

WEBINAR TRANSCRIPT:**“Promoting Port Stakeholder Success: Collaborative Action with U.S. EPA”****Tuesday, September 24, 2013, 2:00 PM – 3:30 PM EDT**

Slide 1: Cover slide

Jayne Ballard, EPA: The focus of this webinar will be promoting port stakeholder success, collaborative action with EPA, and a focus on transportation and air quality. We're excited about the session that we've put together, and we'll get started on the webinar in a few moments, but I wanted to give you a few housekeeping details.

This webinar is scheduled for 90 minutes. We recognize that we may not answer all of your questions during that time. However, we will follow up on any unanswered questions via email. At the conclusion of this webinar, a short survey will pop up on your screen. We ask that you take a few minutes to share your thoughts. We will use your thoughts to improve our future outreach efforts.

During the presentation, everyone will be muted. You'll have an opportunity to speak later on. However, at the moment we wanted to minimize background noise and prevent distractions.

Now we'll move onto the webinar itself.

Slide 2: Session Schedule

We'll start by hearing background for the Port Stakeholder National Conversation, followed by a quick overview of EPA's efforts supporting the ports sector and nearby communities. Next we'll get a sampling of perspectives from those engaged in various aspects of the port sector, with presentations by the American Association of Port Authorities, Maersk, and Ports America. After that we'll engage in a question and answer session where we encourage you to share some of your thoughts, and we'll conclude with some final thoughts and wrap-ups. Let's get started.

Slide 3: Chris Grundler

Our first speaker is Chris Grundler. Chris is the Director of the Office of Transportation and Air Quality for the U.S. Environmental Protection Agency. He and a staff of nearly 400 employees strive to protect public health and the environment by reducing air pollution from transportation vehicles, engines, and fuel use operation.

Since joining EPA in 1980, Chris has held a number of serious leadership positions within the Agency, including Director of the Office of Federal Facilities Enforcement and the Director of the Great Lakes National Program Office. Chris has also served at the U.S. Department of Energy, where he helped create the department's first environmental audit program. Chris holds a Bachelor of Science in Civil and Environmental Engineering from the University of Michigan. Chris?

Chris Grundler, EPA: Thanks so much, Jayne. Good morning and good afternoon everybody, and thanks for joining us today. We're holding this conversation, and I call it a conversation

because we really want to listen—and when I say we I am talking about my team as well as colleagues in our EPA Regional offices throughout the country—we want to listen to you and what your thoughts are about what EPA can do to help build a more sustainable ports system in this country. When I say sustainable, what I mean is one that works for our economy, for port communities, and for our environment.

So why ports? I think most of you understand how important ports are to the efficiency of our economy. Ports are absolutely critical to many cities and regions. I recently had a wonderful time visiting the Port of Baltimore, where I learned that “Once you’ve see one port, you’ve seen one port.” I get how complex these port communities are. How they are each different, and how important they are to their communities and indeed, to all of us. This is why the President has outlined his goals for growing U.S. exports, and clearly with the widening of the Panama Canal and the ongoing global economy that we’re all living in, it is without a doubt that ports are going to continue to play a very important role in our lives, in our way of life, and in our economy for many years to come.

So we need to come to grips with how we’re going to meet this new demand—this new trade demand, I should say. How are we going to advance U.S. ports’ capacity while at the same time understanding, considering, and addressing what this may mean for our port communities and for our environment? As everyone here understands, ports are home to large numbers of diesel engines because they’re so good at powering the heavy transportation equipment, the vessels, and all the tools that make a modern port useful. But at the same time, we know that these engines last a long time and that they contribute to meeting some of the challenges that our ports are facing in being good neighbors. Clearly, with increased traffic and increased growth in ports, that makes the job that much more difficult.

Slide 4: Applying EPA’s Expertise to Ports

And so what we do in our little part of EPA is we spend a lot of time trying to find common sense and practical solutions to make our transportation system more sustainable. One way that we have done this throughout our history is to establish cost-effective, practical national standards for new vehicles and new equipment, and for fuels that power them. What we learned is if we do this in a smart way these standards can and have spurred an enormous amount of innovation throughout the U.S. economy to find new ways to do work and to move goods and people around at a much lower cost to the environment, making it much easier for all of us to breathe.

But that’s not our only tool and that’s not our only strategy. What we’ve done over the last decade or so is put together some very effective, and I would even say innovative, partnerships to solve problems that don’t lend themselves to a national regulatory solution. By partnerships I’m talking about our SmartWay Transport Partnership and our National Clean Diesel Campaign, which we execute through the help of our Regional offices and thousands of private sector partners. We think that collaborating in such a way is going to be key to solving some of the intractable air quality problems that we have in particular places. We see this as a complementary approach to setting national standards and national policy.

We've made a lot of progress over the years. There's absolutely no doubt about it, and we can measure our progress. But we know that our job remains unfinished. Far too many people in our country still live in places where they are subject to unhealthy air, and of course the country is just now coming to grips with the challenges of addressing global climate change.

So as some of you know, ports are not new to EPA or to our colleagues in the Regional offices. We've had many different efforts over the years, particularly through our diesel freight programs and our SmartWay drayage initiatives. I'd say what's different now is, because of this growing awareness and growing emphasis on globalization, and the infrastructure needed to support it, combined with the growing awareness amongst all of us citizens regarding the environmental and economic challenges facing ports and their users, that we've determined it's time to take a fresh look at ports and see them as the unique places that they are with special complex needs as well as opportunities. So today is about—and the subsequent conversations we'd like to have—helping to identify the best opportunities and the best ways to search for solutions. And we're all very interested in hearing from the people who live and whose livelihoods depend on these ports who are closest to the problem.

What I've learned over all these years—Jayme was kind enough to point out that I've been here since 1980—is that we make the best decisions when we're talking to the people closest to the problems, and that's what all of this is about. I think that for those of you who know us, we have a pretty good reputation for listening to all parties involved and all parties needed to solve a problem. And that's what we intend to do over the next few months. So what we have in mind is having three separate webinars or conversations, all leading up to a summit next year where we really want to reach out to this community of interest, this community of port stakeholders—the port authorities, the shippers, the carriers, the community groups, the environmental groups, and others—to draw out your collective experience and expertise. I really want to encourage everyone throughout this process to be candid, to be honest with us, tell us what works, tell us what doesn't work in your experience, where are the gaps, and what EPA can do to be useful.

And what we hope to learn over these three webinars and leading up to the summit will really inform what we think we can do next, and how we can encourage continued environmental progress at our ports while meeting important objectives like community health and sustainable economic development.

So let me just close by saying that I think we have built a very solid foundation throughout the Agency on how to create effective partnerships. We've learned that if all parties have access to a common set of information about the data and air quality needs of an area, if we can set up the right partnership and incentives, and if we can find a way to integrate government efforts and community efforts and align them all toward a common objective, then this can be done. It has been done. We've got excellent examples both in port communities as well as other places—like Chesapeake Bay and the Great Lakes watershed—where these same elements have come together and contributed to accelerate progress, and that's what we'd like to see here with respect to ports. So we're looking forward to having a candid exchange of views. We want to develop a shared understanding so that we can all come up with some ideas and solutions that will advance this cause. So, my colleagues here in DC as well as those in the EPA Regions strongly encourage

you to stay involved. We value your participation greatly, and we're looking forward to working with you to make some progress.

