

THE APPALACHIAN MOUNTAIN CLUB'S ENERGY AND CLIMATE POLICIES

The purpose of this document is to guide AMC's in-house policies and broader advocacy work on climate and energy matters. Armed with this document, AMC staff and volunteers will be better able to make environmentally and socially responsible decisions about our infrastructure, investments, operational activities, and policy advocacy.

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Table of Contents

Executive Summary.....	3
Section I. Introduction.....	4
Overview	4
Subsection A. Guiding Principles.....	6
Section II. AMC’s Net Zero Commitment: Internal Policy	7
Overview	7
Subsection A. Tracking and Reporting Emissions	8
Subsection B. Carbon Mitigation Hierarchy.....	8
Section III. Public Policies: Climate, Air Quality & Land	11
Overview	11
Subsection A. Greenhouse Gas Reduction Incentives	11
Subsection B. Natural Climate Solutions.....	13
Subsection C. Energy Development on Public Lands.....	14
Subsection D. Air Quality.....	14
Section IV. Energy Development: Policies on Specific Technologies	15
Overview	15
Subsection A. Energy Transmission Corridors and Pipelines.....	16
Subsection B. Energy Conservation, Efficiency and Electrification	17
Subsection C. Grid-Scale and Distributed Solar	18
Subsection D. Hydropower	19
Subsection E. Terrestrial Wind Power.....	20
Subsection F. Storage	22
Subsection G. Biomass	22
Subsection H. Natural Gas.....	25

Executive Summary

AMC's first energy-related policy, focused on wind power, was adopted in 1996. More comprehensive energy policies were adopted in 2009 and have been revised several times since then. However, to a large degree these policies dealt with the different aspects of the energy policy landscape as separate issues. This major revision has two purposes - to address emerging issues, and to integrate all policies into a common framework addressing the major environmental issue of our time - climate change.

A 2018 report from the Intergovernmental Panel on Climate Change stated:

The report finds that limiting global warming to 1.5°C would require 'rapid and far-reaching' transitions in land, energy, industry, buildings, transport, and cities. Global net human-caused emissions of carbon dioxide (CO2) would need to fall by about 45 percent from 2010 levels by 2030, reaching 'net zero' around 2050. This means that any remaining emissions would need to be balanced by removing CO2 from the air.

Despite the scientific consensus that human emissions of greenhouse gases are causing climate change, fossil fuels continue to dominate the Northeast's energy supply. Approximately 80% of households¹ in the Northeast used fossil fuels to heat their homes in winter 2017-2018. Fossil fuels provided roughly 99% of transportation energy in 2018² and about 46% of electricity in 2019³. However, there are encouraging signs. Except for natural gas, fossil fuel production (mostly coal) is steadily declining, and the use of renewable energy is expanding. These trends must continue, and their pace must accelerate significantly. Further delay will mean exacerbating the deadly impacts we are already seeing, such as heatwaves, wildfires, sea level rise, droughts, extreme weather events, changing winters, and coastal flooding.

The purpose of this document is to guide AMC's in-house policies and broader advocacy work on climate and energy matters. Armed with this document, AMC staff and volunteers will be better able to make environmentally and socially responsible decisions about our infrastructure, investments, operational activities, and policy advocacy focus.

Beginning with Guiding Principles, this document covers a range of policy issues, from AMC's approach to achieving our own net zero carbon emissions goal that follows the IPCC recommendation above, to a range of energy policy and project siting issues that are

¹ Energy Information Administration (EIA) 2017-2018 "Household winter heating in the Northeast" [chart](#)

² Georgetown Climate Center (2018). *Reducing Transportation Emissions in the Northeast and Mid-Atlantic*.

³ This figure combines resource mix data for New York from the Energy Information Administration (EIA) where about 45% of electricity comes from fossil fuels, and the regional grid operator [ISO New England](#) where approximately 47% of electricity comes from fossil fuels.

currently active at the state, regional, and/or federal level (see Table of Contents). However, as has been the case in the past, the climate and energy policy landscape will continue to evolve, and AMC's policies, and this document, will evolve with them.

Our Guiding Principles include:

- Reduce greenhouse gas emissions.
- Set net zero climate targets and develop roadmaps.
- Promote transparency in tracking and reporting.
- Support carbon offsets and carbon sequestration technologies.
- Avoid unnecessary impacts with best available practices and technology.
- Mitigate for unavoidable resource impacts.
- Develop decommissioning plans.
- Conduct a transparent and robust stakeholder engagement process.
- Ensure equity and environmental justice.

Each principle is elaborated upon in the document. We then turn to AMC's goal of net zero carbon emissions no later than 2050, including our history of tackling our organizational carbon footprint, and the strategic approach we are now taking to meet our ambitious target. This encompasses a Carbon Mitigation Hierarchy as follows:

1. Avoid and reduce emissions from transportation and buildings through energy efficiency and conservation.
2. Eliminate emissions from electricity by investing in renewable sources of energy.
3. Offset any remaining emissions.

The remainder of the document details AMC's approach to a variety of public policies and technological tools aimed at transitioning to a net zero carbon economy. AMC will advocate for energy and climate change public policies and actions where the nexus is strong with AMC's mission and strengths, and where AMC can make a meaningful contribution in our region. These policies are intended to be consistent with AMC's own organization-wide commitment to achieve net zero emissions by 2050 or sooner, and to reflect our ongoing long-term research focus and credibility in select arenas of the interrelated energy, air pollution, and climate change challenges, the interests of the organization's membership, and our arenas of influence on federal, state, and local government decisions.

Section I. Introduction

Overview

The mission of the Appalachian Mountain Club is to foster the protection, enjoyment, and understanding of the outdoors. We envision a world where our natural resources are healthy, loved, and always protected, and where the outdoors occupies a place of central importance in every person's life.

AMC's first energy-related policy, focused on wind power, was adopted in 1996. More comprehensive energy policies were adopted in 2009 and have been revised several times since then. However, to a large degree these policies dealt with the different aspects of the energy policy landscape as separate issues. This major revision has two purposes - to address emerging issues, and to integrate all policies into a common framework addressing the major environmental issue of our time - climate change.

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Despite the scientific consensus that human emissions of greenhouse gases are causing climate change, fossil fuels continue to dominate the Northeast's energy supply. Approximately 80% of households⁴ in the Northeast used fossil fuels to heat their homes in winter 2017-2018. Fossil fuels provided roughly 99% of transportation energy in 2018⁵ and about 46% of electricity in 2019⁶. However, there are encouraging signs. Except for natural gas, fossil fuel production (mostly coal) is steadily declining, and the use of renewable energy is expanding. These trends must continue, and their pace must accelerate significantly. Further delay will mean exacerbating the deadly impacts we are already seeing, such as heatwaves, wildfires, sea level rise, droughts, extreme weather events, changing winters, and coastal flooding.

