



Energy Communities Alliance Policy Book

Adopted December 2014

Energy Communities Alliance Policies

ECA's members are focused on all issues affecting local communities adjacent to DOE facilities. Our policies are grouped into four categories that broadly capture the issues that must be addressed for the continued success of DOE and NNSA programs, including economic and safety priorities related to the federal missions in our respective communities. The categories are:

- I. Local Governments as Intergovernmental Partners
- II. Economic Impacts on Communities
- III. Environmental Cleanup
- IV. Nuclear Energy and Waste Management Policy

These policies should be used to facilitate further discussion with DOE, The Environmental Protection Agency, state and local governments throughout the DOE complex in order to develop solutions to our joint areas of concern.

I. Local Governments as Intergovernmental Partners

Local governments at DOE sites play a very important role by officially representing the affected community in decisions which impact the health, safety, and wellbeing of their citizenry. DOE facilities and property lie within the corporate limits of ECA member local governments.

Local governments support federal missions by creating a high quality of life for DOE employees, contractors, and state regulators. Individual local governments provide varying degrees of necessary services such as the following:

- Police, fire, medical, and emergency responses
- Utility and transportation infrastructure
- Land use planning
- Education, health and social services
- Political support for DOE activities
- Cultural and historical resources
- Willingness to host DOE facilities

When concerns arise, local officials are typically the first line of communication with citizens, and through regular elections, are held directly accountable to their constituency. For these reasons, DOE and state officials should engage local governments early in the decision making process in order to build trust, gain local perspective, and enhance public acceptance of DOE-related decisions. DOE must make consistent and clear communication with local governments a priority.

RECOMMENDATIONS

Local governments must be directly involved with DOE and state officials as intergovernmental partners in the decision making process. In order to maintain a productive relationship with local governments, DOE should work to:

- 1. Establish a formal mechanism for working with local governments**—While many DOE sites have created Site-Specific Advisory Boards (SSABs), these federal advisory boards to DOE are designed to draw members from a broad region, and do not have the authority to represent the affected local government jurisdictions. Affected local governments should have a funded seat at the table in discussions regarding the site's federal facilities agreement (FFA) and state oversight agreement. Resources must be available to support the local government's capacity to participate in all relevant DOE decision-making. Local governments need to play a substantive role in:
 - a. Emergency response planning, training, and public education.
 - b. Setting community-based cleanup priorities.

- c. Planning and selection of remedies pursuant to CERCLA
 - d. Land use planning and reuse, especially where DOE is considering “downsizing” the facility/site.
 - e. Transfer of personal property, as well as transfer of land from DOE for new, nonfederal uses. Local governments must also be included in Trustee discussions pursuant to Natural Resources Damages Assessment claims, especially those involving compensation or conveyance of DOE assets.
 - f. Determining economic development assistance, including input to criteria related to Payments in Lieu of Taxes for local governments.
2. **Work with local governments to find solutions to rising costs associated with providing services and infrastructure in DOE communities.** In addition to payments in lieu of taxes, DOE should work with local government leaders to help pay for public services and capital infrastructure improvements. DOE is in part dependent on services provided by local governments and places a significant extra burden on the local governments, which typically do not have sufficient tax base to support those services. At many sites, local governments have increased their capabilities (utilities and schools are good examples), then have been hit by DOE downsizing that results in overcapacity, which itself is costly to maintain and causes economic disruption.
 3. **Engage local governments in decisions regarding economic transition and reuse of DOE sites.** Local governments are a key driver of economic development, diversification and job replacement for their communities. DOE must consult with local governments regarding its management practices (e.g., community investment, residency incentives, contracting and procurement) because such decisions have a significant impact on the community. DOE and its contractors should make a dedicated effort to contract for goods and services in the immediate local community. Some local governments currently have or may assume legal, administrative or regulatory roles at DOE sites post-closure and post-cleanup. Such institutional relationships should be formally established now so that they will be well-defined at the time the sites are assumed by DOE’s Legacy Management organization.
 4. **Include local government input in the DOE contracting process.** DOE contracts have huge impacts on the host communities. Local governments have interests in ensuring that contractors have incentives to become part of the community while accomplishing DOE’s missions. Where local governments have participated in this contracting process, both DOE and the communities have benefitted.
 5. **Work with the local governments on long-term, strategic plans for DOE programs and initiatives including plans for cleanup, research and new missions.**
 6. **Facilitate open and frequent communication among local government officials, field/site offices and headquarters officials.** Given the multiple reorganizations that

have taken place in recent years, DOE should ensure that there is an established point of contact for local government officials and ensure that communication with local government officials happens at regular intervals

