

**AN EFFICIENT WAY TO GROW JOBS: ENERGY
UPGRADES THAT SAVE FAMILIES AND BUSI-
NESSES MONEY, REDUCE POLLUTION, AND CRE-
ATE GOOD JOBS**

FIELD HEARING
BEFORE THE
SUBCOMMITTEE ON GREEN JOBS
AND THE NEW ECONOMY
OF THE
COMMITTEE ON
ENVIRONMENT AND PUBLIC WORKS
UNITED STATES SENATE

ONE HUNDRED THIRTEENTH CONGRESS

FIRST SESSION

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SEPTEMBER 4, 2013—PORTLAND, OR
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COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS

ONE HUNDRED THIRTEENTH CONGRESS
FIRST SESSION

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**AN EFFICIENT WAY TO GROW JOBS: ENERGY
UPGRADES THAT SAVE FAMILIES AND BUSI-
NESSES MONEY, REDUCE POLLUTION, AND
CREATE GOOD JOBS**

WEDNESDAY, SEPTEMBER 4, 2013

U.S. SENATE,
COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS,
SUBCOMMITTEE ON GREEN JOBS AND THE NEW ECONOMY,
Portland, OR.

The Subcommittee met, pursuant to notice, at 10:04 a.m., in the June Key Delta Community Center, 5940 North Albina Street, Portland, Oregon, Hon. Jeff Merkley, (chairman of the Subcommittee), presiding.

Present: Senator Merkley (presiding).

**OPENING STATEMENT OF HON. JEFF MERKLEY,
U.S. SENATOR FROM THE STATE OF OREGON**

Senator MERKLEY. I'll officially start this Committee hearing of the Green Jobs and the New Economy Subcommittee of the U.S. Senate Environment and Public Works Committee. I welcome everyone. And for those of you who are in the back, we still have seats right up here in the front row if you'd like to join us.

Thank you, everyone, for coming. This hearing is titled "An Efficient Way to Grow Jobs: Energy Upgrades That Save Families and Businesses Money, Reduce Pollution,, and Create Good Jobs." There will be a lot of discussion about those components.

I want to thank very much the staff members from the Environment and Public Works Committee who have come out to set up this official hearing, Steve Chapman and Andrew Dohrmann.

Did I pronounce your name right, Andrew? OK. Very good.

And Oregon State Representative Lew Frederick is here somewhere—right here. Thank you very much, and thank you for your service to our State. We're delighted to be here in your district and to be here in this wonderful facility, which, in itself, is part of the story about green jobs and the environment. We'll have testimony about that later.

When you walk in the building, you don't necessarily think about all the pieces and components. But here we are in the site of a previous gas station converted into a set of marvelous contributions to the green economy.

So in terms of how this hearing will go forward, we're very fortunate to have Governor Kitzhaber here, who will deliver the first

testimony. After my opening remarks, he'll speak directly, and then we're going to go to the testimony of our witnesses.

Thank you all very much for coming here.

Each of our witnesses has a piece of the story about the environment and the green economy. And the Governor has to be back in Salem and will have to leave somewhere close to 10:45 or 11, somewhere in there. So note in advance that he has other business he'll have to attend to.

After the official hearing, please stick around if you would like to talk with the witnesses or have other questions. We'll have some unofficial time at the end.

I'd also like to remind everyone that the Committee record will remain open for 7 days for statements and any other material that folks would like to submit.

Creating good-paying jobs is one of the best ways to restore and strengthen the middle class. We've seen a tremendous loss in living wage jobs as manufacturing has changed. And, also, in this last recession, 60 percent of the jobs we lost were living wage jobs, and in the recovery, only 40 percent are living wage jobs. So that is a part of today's conversation. And we're here to talk about how energy efficient investments not only result in lower energy bills and less carbon pollution, but create those good-paying jobs.

I was in a meeting where former President Bill Clinton came in, and he spent 20 minutes talking about how low-cost loans for energy saving renovations were the best bang for the buck in creating jobs, because you can't outsource any of the labor, and the products that are utilized are made overwhelmingly here in the United States—90 percent-plus.

I have two major bills in this area, the Rural Energy Savings Program, also known as Rural Star, and Building Star. I kept trying to send telepathic waves to the President for him to say, "Two of those bills that encapture this concept are Senator Merkley's." But I didn't succeed.

But one of those bills has now passed the Senate twice and has been in the House. And I'll be talking at the end of today's hearing about another concept, which is energy saving in the manufacturing process, for legislation that I'll be introducing.

So we're seeing investments in energy saving across Oregon. Oregon is now a leader. In the second quarter of 2013, energy efficiency job postings totaled about 6,000 across the country.

To be specific, these investments in energy efficiency support jobs in the construction industry, which is among the most labor intensive sectors and among the hardest hit sectors during this recent recession. The savings from the energy efficiency investments leave homeowners and businesses with more disposable income, which can be spent in other areas of the economy to stimulate economic growth and job creation. For businesses, this can also mean having more money available to hire more workers and become more competitive.

Becoming more energy efficient does not have to be terribly painful. According to the Emily Hall Tremain Foundation, their study on energy efficiency found that more than half the energy that we utilize in the economy is wasted, and, therefore, there can be a lot of savings that have short payback periods.

A separate analysis found that the U.S. can reduce non-transportation energy consumption by 23 percent without impacting our production ability. That alone would eliminate more than \$1.2 trillion in waste. You can think of that as an injection of cash into our economy.