Addressing climate change will require significant changes in how our society produces, transports, and uses energy on a rapid timeframe. However, these changes also have the potential to adversely affect the natural resources and recreational opportunities that AMC has spent over a century working to conserve. Well-designed policies that benefit both society and nature are at the heart of AMC's mission. To help protect humanity and the natural world from the devastating effects of climate change, the AMC will work to reduce emissions from our own operations, raise public awareness about these issues, promote and support appropriate public policies, and inspire others to reduce their carbon footprint. This document sets forth both how we plan to conduct our internal operations and promote the public policies that we believe are necessary and appropriate and which are within the scope of AMC's mission.

⁴ Energy Information Administration (EIA) 2017-2018 "Household winter heating in the Northeast" [chart](#)

⁵ Georgetown Climate Center (2018). *Reducing Transportation Emissions in the Northeast and Mid-Atlantic*.

⁶ This figure combines resource mix data for New York from the Energy Information Administration (EIA) where about 45% of electricity comes from fossil fuels, and the regional grid operator [ISO New England](#) where approximately 47% of electricity comes from fossil fuels.

Subsection A. Guiding Principles

Our internal activities and our climate and energy policy engagements are based upon the following guiding principles:

- **Reduce greenhouse gas emissions.** Climate change and its effects are accelerating as greenhouse gas levels rise. It is therefore imperative that businesses, governments, nonprofit organizations and society make every effort to mitigate harmful greenhouse gases through reduced energy consumption and investment in responsible low-carbon energy solutions.
- **Set net zero climate targets and develop roadmaps.** To address the impact of greenhouse gas emissions on the climate system, we encourage companies, organizations, and governments to set ambitious, science-based climate targets with an associated comprehensive strategic plan to achieve net zero goals.
- **Promote transparency in tracking and reporting.** Transparency builds trust and a positive culture of engagement, confidence in plans to get there, and awareness of when plans need to shift to achieve goals. We strongly urge companies, organizations, and governments to publicly share progress towards their climate goals on a regular basis.
- **Support carbon sequestration technologies and carbon offsets.** It is highly unlikely that greenhouse gas emissions from fossil fuels and other sources can be completely eliminated. Natural and technological solutions that remove carbon from the atmosphere are therefore a necessary component of reaching net zero.
- **Avoid unnecessary impacts with best available practices and technology.** Energy technology is rapidly advancing, and energy production, development and transportation projects must employ best available practices and technology to avoid and minimize adverse impacts.
- **Mitigate for unavoidable resource impacts.** No source of energy or development project comes without environmental or social costs. After impacts of proposed energy projects have been avoided and minimized to the greatest extent possible, remaining impacts must provide reasonable equivalent mitigation, appropriately connected to the impacted resources and people.
- **Develop decommissioning plans.** To protect our natural landscapes and local economies, energy projects developed in natural areas which have an expected limited lifetime must have an adequate decommissioning plan and escrowed funding mechanism put in place. Decommissioning plans and funding should include both the removal of equipment and the rehabilitation of the lands and/or waterways to restore public values that were present prior to project development.
- **Conduct a transparent and robust stakeholder engagement process.** Community members are often adversely affected by energy development projects and relatively powerless in the decision-making process. It is crucial that a transparent, robust, and genuine stakeholder engagement process is conducted during the early comprehensive planning and design phase, in addition to the permitting phase, with resources applied to ensure that all stakeholders can meaningfully participate in these processes.

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- **Ensure equity and environmental justice.** We must bring the lens of equity, environmental justice, inclusion, and meaningful public participation to new and existing policies that address climate and clean energy. Policies and plans must be developed with a recognition of and intent to correct historical inequities in accessibility, mobility, affordability, and public health risks to Black, Indigenous, People of Color (BIPOC) and other marginalized communities⁷. These groups suffer from a disproportionate vulnerability both to air quality and to the impacts of our changing climate. We must work to alleviate these harms as an intentional product of planning and implement significant changes in energy systems, transportation systems, and nature-based solutions.

Section II. AMC's Net Zero Commitment: Internal Policy

Overview

AMC has long been conscious of and taken responsibility for the impacts created by our use and enjoyment of the outdoors and in 2003, we began compiling data on our operational carbon footprint.⁸ We adopted what was then the IPCC goal of “reducing our net carbon footprint 80% below its average 2004-2005 operational baseline by 2050” and committed to “using our huts, lodges and sporting camps as models for sustainable operations and environmental stewardship.”

Considerable progress has been made to date, including but not limited to:

- Retrofitting older facilities to improve their energy efficiency (heating, lighting, insulation).
- Designing new facilities with a focus on energy efficiency.
- Increasing the on-site generation of renewable energy.
- Improving the fuel efficiency of the vehicle fleet.
- Reducing staff travel through increased use of teleconferencing.
- Encouraging the use of public transportation and carpooling.
- Protecting 100,000 acres of forest in Maine that is sequestering considerable amounts of carbon, some of which is available as forest carbon offsets from two verified projects with a third under development.

Despite this progress over the last two decades, there remains a considerable challenge to meet our revised net zero goal:

⁷ We support fair treatment and meaningful involvement of all people regardless of race, color, culture, national origin, income, and educational levels with respect to the development, implementation, and enforcement of protective environmental laws, regulations, and policies.

⁸ AMC's initial carbon footprint tracking included emissions from the following components: purchased electricity, stationary energy sources (i.e. space and water heating), transportation (vehicle fleet, staff travel, staff commute, air travel), solid waste, guest travel, and offsets. Carbon estimates do not include emissions from Volunteer Camps and Cabins, as well as volunteer-led activities or travel.

In keeping with the scientific consensus on global warming and the latest recommendation from the IPCC, in 2019, AMC adopted a stronger goal of “net zero” carbon emissions by 2050 or sooner, with a 45% reduction goal from 2010 levels by 2030.

AMC’s “net zero” commitment applies to Scope 1 and 2 energy sources that are under direct control of AMC. Scope 3 emissions are more dispersed, making them more difficult to quantify, and are often beyond the ability of AMC to control directly. We will use a variety of means (including member and guest education and incentives) to reduce Scope 3 emissions to the greatest extent possible.⁹

Subsection A. Tracking and Reporting Emissions

In support of our climate goals, AMC has made subsequent commitments to track progress towards the 45% interim reduction target and the 2050 net zero target. AMC will report on an annual basis its carbon emissions and progress towards reduction goals.

Disclosure of complete and accurate greenhouse gas emissions provides greater clarity towards the net zero goal, enables better decision making, and builds organizational resilience. Through transparent reporting of our emissions, we have an opportunity to retain and attract visitors interested in supporting climate-conscious organizations, raise awareness about our activities to address environmental and social impacts, and amplify action on climate by teaching others how to reduce their carbon footprint.

Our current carbon tracking system does not include emissions from staff commuting, volunteer travel, Adventure Travel, President’s Society trips, Volunteer led Camps and Cabins (VCCs), supply chains, or waste. However, we are working to incorporate these segments into our net zero strategy.