- 7. Establish Clear Roles and Responsibilities for Emergency Communications and Response.** The protection of public health and safety through emergency response is a primary responsibility of local governments. Local governments that host or are adjacent to DOE facilities are the primary emergency responders to incidents that threaten the general health and safety of the adjacent population. DOE, its contractors, and state officials must work with local governments to ensure that emergency response plans minimize impacts to the health and safety of adjacent communities.

As displayed by the numerous fires and other incidents in recent years at several sites, coordination is the key factor in the management of emergency situations, ranging from the direct communication between emergency responders in a shared emergency operations center and the ability to communicate on the same radio frequency during an emergency, to the provision of accurate and timely public information. The successful coordination of emergency responders is dependent on integrated planning and organization with clearly defined roles, responsibilities and missions, as well as with shared planning, exercises and drills. Emergency response plans should include the following traits:

- a. Warning systems that notify the public of potential threats, evacuations, the location of emergency shelters, and medical care in a timely manner.
- b. Communication systems with layers of redundancies in case of system failures.
- c. The inclusion of local authorities and first responders in emergency response planning and drills.
- d. Joint reviews and evaluations of drills and live incidents in order to identify weaknesses and strengths of the existing plan.

II. Economic Impacts on Communities

The presence of DOE facilities in communities has a significant impact on local economies. DOE and communities have a mutual responsibility to partner to ensure that communities will have a sustainable economy into the future. DOE should recognize that this future encompasses a host of economic opportunities from completing and expanding current missions to exploring the possibilities for other federal missions. Furthermore, the opportunities must address public/private partnerships and the possibility for direct private investment utilizing DOE assets including land, facilities, and human capital.

DOE should aggressively use existing policies and laws to assist communities to develop sustainable economies. From providing assistance to communities facing downsizing and budget cuts, to transferring excess property for beneficial reuse, to providing PILT payments to local governments to preserving historical assets at sites, DOE can help to enhance and diversify the economies of DOE communities, often at a low cost to DOE. Specifically, DOE can:

- A. Provide Assistance for Communities Facing Downsizing and Assist with Workforce Transition
- B. Facilitate Asset Transfer to Communities
- C. Assist with Economic Diversification and Development Projects
- D. Provide Payment In Lieu of Taxes
- E. Engage in Historic Preservation Activities

DOE has a stated policy to be a constructive partner in the geographic region in which DOE conducts its business. The basic elements of this policy include: (1) Recognizing the diverse interests of the region and its stakeholders, (2) engaging local governments and economic development entities in issues and concerns of mutual interest, and (3) recognizing that giving back to the community is a worthwhile business practice that supports DOE's mission.

To this end, DOE must ensure its sites support local and regional economic development and apply existing assets in the execution of such support. Such programs should provide for the lease or conveyance of DOE real and personal property at less than fair market value. Also, an essential ingredient to economic development is a readiness for investment to occur. Having a workable supply of readily available land for industrial and commercial uses is very important and therefore, DOE must look for ways to expedite the land transfer process to local governments and DOE's designated Community Reuse Organizations.

A. Provide Assistance for Communities facing downsizing and Assist with Workforce Transition

Restructuring and downsizing throughout the Department of Energy (DOE) complex has affected numerous communities across the country. To maintain and improve their quality of life, these communities are striving to diversify their economies and become more self-sufficient.

To successfully diversify the economy, ECA communities require partnerships with DOE.

