

CONSENT-BASED SITING PUBLIC MEETING

Hyatt Regency Boston

One Avenue De Lafayette

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FULL TRANSCRIPT

Mr. Jim Hamilton. Good afternoon. Welcome to Boston, and to the fifth in a series of public meetings the Department is hosting on its Consent-Based Siting Program. Thank you all for being here today. I'm especially happy to welcome you for two reasons. One is, I live in Boston, so, welcome to my hometown. But more importantly, we've got an excellent panel here in front of you here today, and I'm looking very much forward to hearing what they have to say, and learning from their experience and insights.

My name is Jim Hamilton; I'm an advisor to the Department of Energy's Consent-Based Siting Program and my job here today is to help us all have an open and productive conversation.

So to start off, a few housekeeping issues to cover, and I'll run through those now. First, from a personal safety perspective, emergency exits are behind you and to your left.

Second, you should all have an information packet that looks something like this when you walked in. Does anybody not have one of these? If so, raise your hand, and we'll get you one. But inside the packet, you'll have a copy of today's agenda; speaker biographies; a contact sheet for further information; sample themes and questions for the small-group discussions, and I'll explain more about that later; content of the informational posters you saw on the way in and an information booklet describing the Department's waste management program – it looks something like this. And a meeting evaluation form.

For those on the webinar, all this information is posted on the Department's website.

Now the goal of these meetings is to engage in a dialogue around the Department's Consent-Based Siting Program for nuclear waste management facilities. And to that end, we've designed today's agenda as follows.

The opening remarks by Marge Kilkelly, a Senior Policy Advisor to Senator King; we'll then hear from Acting Assistant Secretary for the Office of Nuclear Energy John Kotek; followed by four excellent – again – panel members who will share their thoughts. And we'll then have a question-and-answer session lasting about 45 minutes between the audience and the panel members. Then a quick break. And following that break, we will have some facilitated small-group discussions, followed by a report-out session from those small-group discussions, and then we're going to end with a public comment period and some closing remarks.

This public meeting is being streamed live, and a copy of that stream along with a meeting summary report will be on the Department's website shortly.

We hope to cover a good deal of ground today. I'm very excited that you're all here. And we look forward to your collective interest and participation.

Again, thank you for coming. Welcome to Boston. And now to kick us off, I turn it over to Marge Kilkelly for her opening remarks. Ms. Kilkelly.

Opening Remarks

Marge Kilkelly, Senior Policy Advisor to U.S. Senator Angus S. King, Jr.

Ms. Marge Kilkelly. Thank you, Jim. And thank you everyone. It is a delight and an honor to be here tonight to kick off the New England forum on the consent-based siting of nuclear waste. Now, I know that may sound a bit trite, but it's absolutely true. I think we are in a new era of this conversation with the potential to move this issue forward in a way that we've not been able to before.

I believe that today marks a significant milestone in the history of the effort to address spent nuclear fuel. And we didn't just stumble on this opportunity. It's the direct result of the conscientious effort of the Blue Ribbon Commission on America's Nuclear Future, a subcommittee of which met with community leaders and stakeholders in Wiscasset Maine, on August of 2010. They listened to the concerns and the ideas of technical and laypeople alike. They included the concept of consent-based siting in their report to the Secretary of Energy in 2012. DOE also listened. And as a result, has chosen to convene these sessions all over the country.

This is not the easiest method of designating a site. But it may very well be the best. From the Blue Ribbon Commission's report, and I quote, "Obviously, there is an inherent tension between recommending an adaptive consent-based process and setting out deadlines and progress requirements in advance, but we agree that it will be important without imposing inflexible deadlines, to set reasonable performance goals and milestones for major phases of program development and implementation so that Congress can hold the waste management organization accountable, and stakeholders and the public can have confidence that the project is moving forward."

My boss, Senator King, serves on the U.S. Senate Energy and Natural Resources Committee and is also serving on the Subcommittee on Energy, which has jurisdiction over nuclear energy, and of course, waste. Senator King has repeatedly asked and followed up with DOE on the issue of moving and storing nuclear waste spent fuel. In February of 2015 when Secretary Moniz was presenting the DOE budget, the senator said, "As you know, we've been through a long period – 50, 60 years – of not knowing what to do with nuclear waste. I understand there's a company based in Dallas that's looking towards at least an interim-level storage. That would be a huge improvement. We've now got amounts of 100+ high-level nuclear storage sites all over the country, one of which is in Maine, and would like to get rid of that stuff. Is this a priority to work towards? A high-level nuclear waste storage facility?"

The Secretary responded: "It is a priority to work towards a whole nuclear waste disposal system, both from the commercial nuclear power plants and from our own defense wastes from the weapons program." He also noted that it was important to look at an initial pilot storage facility as well as developing geological isolation capabilities needed for long-term storage.

In October of 2015, with Mr. Kotek, at his nomination hearing, the Senator asked, "We're sort of turning a page on high-level nuclear waste and looking at consolidated interim storage with consent." And he said he noted that it's important to remember we currently *do* have high-level nuclear waste storage in Maine, at Maine Yankee, specifically. What's the timing? Is it another 25 years we're talking about? Or is it something that could happen within the foreseeable future?

Mr. Kotek, who had visited Maine with the Blue Ribbon Commission, responded on timing to explain the 2013 Strategy, with eight years to a pilot, twelve years to full-scale, and hopefully 2048 for a repository. Not too distant a future, as long as appropriations and authorizations happen – then in fact it could happen. And he noted that the Administration placed a top priority on sites like Maine Yankee to move first in interim storage.

Obviously, moving the waste is important. And prioritizing the waste from decommissioned plants is critical. So what lessons have we already learned that can be applied to the tough decision-making around siting either a long- or short-term nuclear waste storage site?

Back in 1997, I was asked to chair the Community Advisory Panel (CAP) on Maine Yankee decommissioning. At that time there had been a lot of tension between the plant and the surrounding communities and this new effort was an opportunity to bridge that gap as the plant moved into its final stage. The Charter stated that the CAP was designed to enhance open communication, public involvement and education on Maine Yankee's decommissioning and to function as an advisory panel. When Maine Yankee staff asked me to chair the Commission, my key concern was the company's level of commitment. Would they share information in a timely manner? Would the CAP members be providing advice? Not just reviewing decisions that had already been made. If Maine Yankee was asking community members to spend several years serving on the CAP, it needed to make a commitment to provide them with an honest process and information.

The risks of involving stakeholders intensively in a large project like a plant decommissioning or, especially, in the national work we're undertaking now, are real. But from the Maine Yankee CAP experience, I can say that they are far outweighed by the benefits.

There is a role for non-technical people in technical decision-making, and it should not be underestimated. It's not easy. It's not straight-line decision-making, and requires a significant amount of education, commitment and listening. Not everyone is going to agree on a particular policy, and some will be vociferous in their opposition, but the community and individual input can often lead to epiphany moments that otherwise might never be found. When people know that their voices are heard, even if they disagree with the outcome, conflict is diminished, trust is established and sometimes even consensus can be found.

The company took several steps early on to fulfill their commitment to the CAP. Maine Yankee made public at CAP meetings initially important information, such as the Post-Shutdown Decommissioning

Activities Report and the selection of a decommissioning operations contractor. The company also gave individual CAP members access to previously internal documents. The CAP process was transparent and with no distance or filter between the decision-makers and the general public.

Transparency is essential, and transparency is created when time is invested in education and listening to the public. And transparency also leads to trust. In our final report, a local newspaper commented that the CAP meetings became Maine Yankee's report card on decommissioning.

The role of the CAP in providing additional non-technical review of proposals was important as well. In addition to regulatory scrutiny, the decommission plans routinely were put through a public straight-face test, where the perceptions and perspectives of stakeholders were considered and plans sometimes altered as a result.

There are several key breakthrough moments in the Maine Yankee CAP process I want to share with you. I believe they are important in the process in which we are currently involved.

We began the CAP process with a series of tutorials. Some people on the panel were nuclear experts and some, like myself, well, we're not, let's just leave it there.

At one of the very early meetings, the technical staff of the plant presented a very well thought out presentation on the workings of the plant and some of the issues that we would face in decommissioning. At the end of the presentation, I looked around, and I ended up asking the first question. As soon as I asked it, it was very clear from the faces of the technical folks that I had gotten lost somewhere between slides three and four and I think one and two were both pictures. So all of the hard work that they had done had really been for naught in terms of educating us.

The plant staff, after that, reviewed the presentations not only for technical accuracy, but also for layperson understanding. This took more time, but it was critical to clearly providing information, not only to the CAP members, but to anybody in the public that wished to review that information. Anyone could access the information that was available. Further, every time, and I mean *every time* a question was raised by a member of the CAP or a public member during the comment period, and it was not able to be answered during the meeting, it was posted on the website and it was answered.

Every. Single. Question.

So our first lesson was the CAP's job was to ask the dumb questions, and I must say I took the lead on that more often than not, but those are the questions that any citizen might want to ask, but wouldn't be in a position to do so.

The lesson for the plant staff, who live, eat and breathe technical data, is that they needed to translate that information into language that laypeople could understand. This was a critical juncture, because when people can't understand information, they often assume that there is something to hide – something is being shielded from them – or worse yet, that they are being misled.

Our second lesson was actually a community trust lesson. In 1998, during the decommissioning, after isolating the pool from the rest of the plant, the pool needed an alternative cooling system. So the technical folks designed and installed heat exchangers with very large fans that would serve well in that

capacity. All of the specs were appropriate and one day whoosh – the fans were turned on. According to neighbors, at the sound of about a jet engine. Especially across the river.

Well, the phones started ringing, "What was the noise? Was it coming from the plant; is it dangerous?" People's concerns were calmed, but when they were told that it was going to last 24-7 for only five years [Laughter] it didn't give them much comfort.

So there was a hastily called CAP meeting and the residents could come and talk about their concerns after several parents relayed stories of babies crying all night; windows that couldn't be opened; children who couldn't play outside and picnics that had been canceled, the company president came to the rostrum and said, "Don't worry – we'll take care of this." And within weeks, there were modifications to the fans that made resolving this issue a satisfaction to everyone.

The last lesson, and to me, the most satisfying. On September, 2004, the containment vessel came down at Maine Yankee using controlled explosives. Yes, like something that you might see in an old movie newsreel: *proof, bang, drop, dust, done*. Maine Yankee's decommissioning was the first to use this technique, which was used three times, because it enhanced project safety, and expedited the demolition process. The idea of using explosives at a nuclear power plant site shortly after 9/11 seemed like a real challenge from a public perspective. However, the demolition company did a presentation to the CAP carefully explaining the process to the community and assuring stakeholders that radiological and other risks of this proposed activity were small.

A significant measure of the success of the decommissioning and the role of the CAP at Maine Yankee, was that hundreds of people gathered in September of 2004 to watch the explosive demolition of the containment building in fascination, not fear. They knew what was going to happen. They felt secure in the information they had received, and they took a lot of pictures.

Decommissioning Maine Yankee was a long process. But that length of time pales in comparison to the challenge facing all of us as we discuss thousands of years of waste and spent fuel storage. We have a unique opportunity today to be part of the solution. Whether a person is supportive of nuclear power, or adamantly opposed, the real issue before us today is that waste exists and it needs to be stored. It needs to be stored safely and efficiently.

Just monitoring and safeguarding the waste at the Maine Yankee ISFSI cost taxpayers \$8 million a year, and keeps the town of Wiscasset from being able to look at redevelopment of that really important site. And there are 12 other sites around the country with shutdown reactors and, actually, as of today, there are going to be a few more.

Transportation is a critical aspect of the siting process. And the work of the Northeast High-Level Radioactive Waste Transportation Task Force, which is one of the longer names there is, and sister organizations in the other regions of the country, have been hard at work coordinating and addressing the transport issues that we will need to use in the future.

Communication is also essential. Attitudes towards nuclear power and spent fuel differ greatly around the country. As Senator King's question to the Secretary pointed out, there are communities and regions of the country that are interested in hosting material that most of the Northeast is quite anxious to get rid of. Creating more opportunities for conversation between the unintentional current host communities, and

those interested in hosting is an essential part of this process. The waste was created by generating power, by protecting our country, and by medical and other research. Our job today is to take full advantage of the opportunity to be part of moving this process forward.

Thank you for being here, and thank you for being willing to take on this task. It's important work that we are doing. Thank you. [Applause].

Mr. Jim Hamilton. Thank you Marge. We will now hear from John Kotek, the Acting Assistant Secretary for the Office of Nuclear Energy. John?

Mr. John Kotek. Great. Thanks very much. Before I get started, we do have a brief welcoming address from Secretary of Energy Ernest Moniz that we'd like to play, so if we can go ahead and do that.

Dr. Ernest Moniz, U.S. Secretary of Energy. [Recorded video]. Hello, and welcome. The meeting you're taking part in today marks an important step toward resolving a challenge that I've been working on for many years. Back in 2010, before I became Secretary of Energy, President Obama and Secretary Chu asked me to serve on the Blue Ribbon Commission on America's Nuclear Future and tasked the Commission with recommending a new plan for dealing with spent nuclear fuel and high-level radioactive waste. Currently, this material is stored on-site at reactors, or at DOE sites, both operating and shut down, around the country. This system of managing this material is less secure and less permanent than either an interim storage facility or a geological repository. The effort to build a repository at Yucca Mountain made clear that building a repository in a community or state that did not agree to host one was not workable.

With that in mind, the Commission set out a path that we hope will enable the United States to find locations where we can store and ultimately dispose of spent fuel and high-level waste securely and safely. Today, and at meetings occurring around the United States, we hope to hear from you about what a fair and open consent-based siting process should look like. Your input will be essential to the Department of Energy's future approach to seeking a community or communities that agree to have a federal interim storage facility or repository in their area.

To be clear, the Department is not yet considering any particular locations for siting these facilities; rather, we are gathering feedback about how the process of locating such facilities should look going forward. That process will be important to removing spent fuel and high-level waste from on-site storage at nuclear plants and from DOE sites.

