

Considering Nuclear Energy's Benefits to Society: Update to the Mission Statement of the Nuclear Regulatory Commission as Required by the ADVANCE Act

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Abstract: The purpose of the ADVANCE Act of 2024 is to advance the benefits of nuclear energy. Section 501 of the ADVANCE Act requires the Nuclear Regulatory Commission (NRC) to revise its mission statement and provide guidance to the staff on how to perform the revised mission effectively. The statute requires the NRC to update the mission statement to indicate that regulation of civilian use of radioactive materials and nuclear energy must be conducted efficiently and not unnecessarily limit benefits to society. The NRC published options on how to implement this requirement, contending that it does not have the authority to consider the benefits to the public in decision-making. This paper evaluates the ADVANCE Act, existing statutes, NRC policy, and history relative to the NRC's authority to implement that mandate. The analysis unambiguously shows that the NRC has the authority to accomplish the mandate of the ADVANCE Act and consider benefits to society. The NRC has had the authority and mandate to consider benefits to society since its creation but has not fulfilled this mandate.

The Accelerating Deployment of Versatile, Advanced Nuclear for Clean Energy Act of 2024 (ADVANCE Act), among other provisions, requires the Nuclear Regulatory Commission (NRC) to revise the NRC's mission statement and provide guidance to the staff on how to effectively perform the updated mission.¹

The Office of General Counsel (OGC) provided the Commission an options paper in SECY-24-0083 (hereinafter SECY) on how to implement this requirement in the ADVANCE Act.² There are significant oversights in the SECY, which failed to align with the Congressional directive in both word and spirit.

Congress mandated that the NRC revise its mission statement to fully embrace its foundational legal authority to regulate the safe use of civilian nuclear energy to maximize the general welfare. However, the options and reasoning provided in the staff paper unintentionally underscore the very issues that Congress sought to remedy, illustrating a lack of alignment with the intended mission update.

This paper shows that the NRC has fundamental misunderstandings in several areas and significantly limits the options provided to the Commission due to perceived boundaries that do not exist. Approval of the options in the SECY could reinforce this misinterpretation for future staff decisions. The SECY further misinterprets stakeholder perspectives, reflecting a fallacy of Congressional guidance and the NRC's statutory obligations. This misinterpretation underscores the need for clarity in how the NRC views its legal mandate and the directive from Congress.

To fulfill the purpose of the mission statement revision, the NRC must reconsider its approach to more accurately reflect its legal responsibilities and Congressional intent. This paper thus recommends a thorough review and revision of the SECY document to better align with the NRC's evolving role in nuclear governance.

¹ U.S. Public Law No. 118-67 § 501 (2024) (hereinafter ADVANCE Act)

² Nuclear Regulatory Commission, *Mission Statement Update Options Pursuant to Subsection 501(a) of the ADVANCE Act of 2024*, SECY-24-0083, October 8, 2024, [ML24281A192](#). (hereinafter Mission Update SECY)

1. ADVANCE ACT DIRECTIVE

The ADVANCE Act was passed by the House and Senate with significant margins (393-13 and 88-2)³ and President Biden signed it into law on July 9, 2024. Section 501 requires the NRC to revise the mission statement. This revision must remain consistent with the policies of the Atomic Energy Act of 1954 (AEA) and the Energy Reorganization Act of 1974 (ERA).⁴ A report must be submitted to Congress describing the updated mission statement and guidance that the Commission will provide to staff to ensure the effective performance of the mission before July 2025.⁵

ADVANCE Act section 501⁶ reads :

(a) UPDATE.—Not later than 1 year after the date of enactment of this Act, the Commission shall, while remaining consistent with the policies of the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.) and the Energy Reorganization Act of 1974 (42 U.S.C. 5801 et seq.) (including to provide reasonable assurance of adequate protection of the public health and safety, to promote the common defense and security, and to protect the environment), update the mission statement of the Commission to include that licensing and regulation of the civilian use of radioactive materials and nuclear energy be conducted in a manner that is efficient and does not unnecessarily limit—

- (1) the civilian use of radioactive materials and deployment of nuclear energy; or*
- (2) the benefits of civilian use of radioactive materials and nuclear energy technology to society.*

(b) REPORT.—On completion of the update to the mission statement required under subsection (a), the Commission shall submit to the appropriate committees of Congress a report that describes—

- (1) the updated mission statement; and*
- (2) the guidance that the Commission will provide to staff of the Commission to ensure effective performance of the mission of the Commission.*

³ Roll Call Vote no. 194, May 8, 2024 and Record Vote Number 200, June 18, 2024 (respectively), <https://www.congress.gov/bill/118th-congress/senate-bill/870/all-actions>

⁴ Atomic Energy Act of 1954, 42 U.S.C. § 2011 et seq. (hereinafter AEA); Energy Reorganization Act of 1974, 42 U.S.C. § 5801 et seq. (hereinafter ERA)

⁵ ADVANCE Act, “The mission revisionment should be completed within 1 year of the date of enactment” (July 9, 2024).

⁶ ADVANCE Act.

This section clearly establishes that the NRC must revise its mission to be consistent with the policy already established by AEA and ERA — updating the mission to efficiently regulate without limiting the societal benefits of radioactive materials, while also maintaining the NRC’s responsibility to ensure adequate protection of public health and safety, promote common defense and security, and protect the environment. This language is entirely consistent with the long-established Congressional direction that the NRC must balance these considerations in its regulatory decision-making.