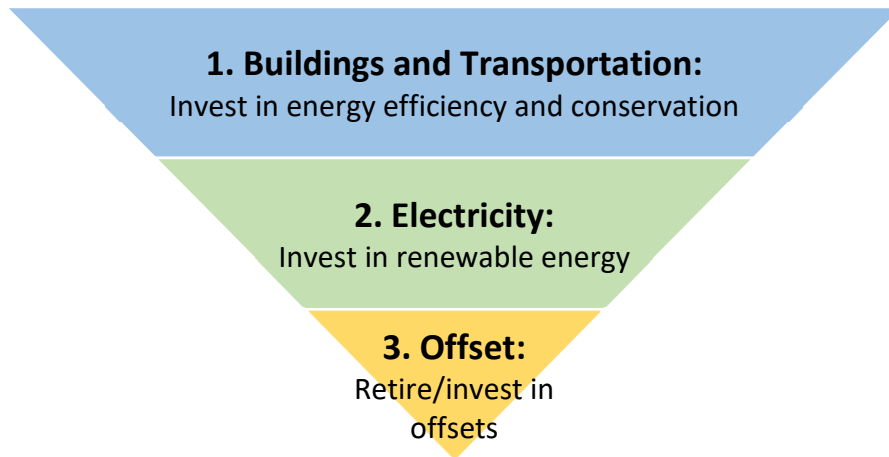
Subsection B. Carbon Mitigation Hierarchy

To meet our net zero goal, we must reduce emissions through new approaches and innovative ways of thinking. The following strategy, known as the ‘Carbon Mitigation Hierarchy,’ prioritizes meaningful capital investments that reduce emissions from our operations. Under this model, carbon offsets should only be used as a last resort, after lower carbon options for avoiding and reducing emissions have been completely exhausted.¹⁰

The hierarchy is applied as:

⁹ Scope 1 is defined as direct emissions from fuel consumption in vehicles, buildings, and equipment; Scope 2 applies to indirect emissions from the generation of electricity and heat; and Scope 3 includes emissions associated with value chains.

¹⁰ This strategy was adapted from Second Nature’s [‘Carbon Management Hierarchy.’](#) Website ‘Carbon Management and Greenhouse Gas Mitigation,’ found on Sept. 16, 2020. Others such as the American Forest Foundation and The Nature Conservancy have developed [similar frameworks](#) for companies to completely eliminate emissions from their business operations.



1. Avoid and reduce emissions from transportation and buildings through energy efficiency and conservation.

Efficiency and conservation are often low-cost or cost-saving endeavors that should be used as first-choice solutions. Conservation refers to altering people’s behavior to reduce energy consumption, such as turning off lights or unused electric devices, improving shuttle bus operations, avoiding idling in vehicles, or carpooling to work.

Improving our organization’s energy efficiency will require that we shift away from fossil fuels and into more energy efficient fuel sources. Additionally, updating outdated equipment will be necessary. For example:

- Building appliances: replace old appliances with more efficient EnergyStar appliances that use less energy.
- Transportation: seek vehicles with high fuel economy and move towards electric vehicles over time
- Heating and cooling: replace inefficient heating and cooling systems with automated wood pellet systems, cold climate air source heat pumps, etc.¹¹

These improvements will require longer term planning to identify stock rollover and capital funding needs. AMC will work to be able to take advantage of the best available technology when capital improvements and upgrades are made to facilities and vehicles. AMC staff will also collaborate with the management committees of the Volunteer Camps and Cabins to improve the energy efficiency of those facilities, where necessary.

¹¹ Note that electrification of our buildings and vehicles means that an even greater level of electric capacity will be needed to power our operations. We must supply 100% renewable energy to meet the already existing electric demand, while simultaneously ramping up clean electric supply to meet growing electric demand from buildings and vehicles. [According to ISO New England](#), a projected 0.4% average annual increase in regional electricity demand is forecasted through 2029, factoring in forecasts for energy efficiency, behind-the-meter solar photovoltaics, and electrification of electric vehicles and air-source heat pumps.

2. Eliminate emissions from electricity by investing in renewable sources of energy.

Renewable energy development is vital to achieve deep carbon reductions from the production of electricity and the electrification of buildings and transportation. AMC will continue to pursue opportunities for additional development of onsite renewable energy generation paired with energy storage at our facilities, primarily solar energy but also hydropower and wind energy where possible and appropriate.

Except for smaller facilities, it is unlikely that AMC will be able to meet all its electrical needs through onsite renewable energy generation due to the challenges of topography, lack of fee simple land ownership and the sensitive environmental conditions of the sites where our lodges are located. We may work with our electrical suppliers, negotiate community solar Power Purchase Agreements (PPAs) with solar developers, and/or purchase Renewable Energy Certificates (RECs)¹² to completely decarbonize our electrical usage. By doing this, AMC will be able to eliminate emissions from our electrical usage by 2050.

3. Offset any remaining emissions.

AMC will continue to pursue all economically and physically practical steps to reduce carbon emissions from our facilities and operations. However, it is unlikely that AMC will be able to eliminate all emissions. In the near term, there may be limitations on available electrification technologies such as suitable electric vehicles, electric equipment and supporting infrastructure. In the longer term, there may be physical limitations to facilities that preclude them from totally becoming emissions free in any economically realistic way. It also may not be feasible to decarbonize all sources of emissions, particularly at off-the-grid locations, where fuel is needed for cooking.

When emissions cannot be reduced, AMC may choose to use carbon offsets to balance these emissions, including but not limited to retiring credits from our own Maine Woods Initiative forest offset projects.¹³ Offsets may be used as an interim step as we work to reduce our emissions, or as a permanent tool for emissions that cannot realistically be eliminated. However, offsets should only be used as the last step, and only after determining that further reductions in a particular area are not feasible. Relying on offsets is not a replacement for

¹² A renewable energy certificate, or REC, is a market-based instrument that represents the property rights to the environmental, social, and other non-power attributes of renewable electricity generation. RECs are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the electricity grid from a renewable energy resource.

¹³ AMC's forest carbon offset projects have been rigorously quantified and verified under the protocols of the Climate Action Reserve and the American Carbon Registry. These are the most widely used registries for forest projects in the United States and their protocols meet internationally accepted standards for the treatment of additionality, leakage, and permanence. While there is no direct cost to AMC for retiring our own costs, there is a cost in foregone revenue from selling credits to other parties.

actual emissions reductions and we must do all that we can to upgrade the efficiency of our lodges and vehicles to achieve our goals.

Offsets may also be used to address emissions from more diffuse sources that are difficult to control directly, such as guest travel to our facilities, chapter- and volunteer-led activities, and Adventure Travel. AMC is developing an online system for selling our offsets directly to our guests.¹⁴ The initial purpose is to allow guests at our facilities to offset emissions from their travel (and other personal emissions if they choose). However, we will also work to make chapters and volunteers aware of the greenhouse gas impacts of their activities to incorporate this information into their trip planning to provide them the opportunity to make these activities “carbon neutral”, and to do it in a way that upholds AMC’s equity and inclusion values and does not inadvertently further marginalize communities that may be underserved by transportation or overburdened by pollution.