Moving forward with a workable plan is also critical to ensuring that nuclear power remains an option for low-carbon electricity in the United States.

I look forward to hearing from my colleagues about this meeting, and others occurring across the country. Again, I want to thank you for coming out today to share your feedback about how a consent-based siting process should work.

Moving Forward with Consent-Based Siting

Mr. John Kotek. Great. Thanks again for being with us tonight. Like Jim, it's a particular pleasure for me to be here; I grew up, up in Salem, and went to high school out in Wayland, so it's great to get back home.

Why am I here; why are you hearing from somebody from the Department of Energy tonight?

In 1982, Congress, through something called the Nuclear Waste Policy Act, assigned responsibility for finding final disposal locations for both commercial fuel and from the Department of Energy-origin waste to the Department of Energy. Since that time – and even before that time – there have been several attempts at locating nuclear waste storage and disposal facilities around the United States. None of them have come to fruition. We're here, as the Secretary said, and as Marge alluded to, to try and implement a new approach, building on the recommendations of the Blue Ribbon Commission on America's Nuclear Future, to design and implement a consent-based process for siting new nuclear waste management facilities.

Your input here tonight is going to help us in developing that process and in moving forward, so we appreciate you being here, and we appreciate your input.

What I'm going to do is I'm going to frame the discussion of little bit, particularly for those of you who may not live and breathe this stuff like some of us do.

Just a brief overview – how did we get here? Since the 1940s, the United States has been using nuclear technology either for commercial use, for research or for defense use, and as a result, we've generated wastes. Spent nuclear fuel and waste that we call high-level nuclear waste, that requires safe, long-term isolation from people and the environment for millennia.

So every state in New England has played some sort of role in this – five of the six states have commercial nuclear power plants. Rhode Island has had a nuclear research reactor. So you know this is an issue that is particularly relevant here in New England.

On the commercial side, we've had about sixty years of generation of electricity from nuclear power which generates almost 20% of the electricity in the U.S.; more than 60% of the zero-carbon generation in United States is nuclear power, but it results in the generation of about 2,000 metric tons of spent nuclear fuel a year. We've got, roughly speaking, 75,000 metric tons of this material around the country. Volume perspective – envision a football field stacked 20 feet high with this stuff; it's not a huge volume, but it's material that can be very hazardous if not properly managed, and needs to be safely stored and disposed of over the long-term. That's what we're here to develop a solution for.

Why is this stuff hazardous? Briefly speaking, in a commercial nuclear power plant, you've got uranium fuel – we've got a mockup of a fuel assembly over here that's about a 1/6th scale that shows you what one of these things look like. Inside the skinny metal tubes there is uranium. The uranium in a nuclear reactor is caused to split, or fission as we call it, and it releases a lot of power that is used to generate steam and drive a turbine and generate a lot of electricity, but in the process of splitting that uranium, you create something called fission products, some of which are very radioactive. You also create transuranic elements like plutonium that are radioactive over a very, very long periods of time, so the material needs to be safely managed and disposed.

Here's just a picture of what one of these assemblies looks like. It's about 12 or 14 feet tall – you'll have between 200 and 500 of these things in a nuclear reactor at any given time.

At a nuclear power plant, what will happen is that the fuel – because when it comes out of the reactor, it's both thermally and radioactively hot – it will first go into one of these storage pools; as the pools fill up, more and more of this fuel is being moved into dry storage. Right now you've got about two thirds of the inventory of the nation's spent fuel in wet storage at nuclear reactors; about one-third in dry storage. Okay?

We've also got, as I mentioned, wastes we call high-level wastes, but also spent nuclear fuel resulting from Department of Energy activities. So you've got work that was done in support of the Navy, and the Portsmouth Naval Base up in Kittery, Maine, for example, does work on nuclear submarines. Well, the nuclear Navy has been using nuclear-powered nuclear reactors for propulsion for about 60 years. You've also got waste left over from plutonium production from the nuclear weapons program; you've got waste left over from nuclear research that have all resulted in waste forms that need to be safely managed and disposed.

So, just in summary, about 75,000 metric tons of commercial spent nuclear fuel growing at a rate of about 2,000 metric tons a year plus, you know, large quantities of defense wastes, some in solid form, some currently in liquid form that need to be solidified, stored at locations around the country. This is probably hard for you to see, but what you'll see if you look at this map up close on one of the posters in the hallway is that most states in the United States have either commercial nuclear reactors or a Department of Energy facility that plays host to some of this material.

So as we go forward, we need to develop ways of, again, safely storing and disposing these facilities over the long-term. The problem is particularly acute with shutdown nuclear power reactor sites, and as Marge mentioned earlier, alright, there is one up in Wiscasset, Maine, where you had a commercial nuclear reactor operate for some period of time, and in many cases decades; the reactor's been shut down, and in some cases completely decommissioned, again, like at Wiscasset at the Maine Yankee plant, where the reactor is gone, the turbine hall's gone; everything is gone except for spent fuel and guns, guards and gates.

And we have 14 locations around the country where there is spent fuel being stored but there is no power being generated anymore. It's a priority for us to start by moving fuel from those reactors.

Well why? Why act now? Some people make the point that the Nuclear Regulatory Commission says you can store this stuff safely on-site for decades; why are you trying to do something? Well, a lot of reasons, the first of which in my mind is that this waste has been created for our benefit. Alright? The electricity that's been generated, the nuclear deterrent that's been generated, the research that's been done, etc., whether you agree with that or not, the fact is that societally it's been generated for our benefit, and I think we have an obligation to do something about it.

There is also the question of taxpayer liabilities. The federal government has been successfully sued by utilities that generated this waste that were promised a waste disposal pathway that paid the government to create a waste disposal program. More than \$30 billion has been collected from ratepayers of consumers of nuclear-generated electricity, yet the waste still sits there, so the utilities sued, said you

were supposed to have taken this waste by now and were still paying to store it, then the government has lost, so hundreds of millions of dollars are being paid out each year out of something called the Judgment Fund to compensate these utilities for their storage costs – that costs everybody in this room. Alright?

Funding, as I mentioned earlier, funding to pay for the disposal of the commercial waste has already been collected. We should put that to good use. The government has entered into agreements with states and in several cases in which there is a legal obligation to move spent fuel. And then we've got the technology – other countries are farther down the road than we are in implementing a repository program for a disposal facility. There is a scientific consensus around the globe that this stuff can be safely managed and disposed for the long-term – let's get on with it. So that's what we're trying to do.

And so I won't go into a lot of detail into how we got here. For those who are interested, again, there are posters outside. We've got folks who really understand the history of this stuff – I'm going to point out Tom Cotton right here – Tom, raise your hand. If anybody wants to understand the history of the waste program, go see Tom. Alright? Great guy – a good guy to talk to. But, all right, what you'll see is that there have been several attempts at siting nuclear waste at a storage or disposal facilities around the U.S. They've all really been top-down – the federal-government trying to force this material on states that ultimately decided they didn't want it and none of these have worked. So we're trying a new approach.

The approach we're trying tries to learn from what's going on in other countries. In particular, Canada, Sweden, Finland and France are all further along than we are in developing and identifying repository sites. They've all used a consent-based process. I think the Finns are the furthest along. They've got a location picked; the community is on-board and their regulator has approved it and they are going to enter the construction process here pretty soon.

Those experiences and the experiences in siting other hazardous facilities in the U.S. really informed the recommendations of the Blue Ribbon Commission which were really focused on the need to employ a consent-based siting process to identify willing and informed hosts for these new facilities. Those recommendations form the basis for the Administration's Strategy. Alright? For moving forward with nuclear waste management.

So what are we trying to achieve? At the end of the day, we want to develop an integrated waste management system that includes storage facilities, particularly for spent nuclear fuel from shutdown nuclear power plants, leading to geologic disposal; development of one or more deep geologic repositories, you know, deep underground; certainly one for commercial fuel – we're also looking at potentially developing a repository just for defense-origin waste, and all of this needs to be tied together with a transportation system that works.

So, for a consolidated interim storage facility, we envisage starting with a pilot facility that would allow us to begin clearing out those shutdown plants, but over the long-term we envision a larger capability that could accept a larger volume of fuel. On the transportation side, you know, we need to have a system that works. We do have a lot of experience in transporting spent nuclear fuel in the United States, both from the Navy program and commercially, but the scale of the transport that would be required here would be larger than anything that has been done here in the U.S. We need to work cooperatively, and are working cooperatively, with states and tribal governments to ensure that they've got the resources they need for training and emergency preparedness, route selection, etc. We're trying to build on successful work that

the Department has done shipping what we call transuranic waste, which is the type of waste left over from the weapons program, down to the Waste Isolation Pilot Plant, a deep-mined geologic disposal facility in New Mexico. We've made over 10,000 shipments of waste down there working in partnership with states and tribes. That's worked well – we want to build on that. Okay?

And that was just a picture of what one of the nuclear waste transport containers would look like on a rail. That's one that the Navy uses.

This all, of course, needs to lead to the development of a deep geologic repository. Every nation that's developing a disposal capability plans to use a deep-mined repository. A mined geologic disposal facility involves placing carefully prepared and packaged radioactive waste in excavated tunnels in geologic formations such as salt, hard rock or clay. The idea is that you want a series of barriers, both natural and engineered, that are designed to contain the waste for thousands of years. So that's where we need to wind up. Alright?

And so where we want to go from here is we want to employ or design and then employ a consent-based siting process that works cooperatively with local governments, communities, states, tribal nations and others. We're going to do so in a way that will ensure safe and secure operations of this integrated waste management system that can build and maintain trust among the various stakeholders and that can adapt our operations based on lessons learned and changing circumstances.

In this early stage of the process, what we're doing is, here in stage I, we're engaging with the public and interested parties on the elements of the consent-based siting process. We're going to use the input we get from you and through other channels to design a consent-based siting process [stage II]. And then in stage III, we'll use that resulting process to begin to work with potential host communities here over the next couple of years again, as Marge said, with the necessary appropriations and authorizations from Congress.

So where we are now is we're seeking your input, particularly on these five questions – and I won't go over them now; they are in your packet, and we'll discuss them more later, but we want your input because we think answers to these questions will help us design this process.

In addition to the meetings like we're having here tonight, we're also receiving input through our website, from an Invitation for Public Comment that we put in the Federal Register; we plan webinars and of course we get invited to other fora around the country where we're receiving input. Again, that will be used to – by the end of this year – design a consent-based siting process based on the input we get here and issue some preliminary siting considerations so that people know what we're looking for when we say we want to locate a storage or disposal facility.

One of the additional things we've done as part of our budget request to Congress for next fiscal year is we've asked for funding to allow us to provide grants to states, tribes and local governments and potentially others who might be interested in studying this problem in more detail in determining whether they might want to ultimately at least investigate further the possibility of hosting a facility. Not sure yet whether the Congress is going to support this request, but it's pending before them now. And then of course that will lead to the third and final step in the process, as we actually get into implementation.

I'll leave it at that. We'll have a chance at question and answer here first, but I want to leave our panelists sufficient time, but if you do have input that you want to give to us after tonight here are some ways of getting involved. If you haven't met some of our folks yet, during this poster session earlier, please introduce yourselves later. If you're interested in staying in touch, in particular Andy Griffith, where's Andy? You're going to hear from Andy later. Andy is the person who runs this program day-to-day for me so he's a good guy to get to know going forward. With that, I'll sit down. Thank you for being here. [Applause].

Perspectives on a Consent-Based Process

Mr. Jim Hamilton. Thank you Mr. Kotek. We're now going to hear from four panelists, each of whom brings their own rich and unique perspective to this issue, and each of them will offer their own thoughts on the siting challenge. First, we're going to hear from Dr. Jonathan Raab, from Raab Associates, followed by Mary Lampert from Pilgrim Watch; then Phil Richardson from Galson Sciences and we wrap up with David O'Connor from ML Strategies.

I'm not going to read their biographies – they are all in your information packet, but we are all grateful to be able to hear from them today. To lead us off, I turn the discussion over to Jonathan Raab. Dr. Raab?

Dr. Jonathan Raab. Great. Thank you. Good early evening to everybody. I'm just going to be providing a perspective of having designed and facilitated, mediated multi-stakeholder processes on energy and climate issues for the last 25 years and just taking a quick look at this with some thoughts as kind of an illustrative way that you could do a consent-based process.

As everybody knows, this is an incredibly complex area to design a stakeholder process – a consent-based process – it's complex scientifically and politically. It deals with multi-stakeholders which we're used to dealing with, but it also has an intergenerational issue that we're not very good at dealing with as a society. So my thought is that what you would need is a process that would have at least three – three-tiered or three different parts to it.

The first would be a national scientific joint fact-finding process and that would be a process that would identify well what are the acceptable disposable technologies and the physical attributes of long-term storage conditions; and similarly, what would be acceptable for interim storage options. And then to look at what the specific acceptable geological and other criteria that you'd need to be able to house those different technologies.

And then identify the geographic swaths of the U.S. that actually meet that criteria. And that would be the scope of that group. The participants would include really nationally recognized scientific experts – that would be engineers, physicists, geologists, geographers – you'd have a competent mediator working on that process. A lot of that work has already been done, but it may need to be done again as part of this process. To be updated and to sort of have credibility as part of what I'm calling a three-tiered process.

The second tier would be a national stakeholder process that would work on defining the terms and conditions of engaging host communities. So that would be a delineation of how the site would be managed and protected, really in perpetuity for permanent storage, and for a defined time period for

interim storage. It would delineate what would be the things required to be provided by any host community. It would delineate what would be the compensation, and other things provided to a host community and by whom and it would define the process of identifying and selecting a host community or communities and sort of design what the RFP/RFQ process – I think implicit in what I'm saying is that at this point in time, given our history with this, I think it's critical that places that we're going to be putting either interim or permanent storage basically are going to need to self-identify as opposed to being told this is where this is going to happen. And that compensation is going to have to be an important part of the conversation.