The OGC contends in the SECY that some stakeholders argued that safety findings should be expanded to include a broader range of social costs and benefits.⁷ The SECY further argues that the ADVANCE Act did not include directions to consider social costs and benefits and that such considerations would be outside the NRC’s statutory authority and inconsistent with the NRC’s non-promotional role.⁸ However, the cited article and the quote provided in the SECY do not suggest that safety should be impinged or constrained in any way.^{9,10}

⁷ Mission Update SECY at page 5; Other examples exist, e.g., American Nuclear Energy Expansion: Updating Policies for Efficient, Predictable Licensing and Deployment, Hearing on H.R. 995, H.R. 4528, etc. Before the H. Comm. on Energy and Commerce, Subcomm. on Energy, Climate, and Grid Security, 118th Cong. (July 18, 2023), Documents for the Record, page 41

⁸ See “Questions for the Record: to Mr. Dorman”, The Next Generation: Empowering American Nuclear Energy, Hearing before the H. Comm. on Oversight and Accountability Subcommittee on Economic Growth, Energy Policy, and Regulatory Affairs. 118th Cong. (Jan. 18, 2024), When asked about considering benefits to the general welfare the response indicated that economical costs and environmental costs and benefits are considered in some decisions making. The general welfare is not considered in decision-making but is assumed to be improved, stating “the NRC furthers the general welfare as it seeks to implement its mission to “provide reasonable assurance of adequate protection of public health and safety” and “minimize danger to life or property.””

⁹ Mission Update SECY, footnote 18

¹⁰ See Breakthrough Institute, “BTI’s Innovative Vision for NRC Modernization” (Nov. 16, 2023) <https://thebreakthrough.org/issues/energy/btis-innovative-vision-for-nrcmodernization>, The SECY did not request further clarification to aid the misunderstanding or refer to the additional resources provided in the cited article, including a presentation at the NRC’s own Regulatory Information Conference.

2. LEGISLATIVE HISTORY OF ADVANCE ACT SECTION 501

The clear intent of Section 501 is easily established by reviewing the legislative history and statements made by authors at the time of and after passage.

The intent of Congress was always to realign the NRC mission with the AEA.¹¹ Notably, Congress did not alter the legal authority of the NRC in the ADVANCE Act, as it deemed the original authority sufficient for the NRC to execute its regulatory mandate. The intent was to have the NRC fulfill the *existing* legal authority. Congress intended to have the NRC include the unfulfilled authority in the mission statement so the NRC would consider that in operations. There was no need to amend the AEA to tell the NRC to do its job, and amending the AEA could create unnecessary complexities, potential conflicts, or opportunities for contestation.

Instead, Congress sought to reinforce the NRC's need to fully leverage its existing authority, directing it to update its mission statement to reflect the unfulfilled aspects of its legal mandate, particularly those relating to evolving technologies and industry needs. By emphasizing these areas in the mission statement, Congress aimed to ensure the NRC would incorporate this full scope of its legal authority into daily operations without requiring amendments to the AEA.

Originally, the directive to change NRC's mission was not included in the text of the ADVANCE Act. Instead, it was introduced in the House as a separate, bill focused solely on adjusting the NRC's mission statement.¹² This bill aimed to address perceived gaps in the NRC's responsibilities, emphasizing the need for the agency to align more closely with the original goals established by the Atomic Energy Act.

After its introduction, this one-issue bill was integrated into the Atomic Energy Advancement Act (AEAA). The AEAA was part of ongoing legislative initiatives designed to streamline nuclear regulatory processes and facilitate the development of advanced nuclear technologies. When the AEAA passed the House (365-36), this mission adjustment provision was retained and later carried

¹¹ See, NRC Mission Alignment Act, H.R. 6265, 118th Cong., 1st Sess. "To direct the Nuclear Regulatory Commission to update the mission statement of the Commission to ensure licensing and regulation is efficient and is in alignment with the policies stated in the Atomic Energy Act of 1954, and for other purposes."

¹² NRC Mission Alignment Act, H.R. 6265, 118th Cong., 1st Sess.

into the broader legislative package of the ADVANCE Act.¹³ The AEAA version of bill (a)(1)(A) includes “the potential of nuclear energy to improve the general welfare” as part of the mission revision. This signals that the House deliberations considered the provisions related to maximizing the general welfare and found the existing authority in the AEA sufficient to carry out the necessary actions.

The SECY argues that Congress removing “general welfare” from the final text of Section 501 means there is no directive or authority to consider a broader range of social costs and benefits.¹⁴ However, “the benefits of civilian use of radioactive materials and nuclear energy technology to society” still represents Congress’s intent for the NRC to consider broader social costs and benefits.¹⁵ To assert that Congress did not intend the NRC to change is contrary to the plain language of the Act, direct statements of the cosponsors of the bill, and legislative history.

Upon reconciliation, the finalized ADVANCE Act passed in the Senate, and the mission revision directive for the NRC remained intact as Section 501. The reconciled ADVANCE Act received broad bipartisan support in both chambers, reflecting the combined priorities from the previous iterations and the House-passed AEAA. The final version was signed into law by President Biden on July 9, 2024, marking a significant advancement in U.S. nuclear energy policy and a clear statement on the updates the NRC needs to make from the top down.

The purpose of the ADVANCE Act, prior to reconciliation with the House, and the House AEAA both intended to improve regulation.¹⁶ The purpose of the final, reconciled bill that became law included “to advance the **benefits** of nuclear energy” [emphasis added].¹⁷ Congress undeniably

¹³ Roll Call vote no. 55, February 28, 2024. <https://www.congress.gov/bill/118th-congress/house-bill/6544/all-actions>

¹⁴ Mission Update SECY. Page 6-7.

¹⁵ U.S. Public Law No. 118-67 § 501 (2024).

¹⁶ The purpose of the ADVANCE Act of 2023 S.111 is “To enhance United States civil nuclear leadership, support the licensing of advanced nuclear technologies, strengthen the domestic nuclear energy fuel cycle and supply chain, and improve the regulation of nuclear energy, and for other purposes”; the purpose of the Atomic Energy Advancement Act H.R.6544 is “To advance the benefits of nuclear energy by enabling efficient, timely, and predictable licensing, regulation, and deployment of nuclear energy technologies, and for other purposes.”