Beyond the benefits of job creation and energy savings, energy efficiency also has the potential to significantly reduce greenhouse gas emissions at low costs. In fact, if all cost-effective efficiency measures were implemented in the U.S. within the next decade, we would save 1.2 billion tons of carbon dioxide equivalent, which is the equivalent of 18 percent of the U.S. greenhouse gas emissions in 2012.

Innovative efforts at the State and local level are helping to move the Nation forward. And Governor Kitzhaber has been a key leader in this area, from initiatives related to Cool Schools—he's a very cool man—to support for the Renewable Energy Portfolio Standard to the Small Energy Loan Program. But this issue, in terms of the goals of the State team in creating jobs and improving the environment and increasing savings—it all fits in.

We will have many folks testifying after the Governor. I'll introduce them after his presentation.

I really appreciate, Governor, your leadership and your participation in this whole effort.

Thank you.

**STATEMENT OF HON. JOHN A. KITZHABER, M.D., GOVERNOR,
STATE OF OREGON**

Governor KITZHABER. For the record, I'm John Kitzhaber, Governor of the State of Oregon.

Senator Merkley, I appreciate very much the fact that you brought the Subcommittee on Green Jobs and the New Economy here to Oregon, and I very much appreciate the opportunity to share with you and your colleagues in the U.S. Senate some of the things that are going on here in Oregon, because I think that suggests what's possible for the Nation.

Clearly, to me, energy and climate are the issues of our time, not just globally but here in the Pacific Northwest. I can't think of two issues that will have a more significant impact on our Nation's economy, environment, and quality of life for the next few decades.

So the central question is whether we are going to shape our own energy future through intentional development and policies and investment, or whether that future is going to shape us. And I think the urgency of answering that question is enormous, because the toll of our reliance on fossil fuel continues to grow.

While I'll try to highlight this morning some of the successes we've had in Oregon, this State and the Northwest, along with, I think, our country, are still struggling to make the difficult transition from a 20th century energy infrastructure to new business models that can unleash the job creation potential of low-carbon innovation. And every day we wait, in terms of answering that question, we face the challenges of outdated energy and transportation infrastructure, trade wars that try to lock up the market share for the newest innovation in energy efficiency, and these heated policy debates about leveling the playing field for renewable energy.

The fact is that we need to figure out a way to give entrepreneurs and investors the certainty that they need so that they can continue to innovate and continue to grow the green economy. As many of you know, and as Senator Merkley referred to, we have been undergoing a clean energy revolution here in the State of Oregon, a revolution in which energy efficiency is poised to meet 100 percent of new energy demand and in which renewable energy will constitute a larger portion of our energy resource portfolio.

We've been working very diligently to try to de-carbonize our economy and reduce our dependence on foreign oil and polluting coal and developing, in the process, a host of home-grown businesses and opportunities that are creating jobs, that are boosting our economy, that are reducing greenhouse gas emissions, and keeping the long-term cost of energy under control.

With more regulatory certainty over the last few decades, billions of dollars have been invested in the State in energy efficiency, solar, wind, geothermal, biomass and wave energy, making Oregon a national leader in the sector. Oregon now has the most jobs per capita in the clean energy economy than any State in the Nation, and job growth in the clean energy economy is five times stronger than job growth in the overall economy.

Last December, we released our State's Ten-Year Energy Action Plan. Goal number one of that plan is to meet 100 percent of base-load growth through energy efficiency and conservation. Now, energy efficiency and conservation are clearly the least-cost ways to meet our State's growing demand for energy. That also will allow us to reduce the need for investing in new generation and transmission facilities, to create local jobs which, as the Senator said, can't be outsourced, and to save customers dollars on their utility bills.

We currently rank fourth in the Nation in energy efficiency. Since 1980, households and businesses have realized energy efficiency and conservation savings that equate to about 8 to 10 power plants. The result has been lower energy bills for residents, industrial consumers, and commercial consumers; a cleaner environment; and also—and I think this is very important—the development of a thriving local energy service industry that's beginning to export our expertise and our technologies around the world.

Twenty-three thousand businesses have invested almost \$2.5 billion in energy efficiency, including lighting, heating, industrial processes, and other measures. In the Energy Trust of Oregon's territory alone, energy efficiency programs have saved about \$1 billion for participants and created 2,500 jobs and spurred about \$90 million in wages and business income growth, a very significant contribution to our economy in these difficult times.

Nearly 425,000 people in Oregon have installed energy efficient appliances in their homes. In June 2011, we launched our Cool Schools program, which the Senator alluded to, which is an effort to audit and provide energy efficiency upgrades in every school district across the State. To date, that program has leveraged a very modest \$185,000 State investment into \$28 million in energy efficiency projects, retrofitting buildings in 140 school districts across the State of Oregon.

This program has identified another \$120 million in shovel-ready projects, and we estimate that the total opportunity for retrofitting our public schools is about \$250 million. We have also launched a similar effort to retrofit our State-owned buildings. We call that the State Building Innovation Lab. In addition to that, the Oregon Department of Energy has identified 4 million square feet of commercial office space that is ready for retrofit.

And as the Senator said, these create good middle class trade jobs. These create a local sourcing and a local supply chain in a ripple effect, so it's a tremendous economic multiplier in a time in which, as the Senator said, the recovery is not bringing back those well-paying jobs. There's a huge opportunity here to save money, to increase our energy independence, and to put people back to work.