So this, the group who would be involved in this, would be a different construct – this would include representatives of the relevant federal agencies; representatives of state and local government umbrella organizations and other key stakeholders – utilities, environmentalists, tribes, etc. that would really work to design essentially this very complex RFP process, if you were.

And then the third part would be a community-based stakeholder process which I think is probably what most people are talking about when they're talking about consent-based, but I think the other two parts are essential before you even think about working with a community.

So when you get to the communities themselves, you need to have a clear process that each community would need to go through in order to self-identify as a community of interest within the broad geographic slots identified by the scientific joint fact-finding; again, either for permanent storage or interim repositories. There should be grants that would be available to communities and again maybe they, at the second phase, after they go through an RFQ process, and then and so here are some of the tricky issues.

One is what's the scope, right? What's the geographic scope? That would need to be clearly defined. So at a minimum – the town and the county in which a proposed location would need to be involved, but probably would need to be all the towns, cities and counties that are within a certain mile range; again I'm not saying what that is, of a proposed site, to avoid the problem of placing facilities on borders with neighboring towns and counties which we're very good at with landfills and other things; that's why they all end up being on borders.

You'd need to define then what we mean by "consent." So a vote by elected officials in a particular town or county, even if it's unanimous – is not really probably going to cut it – I think you're going to have to go directly to having citizens involved in defining what consent would mean. You'd probably need a referendum or citizens, after meaningful education, discourse with experts and stakeholders and other residents in interactive workshops; we can talk more about that in the Q&A – can actually vote on whether or not to embrace a repository in their community.

And although as mediators we often define consent as unanimity, when everyone is at least willing to live with the proposal – unanimity is probably too high of a hurdle – but any threshold set, which should part, again, of the terms and conditions, should likely be something that's much closer to 100% than a simple majority of 51%.

I think that what we probably learned in the past is that not only the town, but we're going to need to engage the state, whatever the state is of the host community, and do a similar interactive workshop format with state residents around the state and if the community is a certain amount of miles away from

the border, then you'd need to have a vote in a neighboring state as well. I think for the state referendum – the state vote – I don't think you'd need 100%, I think it could be a different threshold than for the local community; at least a simple majority – maybe two-thirds – again, most of the other things that we need to be discussed.

I have some other thoughts but my time is up so I will stop there. [Applause].

Ms. Mary Lampert. Good evening, I'm Mary Lampert, Pilgrim Watch. We have seen a failure to site and this has resulted in waste piling up in all the places that it doesn't belong. Places such as Plymouth, Massachusetts that because it's America's hometown is a security issue. Also, the casks are a stone's throw from Cape Cod Bay. And so the point being we have to learn why we've failed so we don't repeat the same mistakes.

I'm going to focus essentially on two issues. We've failed to give states regulatory authority over health and safety issues and I think this is key. And second, we've failed to assure that consent is meaningful, which means that it's informed.

The first point that states must have regulatory authority – what I'm really saying is that we have to have an amendment to the Atomic Energy Act. Currently, states are preempted to have authority over health and safety issues, so what that means is that they are powerless. If they perceive, or perceive in the future, that there could be health issues, safety issues, issues that impact property values – they really don't have a say.

So this would require Congress to get on the ball, amended the Act; I think the authority probably comes under or could come under the Resource Conservation Recovery Act, the Clean Water Act, the Clean Air Act. This is not a radical suggestion. In fact, the state of New Mexico cut a deal so they would have authority over the WIPP site and so when there was a problem in 2014, they had authority. I think to ask and expect a state to accept either a deep repository or to accept an interim site without giving that type of authority is dreaming.

My second point is meaningful consent has to be informed. Communities and governors in the state need to know what are we getting into before we are being asked to give consent. So I think the following areas have to be looked at, worked out and specified.

First, as Dr. Rabb pointed out, you establish sites, screening criteria, standards, hydrology, geology seismic, population density, transportation access and things of that sort by independent experts.

Second, establish standards for the development and operations on the site. For example, it would be necessary to assure there would be baseline radiological and chemical monitoring before the site is developed, so you would have a benchmark going down the road. Also, very important, is a capability developed by DOE before there is a site, to monitor the canisters and replace defective and leaking casks. Currently this capability does not exist, although DOE is working on it. These canisters – typically the Holtec are .5 inches thick. They are, according to NRC documents, susceptible to cracking in 30 years and according to Holtec's Dr. Singh, I hope I'm pronouncing that correctly, I hope, they cannot be repaired. So this technology has to be developed [as an] on-site capability before anyone can expect a site to be developed.

Also I think the public would want real-time radiological monitoring equipment around the casks and to develop trust amongst the population hooked into the state with the capability for the public to read the results, so they know there isn't anything to fear.

Then there has to be the establishment by EPA and NRC for standards for radiation and environmental protection into the drinking water and also for organs, and have these standards be for the most at-risk population – children – as the President has requested.

Then we need standards for security. Are the casks going to be covered, are there going to be blast shields, are there going to be berms to interrupt line-of-sight targeting and what about how many security, what's their training, what's their equipment, and what's their authority – all that has to be worked out.

Another big issue is liability. What about these companies that will be operating these sites? Are they limited liability companies? The state and the community have to know the structure of the company and have to know if they are limited liability companies that they, so to speak, "mother" company, will assume ultimate liability for this. It's obviously nobody wants to see that their taxpayers in the state or community are going to be left holding the bag.

Another thought would be to consider having a separate fund to be developed in the state treasury where the company would have to put in so many millions of dollars each year. It would be held in the fund to grow and so if there is a problem with the site – any cleanup has to occur – the money could be there.

This is all to alleviate fears – again, on this point, economic fears.

Next I'd say as far as funding goes, as Dr. Rabb mentioned, it would be important to establish a fund so that the community can hire technical experts so they would understand the documents and the technical parts of what they have to look forward to.

Also, I think as was pointed out in the introductory statement, is the importance of the establishment of a state and citizen advisory panel so there can be transparency, openness between the community and the operator of the site so everybody has a feeling of trust, which is so important and lacking to date.

Then the issues we could discuss later on is: who gives consent? I agree with having a geographic area around the site is more reasonable than simply the host community and obviously the governor has to be on-board. How consent is going to be given – again, some sort of referendum. But I think one important issue is not everybody is going to be in favor. And therefore I think consideration should be given to a residence within a certain proximity to the site who are vehemently opposed with offers to buy their property at a pre-site valuation. Because it seems to be basically unfair to keep a few families there who really are opposed and I think it would alleviate also a lot of headaches for the operator down the road.

Additionally, it's my last point; I know I've run out, that there has to be a clear definition of when you can take *back* consent. And when consent is final. Because I can envision consent looking like it's going forward but then second thoughts occur. So to be fair to the public and also to be fair to the operator, those timelines have to be clear. Look, thanks a lot. And I look forward to the questions. [Applause].

Mr. Philip Richardson. Okay, good evening. I'm Phil Richardson from England. Now as John Kotek said, there has been progress in programs internationally, and I've spent the last – I hate to say after how

many years – monitoring and being involved in them and following them, but you must remember that some of these programs have gone two steps forward and three steps back. Half a dozen forward, a dozen back. To get to where they are now. Similar in a way to what's happened here in the States. So my comments are raising some issues that need to be addressed; are being addressed, but are based on experiences overseas that DOE and others are aware of, but need to be emphasized. And then a few comments and some questions of issues that actually do need to be really addressed.

First of all, it's important to recognize, obviously, that this is a national problem. And therefore, it has to be solved on the national level, and that's what's happening now with a national dialogue. But it's important to recognize that – the importance of that – everybody should be involved in developing the process. But, you need to have a decision-making process where everybody has a clear role and understands what that role is, so that further down the line, organizations and communities are not suddenly told, "Sorry, you can't make a decision on that." They need to know right from the beginning what can and can't be decided.

There are issues of trust – and I don't need to go on about trust in the institutions and trust in the processes that have gone on in the States in the past. But trust is vitally important. It's important to develop these and this is why things have moved forward in some countries overseas, because, unbelievably, they tend to trust their governments and trust their regulators – some of us find that an interesting situation.

It's also important, though, to recognize though that wherever the host community is identified, they are fulfilling this national need. And this needs to be recognized in terms of, as Jonathan Rabb has said, about benefits; investment in communities. The experiences overseas showed that this is a positive way forward if you can gain the trust and the confidence of the community.

But it's also important that there has to be continuity of political support, not only now but in the future, because these things are transgenerational. The siting process is almost transgenerational. The decision-makers in the future who finally make the decision to accept a site are probably still at school – high school, maybe even preparatory schools. So you must recognize the scale and the timescale that these things are on.

Now an important question that needs to be decided upon, and DOE are consulting on this and everybody is trying to come up with sensible solutions, is who can actually do the volunteering – how do you define – how do you identify the community that does the volunteering? And then is asked to offer and provide the consent? Do you ask everybody in the country, effectively have an open system where anybody can volunteer, and then you screen some of those out because of their unsuitable criteria that you've already decided and exposed? Or, do you focus on particular communities? I know that can be a very controversial thing to say – that communities that have got nuclear – they know the technology, therefore they understand it, therefore we'd have a degree of understanding. It has worked in some countries; in other countries, it's been extremely controversial and has failed dismally.

You could make use of a mediator – somebody to act in between say, the Department of Energy, and the community, and be an honest broker. This has worked in different countries, and some sites have been found and developed based on those recommendations. They all need to be considered – these options.

You must carry out this national dialogue first. That is I think a given now for people to understand. Nobody can make a decision on how to go forward unless they understand what it is that they're being asked to accept. And we've heard that already from Mary.

Once you've defined a community, and the community has come forward in whatever way that has happened, and we could talk for a week on how that might happen, what's then going to happen? There should be provision of local information through various channels in the community. They should be empowered; they should be funded to allow them to find out more, along the lines of the grants that John Kotek has already referred to.

You do need to develop ways to engage opposition forces. You're never going to get consensus as you are always going to have people that don't want it. What you need to do is be able to demonstrate that you are taking account of their concerns – not, "Oh yes, we'll look into it," but recognize those concerns and sometimes those concerns will be concerns that you as an organization and the DOE may feel are completely spurious, but if you don't take account of them, you immediately lose people's confidence and what DOE or the implementing organization that may result needs is confidence in the communities that it will do what it says it will do.

At the beginning, there could be a large area that comes forward – it could be a region; it's not likely to be in your country on the level of a state, but in England, for example, we have counties that might come forward – our counties tend to be somewhat bigger in terms of regional organizations and possibly some of yours. But it's important. They may be asked to give some form of consent to go forward, but will they be the body that is asked to give consent for a site as you focus down smaller and smaller? This again, as Mary has said, and Jonathan Rabb has said, these are important issues that must be agreed or certainly well understood upfront so that everybody in the region, in the community, knows who's going to be asked to give consent, and what they are consenting to.

And finally one of the major issues that Mary touched at the end is this issue of pulling out. Somebody the other day I heard in this country using an expression we would never use, but calling it an "off-ramp," – now you have a lot of highways. We tend not to have as many. What we talk about is a "right of withdrawal." There must be a point in the process where the community can withdraw and say actually we've listened to everything, we all understand all about it, but we really don't want to go forward. And that must be built into the decision-making process. But that's not easy to do. It needs to be organized; it needs to be, again, well-understood.

So all of these issues are there – the process that DOE and others are attempting to develop through consultation with people like yourselves and going around the country are based on what appears to be good practice elsewhere. But, as a friend of mine in the IAEA, the International Atomic Energy Agency in Vienna constantly says, "No one size fits all." You cannot just take what's happened in Scandinavia and say, "Excellent, we'll do it that way." You can learn from it. You can adapt it, but it's important to involve people like yourselves in adapting it to something that everybody can accept. Thank you. [Applause].

Mr. David O'Conner. Well, I'm David O'Conner and I'm happy to be here this evening and I'm wondering, having heard the excellent presentations that preceded me, what do I have to offer. Because the prescriptions that you've heard are compelling and thoughtful and I think reflect a huge amount of

experience and knowledge about the tremendous challenges involved in trying to figure out how to do consent-based siting for a problem like this.

And I'm going to try to sort of add a different perspective to the conversation. Much less technical – I mean, I'm not an engineer; I'm not a manager of large government programs anymore – I once was – and rely for my contribution here mainly on experience I had spending 20 years or so working as a mediator of energy and environmental disputes, and then working as a public official trying to utilize mediation-type skills to advance public policy.

And over that time I think I came to understand why having a mediator can be a helpful thing – and that doesn't always require the person be called a mediator – they could be a facilitator or something – but someone who is neutral and isn't invested in a particular outcome, but is invested in seeing the process work well and having the participants effectively negotiate with one another.

And at the end of the day, I think really that's what consent-based siting would really have to ultimately rely on is effective negotiation. Because interests can't simply be accomplished without finding a way to accommodate other people's interests. And so at every level of the government that would be involved here, and across a broad spectrum of concerns that community members would have, there's going to have to be negotiation.

And the model that we often use for negotiation is what we observe sometimes and read about in labor-management negotiations. Unions and management bargain over contracts and so forth. That actually isn't a very good model for what we have here because really, as you can imagine there, without one of the parties, there isn't really much negotiation to occur. And there tends to be a very sort of positional, kind of bilateral, kind of hostility that is very hard to overcome and tends to be dominated by the long history of the relationship with those parties. They're going to make an agreement and then they're going to have a contract and they're going to live with that contract for a long time.

In these kinds of disputes we're talking about today, it's a different sort of problem because – as we've already heard – it's a transgenerational problem. There will be people defining solutions or decisions now that others – future generations – and other constituencies will have to live with who were not present and weren't there to argue for themselves. So there's a really complicated sort of quality to these negotiations, which in my experience is much better – much more analogous to what happens when international governments negotiate in international relations. So you have big nations and small nations; you've got powerful economic nations and nations that don't have a lot of economic power and so forth trying to deal with one another. And in those situations the negotiations are much more difficult, because one or more of the various parties who were there can leave the negotiation, and it will still go on, unlike in a labor-management situation, where if one leaves, it stops. In these situations, parties can be left out or ignored or overcome in ways that are really problematic for reaching agreement, and even if an agreement is reached, for its sustainability over time.