¹⁷ U.S. Congress, S. 870: *A Bill to enhance United States civil nuclear leadership and for other purposes*, 118th Cong. (2023), <https://www.congress.gov/bill/118th-congress/senate-bill/870/text>.

intended the Act to improve regulation and change the status quo to enable the benefits of nuclear energy. Section 505 of the Act further supports this interpretation.¹⁸

a. Statements on Record Supporting Legislative Interpretation

Both the House Committee on Energy and Commerce (E&C) and the Senate Committee on Environment and Public Works (EPW) issued reports, statements, and letters addressing the intent of provisions included in the Act.^{19,20}

As for the legislative timeline and Congressional intent, the Senate Report has been misinterpreted in the NRC staff's SECY as a lack of Senate support for the mission statement realignment. This misinterpretation stems from the fact that the Senate report was based solely on the version of the ADVANCE Act as it was reported out of the EPW Committee prior to including the mission statement realignment language, which was introduced later in the House. This procedural detail is critical; legislation often involve bills originating in one chamber, undergoing modifications, and being reconciled with parallel or amended bills from the other chamber. The Senate report indicates that the Senate not only considered broader social benefits in the ADVANCE Act but expected them to occur, contrary to the interpretation in the SECY.²¹

The House report on the AEAA included a version of what became the ADVANCE Act Section 501 and is therefore instructive on Congressional intent. The report confirmed that it is consistent with the ERA that the policy in the AEA—"to make the maximum contribution to the general welfare"—applies to the NRC.²² With this confirmation, it is unnecessary to amend the ERA with additional authority to implement the mission revision or consider broader benefits to society.

¹⁸ ADVANCE Act, Section 505 requires the Office of Nuclear Reactor Regulation to "establish techniques and guidance for evaluating applications for licenses for nuclear reactors to support efficient, timely, and predictable reviews of applications for those licenses to *enable the safe and secure use of nuclear reactors*"[emphasis added]

¹⁹ H.R. REP. NO. 118-391, pt. 1 (2024) (hereinafter House Report)

²⁰ S. REP. NO. 118-182 (2024) (hereinafter Senate Report)

²¹ See, Senate Report, page 3, the ADVANCE Act will aid "to successfully license and operate new reactors while providing broader public benefits."

²² See, House Report, page 26, "When Congress established the NRC in the Energy Reorganization Act of 1974, it stated that the regulatory and licensing functions of the AEC be separated from the performance of

Section 501 of the ADVANCE Act, mandating the NRC mission statement revision, was preserved in this reconciliation process, underscoring that both chambers ultimately supported this realignment directive. Consistency with the AEA and ERA is reiterated in the final version to avoid misinterpretation that this impinges on other regulatory mandates and to indicate the source of existing authority necessary to implement the provisions.

The majority and minority leaders of EPW, both cosponsors of the ADVANCE Act, have stated that a core component of the NRC mission is to consider benefits.²³ The NRC staff cited one quote from Senator Carper that implies the NRC authority has not changed.²⁴ The NRC's mission to maintain public health and protect the environment didn't need to change, as already discussed. When the Senate voted to pass the ADVANCE Act, Ranking Member Capito said, "It [The ADVANCE Act] also directs the Nuclear Regulatory Commission to more efficiently carry out its important regulatory mission and helps redevelop conventional energy sites for future nuclear energy projects."²⁵ The SECY disregarded other statements from Senator Carper and the other cosponsors of the legislation that provide more information on the Congressional intent.

Majority and minority leaders of the House Subcommittee on Energy, Climate, and Grid Security, both cosponsors of the AEAA, made statements that the NRC must consider welfare or benefits to society. In a press release before the passage of the ADVANCE Act, Chairman of the Subcommittee on Energy, Climate and Grid Security, Jeff Duncan, said: "I'm proud to introduce legislation that ensures the Nuclear Regulatory Commission's mission expands nuclear energy to benefit citizens

other functions established in the Atomic Energy Act. Nevertheless, NRC's licensing mission to protect public safety and security remained in service to the policies Congress established in the AEA, e.g., "to make maximum contribution to the general welfare . . ."

²³ See the U.S. Senate Committee on Environment and Public Works, Hearing on the Nomination of Christopher T. Hanson to be a Member of the Nuclear Regulatory Commission, April 17, 2024. Senator Carper stated that, "Building and maintaining public trust is at the core of the NRC's mission to ensure that the benefits of nuclear technology are used safely." The NRC cannot ensure that the benefits are used at all if it doesn't consider the benefits.

²⁴ Mission Update SECY. Page 7.

²⁵ Shelley Moore Capito, *Senate Sends Capito, Carper, Whitehouse Nuclear Energy Bill to President's Desk*, press release, November 1, 2024, <https://www.capito.senate.gov/news/press-releases/senate-sends-capito-carper-whitehouse-nuclear-energy-bill-to-presidents-desk>.

across the nation.”²⁶ The leaders reaffirmed this view directly to the Commissioners after the ADVANCE Act was signed into law.²⁷ During his opening statement, Chairman Duncan said, “Our goal has been to bring America’s nuclear promise back into alignment with the goals that Congress established when passing the Atomic Energy Act.”²⁸ He continued, “The ADVANCE Act requires ... licensing and regulation must be efficient and will not unnecessarily limit deployment of nuclear technology or the benefits of nuclear energy to the public.”²⁹

Ranking Member DeGette stated to the NRC Commissioners, “As the agency that is responsible for overseeing our nuclear fleet and radioactive materials, the work that you do is vital not just to our nation’s overall energy security, but also to the health and welfare of the American people.”³⁰