Section III. Public Policies: Climate, Air Quality & Land

Overview

AMC will advocate for energy and climate change public policies and actions where the nexus is strong with AMC’s mission and strengths, and where AMC can make a meaningful contribution in our region. The following policies are intended to be consistent with AMC’s own organization-wide commitment to achieve net zero emissions by 2050 or sooner, and to reflect our ongoing long-term research focus and credibility in select arenas of the interrelated energy, air pollution, and climate change challenges, the interests of the organization’s membership, and the arenas of influence on federal, state, and local government decisions.

Subsection A. Greenhouse Gas Reduction Incentives

Our current climate crisis has arisen in large part because the costs of emitting greenhouse gases are not factored into our financial and economic systems. With a few exceptions,¹⁵ there is no cost for emitting greenhouse gases and no benefits for reducing emissions. While regulatory requirements (“command and control”) are appropriate in many areas, market-based incentives that change the economic calculus regarding emissions are also necessary. To put it simply, we need to make it more expensive to emit carbon to the atmosphere and financially beneficial to reduce these emissions. AMC supports both regulatory and market-based approaches to achieve this while adhering to our guiding principles stated above.

¹⁴ To be accurate, we will not actually be selling offsets, rather we will be selling the commitment to retire our offsets on the purchaser’s behalf.

¹⁵ One notable exception is the Regional Greenhouse Gas Initiative (RGGI).

Clean energy standards are the most effective way to meet carbon reduction targets in the electricity sector and achieve net-zero by 2050 especially at the national level. Clean energy standards require suppliers of electricity to hold credits earned through the production of clean energy. A properly structured clean energy standard will provide full credit value for sources of energy that are truly zero-emitting and will grant partial credit based on the emissions profile of energy sources that emit carbon, and will have escalation terms to increase the clean energy used until it accounts for 100% of the electricity supplied. This approach ensures that zero carbon emitting sources become lower cost options over carbon emitting sources over time. A clean energy standard is differentiated from a renewable portfolio standard approach by more broadly defining clean electricity as more than just renewables, such as nuclear power, carbon emitting generation coupled with carbon capture technology, and energy efficiency. A clean energy standard also allows market-based credit trading allowing for lower-cost compliance and may serve as a compliment to other federal and state clean energy programs.

Cap and trade or cap and invest programs are generally appropriate at the regional and national level for reducing air pollution and greenhouse gases; however, these programs must be designed, implemented, and monitored to ensure environmental targets are met, and that BIPOC and other marginalized communities benefit. More specifically, programs like the Regional Greenhouse Gas Initiative and the developing Transportation and Climate Initiative include features such as, but not limited to, investment of proceeds to further achieve environmental goals and address social inequities and health disparities in marginalized communities, periodic reviews, and cost containment and emission containment reserves.

Carbon pricing must be paired with science-based reduction targets and timelines to ensure that environmental goals are achieved and drive the market towards rewarding a net-zero carbon economy. New legislative initiatives should not subvert or remove Clean Air Act authority to control greenhouse gas emissions but should be additive and complementary. Tax and market-based strategies should reward consumer choices of energy conservation and efficiency, lower emission fuels, and low impact energy sources.

State and federal renewable portfolio standards¹⁶ are another effective tool. These standards should seek to achieve net zero carbon emissions by 2050 and should be based on realistic assessments of what may be achieved without undue impact on the region's natural and recreational resource base, as well as undue impacts on BIPOC and other marginalized communities. This requires a comprehensive understanding and assessment of the role of energy conservation and efficiency, demand response, carbon sequestration and other mitigation tools as a compliment to a renewable portfolio standard that can be used to meet established climate targets. A focus on energy production (even from renewable sources)

¹⁶ **Renewable portfolio standards (RPS)** are policies designed to increase the use of renewable energy sources for electricity generation. These policies require or encourage electricity suppliers to provide their customers with a stated minimum share of electricity from eligible renewable resources.

over conservation and efficiency can lead to energy generation goals that drive major and unnecessary impacts to important natural or recreational resources, particularly those of recognized state, regional, or national significance (including Indigenous lands). Renewable energy sources that rely heavily on the alteration of natural systems, such as hydropower and biomass, should only qualify for the renewable portfolio standards if they meet rigorous criteria to protect the functioning of the natural systems, as described in Section II. Energy development and associated transmission expansion should occur on human dominated landscapes and features, rather than introducing new or expanded development to the Northeast's ever-shrinking natural landscapes.

Carbon offset programs are an efficient way to allocate greenhouse gas reductions and provide a financial benefit to those who take "carbon-friendly" actions that would not otherwise have occurred. Some types of offset projects (particularly forest projects) also provide a range of environmental co-benefits including wildlife habitat and watershed protection. To be credible, offset projects must be developed under recognized protocols that meet internationally accepted standards for additionality, leakage, permanence and verification. Offsets should not be used as a substitute for real emissions reductions but should be the last step to balance emissions that cannot be realistically reduced due to economic or technological limitations.

Subsection B. Natural Climate Solutions

"Natural climate solutions" are approaches that utilize the natural process of photosynthesis to increase the storage of carbon as organic matter in the vegetation and soils of forests, wetlands and agricultural lands. According to the US Forest Service, forests nationwide are a net carbon "sink", and sequestration in forests offsets 10% to 20% of US fossil fuel emissions each year. Northeastern forests are our best natural climate solution and have the potential for large amounts of additional carbon storage. It is critical that these forests continue to serve as a carbon sink and not become a source of additional carbon to the atmosphere. AMC supports the following policies and programs with this goal:

- Land conservation funding programs that keep forests as forest and avoid the loss of stored carbon due to clearing and development.
- Management plans and policies for public lands that put a high priority on maintaining and increasing carbon storage.
- The establishment of no-harvest reserves that allow for carbon storage to be maximized.
- Working forest conservation easements that include a requirement that the level of carbon storage does not decline.
- State regulations that limit large-scale forest clearing.
- Financial incentive programs (including but not limited to carbon offsets) that provide a financial benefit to private landowners for maintaining and increasing carbon storage on their land.

Subsection C. Energy Development on Public Lands

Energy development projects must be held to a strict set of standards, especially when sited on public land. In the Northeast, the increase in proposed and actual use of public lands, or lands with publicly held and/or funded conservation easements (“public interest lands”), for large-scale energy production and its transmission can and does conflict with the other purposes for which these lands have been protected, and often conflicts with management goals AMC has promoted for such lands. It is AMC’s policy that public interest lands in our region should be the choice of last resort for energy and energy transmission projects that would create long-term adverse impacts to the ecological, recreational, and scenic values of these lands. Specifically, these values include managing for natural ecosystem and backcountry recreation opportunities, preserving forests for their carbon sequestration abilities, providing ‘reserves’ that could serve as refugia for ecosystems to adapt to climate change or provide resilience to the impacts of climate change, and protecting recognized outstanding scenic characteristics.