So with that, I'm going to turn it back over to Jayme and we can get started. Thank you for listening.

Jayme Ballard: Thank you Chris.

Slide 5: Cheryl Bynum

Next we have Cheryl Bynum speaking. Cheryl directs the U.S. Environmental Protection Agency's partnership for sustainable goods movement, the SmartWay Transport Partnership. Cheryl is a graduate of the University of Michigan and is currently co-leading OTAQ's ports initiative. Cheryl?

Cheryl Bynum, EPA: Thanks Jayme. Good afternoon everyone. Good morning for our West Coast friends. As Chris mentioned, EPA has a long history of supporting cleaner and more efficient transportation options. For over 40 years our engineers, scientists, and analysts have been working very hard on your behalf to make vehicle fuels and non-road equipment emit fewer of the emissions that contribute to air pollution and, more recently, climate change.

Slide 6: EPA's Strengths and Capabilities

As the first slide shows, we do this by conducting research, driving data, building analytical tools and models, developing public policy, demonstrating technical solutions, and creating partnerships with industries, states, non-governmental organizations, tribes, and others. For example, EPA developed the MOVES model that states rely on to develop their air quality inventories. Our office manages the National Renewable Fuels Program, and we developed federal emissions standards and test methods for new mobile sources, including the ones Chris mentioned—cars, trucks, oceangoing vessels, locomotives, buses, marine and recreational vehicles, and equipment. And many of the technologies that manufacturers have used to meet these standards, we've pioneered or tested at our labs. We've also pioneered addressing mobile sources through partnerships, incentive-based programs, technology verifications, and technical partnerships.

This expertise is why we're lucky here in the U.S. to lead the world in bringing health-based air quality standards to our citizens. The strengths and capabilities that EPA brings to the table—the data, the partnerships, the market-based programs, the scientific and technical expertise—we feel these could be effective if applied to ports. Let me give you an example of one such partnership, SmartWay, which I direct.

Slide 7: Addressing the Supply Chain

You'll see that SmartWay helps to address the goods movement supply chain by providing tools to assess and track fuel and emissions from freight transport. We also provide technical assistance by demonstrating new technologies, conducting case studies, and coordinating test programs.

So why is this important? Goods movement is a network of hundreds of thousands of individual companies who make independent business decisions about how to ship their goods. The market does a great job of providing shippers with time, price, and reliability signals, but is unable to provide consistent environmental signals.

SmartWay enables companies across the freight supply chain to exchange environmental performance data using uniform metrics and methodologies. This access to environmental performance data lets the market factor in the environmental impacts of goods movement, which results in more informed decisions. This means that carriers can cut costs and attract shippers that are looking for greener options. It also means that shippers can shrink their emissions footprints by making more informed choices in their mode and carrier selection and in their operational practices. SmartWay also provides recognition and incentives for top environmental performance, which helps to drive further environmental benefits. So, this access to environmental data and recognition and incentives for top performers helps the entire freight supply chain network to function more efficiently, which saves businesses money and improves competitiveness while creating demand for greener technologies and practices.

Slide 8: SmartWay's Achievements

The next two slides demonstrate the achievements of the program since it began nearly ten years ago. These achievements are driving change in both how companies do business and in saving energy, and on the next slide you'll see how it's been effective in addressing climate and air pollutant emissions.

Slide 9: Climate and Clean Air Benefits

SmartWay also has a drayage truck component as Chris mentioned, which is focused on identifying greener trucks that operate at ports, and then helping those port trucking fleets reduce their emissions. A program like SmartWay, which uses data and market-based mechanisms to achieve environmental goals, is one example of how EPA applies a solid scientific foundation to partnerships in order to address complicated challenges like our transportation supply chain. SmartWay has now expanded into Canada, and it's being duplicated internationally.

The principles that EPA used to build this program—reliance upon credible data, uniform metrics and tools, partnerships and incentives—could provide a model as we explore together how to support and encourage more environmentally sustainable ports. EPA has other programs, as Chris mentioned, with strong relevance to ports, including the one directed by my colleague Jennifer Keller, whom you will hear from next. Thank you.

Slide 10: Jennifer Keller

Jayne Ballard: Thank you Cheryl. As Cheryl mentioned, Jennifer Keller will be our next speaker. Jennifer has worked with the U.S. Environmental Protection Agency Office of Transportation and Air Quality since 2003 on a variety of voluntary programs. She is the Director of the Legacy Fleets Incentives and Assessment Center and is currently co-leading OTAQ's Ports Initiative. Jennifer?

Jennifer Keller, EPA: Thanks Jayme. Hi everyone. As Cheryl and Chris explained, our office on air quality transportation covers a variety of programs, one of which is the National Clean Diesel Campaign, or the NCDC.

Slide 11: EPA Strengths and Capabilities - NCDC

NCDC is a voluntary EPA program that focuses on cleaning up the legacy fleet of 11 million medium- and heavy-duty diesel engines still in use today. As you can see on the slides, the NCDC has four main areas where we support communities, organizations, local governments, and ports with clean diesel projects. This work is carried out by both the headquarters program and also our ten EPA Regions. Some of the NCDC's projects are funded through the Diesel Emissions Reductions Program, or DERA, as it is called, which has received annual appropriations for clean diesel projects since 2008. Many of you on this call have worked on clean diesel grant projects, some with zero funding and some even before DERA when we were doing demonstration projects, including some at ports.

Since 2008, EPA has awarded more than 500 DERA grants for projects that have reduced emissions from more than 50,000 engines. We've also awarded 30 rebates so far, which is a new initiative from our program besides grants. These clean diesel projects have created up to \$8.2 billion in health benefits, so funding demands for these projects remain high. We do not have nearly the funds needed for all the clean diesel projects out there, so we are targeting our limited resources to those places where we can make the biggest impact, including ports.

Slide 12: Trends in DERA Funding

Specifically, we have a growing trend of funding marine and port-related projects with DERA funding, as you can see from this chart. We funded this over the last five cycles of DERA—about 70 marine port or airport projects, with 15 being awarded directly to port authorities. Ports have a lot of applicable equipment and have put together good proposals for projects to retrofit or replace marine engines, cargo-handling equipment, dray trucks, and nearby rail.

We will be offering other competitive grant and rebate opportunities this fall and into next year, so keep an eye on our website and email blasts for announcements.

Slide 13: EPA Strengths and Capabilities - NCDC

In the upper right hand quarter of this quadrant you see technology verification, and this is a critical component of our program. It's where we test and verify technologies used in clean diesel projects. These can be diesel oxidation catalysts, diesel particulate filters, idling reduction technologies, hybrid systems, or others. As an example, recently two port-related technologies were verified. Both utilize hybrid technologies. One is for rubber tire gantry cranes, and the other is for hybrid tugs. Information on both of these newly verified technologies is on our EPA Clean Diesel website. We also have an in-use component where aged devices are tested for durability and continued efficacy.