Chair of the House Energy and Commerce Committee, Cathy McMorris Rodgers, expressed during her opening statement, “... the Committee developed the Atomic Energy Advancement Act...landmark legislation signed into law earlier this month as the ADVANCE Act. This legislation will establish requirements and incentives to expand the use of nuclear energy and its many benefits for the United States.”³¹ She continued, “The ADVANCE Act takes significant steps to align NRC’s mission with the policy of the Atomic Energy Act of 1954 to “make the maximum contribution to the general welfare, increase the standard of living, and strengthen free competition and private enterprise through the development, use, and control of atomic energy.” With the ADVANCE Act, Congress spoke loud and clear about NRC’s role. NRC cannot be a barrier to innovation and deployment.”³²

²⁶ Jeff Duncan, *Representative Jeff Duncan Introduces NRC Mission Alignment Act*, press release, November 1, 2024, <https://jeffduncan.house.gov/media/press-releases/representative-jeff-duncan-introduces-nrc-mission-alignment-act>.

²⁷ Subcommittee on Energy, Climate, and Grid Security: “The Fiscal Year 2025 Nuclear Regulatory Commission Budget,” July 23, 2024. [HHRG-118-IF03-Transcript-20240723](https://www.energy.gov/sites/default/files/2024-07/HHRG-118-IF03-Transcript-20240723). (hereinafter 2025 NRC Budget Hearing)

²⁸ 2025 NRC Budget Hearing, Page 5-6.

²⁹ 2025 NRC Budget Hearing, Page 7.

³⁰ 2025 NRC Budget Hearing, Page 10.

³¹ 2025 NRC Budget Hearing, Page 15.

³² 2025 NRC Budget Hearing, Page 16.

3. LEGAL AUTHORITY

The legal authority of the NRC stems from origins in the Atomic Energy Commission and has been modified by subsequent legislation over time.

a. Creation of the NRC

The Atomic Energy Act (AEA) of 1954 laid the foundational framework for civilian uses of nuclear technology in the United States, establishing a dual mandate: to promote the development of nuclear technology while ensuring public health and safety. It granted broad regulatory authority to oversee nuclear materials, facilities, and operations and emphasized balancing innovation in nuclear energy with robust safety and security measures. Since its inception, the AEA has vested the NRC (and its predecessor, the Atomic Energy Commission) with significant authority to regulate and guide the nuclear industry.

In 1974, the Energy Reorganization Act (ERA) formally established the Nuclear Regulatory Commission (NRC) as an independent regulatory agency, separating its responsibilities from the Atomic Energy Commission. The ERA was designed to sharpen the NRC's focus on safety oversight, environmental protection, and regulatory independence, ensuring that commercial nuclear development would be balanced with comprehensive safety and security oversight.

The ERA effectively abolished the AEC, dividing its duties between the NRC and the Energy Research and Development Administration (ERDA), a predecessor agency of the Department of Energy. The ERDA inherited responsibility related to energy development and policy, while the NRC assumed licensing and regulatory authority over nuclear safety, security, and environmental concerns. By assigning or abolishing certain provisions from the AEC, the ERA created an independent regulatory framework focused on maintaining public trust and ensuring rigorous safety standards in the nuclear industry.

b. The Misconception of “Promotional”

The OGC, by way of the SECY, contends that the NRC does not have the authority to promote nuclear energy. This supposition has been repeated so many times and for so long that it has become accepted as correct. However, the ERA does not assign promotion to any agency apart

from ERDA research and development programs. It was clearly stated in the U.S. Code that the responsibilities of the Administrator shall include, but not be limited to — “promoting increased utilization of energy resources, relevant to the Administration’s mission in formulating its own research and development programs.”³³

The ERA also does not exclude promotion from the authority granted to the NRC. There are some functions in the AEA that may be characterized as being a promotion-like activity, such as, “A program to encourage widespread participation in the development and utilization of atomic energy...”³⁴ The ERA does not abolish or specifically assign these activities to the NRC, and therefore they are assigned to the ERDA by default. However, these activities are more specific than the broader term of promotion, which is not mentioned.

The SECY cites a court opinion as a basis for the term promotional.³⁵ In this opinion, “the court observed that Congress reorganized the Atomic Energy Commission in 1974 by dividing the promotional and safety responsibilities of the AEC” and assigning these responsibilities to new agencies. This observation was not an in-depth review of the statute; it was a phrase used to support the concept therein. Otherwise, it would have named other functions assigned to the NRC apart from safety, including protecting the environment and common defense and security. Further evidence that ‘promotion’ is shorthand is found in relation to the ERA.³⁶

Importantly, even using this shorthand for the division of function, the court continued, “The evident desire of Congress to prevent safety from being compromised by promotional concerns does not translate into an abandonment of the objective of promoting nuclear power.”³⁷ As it has

³³ See, Energy Reorganization Act of 1974, § 103(4), 42 U.S.C. § 5801 et seq. (1974): “taking into account the existence, progress, and results of other public and private research and development activities, including those activities of the Federal Energy Administration relating to the development of energy resources using currently available technology in promoting increased utilization of energy resources, relevant to the Administration’s mission in formulating its own research and development programs.”

³⁴ Atomic Energy Act of 1954, § 3(d), 42 U.S.C. § 2011 et seq. (1954).

³⁵ Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n, 461 U.S. 190, 221 (1983)

³⁶ 461 U.S. 190, 222, footnote 32, The court uses promotion to characterize the ERA being supportive of all energy sources when the statute does not use that term. The language in the ERA related to all energy sources also differs from the language in the AEA, indicating no common use of “promotion” as shorthand for specific terms in the court’s opinion.

