

CONSENT-BASED SITING

NATALIA SARAIEVA

Team Lead

Consent-Based Siting

JUAN URIBE

Senior Program Manager

Office of Integrated Waste Management



INTEGRATED WASTE MANAGEMENT

- The continued deployment of nuclear energy — as a solution for tackling climate change and meeting increasing energy demand — requires progress on the back-end of the fuel cycle.
- DOE is responsible for managing the nation's spent nuclear fuel and high-level radioactive waste. This includes finding sites to store and dispose of the spent nuclear fuel.
- While spent nuclear fuel is safely stored across the country, the communities hosting this material never agreed to do so long term.



CONGRESSIONAL DIRECTION

Through the Consolidated Appropriations Acts of 2021, 2022, and 2023, DOE was directed by Congress to move forward under existing authority to identifying a site for federal consolidated interim storage for spent nuclear fuel using a consent-based siting process.



INTERIM STORAGE

- Is an important component of a waste management system
- Allows for the removal of spent nuclear fuel from existing reactor sites
- Provides useful research opportunities
- Builds trust and confidence with stakeholders
- Begins to address taxpayers' liability



PAST CONSENT-BASED SITING EFFORT

- DOE began developing a consent-based process for siting storage or disposal facilities in 2015.
- DOE issued an invitation for public comment and conducted a series of public meetings to seek feedback.
- Based on that feedback, DOE issued a Draft Consent-Based Siting Process in 2017.

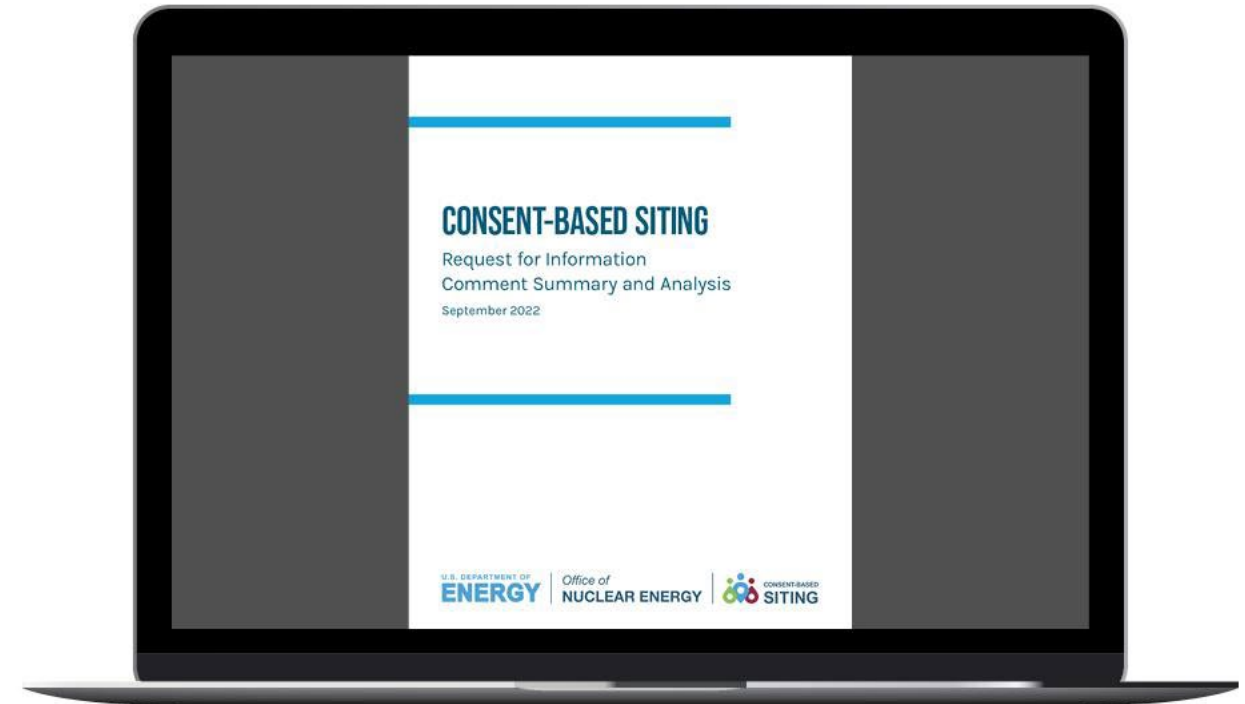
DRAFT CONSENT-BASED SITING PROCESS

for Consolidated Storage and
Disposal Facilities for Spent
Nuclear Fuel and High-Level
Radioactive Waste