In the lower right-hand quadrant, you see that we focus also on tools and info development to try to meet the needs of our stakeholders for information such as best practices or other guidance. Much of this is web-based. In addition, our Diesel Emissions Quantifier, or the DEQ, is a way

for non-modelers to estimate emissions for clean diesel projects. The health impact of projects can be estimated using the DEQ as well.

Finally, in the lower left-hand corner, our collaborative place-based efforts. We have been working for over a decade in the field with ports communities on projects designed to lower risk from diesel emissions. These projects leverage federal, state, private, and local funds.

Slide 14: EPA Regional Collaboratives

Here are just a few examples of the fabulous work that our seven regional diesel collaboratives have accomplished over the past few years. Many of you are members of these diesel collaboratives. If you'd like more information on our diesel collaboratives and our Regional offices, please visit our website, where you can find links to both the Regional programs and also our diesel collaboratives and their place-based efforts, including those at ports.

So, thanks a lot, and you can go to our website for more information on the NCDC.

Slide 15: Susan Monteverde, American Association of Port Authorities

Jayne: Thank you Jennifer. Now on to our guest presenters. First is Susan Monteverde, who serves as a vice president for governmental relations at the American Association of Port Authorities. Susan joined AAPA in 1999 to serve as the head of the government relations department. Susan holds a B.A. in Political Science from George Washington University in Washington, D.C. Susan?

Susan Monteverde, AAPA: Thank you very much.

Slide 16: Promoting Port Stakeholder Success

Susan Monteverde: First of all, thanks to EPA for putting together this webinar. We look forward to working with you in the next year as you reach out to ports to figure out ways to promote more port stakeholder success and collaborative actions with EPA. We're happy today to talk a little about the transportation and air quality side of that.

Slide 17: Our Message

For those who are not familiar with AAPA, we are a port authority that represents the leading public ports in the Western Hemisphere, and from the environmental side we share our best practices with all our members in the Western Hemisphere. Ports are the primary focus of port authorities' forces to move goods and people in and out of the country. Cargo movement is probably the number one thing that we do. But overlaid on top of that are security since 9/11, as well as environmental concerns. Ports feel that they are the stewards of the environment in the area that they are located in, and they are very interested in helping to make sure that their impact is minimized on the environment.

Slide 18: Transportation and Air Quality Focus Areas

This slide shows you from a transportation and air quality perspective what a typical port might look at. When I talk about the different programs that some of our members have adopted, it really depends what type of thing they have to address. Many of them, but not all of them, are close to population centers, especially those in the Northeast and on the West Coast. Some of the

Gulf ones aren't quite as close to population centers, but that's very important in terms of making sure that you look at the impact of the air emissions on the close population center if you have one.

Trucks, as was mentioned before, is a lot of the focus of what we're doing. Rail, cargo-handling equipment, oceangoing vessels, and harborcraft and dredging. You're going to have different projects based on what the emissions are from each of these areas.

Slide 19: Different Approaches at Different Ports

Now, as we heard at the beginning of this presentation, every port is a little different, and you're going to have different approaches at different ports. We also have different funding mechanisms. Often the port provides some or all of the funding for the program. DERA— I'll talk about a little later—that's been really instrumental in helping ports do more for the environment. And then in some cases—especially in California and some West Coast ports—you'll see more funding coming from states to help deal with air emissions issues.

On the right side of the slide is a sampling of the types of programs that ports might select to look at what they have to deal with. I'm going to take you to the bullet at the very end— LNG (liquefied natural gas). This is kind of a new area for us. At first ports were talking about either having cleaner diesel engines or electrifying, but now folks are really starting to look—and it's really in its infant stage—at liquefied natural gas. That might be something that EPA wants to look at, because many of the programs are very oriented towards diesel emissions, and we're not quite sure if DERA could be used for LNG facilities or LNG retrofits. That's still a bit unclear, but we are seeing ports starting to go that way.

Slide 20: Transportation and Air Quality Focus Areas

This takes us back again to the focus areas that I was talking about before. Again, the trucks— clean truck programs, many ports have that right now. We also have rail, often that is paid for from some DERA grants, and trucks are also paid for with DERA grants. Cargo handling equipment, again, is something that our folks look at, and we have clean fuel incentives, vessel speed reduction, and plug-in technologies. Those are three initiatives that really relate to oceangoing vessels. I'll talk a little in a few minutes about whether we'll keep doing those things based on the ECA (Emission Control Area), because a lot of those programs are really to deal with oceangoing vessels, but as the new regulations come into effect, those might not be as important as people look at their emissions inventories.

Slide 21: Regulatory Requirements

As I mentioned, regulatory requirements often do drive emissions. When a lot of ports did their emissions inventories, they came out and realized that ships were one of the larger emissions areas. Originally we really didn't have a lot of control over that until we got into the international standard of MARPOL Annex VI. EPA was supportive of having the Emission Control Area for the U.S. and Canada to try and do something about the emissions. So, I'm sure most of you know the first part went into effect August 2012 to change the sulfur content so we have less SO_x and NO_x and particulate matter emissions, but the big push will come in January 2015 when the more stringent amount standard comes in.

We do have a few concerns—we're happy to see that we think they're changing a bit—cruise ships were something we really hadn't thought about that much. Many of you—if you've been on a cruise ship—they have to do what we call hotelling. Everything has to be on: your ice machine, your air conditioning, food service, etc., so at ports they tend to use a lot of energy. They also, within the United States and Canada (especially the Canada-Alaska cruises) have to stay in the ECA the entire time. Our concern was that it's really making the cruises to Canada and Alaska prohibitive.

There has been some flexibility. EPA just announced an agreement with Carnival and some other folks to allow them to put scrubber technologies on, so we're glad to see that there is some flexibility. [In terms of] fuel availability, we're glad to see EPA is kind of keeping track of that, but when January 2015 comes around, we're going to have to look at that again. And then some of the DERA grants have been used for shore power, and I'm starting to hear from my guys, "Well, once the 2015 rules come into effect, do we really need shore power?" LNG is another issue—will ships be going to LNG because of these new ECA rules? So, these are going to be some things that are on the horizon. We're not quite sure how they're going to effect the different ports.

Also, as EPA looks at tightening more clean air regulations, criteria pollutants, we might see that more ports are located in non-attainment areas. So, some of those might be doing some more environmental programs to try to lower their emissions. And then regulatory: California, of course, has some stringent regulations for ports on air emissions that they have to comply with.