So these negotiations really require a much more subtle, much more complicated, interaction among the parties. One that's quite difficult to be successful – but can be successful – and I guess I want to offer some sort of indications about what it is that makes those things really work well.

And I would begin by referring to the sort of parameters that have been set forth by my three predecessors here having to do with defining the technical requirements; having to do with basically identifying the kind of site constraints; having to set up a process whereby a community might nominate itself, and so forth. So all of those sort of framing issues do have to be taken care of. Good, skillful negotiation cannot make up for failure on those structural elements, if you will.

But having heard a lot about those, I'm going to sort of skip to the end of that process. Let's say where, where Dr. Rabb left us off, with a community that had basically nominated itself, wanted to participate and was ready to go. Now, what's it going to take to make that negotiation successful?

And I think that the biggest problem there really is the issue of trust – that Phil Richardson pointed to. How do you create trust in an environment like that? And I think, first of all, one of the problems of trust is associated with the fact that these are parties who truly have never had any dealings with each other before – federal government, sort of on the one hand, and a local community, on the other. Invariably those relationships have been managed over, you know, time immemorial by public officials at the state level; you know, national organizations; federal agencies, and so forth, but there's been a lot of interaction at various levels.

Now to have the behemoth of the federal government, you know, try to negotiate with a group of let's say citizens or local representatives, is a very, very difficult situation in which to feel like there's equality of any kind. And that is a great deal of fear that I think the community would bring to that, and really rightly so. I mean they're just not going to be in a position to, at least at the outset, feel as if they're going to be treated as equals.

Secondly, you're going to have situations where the knowledge levels are very different. And so the community knows intimately what its own identity is; what its needs are; what it wants to have happen; what it really envisions itself becoming, and the federal government really knows what the federal requirements are; all of the legal and economic sort of constraints associated with what it can do to help that community and interact with them; what concessions are possible and which ones are not, and so forth. They understand all the technical issues around and have a lot more knowledge of the technical issues around siting and operation of waste facilities than the local community does. This is completely new to them.

So you have these huge disparities in knowledge, and in experience, and in economic and political power, suddenly sort of being asked to work together and trust one another. That's a *really, really* hard thing to do.

Those kinds of situations are ones that mediators actually confront often, in one way or another, perhaps not quite to the degree that were talking about here, but they do. They're familiar problems. And they basically set about a process of building trust. So there are lots of trust-building activities, which is to try to get people to talk to each other about the things I just described – get them to talk to each other about what they know; what they believe in; what they want; what their interests are; what they have to accomplish, to feel like they're successful and sometimes it's easier for them to tell a mediator about that than it is to tell the other side who they are fearfully going to engage in negotiations with. And that's as much true about the federal government going the other way. So it's a process of communication beginning to get to know one another, and understand what really motivates one another, before we get

down to hard bargaining. Because hard bargaining tends to sort of force people to feel most anxious, because once they've offered something, they can't take it back.

And so one of the things that a mediator can do is work with participants in a process like this separately, if you will, privately, apart from the other side so to speak, or the other parties involved, and talk to them about what they might be willing to do in a way that they wouldn't be comfortable talking with others who might take advantage of them for having revealed what they're willing to do.

And then what a mediator can do is find out and convey information about what's possible and what isn't possible and when people are unsure what are unrealistic demands and what are not, the mediator can definitely help them figure out where they can make requests that make some sense are reasonable and are within the range of possibility as opposed to things which are simply impossible, as or are going to fall on deaf ears, or are going to be a waste of time.

And so those kinds of experiences can allow a mediator to bring people to a table at a point where they can actually constructively engage in negotiation and begin to build relationships over time with the mediator, first, and then gradually over time with the others that eventually can result in an agreement.

So that's the kind of thing that I think those are the kinds of things that need to be kept in mind when a process like this is going to get underway. That there are huge, huge, difficulties to being able to negotiate effectively and it's almost essential to have someone who can manage that process who is not interested in the outcome, but in the quality of the process.

I look forward to answering any questions that you might have. [Applause].

Facilitated Public Discussion

Mr. Jim Hamilton. Thank you Mr. O'Conner and thank you very much to all the panel members. I really appreciate your thoughts and perspectives.

Now we're going to move to a question-and-answer session. I'd like to note that for those on the webstream we'll also be taking questions online, so if you type in your question it will eventually find its way to me and I can ask one of the panel members your question.

For those in the audience, when we begin the question-and-answer period, all I'd ask is that as you ask your question, to identify yourself by name and affiliation, if any. We've got two wireless microphones, so raise your hand and we'll get to a microphone, but one second before that please.

Before we start I want to emphasize – we've got a lot of horsepower up here on the panel. Alright? And we're trying to use their time and their experience here for questions to them about what you heard. If you want to make a public comment or a statement, we've got a separate period of time later on in this meeting. So I want to be clear that this is the question-and-answer piece. We've got statements later. So if that works for you, I'd appreciate your cooperation on that.

So, with that, who wants to be the first? We've got one – I'll keep track of all of you; I'll go in groups of three, alright? [Pointing] I've got one, I've got two and I've got three. And I'll get back to the rest of you later. So do we have wireless microphones somewhere?

Mr. Paul Gunter. Thank you. My name is Paul Gunter. I'm with the nonprofit Beyond Nuclear; we're out of Takoma Park, Maryland.

We've been following the DOE process and we have a number of concerns which I will raise during our comment period. But the question I think that I'd like to address, particularly to Mr. Kotek, is going back to this issue of trust and consent, how does the public and the affected community build trust when the Department of Energy itself is a promotional agency, doing the bidding of the nuclear industry, by direct promotion? And that the whole process going forward to date has lacked consent. There's never been consent with regard to generation of nuclear waste. So now that you've generated a problem without bringing up the question of consent, how can you legitimately ask the affected communities to consider consent?

Mr. John Kotek. Yeah. Well, the question about consent on the generation side; I mean obviously there have been facilities sited all around the country that are generating this waste now and that goes back decades and I'm not going to talk on that [Interrupted from floor, "You need to"] well again, a lot of that is not our role; if you'll let me answer your question...

Mr. Paul Gunter. But just let me be clear. I want to be clear.

Mr. John Kotek. Okay.

Mr. Paul Gunter. There is the uh...we have the National Environmental Policy Act.

Mr. John Kotek. Right.

Mr. Paul Gunter. Okay, that provides for an assessment of environmental impacts based on harm and considering options and alternatives of less harm. The generation of nuclear waste was never brought forward under the NEPA process...

Mr. John Kotek. Okay. Well, the NEPA process has been in place since 1970? The National Environmental Policy Act I think was signed in 1970. My belief is that most of the reactors in commercial operation right now were probably covered under that through the NRC...

Mr. Paul Gunter. But not re-licensing.

Mr. Jim Hamilton. You know what...

Mr. John Kotek. Well, alright, so if that's an issue that you've got with the NRC, then that's fine; what we're trying to do is we're trying to employ a process that works to identify willing and informed host communities to serve as locations for storage and disposal facilities. Part of the key, I think, in restoring trust is the ability to make and keep commitments, right? And that's one of the reasons why the Administration's Strategy for going forward with this program asks Congress to provide access to the balance of the Nuclear Waste Fund so that we have the ability to actually follow through on commitments we might make.

The Administration's Strategy also follows the Blue Ribbon Commission recommendation calling for establishment of a stand-alone entity to manage this program. And so the Blue Ribbon Commission called for a federally-chartered corporation. The Administration's Strategy is less specific – for example, legislation introduced on the Hill a couple years ago looked at a stand-alone federal agency instead of a government-chartered corporation – but regardless, there is a recognition of the value having this program implemented by a new organization. That takes action by Congress. So in the interim, we're trying to move the program forward as far as we can, waiting for what we hope will be endorsement of that strategy by Congress.

Mr. Jim Hamilton. Alright, thank you. And the second one is here, and then three, over there.

Mr. Schuyler Gould. Thank you. I'm Schuyler Gould from the New England Coalition on Nuclear Pollution. I'm just wondering why would any community being reasonably informed actually want such a site? And I'm assuming it's for economic gain, which would necessarily be short-term, even several generations. It feels like a short-term process, and is that really a legitimate pace for determining what is a best site?

Mr. John Kotek. And I'm going to be interested in hearing the views of our fellow panelists. I might have a different perspective than most – I mentioned that I grew up around here. I then became a nuclear engineer and wound up working at a place known as Argonne National Laboratory West, which is in Idaho; it's actually on what's now called the Idaho National Laboratory site, where we built 52 nuclear reactors; where my office was a couple hundred yards from a spent fuel storage location, and we've got a community that is *extremely* supportive of pursuing new nuclear missions.

So you've got locations around the country who I think welcome this sort of work. It's, you know, where I lived; it's a community very heavily populated by folks who spent decades in this field. Understand that there are hazards associated with operating nuclear facilities or dealing with nuclear materials, but they also know that these are problems that can and are dealt with very safely every day. Any other perspectives on that?

Dr. Jonathan Rabb. I think that the only thing that I would add is the compensation would need to be big and generous and that if you're not talking about the permanent solution, but the interim solution, that could be more of a regional issue, so that it has a more equitable feel and shared around the country, but regardless of how you feel or I feel, I think people feel differently across the country and have different feelings about nuclear waste and different feelings about risk and I think if those things are accurately and honestly portrayed to the different communities you know, then they'll need to make their own decisions.

Ms. Mary Lampert. I'd add to compensation that quite clearly a compensation package would be one of the things that would have to be worked out and that also would include guarantees of certain types of jobs for the people in the community; involvement of unions, etc. I know there is some talk that South Carolina may have been interested if they could get a reprocessing and R&D – they wanted, you know, a whole complex. I think something like that is going to run into big trouble because there is a large group in the public interest community that are very much opposed to reprocessing, so I think it would be wise if we're talking about getting consent, that you're looking at a repository or a storage facility, period, not a whole complex.

Mr. Jim Hamilton. Phil did you want to...?

Mr. Philip Richardson. I would just add to that I accept what you're saying about why would we want it. But there are examples internationally of countries where people are saying exactly the same thing. There are also examples of where people are saying, okay, we understand the issue, we understand the need, we have trust in our institutions, we will enter the process and we will move forward with the proviso that it is demonstrably safe according to the regulations but – it's the history; you know, I'm not coming here to tell you about U.S. history; you know it far better than I do. The history has to be recognized; it has to be big acknowledged, and then you have to try to move forward.

Now there are also examples of countries that have had an organization, a government department, if you'd like, like the Department of Energy, and have recognized the difficulties and have moved forward and have either given the responsibility for waste management to the utilities who actually generate the waste, funded through a central fund, or they have actually developed an arms-length organization similar to what John Kotek talked about being possible. And all of that is intended to try and develop this trust.

But I mean I'm not just saying to you, "Oh, don't worry about it; once you trust people, it will be fine." It is a major issue based on the history.

Talking about the compensation, I've spent a long time reviewing, monitoring and helping develop these kinds of systems and support and generally it seems to be that negotiated benefits are much more acceptable rather than legally mandated – I keep saying there are examples, but it's true there are examples of where laws are being passed and say, if you take a facility, this is what you'll get, and that can cause somewhat of an amount of difficulty because that may be laid down today and the site may not be actually located and developed for ten years. And then the argument comes, "Well that's what you said ten years ago, what can we have now?" And the government or the funding organization will say, "Well, we allocated funds for that and that's all we could afford," so there is a move towards negotiation – locally negotiated benefits – because the community knows best what it is what it would prefer to do in some way of recognizing what it is – what it's offering the society – because no two communities are the same and a rural community and an urban/rural border community might want something completely different. So I think you have to accept that you would negotiate these, and as David said, you know, you would need skilled negotiators on both sides effectively, but you we need some kind of negotiation.

But going back to your question, it's important to try and get this idea that it is a national problem and that if a community even considers being involved it's doing this for societal benefit and has to be recognized as such.

Ms. Mary Lampert. And can I add one more thing. One of my key points was regulatory authority for the state. And I think that will go a long way in alleviating mistrust knowing that they have the regulatory authority because the Atomic Energy Act has been amended, so that they'll have protection for any environmental or health or security issues that the community and also the state faces. That's key.

Mr. Jim Hamilton. Thank you, Mary. I've got number three. Number three. I'll take three first, and I'll figure out the next three later. Alright.

Mr. Benjamin Rines, Jr. Thank you very much. Ben Rines, Jr., Chairman of the Wiscasset Board of Selectmen. The Board authorized me to attend this meeting tonight and read the following statement to

you. This was a resolution that was passed by the citizens of the town of Wiscasset back in November of 2001. And a couple weeks ago, the Wiscasset Board of Selectmen unanimously voted to adopt it as their policy also.

RESOLVED: We the citizens of Wiscasset, Maine, home to Maine Yankee Nuclear Power Plant, respectfully request the federal government of the United States of America to immediately take possession of the remaining nuclear waste at the Maine Yankee site and remove it to a safe and secure location.

The whole purpose of this panel tonight is to find a community that is willing to consent to take these wastes. As a community that is host of these wastes, you have our consent to take it [Laughter]. And I'm supposed to put all this in the form of a question, so I'll simply ask are you going to be able to help us? And I understand that some members from the DOE will be at Wiscasset tomorrow morning to hear from the citizens of Wiscasset and I will say ahead of time, thank you for this meeting tonight, and we look forward to seeing you tomorrow. Thank you.

Mr. John Kotek. Thanks for that. Just one note of clarification. We're not out looking for communities yet. We're looking to design a process we can implement to then get out and start looking for communities; as has been alluded to, there have already been a couple of communities in the country that have expressed interest in hosting a consolidated storage site. So there is some interest out there. We're trying to lay the groundwork to have a more thorough discussion of, alright, whether there might be other interested parties before we get into actually looking at locations, but as I mentioned, the fuel at shutdown plant sites is at the top of the list for us. So, thanks for that.

