
CONSENT-BASED SITING

Request for Information Comment Summary and Analysis

September 2022

EXECUTIVE SUMMARY

On December 1, 2021, the U.S. Department of Energy (DOE) issued a request for information (RFI) on **“Using a Consent-Based Siting Process to Identify Federal Interim Storage Facilities” (86 FR 68244)**. The RFI sought input from the public on several topics:

- The consent-based siting process itself;
- Removing barriers to meaningful participation, especially for groups and communities who have not historically been well-represented in conversations about nuclear waste management; and
- The role of interim storage as part of an integrated, national waste management system.

DOE received 225 submissions in response to the RFI from a wide variety of commenters, including Tribal, State, and local governments; non-governmental organizations (NGOs); members of academia and industry; other stakeholders; and individual commenters. This report summarizes and analyzes the input provided in these responses. It also summarizes responses to an earlier request for comment on the Draft Consent-Based Siting Process for Consolidated Storage and Disposal Facilities for Spent Nuclear Fuel and High-Level Radioactive Waste released by DOE in 2017. The Department is incorporating the public input described in this report in its efforts to pursue a consent-based siting process, advance progress toward an integrated waste management system, and develop funding opportunities for interested groups and communities.

MAJOR THEMES IN THE REQUEST FOR INFORMATION RESPONSES

Distrust of DOE and of the federal government's nuclear waste management efforts more broadly.

Many commenters saw trust as a key challenge for consent-based siting and pointed to high levels of existing distrust, including distrust of past and future siting processes and of DOE's willingness to meaningfully incorporate Tribal, community, and stakeholder input in its decision-making. Commenters also offered numerous recommendations for building trust, such as open, transparent, and honest communication; investing in long-term relationships with communities; listening to diverse stakeholders; reducing barriers to participation; and avoiding prescriptive, one-size-fits-all approaches.

An emphasis on “fairness”—both in the way the siting process itself is conducted and in terms of outcomes from the siting process.

Frequently mentioned elements of a fair process included open, two-way communication; early and sustained engagement with communities; flexible and inclusive processes; intentional outreach to marginalized groups; and attention to issues of access, transparency, and quality in the provision of information. Commenters also raised concerns about fair outcomes and how the benefits and drawbacks of a proposed facility will be allocated fairly. Many commenters, referencing a historic tendency to site controversial facilities in underserved communities, voiced concern that these communities could be “targeted” or, in effect, “bribed” to host a spent nuclear fuel storage facility. Several commenters said that communities should have access to resources to make their own independent assessment of costs and benefits associated with hosting such a facility.

An appreciation of the challenges inherent in defining consent and successfully implementing a consent-based siting process.

Commenters expressed a range of views about the merits and practicality of consent-based siting. This included support for a consent-based approach, on the basis that it would be more fair and therefore more likely to succeed; skepticism that DOE's commitment to consent was sincere; concern that consent could not be achieved in practice; and that a consent-based siting process would take too long. Several commenters emphasized that consent must be voluntary and informed by a clear understanding of benefits and drawbacks. Many commenters also provided input on when and how to define consent, who should give consent (e.g., whether a community or the State, or both, need to consent), and whether consent or lack of consent should be decided by elected representatives on behalf of constituents versus through a direct vote. Several commenters thought it would be important for DOE to provide guidance on these issues early in the consent-based siting process. Others argued that the specifics of consent should be defined later, in collaboration with communities and other participants.

Significant differences of opinion about whether the federal government should pursue consolidated interim storage for commercial spent nuclear fuel, including related concerns about progress toward a deep geologic repository and transportation requirements and risks.

Supporters of consolidated interim storage focused on the benefits of removing spent nuclear fuel from existing nuclear power plant sites, as a matter of fairness to communities that never agreed to the long-term storage of spent nuclear fuel at these plant sites. Removal would also meet DOE's contractual obligations and thereby limit broader taxpayer

liabilities. A greater number of commenters, however, expressed opposition to developing consolidated interim storage. Many of these commenters cited a concern that such facilities could become de facto permanent disposal sites given the lack of progress in developing a repository. Many were also concerned that moving spent nuclear fuel first to a consolidated storage facility and later to a repository would create additional transportation-related safety risks.

Support for changes in the Nation's overall approach to nuclear waste management and for a new, independent organization to lead waste management efforts.

A frequent comment was that Congress needs to update existing statutes and advance an implementable national plan for integrated nuclear waste management. Several commenters specifically discussed the need to amend current statutory linkages between repository development and consolidated interim storage. Another frequent comment was that the U.S. nuclear waste management program would benefit from new leadership. Several commenters thought that an independent waste management organization, separate from DOE, would be better positioned to gain trust and provide the policy stability required to make progress.

Strong differences of opinion about the need for and merits of nuclear energy technology.

Some commenters viewed nuclear energy as fundamentally flawed and disagreed that this technology will be needed to mitigate climate change. Other commenters thought nuclear technologies could have an important, and perhaps critical, role to play as a source of carbon-free baseload electricity.

DOE'S NEXT STEPS

DOE recognizes that a successful consent-based siting process for a federal consolidated interim storage facility for spent nuclear fuel will require strong and trusting relationships—built on a foundation of collaboration, two-way communication, information sharing, and accountability—among DOE, potential host communities, and other partners and stakeholders.

To build and sustain these relationships, the Department is committed to (1) implementing congressional direction in a way that maximizes the potential benefits of consolidated interim storage, (2) addressing the current deficit of trust in DOE by making changes internally and externally, (3) ensuring that its consent-based siting process is fair and inclusive, (4) focusing on fairness in siting outcomes by putting communities' needs and well-being at the center of the siting process, (5) continuing and expanding ongoing efforts to address transportation issues and related planning needs, and (6) rigorously applying safety, security, and other criteria in all aspects of the siting process, including by supporting communities that wish to conduct independent studies related to safety and other issues of concern.

ACRONYMS

CISF	.....	Consolidated Interim Storage Facility
DOE	.....	U.S. Department of Energy
EJ	.....	Environmental Justice
EPA	.....	U.S. Environmental Protection Agency
FOA	.....	Funding Opportunity Announcement
MRMTC	.....	Midwestern Radioactive Materials Transportation Committee
NEPA	.....	National Environmental Policy Act
NETWG	.....	Nuclear Energy Tribal Working Group
NGO	.....	Non-Governmental Organization
NRC	.....	U.S. Nuclear Regulatory Commission
NTSF	.....	National Transportation Stakeholders Forum
NWF	.....	Nuclear Waste Fund
NWMO	.....	Canada's Nuclear Waste Management Organization
NWPA	.....	Nuclear Waste Policy Act
RFI	.....	Request for Information
SONGS	.....	San Onofre Nuclear Generating Station
SNF	.....	Spent Nuclear Fuel
SRG	.....	State Regional Group
TRMTC	Tribal Radioactive Materials Transportation Committee
WIPP	Waste Isolation Pilot Plant

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1. INTRODUCTION

On December 1, 2021, DOE issued a request for information (RFI) on [“Using a Consent-Based Siting Process to Identify Federal Interim Storage Facilities” \(86 FR 68244\)](#). The RFI sought input from the public on several topics:

- The consent-based siting process itself;¹
- Removing barriers to meaningful participation, especially for groups and communities who have not historically been well-represented in conversations about nuclear waste management; and
- The role of interim storage as part of an integrated, national waste management system.

The questions posed in the RFI reflect DOE’s intent to ensure that issues of equity and environmental justice are built into any consent-based siting process the Department pursues, including the Nation’s nuclear waste management system as a whole. The RFI also reflects DOE’s commitment to implementing consent-based siting in close collaboration with communities and governments at the local, Tribal, and State levels, and in consultation with interested parties and groups.

DOE received 225 submissions in response to the RFI from a wide variety of commenters, including Tribal, State, and local governments; non-governmental organizations (NGOs); members of academia and industry; other stakeholders; and individual commenters.

This report summarizes the input provided in these responses. Throughout it, the term “response” should be understood to refer to a single, unique piece of correspondence submitted under the RFI. The report also summarizes responses to an earlier request for comments on [Draft Consent-Based Siting Process for Consolidated Storage and Disposal Facilities for Spent Nuclear Fuel and High-Level Radioactive Waste](#) (the “Draft Consent-Based Siting Process”) released by DOE in 2017.² The Department is incorporating the input described in this report in its efforts to inform its consent-based siting process, advance progress toward an integrated waste management system, and develop funding opportunities for interested groups and communities.

¹ In January 2017 DOE issued Draft Consent-Based Siting Process for Consolidated Storage and Disposal Facilities for Spent Nuclear Fuel and High-Level Radioactive Waste available at [Consent-Based Siting | Department of Energy](#)

² On January 13, 2017, DOE issued an invitation for public comment on its Draft Consent-Based Siting Process for Consolidated Storage and Disposal Facilities for Spent Nuclear Fuel and High-Level Radioactive Waste (82 FR 4333). A compilation and summary of comments received in response to the 2017 request was posted on the DOE website in December 2021 and may be accessed at <https://www.energy.gov/ne/articles/public-comments-does-draft-consent-based-siting-process-issued-january-2017>. Responses to the 2017 request for public comment and their relationship to the comments submitted under the 2021 RFI are discussed in Section 11 of this report



2. BACKGROUND AND CONTEXT

Consent-based siting is an approach that focuses on the needs and concerns of people and communities. This process also ensures that proposed site (or sites) meet all safety and security requirements for the protection of people and the environment. DOE believes that a consent-based siting approach, driven by community well-being and community needs, is the right thing to do and offers the best chance for success. DOE is embarking on a consent-based siting process for one or more federal facilities that would provide consolidated interim storage for spent nuclear fuel.³ As part of this process, communities that choose to participate will work collaboratively with the Department through a series of phases to:

- Build capacity within communities that will enable meaningful and informed collaboration;
- Conduct preliminary and detailed screenings and assessments of potentially interested communities and potentially suitable sites;
- Identify additional opportunities associated with hosting a storage facility;
- Negotiate a consent agreement (if the community is interested in moving forward); and
- License, construct, operate, and eventually close and decommission a storage facility.

Each phase in the siting process is intended to help a community determine if and how hosting a facility to manage spent nuclear fuel aligns with its goals. By its nature, a consent-based process must be flexible, iterative, adaptive, and responsive to community concerns. Thus, the phases in the process serve as a guide, not a prescriptive set of instructions. A key aim is to build a mutual trust relationship between DOE and a potential host community by working collaboratively. Outcomes could include a negotiated consent agreement or a determination that, after exploring the option in good faith, the community is not interested in hosting a facility.

DOE considers both outcomes to be a success. DOE's efforts to develop a consent-based process for siting nuclear waste management facilities date back several years. In December 2015, the Department issued an [invitation for public comment on consent-based siting](#) and conducted a series of public meetings to seek feedback and inform future activities.⁴ DOE subsequently developed a Draft Consent-Based Siting Process and sought public comment on this draft in January 2017.⁵ However, further efforts to advance consent-based siting halted with the change of Administration.

More recently, the Consolidated Appropriations Act of 2021 provided direction and funding for DOE to pursue interim storage activities for a federal interim storage facility for spent nuclear fuel.

The 2021 RFI was a first step in response to this direction from Congress. The response to the 2017 RFI was relatively limited. DOE received 45 pieces of correspondence, including 30 unique pieces of correspondence, 10 duplicate pieces, and 5 pieces without comments. The 2021 RFI, therefore, sought input that reflected more recent developments and provided an opportunity for those who commented previously to tell DOE if their views on consent-based siting remained the same or had changed since 2017.



³ Spent nuclear fuel is the term for fuel that has been withdrawn from a nuclear reactor following irradiation, the constituent elements of which have not been separated by processing.