RECOMMENDATIONS

To assure success, ECA recommends that DOE:

1. **Assist communities to develop reuse plans and worker transition plans to address the impacts of downsizing related to budget cuts.**
2. **DOE should fund economic development and diversification and worker transition activities.** Restore and fully fund economic development and diversification and worker transition. In particular, ECA believes that economic development must be retained as a condition of DOE's contracts to manage and operate DOE facilities.
3. **Focus on long-term reuse and job creation in and around DOE communities.** Work closely with local governments on Economic Development and Diversification keeping in mind that local governments are the official representative of the community. DOE should create one point of contact for each DOE facility to assist the community through the reuse and transition process.
4. **DOE should pursue**, under the authority of Section 3161, procurement from and entering into contracts with firms located in the Communities wherever practicable to help mitigate the negative economic impact from work-force restructuring.

B. Facilitate Asset Transfer to Communities

DOE has real property conveyance authority under a number of different laws including the Atomic Energy Act of 1954 (AEA). Section 161(g) of the AEA authorizes DOE to convey real property by sale or lease to another party. Transfer of the land would be a real estate transaction involving legal transfer of ownership. Conveyance of the land could include a broader range of real estate transactions including title transfer, easement, lease, license agreements, or a combination of these actions.

DOE may hold harmless and indemnify a person or entity to whom real property is conveyed against liability for pre-existing contamination that may have resulted from DOE (or predecessor agency) activities at the site. Such indemnification is consistent with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 120(h)(3)(A)(ii)(II); EPA's "Policy Towards Landowners and Transferees of Federal Facilities" (EPA, 1997); and DOE regulation 10 Code of Federal Regulations (CFR) part 770, Transfer of Real Property at Defense Nuclear Facilities for Economic Development.

DOE should also engage in the transfer of personal property to communities.

RECOMMENDATIONS

Economic development can be sustained only where DOE activities are integrated into the community's strategic planning process. To assure success, ECA recommends that DOE:

1. **Facilitate Land Transfer to Communities.** DOE should actively develop a process to convey surplus property to communities for economic development to avoid delays in cleanup and reuse of the properties. DOE should also make identifying excess and surplus real property a priority. DOE and its contractors have had internal difficulties identifying excess or unneeded properties. By making this a priority DOE can accomplish two goals: 1) decrease overhead at its facilities, and 2) assist local communities with creating jobs or accomplishing other reuse goals. DOE should continue to provide these properties to communities at no cost where the community will use the property for economic development and other public purposes. DOE leadership should provide direction to program offices to convey surplus property at no cost, and lease property at no cost that is not currently needed by the Department, to permit the community to create jobs and potentially develop new energy projects on that land.
2. **Fully indemnify local governments and Community Reuse Organizations (CROs) that acquire property from DOE.** Fully indemnify local governments and Community Reuse Organizations (CROs) that acquire property from DOE against environmental liabilities caused by DOE as a matter of policy. Section 3158 of the Defense Authorization Act for Fiscal Year 1998 as amended provides DOE with the authority to indemnify future owners of its property against liability for contamination left in place by DOE.
3. **Transfer excess personal property to communities and CROs.**

C. Assist with Economic Diversification and Development Projects

A major objective of the community and economic development efforts related to workforce restructuring is to diversify the regional economy and lessen its dependence on DOE-funded activities, thereby enhancing the opportunities for displaced workers to obtain other employment in the region. Consistent with site mission requirements, DOE and its Contractor may assist the local communities in their economic diversification development activities through; technology transfer; support of community activities; reuse of Site facilities and equipment, as appropriate; and in other appropriate means based upon availability of resources and in conformance with DOE policies.

RECOMMENDATIONS

Economic development can be sustained only where DOE activities are integrated into the community's strategic planning process. To assure success, ECA recommends that DOE:

1. **DOE should fund economic development and diversification and worker transition activities.** Restore and fully fund economic development and diversification and worker transition. In particular, ECA believes that economic development must be retained as a condition of DOE's contracts to manage and operate DOE facilities.

2. **DOE should seek** to attract new businesses to the Community through partnerships, contracts, licensing agreements, and other arrangements with the potential to leverage science and technology and provide clean-up mission opportunities.
3. **DOE should** transfer and commercialize DOE technologies in ways that result in significant expansion of local commerce and employment, including creation of new private sector companies capitalizing on technology developed.
4. **DOE should collaborate** with the affected Communities' economic development agencies and councils to help formulate economic development programs and activities commensurate with the negative economic impact anticipated from work force restructuring.
5. **DOE should** reduce or mitigate procurement and/or contract impediments, regulatory overlap, and duplication that result in delays and added costs in procurement of private sector resources.
6. **Work with local governments to create infrastructure efficiencies.** Work with local governments to create infrastructure efficiencies that will benefit DOE and the local community, such as facility and utility infrastructure privatization.