Slide 22: Strategic Approaches

The first group of ports who really looked at this from a strategic point of view—California, San Pedro Bay Clean Air Action Plan began in 2006, Ports of Long Beach and Los Angeles—really became a model for regulations. They really looked at it from a largely strategic point of view. They met with all their stakeholders, they met with their tenants, and since 2011, it's been very successful. They've achieved a 45 percent reduction in emissions. That was followed in 2007 by the Pacific Northwest Supports Clean Air strategy, and all these you can find on their website if you want to find out all the different things. They really look at all the different emissions and what type of programs they can look at and incentives they can give to try to reduce emissions. And again, they're doing very well in reducing their emissions. New York in 2009 established a Clean Air Strategy, and they also have certain goals and a variety of programs aimed at reducing emissions. The final one is Houston, who also has a Clean Air Strategy that they established in 2009.

Slide 23: Programmatic Approaches

Here are a few other ports who have also looked at emissions. We have the Port of Virginia—their Green Operators program established in 2009—in which they really reach out just on Green Trucks. Port of Oakland also has two programs—the Marine Comprehensive Truck Management Program as well as their Maritime Air Quality Improvement Plan. They also address where they think their biggest issues are.

Slide 24: Project-Based Approaches

Some ports look at what I'll call project-based approaches. Many of these are based on DERA

funding. This is just a sampling of them. As you heard before, ports have been very successful in getting a lot of DERA grants, and we hope the next round—which will be announced probably in the next month—we hope we continue that trend. And this just gives you a sampling of the types of projects that have been funded by DERA. You can see there's a real variety of things: some of them are trucks, some for cruise ship electrification, cargo handling, locomotive, marine engines. Ports have really been creative looking at their own inventory to what they think their biggest problems are, and DERA has really been instrumental in incentivizing and helping ports make those reductions more quickly.

Slide 25: AAPA's New Partnership

Now let me just close by saying AAPA is also excited about some new partnerships on international initiatives that we're just starting now. There's something called Green Marine, it's a Canadian – U.S. initiative that we're starting to cooperate with them to allow Canadian and U.S. ports to make voluntary environmental improvements by undertaking certain concrete measurable actions. And then EcoPort is something that we're putting together more for our Latin American members. They've been very interested in that, and we have a joint AAPA-ESPO EcoPort program right now underway. Again, these are just two models that we're trying to get best practices out to our members, where there's kind of a uniform system that they can adopt to show that they are very environmentally involved.

Jayne Ballard: Thank you Susan. So, I have a really quick question for you. Given the market competition and competition interests, what would it take to make environmental performance important to port stakeholders' bottom line business approach?

Susan Monteverde: Thank you. That's a good question. As you can tell from the presentation, a lot of ports are already making a lot of investments in environmental improvement. Ports have realized that if they want to expand, especially when they're in urban areas, they are going to have to do something about the air emissions, and a lot of them have already done that. So that's been very helpful. Also, bringing money to the table. The DERA grants have been very fundamental, especially to some of the ports that don't have these large strategic plans—you can bring to the board a grant. That's a fabulous way to motivate them to do more environmental improvement. Most of those ports have done more on the environment or are very serious about the environment. Some of that is very regionally based. A lot of that had to do with port expansion, but we also see that in areas like the Pacific Northwest and New York/New Jersey. Especially when they're in a non-attainment area, ports really have done more. ECA will make a huge impact because when most ports have done their inventories, the number one emissions area comes from the vessels, so when the full ECA goes into effect I think we're going to see some changes. Once that's taken care of, ports can turn some of their money that they've devoted to environmental programs to some of the other areas.

Jayne Ballard: Okay. Thank you, Susan. I believe we have additional comments on this question from Kathy Broadwater at Maryland Ports Administration.

Kathy, are you there?

Kathy Broadwater, Maryland Ports Administration: Hello? Yes, I'm here. This is Kathy Broadwater.

Jayne Ballard: Given the market competition and competition interests, what would it take to make environmental performance important to port stakeholders' bottom line business approach?

Kathy Broadwater: Well, I know that Susan answered that question in part, and I agree with what Susan said. I would like to add a couple of things to what she said. The first is that I think that people in the port community are already thinking that environmental performance is important to the bottom line. In the port industry we often see this with many of our customers, because in fact the customers are increasingly expecting good environmental performance and good environmental stewardship from their partners in the supply chain. So we find that environmental performance is important in attracting and retaining top-notch customers.

Then the other thing that I would add to that is kind of on the stakeholder perspective. When I say stakeholders they can be many people, but primarily communities and citizens. We have really found that good environmental performance has put us in a position that our communities know that we're going to do things right environmentally. As a result they are much more amenable to our new developments and new initiatives, because they know that a good environmental performer will do things right. So they support new developments, and that can be beneficial both in making sure that you can proceed but also beneficial in your permitting and siting process, because you're not getting as much opposition. Stakeholders are kind of in tune with you and know that you'll do things right. So you can do things quicker, and you can do things in the end actually more cheaply.

Jayne Ballard: All right. Thank you so much, Kathy, for your additional thoughts.

Slide 26: Dr. Lee Kindberg, North America Maersk Lines

Next we'll hear from Dr. Lee Kindberg. Lee is the Director for Environment and Sustainability in North America Maersk Lines. She holds a Ph.D. in Chemistry and spent over 20 years in the chemical industry before joining Maersk.

Lee Kindberg, North America Maersk Lines: Thanks Jayme, and thanks to EPA for this opportunity to help shape this conversation. You know, before I joined Maersk Lines, I was involved in shipping chemicals all over the world, but when I got here I quickly learned that there was a lot that I didn't know about global shipping. So on the next slide...

Slide 27: Vessels and Port Operations

Let's take it to the next one.

Slide 28: Shipping Schedules

There we go. Here's an example of how container shipping actually operates. Here you can see one of our major transpacific services. It takes 45 days to make a round trip. That's almost seven weeks, so to have weekly service it actually takes seven vessels spaced a week apart, and that has to run like clockwork on a very strict schedule. And actually, the vessels on this route the other way do a European loop through the Suez Canal also, so the total is 14 weeks, and to execute

that takes 14 to 16 vessels. Some big routes even have more than one vessel per week, so even more vessels—for example, our Asia-Europe Daily Maersk product has over seventy vessels running between China and Northern Europe.

Slide 29: Facts About Liner Shipping

So here are some surprising facts that make a difference in planning your programs.

First of all, we are like an airline or a bus line, not a taxi. Vessels move on strictly set routes and schedules, they're periodically re-deployed, and schedules change. Conformance to that schedule is critical in both cost and air emissions, because higher speeds dramatically increase fuel use and air emissions.

Second, our vessels travel the world. International vessels spend only about five percent of their operational lifetimes in the waters of any one country or state. Let me repeat that: five percent of their lifetimes in the waters of any one country or state. And they're periodically redeployed, and their schedules are periodically modified. So any port is part of a big international picture, and international regulations really work best. So wherever possible, we need to align with and work through international maritime organizations. Even if we're leading it, in time, the alignment is very important.

Third, these vessels may be as big as two to four football fields, but they still operate with total crews of only about twenty people. And those guys and gals live on the vessel for months at a time, sleeping, eating, and working together. It's a lot for those few people to do.

Fourth, if a program is going to require vessel visits or trips, you need to know that Homeland Security and other rules require a lot of pre-planning and approval, and anybody doing this work should know about vessels and have a TWIC (Transportation Workers' Identification) card, and even then approvals are required.