⁴ www.energy.gov/sites/prod/files/2016/12/f34/Summary_of_Public_Input_Report_FINAL.pdf

⁵ www.energy.gov/sites/prod/files/2017/01/f34/Draft_Consent-Based_Siting_Process_and_Siting_Considerations.pdf

3. OVERVIEW OF COMMENTS RECEIVED AND ANALYSIS APPROACH

3.1 RESPONSES TO THE 2021 RFI

As noted in [the introduction](#), DOE received 225 individual pieces of correspondence in response to the 2021 RFI. The 90-day comment period formally closed on March 4, 2022, but a few submissions came in after and are included in this total. Of these 225 submissions, 45 were form letters—that is, letters containing the same text that were submitted by multiple commenters.⁶ A compilation of all responses was published on the DOE website on March 25, 2022. The full set of correspondence can be accessed on the [DOE website](#)

and the composition of these responses by type of entity can be found in Figure 1.

Details of the methodology used to organize and analyze submissions under the 2021 RFI are described in [Appendix A](#). In brief, DOE carefully reviewed all responses,⁷ identified common themes, grouped comments or parts of comments by categories, and applied terms and concepts from the field of sociology to better understand the comments. DOE also considered how many pieces of correspondence addressed specific themes. To facilitate this sorting and grouping process, each unique piece of correspondence was uploaded to a software tool for analyzing text.

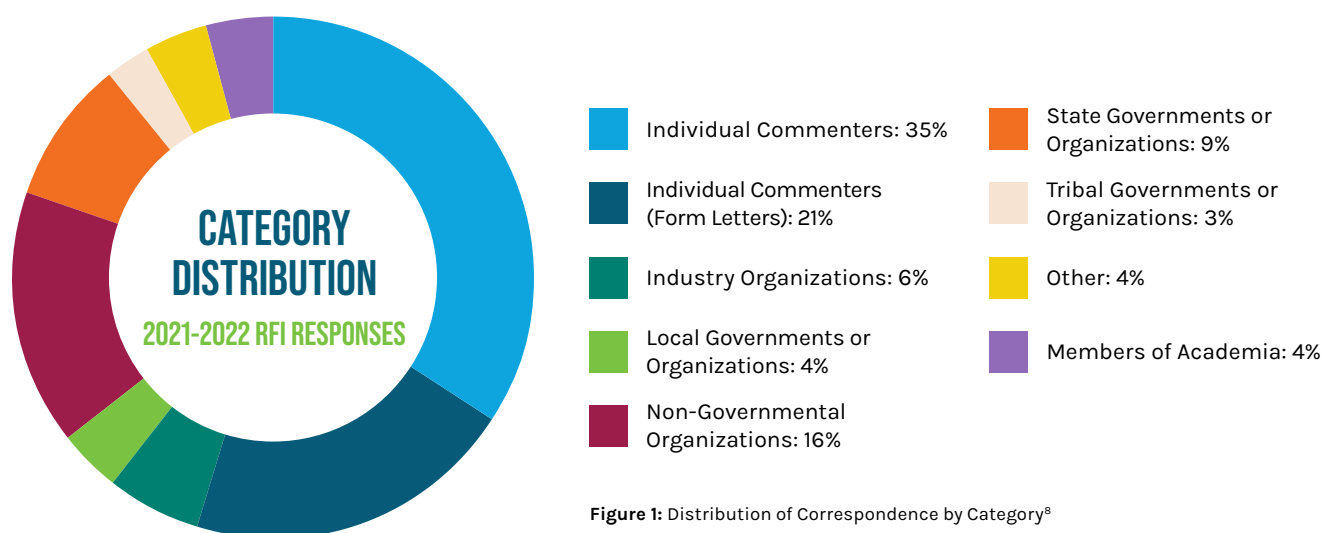


Figure 1: Distribution of Correspondence by Category⁸

⁶ Form letters are typically copied verbatim from a template or script that was developed by a particular organization for wide use by others (the original template or script is called the “form parent”). A software tool, which can detect duplicate text strings, was used to identify form letters submitted in response to the 2021 RFI. The software can identify what percentage of a given text is unique and what percentage is duplicative of another text. The accuracy of this method was checked by subject matter experts who reviewed submissions that were identified as form letters.

⁷ While many respondents did not follow the submittal instructions precisely, DOE wanted to be as inclusive as possible in what it considered a response to the RFI. Necessarily, that meant making some judgment calls. If a reader submitted a response to the RFI that does not appear to have been included in this report, the reader should email consentbasedsiting@hq.doe.gov.

⁸ For purposes of developing Figure 1, a piece of correspondence that was signed by multiple parties was assigned to the first signatory. Form letters were assigned to the person or group that submitted the letter, not to the organization that created the form “parent,” and thus were counted as one, unique response. Organizations or individuals who submitted (or signed) more than one response are counted once in this pie chart, but all pieces of correspondence were analyzed.

The category “Non-governmental Organizations” covers organizations that are federally incorporated as nonprofits, as well as unincorporated organizations. Think tanks and advocacy groups are included in this category.

Comments submitted by three federally recognized Tribal Nations (Prairie Island Indian Community, Shoshone-Bannock Tribes, and Yakama Nation), one Tribal organization (Native Community Action Council), and two Tribal groups (the Nuclear Energy Tribal Working Group and the Tribal Radioactive Materials Transportation Committee) are included in the category “Tribal Governments or Organizations.”

The category “State Governments or Organizations” includes comments from Arkansas, California, Connecticut, Michigan, Nevada, New Mexico (2), New York, Oregon, Pennsylvania, Utah, Vermont, and Washington. It also includes submitted responses by the Western Interstate Energy Board (Arizona, California, Colorado, Idaho, Michigan, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming), the Midwestern Radioactive Materials Transportation Committee (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin), the Council of State Governments Northeast High-Level Radioactive Waste Transportation Task Force (Connecticut, Delaware, Massachusetts, Maryland, Maine, New Hampshire, New Jersey, New York, Pennsylvania, and Vermont), and the Vermont Advisory Board-Vermont Nuclear Decommissioning Citizens Advisory Panel.

The category “Local Governments or Organizations” includes comments by the Town of Waterford, Connecticut; Southeastern Connecticut Council of Governments (SCCOG); Nye County, Nevada; City of Carlsbad, New Mexico; Otero County, New Mexico; Windham Region, Vermont; Energy Community Alliance (ECA), and the Community Engagement Panel for the San Onofre Nuclear Generating Station (SONGS).

Finally, the category “Other” includes comments by organized labor and union organizations, professional organizations, legal professionals and consultants, and the San Onofre Nuclear Generation Task Force.

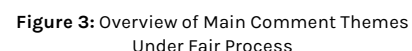
4. FAIR PROCESS (PROCEDURAL JUSTICE)

For this analysis, RFI responses related to fair processes were grouped and analyzed under the umbrella of procedural justice, a well-developed concept in the environmental justice literature⁹ (Figure 3). Before discussing related themes of trust, flexibility and accessibility, and information, we summarize numerous comments that speak to an existing level of distrust—toward DOE and the federal government more broadly—when it comes to nuclear waste management issues.

Some commenters expressed **general distrust and skepticism** toward the idea of consent-based siting, while others lacked trust in the management and regulation of nuclear waste facilities. There was significant concern that a consolidated interim storage facility would become a permanent site.

- State government commenter

Distrust was raised frequently in the RFI comments and has been a long-standing issue for the federal government's nuclear waste management efforts. Among RFI responses, about a third directly or indirectly addressed this issue. Distrust was also



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Commenters also emphasized past inequities, such as the effects of uranium mining and nuclear weapons development activities on Native Americans, low-income communities, or communities of color. Commenters from several Tribal Nations discussed distrust relating to a history of disregard for treaties and Tribal sovereignty.

Distrust in DOE's outreach and engagement practices, and distrust in information provided by DOE, were noted in numerous responses. A few commenters said that communities have felt ignored by DOE in the past and expressed a lack of confidence that this will change in the future. They perceive DOE as approaching communities with a "technocratic attitude" that discounts the public's ability to understand technical issues and participate in decision-making.

Some commenters conveyed **distrust related to DOE's record of nuclear waste management** at other locations and facilities. A few pointed, for example, to an accidental radiological release that occurred at the Waste Isolation Pilot Plant (WIPP) in New Mexico in 2014. In another example, a Tribal Nation referenced losing trust in DOE because of the classification of high-level waste at Hanford.

Finally, some commenters expressed **distrust related to previous siting efforts**, including the selection of the Yucca Mountain site and the WIPP site.

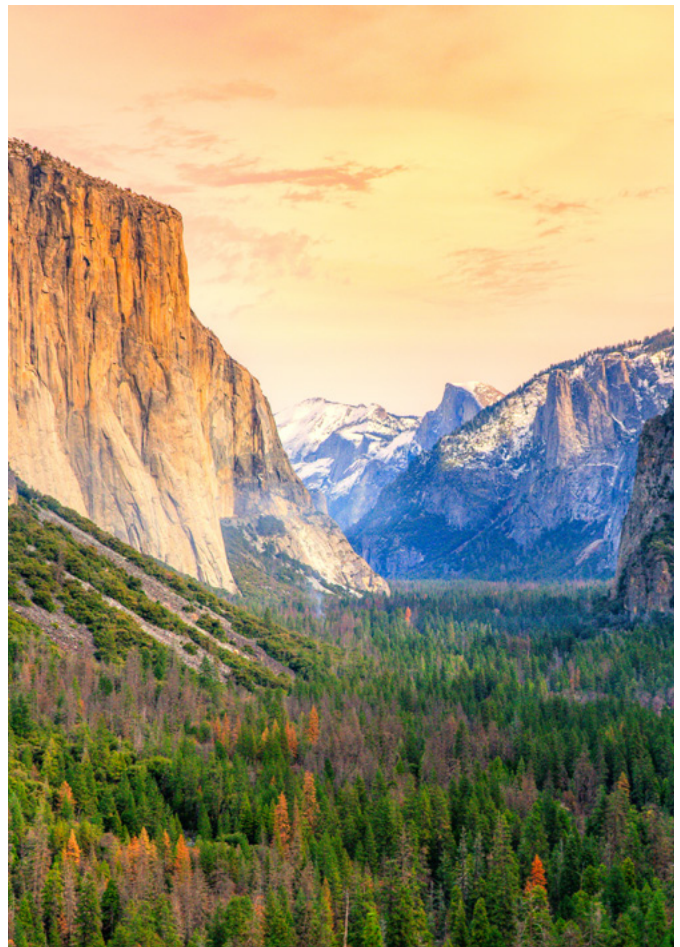
Numerous commenters also registered concern or distrust with proposals to construct private storage facilities in New Mexico and Texas. These proposals do not involve DOE, but commenters pointed out that neither engaged in a consent-based process ([see Section 7.6](#)).

Commenters also voiced **confusion about federal agencies' roles**—specifically, they see a conflict of interest in DOE's efforts to site a nuclear waste storage or disposal facility since the Department also advances and promotes nuclear energy. They are confused about the relative roles of DOE and other federal agencies that would be involved in assessing, licensing, and regulating a spent nuclear fuel storage facility, such as the [U.S. Nuclear Regulatory Commission \(NRC\)](#) and the [U.S. Environmental Protection Agency \(EPA\)](#). Some commenters expressed distrust of other federal agencies, including the NRC and DOE.

Finally, the RFI responses very frequently included expressions of **distrust related to DOE's use of past public comments and stakeholder-provided input on consent-based siting and other topics**. For example, several commenters expressed response fatigue and some commenters voiced frustration that they had not seen any analysis of the 2017 comments. This distrust spanned all categories of commenters.

"To establish an ongoing conversation, the DOE and its representatives must work to build trust, demonstrate a commitment to transparency, and use face-to-face, grassroots-oriented tactics that educate while also making community members feel like true partners in the process."

—NGO commenter



4.2 DEVELOPING A FAIR AND INCLUSIVE SITING PROCESS

This section discusses comments on the topic of how DOE can develop a fair and inclusive siting process by: (1) building trust ([Section 4.2.1](#)), (2) developing a flexible and accessible process ([Section 4.2.2](#)), and (3) addressing information needs ([Section 4.2.3](#)).