January 12, 2017

RESTARTING CONSENT-BASED SITING

- In 2021, DOE issued a request for information on using consent-based siting to identify sites for interim storage of spent nuclear fuel.
- DOE received 225 submissions from a wide variety of commenters:
- Tribes, State, local governments, NGOs, industry, members of academia, general public
- The Comment Summary and Analysis Report is available on our website.
- Also includes comments received on the 2017 Draft Consent-Based Siting Process



CONSENT-BASED SITING

- Consent-based siting is an approach to siting facilities that focuses on the needs and concerns of people and communities.
- Special focus on ensuring issues of equity and environmental justice are built into the consent-based siting process.
- By prioritizing communities and people, DOE believes it can find a solution to the decades-long stalemate on managing the nation's spent nuclear fuel.
- A consent-based approach to siting, driven by each community's well-being and needs, is both the right thing to do and our best chance for success.



CONSENT-BASED SITING PROCESS

for Federal Consolidated Interim Storage
of Spent Nuclear Fuel

Exploring the background, fundamentals,
roles, and more associated with
DOE's consent-based siting process



www.energy.gov/consentbasedsiting

U.S. DEPARTMENT OF
ENERGY

Office of
NUCLEAR ENERGY



CONSENT-BASED
SITING

- Prioritizes people and communities
- Centers equity and environmental justice
- Collaborative, phased, and adaptive

CHANGES TO 2017 CONSENT-BASED SITING PROCESS



Wider incorporation of public feedback



Specific focus on federal consolidated interim storage



More emphasis on equity and environmental justice



Expanded role for potential host communities to develop site assessment criteria



Broader consideration of funding opportunities to support engagement



PROCESS STAGES



Stage 1: Planning and Capacity Building

Build relationships, encourage mutual learning, develop a common understanding of nuclear waste management-related topics.

Phases 1A & 1B

ANTICIPATED REMAINING
DURATION 2-3 YEARS

U.S. DEPARTMENT OF **ENERGY** | Office of NUCLEAR ENERGY |  CONSENT-BASED SITING

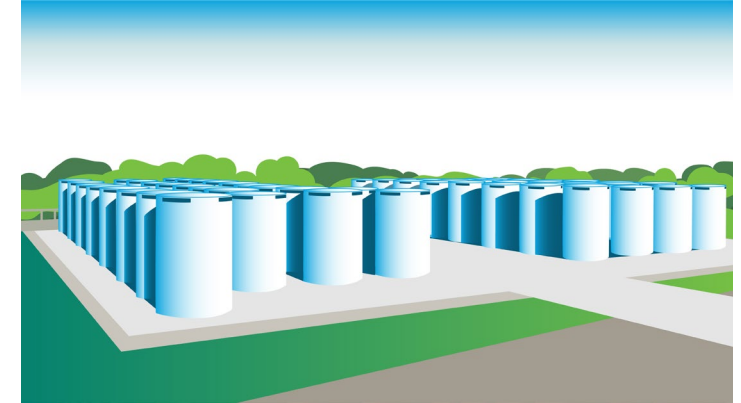


Stage 2: Site Screening and Assessment

Issue screening and assessment criteria, community-led development of additional criteria; preliminary and detailed assessments.

Phases 2, 3, & 4

ANTICIPATED DURATION 4-7 YEARS



Stage 3: Negotiation and Implementation

Negotiate agreements with willing and informed host communities with licensing, construction, and operation activities to follow.