Mr. Jim Hamilton. Alright, I've got a bunch of hands. I will get to you all. Blue sweater first; second – turquoise shirt. And then I've got a web question – so those are my next three – I'll get to you. Just be patient. Thank you for your patience.

Ms. Diane Turco. Thank you very much. My name is Diane Turco. And I'm Director of Cape Downwinders from Cape Cod. We've been working on the Pilgrim Nuclear Reactor. And I want to thank all the panelists, because each one of you really highlighted the issue here, and that's about trust. And I hate to tell you: we don't trust you. With what's been going on at Pilgrim in Plymouth – there is no trust in the Nuclear Regulatory Commission; there is no trust in regulators and providing for public safety.

So let me get to my question. One of the goals that was stated by DOE Undersecretary Dr. Lynn Orr at the kickoff meeting in Washington, D.C. is that one of the DOE goals is for, "...ensuring continuous viability of America's nuclear industry." That has nothing to do with public safety. And what we see as the public, the waste is a huge public safety issue, and Plymouth's spent fuel pool is overloaded; it was designed for 880 assemblies and because there is no repository, it's got over 3,200. A 2006 Attorney General's Report concluded that we are in imminent danger here in Massachusetts. And Boston's part of that, too. So my question is: do you really think the American people are going to be gullible and fall for this shell game? [Applause].

Mr. John Kotek. With respect to the plant safety issues you mentioned, of course, that's the NRC – we're not the NRC. We're the Energy Department.

The trust issue I touched on earlier and I think it's important that, you know, ultimately we stand up a stand-alone agency and in the meantime we've got to be able to make and keep commitments. Alright? Operate in a way that is responsive, transparent – that's why I want you all to get to know the folks that we have working on this – a lot of them are in this room. At the end of the day, it's not some big federal bureaucracy. It's folks like Andy; alright, Melissa out there somewhere. Alright? Meet these folks. Express your concerns. Alright? Nancy is sitting right behind you – a good person to talk to. Let's – but I know; we don't turn this around tomorrow, you don't restore trust: "Hey, trust me, alright, fine!" Exactly, right? So, what do we do on the federal level to try and get there over the years and decades that it's going to take to get there?

Well, I think it starts by opening yourself up by listening to folks' concerns; by incorporating them into your plans to the extent that you can, and to the extent you can't, tell folks why, alright? So we're trying to head down that road – I'm not going to ask you to trust me now, because this is day one, and we just met, but we're going to work on it, so let's keep talking to each other.

Ms. Diane Turco. So thank you, let's keep it open. And I just want to follow-up.

So you talked about trust. The first thing you need to do is get that waste out of that spent fuel pool now. And get it into dry casks that are legitimate – as Mary mentioned, the Holtec have some issues. But that's the first thing that needs to be done. Then we can start talking about moving this waste, but it's in a dangerous situation right now. So show us that we can trust you by moving the waste – getting the waste out of there immediately. Thank you.

Mr. John Kotek. That's the plant operator; that's the NRC – we will be sure – and we talk to the NRC; they are our regulator for some of what we do too, and ultimately they'll be the regulator for this facility, so we'll be sure to let them know what you had to say tonight. Alright, anybody else want to say something?

Mr. Jim Hamilton. The issue is trust, and how to restore it. And I guess I would open it up to the panel.

Dr. Jonathan Rabb. The only thing that I would add – and this is why I was talking about having a national stakeholder process just to develop what the consent-based process would be that's very transparent and very inclusive. And that's where you would start; it shouldn't just be three communities that have identified themselves and let's go negotiate with those three – that's not a very good national process.

Mr. Philip Richardson. I think John has pointed out clearly that that you begin to develop trust by developing trust in individuals. And then you develop the trust in the institutions, which I know is an uphill battle but you have to start somewhere. And there are situations where you can put pressure on individuals to put pressure on their institutions and if they can be seen to be doing that, then that will give you trust in what they are putting forward. But developing a process like this from the bottom up hopefully will engender trust at least in the process and if you then have trust in the individuals involved in a trustworthy process, hopefully the institutions then become more trustworthy.

Mr. Jim Hamilton. Thank you. I've got turquoise shirt and then I've got a web-based question.

Mr. Chris Campany. Hi, I'm turquoise shirt [Laughter and applause]. Also known as – my name is Chris Campany, I'm the Executive Director of the Windham Regional Commission in Southeastern Vermont; we are the host region to the Vermont Yankee Nuclear Power Station. I have two quick questions and then another one that's going to require probably more thought on the panel's part.

The first is the Waste Confidence Rule, which basically says that spent fuel can remain on-site indefinitely. Has that at all compromised this process that DOE has embarked upon?

The second is the litigation costs associated with payers trying to recoup the spent fuel storage cost. Is that coming out of the Nuclear Waste Fund, and if so, how much?

And then the other question I have – we've been advocating – we've been trying to help wrangle, reach out, suggest to the NRC that host communities be part of their decommissioning rule-making process. The NEI has incredible access to that organization. The Nuclear Energy Institute Host Committee has not so much. And typical of what I've seen of those agencies have been engaging with the industry and also to some extent and with NGOs, but not necessarily with the host governments.

So I found actually DOE relative to the NRC to be incredibly accessible. One of the things I'm wondering is should we actually be expanding this request – and that's what I'd like to get your all's thoughts on – about convening host communities to have discussions across the whole range of nuclear questions. To try to break down some of the silos so that you actually have informed, networked host communities – this isn't a pro- or anti-nuclear thing – this is a local government thing. Have them engage with one another. Have them inform the DOE, EPA, NRC across this whole range of issues, everything from decommissioning policy to the storage issues, and then this would also create the opportunity to have host communities – communities that host power plants – ultimately to be able to have conversations with those who might host the waste. So there can be a mutual understanding among and between all those about what the cross-cutting issues are. So I guess I'd just like your thoughts on that – because it really does feel like the host governments are frequently left out – we're kind of an afterthought. And ultimately, that's who the representatives of the people are. And so I'll leave it at that.

Mr. Jim Hamilton. Thank you.

Mr. John Kotek. Thanks for that. On the Waste Confidence Rule thing, I'd say not materially from my perspective. I mean there is still this recognition that, look, this material exists. We need to get on with developing solutions for it.

On the litigation cost question, and does that get paid of the Nuclear Waste Fund – I'm actually going to ask one of my experts over here, Tom? Would you think?

Mr. Tom Cotton. It comes out of the Judgment Fund.

Mr. John Kotek. Yeah, ok, so those are all Judgment Fund payments. I mean when it actually comes to litigating, we've got lawyers and stuff that we pay for, but I don't think that's Waste Fund money, either.

And then on this question of getting the host communities together, I've actually heard that suggestion in a couple of fora recently. And I mean there are groups like – I don't know if you've ever heard of something called the Energy Communities Alliance – so that's an organization of communities that host

Department of Energy facilities, so Idaho, Savannah River, Los Alamos, Hanford, Oak Ridge, other places and they work together to have a stronger voice and to talk about issues of common interest as being, again, hosts of DOE facilities. And they're pretty effective. If you're interested, let's connect afterwards – I'll point you in their direction and maybe you talk to them and ask them how they do it and maybe they have some good ideas for how you might come together and have a stronger voice.

Mr. Phil Richardson. Can I just say – I can actually give you a model. In Britain, we have a thing called the Nuclear Legacy Advisory Forum which is a group actually operated by the local government association. So it's a specialist group, but it brings all the local governments together, and any local government actually – government body – can join it. But it is predominantly government bodies that host nuclear facilities – operating nuclear facilities. Interestingly enough, it was set up in 2003. I actually brought a group of local authority representatives and counselors to the U.S., and we met with the Energy Communities Alliance and we visited several sites around the country to see how it was done here, and we went back and I say – I designed – I helped design – the structure of the Nuclear Legacy Advisory Forum.

And they are given direct access to government. They have a seat on many of the government advisory groups, either as observers or actually major stakeholders. And so, they do exist. And there are some examples in other countries – it sounds to me like it would be a really good idea – and I have to say I wasn't aware that you didn't in a sense have something like that already, because it gives you that body of opinion.

Mr. Jim Hamilton. Thank you, Phil.

Mr. Chris Campany. I've got a real quick follow-up.

Mr. Jim Hamilton. Real quick?

Mr. Chris Campany. So the energy communities that you referenced where they host DOE sites; so does DOE support that?

Mr. John Kotek. Yes, we provide *some* of their support – I don't think all of it.

Mr. Chris Campany. So that's something that we really need to tease out, because we're host to merchant plants, non-public utilities; totally different context, so that's something we've got to work out.

Mr. John Kotek. Yeah. Great.

Mr. Jim Hamilton. I've got a question from the webinar to David O'Connor. What are the four best practices in mediation which you feel could be studied for application to this situation? Or maybe case studies.

Mr. David O'Conner. Oh, I thought the – was the question about the sort of principles of effective mediation – what...

Mr. Jim Hamilton. I'm just reading what I've got in front of me. I'll do my best. What are the four best practices for mediation? So I'll leave it at that.

Mr. David O'Conner. Well, first, there really does have to be true neutrality on the part of the mediator. It's not good enough to have them be someone who works for the agency, let's say, in this circumstance, you know, and is deployed to kind of adopt the superficial sort of characteristics of a facilitator. But their ultimate allegiance is really still to the agency – that is not going to work. Number one.

Number two, the folks that are involved in the negotiation really do need to be authorized to be there – and the authorization can be accomplished in a variety of ways. It might be that they are elected local officials. It might be the result of sort of some kind of community meeting process where they're identified and so forth, but they need to have authority, so to speak, to represent the community.

Thirdly, there really does need to be a willingness on their part to engage in an in-depth, long-term kind of dialogue about their real interests, because you just don't solve these problems in, you know, sort of mechanical, quick, technical sort of way. It's really not – these are not problems that get solved with that kind of engagement.

And if I had to pick a fourth, I guess I would say, you know, experience – you really need a mediator that has experience solving these problems, because this is not a skill that you come by overnight. It takes time to learn how to do it. So I don't know, those are.

Mr. Jim Hamilton. Thank you. Alright, so next round of questions. I've got white jacket; green jacket; whatever color your shirt is. There we go. Alright.

Ms. Catherine Skopic. Thank you. My name is Catherine Skopic and I work with several groups; one of which is the Indian Point Safe Energy Coalition and Shut Down Indian Point Now!

Many of you in the room here have probably have heard the saying that many native, indigenous tribes have. A decision will be made when they know how it will affect the seventh generation. And they have managed to keep many of their ways going through this. My question to you is this. How many generations back would we have to go and get consent for this disposal and storage of nuclear radioactive waste? And who would be at the table to represent that particular generation? Thank you.

Mr. Jim Hamilton. So it's a seventh generation question? Alright.

Mr. John Kotek. Yeah, and what we're trying to do of course is develop solutions, particularly for disposal, right, that that can be shown to last, with a high degree of confidence, for millennia. Right? That's the timescales required here. And so what we're doing now – because we're not looking at specific sites – but what we're doing now is we're looking at and are conducting generic studies on various potential disposal media, whether it be granite or salt or shale or clay – looking at, alright, how do wastes and materials migrate through formations like that over time? How do, you know – how does the introduction of different chemicals and things like that and waste packages and introduction of heat affect the geology and affect potentially the transport of materials through the selected geology?

So that we've got – so when it does come time to start evaluating potential sites, that we've got a scientific basis to be able to show our regulator – because at the end of the day we've got to satisfy a regulator that this facility is going to meet the performance criteria set by the regulator – we've got to be able to show them that there is, you know, a high degree of confidence that this is going to be adequately protective of

people and the environment over the required periods of time involved. And so that goes well beyond seven generations.

And so what you look for – and if you're interested in digging into this a little bit deeper, look at Bill Boyle back here; Bill raise your hand. So Bill's the guy who leads the non-site-specific, generic, geologic studies that we conduct and that we have done through our national laboratories and he can give you a deeper discussion of what we look for in ensuring that a particular formation is going to be stable over the time periods involved, and that the waste canisters and the formation itself are going to combine to provide the degree of protection required.

Ms. Catherine Skopic. And who will work to represent that generation at the table?

Mr. John Kotek. I'm going to ask if any of the other panelists have a thought on how that should work?

Mr. Philip Richardson. When you asked your question, did you say how many generations go *back*? Because in a sense, John has talked about generations going *forward*. And I made the point that the final decision-makers for these facilities are probably at school – they may even – in some situations, they may even be in kindergarten. And the whole point of developing an acceptable process over the next number of years is putting the responsibility on *us*, as a society, to develop an acceptable process where that decision-making can be done in a stepwise manner. Not making final decisions now, but making decisions over time going forward. And keeping those junior people – if you would like to call them that, those young people – fully informed of what we're doing; why we're doing it and what it all means, so that when it does come to a situation where they have to make a decision whether to go forward or not, they do not turn around to us in our bath chairs [wheelchairs] or old people's home and say, "What on Earth did you think you were doing?"

So, there is a responsibility on this generation to get it right. But I agree, it will be future generations that will have to make final decisions.

Ms. Catherine Skopic. Thank you Mr. Richardson, and I applaud your inclusion of the intergenerational process and almost all of you up there have mentioned the fact that it goes beyond the present generation, so I appreciate that, and it's part of the uniqueness of this problem.

When I asked the questions about how many generations you have to go back, it's far beyond seven; you know, for the radioactive life of this material. So when I asked the question who would represent that generation at the table, that's specifically to point out the question of the longevity.

Mr. Jim Hamilton. Thank you. Go ahead, Jonathan, and then I'm going to go to the green shirt here.

Dr. Jonathan Rabb. I mean I think we need to do the best job that we can of having the best process, recognizing again that this is going to be there for thousands of years and we can't fairly represent all those generations to come.