4.2.1 Building Trust

Commenters emphasized that additional outreach will be needed to overcome the “trust deficit” discussed in the previous section. Several commenters recommended that DOE hire staff with extensive experience and expertise in stakeholder engagement. Commenters also voiced the view that public engagement should begin early and be maintained over time.

Some commenters said that the public engagement process should include listening sessions with marginalized and Tribal communities to compensate for past harm. A Tribal organization recommended that DOE establish an office in each community (including Tribal Nations) that expresses interest in being considered for hosting a consolidated interim storage facility.

Additionally, several commenters suggested that DOE establish local offices and that DOE officials should demonstrate their willingness to live near proposed consolidated interim storage sites. Figure 4 summarizes specific recommendations regarding building trust through the siting process.

4.2.2 Developing a Flexible and Accessible Process

Peer-reviewed studies generally show that a community’s perception of a siting process is central

to the community’s overall acceptance of the outcome of that process.¹⁰

Unique and flexible processes: A frequent theme in the RFI responses is that one-size-fits-all processes are insufficient for engaging communities, including Tribes.

Commenter Recommendations for Building Trust















-  Address concerns that interim storage will become permanent
-  Communicate openly and honestly
-  Create a Council of Elders and Youth
-  Engage the public early and often
-  Establish local offices
-  Finish the Yucca Mountain licensing process to restore confidence
-  Hire staff trained in public engagement
-  Hold listening sessions
-  Identify a single point of contact at DOE for the siting process
-  Improve information sharing and delivery
-  Invest in long-term relationships by spending time with people and communities
-  Involve current host communities in future decisions since they have experience
-  Prioritize rebuilding public trust over achieving a technological mission
-  Reference success stories from previous DOE projects

Figure 4: Commenter Recommendations for Building Trust

¹⁰ Liu, Lu, Thijs Bouman, Goda Perlaviciute, and Linda Steg. 2020. “Public Participation in Decision Making, Perceived Procedural Fairness and Public Acceptability of Renewable Energy Projects.” *Energy and Climate Change* 1 (December): 100013. <https://doi.org/10.1016/j.egycc.2020.100013>. Krütli, Pius, Michael Stauffacher, Dario Pedolin, Corinne Moser, and Roland W. Scholz. 2012. “The Process Matters: Fairness in Repository Siting For Nuclear Waste.” *Social Justice Research* 25 (1): 79–101. <https://doi.org/10.1007/s11211-012-0147-x>.

Instead, commenters urged for an approach that is flexible, iterative, and tailored to specific communities’ needs. Several commenters mentioned the adaptive, phased siting approaches used by other countries like Canada, Finland, and Sweden.

Several commenters recommended that DOE develop high-level principles or performance measures related to community engagement and fairness rather than attempt to define a specific process. Some further recommended focusing on key milestones rather than adhering to a strict timeline. However, several commenters also emphasized that it would be important to balance flexibility with the need for a stable and defensible process.

Community voice, inclusion, and access: Many commenters emphasized the importance of extensive and intentional outreach to a broad range of interested parties and urged DOE to seek opinions directly from underserved groups, such as low-income communities, racial and ethnic minorities, and Tribes. Several commenters expressed concern about a small group of people speaking for an entire community. One commenter emphasized that dissenting opinions should be encouraged. Another cautioned that the loudest voices should not be allowed to overshadow other views and perspectives. Table 1

summarizes specific feedback on designing a flexible and accessible consent-based siting process.

Meaningful participation: Commenters emphasized the importance of engaging communities early and often, while also ensuring that communities are informed and heard.¹¹ Some suggested that panels of community members, or Tribal leaders, should help structure local meetings. There was broad support for the idea that DOE should listen to, acknowledge, and address community concerns—including by showing how their input is being used in DOE’s decision-making processes. Several commenters expressed the view that meaningful participation also refers to the ability to shape process outcomes. Additionally, commenters emphasized the value of local knowledge and Tribal knowledge. Several commenters suggested that general assessments of benefits and drawbacks should be updated with local information. As one NGO respondent stated, “In the siting process, we urge the DOE not to rely solely on present scientific understanding of the environment, but also on Native American traditional knowledge... from potentially affected Indian tribes and/ or those tribes within a several hundred-mile radius from any proposed site(s). Combining such knowledge may provide a more thorough, and thus a more robust, framework from which to base siting decisions.”

Commenter Recommendations for a Flexible and Accessible Process	Frequency in RFI Responses*
Address the digital divide	Frequent
Hire meeting moderators and outreach experts	Frequent
Ensure translation and language accessibility services	Frequent
Ensure access to the meeting location	Frequent
Hold meetings at accessible times	Frequent
Develop a mechanism for communities to voice interest in being considered as a host	Somewhat Frequent
Provide notifications for public meetings	Somewhat Frequent
Design an accessible website	Somewhat Frequent
* “somewhat frequent” = mentioned in 1–9 unique RFI responses; “frequent” = mentioned in 10–30 unique RFI responses	

Table 1: Flexible and Accessible Process: Recommendations from Commenters

¹¹ The peer-reviewed literature supports this approach. Wilsdon, James, and Rebecca Willis. 2004. See-through Science: Why Public Engagement Needs to Move Upstream. London: Demos.

4.2.3. Addressing Information Needs for a Fair Process

As an essential aspect of fair process, the literature on procedural justice highlights what and how the information is provided. As part of a fair process, several commenters recommended that information exchange between DOE and communities should be approached as a two-way conversation, rather than a one-way transfer of knowledge. Another common theme was communities' need for high-quality information, tailored to their specific circumstances and interests, and provided on a regular basis.

Table 2 lists specific information needs identified in the RFI comments. In general, commenters emphasized three priorities with respect to information: access, transparency, and quality.

Basic Information	<ul style="list-style-type: none"> • Basic overview of consolidated interim storage facilities and why they are needed • Construction timelines • A curated list of beginner and intermediate level resources on the topic • Information on the consent-based process and how to engage in it • Information about nuclear waste storage options and types of nuclear waste • Length of interim storage, the lifespan of all aspects of the facility • What types and quantities of material will be stored at the proposed facility
Safety and Risks	<ul style="list-style-type: none"> • Information about safety • Radiation dosages anticipated • Risks to workers and the community (e.g., health, traffic congestion) • How communities with similar projects addressed concerns, mitigated impacts • Anticipated safety mechanisms • Worst-case scenarios and emergency response plans (e.g., risk from fire, flood, hurricanes, earthquakes, climate change) • Security measures
Community Benefits and Drawbacks	<ul style="list-style-type: none"> • Realistic estimates of economic and other community benefits • Types and number of jobs • Required changes to local infrastructure (e.g., rail) • Vested interests
Tools	<ul style="list-style-type: none"> • Site visits for government officials to other nuclear facilities (e.g., nuclear power plants, nuclear fuel fabrication facilities, etc.) • Glossary of terms • Tool to help DOE connect with communities, States, and various other stakeholders (e.g., Thriving Earth Exchange)
Laws	<ul style="list-style-type: none"> • Information and the roles of different federal agencies • National Environmental Policy Act (NEPA) review requirements • Other applicable laws
Regulation	<ul style="list-style-type: none"> • Frequency of inspections • How safety is assured
Environmental Impacts	<ul style="list-style-type: none"> • Short- and long-term environmental impacts from the centralized interim storage facility

Table 2: Information Needs: Recommendations from Commenters



5. THE CONCEPT OF CONSENT

The concept of consent is obviously central to consent-based siting. What is consent? Who gets to consent or not consent? How is consent or lack of consent determined? This section summarizes and analyzes feedback on these questions.

5.1 BACKGROUND

Several commenters thought it was important for DOE to clearly define consent before launching a consent-based siting process. In the academic literature, consent in the context of infrastructure siting can refer to a community's ability to opt into or veto plans to construct a facility or implement a project in their geographic area.¹² Since such decisions are made by groups, rather than by individuals, a collective group would have to consent. Related principles include the idea that consent must be free (i.e., voluntary), prior (i.e., given before decisions are made), and informed (i.e., based on accurate information). In addition, community members must have an opportunity to debate with each other before they reach a collective decision.

Several commenters were concerned the Department's plans for consent-based siting would not outlast a change in presidential administrations and suggested Congress enact a commitment to consent-based siting into law.

A number of commenters voiced opposition to consent-based siting or skepticism about its practicality for a variety of reasons. Several commenters expressed doubt that any community would consent to hosting a consolidated interim storage facility for spent nuclear fuel; others were skeptical that DOE was truly committed to seeking consent.

Several voiced the view that the process was too ill-defined to yield a solution and/or would take too long. Others wanted more industry leadership (relative to the federal role). A few commenters said that the federal government should complete its adjudication of the Yucca Mountain repository project instead of pursuing consent-based siting.

5.2 COMMENTS ON THE MEANING OF CONSENT

How to define “consent” was a common theme, directly or indirectly, in responses to the 2021 RFI. This feedback is also illustrated in [Figure 5](#), on the following page. Commenters disagreed about whether consent should be determined through a process of representative democracy or direct democracy—that is, whether elected leaders could consent for the people of a community or if constituents should have a direct say and participate in a referendum vote. Among those who argued for a direct vote, there was disagreement over whether consent should require a majority or supermajority in favor. One academic commenter suggested that a sizeable minority in opposition, perhaps 20 percent, would indicate that a community has not given consent.

While some commenters criticized the lack of a definition of consent, others emphasized the importance of a flexible definition and preferred a process for defining consent that communities undertake in partnership with DOE, using guideposts rather than strict definitions. Commenters referenced Sweden's phased approach, which includes offramps at the beginning of each step so that communities have clear opportunities to withdraw consent.



¹² Weblar, Thomas, and Seth Tuler. 2021. “Unpacking the Idea of Democratic Community Consent-Based Siting for Energy Infrastructure.” *Journal of Risk Research* 24 (1): 94–109. <https://doi.org/10.1080/13669877.2020.1843068>. Quotation from p. 98