When large-scale energy projects occur on these lands, there must be no reasonable alternatives available and there must be a demonstrated public need for the project. In addition, the project must be sited to minimize impacts to the greatest possible degree, incorporate the best available technologies to reduce impacts, provide adequate compensatory mitigation for all ecosystem and recreation values impacted, and not conflict with the primary purposes for which the lands were protected. AMC believes that states and the federal government should develop specific policies governing energy development on public interest lands that clearly prioritize the protection of the values for which these lands have been set aside over energy production or transmission, and that also provide a transparent process for public engagement in the decision-making process.

Subsection D. Air Quality

Energy use and the current dependence on fossil fuels is directly related to air pollutant and greenhouse gas emissions that impact the enjoyment and safety of outdoor recreationists and the vitality of the resources AMC works to protect. People recreating outdoors can be exposed to unhealthy levels of air pollutants and their views compromised by pollution induced haze. Pollutants emitted from the combustion of fossil fuels threaten mountain ecosystems, including the Northeast’s now rare sub-alpine and alpine habitats. Acidic precipitation and clouds harm aquatic life in streams and water bodies and weaken the ability of forests to rebound from naturally occurring stresses. Smog (ozone and fine particulates), formed in urban corridors, can impact close to home recreation destinations and distant rural mountains. Greenhouse gas emissions are contributing to the observed rapid climate change in the Northeast. It is AMC’s policy to take an active role in public processes that it can influence to help reduce greenhouse gas and air pollution emissions and their impacts to these resources.

Air pollution and climate change disproportionately impact underserved and overburdened populations including BIPOC communities, and those that are otherwise socially,

economically, or culturally marginalized. Therefore, our work to address regional air pollution must not come at a cost to such communities, and instead, should proactively seek to remedy their undue burden.

AMC's expertise in areas such as air pollutant emissions that degrade visibility, pollute remote surface waters and ecosystems, and affect hiker health, and our research on the potential impacts of climate change to northeastern montane forests, subalpine and alpine plant communities, ensures that we can promote science-based policies that will improve the region's air quality and combat climate change.

AMC continues to focus on key federal Clean Air Act policies that support improvements to air pollution standards established by scientific review, that appropriately protect human and ecosystem health, for example National Ambient Air Quality Standards, emission reduction programs and standards such as Mercury and Air Toxics Standards, mobile source tail pipe and fuel efficiency standards, authority to regulate greenhouse gases and subsequent implementation programs, interstate transport of air pollution, the Regional Haze program and other Wilderness air quality protections.

Section IV. Energy Development: Policies on Specific Technologies

Overview

Transitioning away from a fossil fuel-based economy to address climate change impacts requires substantial investment in advancing renewable and low-carbon energy technology.

AMC is faced with difficult choices regarding energy development that addresses climate change but also conflicts with other elements of AMC's mission. Renewable energy sources must play a substantive role in reducing greenhouse gas and air pollution emissions in the Northeast. Even with a major focus on conservation and efficiency, the region will continue to have a significant demand for energy and the development of new energy sources will be necessary as the region electrifies sectors such as buildings and transportation to reduce fossil fuel consumption. As the region transitions toward lower-carbon energy sources, new sources of such energy are needed, and opposition to all new energy projects is neither productive nor practical. Where AMC has developed sufficient experience and knowledge of impacts, more specific policies have evolved to guide the organization's decisions as it attempts to meet its overall mission to "foster the protection, enjoyment, and understanding of the outdoors." Furthermore, technologies, economics, and incentive programs that alter the energy sector are dynamic and AMC's policies are adaptable and subject to revision as conditions change and lessons are learned.

Principles that guide our involvement in energy projects include:

- The project exhibits a verifiable replacement of electrical generation from dirtier fossil fuel power sources within the project's service region. It should not just provide for

cheaper power or replace other renewables or pollution reductions derived from conservation or demand side management programs.

- The project provides for decommissioning if the project is no longer in use. An adequate and dedicated decommissioning fund in escrow should be required pre-project to ensure removal of any equipment and rehabilitation of the lands and/or waterways to fully restore the pre-development public values.
- The project permit(s) contain adaptive management provisions, such that if an unanticipated impact occurs, project operations would be modified to reduce or eliminate such impacts (e.g. unanticipated bird migration mortality that could be eliminated with temporary turbine shutdowns during the migration period).
- The project adopts best available technologies and operational plans to mitigate for acceptable negative impacts.

All energy development projects represent a balance between desirable and undesirable impacts. AMC reserves the right to decline to support any project, even if we are not actively opposing it. The AMC also reserves the right to decline to support any project that does not take place in the context of an adequate and official state energy project siting policy, or where proposed mitigation does not include provisions for the protection of areas of equal or greater value as a condition for permitting.

Subsection A. Energy Transmission Corridors and Pipelines

AMC recognizes that new or expanded energy transmission corridors have the potential to transport more environmentally friendly power originating from distant sources, but that the generation of the power being transported, and/or the siting of such corridors, may also impact natural and recreational resources. AMC's approach to engaging in and/or taking a position on a specific transmission proposal, be it electric, natural gas, or other, will be based on the following guidance:

- The proposed transmission corridor is not primarily used to transport power whose source has major impacts on natural and recreational resources of state, regional, or national significance, and the transmission corridor does not simply enable the displacement of negative impacts to a remote region where these impacts will be "out of sight/out of mind" for most consumers.
- The site-specific environmental impacts of new or expanded transmission corridors do not impair ecological and recreational values of state, regional, or national significance. This includes proposed sites that disrupt or displace Indigenous communities and the risk of destroying the resources they traditionally depend on.
- The agencies or boards overseeing transmission corridors should have in place siting methodologies or other environmentally balanced review methods that protect natural and recreational resource values of state, regional, or national significance.
- The new or expanded transmission corridor verifiably will displace problematic energy sources, rather than merely adding to the capacity to meet ever-

growing energy demand and/or simply move fossil fuel or energy generated at ecologically inappropriate sites around the grid.

- Transmission corridors should be co-located along routes already dominated by infrastructure, such as existing transportation or utility corridors. A rebuttable presumption should be that transmission projects can be buried under ground and/or under water and avoid public interest lands.
- Multiple transmission project proposals that would affect the same resources of state, regional, or national significance should be collectively reviewed and evaluated such that cumulative impacts can be avoided or fully mitigated.

Subsection B. Energy Conservation, Efficiency and Electrification

The Northeast needs aggressive strategies that focus on reducing energy use through efficiency and conservation rather than on increasing energy supply. This is the most environmentally benign strategy to reduce air pollutants and greenhouse gas emissions. Experience has shown that it is significantly cheaper to invest in energy efficiency than to build additional sources of energy supply and infrastructure.

Using less energy is not about making drastic lifestyle changes or sacrifices. Conservation and efficiency measures can be as simple as improving light bulbs with LED models, insulating a drafty building, buying an electric car or one with high fuel economy, replacing old windows, or replacing an old refrigerator with a more efficient one. In fact, in many cases, upgrading efficiency not only pays off in avoided energy costs very quickly (fuel and/or electricity), but also offers an improvement in lifestyle.