Just, I would include, when we we're doing the education that I was talking about within the community before they have consent; you know, to not just be educating the voters – when we did the Boston Climate Plan – we specifically had a workshop for high school students across Boston and it was really an

incredible experience and had them poll on all of the different climate reduction options that the adults were considering and so you could do that as part of – because those will be the people coming.

But I think the other thing to realize is that people are mobile and ultimately whatever the deal is that's reached with the community – Mary pointed out that there should be some compensation for people who want to leave right away, but ultimately whatever that deal is, in that community at large – some people will like that and move there, and some people will move away over generations.

You know – we've had this with wind farms, for instance, and as people know, they've been very controversial in New England, and there's been a lot of studies on property values around wind farms, and what they found was that property values didn't change very much because what happened is that people who didn't want to look at them or listen to them tend to move away, and people who like having them are moving in. And so I think a similar thing will eventually happen – you know, the economy will grow up around these sites, and people who want to be part of it or have different risk tolerances will be there, and people who don't will move away, realistically.

Ms. Catherine Skopic. Thank you.

Ms. Mary Lampert. Let me add just one comment. That I think the public generally respects and trusts the National Academies of Sciences. And I would hope that DOE would consider, once these technical specifications are developed, hopefully by a broad array of scientists, that at the National Academies like in the nuclear waste Phase 1 and Phase 2, [they] gave a review – I think that would do a lot for consent and a lot for public confidence.

Mr. Jim Hamilton. Thank you.

Dr. Sheila Parks. Hi, my name is Dr. Sheila Parks. I'm not a medical doctor; I'm a former professor. And I'm the founder of a local grassroots group called On Behalf of Planet Earth.

For full transparency, we work to close all nuclear power plants now in the world.

So I have some very specific demographic questions that I want to ask you that I want you to get as specific as you can with your answers.

But first I want to talk about the demographics in this room, as I look around – we're mostly white; we're mostly men; a fair amount of women, and that says something about who is making all the rules; who's talking about these rules, and who we're going to go to. And so it's white supremacy and misogynist to begin with – our discussion here tonight.

So who do you think – what kind of communities – not the geologic communities and that kind of thing – what kind of communities do you think will really want to have radioactive waste that lasts never mind seven generations, but last millions of years into infinity; that causes leukemia and other cancers, that as Mary so nicely pointed out, we're not even allowed to talk about with other people, only the Supreme Court and the Congress, have colluded so they are in charge of the health of this; I think – and you have tribal lands out there right away, because you know that's among the lowest income places in the country. So they would be people that would maybe take this horrible stuff on. Flint, Michigan; Ferguson –

communities of color; low-income communities of color; so I think maybe will horrifically say yes to your criminal consent-based siting, but I want to hear who you think it might be specifically.

Mr. Jim Hamilton. Thank you. Would anybody want to pick that up?

Ms. Mary Lampert. Practically, I don't envision the Boston Garden as going to be a volunteer. I do not envision Nantucket Island or the Vineyard to be a volunteer. In all practicality, the reality is probably the siting criteria will say arid, low-density population; a place that agriculture isn't going to do too well, so it's going to be someplace probably in the boondocks, right? So it depends, to my mind, I don't know the color of the people who will be there, I don't know what God – I don't know that – but the point being – if a community consents, with full knowledge – informed consent – with the rules of the siting and the running fully disclosed – I don't have a problem.

Dr. Sheila Parks. Mary, it seems to me that the only people that are to be there is for the money. Money is going to be the motivating factor. And in this country, those communities are low-income people; and mostly people of color, and on Native lands.

Ms. Mary Lampert. It's called cost-benefit.

Dr. Sheila Parks. I didn't know what to do with it. It's not going to be Brattle Street in Cambridge.

Mr. Jim Hamilton. Any other panel members want to pick up with that answer to the question? And I'd like to keep this conversation going. Anybody else?

Mr. John Kotek. Well, I guess I'll just observe that in the green sweater back there can have something to say about this too; my colleague Beatrice Brailsford and I both live in state of Idaho now. And the fact is there are communities there that are; as I mentioned earlier, I worked at a site where they built 52 nuclear reactors and they're trying to build another one, and the community is overwhelmingly for it. Alright? This is not a low-income community – it's not a community of color – it's a community of people who are very familiar with this technology; very supportive of it, and would like to see it used more broadly.

Mr. Jim Hamilton. Thank you. Blue shirt. Thank you.

Mr. Edward DeWitt. Hi, my name is Ed DeWitt. I'm with the Association to Preserve Cape Cod. I was hoping the panel might help close or connect some dots or cross the chasm of how we are going to get to consent-based siting.

Mr. Richardson mentioned the importance of history; Mr. Kotek – one of his slides pointed out a 60-year history of failure. And that failure has occurred at all levels of government and it's not because of effort, or lack of effort, but it has been the inability to find sites for nuclear waste, despite an early commitment from the federal government that it would take charge of nuclear waste. Which is more than 60 years old.

Dr. Rabb, you talked about supermajorities of approval. You know, I don't know how we get, from 60 years of history of inability of doing this, from governmental perspective to getting supermajorities in communities to agree to this.

Mr. Richardson, you talked a little bit about culture, and the importance of culture, and we saw in Mr. Kotek's slide Sweden, Finland and Canada being ahead – those cultures are very different than America in their trust in government and anyone who's paid any attention – trust in government in this country is probably at an all-time low. So how do we get there? I just don't see it happening.

Mr. Jim Hamilton. And just before the panel answers that question, we're bumping up on the end of our 45-minute question-and-answer session, so I think you've asked the last question, so I'll let the panel close this piece out.

Mr. John Kotek. Well, I mean the short answer is that's why we're here tonight. Right? The experience over those 60 years has all been top-down; sort of federally driven efforts to ultimately impose facilities on states that ultimately decided that they didn't want them. Right? There was one actually private effort in the state of Utah that was commercially-driven, but again it resulted in the state not being willing to go forward with something that a community had decided that it wanted. We're trying a different approach. We've seen it work in other countries. We've seen it work with other types of facilities. I mentioned earlier the Waste Isolation Pilot Plant in New Mexico – that played out over 25 years. It was certainly not a straight line; but ultimately, with concessions like a regulatory oversight role for the state government; like infrastructure improvements; like an independent entity in the state, based at one the universities, to provide oversight of the facility – they got there. We think that that is a more sure path of success and we're trying to get your input tonight on how we ought to take the first few steps down that road.

Dr. Jonathan Raab. I think the only two things that I would say is that we are not expecting it to be easy to get a supermajority, nor should it be. I mean this is a very complicated thing and there's probably not tons of host communities out there. But if you design a transparent, open process, and again, informed consent, where you're really giving people the accurate information, probably there will be a couple of handfuls of communities that meet the geologic requirements would step forward and you know we've done lots of workshops on various, very complicated things and people can sift through that information if they have the ability to, one, have a panel of experts that they're asking questions to; have the ability to process with their fellow citizens and, you know, facilitate a conversation, people can get up the learning curves and can really form informed opinions pretty successfully.

Mr. Jim Hamilton. Mary?

Ms. Mary Lampert. Ah, yes. The informed consent. Money so that the community can hire their experts and make sense of this technical material. Regulatory control I mentioned; but at this point DOE has to be very busy – everybody has to do their homework; get the technical specifications done now. Put it on the fast track for NRC and EPA for the dose limits. Get Congress, God knows how, on the fast track in looking at amending the Atomic Energy Act and the formation, supposedly, of this independent – it seems like these – the homework which is so essential for there to be informed consent in progress, has to be done now. And then move forward.

Mr. Jim Hamilton. Phil, and then David.

Mr. Philip Richardson. Okay, looking at the U.S. from over on the other side of the pond, I can say one word, but it applies to a number of other countries that have had difficulties, and that is "politics." And I made the point that you need political support – long-term political support. I don't think I necessarily

have the answer to how you step back and actually get above the politics – out with the political system. But just looking at the history here, as I say from my viewpoint, you can see how the politics just stymied every potential move forward. And that's the major thing I think that has to be overcome.

That doesn't take away the necessity to be as Mary says, you know, open with everybody – letting everybody understand what's going on; build a system and process that everybody accepts. But somehow you've got to somehow get rid of this awful acronym that goes around, you know, the NIMTO, which is, "not in my term of office." How about, "not in our lives;" or something like that? Something has to be done, but whatever has to be done, has to be acceptable. And it has to be politically acceptable, but how do – I always say that anybody that wants to be a politician with respect to anybody that's here, should be automatically excluded from being a politician. [Laughter]. You should be **forced** to be a politician.

Mr. Jim Hamilton. David?

Mr. David O'Conner. I guess I'll just say somewhat facetiously that somewhere along the way I lost some of my naïve assumptions that, you know, I could achieve perfection in the world and recognize that life is really filled with a lot of choices – hard choices – between less-than-perfect options. And I guess I would ask the question, "If not this, then what?" I mean, the communities that I've heard from tonight that are hosting these facilities right now, and Mary is certainly one of their most ardent spokespersons – you know, are living with *dangerous, unorganized, unreliable threats*. I just don't think any of us could sit back and say, "Oh, the process would have to be more perfect." We've got to *try* and find a better solution than the patchwork, you know, default, we've got at the moment. Sixty years is a long, painful time; but we shouldn't let it last another sixty years because we want some more perfect solution. Let's move forward and do the best we can with what we have.

And I think a consent-based process is a recognition that if, you know if you don't mind my saying so, a humble recognition on the part of the federal government that the other methods have not worked. And the only one that really does work is something that gives a community a choice.

Mr. Jim Hamilton. Thank you David. And thank you panel members. And can we give them a round of applause, please? [Applause].

Okay, we're now going to be headed into a break and before we do that, give me 90 seconds, alright?

When you come back from the break, we're going to divide up into small groups to be facilitated and have discussions to dig a little bit deeper into what you've heard. Alright? Look at your blue packet. There should be a number on the top corner of that packet. When you come back, please sit at the table that corresponds to the number on your packet. The goal here is to try to get sort of five or six people around a table; so try to congregate at your number now – we might move them around a little bit to give them an equal distribution, but you are going to come back here for facilitated small-group discussions.

Quickly, there are no prescribed topics for this discussion. Alright? There are no questions that are in or out. But in your packet is a sheet of paper to give you some idea that might prompt a dialogue. Each table will be supported by a neutral facilitator. Can those facilitators wave their arms, or stand up and say hi? These people here – their job is to help you have a productive conversation. Alright?

At the end of this facilitated discussion, which is going to last about 80 minutes, and believe me, it goes by very quickly, there will be a report-back session and the summaries will reflect your key issues and recommendations. These will then be condensed into a meeting report that will soon be posted on the Department's website.

Following the report-out period, there's an opportunity for public comment. If you want to make a public comment, there's a sign-up sheet out by the registration desk. Please sign up so we can manage that public comment period.

For those on the webinar, our experience has been that facilitated small-group discussions make for lousy television. So we're going to put the webinar on pause. We'll bring it back up during the report-out session.

So for those in the audience let's reconvene – it is now 7:06 PM – at 7:21 PM – that's the way it is – back here please.

For those on the webinar, 80 minutes from now. Bathrooms, restrooms – out the door to your left. We'll see you back here in 15 minutes, thank you very much.

Small Group Discussion Summary Session

Mr. Jim Hamilton. We're now going to move to the report-out sessions. Take it away.

Facilitator 1 [Mr. Bill Olsen]. Good evening. My name is Bill Olsen. I will be reporting from Table 1. We had a very lively conversation here. And although there are six bullets here, it's not really six separate items. So let me address these.

First and foremost that the consent-based siting process must – very specifically – begin at the state level and you know, get involvement there; get buy-in there; get stakeholders there, and then work more deeply towards the legislators; towards the local communities. Start at the state, and then work down.

The next one on transportation – that really is not about transportation specifically, but on how to do transportation. But this really means that the consent-based siting – in order for a community to give their consent, there must be assurance that transportation from the source to where the site is going to be, is viable; it's been considered; it's approved, it's been vetted. So not so much as how that happens, but that needs to be perhaps a quality check that that's somewhere in the process before a community would say yes.

Next is regulatory authority. That at every level of regulatory authority – federal; different agencies – some of the examples were the NRC, the EPA, DOE and others that right now there's a lot of authority that perhaps preempts the states from really having the authority that they need in order to really make these decisions and get involved. So DOE needs to address that – Congress needs to be involved.

Next is the ownership of the fuel itself. Depending on the site, the ownership might be different, as to how they might be licensed. And the consent-based siting process needs to address that very specifically.

Next is the access to accurate information. This should be funded; this should be at every level of the community that they have full information, so once a community is considering it, they need not only that access, but to the opposing views. And different scientific views, different political views, different providers, across the board. So they can make an informed decision.

Lastly, there's was a lot of discussion in our group about perhaps a lack of clarity when consent-based siting is considered – is this the stranded fuel; is it the current site; is this interim; is this the permanent disposal site and their point really was that it has to begin here – you have to have a very specific process that addresses interim storage before you can go beyond that to get into permanent disposal.

So those are the key points in my group. So I'm going to turn it over to Table 2. [Applause].

Facilitator 2 [September Spore]. Hey, everybody. Okay, so our group spent most of its time talking about two major chunks of items. The first one was around trust, and building the trust, because we thought that that comment in the discussion earlier in the panel conversations was important. And so really the number one thing that came from this group is to start to rebuild trust as the acknowledgement of the prior mistakes; just to start the ground moving.

From there then concerted and focused attention on building the trust; maintaining the trust as it starts to build and then finally sort of cultivating it along the way.

Most important to do that was transparency throughout this whole process. So transparency became sort of a major theme that happened in multiple areas, but the result of having that transparency was then to build the trust, which was sort of that core foundation that needed to happen.

In addition, the group sort of focused on what is consent, and spent some time talking about how to clearly define consent. And there were different levels of agreement between the group as to what consent would mean; but most certainly making sure that there is clarity around consent at the site-level – the host-site level.