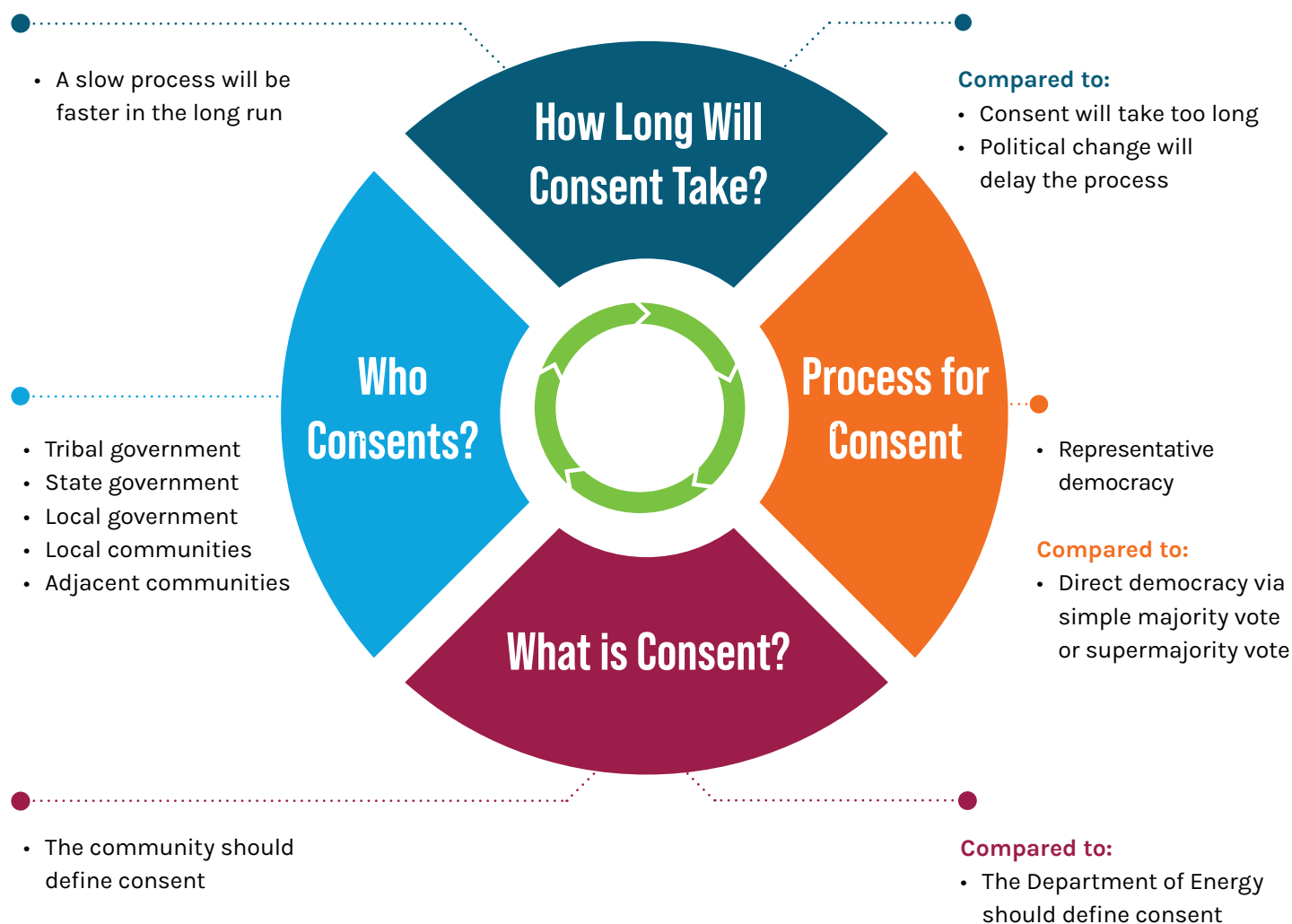


Figure 5: Overview of Feedback From Commenters on Consent

“Community consent is an idea and standard that is best served by democratic processes and community engagement at the local and Tribal levels. A consent-based siting process should in fact seek to minimize involvement from the State other than what may be required by state laws.”

—NGO commenter

A frequently emphasized point was that communities must be allowed to refuse to consent—in other words, communities should have an opt-out option. As one group put it:

“Through the process, should potentially interested communities decide to opt out of consideration—for whatever reason—that ought to be viewed as a reasonable outcome that permits the DOE to focus its ongoing efforts with other communities that remain interested in learning more about the prospects of hosting a spent nuclear fuel storage facility.”

Some commenters believed that consent is more meaningful if the power to veto a project is readily available. Some commenters, however, argued that communities should be allowed to withdraw consent only for an evidence-based reason.

A related issue raised by a number of commenters concerns the use of the term “hosting” to describe what communities are consenting to—as in, “a community consents to host a nuclear waste facility.” Several commenters argued that this phrasing creates a misimpression that a nuclear waste facility (like an outside guest) would remain separate from the community, rather than become an integral part of the community. They suggested reconsidering this term.

5.3 COMMENTS ON THE QUESTION OF WHO CONSENTS

Many commenters addressed the question of who should provide consent (local versus State government) and if some jurisdictions or groups should be given more weight than others. Views on this topic varied significantly. Some commenters argued that consent should mainly come from the local government(s) and people who live near the proposed project site. They argued that local authorities are better positioned to negotiate on a community’s behalf than the State government. Some also reasoned that if people living in rural areas want the benefits of a nuclear waste facility, the State should not be able to override them.

Others conveyed that the State could have a say, but that input from local communities should be given more weight. One commenter suggested that lack of State opposition to a facility (as distinct from active State consent) should be sufficient to proceed. In a related point, several commenters raised questions about whether the term “community” should be defined narrowly or expansively—and whether consent should be sought from communities in a broader area rather than just in the immediate vicinity of a facility.

Several commenters stressed the importance of Tribal Nation consent. They emphasized that Tribal Nations are sovereign, and that DOE should consult them in a government-to-government manner to discuss opportunities associated with hosting a consolidated interim storage facility. As one commenter stated: “Tribes are not and should not be considered stakeholders or EJ [environmental justice] communities. As noted above, Tribes are sovereign nations, and the federal government has a duty to consult with Tribes, regardless of any EJ actions DOE may pursue.” Other commenters spoke to the importance of consulting Tribes even if a proposed site is not on sovereign Tribal land or in a location that directly affects that land.

Some commenters argued that the State should be the primary entity providing consent. State legislation to formally accept a facility would reduce ongoing political risk, although one State commenter explained that a State legislature would have to perceive the facility to be sufficiently beneficial to take this action. Some commenters argued that a local community would not want to proceed unless it knew it already had the support of the State government. Others were concerned that a State could veto a project that a local community approved. These commenters emphasized that DOE ought to consult States before local communities.

A State government commenter from New Mexico encouraged DOE “to confront any remaining sense within the Department of the inconsequentiality of state laws and state opposition to agency actions.” This commenter also referenced language in Section 117 of the Nuclear Waste Policy Act, which states in the context of site suitability and site characterization for a repository that the Department “shall consult and

cooperate with the Governor and legislature of such State.”¹³ Another commenter referenced a Western Governors’ Association resolution, which they summarized as stating that no consolidated interim storage facility “shall be located within the geographic boundaries of a western state or US territory without the written consent of the Governor in whose state or territory the facility is to be located.”¹⁴ Additionally, commenters from the States of Washington and California referenced State regulatory authority over nuclear waste.

Finally, several commenters thought that consent was needed at both the local and State level. They argued that DOE should approach State and local governments simultaneously to avoid a situation where a local government approves a facility, but the State vetoes it. These commenters emphasized that early State participation was important because the benefits of a facility are greatest in the local area, while incentives to accept the facility decrease further away. As one commenter pointed out, this also means that State leaders are more likely than local leaders to receive pushback in an election for consenting to a facility, since many of the benefits would go to the local area.

5.4 COMMENTS ON THE QUESTION OF HOW LONG IT MIGHT TAKE TO ACHIEVE CONSENT

Commenters were divided about how long it might take the federal government to achieve consent for the siting of a consolidated interim spent nuclear fuel storage facility. Some commenters argued that a lengthy and careful process is needed, while others were concerned that a consent-based process would take too long. Several commenters requested additional information on the timeframe for consent-based siting and the timeline

“A state’s consent is best determined through its policymaking process which is conducted by the legislative branch and implemented by the executive branch. This allows for states to fully assess, from numerous viewpoints, various potential impacts of the creation of a nuclear waste repository and would ensure that the many interests and the voices of a state have a role in the process.”

—State Legislature Organization

for opting out. Additionally, one commenter asked that DOE include an overall schedule for consent-based siting in its planned funding opportunity announcements.

Commenters who emphasized the need for a careful, deliberative process pointed out that achieving consent requires time, including time for communities to decide if they even want to participate. As noted in one response, “Tribes will need adequate time to assess whether this is an activity in which they are interested in participating.” This commenter indicated that a compressed schedule might prevent meaningful participation and deter some communities, especially since communities require time to develop local processes, hire staff, and conduct field studies. These commenters also argued that the timeline for consent-based siting should be flexible and driven by the community. Their overall view, however, was that a ‘go slow to go fast’ approach is also more likely to yield durable success, and the current DOE process feels rushed.

Commenters who expressed the opposite view—i.e., that a consent-based process will take too long—emphasized the urgency of siting nuclear waste facilities. They warned that a lengthy process could become burdensome and discourage participation; they also pointed to increased risk during a lengthy process, as consent could be revoked as elected leaders change. (For this reason, some argued for including a legally enforceable contract

¹³ The NWPA focused repository site suitability and site characterization efforts on a single site (Yucca Mountain). See .e.g., NWPA, sec. 160.

¹⁴ Western Governor’s Association. Policy Resolution 2022-09. Radioactive Materials Management. <https://westgov.org/images/editor/WGA-PR-2022-09-Radioactive-Materials-Management51.pdf>

mechanism at the State level, so that political change does not disrupt the process.) Finally, numerous responses referenced consent-based siting processes in other countries, particularly Canada, Finland, and Sweden, and urged DOE to draw on lessons learned from these efforts.

5.5 COMMENTS ON THE RESOURCES COMMUNITIES NEED TO PARTICIPATE IN A CONSENT-BASED SITING PROCESS

Several respondents identified needs for stakeholder funding and other resources to support communities in investigating whether to host a consolidated interim storage facility. A very common theme in the RFI responses centered on stakeholders’ ability to access the resources they need to fully participate in consent-based siting. Commenters identified three specific types of resource needs: (1) direct funding to

communities, municipalities, and Tribal governments, (2) **independent oversight** from communities, and (3) funding or other resources for **community engagement**. Table 3 explains these categories. Figure 6 depicts the relative frequency with commenters highlighted each type of resource need. Note that some commenters addressed more than one type of resource need.

Types of Resource Needs Identified by Commenters

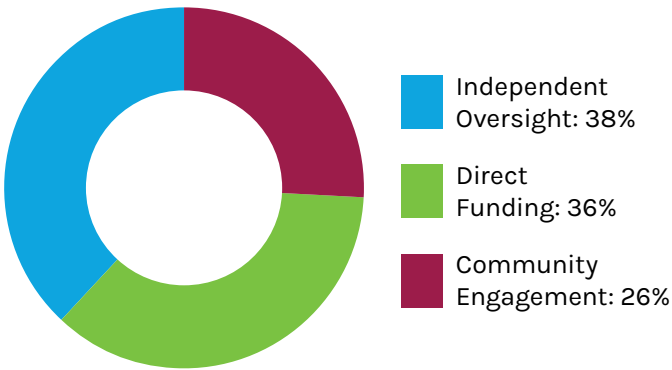


Figure 6: Types of Resource Needs Identified by Commenters

Type of Resource Needs	Specific Commenter Recommendations	Frequency in RFI Responses*
Direct Funding for Communities, Municipalities, & Tribal Governments	<ul style="list-style-type: none"> Provide grants to communities Hire local staff Cover the costs required to consider consent 	Frequent
Independent Oversight	<ul style="list-style-type: none"> Hire independent experts for technical assistance and independent research Provide legal counsel for on-going consultation Establish independent advisory panels 	Frequent
Funding or Other Resources for Community Engagement	<ul style="list-style-type: none"> Ensure adequate participation Organize educational workshops Share information Offer sustained funding Maintain and expand support for existing stakeholder engagement organizations 	Frequent
* “frequent” = mentioned in 10–30 unique RFI responses		

Table 3: Resource Needs for Consent: Recommendations from Commenters

5.6 SUPPORT FOR AND OPPOSITION TO CONSENT-BASED SITING

The RFI responses include frequent expressions of support for a consent-based approach to siting nuclear waste management facilities, or for the concept of securing consent to site such facilities. They also include frequent expressions of opposition to the concept or process of consent-based siting, although the number of unique responses that express support exceeds the number that express opposition.

Several commenters were concerned that DOE's plans for consent-based siting would not outlast a change in presidential administrations and suggested that Congress enact a commitment to consent-based siting into law.

Other commenters voiced opposition to, or skepticism about, a consent-based approach to siting. Their reasons varied, but often reflected the themes of distrust or skepticism discussed in previous sections, including the view that a consent-based process won't succeed, will take too long, or would fail to adequately reflect the perspectives of some key stakeholders.

“The Blue-Ribbon Commission noted that funding for communities was of particular importance to allow communities to hire their own independent analysts to confirm information. The ability to independently verify/review the information provided is vital for communities and their consent to be valid.”

—NGO commenter



6.FAIR OUTCOMES, SOCIAL EQUITY, AND ENVIRONMENTAL JUSTICE

6.1 BACKGROUND

Section 4 of this report discusses the question, “What makes a siting process fair?” This section focuses on RFI responses to a different question: “What makes the outcomes of a siting process fair?” “Distributive justice” is the term used in the sociology literature to refer to the fairness of a project or an action’s outcomes, just as “procedural justice” is the more formal term for “fair process”. As such, distributive justice requires accounting for who within a community or society benefits or loses from a project or action.¹⁵

An outcome with drawbacks that disproportionately affect one group, while the benefits primarily accrue to another group, is unjust. Various factors are potentially relevant for assessing distributive justice, including where a project is located, the project’s characteristics and impacts (e.g., pollution, noise, or number and type of jobs), and who has access to the project’s benefits.