Fifth, the old growth projections of 10 percent forever are really obsolete. The industry has changed dramatically in the last six years, and it's really distressing to see projects still based on 2005 fleets and inventories and projections. New vessels today are much more energy-efficient and have tremendous economies of scale. Some will fit U.S. infrastructure or go through the new Panama Canal when it opens.

And then sixth—and this is one of my soapboxes, sorry about that—the rest of the world uses metric units for environmental, supply chain, and other calculations. We use metric globally even though we operate in English globally. U.S. programs really need to align with the rest of the world in terms of units—otherwise we're just inviting mistakes in calculations.

Slide 30: Vessel View of Port Operations

This is a vessel's view of port operations. The vessel comes from the previous port and sails a day to as much as three weeks. It arrives at the pilot station, picks up the pilot, and comes into dock. A flurry of activity happens. Then there's the last line free, we drop off the pilot, and we're on to the next port. Again, anywhere from a day to three weeks to that next port. And remember that a vessel not moving is costing money and not covering distances, and it's generating air

emissions, carbon dioxide, and criteria pollutants. A vessel that's not moving is not making any money.

Now it might sound simple, but the shorter the port stay, the lower the emissions, both at the dock and after sailing since lower speeds mean less fuel consumed. From the port perspective it also means that the ports have more berth availability if we can get out faster and get out faster reliably, so that's an increase in your capacity without any investment. Unfortunately, we don't see a lot of progress on efficiency or crane productivity.

Slide 31: Port and Terminal Performance

We're looking to reduce our environmental impact throughout the supply chain, and marine terminals are the next piece of the solution. Port and terminal performance plays a major role in vessel and environmental impact. Now, why is this important to Maersk Line? Well, we have to deliver on the product that we're selling to our customers. We also need to manage the use of our assets. And most importantly, we need to reduce the amount of waste that we have in our system. Port terminal performance and high variation in performance leads directly to contingencies and increases bunker consumption and emissions. Our customers are increasingly demanding both high reliability and a low-carbon supply chain. So as you can see, we have many different forces saying that we should make reliable improvements.

But efficiency and reliability is a total port process. It's key to improving customer satisfaction, controlling costs, and minimizing emissions.

Slide 32: Measurement and Transparency

Now you manage what you can measure, and measurement and transparency are critical to environmental progress. Our customers increasingly want to know the CO₂ emissions for their full supply chain, so we've been working for about twelve years now in the Clean Cargo Working Group. You see the logos of the members here. That group has been working to develop standard methods for supply chain calculations for ocean freight, and now we're moving to the next step to harmonize our supply chain calculations across the industry and across modes—for example, working with SmartWay.

The Clean Cargo Working Group includes over 60 percent of all containers transported globally, plus leading customers and forwarders. And each year they collect annual performance data on all of our vessels and provide a benchmarking study. Currently that involves reporting over 30 criteria for each vessel, including actual fuel consumption, actual distance steamed, fuel sulfur, and many other criteria. Over 2200 vessels participated last year. Clean Cargo has protocols for standardized CO₂ analysis and third-party verification, and trade-lane emissions averages are now published on the website. The website is given there on the slide (<http://www.bsr.org/our-work/working-groups/clean-cargo>), or you can just Google Clean Cargo Working Group and it will pop right up.

The resulting emissions factors support customer calculations, and as we see on the next slide, we can also use them internally to set goals and track progress.

Slide 33: Vessels Are Increasingly Fuel-Efficient

So we're able to report with confidence that vessels are becoming more fuel-efficient and that we've reduced air emissions. Now what you see on the chart here in red is the Clean Cargo Working Group industry average for each of the last four years, and you can see there is definitely a reduction. Now this is in grams of CO₂ per container per kilometer. The red is the Clean Cargo Working Group industry average, and the blue is Maersk Lines' performance, and that is third-party verified by Lloyd's Register. We've reduced our fleet emissions per container per kilometer by 25 percent since 2007. We actually met our 2020 goal eight years early. So we raised that goal to 40 percent by 2020, because we see real business value here as well as environmental value.

This is the type of environmental improvement that is truly sustainable, since it reduces both cost and environmental impact. So how are we doing it? Well, new ships are part of it. And it's not just bigger ships. That's one part. But there's also retrofitting the existing fleet, and even more important is how we design and execute the network. Another factor is the increasing use of vessel-sharing agreements and other mechanisms to increase vessel utilization and efficiency.

Slide 34: Challenges

We've worked with several voluntary programs to accelerate environmental progress, like fuel switching, vessel speed reduction, and the Environmental Ship Index. Some of them have been supported by DERA grants—thank you very much for that, by the way. Voluntary programs really can work. But cleaner fuel opportunities are disappearing, as Susan mentioned, here in North America. And by 2015 our Emissions Control Area will require less than one percent sulfur fuels. So how can we work together after that to accelerate progress?

Well, we have two requests. First, enforce the regulations. That levels the playing field and ensures that the good actors are not at a disadvantage. Second, think globally and act locally. The Environmental Ship Index (ESI) is an example of this concept. There's a single global database for data entry, and ports can use the rankings to implement a program that targets the needs of their region, their budget, and the fleet calling there. Programs can be different in Los Angeles, New York, and Rotterdam.

While industries express some serious concerns about the ESI ranking process, which is dictated by the European Commission, the global and local concept is really the right way to incentivize reductions with minimal confusion and less administrative burden. So let's talk about some of the challenges to getting these things done.

First of all, communication, particularly on environmental issues, is somewhat sporadic. Some ports have regular communications set up on the environment, which really helps, but some don't.

Second, we really do not have a common assessment framework in place or standard language or metrics for environmental issues. Third, there's an increasing number of local and regional regulations and initiatives, and they all have a good purpose, but the end result is that for us, the customers--there's complexity, confusion, and risk of errors. So we see a definite need for closer alignment for shipping ports and terminals on environmental issues. But we also need to recognize the need for early and ongoing input for stakeholders.

Slide 35: How Can Port Stakeholders Work Together?

To summarize, industry really does want to reduce our environmental impact. You can help by making it easy. We have limited resources, very few people, and we cannot pass new costs through to the shippers. It just doesn't work since the 2008 downturn. Those customers have other options— some in modes with higher environmental impacts. The reality is that locations end up competing for funds and support, and the winners aren't just those with the best environmental outcomes. Ease of implementation and cost are also clearly factors.

So here are some specifics that we think will help:

First, build on international standards. Second, minimize administrative burden and ease of getting it done. Third, set goals in terms of environmental outcomes. Fourth, promote innovation, efficiency, and operational flexibility, because the win-win-win programs are the most likely to succeed long term. Thank you.

Jayne Ballard: Thank you, Lee. So I have a quick question for you. The economic downturn in 2008 resulted in a downturn in cargo going through ports. It also made projections for growth inaccurate, yet we are still using the same assumptions to project growth as before the downturn. How can ports work together with the lines to make these projections more accurate?