We do have some problems. Although the projects provide multiple benefits for our schools and for public buildings, the adoption rate has not been as rapid as we would have liked. There are some reasons for that. Seventy percent of our schools currently receive utility capital that can be used for energy efficiency and conservation. But in many of these districts, the really easily accessible projects, like lighting and windows, have already been taken care of.

Now, while other States continue to struggle to develop a financing mechanism for energy efficiency, Oregon has long had that tool. And, as the Senator mentioned, it's called the Small Energy Loan Program, or SELP. Over the last 30 years, SELP has financed over \$580 million of energy efficiency projects in the State. Yet for many of the school districts that are facing really tough financial circumstances, even the low interest rates that are offered by the SELP program continue to constitute a barrier.

I believe, however, that a very modest infusion of capital could launch a significant wave of new projects that would help our schools and other public buildings and save us money. So to help reduce the cost of capital to retrofit these public schools and buildings, our goal is to identify and incorporate resources and capital from the Federal Government, from the State government, from community foundations and other entities that are interested in energy efficiency.

These investments, in addition to the dollars that we're already spending, have a very positive impact on our State's economy and also provide a pathway to really speed up and ramp up energy efficiency across our entire environment. I think this is a significant opportunity for the State to partner with the Federal Government to leverage our shared resources and really unleash the next wave of high value energy efficiency projects.

In addition to energy efficiency and conservation, it's also important that we focus on incubating and commercializing the next wave of clean energy technologies. For example, last session, the Oregon legislature increased Oregon's energy efficiency standards for appliances, including battery chargers, set top boxes and televisions, to meet those of California and British Columbia. And we're working with Governor Inslee to bring Washington on board, the idea being to harmonize energy efficiency standards for appliances along the West Coast, which I think will dramatically change

the market of what is now the seventh largest economy in the world.

Also in the last session, the legislature continued funding the Oregon Innovation Council, or Oregon InC, as we call it, which is dedicated to the global competitiveness of Oregon industries by helping innovators create high-paying jobs, entrepreneurs create new companies, and university researchers attract Federal and private research dollars into the State of Oregon.

To date, Oregon InC has been a huge success story. They have created 30 new companies that are marketing innovative products, captured \$350 million in Federal and private research grants, and raised \$115 million in private capital to support these companies. Many of the efforts of Oregon InC are related to advanced energy applications in energy efficiency, transportation, and generation. So it plays a very, very central role, and other States might want to look at that to significantly take these breakthroughs and commercialize this critical technology, which helps build Oregon's new innovation economy.

As I mentioned earlier, these new companies that have developed through this effort are actually beginning to export their technologies and their expertise abroad. So it's important to remember that the jobs and economic activity we create at home actually supports our traded sector industries, not just in manufacturing and technology, but also in things like architecture and green building, for which Oregon is increasingly becoming a global leader.

We're also seeing the effects, as Senator Merkley pointed out, in the production process, in the industrial process. In the food processing industry, for example, that cluster has been able to significantly reduce front-end costs by dramatically increasing their energy efficiency.

So, Senator Merkley, those are just a few examples of the good work that's going on here in the State of Oregon. While Oregon may be a relatively small State, I am convinced that it can be an extraordinarily important innovative State.

I'm very thankful that Oregonians recognize clean energy as the economic engine that it is. I also believe that Oregonians recognize that to fully emerge from the economic downturn, we're going to have to be very, very bold about our vision for the future. We know that there are no quick fixes to these challenges, but having the courage and the discipline to think ahead about where we want to be a decade from now, with economic opportunity for everyone, with responsible stewardship of our financial, human, and natural capital—that is the first step to actually getting there.

So let me just end my remarks this morning with the way I started, with a question. And I think the central question still remains, whether this State, whether this Nation, will shape its own energy future, or whether that future will shape us. As William Jennings Bryan once said, destiny is not a matter of chance. It's a matter of choice. It's not a thing to be waited for. It's a thing to be achieved.

I am confident, with the leadership of Senator Merkley and his colleagues in the U.S. Senate and the many good people here in Oregon, that we are going to make our energy future a matter of choice, not a matter of chance. And I am confident we will choose

a pathway that leads to a bright, prosperous, and low-carbon future.

Thank you.

[The prepared statement of Governor Kithaber follows:]

**Senate Environment and Public Works Committee, Green Jobs
and New Economy Subcommittee
September 4, 2013
Governor Kitzhaber Prepared Testimony**

Thank you very much Chair Merkley and members of the Senate Subcommittee on Green Jobs and New Economy for the opportunity to be here today.

Energy and climate are THE challenges of our time, both globally and here in the Pacific Northwest – and no set of challenges will have a greater impact on our nation’s economy, environment and quality of life in coming decades.

The central question is whether we will shape our energy future through intentional policy, investment and development, or whether it will shape us.

Answering this question is urgent, because the toll from our dependence on fossil fuels is rising fast. While I’ll highlight some of the successes we are having in Oregon, we still find that we are struggling to make the complicated transition from 20th century energy infrastructure to new business models that can unleash the job-creation potential of low-carbon energy innovation.

Every day we wait, we are faced with the challenges of:

- outdated energy and transportation infrastructure;
- trade wars that lock up market share for next-generation energy products; and
- heated policy debates about leveling the playing field for clean energy.

We need to give entrepreneurs and investors the certainty and support they need to innovate and continue building the clean economy.