D. Provide Payment in Lieu of Taxes (PILT)

The boom and bust economies at DOE sites create a unique burden, making it very difficult for host and nearby communities to attract nongovernmental business and industry. Consequently, many communities are faced with fluctuating economies based on annual congressional appropriations. In addition, the fluctuations cause huge burdens on infrastructure which are borne by the local taxpayers.

When the Cold War ended in the 1990s, these communities which relied heavily on a residential tax base were faced with providing services that far outstripped their tax base. Lack of funds also meant lack of opportunities to replace aging infrastructure, and to recruit new industry. As these communities evaluate the impacts of DOE's presence, the conclusion is that the value of the jobs associated with weapons production and environmental cleanup activities is not enough. The federal government is the only industry that does not support the local tax base, though often the employees rely heavily on local services. That is why it is essential that DOE support local communities through Payments in Lieu of Taxes (PILT), burden payments and use taxes.

The Atomic Energy Act of 1946 authorized DOE to make PILT and community burden payments to local governments hosting DOE facilities. While DOE has made discretionary PILT payments to some of its host communities, these communities have had to undertake a long, frequently contentious process of demonstrating how the federal government has impacted the local tax base. Because PILT is paid at the discretion of DOE, it is very difficult for local governments to project revenues that can be applied to local government operations.

RECOMMENDATIONS

In order to create a uniform PILT policy across the weapons production complex DOE should:

1. **Make payments as long as the land is restricted for use and little or no property taxes are paid.** Records of Decision that are based on long-term stewardship should include PILT as part of the cost estimate for the proposed remedy.
2. **Transfer the responsibility to make PILT or burden payments if land or facilities are transferred to another federal agency.**

E. Engage in Historic Preservation Activities

Support the preservation of historic assets for public education and heritage tourism across the DOE complex.

RECOMMENDATIONS

- I. **DOE should work with communities to identify and preserve historic assets across the DOE complex.**

III. Environmental Cleanup

Local governments are charged with the health and safety of their communities and are accountable for specific legal mandates under state and federal laws. They serve as stewards of public resources such as land and revenue, including land use planning and control. ECA is committed to working with DOE to have a substantive role along with the federal government, agencies and state governments, in remedy selection to protect the human health, welfare and the environment in their communities.

- A. Three important issues are:
- B. Local Government in Remedy Selection
- C. Consistent Funding for DOE Cleanup Activities
- D. Site and Community Safety and Health

In order for successful cleanup of DOE sites, it is essential that consistent, adequate cleanup funding is provided for the Environmental Management program. DOE must ensure that the EM program is a priority at the Secretary level.

A. Local Government in Remedy Selection

Local Governments must be afforded the opportunity to participate in cleanup at DOE sites. Pursuant to Section 9620(f) CERCLA local government officials must be allowed to participate in the planning and selection of the remedial action (including but not limited to the review of all applicable data as it becomes available and the development of studies, reports and action plans) at a federal facility site that is being cleaned up pursuant to a “remedial action.” CERCLA §9620(f) states:

“State and local participation

The Administrator and each department, agency, or instrumentality responsible for compliance with this section shall afford to relevant State and local officials the opportunity to participate in the planning and selection of the remedial action, including but not limited to the review of all applicable data as it becomes available and the development of studies, reports, and action plans...”

Local governments need to be provided with a substantive role and permitted to adequately participate in the formal environmental remediation decision-making process at DOE sites in, or adjacent to, their communities. DOE’s current policies do not implement the law—CERCLA 9260(f) and relegates local governments to a “citizen” or cursory role.