There is considerable remaining opportunity to effectively reduce greenhouse gas emissions in the Northeast through improved energy efficiency, and this approach should be given high priority. This policy includes, but is not limited to:

- Support state and federal building standards, appliance standards, energy labeling, energy efficiency targets, and building sector energy and water use reporting requirements.
- Strengthen state, regional, and federal energy efficiency programs for technologies such as electric vehicles, and high-performance heat pumps. Efficiency programs must be designed to alleviate inequity in BIPOC and other marginalized communities. This also includes support for market transformation programs, such as contractor trainings and distribution chain intervention.
- Develop public transportation systems and alternatives that provide access to and within public lands and waterways.
- Promote appropriate limits on motorized recreation on public lands and waterways to reduce air pollution, greenhouse gas emissions, and ecological resource damage.
- Raise public awareness about the importance of conservation, fuel-switching, and efficiency measures.

Subsection C. Grid-Scale and Distributed Solar

Solar power systems derive clean energy from the sun. Increasing the amount of solar generation in the Northeast helps combat greenhouse gas emissions and reduces our collective dependence on fossil fuel.

It is AMC's solar energy development policy that:

- Solar development projects should align with other aspects of AMC's Energy and Climate Policy, including Section III, Subset A and C.
- When incentivizing grid-scale solar development, federal, state and local government entities should develop long-range solar siting plans and land-use guidelines.
- Grid-scale solar energy development projects should be sited in areas of preexisting high disturbance or development. AMC encourages grid-scale solar siting on highly impacted and compromised lands including but not limited to landfills, brownfield sites, abandoned mine sites, highway cloverleaf interchanges, gravel pits, sewage treatment plants and other similarly developed municipal lands, above parking lots, on large commercial building roofs, and on business and industrial park lands.¹⁷
- Grid-scale solar development or dual use on farmlands, either abandoned or active, should take into account whether agricultural activities can continue⁵ on the same acreage post-development, and whether the scale of the project is appropriate relative to the quality of the agricultural value. Solar development should be discouraged where it displaces prime agricultural lands, unique farmland and additional land of statewide importance. The only agricultural land that should be considered for solar facilities that are not dual use is "waste land" not useable for agriculture or forests, such as farmyards, gravel pits, clay or bedrock surfaces. Agriculture should remain the primary use with solar the subordinate use.
- Grid-scale solar energy development should seek to avoid impacts to scenic, ecological and/or recreational resources, and should seek to minimize and mitigate impacts when they cannot be avoided.
- Conversion of forested, or recently harvested forest lands, to solar should be discouraged to avoid compromising both ecological habitat and forest carbon sequestration.
- Grid-scale solar development project installations, including analyses of environmental impacts, should be tracked in a manner readily available for the public by regulating agencies. Regulating agencies should create maps identifying all grid-scale solar developments and make them publicly available.

¹⁷ Though examples of previously disturbed areas that may be suitable are provided, sometimes these lands can also have environmental resource values that made them unsuitable. For example, some gravel pits may be targets for conservation or restoration due to their location and surrounding ecology, and some other sites such as cloverleaf exchanges may provide other values such as storm water management that may make these sites unsuitable. Determinations of actual suitability must be made on a case-by-case basis. ⁵ e.g. animal grazing, shade tolerant crops, etc.

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- Policies should ensure permitting authorities are equipped to conduct full and efficient review of proposed solar installations.
 - Solar energy projects on undeveloped public lands should be pursued only when they will provide power to facilities that are associated with the management and use of the public land unit, replacing energy that would need to be brought into a rural area through new or expanded transmission lines.

Subsection D. Hydropower

Rivers are a publicly owned resource. There are hundreds of hydropower dams in the AMC region located on many of our most important rivers and streams. Hydroelectric dams can create relatively pollution-free energy, but they can also cause significant adverse impacts on fish and wildlife, water quality and quantity, recreation, and other resources.

AMC supports low impact hydropower and believes that independent 3rd party certification of hydroelectric projects by the Low Impact Hydroelectric Institute (LIHI) should be required for any hydroelectric project to qualify for state or national renewable energy certificates or to qualify in renewable portfolio standards or similar incentive programs. In addition, where minimal environmental or recreational impact would occur, AMC supports the upgrading of existing turbine generating capacity and the powering of existing non-hydroelectric dams and water conduits, but not the construction of new dams or river diversions.

Multiple dams within the same watershed can have both individual and cumulative impacts. Therefore, AMC supports a transition from ongoing project-by-project permitting to a more comprehensive basin-wide review and permitting approach, although multiple hydroelectric project owners and operators may be involved.

Hydropower projects should:

- Provide flows and reservoir level fluctuations that support the natural flow regime and littoral ecosystem values.
- Fully meet water quality and quantity standards.
- Provide adequate up and down stream passage for both resident and migratory aquatic organisms.
- Provide for riparian land protection.
- Protect threatened and endangered species.
- Adequately provide for recreation to the general public free of charge, including paddle sports, with adequate flows, access, portages, ambience, and timely information on river and reservoir levels.
- Properly address cultural resource impacts.
- Provide adequate mitigation for acceptable impacts, preferably onsite, but if not practical then in the immediate watershed and with a nexus to the project impact(s).
- Not be facilities otherwise recommended for removal due to their overwhelming negative impacts.

Subsection E. Terrestrial Wind Power

Wind power has emerged as an important source of renewable energy in the Northeast. Unlike solar energy projects, wind power siting is constrained by the need for an adequate wind resource, much of which is in undeveloped areas of potentially high ecological, recreational, and/or scenic value. Over the last decade, increases in wind turbine size and efficiency have increased the area with a wind resource for commercial development, allowing projects to be sited in lower-impact areas and move away from the earlier focus on high mountain areas with the strongest winds. However, improperly sited wind power projects can have significant adverse impacts on the aesthetic and natural resource values of undeveloped landscapes that are an important component of the region's economy and way of life.

AMC supports the development of appropriately sited wind power projects as part of a broader effort to decarbonize the region's electrical generation system. We have been and will continue to be engaged in discussions of the development of terrestrial wind power technology at both the public policy and specific project levels.

AMC policies for commercial ("grid scale") terrestrial wind power development

Public policies and regulations

- State wind power policies and regulations should provide clear guidance and criteria for determining suitable sites and guiding development away from areas of high scenic or natural resource value to reduce project siting conflicts and permitting delays and to provide more certainty to wind power developers in the regulatory process.
- Such guidance should consider the full range of environmental issues including the broader landscape context and not be limited to site-specific issues or factors that have specific regulatory protection.
- Projects should be required to conduct a visual impact analysis to a minimum radius of 10 miles, and to 15 miles for projects that are visible from particularly sensitive or significant viewpoints. Permitting agencies should have the ability to extend this if necessary for a full evaluation of impacts, and not be constrained by specific limits.
- The cumulative impact of multiple projects on a single scenic resource, or of a single project on multiple scenic resources, must be considered.
- The use of best available technology to avoid and minimize adverse impacts to the greatest practical extent must be required.
- A decommissioning fund that allows projects to be removed at the end of their useful life and the natural landscape restored must be required.
- Where significant impacts to important natural resource values are unavoidable, compensatory mitigation (including but not limited to on-site or off-site land conservation) with a clear nexus to the impacts being mitigated for, should be required.