Issues of distributive justice are also relevant at the national scale and depend on how different communities across the country are affected by



Figure 7: Word Cloud, Fair Distribution Themes

a proposed facility. In general, the benefits and drawbacks of a specific project will affect some areas and not others. Related considerations include which areas of the country benefit or have benefited from nuclear energy generation and how spent nuclear fuel is currently being stored in communities that host commercial nuclear power plants. Figure 7 highlights words that appeared most often in RFI comments on the topic of distributive justice, and Figure 8 illustrates main themes in comments on this subject.



Figure 8: Overview of Main Comment Themes on Fair Outcomes (Distributive Justice)

¹⁵ Jenkins, Kristen, Darren McCauley, Raphael Heffron, Hannes Stephan, and Robert Rehner. 2016. “Energy Justice: A Conceptual Review.” *Energy Research & Social Science* 11(January): 174-182.

6.2 CONCERNS FOR COMMUNITIES WHERE SPENT NUCLEAR FUEL IS CURRENTLY BEING STORED

DOE heard from a few communities with power plant sites where spent nuclear fuel is currently being stored. DOE also received responses from commenters who do not live near sites where this material is currently being stored (Table 4). Some commenters believed that spent nuclear fuel ought to be left at current storage sites until DOE develops a permanent disposal facility.

There were frequent responses that expressed urgency about moving spent nuclear fuel from existing reactor sites as soon as possible, for several reasons. These commenters expressed the view that DOE’s failure to fully implement a plan for geologic disposal has forced communities to continue hosting spent nuclear fuel much longer than expected.

Several commenters indicated this situation has resulted in a breakdown of trust between community members and government agencies. Some commenters expressed concern that existing power

plants sites are ill-prepared to store spent nuclear fuel for long periods of time, noting that power plant locations were selected for technical and geographic benefits related to nuclear electricity generation, not long-term spent nuclear fuel storage. Therefore, they expressed concern that these sites pose risks if they become long-term storage sites by default.

Another frequently expressed view, however, was that spent nuclear fuel should be left at current sites until the federal government opens a repository. Several commenters argued that communities near existing nuclear power plants have generally benefited from hosting facilities and should therefore be responsible for spent nuclear fuel storage. From their perspective, it would be unfair to ask a community that has not had access to economic benefits of hosting a nuclear power plant to store this material. Furthermore, they thought it would be unfair if there were a circumstance in which a state that has not had access to nuclear-generated electricity stored nuclear waste. One State commenter saw this as a social equity issue at the State scale. Some commenters were concerned about transporting spent nuclear fuel to interim storage and then moving it again to a repository. Many of these commenters, however, also shared the view that existing at-reactor facilities are not equipped to store spent nuclear fuel for long periods of time. Therefore, they argued that existing storage sites should be reinforced or improved.

Main Themes	Specific Concerns	Frequency in RFI Responses*
Government failure	<ul style="list-style-type: none">• Department history of targeting underserved communities• Failure to plan for fair distribution• Lack of trust between communities and government agencies	Frequent
Remove waste from current locations	<ul style="list-style-type: none">• Communities with spent nuclear fuel at power plant sites did not consent to long-term storage• Facilities are not equipped for longer-term storage• New storage location(s) are urgently needed to address risks and safety concerns• Spent nuclear fuel is left at temporary locations longer than anticipated	Frequent
Leave waste at the current site until permanent site is identified	<ul style="list-style-type: none">• Current facilities should continue storing spent nuclear fuel• The power plant operator should be responsible for waste storage• Transportation of waste twice should be avoided (see Section 7)	Frequent
* “frequent” = mentioned in 10–30 unique RFI responses		

Table 4: Fair Outcomes (Distributive Justice) Associated with Spent Nuclear Fuel Management and Facility Siting: Concerns from Commenters

6.3 POTENTIAL BENEFITS OF HOSTING A CONSOLIDATED INTERIM STORAGE FACILITY

Several commenters identified potential incentives and benefits for communities that consent to host a consolidated interim storage facility. The main benefits noted by commenters include economic activity, job creation, education, and the potential colocation of other facilities. One State government commenter said, “We suggest that framing the inquiry in terms of what can benefit historically disadvantaged communities in the nuclear waste space may be a framework worth exploring.” Table 5 summarizes these benefits and incentives.

General economic benefits: General economic or financial benefits (e.g., tax revenue) were very frequently mentioned in the RFI responses as among

the reasons a community might consider hosting a spent nuclear fuel storage facility. Several commenters recommended developing cost-benefit analyses to help communities understand, and assess the fairness of, potential benefits and drawbacks; some further recommended hiring impartial organizations to conduct these types of analyses. An NGO commenter suggested that communities themselves should identify the social, cultural, and economic benefits they desired in connection with hosting a facility.

Job creation benefits: Job creation was frequently identified as a potential benefit of consenting to host a consolidated interim storage facility. Commenters said that jobs associated with the facility should provide sufficient income to support a middle-class lifestyle, especially if the host community is low-income. Commenters suggested that DOE or other government agencies facilitate long-term job support through apprenticeship programs or on-the-job training, for example, to ensure that local residents are qualified for available jobs.

Main Benefit Themes Identified	Specific Benefits Identified	Frequency in RFI Responses*
General economic issues	<ul style="list-style-type: none">• Tax revenue• Cost-benefit analysis needed	Very Frequent
Colocation of other facilities and types of development	<ul style="list-style-type: none">• Long-lasting, supplemental, and additional economic benefits including jobs• Research and development and other opportunities• Integrating the facility into the community and increasing community well-being	Very Frequent
Job creation benefits	<ul style="list-style-type: none">• Stable, long-term, permanent jobs• Jobs created throughout the process of constructing a Consolidated Interim Storage Facility• Indirect job creation• Good paying jobs• Apprenticeship programs or on-the-job training• Jobs should go to residents	Frequent
Educational benefits	<ul style="list-style-type: none">• Increased education opportunities• Increased funding for education• Education for young adults pursuing nuclear sector jobs• Community education programs on nuclear energy	Somewhat Frequent
* “somewhat frequent” = mentioned in 1–9 unique RFI responses, “frequent” = mentioned in 10–30 unique RFI responses, “very frequent” = mentioned in more than 30 unique RFI responses		

Table 5: Incentives and Benefits to Host Communities: Recommendations from Commenters

Education benefits: A few responses addressed potential educational benefits, including the possibility that increased tax revenue could be used to support educational opportunities.

Colocation of additional development: Commenters frequently mention the colocation of additional facilities as a potential benefit to a community that consents to host a consolidated interim storage facility. Examples could include a manufacturing facility, a research and development park, community-scale renewable energy generation, green space or parks, and agricultural development. Commenters also emphasized that communities themselves should identify these co-development opportunities. As one NGO commenter put it, “DOE should be flexible and prepared to discuss any interests and ideas of a potential host.” Several commenters specifically recommended the colocation of research and development facilities that focus on innovation in nuclear waste management.

However, several commenters expressed concern about colocation. One respondent was worried that radiation would contaminate a collocated facility. Other commenters believed that a spent nuclear fuel storage facility should be very isolated to reduce associated risks, whether from an accident or a physical (or cyber) attack. One commenter said that first responders could struggle to address damages to the storage facility and collocated infrastructure in the case of a natural disaster.

Concerns about “bribery”: Another frequent concern in the RFI responses was that communities will, in effect, be bribed to host a facility. As one commenter stated, “Jobs, infrastructure, development, and social program funding are things a humane society would already be doing for its most vulnerable citizens, without holding a high-level nuclear waste ‘gun’ to their heads.” Another noted that “bribery” will not be sufficient to gain trust. Some commenters worried that DOE will target marginalized communities to host a nuclear waste storage facility.

6.4 POTENTIAL DRAWBACKS OF HOSTING A CONSOLIDATED INTERIM STORAGE FACILITY

Commenters identified several potential drawbacks of hosting a facility. The main categories of concern are summarized below.

Health and safety drawbacks: This was the most frequently mentioned type of drawback. Commenters voiced concern that an explosion, spill, or accidental release of radiation (or other contamination) could threaten residents’ safety and lead to long-term environmental impacts, potentially restricting future land uses. One commenter saw trade-offs between accepting local social drawbacks and protecting public health at the national level, stating, “All waste disposal is a drawback, but necessary for public health.”

Economic drawbacks: Potential financial drawbacks for host communities, such as potential harm to existing local businesses was another frequent concern. An NGO commenter discussed possible effects on local farming, ranching, resource extraction, tourism, and recreation. Other commenters thought the existence of a spent nuclear fuel storage facility could adversely affect local property values.

Environmental drawbacks: Several commenters expressed concern about general environmental impacts and risks that could be associated with spent nuclear fuel storage facilities. One response mentioned environmental impacts from transportation. Another specific concern was that environmental impacts could restrict existing or future land uses, such as agricultural or recreation and tourism.

Social drawbacks: A representative from a Tribal organization said that previous siting attempts had damaged the “social fabric” of the communities involved ([Table 6](#)). Similarly, a State government representative noted that siting decisions can be controversial and that “public distrust can erupt into hostility.” Stigma for the host community was another concern.

Main Drawback Themes	Specific Drawbacks Identified	Frequency in RFI Responses*
Health and Safety drawbacks	<ul style="list-style-type: none"> • Risk to the community • Transportation risks • Health and safety risks 	Frequent
Economic drawbacks	<ul style="list-style-type: none"> • Decreased tourism, recreation, and other economic activities critical to communities • Effects on existing industries (e.g., farming, ranching, resource extraction) • Lost jobs • Reduced property values • No benefit from nuclear energy production • Transportation infrastructure considerations 	Frequent
Environmental drawbacks	<ul style="list-style-type: none"> • General environmental impact concerns • Environmental contamination • Environmental impacts during transportation 	Somewhat Frequent
Social drawbacks	<ul style="list-style-type: none"> • Increased public distrust and hostility • Damage to community relationships • Political controversy 	Somewhat Frequent
* “somewhat frequent” = mentioned in 1–9 unique RFI responses, “frequent” = mentioned in 10–30 unique RFI responses		

Table 6: Drawbacks for Host Communities: Concerns from Commenters

6.5 CONCERNS THAT A SITING PROCESS COULD TARGET UNDERSERVED COMMUNITIES

As already noted, many commenters expressed concern that an underserved community would be “targeted” to host a nuclear waste storage facility. [Table 7](#) summarizes these concerns. They noted that such communities may lack the political leverage, financial means, or overall ability to engage in the processes needed to veto a proposed facility. Commenters pointed out that forcing or “bribing” vulnerable neighborhoods to accept such facilities will reinforce historical inequities. Several saw this as a form of “environmental racism” that must be avoided in future siting processes. For example, an NGO

commenter voiced the view that, “A free, prior, informed consent process should exclude communities that have been targeted for toxic waste sites and Native American land as an environmental justice criterion.”

Some commenters suggested that DOE approach wealthy communities: “Design a system that would be in a wealthy community. Educate that community. Only when a wealthy community finds acceptance of nuclear waste in their midst should that be offered to lower income communities.” Ultimately, these commenters wanted assurance that DOE will give equal consideration to siting opportunities in privileged communities.

One NGO commenter suggested implementing a credit system for clean energy, which would include credits for hosting nuclear waste facilities. This commenter suggested that, in this system, “‘demerits’ [would be] assigned to carbon emissions.”