RECOMMENDATIONS

In order to fully address the requirements of environmental remediation and long-term stewardship, DOE must consider the following issues:

1. **Substantive Role for Local Governments.** Local governments must have a formal role in the remedy decision-making process consistent with the law, especially where they will be relied upon to implement the remedy. In addition, DOE must involve local governments in DOE long-term stewardship decision-making at a national level.
2. **Preference for Permanent Remedies.** Wherever possible, DOE facilities should be cleaned up to a level that allows unrestricted use, avoids long-term stewardship liabilities for the federal government and necessitates minimal long-term stewardship systems to implement.
3. **Planning for Stewardship.** Planning for site disposition and stewardship needs to be systematic and include the identification and involvement of all parties that may have a role in stewardship activities, including local governments. DOE must recognize the local land use policies and laws to understand the tools available to implement long-term stewardship.
4. **Funding for Long-Term Stewardship:** Funding sources for stewardship activities must be clearly identified and spelled out in Records of Decision. Funding must be adequate and reliable to ensure that remedies can be effectively implemented for the life of the contaminants.
6. **Implementation of Cleanup:**
 - a. **Environmental Contamination:** To deal with long-term stewardship failures when they occur, the federal government should ensure that local governments are provided detailed characterization and environmental contamination information that is documented, mapped and comprehensive.
 - b. **Technological Advances:** The federal government must implement a systematic process in five-year reviews for reevaluating and modifying cleanup end states to ensure that developments in science, technology and other knowledge that becomes available are incorporated into long-term stewardship strategies.
 - c. **Recordkeeping:** The success of long-term stewardship activities requires a record management facility at or near the location of the stewardship activities that is accessible to the community and compatible with the local government's recordkeeping system. National and local records management facilities that local communities can easily access will be required to maintain duplicate records as failsafe measures.

B. Consistent Funding for DOE Cleanup Activities

It is important that DOE work with Congress to adequately fund the DOE Environmental Management (EM) program, and ensure there is adequate funding to meet cleanup milestones contained in regulatory agreements and court-driven orders at EM sites.

RECOMMENDATIONS

1. **DOE should communicate with communities on regulatory-driven cleanup milestones that are missed or projected to be missed.**
2. **DOE must integrate long-term stewardship and risk reduction in cleanup decision-making.**
3. **DOE should provide support for communities to pursue potential new missions and economic opportunities at cleanup and closure sites**
4. **Cleanup must be a DOE priority at the Secretary level.**
5. **Honor Commitments with Communities and States.** DOE must honor commitments made to local governments and communities.

C. Site and Community Safety and Health

The guiding principle of DOE's cleanup and closure actions at its sites throughout the nuclear weapons complex should be to clean up the sites, protect the workers' and the public's health and safety, and provide transition opportunities for host communities to build diversified and sustainable local economies.

RECOMMENDATIONS

In order to protect the workers' and the public's health and safety and provide transition opportunities for host communities to build diversified and sustainable local economies, DOE should:

1. **Work with DOE to require and enforce that retirement benefits promised under an original contract carry through to all subsequent contracts.** Protect workers' pensions by including site-to-site-consistent pension requirements in all Requests for Proposals.
2. **Protect skilled worker positions to assure continued safe handling of the many hazardous materials at the sites.**
3. **Successfully implement and maintain, along with the Department of Labor, the Energy Employees Occupational Illness Compensation Act of 2000.**
4. **Contractually guarantee long-term monitoring of former and current workers who have experienced hazardous exposure**

IV. Nuclear Energy and Waste Management Policy

Local governments have a critical role to play in the development of new nuclear technologies to produce energy, and also in the development of new nuclear facilities and alternatives to address nuclear waste management and disposition.

Energy Community Alliance (ECA) communities support the development of new nuclear power generation facilities. Nuclear energy must be part of the nation's energy portfolio in order to provide diversity that increases energy independence and reliability, as well as creates new clean energy jobs.

The federal government, in coordination with private industry and working with universities, should support development of new nuclear technologies, like small modular reactors, which may present new economic opportunities and could potentially burn spent nuclear fuel as part of a waste management strategy. ECA's local governments and communities interested in new nuclear missions are already working to ensure there is a workforce with the capabilities necessary to support the advanced nuclear technologies being developed. The federal government and industry can benefit from providing education on the nuclear technologies that are being prioritized for the future to these communities that potentially want to host demonstration projects or power production facilities.

ECA communities recognize, however, that if nuclear power is to contribute fully and help meet carbon reduction targets with public support, the question of what to do with commercial used nuclear fuel must be addressed.

