up-solar-farms> April, 2019

⁵ Cape Cod Regional Policy Plan, December 2018

⁶ <https://www.mass.gov/info-details/solar-massachusetts-renewable-target-smart-program>



because of the important water management, cooling, and climate benefits trees provide.”⁷ (Emphasis added.)

The State Hazard Mitigation and Climate Adaptation Plan (SHMCAP), which was codified in the 2018 Environmental Bond, stresses the use of nature-based solutions for climate adaptation and mitigation. Chapter 7 in SHMCAP further highlights the value of preserving forests for their use as an important source of carbon sequestration, stating that “Massachusetts forests currently absorb more than 15 percent of the carbon generated in Massachusetts every year.”⁸

And in alignment with the policy set forth through SHMCAP, the Massachusetts state Senate last month passed *An Act Setting Next Generation Climate Policy* (Senate Bill 2477), which includes language stressing the importance of "natural solutions" to mitigate climate change such as utilizing forests and wetlands for carbon sequestration.⁹ These lands increase our resilience to climate impacts and contribute to carbon sequestration in addition to the other environmental, economic and recreational benefits they offer.

Cape Cod Climate Change Collaborative Position Statement on Solar Development

The Cape Cod Climate Change Collaborative, a coalition of organizations, businesses and faith groups dedicated to moving the Cape region to net zero emissions by 2050, and which APCC is a founding member, adopted a position statement on solar in 2019 that endorses the state's policy to discourage clearcutting forested land for solar. It states that, “When sited in undeveloped areas, commercial scale ground based solar arrays threaten the amount of forest cover on Cape Cod. The Climate Collaborative recommends prioritizing siting of such solar arrays, siting on brown fields, old industrial sites, depleted gravel pits and paved parking lots, and avoid undeveloped sites, such as forests or open fields.” APCC strongly supports the Climate Collaborative's statement as a regional policy for siting solar projects on Cape Cod.¹⁰

Other Project Impacts to Consider

It is important to note that in selecting a currently forested site for installation of a solar array, the carbon reduction benefits of the solar array are diminished by subtracting the loss of the carbon sequestration value of the cleared forest. This would not be the case if an equal-sized solar array were sited on a parking lot or other previously disturbed site while at the same time the forested site was allowed to continue capturing carbon.

In addition to the loss of sequestration value, the loss of forested land will worsen the nutrient loading problem impacting our bays and estuaries. The proposed project is located within the Popponessett Bay watershed, which is nitrogen impaired. A 2016 study funded by Barnstable County cited the benefits provided by forested land in reducing the impact of atmospheric deposition of nitrogen on water resources.¹¹ Taking an action counter to this research is not an appropriate exercise of the Commission's discretionary authority.

⁷ https://www.mass.gov/files/documents/2017/10/26/Model%20Solar%20Zoning%20Documents_0.pdf

⁸ <https://www.mass.gov/service-details/massachusetts-integrated-state-hazard-mitigation-and-climate-adaptation-plan>

⁹ <https://malegislature.gov/Bills/191/S2477>

¹⁰ Forests vs Solar Farms: A Position Statement. Cape Cod Climate Change Collaborative, 2019

¹¹ Unprecedented decrease in deposition of nitrogen oxides over North America: the relative effects of emission controls and prevailing air-mass trajectories. (Lloret, Valiela 2016)



Conclusion

Clearly, our nation, our state and our region must respond to the global climate crisis with effective measures to reduce our carbon emissions and to replace them with green, renewable energy sources such as wind and solar. But in doing so, Cape Cod must act responsibly and be mindful of the natural resources that define our region that we are trying to protect, and to not destroy them in the process.

Therefore, it is APCC's position that the project's detriments to natural resources and community character outweigh its benefits, and we respectfully urge the Cape Cod Commission to also reach that determination.

Sincerely,



Andrew Gottlieb
Executive Director



Don Keeran
Assistant Director