Concerns Identified by Commenters	Frequency in RFI Responses*
Vulnerable communities face disproportionate burdens	Very Frequent
Government needs to meaningfully engage with vulnerable communities	Very Frequent
Environmental racism and environmental justice violations	Very Frequent
Vulnerable communities should be withdrawn from consideration, and less vulnerable communities should be equitably considered	Frequent
Vulnerable communities distrust government agencies	Frequent
* “somewhat frequent” = mentioned in 1–9 unique RFI responses, “frequent” = mentioned in 10–30 unique RFI responses, “very frequent” = mentioned in more than 30 unique RFI responses	

Table 7: History of Targeting Vulnerable Communities: Concerns from Commenters

Environmental racism: The importance of avoiding environmental racism when siting of interim storage facilities was frequently emphasized in the RFI responses. There is some debate about how to define “environmental racism” in the academic literature. Benjamin Chavis, a leading environmental justice scholar, offers a foundational definition:¹⁶

“[R]acial discrimination in policy-making and enforcement of regulations and laws, the deliberate targeting of communities of color for toxic waste facilities, the official sanctioning of the presence of life-threatening poisons and pollutants for communities of color, and the history of excluding people of color from leadership of the environmental movement.”¹⁷

Some commenters explicitly labeled the practice of siting controversial facilities in historically marginalized or vulnerable communities without their consent as racist. They remarked that environmental racism is embedded in the fabric of American society. Commenters suggested that this racism must be addressed through systemic change to avoid replicating past actions that negatively affect vulnerable communities.

6.6 INTERGENERATIONAL EQUITY

Concern about the long-term impact of nuclear waste and a desire to avoid leaving this material for future generations to manage was a frequent theme in the RFI responses. Commenters addressed the lifespan of radioactive hazards associated with spent nuclear fuel and expressed concern about the uncertainty of future waste management practices. An industry commenter stated, “If the facility does not provide effective long-term waste isolation, then future inhabitants could be at risk.” A State commenter pointed out that future generations might define consent differently than the current generation. Several commenters expressed frustration with the government’s approach to long-term nuclear risks and worried that the government will “leave the problems to future generations.” One commenter shared the view that involving Indigenous communities or their organizations, such as the Council of Elders and Youth, in decision-making processes can prompt new ways of thinking about intergenerational equity.

¹⁶ Holifield, Ryan. 2001. “Defining Environmental Justice and Environmental Racism.” *Urban Geography*, 22(1):78-90.

¹⁷ As cited in Holifield (2001, p.83)

7. PERSPECTIVES ON INTERIM STORAGE AS PART OF A WASTE MANAGEMENT SYSTEM

The 2021 RFI, in addition to seeking input on consent-based siting, sought comment on consolidated interim storage as part of an integrated waste management system. Responses to this set of issues touched on a variety of concerns, including the length of interim storage, the need for new national legislation to address nuclear waste management, and views on nuclear energy more broadly.

7.1 COMMENTS ON THE LENGTH OF INTERIM STORAGE

Numerous commenters expressed concern that a consolidated interim storage facility will become a de facto permanent storage facility since a repository for final disposal of spent nuclear fuel does not yet exist. Input on this topic conveyed three main themes:

- **Uncertainty related to a disposal facility:** Commenters sought assurance that a consolidated interim storage facility will be genuinely interim and will not become permanent. Several commenters also noted that measurable and publicly visible progress toward a repository would alleviate these concerns.
- **Community confidence:** Several commenters pointed out that the host community must consent to the length of time the facility is licensed to stay open, and that this length of time will have to align with community expectations. They stressed that open and honest communication with DOE about a facility's operational timeline is essential.
- **Safety:** Some commenters requested assurance that a facility will not stay open longer than is safe and will be carefully monitored as long as spent nuclear fuel is present. Several questioned whether current storage containers and systems will be safe for the duration of a facility's operation.

Many commenters feel that progress on a repository should be simultaneous with efforts to develop

consolidated interim storage. They emphasized that progress on both fronts is critical to restore trust and gain community consent to host a storage facility. However, some commenters argued that DOE should make progress on a repository before pursuing consolidated interim storage.

7.2 VIEWS ON DEVELOPING ONE OR MORE CONSOLIDATED INTERIM STORAGE FACILITIES

Among the RFI responses that took a position on the merits of developing consolidated interim storage capability, significantly more responses voiced opposition to consolidated interim storage than voiced support for consolidated interim storage.

7.2.1 Comments in Support of Consolidated Interim Storage

Comments in support of consolidated interim storage came from a variety of stakeholders, including industry, NGOs, and local governments. Reasons cited in support included the following:

- Reduces taxpayer liability for the costs of storing nuclear waste at power plant sites. This will free funds that can be used for other projects, such as the continued cleanup of legacy sites.
- Alleviates the burden on communities near power plants that did not consent to store spent nuclear fuel for long periods of time.
- Allows land at shut down nuclear plant sites to be redeveloped for other, more productive uses than storing spent nuclear fuel.
- Demonstrates the capability to safely transport and store spent nuclear fuel which will help build trust for the future development and operation of a repository.

7.2.2 Comments in Opposition to Consolidated Interim Storage

As already noted, a larger number of RFI responses expressed opposition to consolidated interim storage. They cited a variety of reasons:

- A preference for sending the waste straight to a repository for disposal.
- Concern that development of consolidated interim storage facilities might detract from work on a repository or, as a State commenter put it, “erode the urgency.”
- A preference for leaving spent nuclear fuel at existing power plant sites where it is currently stored. Several commenters offered suggestion to consider so-called hardened on-site storage (HOSS) at existing reactor sites instead of building consolidated interim storage facilities.
- Concern about public health or environmental risks from operating a consolidated storage facility, including (for some commenters) risks from transporting spent nuclear fuel to the facility or risks to underserved communities near the facility.

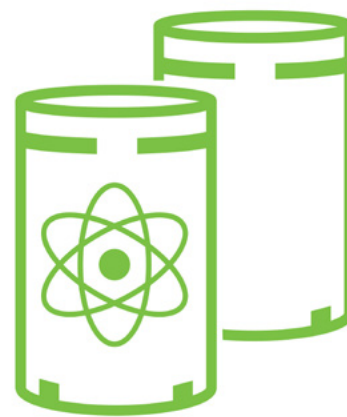
7.3 COMMENTS ON DEVELOPING MORE THAN ONE CONSOLIDATED INTERIM STORAGE FACILITY

Several responses recommended developing consolidated storage facilities in each region of the country, both to reduce transport distances and to promote a geographically fair distribution of burdens.

7.4 COMMENTS ON THE NEED FOR NEW LEGISLATION AND A NEW NATIONAL WASTE STRATEGY

Forty unique pieces of correspondence inquired about the Department’s legal authority related to developing a consolidated interim storage facility. Some commenters pointed out that under the Nuclear Waste Policy Act (NWPA), DOE cannot proceed to construct such a facility until a construction authorization has been issued for a repository. These commenters discussed the NWPA’s intent to ensure the Nation advances a disposal solution in tandem with storage. Commenters’ interpretation of the law differed.

Many commenters stated that DOE could work on a consent-based siting process but could not operate a consolidated interim storage facility without a permanent disposal solution. Some thought that DOE should not begin a consent-based siting selection process for a consolidated storage facility until Congress amends the NWPA. One commenter expressed the view that developing a federal storage facility reverses a legal precedent for holding private companies responsible for interim storage and the federal government responsible for long-term storage.



A frequent theme in the RFI responses was the need for new or amended legislation to support a national strategy for integrated nuclear waste management. Commenters had various suggestions for such legislation and voiced different views on changing the linkages in current law between repository development and consolidated storage capability. For example, one commenter suggested adopting legislation to affirm the interim nature of consolidated storage facilities and to require that spent nuclear fuel be returned to nuclear power plant sites if there is no repository by the end of a storage facility's licensed lifetime.

Additionally, several commenters suggested that Congress pass a law requiring consent-based processes for siting nuclear waste facilities. Finally, five comments sought clarification from Congress about whether Yucca Mountain remains the only option for a repository.

7.5 COMMENTS ON THE NEED FOR LEADERSHIP IN INTEGRATED WASTE MANAGEMENT

Another very frequent theme in the RFI responses was the view that a new, independent third-party entity is needed to lead the development of an integrated waste management system. Lack of trust in DOE, a desire

for more consistency in federal leadership, and the benefit of greater isolation from politics were among the reasons provided. Several commenters specifically noted the closure of DOE's Office of Civilian Radioactive Waste Management as underscoring the need for greater mission focus and new leadership. As one NGO respondent put it:

"We support moving the nuclear waste management program out of DOE entirely to an independent waste management organization, such as a federal corporation. Unlike DOE, such an entity would singularly focus on the mission of nuclear waste removal, be held accountable for progress on that mission, and better insulate the program from undue political interference."

Commenters referenced the Blue Ribbon Commission's recommendation for a new waste management organization and model organizations in other countries, such as Canada's [Nuclear Waste Management Organization \(NWMO\)](#). Specific recommendations for what form a new national waste management entity might take included a private industry-led effort, a public-private initiative, and a new government agency. Some commenters also wanted more citizen and stakeholder leadership in a new waste management organization.

"Current barriers include the lack of any program leading to the development of a permanent geologic disposal facility, current restrictions that unduly link the siting, licensing and operation of such facilities to progress on the proposed Yucca Mountain repository license and perhaps, most importantly, the lack of direction/policy committing the federal government to enter into an enforceable and durable 'consent agreement' with State, Tribal or local governments."

—Local government commenter

7.6 COMMENTS ON PRIVATE, COMMERCIAL EFFORTS TO DEVELOP CONSOLIDATED STORAGE CAPABILITY

Current efforts by two private companies to develop consolidated interim storage facilities at sites in New Mexico and Texas were very frequently referenced in the RFI responses. It should be noted that these efforts are independent from DOE.¹⁸

Among commenters who mentioned these initiatives, many voiced opposition and some also expressed confusion about why a consent-based process had not been used to site the proposed projects. A few commenters said they weren't sure whether DOE was leading these private efforts and, if not, why separate private initiatives were going forward without DOE's involvement. Some commenters also expressed concern about proposed storage arrangements at the private facilities. Finally, a few responses voiced interest in the possibility that DOE could contract for private storage services rather than developing a federal facility.

“The Department should build considerations of social equity and environmental justice into a consent-based siting process by not treating federally owned/managed wastes different than commercially owned/managed wastes when it comes to siting an interim storage facility. Further, the Department should work with the NRC to establish a singular consent-based process for federal and commercial wastes. Anything less is inherently unequal and will not further environmental justice for impacted communities.”

—State government commenter

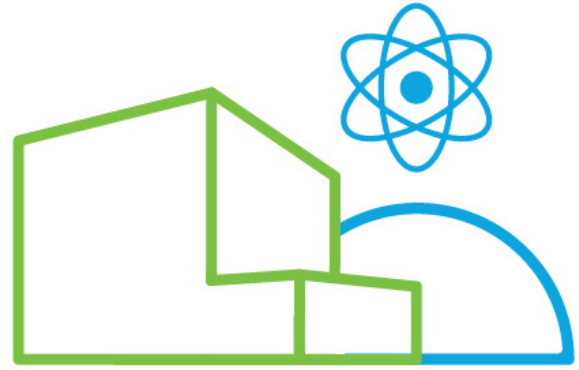
7.7 COMMENTS ON NUCLEAR ENERGY

Commenters frequently shared more general views about nuclear energy. Among the former group, some expressed concern that DOE is pursuing waste management to facilitate the development of new nuclear power plants, which they oppose. A subset of commenters asked why nuclear plants are still operating when there is no way to dispose of spent nuclear fuel. Several commenters who oppose nuclear power disagreed that nuclear power is essential for climate change mitigation.

In contrast, many commenters who support nuclear energy cited climate concerns. They emphasized that developing a waste management system for spent nuclear fuel will be important to the technology's future viability. Commenters also discussed the importance of nuclear power as a baseload source of electricity.

¹⁸ A private entity can license, construct, and operate an interim storage facility under existing law. The private entities pursuing commercial interim storage facilities in Texas and New Mexico submitted license applications to the Nuclear Regulatory Commission (NRC) in 2016 and 2017, respectively.