Lee Kindberg: Well, you know, the industry really had to change to survive the downturn. And we live in a world of big data today, and there are many new and more immediate reporting methods available and all kinds of services. In the past, you had to wait for that ten-year inventory or something like that, but today we probably need to find a way to define acceptable ways to baseline something. And then keep it updated and fresh so that we never see something that's based on a 2005 inventory or a 2005 projection. But at the risk of sounding simplistic, you know, you could just ask us.

Slide 36: Thank You

Jayne Ballard: Alright. Thank you Lee. So next we'll move on to our presentation from Ports America by Tom Ward. Tom was appointed as Chief Engineer of Ports America in 2006 and is responsible for the oversight of all internal and external engineering services for terminals across the United States. Tom holds a bachelor's degree in civil engineering and a master's degree in structural engineering from UC-Berkeley. Tom?

Slide 37: Tom Ward, Ports America

Tom Ward, Ports America: Thank you very much. I thought I'd start a little bit with an introduction to Ports America and the port operating community.

Slide 38: Maritime and the Ports, Commerce, Operation, and Sustainability

Slide 39: Ports America

Ports America is a nationwide marine terminal operating company. We have facilities in all the little colored dots you see on the slide. We provide terminal operations services and stevedoring; we manage labor and do maintenance; we manage health and safety; and we have a large

information technology footprint. We oversee design, construction, and procurement in several of our facilities and we work very hard to innovate and make our facilities work better and provide a very comprehensive service to our customers.

Slide 40: The Broad View

Our customers are shipping lines. They are the people we have contracts with. They are the people who give us money to handle their freight. I'm right now sitting at the Outer Harbor marine terminal at the Port of Oakland where we serve no less than 13 different shipping lines, each with a different contract, each with their own needs. Fundamentally, the nature of our business is to hire and manage the waterfront labor—to load and unload ships and to make sure that the cargo they're carrying gets properly transferred to trucks and trains. We maintain all of that equipment at a high level of availability, try to minimize our consumables and certainly minimize our variables, and try to sustain a decent margin while we do this. And with luck, make investments for the future.

We handle a wide variety of cargo. We handle containers—up to 12 million in 20-foot equivalent units last year. We also handle breakbulk. We handled eight million tons of breakbulk last year; we processed a million passengers through passenger terminals at cruise facilities; and we had two and a half million vehicles move in roll-on-roll-off cargo vessels. Overall, on a daily basis we hire over 12,000 workers at 80 port facilities around the United States.

I'd have to say from an environmental point of view the most dominant thing we think about every day is safety. When it comes to keeping the public alive through environmental processes, we think first and foremost about our workers. We want them to go home at the end of the day with all the body parts that they arrived with this morning. From a larger environmental perspective we tend to be on the front line in that we're at the pointy end of the stick in the service to the shipping lines in enacting many of the port authority's policies for environmental improvement. The marine terminal is the land of other peoples' money. We serve shipping lines, trucking companies, railroad companies, port authorities, state agencies, U.S. Customs and Border Protection, Coast Guard, and agriculture. We serve pilots, we serve shipmasters, we serve crews. We deal with equipment manufacturers. We deal with a great deal of labor and vendors who come to our facilities. Everybody who comes to our facilities to do something is trying to get us to do something for their benefit, using preferably somebody else's money. Ours is a careful little balancing act where we try to manage all of these conflicting and competing interests within one tight environment.

Slide 41: Environmental Initiatives

We have been engaged in a number of environmental initiatives over the years. I'll be the first to admit not all of these are our ideas, but we're certainly engaged with them. We have engaged especially in Southern California in opening our marine terminals at night to gate traffic to reduce highway traffic. Several of our marine terminals have intermodal rail yards on dock. Again, this is in order to reduce truck traffic in the region.

We have been, especially in California, switching over all of our equipment to Tier 4 engines under the inducements of the California Air Resources Board in order to reduce diesel particulates. It's been quite effective. I was standing at our gate the other day and noticed that

when the trucks rev up to move forward there are no more clouds of black smoke coming up. We've been investigating alternative fuels and engaging in tests of liquefied and compressed natural gas and in hybrids. We have some hybrid machine testing centers in California. We're doing a project right now to change our lighting [to reduce] light pollution and light energy consumption here in Oakland. The picture you see at the right is of a shore power station. This allows container vessels to plug into grid power on the dock. This is the shore power installation at our facility here in Oakland. Ports America is actually the only private entity that's building a shore power station. All the other shore power stations are being built by port authorities, but here in Oakland we have a concession that requires that we build that.

Most of our heavy electrical equipment uses regenerative power. That is, we use power to lift loads but we generate power to lower loads, and that reduces the overall demand on the grid through the substation. We are aggressive in trying to control surface runoff from the facilities. We control large pieces of property that are not necessarily very clean on their surface, and we have a lot of steps that we take to keep surface water from being polluted and running into our bays. We're working pretty hard on getting trucks to stop idling. This is a challenge because truck drivers don't like to shut their engines off. They never know if they're going to restart. These are among the environmental initiatives that we attempt to move forward.

Slide 42: Common Ground with Unique Facilities

As somebody at the beginning of the talk said, "If you've seen one marine terminal, you've seen one marine terminal." Our facilities are all very different. We serve different lines under different contracts with different trade groups, different labor, different technologies, import-export mixes with different types of cargo. So it's very hard to find true commonality, but we do have some common drivers: we have a lot of diesel engines; we have a lot of bright lights on the terminal at night; we have surface runoff; we tend to be noisy (if you've been near a container terminal you know we have a lot of beepers and loud engines and banging containers); and we generate a great deal of street traffic on occasion. So there are some solutions that can be transferred from terminal to terminal in terms of new engines, new lights, implementation of new drainage technologies like we just installed at Seagirt Marine Terminal in Baltimore that retain drainage before it goes off in the bay. There are driver assist technologies that make the equipment more effective and efficient and reduce its wasted motion. And, we can all focus on trying to have flexible operating hours to allow us to minimize traffic impacts and maximize the flexibility with which we provide productivity.

The economics vary on all of this, and funding is very uneven. We do have some DERA grants. We just got news of one that will allow us to replace two of our heavy engines in our fleet, and we're also getting some funding from the State of California to pay a portion of the cost of our shore power station. But, there's a lot we have to do on our own and we don't always have the ability to pass the cost of that investment on to anyone. And the requirements from port to port are uneven, so what we have to do in California is different from what we have to do in Seattle, and what we have to do in New York or in Houston. To a large degree this makes it more difficult to justify capital investments when it's recognized that the shipping lines have the ability to change their port rotations and move away from us if we become too expensive.

And finally, I think that we have to remember that our labor group that we serve is a demanding labor group. It is a complex group of people to manage. They are deeply conscious of their safety and of their place in the global transport chain. So we do nothing without the agreement of labor, because if we don't have their agreement they don't do anything for us. And finally we are capitalists. We are here trying to make some money, and the complexity of commerce at our facility means that we move forward incrementally, in small baby steps. We try to hit a home run and make a big change in a marine terminal, then we disturb several of those people who have interests here. So as we move forward we have to be cognizant of every interest that has a place here at the marine terminal and ensure that their needs are dealt with as we move forward with those improvements.