Phases 5, 6A, & 6B

ANTICIPATED DURATION TO INITIAL
OPERATION READINESS 4-5 YEARS

FIRST STAGE

PLANNING AND CAPACITY BUILDING STAGE (ANTICIPATED REMAINING DURATION 2-3 YEARS)

PHASE 1A: PLANNING (COMPLETE)

- ✓ Receive authority and funding
- ✓ Initiate outreach and engagement
- ✓ Issue request for information (RFI)
- ✓ Issue RFI summary analysis report
- ✓ Issue revised consent-based siting process
- ✓ Prepare for Phase 1B

PHASE 1B: BUILD CAPACITY (2-3 YEARS)

- ✓ Issue Funding Opportunity Announcement (FOA) to provide resources to communities interested in learning more
 - Conduct robust outreach and engagement
 - Enable mutual learning
 - Refine consent-based siting process
- ★ DOE is not looking for volunteer hosts in this phase

DECISION-MAKING PROCESS

Stepwise and collaborative decision-making is one of the fundamentals of consent-based siting:

- The implementation will be done in consultation with interested communities, stakeholders, states and Tribes. Decisions will be based on sound social, technical, and scientific siting considerations and regulatory requirements will be applied rigorously and transparently. [..]

Beginning with preliminary site assessment in Phase 2 and beyond, collaborative activities become more place-based

- DOE will discuss its decision-making processes and the bases for its decisions clearly and openly with the community prior to, during, and after the assessment phases. Communities, in turn, may develop and determine the best approaches for their own decision-making processes.




DECISION-MAKING PROCESS: EXAMPLE

SITE SCREENING AND ASSESSMENT STAGE (ANTICIPATED DURATION 4-7 YEARS)

PHASE 2: SITE SCREENING AND ADDITIONAL CRITERIA DEVELOPMENT (1-2 YEARS)

- Conduct robust outreach and engagement
- Issue list of screening criteria and assessment criteria
- ★ **DOE issues national call for volunteers**
- Issue FOA for community-led development of additional site-specific criteria

 **Qualified and interested communities decide to proceed (or not) to next phase**


PHASE 4: DETAILED ASSESSMENT (2-3 YEARS)

- Conduct robust outreach and engagement
- Issue FOA for DOE-led detailed assessment evaluation of sites in collaboration with communities

 **Qualified and interested communities decide to proceed (or not) to next phase**

PHASE 3: PRELIMINARY ASSESSMENT (1-2 YEARS)

- Conduct robust outreach and engagement
- Issue FOA for DOE-led preliminary assessment evaluation of sites in collaboration with communities

 **Qualified and interested communities decide to proceed (or not) to next phase**

NEGOTIATION AND IMPLEMENTATION STAGE (ANTICIPATED DURATION TO INITIAL OPERATION READINESS 4-5 YEARS)

CONSORTIA

📍 PLANNING AND CAPACITY BUILDING STAGE (ANTICIPATED REMAINING DURATION 2-3 YEARS)

PHASE 1A: PLANNING (COMPLETE)

- ✓ Receive authority and funding
- ✓ Initiate outreach and engagement
- ✓ Issue request for information (RFI)
- ✓ Issue RFI summary analysis report
- ✓ Issue revised consent-based siting process
- ✓ Prepare for Phase 1B

PHASE 1B: BUILD CAPACITY (2-3 YEARS)

- ✓ Issue Funding Opportunity Announcement (FOA) to provide resources to communities interested in learning more
 - Conduct robust outreach and engagement
 - Enable mutual learning
 - Refine consent-based siting process
- ★ DOE is not looking for volunteer hosts in this phase

CONSENT-BASED SITING CONSORTIA

June 9, 2023, Secretary Granholm announced the \$26 million FOA awardees at San Onofre Nuclear Generation Station, San Clemente, CA.