Also, there was a lot of discussion about who is consenting. There is a lot of intergenerational discussion with regard to building or getting the consent.

And finally, confirming or knowing when you have it – to make it clear – to be sure that we know that we have it, so there was a lot of discussion around that area as well.

The thing that did pop up at the end of our conversation which the group wanted to make sure that we pointed out the concern – the ongoing concern – was that even this process could take a long time to develop the process and then actually developing the consent-based siting process, and not only that but then getting a site to actually consent and the concern within the group was that this is going to take a long time and in the meantime we've got waste sitting out there and not only sitting out there but growing as well. And so that was sort of the undercurrent inside the group – a little bit of a concern as we started to flesh out this process. Thank you. [Applause].

Facilitator 3 [Mr. Frank Scarpaci]. My name is Frank. The first topic that the group wanted to share was there needs to be agreed roles and responsibilities in an acceptable decision-making process.

Next, we talked about trust, and one way to build trust was to establish trust by building a multidisciplinary education pipeline focused on the consent-based siting process.

Next, we talked about benefits; benefits need to be defined in terms defined by the community.

Next, the DOE must define the scope of what they are selling to communities and what the impacts are or could be.

Next was on transparency. We need to make sure that we need to be clear about the pros and cons, not only today, for today's generation, but consider multiple generations down the road.

As far as a framework, we need to make sure that the framework is strong enough to ensure completeness and full representation of a community and is not creating any polarization.

Next is transgenerational equity and continuity in governance and fairness in distribution of benefits. So it needs to take into consideration that there might be changes in governmental and governance structures in the future – so the process needs to account for that.

And then there needs to be staged details and information and how that information is distributed, so start sort of national, and broad, and then information becomes more detailed as the process goes along.

So thank you. [Applause].

Facilitator 4. [Mr. Wayne Pendle]. Hi, so I represented Table 5. Again, my name is Wayne Pendle with Leadership Strategies.

Several ideas that the group came up with – the first was the frustration around multiple voices that are communicating to the community. The example was the DOE saying – we'll that's not us, that the NRC. The NRC says that's not us, that the EPA. And the frustration that creates with the public of beginning to understand, and so speaking with one voice and really the term the group rallied around was around this idea of "collaborative capacity." And really, truly being able to present the information in a way that you have one group that is representative at all different levels. There is some good discussion at the local level, at the state level, at the federal level and just the frustration that currently exists at having these different siloed entities being able to share what may be different levels of information.

Probably our deepest level of discussion came around education. And it came from our youngest participant, a high-schooler. Who said that it's going to be her generation that's really going to be the one that has to deal with this. And so having experts that are coming and sharing not only technical information, but at the lay-level of being able to say here is exactly what is going on, just to make an awareness that there is a nuclear waste issue. That the idea was that the public is unaware – and that this is an aware group – those outside these doors may be highly unaware that there is an issue. And so involving the younger generation to increase the younger say in what needs to take place. And that's why that one voice at the local level can be a fantastic way to truly start with this informed consent at that.

Learning from some analogous situations; there was some "what not to do" – examples shared, and there was "what to do" shared. For example, the bio labs that have come into Boston – there were four bio labs – let's bring some Ebola into our community, and, "Oh, by the way, we're siting it here. Can I get an Amen?" So they were like, "Wait a minute; that was not informed consent there." And then Nathan talked

about an example of where there was informed consent from the simple example of how to make New York City more bicycle-safe. So we compared and contrasted what worked and what didn't work that were non-nuclear waste related, but was a very great deep "lessons learned" about how to inform on true informed consent, even lessons learned from Sandy in the emergency response they came from what was experienced on the East Coast.

There was some great debate over let's stop producing the waste to begin with and there was also some discussion about continuing to make it. So that was a point of contention. They were in agreement that we need to do something with the waste. No doubt about it. And that led to the last one – that an interim storage solution needs to look at those plants that currently are shut down and then look at those high-risk sites to move that off-site into an interim storage solution. So a lot of great discussion, but those were the summary points. Thank you. [Applause].

Facilitator 5 [Mr. Chip Cameron]. Hi everyone. My name is Chip. And I'm reporting out for this table. Right here, which I guess is Table 7.

Our discussion coalesced on what the organizational framework should be for a consent-based siting process. And the start of that would be an independent citizen advisory committee. In the community, it would not be a utility-appointed advisory committee. It would have state representation on it, but it wouldn't be controlled by the state.

And we talked about the advisory committee using two different types of what were termed "performance measures." And one of them would be aimed at social community performance measures. How did you get the community involved? Not just a couple of town hall meetings, but how did you get them involved? It would be a transparent process. Second type of performance measure would be all the science. Performance measures – we called them "site performance measures." And this advisory committee would allow the community to hire independent experts to advise them on the science and this would be something that starts before the NRC process, because there's not going to be a license application unless the community decides to go forward to host a site.

There should be a larger national organization of some type that would oversee this process to make sure that the performance measures were being used correctly and in fact that the larger organization could actually promote – set the performance measures that should be used through some type of national process.

And I guess the last thing that was mentioned, and if not the last thing but, the community should be able to set a limit on how much waste is actually going to go to that interim storage facility and I should point out that we did have one person at the table that said it would also be important to limit the production of future nuclear waste.

And that's where we went. Thank you. [Applause].

Public Comment Period

Mr. Jim Hamilton. Thank you very much. As I mentioned earlier, the summary report of these small-group discussions will be posted on the Department's website shortly, and so you can look for it there.

So we're going to now going to move into the Public Comment Period. And again, this is one of several opportunities for members of the public to provide input to the Department. We had the question-and-answer session; there is the Federal Register Notice and the Public Comment Period here.

I've got the sign-up sheets from outside. We've got 17 people who've asked to provide public comment. Give or take, we're going to try to limit it to two minutes per person just in the interest of time and respecting everybody's schedule.

So to help us keep on track, and to make this as beneficial for as many people as we can, two minutes a person, and to help do that, we've got Tim in the back, and there's a microphone here, and I will introduce people one at a time. So Tim's got – everybody look at Tim – Tim's got two pieces of paper. When he raises the yellow one, you've got a minute left; and when he raises the red one, it's time for you to pass the mic to the next person. And if we could all do that, that would be really great. So thank you for your cooperation in advance.

So I'm going to read three names at a time, so you know who is first, second and third. And we will keep that list rolling. I've got Don Hudson, number one; Catherine Skopic, number two; Nathan – I'm going to mess up the names and I apologize – is it Nathan Macher?

Alright, so Don Hudson – is he still around? I don't see Don Hudson. Alright, he's gone back to Maine.

Catherine Skopic?

Ms. Catherine Skopic. Right here.

Mr. Jim Hamilton. Catherine, followed by Nathan, then Jennifer Stromsten. Welcome, Catherine.

Ms. Catherine Skopic. Thank you. Thank you, it's wonderful to be here, I've learned so much this evening. There is no legal agreement between government and industry on the issue of radioactive waste. The issue is statutory. The Nuclear Waste Policy Act obligated the federal government to take over long-term management of waste in 1998 with the Yucca repository, but we know that that failed. Because of the failure of that project, and the fact that there is no viable repository site, the federal government has no authorization to take title of, and to transport, the waste anywhere. So that's the first thing.

And I'm going to have to make my statement more brief.

A lot of us weren't here when decisions were made to make or to construct nuclear power plants, but we are all dealing with this problem and I applaud the DOE for bringing us together to discuss the issue.

Parking-lot dumps are the worst solution to the problem – and in fact, they are not a solution. They are compounding the problem for all Americans in future generations. It would be necessary to move radioactive waste across the country to such hypothetical sites by rail, truck or barge. Is there any person

in this room who has not heard of a train derailment? How about – have any of you never heard of a truck turning over and igniting because of an accident? Barges sink due to human error, or intense storms, and climatologists tell us that we can expect more of these storms in the near and far term.

Can we endanger our water sources such as aquifers, lakes and rivers? About 2% of all water on the planet is drinkable. And much of that is tied up in glaciers, albeit melting all too fast. Many areas of the world already face dwindling water supplies. Why would we risk poisoning this pristine water with which we have been blessed and now enjoy?

The same can be said of our rich agricultural lands – the dangers of radioactive waste exist for centuries.

So I just want to say that we do have a problem on our hands and again I applaud the DOE for bringing us together to discuss it. But moving radioactive waste across the country – I don't think is the best solution. I think we can do better. Thank you.

Mr. Jim Hamilton. Thank you, Ms. Skopic. Nathan.

Mr. Nathan Macher. Hi, I'm Nathan Macher, a citizen. So I just want to say that there are multiple solutions, I feel, to this problem that the federal government is not considering.

One, there is reprocessing to reduce the volumes and then also, and I'm not sure if we should bury the waste, because it can be reused as fuel in future reactors and also if we do have to bury – if we reduce the volume, and there's some leftover amount that we do have to bury – I feel there are additional solutions they can be considered instead of just a land-based approach; it could be a deep-sea undersea burial approach that could be looked at, and I think the DOE could at least allow that to be a solution by researching it to see whether it is viable, and if it is, great; and if it's not, then don't consider it.

And yeah, I think that's where I'll leave off.

Mr. Jim Hamilton. Thank you very much, Nathan. Jennifer Stromsten, Phil Weyenberg, Chris Campany.

Ms. Jennifer Stromsten. Hi, thanks. It's like open mic night. I'm from the Institute for Nuclear Host Communities. We focus on socioeconomic impacts insofar as that is possible given the unfunded mandates that come with closure and being a host community when your plant is done.

So we have been working with the town of Plymouth since 2014 to prepare for the closure of the Pilgrim Nuclear Power Station and I'm just going to give some comments that sort of excerpt letters that they, and we, have submitted to the DOE.

Some concerns – consent-based siting – this process is focused on communities that *will* receive the fuel and this still leaves pre-consent communities by the wayside. Nuclear host communities with commercial plants across the country have become *de facto* spent fuel repositories. We think a truly consent-based process has to have consideration for, and provide relief to, communities like Plymouth, like Vernon, and others that are currently burdened with these facilities.

The consent-based conversation is a great opportunity for the DOE to recognize communities with these facilities and maybe help broker some agreements about the continuation of spent fuel storage in a manner that conforms more broadly to local and state policy and land-use-rights regulation.

Why it matters is that current practices create unnecessary economic hardships for communities. The DOE has a framework in place to compensate licensees and operators for the burden of construction and maintenance of the facilities, but host communities have been left out of that equation.

The result is a nonconsensual liability that gets in the way of redevelopment; it removes control and certainty and any attempts that have been made to stabilize local revenues by levying tax on the spent fuel have been unpredictable or unsuccessful.

So we would like to see the DOE also revise its oldest-fuel-first policy, if you get around to moving the stuff. So the consent-based process is a great opportunity – thank you – to highlight the lack of support or structure or programs, as Chris Company said, to help communities transition after their plant closes.

So thank you for holding this process.

Mr. Jim Hamilton. Thank you, Ms. Stromsten. Phil Weyenberg, Chris Company and then Renee Howard.

Mr. Phil Weyenberg. Hello, I'd like to talk about the subject of our meeting, which is waste. And waste is a word like garbage. But this is once-through nuclear fuel, and it's not waste; it's really precious valuable material that can be used, reprocessed, and used in other advanced reactors down the way, so I hope that if we do find a site, that it will be accessible because that fuel is valuable.

And the second thing is – I think that if we find an interim site, it would be very helpful if we could link that with reprocessing. That would reduce the amount of fuel to 4% of what we have now. Which is not that much, really; it's 20 feet on a football field.

So those are the two points that I wanted to make. Not waste. Fuel. Thank you.

Mr. Jim Hamilton. Thank you, Mr. Weyenberg. Chris Company, Renee Howard, Doug Bogen? Welcome Chris.

Mr. Chris Company. Hi, Chris Company, Regional Commission, Southeastern Vermont. We're the host region for Vermont Yankee.

So earlier in the meeting I mentioned the idea of somehow NRC, all the different federal agencies, convening, being in the convening host communities; by host communities in this case I mean those that are hosting nuclear power facilities – the idea here would be resource groups like the National Association of Development Organizations; the National Association of Counties organization that could work with Jen's group – how would that structure work – but this is really about a local government engagement issue; this is not a pro- or anti-nuclear thing – this is about how do you engage those host communities in the conversations and resources communities to talk to one another; become aware of the issues; become aware of the common concerns and to then advise the federal government about the local impacts?

And I think that's absolutely essential. And I think you would benefit multiple federal agencies if you'd had this group, because then it wouldn't be the stove-piped NRC decommissioning policy development here; the DOE interim storage facilities over here; transportation, EPA, etc., so that's that idea.

How much time do I have?

Mr. Tim Frazier. Forty-nine seconds.

Mr. Chris Campany. Okay. The performance measure idea – the idea here is let's let the communities develop their own processes, and at the federal level what the federal government can do is ensure that the processes are as open and transparent and inclusive as absolutely possible. So establish those parameters; establish the conditions that the processes need to meet – but then that will allow for – the tribes will have their own processes – each state is already going to have their own land-use and energy-based decision-making processes; local governments, etc., so let the host communities develop those processes themselves. The federal government role would then be to ensure that because – let's just say it – some states, some communities, are more inclusive than others, and so this would set a very high performance bar; but then you'd also have performance measures related to the technical qualifications for the site, etc.

Mr. Jim Hamilton. Thank you, Mr. Campany. Renee Howard, Doug Bogen, Rod McCullum.

Ms. Renee Howard. Hi, my name is Renee Howard. I'm a high school student. So basically what I think is the biggest issue – well, maybe it's not an issue – but the best thing that we can do going forward is holding more public forums like this and making them more accessible to all citizens, all communities, particularly the younger generation, because my crowd is the one that is going to have to deal with this issue. So, I mean there's a big problem in America today with political advocacy, particularly amongst my generation – I mean I'm a 16-year-old in a room full of older people. [Laughter]. Let's just call it what it is. But yeah, I think just making the information more – I don't want to say user-friendly, but more citizen-friendly – and just making it known that there is an issue and what's going on in our country is definitely the biggest first step that needs to be taken in solving this issue. Thank you.