In regards to DOE-managed legacy high-level nuclear waste and spent nuclear fuel, ECA communities that host DOE sites have a key role to play in the examination of alternatives for future high-level waste management and disposition. ECA communities where various waste streams* have been produced and are being stored have unique health, safety and environmental concerns and needs.

RECOMMENDATIONS:

- 1. Trust and Communication are Paramount** – One of the great challenges in regard to new nuclear policy and facility development is trust. Over time, trust in DOE's ability to manage HLW and create coherent policies – and confidence in the NRC's independence in licensing a repository – has eroded. Without trust, public acceptance will be hard to win.

ECA communities want to engage DOE and other federal agencies at the outset of any HLW policy or new nuclear facility development. Communication must be a priority – from technical experts and from public outreach experts – to ensure the general public understands the risks and benefits of any proposed nuclear project, thus enabling consent on a path forward.

ECA communities can help present the local values, concerns and priorities that are critical to successful policy revision and development. ECA can also be an honest broker, creating a

forum for states, Tribes and other key stakeholders to have a definitive role in the process that will help rebuild trust with DOE and federal regulators.

- 2. Local Governments Must Be Meaningfully Engaged** – ECA members believe it is critical for local governments and communities to be part of the discussion of future nuclear policy decisions. Their involvement is critical at all steps in the process – beginning with the development of the vision, refining the goals and priorities, and providing input when conflicts arise.

The key issues for communities include:

- *Being engaged early and actively* in any siting process for any new nuclear facilities or geologic repository. DOE should participate in assisting the local communities with education and information.
 - *Ensuring communities have oversight* with a clearly defined, funded and recognized role in the licensing, construction and operation of any nuclear facility (including transportation and emergency response issues).
 - *Highlighting the impact of new nuclear power development* on interim storage of spent fuel and potential recycling of used fuel disposition from the community perspective.
 - *Understanding the federal government’s approach* through communication and collaboration with federal officials. Local governments and potential host communities should be informed to the point that they can help their own constituents or related stakeholders recognize the federal government’s priorities, goals, and concerns.
- 3. One or More Geologic Repositories Are Necessary** – ECA supports geologic disposal pursuant to the Nuclear Waste Policy Act (NWPA) and as reconfirmed by the Blue Ribbon Commission. Much of the HLW and SNF across the DOE complex must be removed from sites such as Idaho National Laboratory, Hanford, and the Savannah River Site under stated commitments and/or binding legal agreements, so a licensed geological repository is imperative.

ECA supports developing a consent-based process for siting future repositories and other nuclear waste facilities, wherein interested local governments volunteer to work with states, Tribes and the federal government as potential hosts under a consent-based agreement. Communities directly impacted by transportation routes must be engaged as well.

DOE owns, is responsible for, or generates LLW and non-defense-generated TRU waste that have characteristics similar to GTCC waste. These waste streams do not currently have a disposition path, but the preferred disposal alternative could be sending the waste to a licensed repository or to the Waste Isolation Pilot Plant in New Mexico.

Without a geologic repository or changing the WIPP Authorizing Act that limits WIPP to taking only defense waste, these wastes will remain orphaned in communities that never

planned to be long-term or *de facto* permanent storage sites. A final geologic repository - whether at Yucca Mountain, WIPP, or elsewhere - is essential to the final disposition of HLW and integral to the success of DOE's Environmental Cleanup programs regardless of issues with commercial spent fuel.

- 4. The Existing Nuclear Waste Fund and Process Should Proceed as Originally Intended –** ECA endorses Yucca Mountain's application for licensure with the NRC and allowing for the full and fair NRC licensing review as authorized by the NWPA and approved by Congress. Too much of the obligated defense facility cleanup funds and activities are dependent upon the site for it not to be considered. In addition, ECA supports proceeding with the NRC licensing review in order to gain licensing experience even if Yucca Mountain is not ultimately chosen. A clear, defined licensing process is integral to public trust and acceptance of any new nuclear facilities.

In addition, the Nuclear Waste Fund should be used as it was originally created as part of the NWPA in 1982: "The Secretary may make expenditures from the Waste Fund...only for purposes of radioactive waste disposal activities." New legislation must be created or the NWPA amended to broaden "waste disposal activities" to allow some flexibility so these funds could also be used for outreach, education, a functional management structure, or oversight and monitoring at the state and local levels in support of Yucca Mountain or efforts to establish an additional geologic repository or interim storage site.