As you likely know, Oregon has undergone a clean energy revolution over the past decade – a revolution in which energy efficiency is poised to meet 100 percent of new energy demand and renewable energy is a larger part of in our energy resource portfolio.

We've been working to de-carbonize our economy and reduce our dependence on foreign oil and polluting coal while developing home-grown expertise that creates local jobs, boosts our economy, reduces greenhouse gas emissions, and keeps the long-term cost of energy low.

With greater regulatory certainty, billions of dollars have been invested in energy efficiency, solar, wind, geothermal, biomass and wave development, making Oregon a recognized national leader. Oregon now has the most jobs per capita in the clean energy economy of any state in the country, and clean energy job growth is five times stronger than overall job growth.

Last December, I released the State's Ten-Year Energy Action Plan. Goal One of that plan is to meet 100 percent of electric baseload growth through energy efficiency and conservation.

Energy efficiency and conservation are the least-cost ways to meet our state's increasing demand for energy. They also reduce the need for new generation and transmission investments, create local jobs that cannot be outsourced, and save customers money on their utility bills each and every month.

Oregon ranks fourth in the nation in energy efficiency. Since 1980, Oregon households and businesses have realized energy efficiency and conservation savings equivalent to eight to ten power plants. The result has been lower energy bills for residential, industrial, and commercial customers, a cleaner environment, and a thriving local energy service industry that exports its technology and expertise to the world.

More than 22,900 Oregon businesses have invested nearly \$2.4 billion in energy efficiency, including lighting, heating, industrial processes, and other measures.

In Energy Trust of Oregon territory alone, energy efficiency programs have saved approximately \$1 billion on participants' energy bills, while creating an estimated 2,500 jobs and spurring \$90 million in wages and business income. Nearly 425,000 people have installed energy efficient appliances in their homes, like refrigerators, dishwashers and washing machines.

Cost-effective energy efficiency is the cleanest, cheapest form of energy. It's absolutely essential to economic resilience and success in a resource-constrained environment, and we continue to pursue new avenues for energy efficiency for statewide consumers.

In June of 2011, Oregon launched the Cool Schools program to audit and provide energy efficiency upgrades for every school district in Oregon. To date, Cool Schools has leveraged an \$185,000 investment from the state to generate approximately \$28 million in energy efficiency projects, retrofitting 140 schools in districts throughout the state.

The program has identified \$120 million in shovel-ready projects, and we estimate the total amount of energy efficiency projects in schools to be upward of \$250 million. Oregon has launched a similar effort to retrofit state-owned buildings called the State Building Innovation Lab. The Oregon Department of Energy has identified more than 4 million square feet of retrofittable commercial office space.

Though energy efficiency projects provide multiple benefits for school districts and public buildings in Oregon, the adoption rate is not what it could be. Seventy percent of school districts in the state receive utility capital that can be invested in energy efficiency and conservation. However, in many of these districts, many of the most accessible projects, such as windows and lighting, have already been completed.

While other states have scrambled to develop financing mechanisms for energy efficiency, Oregon has long had such a tool – the Small Energy Loan Program, or SELP. Over the last 30 years, SELP has financed over \$580 million in projects. Still, with many schools facing dire financial situations, even the relatively low rates offered through SELP have proved a barrier. In addition, the Legislature has significantly scaled back energy efficiency and tax credit programs over the last several legislative sessions. A relatively modest infusion of granted dollars could launch a significant wave of projects, helping schools and other public buildings perform better, save money, and provide a pathway for scaling up energy efficiency retrofits across our built environment.

To help reduce the cost of accessing capital for energy efficiency upgrades in public schools and buildings, our goal is to identify and incorporate capital from federal, state, community foundations and other sources that supports energy efficiency projects.

These investments, combined with existing and other identified resources, can help positively impact student health and the state's economic recovery. This is a significant opportunity for states to partner with the federal government to leverage each other's resources and unleash the next wave of high value energy efficiency projects.

We must also focus on incubating and commercializing the next generation of clean energy technologies. One way to get there: in the last legislative session, we increased energy efficiency standards for appliances, including battery chargers, set top boxes and televisions, and we now share the same standard as California and British Columbia.

Also in the last legislative session, we continued funding for the Oregon Innovation Council, which is dedicated to the global competitiveness of Oregon industries by helping innovators create high-paying jobs, entrepreneurs create companies, and university researchers bring federal and private research dollars to Oregon.

To date, Oregon InC has created 30 new companies marketing innovative products, captured \$350 million in federal and private grants, and raised more than \$115 million in private capital for emerging companies. Many of the Oregon InC efforts relate to advanced energy applications for energy efficiency, transportation, and generation. Oregon InC helps pave the way for significant breakthroughs and commercialization of these critical technologies and help grow Oregon's innovation economy.

Earlier I mentioned that Oregon is exporting our technology and expertise to the world. It's important to remember that the economic activity we spur at home helps support our traded sector, and not just in manufacturing and technology, but also in services like architecture and development that are respected and renowned worldwide.

We also see the positive effects on economic activity as Oregon industries use energy efficiency strategies to improve their competitive advantage. We see this in our food processing industry, where that particular cluster has been able to lower front-end costs thanks to becoming more energy efficient.

These are just a few examples of the work we have underway in Oregon. So, while we may be a relatively small state, I am confident in our ability to be an innovative state. And I am thankful that Oregonians recognize clean energy for the economic engine that it is.