³⁷ Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n, 461 U.S. 190, 221 (1983)

been established that Congress did not intend to compromise safety through Section 501 of the ADVANCE Act, the implication is clear that Congress still seeks to enable nuclear energy deployment.³⁸

The broader term of promotion, and any activity that could be imagined to fit under promotion, is not explicitly assigned or abolished in the ERA. Avoiding the promotion of nuclear energy may be useful in communication to general audiences, but it is not part of the foundational statutory basis.

The NRC has used language in the mission statement and other similar guiding documents that would now be considered 'promotional' under the limitations imposed by the SECY. For example, stating that the NRC should *enable* the use of radioactive materials and nuclear energy for *beneficial* civilian purposes.³⁹ The statutory basis has not shifted to require avoidance of such language. Instead, the mission has shifted away from the mandate in the AEA as the composition of the Commission has changed over time — a situation that Congress intended to address through the ADVANCE Act.

c. NRC Authority Includes Public Benefits

The ERA directly transfers the “licensing and related regulatory functions of the Atomic Energy Commission.” The AEA clearly, from the start in Title I, Chapter 1, Section 1, Subsection a, that maximizing the general welfare is part of the control of atomic energy.

³⁸ See also footnote 18 related to ADVANCE Act Section 505

³⁹ See, Nuclear Regulatory Commission, Strategic Plan FY 2004-2009, Strategic Objective, August 2004 [ML042230185](#). “Enable the use and management of radioactive materials and nuclear fuels for beneficial civilian purposes in a manner that protects public health and safety and the environment, promotes the security of our nation, and provides for regulatory actions that are open, effective, efficient, realistic, and timely”; Nuclear Regulatory Commission, NRO Mission Statement, February 2007, [ML070600290](#) “The Office of New Reactors serves the public interest by enabling the safe, secure, and environmentally responsible use of nuclear power in meeting the nation's future energy needs.”; Strategic Plan FY2008-2013, Values, “The safe use of radioactive materials and nuclear fuels for beneficial civilian purposes is enabled by the agency's adherence to the principles of good regulation—independence, openness, efficiency, clarity, and reliability. In addition, regulatory actions are effective, realistic, and timely.” ML082940056, among other examples

Atomic energy is capable of application for peaceful as well as military purposes. It is therefore declared to be the policy of the United States that—

- a. the development, use, and **control of atomic energy** shall be directed so as to **make the maximum contribution to the general welfare**, subject at all times to the paramount objective of making the maximum contribution to the common defense and security; and*
- b. the development, use, and control of atomic energy shall be directed so as to promote world peace, improve the general welfare, increase the standard of living, and strengthen free competition in private enterprise.*

Control, in this context, can only relate to regulation. The ERDA, now the Department of Energy, does not have direct oversight or control of civilian nuclear energy facilities; the NRC does. Therefore, the AEA directly gives authority to and requires the NRC to maximize the general welfare.⁴⁰ Maximization of the general welfare can only occur if the general welfare is considered. This is consistent with the ADVANCE Act, which attempts to align the NRC mission with this mandate by requiring the NRC to consider benefits to society and efficient regulation.

There are multiple instances where health, safety, and welfare are combined together in the AEA in sections that were explicitly transferred to the NRC's authority. This further indicates that Congress intended welfare to be considered under the authority granted in the AEA.⁴¹ Through the ERA, Congress reiterated that "the general welfare and the common defense and security require effective action" in an Act that sets up federal agencies that take the actions required by Congress. The efficient action that the general welfare requires is in the declaration of purpose for the ERA and not assigned to any single agency established therein.

⁴⁰ This interpretation was confirmed in the legislative history of the ADVANCE Act, See footnote 19.

⁴¹ See Atomic Energy Act of 1954, § 83(b)(1)(A)(ii): "The Commission determines prior to such termination that transfer of title to such land and such byproduct material is not necessary or desirable to protect the public health, safety, or welfare or to minimize or eliminate danger to life or property."; Atomic Energy Act of 1954, § 83(b)(1)(B): "If the Commission determines ... would not endanger the public health, safety, welfare, or environment."; and Atomic Energy Act of 1954, § 83(b)(1)(B)(4).

Additional legislation that the NRC describes as the “governing legislation” to its authority echoes Congress’ initial mandate from the AEA to consider welfare along with health and safety.^{42,43} By pulling forward the initial intent in the AEA to subsequent legislation, Congress continues to reinforce a history of clear and consistent intent over time.

The ERA requires the Commission to report on its activities and plans, including the consideration of the benefits of commercial nuclear power.⁴⁴ This clearly shows Congressional intent that after separating the NRC from the AEC, the NRC should still consider the benefits of commercial nuclear power, and report on that consideration. The NRC did consider the social benefits of commercial power in these reports, contrary to the SECY assertions that the NRC would need new authority to do so. The 1979 report, which included an in-depth report on the Three Mile Island accident, still indicated a need to balance regulation relative to the benefits of society and that such a balance does not constitute a promotional philosophy.⁴⁵ This highlights that, at that serious point in time, there was still a need for the NRC to weigh the benefits, costs, and general welfare of society. Even at this moment, the NRC did not shrink away from the mandate of the AEA to consider benefits to society (which the SECY in question denies exists).

⁴² Nuclear Regulatory Commission, NUREG-0980: Nuclear Regulatory Legislation, December 2015, [ML15364A497](#).

⁴³ See e.g., Low-Level Radioactive Waste Policy Act of 1985: multiple instances of “to promote the health, safety and welfare of the citizens and the environment.”; Uranium Mill Tailings Radiation Control Act of 1978: multiple instances of “health, safety, welfare.”