Legislation must also be created or amended to ensure that access to the Nuclear Waste Fund is not dependent on annual appropriations by Congress.

- 5. Disposition of Defense High-Level Radioactive Waste Must Be Considered a Priority –** As the strategy for managing and disposing of the nation's nuclear waste is debated, the disposal of defense waste must be addressed with urgency. Defense – or legacy – waste is older and in cases, less radioactive than commercial spent fuel, and it has no value as it can never be reused. The communities that have become *de facto* storage sites for defense waste played an important role supporting the country as part of the Manhattan Project, and disposing of the waste that currently sits at these sites should be considered a priority as is the waste at decommissioned commercial nuclear power plants. Assessments regarding whether defense waste can or should be disposed of separately from commercial spent nuclear fuel should be considered. Any decisions must be made with transparency, and must allow for meaningful engagement with the impacted communities.
- 6. Funding Should Exist for Communities with Defense High-Level Radioactive Waste –** ECA believes DOE should seek Department of Defense funding for communities that may end up hosting sites with defense-related HLW until a final disposition plan is determined. This will help ensure they can address their unique health and safety concerns and needs.
- 7. Existing Law Must Be Modified for A Path Forward Other than Yucca Mountain –** The NWPA establishes timelines and responsibilities for developing the Nation's permanent waste disposition path. In 1987, it was amended, directing DOE to study only Yucca Mountain. The law also prohibits DOE from conducting site-specific activities at a second site unless authorized by Congress. In addition, the NWPA prevents the siting of interim

storage facilities until the NRC licenses the construction of the permanent repository - which currently means the geologic repository planned at Yucca Mountain.

If the Yucca Mountain geologic repository program is to be terminated, it is a major federal action that lacks not only National Environmental Policy Act (NEPA) documentation, but also opportunities for public involvement. Congress must take action to modify the NWPA, the WIPP Land Withdrawal Act or create new legislation in order for alternative sites for interim storage or permanent disposal to be considered.

- 8. Consolidated Interim Storage Should Be Considered as Part of an Integrated and Phased Approach to Ultimate Disposal** – ECA believes consolidated interim storage must exist alongside a permanent solution and not instead of it. ECA supports the option of pursuing interim consolidated storage, provided economic incentives, health and safety monitoring, oversight, a final disposition plan/timeline and any other terms negotiated between the federal government and a potential host community, Tribe and state are addressed in a legally binding consent-based agreement.

In addition, ECA notes that interim storage alternatives do not necessarily have support from our communities without consideration of recycling used nuclear fuel, co-location of a repository, new nuclear mission or other significant benefit.

- 9. Consider Redefining Radioactive Materials Based on Activity Level Rather Than Where Waste Originates** – ECA supports reconsidering the definition of radioactive materials by activity level rather than where it originates, as is done in other countries. ECA wants waste removed as quickly and safely as possible to an appropriate location for disposal. Much of the country's defense HLW is now 70 years old, has decayed significantly, has had significant quantities of isotopes removed from it, and no longer meets any categorical definition of HLW except for the fact that it originated from the first cycle of reprocessing to obtain plutonium. Estimates of the volume of the Hanford tank waste content is that most of that waste fits the transuranic definition of waste. Therefore, eliminating the source component of the definition and referring instead to the content or activity level, could increase available disposal options.

- 10. There is a Potential for Reprocessing** – Most ECA members support and are interested in exploring recycling used fuel (or reprocessing) as part of an integrated approach to permanent waste disposition. In this way, recycling may allow what was once considered "waste" to be a new energy resource. While reprocessing will not eliminate the need for a geologic repository – in fact, a repository will still be required as it will not eliminate the waste stream - reusing used nuclear fuel can potentially reduce the volume, thermal output, and/or radiotoxicity of waste requiring geologic disposal.