I also believe that Oregonians recognize that to fully emerge from the financial downturn, and to develop a more prosperous future for all our citizens, we must be bold in our vision for our future. We know that there are no quick fixes to these challenges, but having the courage and discipline to look ahead at where we want to be in a decade – with economic opportunity for everyone, with careful stewardship of our natural, human, and financial capital – is the first step to getting there.

So let me conclude where I began with the question: Will we shape our energy future through or will it shape us? As William Jennings Bryan once said: Destiny is not a matter of chance it is a matter of choice; it is not a thing to be waited for, it is a thing to be achieved.

With your help I am confident that our energy future here in the Pacific Northwest and the nation will be a matter of choice, not a matter of chance – and that we will chose a path that leads to a bright, prosperous and low carbon future.

Senator MERKLEY. Thank you so much, Governor, and embedded throughout your comments was a perspective that often we hear the opposite of. We hear folks believing that the economy and the environment are at war with each other. But, really, what we're talking about here is how good environmental policy becomes very good economic policy as well. So thank you so much for all your work.

I'm going to proceed right into the introductions of our folks who have come to testify. We're going to ask everyone to stick to the time limit. The Governor would like to hear as much of the testimony as possible before he has to depart. So I will jump right in. I'm going to do all of the introductions at once, and then we can just proceed from one panel member to another.

Andrew Colas is President and COO of Colas Construction. Andrew joined Colas in 1999, serving as an apprentice to his father in the field. A northeast Portland native and lifelong community activist, Andrew works tirelessly to promote investment and job creation in underserved populations through his role at Colas, the Colas Foundation Fund, and various boards and many community organizations.

Derek Smith is CEO of Clean Energy Works and has been in a leadership role in triple bottom line ventures for more than a decade, with experience in the public, private, and nonprofit sectors. Prior to Clean Energy Works Oregon, he was Policy Advisor for city of Portland's Bureau of Planning and Sustainability. In the late 1990s, Derek developed one of the first sustainability programs in the retail world at \$225 million multi-channel retailer Norm Thompson Outfitters.

Berenice Lopez-Dorsey is the founder and owner of Home Energy Life Performance Group and founding member of the Home Performance Contractors Guild of Oregon. After owning a general contracting business for years, Berenice became fully involved in weatherization services and now contributes to the success of a variety of energy use reduction programs in the region.

Sary Dobhran is an Energy Auditor and Home Performance Technician for Home Energy Life Performance Group. Sary graduated from the University of Oregon in 2003 with a degree in environmental studies. She later enrolled in an apprenticeship program with Oregon Tradeswomen, Inc., and picked up the skills she needed to work in the budding energy efficiency sector.

Casey Barnard is Project Director in Portland for the Emerald Cities Collaborative, a national nonprofit network of organizations working together to advance a sustainable environment while creating greater economic opportunities for all. Casey operates as a convener, facilitator, and project manager and is a long-time advocate for social justice, environmental justice, and sustainable economic and community development.

Tia Vonil is a second year electrical apprentice from Portland who worked on the Edith Green-Wendell Wyatt Federal Building retrofit. Tia entered the IBEW Local 48 apprenticeship after graduating from Oregon Tradeswomen's pre-apprenticeship program.

Kenneth Cox has served as the Superintendent of the Vernonia School District since June 2006. Ken has over 31 years in public education, 26 of those in Oregon, and helped lead the Vernonia

School District through the aftermath of the December 2007 flood. In response to the flood, he participated in the Oregon Solutions Project to help find a new location for Vernonia schools out of the flood plain. Architects designed a new sustainable K–12 school which serves as a model for a single building design for smaller districts across the Nation.

Each of our witnesses will give a unique perspective of how energy efficient investments are helping small business, creating jobs, and saving homeowners and businesses money on their energy bills.

Mr. Colas, you're up first.

**STATEMENT OF ANDREW COLAS, PRESIDENT AND CHIEF
OPERATING OFFICER, COLAS CONSTRUCTION, INC.**

Mr. COLAS. Well, thank you very much, Senator Merkley and Governor Kitzhaber. I'm very honored to be here today. First and foremost, I'd like to thank the members of the Delta sorority chapter here in Portland for hosting this event here.

This building is very near and dear to our hearts. We had the opportunity to construct this project over 2 years ago, and it was just a great opportunity. So I'm going to tell you a little bit about our company and about what green jobs and opportunities mean to companies like ours.

Colas Construction is a second generation family owned business. My father, Hermann Colas, founded the business over 16 years ago, and I am currently the president of the company. We've always prided ourselves on being a company that strives to inspire individuals and communities through exceptional construction, community involvement, the hiring of a diverse qualified workforce, and promoting sustainability while maintaining a positive family structure.

When the opportunity arose for Colas Construction, Incorporated, to be involved in the construction of the June Key Delta Center, we were thrilled. We could not have imagined a project that better represented our mission. The goal of the project was to convert a former brownfield gas station into one of the first living buildings in the State of Oregon.

In order to achieve this goal, the project incorporated a myriad of sustainable features, which included but were not limited to: incorporating cargo containers into the design of the building; reusing the existing roof structure; providing a solar panel ready system—and I'm excited to see that we're getting those solar panels installed; a high efficiency heat exchange and heat cooling system; a grey water reclamation ready system. All the products had to be sourced within 200 miles of the site.

The storm water system was designed to keep all storm water onsite. And there was an extremely high efficiency insulation system. A lot of the different products throughout the building were products that were reused or recycled from other buildings. So the incorporation of those products was a big part of the design as well.