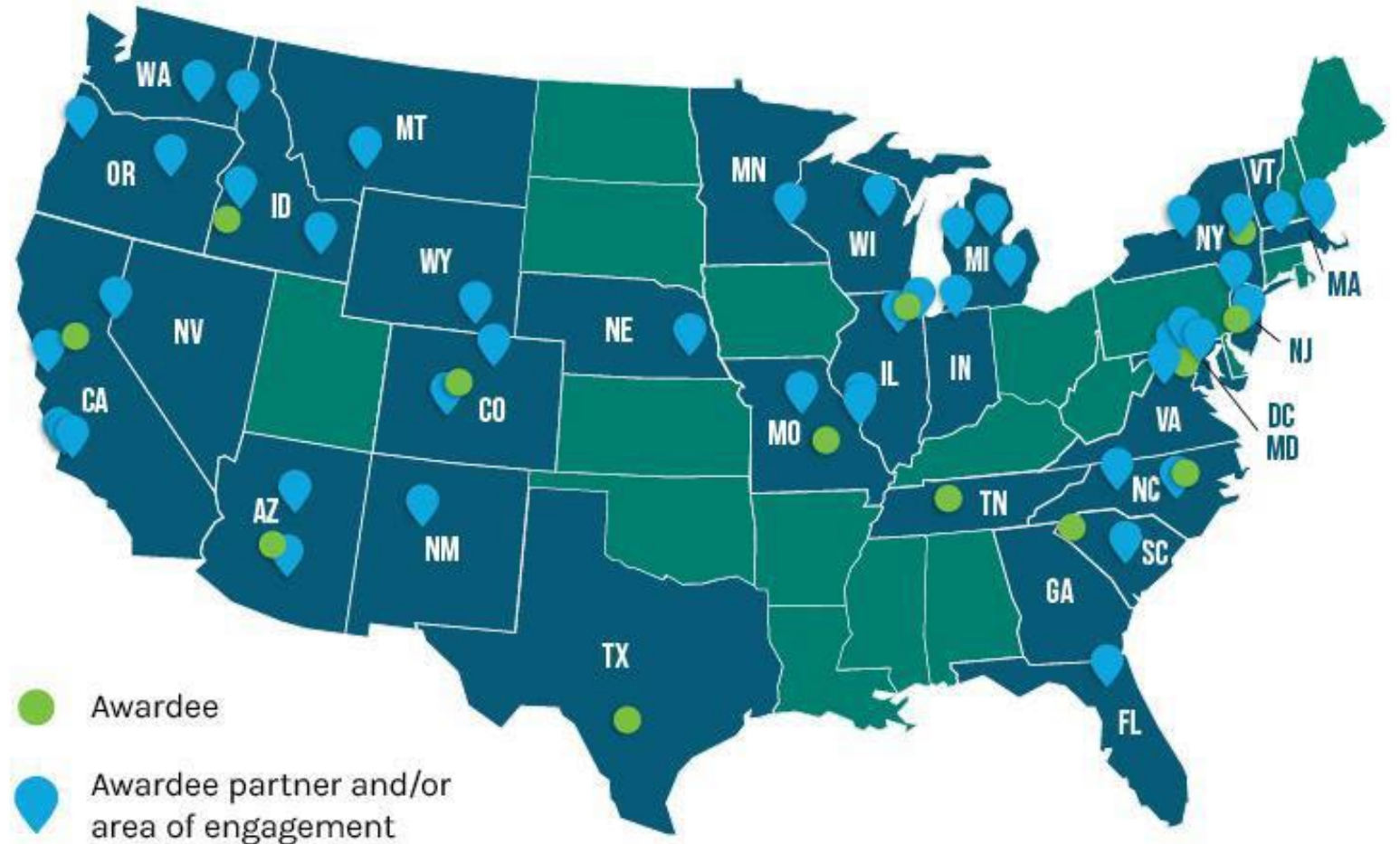


CONSENT-BASED SITING CONSORTIA

The U.S. Department of Energy selects **13 awardees** across the country to serve as **information, engagement, and resource hubs**, referred to as consent-based siting consortia. The consortia will foster community discussion and capture feedback on interim storage of spent nuclear fuel.