Mr. Jim Hamilton. Thank you, Ms. Howard. [Applause]. I've got Doug Bogen, Rod McCullum and Sheila Parks.

Mr. Doug Bogen. Hi, my name is Doug Bogen, I'm Director of the Seacoast Anti-Pollution League, which is based in Exeter, New Hampshire. We're probably the oldest still existing anti-nuclear organization in the country. We're 47 years old now – we're older than the Department of Energy; we're even older than the U.S. EPA, if you can believe it.

I haven't been there the whole time, but several decades I've been involved in this issue and we're primarily concerned about the Seabrook nuclear plant, as you might've guessed; and there's lots been said already here, but I just want to say on behalf of our members and many thousands of people in New Hampshire – we do not consent to this process; we do not consent to the way DOE has handled this issue for several decades and hopefully you're learning from past mistakes, you know, but we want to see it; we want to see some changes in the process, and this is certainly a good first step. Although I think it's a shame that you're only giving us a couple minutes to comment. I know it's not a public hearing, but some of us traveled, you know, hours to be here and we get to listen for four hours and speak for two minutes. But I want to devote my one minute left to say a little bit about some facts on the ground with Seabrook in terms of the nuclear waste.

I understand you've [got] a rail-based process for transport; I know you don't want to talk about transport. But transport's really the name of the game. You ain't gonna store that waste anywhere until you move it and it's real problematic.

There was a rail line that ran through Seabrook. Unfortunately, it runs in the wrong direction – the route to the south was closed and dismantled years ago; the route to the north goes into downtown Portsmouth, before it heads south again, and it's not being used – it's abandoned. Parts of it have been dismantled; parts of it have been bisected by residential housing and in a few decades it's all going to be underwater anyway, so that's a big problem.

We have crumbling foundations, including the foundations of the spent waste pool, so that should be addressed; you know we're on the seacoast, and we're very vulnerable to sea-level change. Our state climatologist has said that Barry Island, a.k.a. Hampton Beach, is going to be gone in several decades, and our plan is going to be quite vulnerable, but we need to have a good process that does take into account what the people really want and we want to see hardened on-site storage for most of the sites rather than shipping this waste around in some kind of nuclear shell game. So, thank you very much.

Mr. Jim Hamilton. Thank you, Mr. Bogen. I just want to say thank you for keeping within the two minutes. I know there's a lot of people that want to talk, and we're just trying to honor everybody's time here, so I just appreciate everybody doing a good job keeping under two minutes.

With that, Rod McCullum, Sheila Parks, Diane Turko.

Mr. Rod McCullum. Rod McCallum, Nuclear Energy Institute. Two words: earned consent. It's something we live every day in the nuclear industry. In the vast majority of our communities, we needed to keep operating, and in the vast majority of our plants, we're very strongly supported in our communities. There's a couple places in Illinois that are very sad today because they learned they're losing their nuclear power plants.

How do you get there? We've had 240 years of experience with representative democracy in this country. That experience has given us numerous state, local, federal and tribal processes that can give you opportunities to earn that consent. You have to do it continuously, you have to do it every day – it's hard. You have to live it. DOE is starting with this process. DOE's history – I've only got two minutes, so I can't do that there. But I would really encourage you – I love the idea that we came up with performance measures, because I think that's the way you combine all these already-existing processes together. You have to reinvent democracy after 240 years – wow. But don't discount what's already going on on the road to earned consent in places like New Mexico and Texas. Nye County, Nevada and the state that didn't agree; but a licensing process still required by law that gives you an opportunity to negotiate in good faith. So I'll end; I'm out of time. Earned consent. I was right! Earned consent. [Laughter].

Mr. Jim Hamilton. Thank you Mr. McCullum. I've got Sheila Parks, Diane Turko, Clay Turnbull.

Ms. Sheila Parks. Hi everybody, I'm Sheila Parks, the founder of On Behalf of Planet Earth. So I just wanted to start with – [Secretary] Moniz said at least twice that nuclear is carbon-free, or low-carbon. And I mean he's 100% wrong. And I'm not going into that. Ask any known nuclear activist in this room.

So I have read Beyond Nuclear's standing-ovation statement that's called, "We Do Not Consent," and I agree with every word of it. So I have decided today to tell you what I do consent to.

I am consenting to holding my own heart and the hearts of all of the people going through this process – this siting process – while they're going through it, and I'm consenting to tell you people that you have to have probably women of color do training of the people that are going to run those sessions and hold each other's hearts the whole time.

I'm consenting to closing all nuclear power plants now and stopping all of the radioactive waste while we're talking about how to get rid of it.

I'm consenting to giving you a failing grade in seeking these communities that you think will be fair.

And finally, I am consenting to put all the high-level radioactive waste in the front- and back-yards of the NRC, the DOE, the White House, all those in Congress who like nuclear power plants, the owners of nuclear power plants, those who have stock in nuclear power plants; Bill Gates, Bill McKibben, James Hanson, Alan Rusk – and these are the people...thank you.

Mr. Jim Hamilton. Thank you very much, Ms. Parks. Diane Turko, Clay Turnbull, Paul Gunter.

Ms. Diane Turko. Hi, I'm Diane Turko with Cape Downwinders from Cape Cod. Okay.

The DOE is seeking public input for consent-based interim storage for high-level nuclear waste. This is a federal agency's attempt to develop a solution for management of spent fuel, storage, transfer and disposal. One DOE goal is "ensuring continuous viability of America's nuclear industry," as explained by DOE Undersecretary Dr. Lynn Orr at the kickoff program in Washington. From the statement we know that they're not serious about all about public safety – this is about the nuclear industry, and keeping it viable.

So you talked about the history of trust. Interim storage is a desperate attempt by the DOE to address the environmental mess they've created and presided over. The consent-based siting initiative is simply a generational boondoggle for the nuclear bureaucracy to command new resources and relevancy. The fact of the matter is that the genie is out of the bottle and no one knows how to deal with the waste and any reasonable assurance of adequacy for long-term.

This is all Orwellian doublespeak for – we don't have a clue, we've got something to do, let's kick the can down the road and blow some smoke. Attempts to relocate nuclear waste have failed. After billions of dollars spent, communities disrupted, public concerns ignored, just look at Yucca Mountain and Hanford. We have no evidence that the government has any idea for comprehensive and responsible high-level waste storage.

Communities across the country have spoken out to close nuclear reactors that store the spent fuel in dry casks to no avail. Our own Pilgrim nuclear reactors – one of the worst operating in the country – continually failing inspection reports and yet it continues to operate.

The DOE initiative for consent-based interim storage is just hiding an unethical and outrageous contamination problem, not solving it. It's a big dangerous shell game and we will not play it. We demand

the closure of all nuclear reactors – stop producing the nuclear waste. The spent fuel pools must be immediately emptied and fuel stored in the best available dry-cask and protected hardened on-site storage.

Full public input in all aspects for on-site waste storage and for any movement for future offsite permanent storage, including consent for transportation along state lines. Increase security at spent fuel pools and hardened on-site storage areas at all nuclear power plants and the issue of environmental racism is fully recognized. Thank you.

Mr. Jim Hamilton. Thank you very much Ms. Turko. Clay Turnbull, Paul Gunter and Mimi – I can't read the last name. So. Is Clay Turnbull here? Okay, Mr. Gunter.

Mr. Paul Gunter. Thank you again, my name's Paul Gunter; I'm with the Reactor Oversight Project with Beyond Nuclear.

Let me just start out by saying that I think it's disingenuous for the Department of Energy to be coming to New England seeking a consent-based process when the government, the DOE, the Nuclear Regulatory Commission – never sought consent for the licensing of nuclear waste generators. They never sought consent for the relicensing of these nuclear waste generators. They have not sought consent for new licensing of nuclear waste generators, and yet they come to this community now looking for consent to do the bidding of the U.S. nuclear industry who are looking at this as a revelation of the artificial costs of nuclear power that was never factored in. Nuclear waste is in fact – it's going to be the largest cost.

The concern here is that this is not the first time the DOE has been to New England. I was here in 1985 when the DOE came to New Hampshire and Maine and Vermont looking for a second repository. I was particularly involved with the New Hampshire Radioactive Waste Information Network in 1986 when we put before the New Hampshire democratic process – a 200-year-old process of town meetings where – of the 212 towns that we have in New Hampshire, 130 took up the issue and voted in their town meeting. One hundred of those towns voted to oppose the burial, storage, transportation and production of high-level nuclear waste in the state of New Hampshire. That should be included in your historical account and it's my understanding that you need reminding.

Mr. Jim Hamilton. Thank you very much, Mr. Gunter. [Applause]. Mimi?

[From audience]: No, I think she left.

Mr. Jim Hamilton. I've got Mathew, the State Representative from Plymouth. I can't read your last name, I apologize. And then Pine DuBois at the end.

The Honorable Representative Mathew Muratore. I'm actually glad I'm going before Pine.

My name is Mathew Muratore; I'm the State Representative for the Town of Plymouth. As you know, as you probably know, the Town of Plymouth is host to the Pilgrim Nuclear Power Plant which recently announced the closing in 2019. And I'm here representing the delegation of Senator deMacedo, Representative Calter, Representative Cutler, and myself, who cover that area.

And this is wonderful to be talking about a site, but in three years we will be a site. And we need some help. We need to be at the table. We need – we're glad that we're seeing dry-cask storage started a couple

years ago, but we need to make sure that dry-cask storage is sped up so that all the spent fuel rods get out of there quicker.

And then you know, we're realists; we know this isn't going to happen; it's not going to move, so we need help. We need help with whatever resources we can get, including financial resources for our community and we're actually begging the folks in the federal government to really step up, help us out, and let us please be an equal partner in this. Thank you.

Mr. Jim Hamilton. Thank you Representative Muratore. Pine duBois. She has left, which ends the Public Comment Period. Thank you again for all your comments.

Closing Remarks

Now I'd like to turn it over to Mr. Andrew Griffith, the Associate Deputy Assistant Secretary for Fuel Cycle Technologies, to offer his closing remarks. Mr. Griffith.

Mr. Andrew Griffith. Thank you, Jim. And yes that is one of the most obnoxious government titles in all of government.

But I thank everyone here on behalf of Secretary Moniz, John Kotek, and the entire Consent-Based Siting Team. We know that you have busy lives. We know you have things to do. And we really appreciate the time that you take to come out here and share your thoughts and observations and advice with us.

We've got a tough job ahead of us. I think you know that – and that's why you're here. And we do need your help; we needed the help in the other forums – this is the fifth of eight public meetings, as has been mentioned – and it never ceases to amaze me the texture, the nuances, that we get on all the topics – even if many of the topics have already been addressed in our other meetings. You bring your own experiences to the table and we appreciate you sharing them with us because we believe that if we're going to develop a durable solution for this challenging problem for our nation, it's going to take those types of nuances, that kind of texture, to get us there.

Clearly, trust is an issue. We know it's not provided, it it's not earned, as Rod mentioned, without a lot of hard work. We need to establish a process that gets us there.

We agree that the Department of Energy is operating at a credibility deficit; a trust deficit. The Administration's plan calls for a new organization as John Kotek has mentioned. We would like to get there; however, it takes things outside of our control to get there, and we believe that this problem is too significant to wait for that to happen, so we want to get the ball rolling; we want to carry the possible solutions forward in a way not to undermine any future organization, but in a way so a future organization is positioned to further succeed. Hopefully, building momentum on what we're able to gain. Because right now, there's not much momentum. I think we all recognize that.

We believe you can transport, store and dispose of nuclear waste, spent nuclear fuel, in a way that protects the environment and the public. It's essential to have that kind of bedrock on any kind of solution going forward. We believe that you can do that; however, just our belief in that is insufficient. We have to have discussions; we have to have dialogues – if there are ways that we can improve the technologies, the

practices going forward, we want to know what those types of things are and we want to be open to those because we might not have all the answers.

I think it's pretty clear that the crystal ball is kind of foggy on how we go forward from here. We want to gain some clarity, but I think the beginning of any kind of process has to recognize – has to design in from the beginning – that it's phased, and adaptive.

We don't know what the final solution is going to be. No one in this room does. But we kind of know what direction to start. And if we design a phased and adaptive process that learns as it goes; that makes progress as it goes, in a way that demonstrably addresses the challenges that our country faces, then I think ultimately we're going to get there. And I'm not talking about getting into a dead-end of interim storage as a final solution because it's not. Clearly, the ultimate objective is isolating this material from the biosphere as long as it exists.

So that's the ultimate objective, but I believe there are steps we can take, including establishing a transport network and introducing interim storage technologies that have been proven to protect the environment and the public, and that we head down that path with the ultimate objective of disposal. And we won't be able to do that by ourselves. And we believe that starting this process with the development of a consent-based siting process is the smart thing to do to get the ball rolling; and again we couldn't do it without your input.

Thank you very much for your participation tonight. It's been excellent. Appreciate the energy and the passion. On behalf of the Consent-Based Siting Team, we're encouraged and enthused based on the kind of energy that we sense here tonight. We believe we can achieve a solution and make progress and so please stay in touch with us. Look for updates on our website. Continue to send in your inputs – the invitation for public comment is open to the end of July, but we will be – we want to design in the ability to continue to get inputs from the public as we go forward on each phase; as we go through and develop this phased and adaptive process, so again, thank you very much. Safe travels home. [Applause].

Mr. Jim Hamilton. Thank you Mr. Griffith; thank you panel members; thank you audience here in Boston and on the webinar; thank you logistics team. Please don't forget to pass in your meeting evaluation forms. We listen and learn from those to design future meetings. This wraps up the formal part of this meeting and the webinar will now close. For those who wish to join the informational poster session to your left, please do so. If you find that brown folder with the representative's name on it, let me know. Thank you for your participation and we are adjourned. Have a good evening. Well done. [Applause].