The project design and implementation was tremendously technical, making the sourcing of the subcontractor base very important. In an effort to reduce the risk to exposure, a lot of general contractors would have used the highly technical design as an ex-

cuse to hire only the largest subcontractors in town. In contrast, our team saw this project as an opportunity to achieve true sustainability, which includes a multi-faceted focus on social, economic, and environmental impacts to our community.

We look at sustainability as being something that betters our communities. If you're not including every member of your community, you're really not truly sustainable. So we looked at this project as an opportunity to be truly sustainable.

The project was built during the height of the recession, which meant that several small businesses were not being granted opportunities to work. The Colas ownership team and the Delta team saw this project as an opportunity to really have an impact on our community. We agreed that if we truly wanted to achieve a sustainable building, we had to have a positive impact on the surrounding small businesses.

As such, we designed a contracting plan to insure that more than 50 percent of the dollars spent on the June Key Delta project would be awarded to minority, women, or small businesses. In addition, we provided for pre-apprenticeship opportunities through programs such as the Oregon Tradeswomen, so more communities could gain exposure and experience through this highly technical project.

This project not only provided work opportunities for several local small businesses, but it also helped to enhance their resumes so they might be better considered for future projects. Too often, the highly technical nature of green projects can have the unintended impact of limiting opportunities for small businesses simply because they don't have the resume experience to initially qualify.

Our team's goal was to achieve true sustainability through a dedicated pursuit of a triple bottom line. Today, I'm proud to say that this project created jobs for several small businesses around the local community, and it helped to grow their portfolios in a way that will allow them to seek future opportunities to work on projects similar to the June Key Delta project.

This is not only a building that created jobs. It's a place that now is nationally recognized as a neighborhood space for the community. This is just, to me, the epitome of what sustainability is, when you create opportunities for all those around and you don't create barriers so that people can get to work.

I think that's the most important thing that we have to look at when we're really looking at sustainability, and sometimes that can be forgotten in the myriad of technical aspects of these buildings. That's something that, without an ownership team like the Deltas, I don't think we would have been able to accomplish. So it starts with the owners and then working with a team that really believes in achieving true sustainability.

Thank you very much for the opportunity to speak here today.
[The prepared statement of Mr. Colas follows:]



Andrew Colas
President
Colas Construction, Inc.
19 NW 5th Ave., Suite 203
Portland, OR 97209

Re: United States Senate Committee on Environment and Public Works

Dear Senator Merkley,

Colas Construction, Inc. is a second generation family owned business based in Portland Oregon. I am Andrew Colas, President of Colas Construction, Inc. Colas Construction has been in operation for over 16 years and currently employs 20 people. Our company has always strived to inspire individuals and communities through exceptional construction, community involvement, hiring of a qualified diverse workforce and promoting sustainability while maintaining a positive and progressive family executive structure.

When the opportunity arose for Colas Construction, Inc. to be involved in the construction of the June Key Delta center, we were thrilled; we could not have imagined a project that better represented our mission. The goal of the project was to convert a former Brownfield gas station into one of the first Commercial Living buildings in the State of Oregon. In order to achieve this goal, the project incorporated a myriad of sustainable features including (but not limited to):

- Incorporating cargo containers into the design
- Reusing the existing roof structure
- Solar panel ready electrical design
- High efficiency heat exchange heating and cooling system
- Grey water reclamation system design
- All products had to be sourced within 200 miles of the site
- Storm water system designed to keep all storm water onsite
- Extremely high efficiency insulation system

The project design and implementation was tremendously technical, making the sourcing of the sub-contractors base very important. In an effort to reduce risk and exposure, a lot of general contractors would have used the highly technical design as an excuse to hire only the largest sub-contractors in town. In contrast, our team saw this project as an opportunity to achieve true sustainability which includes a multi-faceted focus on social, environmental and economic impacts. The project was built during the height of the recession while several small businesses were not being granted opportunities to work. The Colas ownership and construction team agreed that if we truly wanted to achieve a sustainable building, we had to have a positive impact on the surrounding area's small businesses.



As such, we designed a contracting plan to insure that more than 50% of the dollars spent on the June Key Delta project would be awarded to minority, women, or emerging small businesses. In addition, we provided for pre-apprenticeship opportunities, through programs such as the Oregon Tradeswomen, so more communities could gain exposure and experience through this highly technical project. This project not only provided work opportunities for several local small businesses, it also helped to enhance their resumes so they might be better considered for future projects. Too often the highly technical nature of green projects can have the unintended effect of limiting opportunities for small businesses, simply because they don't have the resume experience to initially qualify. Our team's goal was to achieve true sustainability through a dedicated pursuit of a "triple bottom line outcome." Today I'm proud to say that through this project, Colas Construction and Portland Sigma Theta Delta created jobs and enhanced future opportunities for many small businesses, while creating an important and nationally recognized neighborhood space for the community.

Sincerely,

Andrew Colas

A handwritten signature in black ink, appearing to read 'A. Colas', with a horizontal line extending to the right from the end of the signature.

President,
Colas Construction, Inc.

Senator MERKLEY. Thank you so much. I appreciate your comments, and I also think it's very cool that the solar panels are going up. But today, construction was paused so we wouldn't be hearing machinery on the roof as we were holding this hearing. And I know the leadership of the chapter is here, and they're very proud, as they should be, of this building and this phenomenal undertaking.

Representative Jules Bailey is here, I believe. Yes. Good to have you, Jules.