Engagement in the permitting of specific projects

- AMC's primary concern is the potential impacts of projects on ecological, scenic or recreational values of state, regional or national significance. We will generally not engage in projects where the impacts are to resources of primarily local concern, or where the impacts lie outside the scope of AMC's mission.
- AMC may intervene in opposition to the permitting of projects when in our judgement the impact to significant natural resource values outweighs the renewable energy benefits.
- The AMC may also engage in particular projects if they present the opportunity to set important policy precedents.
- As a rule, AMC will not express support for projects that do not raise significant concerns related to AMC's mission and values. It is beyond our capacity to fully evaluate all projects, and we do not wish to diminish the importance of impacts that lie outside of our areas of concern or expertise.

Siting of specific projects

- Developers are encouraged to engage in discussions with AMC and other stakeholders to identify potential areas of concern early in the planning process.
- Projects should be sited in areas that have already been significantly impacted by human uses, including roaded and actively managed timberland or agricultural areas.
- Projects should be sited in proximity to existing infrastructure (access roads and transmission lines) to avoid the need for extensive new construction outside of the project site.
- AMC considers the following types of sites to be generally unsuitable for commercial wind power development:
 - High-elevation montane spruce-fir or subalpine forest.
 - Areas of notably mature, unroaded and/or unfragmented forest, particularly if these conditions are likely to be maintained in the future.
 - Areas that would create significant disturbance of rare plant populations, rare or exemplary natural communities, or high-quality habitat for wildlife species of concern.
 - Areas of particularly steep or uneven topography requiring extensive cut-and-fill for access roads and turbine pads.
 - Public lands with a primary purpose of conserving ecological, recreational, scenic or undeveloped open space values.
 - Areas within generally undeveloped landscapes that are prominently visible within 10 to 15 miles from scenic viewpoints of recognized high significance, or which receive high levels of public recreational use.
 - Areas within broader landscapes of high conservation interest where the project would directly impact the values associated with that interest.

Subsection F. Storage

AMC recognizes the important role that energy storage technologies will have in providing grid resiliency as we transition to bringing more renewable energy onto the grid, with a potential increase in generation variability. Battery storage, pumped storage hydropower¹⁸, and other energy storage technologies can store renewable energy and deliver to the grid at times of peak demand. Pairing storage with new and existing energy generation facilitates may also reduce the environmental impacts of the facility.

AMC supports the research and development of storage technologies and their applications where storage can reduce the environmental impacts of energy generation.

Implementation of storage technologies, especially pumped storage hydropower, can also have negative impacts to environmental, recreational, and cultural values. AMC does not support the development or expansion of pumped storage projects that would require new or expanded dams, diversions, dikes, or reservoirs.

Energy storage projects, including pumped storage projects, should:

- Not cause additional harm to waterways, groundwater, or other environmental, recreational, or cultural values;
- Be appropriate for the environments in which they are located;
- Not adversely impact rare, threatened, or endangered species or their critical habitat; and,
- Be sited in areas that are previously disturbed or should minimize and mitigate all related impacts.

Subsection G. Biomass

AMC's mission encompasses the protection, enjoyment, and understanding of our region's forests. In the northeastern United States, wood derived from native forests is currently the primary source of biomass energy in the region, used for home and facility heating, on-site energy generation at wood products manufacturing facilities, and electricity production in large generating plants. If properly implemented, the increased use of wood as a regional energy source has potential benefits, including a long-term reduction in fossil fuel use and enhancing the ability of forest landowners to sustainably manage their forests by providing an additional market for low-grade wood.

However, a significant increase in the use of wood biomass for energy generation in the region creates two major concerns:

¹⁸ Pumped storage hydropower is a type of hydroelectric energy storage made up of two water reservoirs at different elevations that can generate power as water moves down through a turbine; this draws power as it pumps water to the upper reservoir. According to the [Department of Energy](#), pumped storage accounts for 95% of all utility-scale energy storage in the US.

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1. Increased harvesting of wood for energy could significantly impact forest sustainability and associated ecological and recreational values derived from forests.
 2. The life cycle carbon accounting for wood biomass energy is complex. Incomplete or inappropriate accounting can lead to public policies that are counterproductive for climate change mitigation, especially in the near term.

Wood biomass is considered an eligible renewable energy resource under state Renewable Portfolio Standard (RPS) requirements throughout the region. Federal policies on wood biomass energy are still being developed. States currently vary in whether they require wood biomass to be sustainably harvested, and few provide specific definitions or standards for sustainability. Existing certification programs provide relatively strong assurance of sustainability; these include the Forest Stewardship Council (FSC) (state forests in Maine, New York, and Pennsylvania and some private landowners), the Sustainable Forest Initiative (primarily large commercial forestland owners, mostly in Maine) and the American Tree Farm System (primarily smaller forestland owners). Currently land certified by these programs remains a minority of forest lands from which biomass can be harvested. A requirement that land be certified in order to be credited as renewable is not currently practical, as it would unduly limit the amount of wood eligible for renewable energy credits and limit the ability of many landowners to participate in eligible biomass markets.

The actual climate change benefits of wood biomass have been the subject of considerable scientific and policy debate. While over the long term (i.e. many decades) transitioning from fossil fuels to biogenic energy sources such as wood will reduce overall carbon emissions, the near-term benefits depend on many factors including:

- The source of the wood. Logging and mill residues would return their carbon to the atmosphere in one to two decades if not burned, whereas carbon in whole trees would remain sequestered for many decades.
- The efficiency of its use. Wood-based energy is much more efficient as a heat source than an electrical generation source. The best use is in high-efficiency heating or co-generation (heat plus electricity) systems, while the worst use is in large centralized electrical generating facilities.

Increased use of wood as an energy source results in the immediate release of carbon that would otherwise be released through decay over a longer period. This results in a period of “carbon debt” during which the use of wood results in greater greenhouse gas emissions than would the continued use of fossil fuels. The carbon debt period may be relatively short (one to two decades) for rapidly decaying sources such as logging and mill residues, but many decades for slowly decaying sources such as the stems of large trees.

AMC supports the reasonable use of wood biomass energy that is derived from sustainably harvested forests and that is managed in a manner consistent with the policy below. However, wood biomass should not be considered a de facto carbon neutral energy source under all circumstances. Public policies incentivizing its use (particularly at a large scale) must

consider carbon cycle accounting to ensure that greenhouse gas emission benefits are truly additional.