The locations on the map represent **awardee partners and areas of engagement**, not places being considered for federal consolidated interim storage facilities.

energy.gov/consent-based-siting



CONSENT-BASED SITING CONSORTIA

#	Awardee + Partners*	Location	Institution Type	States Engaged*
1	<p>American Nuclear Society</p> <ul style="list-style-type: none"> • South Carolina Universities Research and Education Foundation (SCUREF) (SC) • Northern Arizona University (AZ) • University of New Mexico (NM) • South Carolina State University (SC) • City College of New York (NY) 	IL	501(c)3 Not-for-Profit	AZ, NM, SC, NY
2	<p>Arizona State University</p> <ul style="list-style-type: none"> • TBD: to include schools, libraries, civic organizations, faith-based organizations 	AZ	Higher Education	AZ
3	<p>Boise State University</p> <ul style="list-style-type: none"> • National Tribal Energy Association • Arizona State (AZ) • Colorado State (CO) • Idaho State (ID) • Montana State (MT) • University of Idaho (ID) • University of Wyoming (WY) • University of Michigan (MI) 	ID	Higher Education	AZ, ID, CO, WY, MI, MT, and other western States

The list of partners and States engaged is preliminary and expected to evolve

CONSENT-BASED SITING CONSORTIA

#	Awardee + Partners*	Location	Institution Type	States Engaged*
4	<p>Clemson University</p> <ul style="list-style-type: none"> South Carolina Universities Research and Education Foundation (SCUREF) (SC) 	SC	Higher Education	SC and GA
5	<p>Energy Communities Alliance</p> <ul style="list-style-type: none"> Partners to be determined 	DC	501(c)3 Not-for-Profit	J40 Communities
6	<p>Good Energy Collective</p> <ul style="list-style-type: none"> University of Notre Dame (IN) 	CA	501(c)3 Not-for-Profit	IN, CA, 4-5 others TBD

The list of partners and States engaged is preliminary and expected to evolve

CONSENT-BASED SITING CONSORTIA

#	Awardee + Partners*	Location	Institution Type	States Engaged*
7	<p>Holtec International, Inc</p> <ul style="list-style-type: none"> • University of FL (FL) • McMahon Communications (MA) • Agenda Global (DC) • American Nuclear Society (IL) • Nuclear Energy Institute (DC) 	NJ	For-profit Organization	NJ, FL, MA, IL, DC, and up to 3 others TBD
8	<p>Keystone Policy Center</p> <ul style="list-style-type: none"> • Social and Environmental Research Institute (SERI) • GDFWatch (UK) • National Association of Regional Councils (DC) 	CO	501(c)3 Not-for-Profit	CO, MA, DC
9	<p>Missouri University of Science and Tech</p> <ul style="list-style-type: none"> • University of Missouri-Columbia, (MO) • University of Illinois (IL) • Taylor Geospatial Institute (MO) • St. Louis University (MO) 	MO	Higher Education	MO, IL, MA, NV