Representative Bailey was very involved in the creation of Clean Energy Works strategy. It was a fair number of years ago now that we stood in a driveway during a rain storm, or at least a drizzle, an Oregon rain storm, and talked about the need for low-cost loans at the State level and at the Federal level, and Representative Bailey helped drive that program through.

So well done, and it's good to have you today.

Mr. Smith.

**STATEMENT OF DEREK SMITH, CHIEF EXECUTIVE OFFICER,
CLEAN ENERGY WORKS OREGON**

Mr. SMITH. Senator Merkley, Governor, for the record, my name is Derek Smith. I'm CEO of Clean Energy Works Oregon. I really sincerely thank you for the opportunity to speak to you this morning.

And thank you, Senator Merkley, for your leadership on clean energy and economic development in Congress.

Clean Energy works as a nonprofit public-private partnership. Our mission is to create jobs and reduce energy waste through the facilitation of deep home energy retrofits. We coordinate and deploy public, private, and utility dollars to scale up the residential energy efficiency sector. And it's this aggregation and optimization of different sources of capital that are really critical to moving forward to the future that we want to shape.

We were founded 4 years ago as a city of Portland pilot project seeded with Recovery Act dollars. I am here to report that this smart Federal investment, which you helped support, Senator Merkley, is proving that residential energy efficiency can create quality jobs and unlock private capital to create a vibrant and growing marketplace.

To date, our statistics include over 10,000 Oregonians who have signed up and had their homes audited for energy efficiency potential; 3,200 homes upgraded in rural, urban, and suburban communities throughout the State; a 30 percent average energy savings per home, which has resulted in more than \$1 million put back into the pocketbooks of Oregonians instead of being spent on energy waste.

As for jobs, we know through our work that for every 10 homes upgraded, one job gets created. To date, we've enabled nearly 1,300 workers to receive paychecks through Clean Energy Works; 377 new hires in the hard-hit construction industry; \$21 an hour average wages across multiple trades, from weatherization to plumbing to electrical to HVAC; 56 percent of work hours performed by women and people of color; 36 veterans working on projects;

\$62 million in economic development. All of these numbers are continuing as we move forward.

Before we began our work in 2009, this market was 200 homes per year throughout the entire State being upgraded for deep retrofits, and workers were paid piece-rate wages averaging around \$9 an hour. We are now lifting people out of poverty, off of public assistance, and into career pathway professions.

How do we generate these numbers? First, it's our partners in the community. I want to sincerely thank several folks who are here today, Connie Ashbrook, Barbara Byrd, Tony DeFalco, Maurice Rahming, who serves on our board, and many, many others in the community, and our contractors, like Berenice and Peter Tofalvi from Abacus. It's really them that are helping us move this forward.

Second, it really comes down to making it easy for citizens to upgrade their homes for energy efficiency. It's a very complicated process. The way the Clean Energy Works program works for a homeowner is that they sign up at our Web site, and we arrange for an assessment of their home and then pair them with a vetted contractor. A scope of work is drafted and agreed upon by the contractor and homeowner. We arrange financing from a local lender, and then we provide quality control and customer service throughout the project.

Currently, more than 200 contractors throughout Oregon are growing their businesses in the program, including 40 prime contractors like Berenice. Her company, H.E.L.P. Group, which employs excellent workers like Sary, is one of our best.

Multiple private lenders are providing unsubsidized financing in Clean Energy Works. We use some Federal money to create credit enhancements that unlock that capital, and that capital is now flowing into the marketplace. The only thing that's holding back that capital from moving is demand, and demand is helped by supporting these programs to move forward.

These lenders include several credit unions, a regional bank, and a community development financial institution. Loan products include unsecured, home equity, and on-bill, meaning customers can pay back their loans on their utility bills. I want to thank Sunny and PGE for being very productive members on the on-bill repayment efforts, as well as Northwest Natural and Pacific Power. So private investment is happening, spurred on by smart public investment.

As we look to our future, Clean Energy Works is moving beyond stimulus and into a self-sufficient business model, an innovative business model where we earn fees for the service we provide to homeowners, contractors, lenders, and utilities. The State of Oregon is providing follow-on investment, and I want to thank Representatives Bailey and Frederick for supporting us through the session.

I would also like to thank you, Governor Kitzhaber, for your leadership on the 10-year energy plan, and for your commitment of going forward funding for Clean Energy Works.

We are also looking to build off of the platform we built with public dollars so that we can integrate energy efficiency improvements along with seismic upgrades, radon mitigation, storm water

conservation, electric vehicle infrastructure upgrades, and more—more jobs, more investment, and more homes that are safer, healthier and more comfortable for our citizens.

Thank you very much for your support.

[The prepared statement of Mr. Smith follows:]

DEREK SMITH
Testimony before the
Subcommittee on Green Jobs and the New Economy
of the United States Senate Committee on Environment and Public Works
Field Hearing Entitled "An Efficient Way to Grow Jobs: Energy Upgrades that
Save Families and Businesses Money, Reduce Pollution, and Create Good Jobs."
Portland, Oregon
September 4, 2013

Mr. Chair, Members of the Committee, my name is Derek Smith. I am CEO of Clean Energy Works Oregon. Thank you for the opportunity to speak with you this morning; and thank you, Senator Merkley, for your leadership on clean energy and economic development.

Clean Energy Works is a non-profit, public-private partnership. Our mission is to create jobs and reduce energy waste through the facilitation of home energy retrofits. We coordinate and deploy public, private and utility dollars to scale up the residential energy efficiency sector.

