



March 3, 2020

Dear Senator,

As you know, on February 27, Sen. Lisa Murkowski and Sen. Joseph Manchin III introduced the American Energy Innovation Act (AEIA) of 2020, which combines dozens of bills that were considered in the Energy and Natural Resources Committee over the past year. We write on behalf of NRDC's over three million members and activists to outline which provisions of the bill will help progress America toward a clean energy future and those that either set us back or undermine current environmental protections.

Some provisions in the AEIA, such as those that make investments in renewable power, clean manufacturing, energy efficiency, and the innovation-driving ARPA-E program, can help us to innovate and grow the economy, while lessening carbon emissions. Other parts of the bill would undermine bedrock environmental laws, weaken public lands protections and ramp up dirty energy fueling climate change. Below we have outlined key sections of the bill and their impacts.

### Support

#### *Title I, Subtitle A - Weatherization*

##### *Section 1101. Weatherization Assistance Program (WAP)*

WAP provides funding to low-income households across the country for upgrades to make their homes more efficient, safer, and more comfortable. The program has reduced energy costs for more than 7 million low-income households to date and supports 8,500 jobs. The AEIA reauthorizes WAP at \$350M, up from \$305M in 2020. WAP is consistently oversubscribed, with far more families qualifying and applying for assistance than can be funded with the current budget. NRDC supports reauthorization of WAP with a larger budget to bring the benefits to more Americans.

#### *Title I, Subtitle B – Renewable Energy*

##### *Section 1202: Marine Energy Research and Development*

Reauthorizes DOE's marine energy RD&D program. Authorizes the program at \$160M (up from \$106M in FY20). This is a critical investment in a still nascent clean energy technology.

##### *Title I, Section 1204: Wind Energy Research and Development*

The AEIA updates and expands the scope of DOE's wind energy program and its work on research, development, demonstration, and commercialization of wind energy technology. The bill expands DOE's work to address the barriers to achieving higher penetration of land-based

wind energy on the grid and doubles down on investments in offshore wind and next generation land-based wind turbines. The bill authorizes the program at \$120M, up from \$104M in FY20. NRDC supports the bill language and encourages significantly higher authorizations over the next 5 years.

*Title I, Section 1205: Solar Energy Research and Development*

The AEIA similarly updates and expands the scope of DOE's solar energy program to focus on the most promising research, development, demonstration, and commercialization activities, such as commercializing advanced solar panel technologies, improving how solar resources interact with the grid, reducing market barriers to adoption, developing domestic manufacturing, and improving recycling of materials. However, the bill authorizes the program at \$270M, which is now *lower* than FY20 levels. The House version (H.R. 3597) would increase funding to \$328M by FY24. NRDC supports the expansion of the solar office to the current set of challenges and opportunities, but the authorization levels must be much higher to match the scale of the problem.

*Title I, Section 1206: Energy Storage*

The AEIA expands the scope of DOE's energy storage work, including by increasing investment in long-duration energy storage technologies, creating a demonstration program for novel energy storage technologies, and funding DOE to provide technical assistance to utilities and local government agencies to overcome barriers to procuring energy storage. This section authorizes \$270M for this work, which is a substantial increase from current funding levels. NRDC supports the increases in funding for energy storage and the expanded focus on demonstration and deployment.

*Title I, Subtitle F—Industrial Technologies Part I*

Part I of Subtitle F creates an innovation program for research, development, and demonstration of technologies to cut emissions from the industrial sector. Importantly, this section would expand DOE's industrial sector work from energy efficiency to a suite of decarbonizing strategies, including electrification of process heat, material substitution, and others. While the bill does not specify authorized funding levels, NRDC supports the creation of an initiative focused on industrial decarbonization and encourages Congress to at least triple the funding levels for research and development and provide significant additional increases in funding for demonstration and technical assistance.

*Title I, Subtitle G – Vehicles*

*Section 1703: Vehicle Technologies Office (VTO)*

This section would promote investments in research and development of clean vehicles and advanced safety technologies to increase fuel efficiency and reduce our nation's dependence on foreign oil. NRDC supports an acceleration in federal research that will deliver even greater fuel savings, helping our climate, the air we breathe and the pocketbooks of drivers. This section's authorized funding levels should be increased to match the higher funding levels of current law.

*Title I, Subtitle H - Department of Energy*

*Title I, Section 1808: ARPA-E Reauthorization*

This section reauthorizes the Advanced Research Projects Agency – Energy (ARPA-E) with greater funding levels, set to reach \$750M by 2025 (FY20 levels were \$390M). ARPA-E provides grants to next generation technologies attempting to bridge the space between research, development and deployment.