It is AMC's general wood biomass policy that:

- We support the use of locally sourced and sustainably harvested wood for home and facility heating.
- States should adopt biomass harvesting guidelines or "best management practices" that provide guidance as to how to maintain soil fertility, wildlife habitat, and other forest-based values when harvesting biomass.
- States and the federal government should develop and adopt a consistent definition of "sustainably harvested biomass" that would qualify for Renewable Energy Credits (RECs) issued under state or federal Renewable Energy Portfolio Standards (RPS) or related legislation. This may include:
 - Certification by a widely accepted program such as FSC, SFI or Tree Farm.
 - Harvesting conducted according to a harvest plan required under state forest practices legislation, provided such legislation requires consideration of the full range of sustainability issues (including, but not limited to, effects on water quality, soils, and wildlife habitat).
 - Harvesting conducted according to an accepted stewardship plan required by current use tax programs.
 - Harvesting conducted under a management plan prepared and supervised by a state-licensed professional forester.
- The maximization of forest biomass production must not take priority over other forest ecosystems and recreational benefits, uses, and values.
- Native forests should not be converted to high-yield short-rotation plantations or other artificial systems solely to produce biomass.
- Biomass harvested from land that is being developed or converted to non-forest use is not renewable and should not be eligible for Renewable Energy Credits.
- Permitting of large-scale facilities potentially eligible for RPS or other renewable energy credits should be subject to the following standards:
 - Biomass plants should demonstrate the highest level of efficiency possible with the best available technology (including co-generation where feasible) so that the energy benefits of biomass are maximized to the greatest degree practical.
 - Potential greenhouse gas emissions and reductions must be fully accounted for, including the "carbon debt" incurred by utilizing biomass as a substitute for fossil fuels. RPS or other credits should only be available for emissions reductions that are demonstrated to be additional to "business as usual".
 - The full impact of the siting and operation of biomass energy plants on human communities, public health, and air and water quality must be considered.
 - Sustainability of wood supply sources must be considered to ensure that increased use of biomass does not lead to a foreseeable long-term reduction in regional forest carbon stocking.
 - Construction and demolition debris, urban waste, and other sources of non-forest biomass are acceptable providing they are clean and non-hazardous, and do not

result in emissions of toxic substances, degrade air quality, or negatively affect public health.

Subsection H. Natural Gas

Natural gas development, including exploration, drilling, production, and transport, is taking place throughout the Appalachian region. AMC recognizes the impact this development is having across the landscape, and the concerns noted below impact all kinds of resources, both public and private. However, in light of our mission, history, and expertise, AMC policy and staff effort will be focused on addressing the impacts of natural gas development to public resources, including public land and water, as well as public interest in land such as conservation easements that are publicly held or that were acquired with public funding. AMC's approach to engaging in natural gas development is guided by research, emerging science and technologies, and policy alternatives which address the concerns relating to our mission, members, and the public land and waters of our region.

As an alternative to oil or coal-fired power, natural gas has potential emissions and other environmental benefits, but these benefits will be undermined if natural gas development – both the how and the where – are not appropriately regulated or if investments in natural gas development box out investments in lower carbon energy sources on the timeframe needed to meet net zero emissions by 2050. These emissions benefits may also be limited when compared with other viable lower-emission sources, and with energy efficiency. The scale of impacts from natural gas development ranges from local to regionally cumulative, and considerable activity is occurring on public lands recognized for their outstanding recreational and ecological values. Better management and awareness of the impacts to public resources is needed, especially in relation to public lands, waters, air quality, and greenhouse gas emissions.

Air and Water Quality and Greenhouse Gas Emissions: Drilling and extraction of natural gas includes problematic emissions of methane, nitrogen oxides, sulfur oxides, particulates, and hazardous substances such as benzene. Flare-offs that regulate gas pressure may release heavy metals and other toxic substances into the air and are an inefficient loss of this energy. Dirt roads to access well pad areas can increase dust and particulate matter locally. Wastewater discharges of drilling fluids and pipe leaks can contaminate waterways. These releases of gases, pollutants, and particulates through natural gas drilling development conflict with Section D on Air Quality. The following natural gas-specific policy recommendations should be considered in conjunction with Section D as noted above.

- The 2005 Congressional exemption of fracking and related wastewater discharges from the Safe Drinking Water Act should be repealed.
- The project should demonstrate adequate safeguards and bonded assurances that pre-project air and water quality and quantity will not be degraded, both for on-and offsite activities.
- Short-term, minor air and water quality and quantity impacts should be appropriately mitigated.

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- Operations should be obligated to temporarily cease should they cumulatively contribute to problematic air or water quality and quantity event(s).
 - The project should demonstrate that its life cycle greenhouse gas emissions represent an overall reduction in fossil fuel greenhouse gas emissions.
 - Flaring of natural gases is wasteful, increases pollution and greenhouse gas emissions, and should be avoided.

Public lands and waters: While states differ in their ownership of mineral rights, public lands--including public interest in lands and public waters--deserve special attention to assure that the values for which they were initially protected remain unimpaired and available for public benefit. Public lands and waters are valued and enjoyed by millions of Americans, residents and visitors alike. Public lands, and often public interest in land, are frequently purchased or otherwise set aside with public funds for a range of ecological and recreational values. Natural gas development impacting public resources should not undermine the reasons for initial investment in those lands and/or waters, or displace natural or recreational resources of state, regional, or national significance, or otherwise impair these landscapes or waterways. AMC's policy is that:

- Public lands or publicly held interests in land not encumbered by previous mineral rights, with identified state, regional, or national vistas, viewsheds, wild and/or natural areas, critical habitat for threatened or endangered species, trail systems and other outdoor recreation opportunities and amenities, and waterways, including those used for water-based recreation and drinking water supplies, should be off limits to natural gas development.
- Related road, drilling pad, and storage site construction footprints should be the absolute minimum required and be designed to minimize habitat fragmentation and environmental impacts. Roads, pads, and storage sites should be returned to their natural pre-project condition as is reasonably possible when extraction is ended.
- Identified pre-development public values should be protected or appropriately mitigated for if impacted.
- Public access and use of adjacent public lands for recreation should be guaranteed during construction, operation, and decommissioning.
- An adequate and dedicated decommissioning fund in escrow should be required pre-project to rehabilitate the public lands upon completion of any extraction to fully restore the pre-development public values.
- Lease revenue funds should be collected and dedicated to the long-term future stewardship of these lands and for additional public land acquisitions.

Revision history:

- **Wind power policy:** approved by Conservation Programs Committee (CPC) 6/13/1996; 12/07/2006, 12/10/2009; 3/30/2010; 2/15/2021.
- **Biomass policy:** approved by CPC on 5/8/2008; revised 12/10/2009; 3/30/2010; 1/29/2019; 2/15/2021.
- **Natural gas policy:** approved by CPC on 9/7/2011; 2/15/2021.
- **Grid Scale Solar Energy Development policy:** approved by CPC on 1/29/2019; 2/15/2021.
- **Complete overhaul prompted by net zero commitment:** (revised existing policies and added new sections: Guiding Principles; Net Zero Commitment; GHG Reduction Incentives; Energy Storage; Energy Conservation, Efficiency and Electrification; and Natural Climate Solutions) approved by CPC on 2/15/2021, followed by Board of Directors approval on 4/8/2021.