Slide 43: Environment and Safety

As I said before, safety is our dominant environmental driver. It's not something that most people think of as an environmental driver, but it is an environmental driver. Longshore work is by its nature dangerous work. We are moving heavy loads, and we are using heavy equipment to do so. We are trying to do it at high speed, and we are trying to do it without anybody getting hurt. We have trips, we have falls, we have jostling of equipment, things are being bumped. We have crush injuries, we have a dynamic safety condition here, and we spend a great deal of time maintaining it. All of our decisions revolve around it. Sometimes improving the environment and improving safety are not naturally consistent, and so some special care is needed as we look at new engines and new efficiencies. For example, it reduces the environmental impact globally if ships spend less time in port. Every attempt to increase the productivity of dock operations increases the chance of injury. So we have to carefully balance this larger external environmental push to move faster, move more efficiently, with the fact that every attempt to move more efficiently endangers peoples' lives and their livelihoods.

Now, we have had some successes. One of them is a new lighting technology that we're pursuing. It's not necessarily on the frontline of air emissions, but it's one of the first truly sustainable advances we've seen.

Slide 44: Environment and Safety, cont.

This shows a picture of new lighting system that we're testing and installing here at the Port of Oakland. Most of you who have been around ports are used to seeing the terminals lit by high pressure sodium that emits a great deal of light pollution into the atmosphere: lighting up the night sky, lighting up our neighborhoods, and making the whole place look essentially orange. We have a new technology that we have been working with the manufacturer to develop called light-emitting plasma, invented here in Berkeley, California, that we installed in Outer Harbor Terminal in Oakland.

What you're looking at is a series of tube light masts in the foreground. They provide all the necessary ocean-required lighting but with zero upward pollution, with a 55 percent reduction in total energy consumed; a tenfold increase in the lifespan of the light fixture so we don't have to recycle light fixtures all the time; and an improved quality of light that is more uniform and more white and therefore safer for the workers on the ground. You can see that the striping on the ground is quite visible even though it's kind of old and rubbed out—it makes the edges of the containers more visible and numbers more visible. This is one that everyone is going to be a

winner on, because it helps our external environment and our safety environment at the same time. It's not cheap, so we have sought and have achieved some matching funding through FEMA (Federal Emergency Management Agency), because this makes the edges of our terminal more visible and safer and easier to monitor from a security point of view. So this is one example where by being very careful and very incremental we can come to an improvement.

So all the issues I've listed here:

- Night gates improve traffic safety when we work in the dark.
- With on-dock intermodal rail, workers on rail cars are in danger of being hurt.
- If we seek alternative fuels, we're going to have to start looking at alternative fuel handling. So if we look at liquefied natural gas on ships, that could work really well, but we don't have any experience with liquefied natural gas handling in our workforce.
- Hybrids that use battery technology have greater vehicle weight that put more wear and tear on pavement and have more problems with braking, stopping, and stability.
- We're going to put shore power in, but we're going to be handling 6.6 kV electrical lines with human workers. If anybody has ever seen an extension cord for a 6600 volt power line, well, you can imagine how heavy that is, and at the same time that shore power station has a big substation to feed it and we have to protect it.

These are just examples where every positive environmental step has repercussions, and we just have to think about them and deal with them as we move forward.

With that I will end my presentation.

Slide 45: Q&A Instructions

Jayme Ballard: Alright. So, really quickly, we're just going to transition on to our Q&A portion. Here's Sarah Greenberg with further information on how to participate in the discussion elements of our webinar.

Sarah Greenberg, ERG: Hi, thanks Jayme. So there are two ways to participate. You can participate verbally, which is what we prefer, and to do that you'll use the "raise your hand" button on your control panel. If you click that it will signal to us that you would like to speak and we can then unmute you. When we unmute you I will announce your name, and then if you could please provide us with your organization that would be great. The other way to communicate is through our questions box. If you want to ask a question there go ahead and type it in, press send, and if we have time we can read those as well.

Slide 46: Q&A Instructions

Jayme Ballard: Okay, thank you Sarah! So our first question is for the Port Authority of New York and New Jersey, and I believe William Nurthen is on. So the question is: Many businesses view sustainability as important to risk management, long-term growth, and market positioning. So they look for ways to quantify and monetize these benefits. What ideas, suggestions, or lessons learned should be considered to encourage more ports and marine terminals to incorporate sustainability and their bottom line as a plus? So Bill, are you on?

Bill Nurthen: I'm here, but can you hear me?

Jayme Ballard: Yes, we can.

Bill Nurthen, Port Authority of New York and New Jersey: Well, I thought this was a very good question and I wanted to take some time to take a look at it and try to answer it as best as I can. The Port of New York and New Jersey, we're a landlord port, and the revenues we get from our tenants at the terminals and some throughput components are basically the way we generate our revenues. For us, if we want to be a successful port, we have to be a sustainable port. For us, a sustainable port combines three basic elements. One is, it must contribute to the regional prosperity in terms of jobs, good wages, and tax revenues. The second is, there must be some financial return, some revenue generated. If we don't, we go out of business.

The Port Authority has about four line departments which generate revenues, and that's what keeps the Port Authority going. We receive no state or federal appropriations. We're totally self-sufficient within the port district in which we operate in New York and New Jersey, so for us, in order to stay in business, we have to have some kind of financial return. That financial return pays our salaries and also supports all of our operating expenses. It's not enough, however, to support a capital plan, and we combine the input from all the different line departments in order to finance the capital plan, plus we sell bonds for that. So it's not something where we're flush with money at the Port Authority or in the port commerce department, but we do have to have a financial return in order to be successful.

The last element is the environment. We have to make sure that while we're accommodating port flows and all the economic benefits that brings, you also have to do it in a way that protects the environment and the quality of life for the people that live and work in the communities around the port. So that's our definition of a successful port, and it's a sustainable port for all the regions around there. Now, as we look to this, we try to find ways in which we can combine our environmental initiatives to reduce the impact of port operations and development in ways that can benefit the port or benefit the people that support operations at the port.

For example, we had a truck replacement program financed by two DERA grants to replace the older trucks that are in the port. The grant provided a financial incentive, plus the Port Authority backed it up with several million dollars for loans at very low interest so that the truckers could take advantage of the program. This reduced emissions from trucks—which are number two in terms of their contribution to overall port-related emissions—and also made it easier and less costly for the truckers in terms of newer trucks with less maintenance, much more fuel efficient. And if you throw in alternative fuel for vehicles in your trucks as well, you are actually reducing your cost of operations because of the fuel and also reducing maintenance costs. So that was something that made a business case for the truckers, and it was a benefit for them. The other programs like the cargo handling and fleet modernization program had a similar impact. The terminal operators would provide a financial incentive for them to replace old cargo handling equipment with new equipment that met the latest emissions standards for on-road and off-road equipment. We got the environmental benefit of reduced emissions, and they got the benefit of much more efficient cargo handling equipment to operate. So things like that work, to try and do that.