7.8 COMMENTS ON THE COST OF SPENT NUCLEAR FUEL STORAGE AND WHO SHOULD PAY



Some commenters expressed concern about the annual appropriations process for authorizing spending from the Nuclear Waste Fund (NWF). Several urged Congress to clarify whether it plans to direct DOE to restart the licensing process for Yucca Mountain or identify alternative repository sites. Some commenters requested an updated study on the adequacy of the NWF, and clarification on whether the NWF or the U.S. Treasury's Judgement Fund (which pays the U.S. government's legal liabilities) would be used to pay for a consolidated interim storage facility. (The reasoning in this response was that the NWF should cover interim storage costs since the federal government has not met statutory and contractual deadlines for developing a repository and accepting spent nuclear fuel). Similarly, another response argued that Congress should pay for a storage facility using the NWF, since nuclear utility customers have met their obligation to pay into the Fund. According to this comment, using the NWF would indicate that the federal government nation is taking the storage facility siting process seriously. One response recommended that Congress also provide sufficient funding for a public engagement effort.

Commenters raised several questions about consolidated storage costs. One commenter requested information on the full cost of building and operating a consolidated storage facility. Several others were interested in the total cost of nuclear energy, with storage, transport, and disposal costs included, as well as costs related to safety and security and public health impacts. Another question was whether storage canisters or casks would need to be replaced over the life of a facility and how much that would cost.

Views on the financial pros and cons of consolidated interim storage diverged. Several commenters saw a strong argument for consolidated storage based on

the potential to limit taxpayer liability for payments to compensate utilities for the costs of at-reactor storage (these payments are made from the U.S. Treasury's Judgment Fund, which is not subject to discretionary congressional appropriations). Others saw the potential for consolidated interim storage to increase overall costs (for example, because it would require the transport of spent nuclear fuel first to a storage facility and later to a repository).

Commenters expressed different views about who ought to pay for consolidated spent nuclear fuel storage—nuclear utility ratepayers vs. taxpayers vs. the owners or operators of nuclear power plants—and about whether utility companies could continue to afford at-power-plant storage costs. For example, the Community Engagement Panel for the shutdown San Onofre Nuclear Generating Station (SONGS) in California voiced concern that plant's decommissioning fund is not adequate to cover the costs of storing spent nuclear fuel at the SONGS site for an indefinite but potentially protracted length of time. Finally, some commenters wanted assurance that the federal government will pay all costs associated with consolidated interim storage, including costs to meet related infrastructure requirements, as well as any costs related to potential accidents, first response capabilities, and cleanup.

8. SPENT NUCLEAR FUEL TRANSPORTATION

Many commenters spoke to the challenges and issues involved in transporting spent nuclear fuel to a consolidated interim storage facility. Figure 9 provides a visualization of the words that appeared most frequently in comments on this topic.



Figure 9: Word cloud, Transportation Themes

8.1 COMMENTS ON TRANSPORTATION REQUIREMENTS RELATED TO CONSOLIDATED INTERIM STORAGE

As already noted, a number of commenters recommended leaving spent nuclear fuel at nuclear power plant sites until a deep geologic repository is available to limit transport. Several commenters were interested in comparing costs between leaving spent nuclear fuel at power plant sites versus transporting it to a consolidated storage facility and later to a repository. In general, commenters who voiced these concerns viewed spent nuclear fuel transport as highly risky. Some commenters recommended developing more than one consolidated storage facility to reduce transport distances.

8.2 COMMENTS ON TRANSPORTATION RISK

Commenters requested transparent information about transportation risks. Although some viewed transport to a consolidated storage facility as riskier than leaving spent nuclear fuel at power plant sites, others held the opposite view: that at-reactor storage is riskier than transport to a new facility. Specific concerns were raised about the potential for rail accidents, the vulnerability of spent nuclear fuel shipments to terrorist attacks, the adequacy of local response capabilities in the event of an accident or attack, and the condition of aging rail infrastructure. In addition, several commenters voiced support for providing funding and technical assistance for local emergency preparedness and first responders.

8.3 COMMENTS ON SPENT NUCLEAR FUEL TRANSPORTATION ROUTES

Multiple commenters raised concerns about impacts on communities along transportation routes, with some arguing that these communities should be engaged in the consent-based siting process.



As one commenter put it: “All residents, communities, states, counties, and cities along transportation corridors should be considered communities whose consent must be sought in consent-based siting.”

Other commenters, noting that it “may not be necessary or feasible” to gain consent from all communities along transportation routes, suggested that these communities’ input on transportation issues should be sought and considered, including by “State and Tribal agencies responsible for regulating the identified routes and modes of transport.” Other commenters stressed the need to engage Tribes, linguistically isolated communities, and Latino/Latina communities. In addition, one commenter cautioned that separating discussions of transportation issues from consolidated interim storage could impede confidence in the siting process.

General concerns about transportation routes: Some responses emphasized the need to find alternate means of dealing with spent nuclear fuel that did not require transport. For example, commenters suggested using only nearby sites or storing spent nuclear fuel at existing sites to minimize or avoid transportation needs altogether. Other suggestions were to use water routes to avoid land transport or to use routes that are also used for shipments of other types of waste. One commenter questioned whether it would be possible to obtain sufficient insurance for transportation or if the Price Anderson Act would apply. Another emphasized the need to monitor conditions along transport routes.

8.4 COMMENTS ON TRANSPORTATION PLANNING

Many commenters focused on the need for collaboration and planning among local, State, Tribal, and federal governments along future transportation routes for spent nuclear fuel.

Commenters stressed the importance of strong relationships among these entities and the need for input and meaningful participation from all potentially affected parties in transportation planning. One response expressed support for the existing Tribal and State engagement processes with DOE and noted a number of specific groups that are already working to identify and resolve spent nuclear fuel transportation issues.



“The MRMTC agrees that [spent nuclear fuel] transportation has been, and will continue to be, conducted safely and securely and that states, as co-regulators of radioactive materials transportation, play an important role in the process. The MRMTC believes DOE’s continued support and engagement with the SRGs will continue to provide a conduit to stakeholders at the state and local levels in order to adjudicate, to the extent practical, social and institutional challenges for the transportation of SNF [spent nuclear fuel] within their jurisdictions.”

—State Government Organization

9. SITE CHARACTERIZATION, SAFETY, AND RISK RELATED TO THE CONSTRUCTION AND OPERATION OF A CONSOLIDATED INTERIM STORAGE FACILITY

9.1 COMMENTS ON INFORMATION NEEDS FOR SITE SELECTION

Commenters posed questions and raised concerns about how DOE will identify a site for consolidated interim spent nuclear fuel storage that meets environmental, health, and safety criteria. They also expressed interest in site-specific requirements related to geology, hydrology, security, and access to transportation routes. Several commenters suggested that DOE provide communities with site screening tools. One recommendation was that communities should have both a technical site selection plan and a community partnering plan for weighing the benefits and drawbacks of hosting a facility.



9.2 COMMENTS ON INCORPORATING SUITABILITY REQUIREMENTS IN A CONSENT-BASED SITING PROCESS

An overarching concern for commenters is how a consent-based siting selection process that is open to any community would relate to technical requirements and constraints for a consolidated storage site. A State government commenter requested assurance that if a site does not meet technical criteria it will not be deemed suitable because the community is interested in hosting a facility. Other commenters argued that technical standards, while important, should not overshadow community perspectives and opinions or the need to protect sacred and culturally significant sites.

A related concern is that a community may spend time and resources to participate when the site being considered is infeasible for technical reasons. Several commenters emphasized the importance of conducting a basic safety and technical suitability assessment early in the siting process. Another recommendation was that DOE develop initial site selection criteria related to geography, geology, and proximity to population centers and share those criteria with communities at the outset.

9.3 COMMENTS ON SPECIFIC SITES FOR A CONSOLIDATED INTERIM STORAGE FACILITY

DOE also received some comments in opposition to locating a consolidated interim storage facility at certain specific sites, including sites in New Mexico, Texas, and Nevada, because of these States' prior experiences with nuclear facility siting. Commenters from Nevada noted that their State's governor opposes spent nuclear fuel storage or disposal anywhere in the state. Similarly, commenters from Washington and Oregon expressed

opposition to hosting a consolidated storage facility because of their proximity to the Hanford Site. Several commenters suggested that sites near national parks, forests, and other preservation areas be automatically disqualified. Several also emphasized distance from population centers, although one response expressed concern that this could imply a lack of concern about risks to rural populations.

Several commenters suggested that the most suitable site for a consolidated interim storage facility might be at an operating nuclear power plant in a community that is already supportive of nuclear energy. However, one commenter cautioned that reactor sites were selected for nuclear power production, which has different requirements than a facility for storing spent nuclear fuel.

9.4 COMMENTS ON SAFETY AND RISK CONSIDERATIONS FOR A CONSOLIDATED INTERIM STORAGE FACILITY

Commenters requested that the Department address several specific topics with respect to safety and risk:

- Risks to the public and to public health, and safety plans to address these risks.
- Risks to the public from radiation under normal conditions and accident conditions.
- Plans for radiation monitoring and informing communities about monitoring results.
- Plans for sharing the results of risk and environmental impact assessments with communities.

A common theme was that DOE should provide clear safety standards, site evaluations should be conducted in a transparent manner, and all risks should be recognized and disclosed. One commenter recommended that DOE and the NRC cooperate on a comprehensive risk assessment for potential sites. Another argued that DOE should develop a safety case for proposed facilities.¹⁹ Commenters also requested assurance that spent nuclear fuel will not be stored at a facility for longer than is safe, that the amount and type of material to be stored will be disclosed, and that sufficient funding to ensure compliance with safety regulations is guaranteed. In addition, some commenters sought assurances related to spent nuclear fuel canister or cask design, failure detection, and replacement needs.

Others recommended involving communities in feasibility studies and creating local “stakeholder safety committees” to conduct ongoing monitoring. Finally, several commenters expressed the view that risks associated with storing spent nuclear fuel are low and that this needs to be communicated to the public. Suggestions related to safety information and public health assurances are summarized in [Table 8](#).

Other frequent comments focused on risks from an accident or worst-case scenario, such as a natural disaster (e.g., hurricane, tornado, earthquake, landslide, flood, etc.). Some commenters asked whether site risk assessments would account for projected climate change impacts, while others noted concerns about terrorist attacks, acts of sabotage, or attempted theft of nuclear materials. Commenters wanted to see adequate emergency response plans, including plans to have response equipment on site. They also wanted assurances that local first responders would be equipped to address an accident.

¹⁹ The term “safety case” refers to the collection of scientific, technical, administrative, and managerial arguments and evidence in support of the safety of a waste management facility or activity.

Main Concerns and Recommendations	Frequency in RFI Responses*
Concern: Radiation exposure Recommendations: <ul style="list-style-type: none"> Share radiation monitoring plans and anticipated dosages for workers and the community. Disclose any effects of ionizing radiation from the consolidated interim storage facility under normal operating conditions. 	Frequent
Recommendations: <ul style="list-style-type: none"> Disclose the anticipated impacts on public health and safety during normal operating conditions and in the case of an accident. Provide descriptions of plans to assure public health and safety. 	Frequent
Concern: Facility decommissioning Recommendation: <ul style="list-style-type: none"> Share the decommissioning plan for the facility and seek assurance that it will be safely decommissioned. 	Somewhat Frequent
<i>* “somewhat frequent” = mentioned in 1–9 unique RFI responses, “frequent” = mentioned in 10–30 unique RFI responses,</i>	

Table 8: Public Health and Safety in the Area of an Interim Storage Facility: Recommendations and Concerns

9.5 COMMENTS ON THE ENVIRONMENTAL IMPACTS OF A CONSOLIDATED INTERIM STORAGE FACILITY

Several commenters voiced concern about the environmental impacts of a consolidated storage facility and some urged that any proposed site be subject to review under the National Environmental Policy Act (NEPA). Other recommendations were to include environmental justice and cultural impacts in environmental assessments and have host States lead environmental reviews, although one commenter suggested that this should be the role of the EPA.