*Oppose*

*Title 1, Subtitle A: Efficiency*

Sections 1002 and 1004 support the use of woody biomass for renewable energy generation or heat. Wood-burning technologies accelerate climate change, worsen air quality, and harm forests. The lifecycle carbon impact from the harvesting, processing, and combustion of woody biomass fuel for power or heat is not climate beneficial no matter how the wood is sourced; studies show that net emissions from burning biomass sourced from forests exceed carbon emissions from fossil fuels. Wood burning is also a major source of air pollution, placing children, the elderly, and people with heart and lung disease particularly at risk. Wood boilers release large quantities of fine particulates (soot) and other air pollutants. Finally, programs that encourage using forests for fuel are in direct conflict with the urgent need to protect forests and other natural carbon sinks.

*Title I, Section 1203: Advanced Geothermal Innovation Leadership*

As currently constituted, NRDC opposes this section. The components of this section afford far too much discretion to the Interior Department to sidestep key environmental safeguards, including an extraordinary grant of discretion over siting new geothermal projects on public lands. Other provisions unnecessarily exempt activities from necessary environmental review, and it also includes objectionable pathways that could lead to the privatization of federally owned resources that should remain public.

*Title I, Subtitle D: Carbon Capture, Utilization, and Storage*

NRDC supports deployment of carbon capture and storage (CCS) to further reduce emissions during the period of transition away from fossil fuels. We urge Congress and the executive branch to prioritize policies that require CCS deployment on CO2 emitting sources, in addition to this bill's measures, to assure achievement of the emission reductions required to limit warming to 1.5 degrees centigrade.

Subtitle D should be revised to ensure that the Department of Energy's efforts focus exclusively on technologies consistent with this 1.5-degree goal. The bill should not support new fossil combustion technologies unless they are designed to be used with carbon capture or otherwise do not emit carbon dioxide. Along these lines, and in contrast to the current text, the bill *should not* contain language encouraging today's levels of coal and natural gas exploitation, *should* ensure that storage-related research and development does not support enhanced oil recovery, and *should not* provide support for programs designed to prolong community dependence on coal mining instead of measures developing alternative economic options.

### *Title I, Subtitle E: Nuclear Energy*

NRDC does not support Section 1509, federal supply/support for commercial R&D involving a substance called HALEU (High Assay Low Enriched Uranium), which is defined in the bill as uranium enriched in the isotope uranium-235 above normal nuclear fuel enrichment levels and below typical enrichment levels in nuclear weapons (i.e., 5% - 20% uranium-235). HALEU is a nuclear proliferation risk, a terrorism risk[CG2], and the source of Japan's worst nuclear disaster before Fukushima, the 1999 Tokaimura Criticality Accident. Making HALEU widely available to commercial entities as done in AEIA makes no sense - and the bill calls for at least 16 tons of HALEU to be made available either to domestic or foreign groups without safeguards or controls. AEIA invites risk and loss of control of nuclear materials which are not justified by energy innovation goals involving HALEU.

### *Title I, Subtitle H – Department of Energy*

#### *Section 1802, Small Scale LNG Access*

This section would accelerate the use of climate damaging fossil fuels by eliminating nearly all meaningful environmental review for the siting of LNG export facilities that qualify. The public deserves better, and a process that eliminates the public's right to have a voice in how their resources and environment might be impacted is unacceptable.

### *Title II, Subtitle A: Mineral Security*

NRDC does not support Sections 2101-2102 of Subtitle A: Mineral Security. While production and recycling of critical minerals is an important piece of solving the climate change puzzle, these sections contain provisions that would undermine our bedrock environmental laws.

Section 2101 contains extensive language on "permitting efficiency," which is really focused on minimizing environmental review and public input. The section even goes so far as to direct agencies to bring forward legislative measures to further increase permitting speed. It also broadens the definition of what a critical mineral is to the point that the definition has no meaning, allowing materials that are not critical minerals to be granted elevated treatment. However, NRDC has long defended the proposition that smart permitting, supported by robust environmental and socioeconomic review is the only way to appropriately develop our nation's natural resources.

Additionally, Section 2101 explicitly allows for the Secretary to potentially include uranium as a critical mineral. The legal framework governing uranium recovery fails entirely to protect Western communities and scarce sources of groundwater. Adding the insult of further lessening environmental review and public input for an already inadequate set of requirements for uranium recovery merits our strong objection.

NRDC also does not support Section 2102, because of its attempt to expand and prolong unnecessary coal mining to have coal play a role in our production of critical minerals.

NRDC believes that moving toward a clean energy future is essential and we look forward to working with both Senators and staff to ensure that the AEIA advances action on climate and

innovation in the United States in a way that does not undermine current environmental protections.

Thank you,

A handwritten signature in black ink, appearing to read "John R. Bowman", followed by a horizontal line.

John Bowman  
*Managing Director, Government Affairs*  
Natural Resources Defense Council