⁴⁴ ERA 307(c), P.L. 93–438, “The Commission shall, as soon as practicable after the end of each fiscal year, make a report to the President for submission to the Congress on the activities of the Commission during the preceding fiscal year. Such a report shall include a clear statement of the short-range and long-range goals, priorities, and plans of the Commission as they relate to the benefits, costs, and risks of commercial nuclear power.” The annual reporting requirement was sunset with many other reports in section 3003 of Pub. L. 104, which aimed to reduce federal reporting requirements, not to specifically change policy in the ERA.

⁴⁵ See the 1979 Annual Report to Congress, NUREG-0690, page 41, “The NRC must deal with the question of how much cost and delay is justifiable to realize a given increment in safety, and efforts to balance costs and benefits should not be considered evidence per se of a promotional philosophy. Both overreaction and inaction in this area carry social costs which must be weighed.”

The National Environmental Policy Act (NEPA) requires that all agencies consider the impacts, both positive and negative, on the environment of actions and reasonable alternatives.⁴⁶ Importantly, this refers to broader impacts and benefits to society through the *human environment*, not just the natural environment. Amendments to NEPA in the Fiscal Responsibility Act further expand the requirements to consider the negative impacts of not taking regulatory action at a specific site. The required analysis would consider the benefits to society by mitigating the negative impacts of not taking agency action, including by maintaining the status quo use of alternative energy sources. The NRC staff recently provided options to the Commission on this matter.⁴⁷ The NRC staff has already applied this approach on a case-by-case basis while awaiting Commission direction.⁴⁸

The Executive policy is consistent with Congressional policy. Regulation should consider the public's welfare in addition to health and safety, and protecting the environment.⁴⁹ Independent regulatory agencies are no different.⁵⁰ Regulatory analysis should be used to facilitate serving the public interest.⁵¹ The NRC agrees with and complies with these policies.⁵²

It is clear that the NRC has the authority to consider the general welfare and benefits to society and is required to do so. A conglomeration of legislation exists that reinforces the authority of the NRC to maximize the general welfare. The NRC already considers broader benefits to society in limited ways, contrary to the position in the SECY that the NRC does not have the authority to do

⁴⁶ National Environmental Policy Act of 1969 § 102(2)(C)(iii), 42 U.S.C. § 4332: "a reasonable range of alternatives to the proposed agency action, including an analysis of any negative environmental impacts of not implementing the proposed agency action in the case of a no action alternative, that are technically and economically feasible, and meet the purpose and need of the proposal."

⁴⁷ Nuclear Regulatory Commission, *Implementation of the Fiscal Responsibility Act of 2023 National Environmental Policy Act Amendments*, SECY-24-0046, May 30, 2024, [ML24078A010](#).

⁴⁸ Nuclear Regulatory Commission, *Preliminary Analysis of Advanced Reactor Licensing*, SECY-24-0050, September 15, 2024, [ML24240A034](#); Nuclear Regulatory Commission, *Evaluation of Risk-Informed Licensing for New Reactors*, SECY-24-0062, October 23, 2024, [ML24299A167](#).

⁴⁹ Executive Order 12866, 58 Fed. Reg. 51735 (October 4, 1993).

⁵⁰ Executive Order 13579, 77 Fed. Reg. 41357 (July 14, 2011).

⁵¹ Executive Order 14094, 88 Fed. Reg. 21604 (April 11, 2023), Section(4)(a).

⁵² Nuclear Regulatory Commission, *Pre-Application Activities for Advanced Reactors*, July 2019, [ML19211D136](#).

so. The existing NRC processes that consider benefits are not considered ‘promotional,’ and no threshold is defined for when consideration of benefits would exceed perceived legal authority.

4. NRC POLICY

The NRC has implemented policies that are contrary to some of the statements made in the SECY. As discussed, the SECY contends that the NRC would require additional authority to consider the general welfare or benefits to society in the licensing of a nuclear power facility relative to other energy sources. In addition to the already discussed statutory mandates, this argument is contradicted by long-established NRC policy that recognizes the agency has the authority to consider benefits.

a. Current Mission Statement

The current NRC mission statement includes the terms “public health and safety,” “common defense and security,” and “protect the environment.”⁵³ The NRC adopts these terms from sections related to regulation in the AEA. However, the NRC has long excluded any mention of “maximizing the general welfare” from its mission statement, despite the fact that consideration of the general welfare is explicitly and prominently emphasized in both the AEA and ERA, while terms such as “protection of public health and safety” and “protection of the environment” that are included in the NRC’s current mission statement are arguably subservient values to the general welfare, which is listed first and separately in the opening sections of both the AEA and ERA.

b. Safety Goals

The clearest example of the Commission’s policy to consider nuclear energy relative to other energy sources is the 1986 Policy Statement on Safety Goals for the Operation of Nuclear Power Plants.⁵⁴

⁵³ Mission Update SECY, Page 2.

⁵⁴ Nuclear Regulatory Commission, *1986 Policy Statement on Safety Goals for the Operation of Nuclear Power Plants*, 51 FR 30028, <https://www.nrc.gov/reading-rm/doc-collections/commission/policy/51fr30028.pdf> (hereinafter the Safety Goal Policy Statement)

The Safety Goal Policy Statement describes “how safe is safe enough.”⁵⁵ The Safety Goal Policy Statement has been Commission policy for nearly 40 years and is still used in regulatory decision-making. The qualitative safety goals center around acceptable risks:

— Societal risks to life and health from nuclear power plant operation should be comparable to or less than the risks of **generating electricity by viable competing technologies** and should not be a significant addition to other societal risks.
[emphasis added]⁵⁶