We also tried to monetize the benefits of things like the shore power installation at the Brooklyn cruise terminal. We calculated that the environmental benefits from this would be translated to about \$8.9 million a year in health effect benefits for the people in Brooklyn and in that area around the port. This is enhanced by the fact that this is the only place where we have a marine terminal operation that is immediately adjacent to a densely populated area, and by immediately adjacent, I mean right across the street from the terminal is a residential area.

These are the kinds of things—I think that the bottom line is from lessons learned and ideas—you have to come up with ideas that also make a business case for the entity from which you're trying to reduce the emissions, whether it's the harborcraft, oceangoing vessels, the trucks or the rail, or any part of the handling equipment.

Jayne Ballard: Thanks Bill, and since you mentioned communities we'd like to really quickly shift our thoughts to communities and ask a question for Matt Tejada, who is the Director for the Office of Environmental Justice here at the Environmental Protection Agency. So, our question, Matt, is: What is working well in terms of relationships and interactions between communities and ports?

Matt Tejada, EPA: Hi everyone, this is Matt Tejada, Director of the Office of Environmental Justice here at EPA. I think the answer to that question is a really simple one. It's the same answer that really stands for many of these issues when industry or the government, whether it's a federal regulatory agency or a local municipal district, is dealing with communities with very valid concerns about their quality of life, their impact on environmental health, their sustainability. And the answer is: you involve them in the process. You engage them meaningfully, and you treat them just as you would any other central stakeholder to your operation, to your policy, to your initiative, and really give them that meaningful opportunity early and often in the process to be a part of the decision-making and to be a part of the planning.

I think we've seen really good examples of that, whether it is working through a regulatory process where an agency such as EPA has direct involvement in the regulatory process or whether it's something completely outside of the regulatory process. When a port commission or an industry or anything else involves their community stakeholders early on in the process and really has a sincere effort at finding solutions and resolutions to issues that mutually benefit both parties and that the community has that buy-in and has that ability to take part in that decision-making process, if you're not starting in that place then I think we also have many examples where the result just is not as favorable for all parties concerned. Again, I think it's a really simple answer to that and I'm looking forward to continuing to expand that conversation with a lot of communities, with other stakeholders to this process, port authorities, and other federal agencies. Hopefully that conversation will be continuing in November when we have another of these webinars that focuses on the community aspects of this issue and looks at some examples of where it really has worked and why it worked and how it worked, so we can focus in a little bit more with some more detail, about what that involvement meant and the sorts of beneficial results that resulted from it.

Jayme Ballard: Alright. Thank you so much, Matt, for your thoughts. So I'd just really quickly like to ask another question, and this question is for Ron Stewart at the Port of Tacoma. So Ron, which business partners are critical to the successful implementation of initiatives, and how can ports or EPA nudge initiatives forward? We ask that you keep your comments brief to about 60 seconds.

Ron Stewart, Port of Tacoma: Okay, great. So an easy answer might be to say that since the port is a landlord port that our most important business partner would be the tenants. But I think you really need to realize, and I think I've heard this discussed in this meeting here, that we're just a collection of customers and service providers. With that in mind, whatever initiatives we try to implement need to recognize that customer service relationship and get both the service provider and the customer involved with the initiative. I think that's a critical thing for EPA to consider when designing or trying to implement these initiatives.

Jayme Ballard: Alright. Thank you, Ron. Really quickly, we'd like to hear thoughts from Karl Simon to conclude this webinar. Karl is the Director of the Transportation and Climate Division here at the Office of Air Transportation and Quality. Karl?

Slide 47: Karl Simon

Karl Simon, EPA: Thanks Jayme, and good afternoon everyone. First of all I want to thank all of the participants in today's national conversation on ports and environment. I want to give special thanks to our group of presenters from AAPA, Maersk, and Ports America. We're certainly very appreciative of their generous nature in sharing their expertise and perspectives to help us kick off this conversation. I want to stress again, as Chris shared with you in the opening, that we're very interested in this process and looking to find ways to help ports grow sustainably. This is the first in a series of discussions and conversations and learning experiences for us. So we're pleased with the level of information we've gotten today.

We certainly gain a lot out of the presentations, as well as listening to the Q&A responses. Susan Monteverde from AAPA emphasized how critical ports are to our nation's economy, trade flow, border security, jobs, environmental stewardship, and looked at how several collaborative actions already are taking place in local communities and regions. Dr. Lee Kindberg of Maersk introduced us to the complexities of global shipping and highlighted the need for various parties to work together. And then, obviously, I think her point was very well taken in terms of the importance of taking a network view for looking at this, and it's something that we'll be interested in exploring, looking at metrics and effective incentives as well.

Tom Ward gave us an insider's view of several technical and operational strategies that ports can employ. I think it was very helpful that he pointed out that while some of us like to think that the environment is really the key factor, that there are lots of other initiatives out there and factors that matter that go on every day in ports. Certainly one that we would never want to lose sight of is safety of the people that are working there every day, whether they're unloading boats or moving cargo around or other support services.

We heard in the discussions and questions the complexity, challenges, and opportunities in ports and communities that they serve. We also heard some of the many initiatives that are underway

at ports that are producing benefits for ports while supporting economic growth. So, encouragingly, we're not starting from zero. I think that the challenge for all of us as we begin this journey together is to find the things that are working, the things that may work in other areas, and continue to work collaboratively to find that combination of activities that work both for working in areas of different fuel types, increased expectations by our customers and neighbors at ports, international regulatory dynamics, as well as environmental progress at ports. There's certainly lots of opportunity to work forward, together.

And speaking of that, this is certainly a big topic worthy of more discussion. On November 19, we'll host the second national conversation to explore the influence that ports can have on places in which they're located. We'll look at what's worked, what hasn't, steps that might be needed to create a collaborative and effective solution to address climate and air quality impacts while also supporting economic goals. As has been mentioned before, we at EPA have a history of successful public-private collaboration built on a solid foundation of data, partnership, and our capacity as a federal agency. We're certainly looking to build off of that model, and do want to hear from you.

I know we had probably more questions than we had time for today. My team will work to find more venues where we can facilitate some additional information between these stakeholder calls as well. I hope that you found this conversation as valuable as I did, and with that I want to thank you all again for taking your time today and sharing, and turn it back to the moderator, Jayme, for final words. Thank you.

Slide 48: Follow Up

Jayme Ballard: Thank you, Karl. So I apologize to you all. We've run out of time, and next time we hope to have more opportunity for those on the webinar to speak. For those of you who have raised your hands, we ask that you please type your question and/or comment into the box and we will make sure that the group registered for the webinar gets them. Also, just really quickly noting we have an email address there at the bottom of the slide. We do want to hear from you. However, we have a couple technical difficulties with that email address and we ask that you send us our emails tomorrow morning.

So that concludes our webinar. Don't forget to fill out the brief survey, and we will be sending you a link to the website, and this presentation will be archived on our website. Thank you again, and we ask that you have a wonderful rest of the day.