When DOE last introduced an initiative to study the potential development of nuclear recycling facilities, over half of the 11 siting grant recipients included ECA communities – the potential hosts as well as the constituents most directly impacted by any new recycling policy or facility. ECA supports federal R&D on advanced nuclear fuel cycles and efforts to address environmental impacts (e.g., ensuring waste streams associated with reprocessing

have clear, final disposition paths) and proliferation concerns (e.g., avoiding the creation of a separate plutonium waste stream).

*Key Definitions of Waste Stream:

High-level radioactive wastes are the materials produced as byproducts of the reactions that occur inside nuclear reactors and that the US Nuclear Regulatory Commission (NRC), consistent with existing law, determines by rule require permanent isolation.

High-level waste (HLW) can take the following forms:

- **Waste materials remaining after spent nuclear fuel is reprocessed:** Reprocessing extracts isotopes from spent fuel that can be used again as reactor fuel. It results in liquid waste and solid material derived from liquid waste that contains fission products in sufficient concentrations. While commercial reprocessing is not currently practiced in the US, it has been allowed in the past.

In addition, significant quantities of high-level radioactive waste was produced by the defense reprocessing programs at US Department of Energy (DOE) sites such as Hanford, Washington; Savannah River, South Carolina; and by commercial reprocessing activities at the Idaho National Laboratory in Idaho and at West Valley in New York. These wastes are generally managed by DOE and are not regulated by the NRC.

- **Defense High-Level Radioactive Waste (DHLW)** is the high-level radioactive waste, as defined by NWPA 42 U.S.C. 10101(12), resulting from reprocessing spent nuclear fuel in a defense facility.
- **DOE Spent Nuclear Fuel (DOE SNF)** is SNF that is managed by DOE, and has been withdrawn from a nuclear reactor following irradiation, the constituent elements of which have not been separated by reprocessing. DOE SNF includes, but is not limited to, production reactor SNF, research reactor SNF, naval SNF, and DOE SNF of commercial origin.
- **Defense Radioactive Wastes:** Wastes resulting from weapons research and development, the operation of naval reactors, the production of weapons materials, the reprocessing of defense spent fuel, and the decommissioning of nuclear-powered ships and submarines.
- **Commercial Spent (“Used”) Nuclear Fuel:** Spent nuclear fuel (SNF) is used fuel from a commercial nuclear reactor that is no longer efficient in creating energy because its fission process has slowed. However, it is still thermally hot, highly radioactive and potentially harmful. Until a permanent repository for SNF is built, licensees must safely store this fuel at their reactor locations.

Transuranic waste (TRU) contains elements with atomic numbers (number of protons) greater than 92, the atomic number of uranium. TRU waste results from the defense weapons production process and includes only waste material with transuranic elements – artificially made, radioactive elements such as neptunium, plutonium, americium, and others – with half-lives greater than 20 years and concentrations greater than 100 nanocuries per gram. If the concentrations of the half-lives are below the limits, it is possible for waste to have transuranic elements but not be classified as TRU waste.

Greater Than Class C (GTCC) is considered a form of low-level radioactive waste (LLW). Most forms of GTCC waste are generated by routine operations at nuclear power plants, fuel research facilities, and manufacturers of radiopharmaceuticals and sealed sources. Future GTCC waste is also expected to be generated by the decommissioning of nuclear power reactors. By far, the largest volume of GTCC waste (+50%) is generated by nuclear power plant operations and decommissioning, but it is *not* spent fuel. Examples of GTCC waste include activated metal hardware (e.g., nuclear power reactor control rods), spent fuel disassembly hardware, ion exchange resins, filters, evaporator residues, sealed sources that are used in medical and industrial applications, moisture and density gauges, and contaminated trash.

There are four classes of LLW, in ascending order of hazard: Class A, B, C, and GTCC.

In terms of hazard, Class A LLW is intended to be safe after 100 years, Class B after 300 years, and Class C after 500 years. These LLWs are typically disposed of in shallow land burial sites; however, because of its high hazard, GTCC waste is not typically disposed of in shallow land burial sites or commingled with Class A, B, and C LLW.



Energy Communities Alliance (ECA) is the membership organization of local governments that are adjacent to or impacted by U.S. Department of Energy (DOE) activities. ECA's mission is to bring together local government officials to share information, establish policy positions and advocate community interests in order to effectively address complex constituent, environmental, regulatory, economic development and emergency response issues.