In this policy statement, the Commission has confirmed that the NRC should consider actions relative to the alternatives under the authority of the AEA. No additional authority was necessary for that policy. The Safety Goal Policy Statement was the result of significant internal and stakeholder engagement, multiple workshops, input from the Advisory Committee on Reactor Safeguards, and a 2-year evaluation period. The Commission has provided clarifications and updates to the policy statement over time but has not amended a critical section for this discussion.⁵⁷ Instead, Commissions affirmed that the policy statement, with this goal intact, should be used to guide how regulations should be considered.^{58,59}

This shows persistent agreement that the position of the Commission is to consider nuclear energy relative to other energy sources.

c. Principles of Good Regulation

NRC published its Principles of Good Regulation in 1991 to its staff, featuring independence, openness, efficiency, clarity, and reliability. The principle of efficiency has been embedded in NRC’s values for over 30 years as NRC states, “The American taxpayer, the rate-paying consumer,

⁵⁵ Nuclear Regulatory Commission, *Modifications to the Safety Goal Policy Statement*, SECY-00-0077, March 2000, [ML003684288](#). (hereinafter *Modifications to Safety Goal Policy Statement*). Page 5.

⁵⁶ Safety Goal Policy Statement, Page 1-2.

⁵⁷ Among others see *Modifications to Safety Goal Policy Statement*; Nuclear Regulatory Commission, *Whitepaper on Risk-Informed Performance-Based Regulation*, SRM-SECY-98-144, March 1999, [ML003753601](#).

⁵⁸ Nuclear Regulatory Commission, *Final Environmental Statement for the Construction and Operation of the North Anna Nuclear Power Station*, NUREG-0632, April 1979, [ML003707881](#).

⁵⁹ Nuclear Regulatory Commission, *Modifications to the Reactor Safety Goal Policy Statement*, NUREG-1235, October 1999, [ML003684288](#). Page 3.

and licensees are all entitled to the best possible management and administration of regulatory activities.⁶⁰ As former NRC commissioner Kenneth Rogers said, “Effective regulation requires constant and faithful adherence to the basic principles of NRC as time changes.”⁶¹

The efficiency principle requires that the NRC operates efficiently for the benefit of the public and licensee. Being efficient in regulatory activities does not imply or translate into abandoning other statutory mandates for the sake of efficiency. Nor does the NRC consider that improving efficiency or using the concept of benefits to society results in “promoting” the use of radioactive materials or nuclear energy. It is incongruent to assert the opposite in the SECY.

d. The NRC Already Does Cost-Benefit Analyses

Most federal agencies are required to assess the costs and benefits of their actions unless Congress explicitly directs them to bypass such analysis.^{62,63} Yet no one would call the FDA, OSHA, or EPA “promotional” agencies; chemical plants certainly do not feel promoted by the EPA, and the EPA is not bound to take the least-cost approach to regulation. Regulatory impact analysis in federal rulemaking is not necessarily for the analysis to be determinative or dispositive.

Congress has not provided any instruction to the NRC to avoid cost-benefit considerations — quite the opposite is true. The NRC currently uses economic cost-benefit analyses in several areas. The Backfit Rule is one example of how the NRC uses narrow cost-benefit analyses in decision-making.⁶⁴ Enacted to provide a balanced approach to regulatory enforcement, the Backfit Rule allows consideration of cost when there is more than one way to achieve safety. Although this provision frames cost consideration as an “allowance,” it is effectively a requirement under the

⁶⁰ Nuclear Regulatory Commission, *Values*, <https://www.nrc.gov/about-nrc/values.html>.

⁶¹ Nuclear Regulatory Commission, *Moments in NRC History: 25 Years of the NRC's Principles of Good Regulation*, January 26, 2017, <https://nrcpublicblog.wordpress.com/2017/01/26/moments-in-nrc-history-25-years-of-the-nrcs-principles-of-good-regulation/>.

⁶² Congressional Research Service, “Cost-Benefit Analysis in Federal Agency Rulemaking,” IF12058, <https://crsreports.congress.gov/product/pdf/IF/IF12058>.

⁶³ Executive Order 12866, *Regulatory Planning and Review*, 58 Fed. Reg. 51735 (October 4, 1993).

⁶⁴ Nuclear Regulatory Commission, *Backfitting*, <https://www.nrc.gov/reading-rm/doc-collections/cfr/part050/part050-0109.html>. The Backfit Rule establishes the regulatory framework for assessing and implementing changes, or “backfits,” to existing systems, structures, or procedures in NRC-licensed facilities when necessary for safety or security.

APA, which mandates that agencies must factor in costs when feasible and where more than one option meets regulatory requirements.⁶⁵

This is conceptually similar to the requirement in Section 501 of the ADVANCE Act. When health and safety, protecting the environment, and common defense and security are achieved, the NRC must, at a minimum, consider benefits to society to ensure the benefits are not unnecessarily limited. However, the appropriate scope of consideration for benefits in the mission of the NRC is society, not just the licensee, and should assess broader benefits than simple economic costs.

5. CONCLUSION

The interpretation by the NRC staff of Section 501 of the ADVANCE Act is unpersuasive and overly narrow. The options to revise the mission statement based on that interpretation do not reflect the strong and bipartisan Congressional direction. It is inconsistent with both the long-standing governing legislation and the clear Congressional intent of the ADVANCE Act. If Congress had not wanted to revise the NRC's mission statement substantively, it would have stayed silent on the issue or reaffirmed the current mission statement of the NRC. It did not stay silent.