The list of partners and States engaged is preliminary and expected to evolve

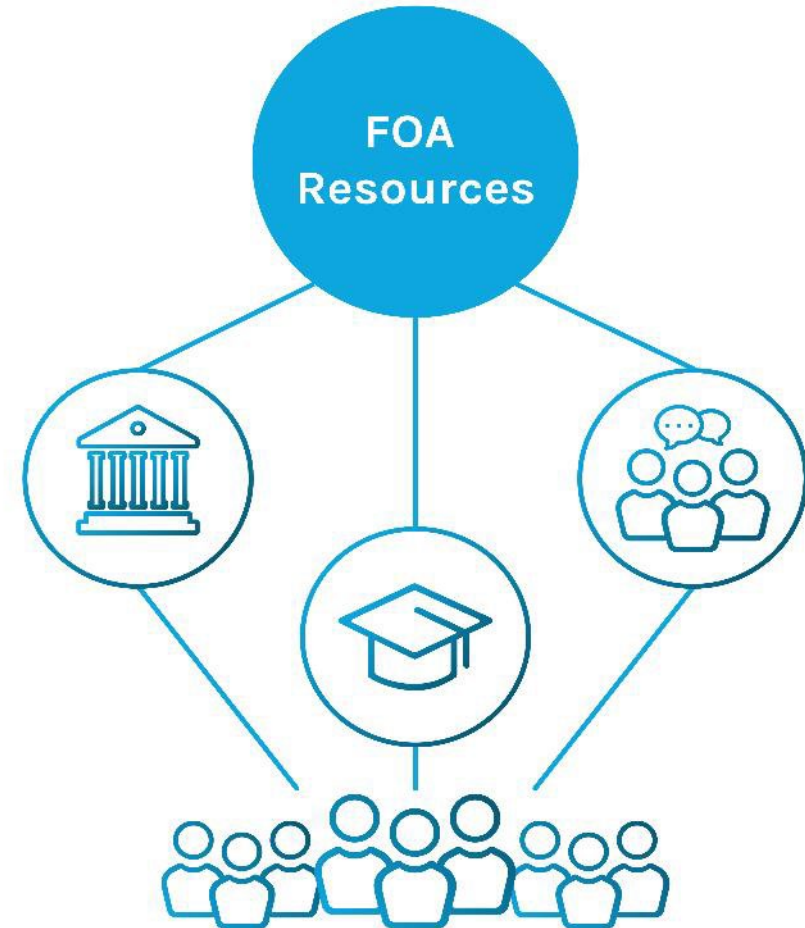
CONSENT-BASED SITING CONSORTIA

#	Awardee + Partners*	Location	Institution Type	States Engaged*
10	<p>North Carolina State University</p> <ul style="list-style-type: none"> • ytt Northern Chumash Nonprofit (CA) • Mothers for Nuclear (CA) • Tribal Consent Based Coalition - Diablo Canyon Nuclear Power Plant (CA) 	NC	Higher Education	NC, CA
11	<p>Rensselaer Polytechnic Institute</p> <ul style="list-style-type: none"> • Schenectady Foundation (NY) 	NY	Higher Education (Private)	NY
12	<p>Southwest Research Institute</p> <ul style="list-style-type: none"> • Deep Isolation (CA) • Westra Consulting (NE) • Community Transition Planning (MI) • Prairie Island Indian Community Tribal Nation (MN) • Xcel Energy (MN) • Decommissioning Plant Coalition • Two other communities 	TX	501(c)3 Not-for-Profit	CA, TX, MI, MN, two others TBD
13	<p>Vanderbilt University</p> <ul style="list-style-type: none"> • Rutgers University (NJ) • Oregon State University (OR) 	TN	Higher Education	TN, NJ, OR, GA, SC, (Savannah River Site), WA (Hanford)

The list of partners and States engaged is preliminary and expected to evolve

CONSENT-BASED SITING CONSORTIA

- Award recipient is a hub for community engagement and resources
- Reduce barriers for participation
- Increase outreach (multiplication factor)
- Allow for greater community engagement
- Allow for cohort development/capacity



FUNDING OPPORTUNITY TASKS

Three main tasks are centered around consent-based siting and the role a federal consolidated interim storage facility may have in a community



INTEGRATION OF CONSORTIA FINDINGS: EXAMPLE

📍 PLANNING AND CAPACITY BUILDING STAGE (ANTICIPATED REMAINING DURATION 2-3 YEARS)

PHASE 1A: PLANNING (COMPLETE)

- ✓ Receive authority and funding
- ✓ Initiate outreach and engagement
- ✓ Issue request for information (RFI)
- ✓ Issue RFI summary analysis report
- ✓ Issue revised consent-based siting process
- ✓ Prepare for Phase 1B

PHASE 1B: BUILD CAPACITY (2-3 YEARS)

- ✓ Issue Funding Opportunity Announcement (FOA) to provide resources to communities interested in learning more
 - Conduct robust outreach and engagement
 - Enable mutual learning
 - Refine consent-based siting process
- ★ DOE is not looking for volunteer hosts in this phase

LEARN MORE

CONSENT-BASED SITING

For Federal Consolidated Interim Storage of
Spent Nuclear Fuel

energy.gov/consentbasedsiting