10. CONSIDERATION OF PAST PUBLIC COMMENTS

This section summarizes public comments on a draft plan for consent-based siting published by DOE in January 2017.²⁰ Much of the input provided in these earlier comments addresses the same topics and echoes themes raised by commenters in response to the 2021 RFI, albeit with some differences. The comments submitted in 2017 and a comment summary document are available on the DOE website.²¹

10.1 COMMENTS ON FAIR PROCESS (PROCEDURAL JUSTICE)

Comments about distrust in response to the 2017 request were similar to comments on this issue in response to the 2021 RFI. However, some expressions of distrust in 2017 related more closely to specific facilities, such as the Deep Borehole Field test project.²² Commenters also voiced distrust related to the current private efforts to site consolidated storage facilities in New Mexico and Texas. In 2017, DOE received similar, though less detailed, feedback on outreach and mutual learning, such as the need for translation of materials to multiple languages, and online learning tools. Commenters expressed concern with the quality and nature of previous Department engagement efforts and made remarks similar to what was heard in responses to the 2021 RFI about how transparency and inclusiveness throughout the siting process are critical for building public trust.

Comments pertaining to Tribal considerations in 2017 were also similar to those submitted under the 2021 RFI. Overlapping themes included the value of incorporating Indigenous knowledge, the importance of early consultation, and the importance of recognizing Tribes are not simply stakeholders but have their own

sovereign governments and thus must be consulted on a government-to-government basis. Several Tribal commenters emphasized the importance of free, prior, and informed consent (FPIC)—a concept discussed in [Section 5.1](#) of this report.

10.2 COMMENTS ON CONSENT-BASED SITING

Comments in support of consent-based siting in 2017 were generally similar to the 2021 RFI comments, whereas criticisms were more specific. For example, commenters in 2017 emphasized that communities need resources to participate; requested clarity about who consents and about how differences between State and local governments would be resolved; and wanted to know how the terms “community” and “potentially affected communities” would be defined. They were concerned about how the broad principles of consent-based siting would be applied, with some expressing concern that these principles lack a statutory basis.

10.3 COMMENTS ON FAIR OUTCOMES (DISTRIBUTIVE JUSTICE)

As in the 2021 RFI comments, there was concern about the negative impact that a nuclear waste storage or disposal facility may have on underserved communities. Commenters recommended expanding the concept of environmental justice to include economic and social impacts, social risk perceptions, and workforce training and development.

²⁰ The correspondence received in response to DOE’s 2017 request for public comment included 30 unique responses, 10 duplicate responses, and 5 responses that contained no comments.

²¹ See: <https://www.energy.gov/ne/articles/public-comments-does-draft-consent-based-siting-process-issued-january-2017>.

²² In the past DOE conducted research and development aimed at investigating deep borehole disposal as one alternative for the disposal of spent nuclear fuel and other forms of radioactive waste. DOE’s most recent work on deep borehole disposal involved a proposal to conduct field demonstrations of this concept as a potential disposal option for smaller forms of nuclear waste. The field demonstrations would not have used actual waste. Over the course of 2015 and 2016, community opposition to conducting demonstrations at two sites in North Dakota and South Dakota caused these sites to be withdrawn from consideration for the demonstration project. The entire project was terminated in May 2017.

10.4 PERSPECTIVES ON INTEGRATED WASTE MANAGEMENT

In 2017, some commenters remarked that DOE does not have clear congressional authorization to proceed with consent-based siting. As in the 2021 RFI comments, several commenters spoke to the need for a new, independent waste management organization and access to NWF funds. There was more support for pursuing the Yucca Mountain repository in the 2017 comments.

Some commenters at that time voiced the view that a pilot storage facility was not needed since interim storage is already a proven concept. Among commenters who supported consolidated interim storage, some also expressed concerns about the timeline to site and construct a facility.

In terms of specific sites, the Office of the Governor of the State of Nevada expressed opposition to any site in the State in both comment periods. In 2017, the Cheyenne River Tribe and the Yankton Sioux Tribe voiced opposition to siting nuclear waste facilities on their lands and adjacent lands with bodies of water, and cultural rights or significance, as well as locations used for hunting or fishing.

10.5 TRANSPORTATION

Similar themes were voiced in both comment periods regarding the need for a greater emphasis on transportation concerns. In 2017, commenters expressed the view that current spent nuclear fuel storage sites at locations vulnerable to seismic or weather events should be prioritized in the transportation queue. Commenters believed that communities along transportation routes should be engaged earlier in the process. Several commenters expressed opposition to the transportation of high-level radioactive waste from nuclear weapons production on interstate highways.

10.6 SITE CHARACTERIZATION, SAFETY, AND RISK

Commenters in 2017 sought clarification about which entity will have authority or oversight over facility siting, construction, and decommissioning. Specifically, commenters said it will be important to have clearer roles for States, Tribes, and communities. Commenters also stressed specific site considerations, including land acquisition and ownership, mineral and water rights, permission to conduct site assessments, protection of land undergoing assessment, and risks to groundwater and air quality.

11. DOE'S NEXT STEPS



DOE recognizes that successfully conducting a consent-based siting process will require building and sustaining strong trust relationships—built on a foundation of collaboration and open dialogue—between DOE, potential host communities, and other partners and stakeholders. The RFI was intended to help build that foundation by seeking public input that will inform DOE's next steps to develop a consent-based approach for siting one or more federal interim storage facilities for spent nuclear fuel and structure related funding opportunity announcements for interested communities and groups.

With the benefit of public input, the Department has identified several key priorities and steps to guide its implementation of consent-based siting for one or more federal consolidated interim storage facilities over the coming months and years:

1. Implement congressional direction to pursue consolidated interim storage in a way that maximizes the potential benefits of this element of an integrated nuclear waste management system. These benefits include expediting the removal of spent nuclear fuel from existing plant sites; potentially reducing taxpayer liabilities for spent nuclear fuel management; providing economic development opportunities for willing and consenting host communities; and demonstrating key institutional and technical capabilities; with respect to consent-based siting.
2. Address the current deficit of trust in DOE by making changes internally and externally. Internally, DOE is working to follow through on commitments and candidly acknowledge missteps. Externally, DOE is embarking on a consent-based siting process that is inclusive, community-driven, phased, and adaptive. By seeking and acting on public input, DOE hopes to build new trusting, collaborative relationships with communities, including traditionally underserved communities.
3. Ensure the Department's consent-based siting process is fair. This means actively and equitably engaging with communities; appropriate levels of Tribal, State, and local government; and other interested parties throughout all phases of the process. It also means providing the resources and data that communities need to participate fully and make informed decisions. DOE anticipates that it will issue a funding opportunity announcement (FOA) related to consent-based siting in 2022, with additional FOAs to follow as needed.
4. Focus on fairness in siting processes and outcomes by prioritizing equity and environmental justice considerations. Working collaboratively with communities to define consent, and consistently recognizing communities' needs, priorities, and voice, as well as Tribal Nations' right to self-determination and sovereignty. A community's participation in a voluntary, equitable, and consent-based siting process should be of lasting benefit, even if the community ultimately chooses not to host a facility.



5. Continue planning for the safe transportation of spent nuclear fuel in close cooperation with Tribes, State partners, and regional groups. DOE will continue its long-standing work with Tribes, States, and regional groups to address radioactive-material transportation issues and respond to the concerns of communities near proposed facility sites and along potential transportation corridors.
6. Rigorously apply safety, security, and other relevant criteria in assessing the suitability of potential sites for different types of spent nuclear fuel facilities. By design, a consent-based siting process should unfold in phases and include a series of evaluation steps, including suitability assessments. DOE anticipates that potential host communities may want to make their own assessments of the impacts and risks of proposed facilities and is committed to helping communities conduct independent studies related to safety and other issues of concern.

Given the complexity of nuclear waste management issues and the range of public opinions expressed on this topic, it is neither practical nor possible to satisfy the needs or wishes of all commenters. Nevertheless, the Department is committed to making every reasonable effort to incorporate the public's input in developing a consent-based siting process that is responsive to stakeholder concerns and suggestions.

At the same time, DOE is aware that, despite the considerable volume of correspondence received in response to the 2021 RFI and previous requests for comment, the views of Tribes and other groups—including representatives from low-income communities, communities of color, and a range of communities that host nuclear power plant sites or other facilities where nuclear waste is currently being stored—remain underrepresented.

The Department is therefore committed to further outreach and engagement efforts including government-to-government consultations with Tribal Nations, to ensure that the views of Tribes and underrepresented groups are understood and considered in future DOE policies and decision-making related to consent-based siting and consolidated interim storage.

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Appendix A: Methodology Used to Analyze Comments

The inherent complexity of consent-based siting and nuclear waste management means that these topics elicit a wide variety of opinions and beliefs across a diverse set of commenters. Thus, it is important to acknowledge at the outset that no approach to analyzing the RFI comments can do full justice to the range of views and depth of nuance they contain.

The approach DOE took was to carefully review all responses,²³ identify common themes in the comments, group comments or parts of comments by categories, and provide a framework for understanding these comments using terms and concepts from the field of sociology. The analysis also considered how many pieces of correspondence spoke to particular themes. To facilitate this sorting and grouping process, each unique piece of correspondence was uploaded to a software tool for analyzing text. The content in form letters was uploaded only once (the method used to identify form letters is discussed in the previous section), but both form letter submissions and unique submissions correspondence were carefully reviewed. Three form “parents” were identified for the 45 form letters DOE received. If a form letter included additional unique content, the new or altered content was uploaded to the software tool. Attachments to comments, assuming the attachments were not written explicitly for this RFI, were not uploaded, but they were carefully reviewed.²⁴

Among the responses received and coded from the 2021 RFI were five pieces of correspondence that had been previously submitted to DOE in response to earlier efforts to collect public input on consent-based siting, including one item from 2015, two from 2016, and two from 2017. These responses were uploaded to the software tool and included in the analysis of responses to the 2021 RFI. Other correspondence submitted under DOE’s 2017

request for public comment was considered but not uploaded to the software tool. This correspondence is discussed separately, in [Section 10](#) of this report.

The list of categories and subcategories used to sort comments was developed iteratively using the RFI questions, input from past public comments, relevant journal articles, and initial responses to the RFI.²⁵ DOE’s team of analysts identified a total of six overarching themes. Two of these themes focused on procedural justice (fair process) and distributive justice (fair outcomes), which are well-established concepts related to environmental justice and social equity²⁶ (these themes are defined and discussed in [Sections 4](#) and [6](#) of this report, respectively). Other overarching themes or categories, each of which is discussed in the next sections of the report, focus on the characteristics of a consent-based siting process ([Section 5](#)), perspectives on an integrated system for nuclear waste management ([Section 7](#)), considerations for the transportation of spent nuclear fuel ([Section 8](#)), and concerns related to site characterization and public health and safety ([Section 9](#)). Numerous sub-themes were identified within each of the six overarching themes—these sub-themes are likewise discussed in the sections that follow.

Despite the considerable volume of responses received—both to the 2021 RFI and to previous DOE solicitations of public input regarding consent-based siting—the Department is aware that it has not heard the full range and scope of viewpoints on the topic of consent-based siting and spent nuclear fuel management. For example, low-income communities, communities of color, Tribal Nations, and communities near nuclear power plant sites or other facilities where nuclear waste is currently being stored are underrepresented among respondents to the 2021 RFI. Commenters’ recommendations for more extensive outreach and inclusion as part of a consent-based siting process are described in [Section 4](#) of this report.

²³ While many respondents did not follow the submittal instructions precisely, DOE wanted to be as inclusive as possible in what it considered a response to the RFI. Necessarily, that meant making some judgment calls. If a reader submitted a response to the RFI that does not appear to have been at least generally acknowledged by this report, the reader should email consentbasedsiting@hq.doe.gov.

²⁴ Where comments in response to previous DOE requests for public input were included as attachments, these prior comments were uploaded to the software analysis tool used by the DOE team.

²⁵ Specifically, correspondence received through late February 2022 was used to help create thematic categories and subcategories. All correspondence received during the full comment period (including some correspondence received after the formal comment period closed on March 4, 2022) was reviewed and analyzed.

²⁶ Schlosberg, David. *Defining Environmental Justice: Theories, Movements, and Nature*. Oxford: Oxford University Press, USA, 2007.