The SECY misconstrues and uses stakeholder perspectives as a counterfactual to dismiss clear Congressional intent.⁶⁶ The SECY contends that if benefits to society were considered, it would be consistent with the NRC's non-promotional role.⁶⁷ However, "promotional" is not in the four corners of the governing legislation or in the ADVANCE Act Section 501. The intent of Section 501

⁶⁵ This interpretation aligns with Judge Kavanaugh's reasoning in his dissent in *Mingo Logan Coal Co. v. EPA*, 829 F.3d 710 (D.C. Cir. 2016). In that case, Judge Kavanaugh argued that, absent a clear directive to disregard costs, agencies must evaluate whether the benefits of a proposed action outweigh its costs. While the majority did not find it necessary to address the cost arguments, they agreed with Judge Kavanaugh's general premise regarding cost-benefit analysis, emphasizing that "an agency should generally weigh the costs of its action against its benefits." This judicial perspective supports the view that NRC's cost considerations in decision-making are not only allowed but required under the APA when multiple options can achieve adequate protection.

⁶⁶ Breakthrough Institute, *BTI's Innovative Vision for NRC Modernization*, November 16, 2023, <https://thebreakthrough.org/issues/energy/btis-innovative-vision-for-nrc-modernization>

⁶⁷ Mission Update SECY. Page 5.

is not to force the NRC to promote nuclear energy. Considering the benefits to society in decision-making would not thrust the NRC into a promotional role.

The NRC already has the necessary authority but has not fully embraced it. The SECY asserts that Congress changed intent when direct changes to the ERA were removed. It argues that “Congress intended the updated mission statement to better align the NRC’s manner of conducting its regulatory functions within its pre-existing authority and not to grant the NRC additional statutory authority.”⁶⁸ A more correct interpretation is that Congress determined that changes to governing legislations were not necessary and amending the ERA could result in unintended consequences.

The NRC currently considers benefits in many ways. Multiple statutes and executive orders that are more recent than the ERA continue to consistently combine welfare or benefits as part of the NRC mandate. Even the NRC’s Backfit Rule considers costs and benefits. The NRC did not find this to be a violation of the AEA or the ERA. It would be incongruent to consider the benefits to society as a violation.

The position in the SECY that the NRC cannot consider social benefits directly conflicts with the plain language in the Act and mistakenly implies a zero-sum situation between safety and public benefits that does not exist. That perspective also suggests that only one possible decision-making pathway will result in the NRC maintaining those conditions. The very existence of options in the SECY counters that argument.

The Act tells the NRC that it must not unnecessarily limit benefits to society while being consistent with other obligations. Considering the benefits to society and efficiency are not mutually exclusive to other obligations. There are many opportunities to consider and improve the general welfare and benefits to society while still maintaining reasonable assurance of adequate protection of public health and safety, promoting the common defense and security, and protecting the environment. If these conditions are maintained, arguments that the NRC is undermining that role by considering benefits to society are both perplexing and unavailing.

Congress intended the NRC to *revise* its mission statement and include certain important values. The revisions are intended to guide the NRC to fulfill the authority that is already granted by the

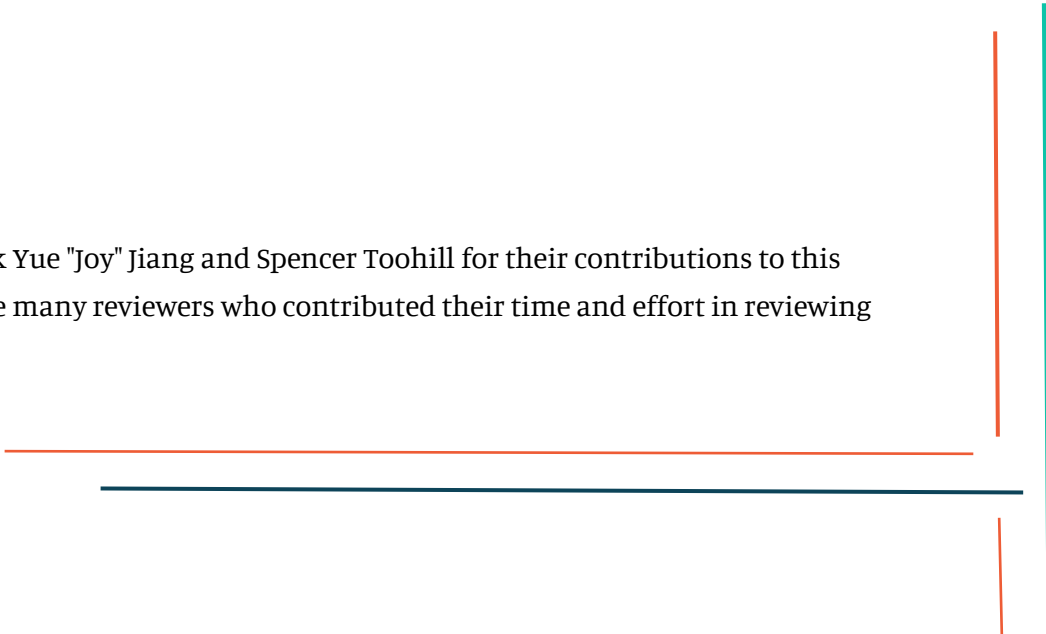
⁶⁸ Mission Update SECY. Page 7.

AEA, which the NRC has either chosen not to fulfill or has misinterpreted. The NRC does not need additional authority to achieve the approach to operation that the ADVANCE Act requires. The options that the SECY provided to the Commission are an example of the status quo that Congress intended for the Commission to address.

The importance of revising the mission statement, as intended in the ADVANCE Act, is not trivial. The revised mission, which is an outcome of Section 501(a), directly informs the guidance that the Commission must provide to the staff on how to perform that mission in Section 501(b)(2). A revised mission statement that maintains the flawed status quo will further reinforce the status quo in subsequent guidance to the staff on how to perform the mission.

Of the range of potential policies and decision-making pathways, some unnecessarily limit benefits to society, and some do not. Some maximize the improvement of the general welfare, and others may decrease it. Without considering the question directly, there is no way to know which policies and decisions will improve the general welfare or unnecessarily limit benefits to society.

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