We were founded four years ago as a City of Portland pilot project seeded with Recovery Act dollars. I am here to report that this smart Federal investment is proving that residential energy efficiency can create quality jobs and unlock private capital to grow a vibrant marketplace.

To date, our statistics include:

- 10,000 sign-ups
- 3200 homes upgraded in rural, suburban and urban communities
- 30% average energy savings per home
- More than \$1 million put back into the pocketbooks of Americans instead of being spent on energy waste

As for jobs, we know through our work that, for every 10 homes upgraded, one job gets created. To date, we've enabled:

- 1300 workers receiving paychecks
- 370 new-hires in the hard-hit construction industry
- \$21/hour average wages across multiple trades, from weatherization to plumbing to electrical to HVAC
- 56% of work hours performed by women and people of color
- 36 veterans working on projects
- \$62 million in economic development
- And counting...

Before we began our work, this market was 200 homes per year and workers were paid piece-rate wages averaging around \$9/hour. We are now lifting people out of poverty and into career pathway professions.

How do we generate these numbers? It all comes down to making it easy for citizens to upgrade their homes for energy efficiency. The way it works for a homeowner is:

1. They sign up at our website
2. We arrange for an assessment of their home and pair them with a vetted contractor
3. A scope of work is drafted and agreed upon by the contractor and homeowner
4. We arrange financing from a local lender
5. We provide quality control and customer service throughout the project

Currently, more than 200 contractors throughout Oregon are growing their businesses in the program, including 50 prime contractors like Berenice Lopez-Dorsey, who is here today. Her company, HELP Group, which employs excellent workers like Sary Dobrahn, who is also here today, is one of our best.

And multiple private lenders are providing unsubsidized financing. These lenders include several credit unions, a regional bank and a community development financial institution. Loan products include unsecured, home equity and "on-bill," meaning customers can pay back their loans on their utility bills. So private investment is happening, spurred on by public investment.

As we look to our future, Clean Energy Works is moving beyond stimulus and into a self-sufficient business model where we earn fees for the service we provide to homeowners, contractors and lenders. The State of Oregon is providing follow-on investment.

We are also looking to build off our platform so we can integrate energy efficiency improvements with seismic upgrades, radon mitigation, stormwater conservation, electric vehicle infrastructure upgrades and more. More jobs, more investment and more homes that are safer, healthier and more comfortable for our citizens.

Thank you very much for your support.

Senator MERKLEY. Thank you.
Ms. Lopez-Dorsey.

**STATEMENT OF BERENICE LOPEZ-DORSEY, OWNER, HOME
ENERGY LIFE PERFORMANCE GROUP, INC.**

Ms. LOPEZ-DORSEY. Thank you, Senator and Governor, for being here and for your time this morning. My name is Berenice Lopez-Dorsey. I am a founder of a small remodeling company, Move In Ready, LLC, and Home Energy Life Performance Group, also known as H.E.L.P. Group, Incorporated.

Our company was born from a desire to build an organization that encompasses green job values, assistance to homeowners, and skilled jobs with a long-term future. Home Performance incorporates all three and includes building science education and certification for employees.

I am an immigrant. I was born and raised in Oaxaca, Mexico, the youngest of nine children. My father supported us by fishing while my mom took care of us. Growing up with very little in a very large family, I learned self-reliance. My parents taught us the importance of hard work, commitment, and the value of integrity and respect, all of which became the core to the foundation of my businesses now.

My story developed in Mexico 21 years ago, when I met my husband, a very nice gringo, fell madly in love, and moved to the U.S. and married him. Nine years later, I proudly became a U.S. Citizen, and I am still married. For me, our country truly is the land of opportunities, where I was able to work, to learn new social and economic roots, and finally to start a successful business out of necessity, having to support my family after my husband became disabled in 2001.

I want to stress how important political understanding and support is to this process. The concept that anyone can conceive a startup, grow a profitable business, and provide long-term employment is symbolic of the American Dream. I am not saying it is easy. A lot of sacrifices have to be made along the way, for example, myself having to work 7 days a week, long hours, missing my daughter's soccer games to secure the next sale, draining my personal bank account to make payroll because clients don't pay on time.

But if you ask me today, "Is it worth it?" and "Would you do it all over again?", my reply would be, "Absolutely," although sometimes I have my doubts. The simple fact is that job creation is so possible in our Nation, especially in Oregon, where energy conservation has always been in favor, meaning you can dream in green. I and my entire team take pride in helping Oregon families to enjoy healthy, more comfortable homes and lower utility bills.

By the end of this year, H.E.L.P. Group, Incorporated, will have created 20 full-time positions and mentored four other Home Performance contractors, generated over \$7 million in energy retrofit sales, and reduced the energy consumption for more than 800 Oregon homes by an average of 34 percent. That's 800-plus Oregon families who now live in more comfortable homes with indoor air quality, healthier and safer houses, and who have more cash in their pockets as a result of lower energy bills.

We also consistently provide work for more than a dozen subcontractors, who at some point were employees of either H.E.L.P. Group, Incorporated, or Move In Ready, LLC. Creating that ripple effect, these subcontractors are now generating additional reciprocal business.

In addition, we rely on more than 20 local businesses for truck maintenance, equipment, signage, marketing, advertising, and the list goes on and on. H.E.L.P. Group spends hundreds of thousands of dollars per year on fundamental products like windows, insulation, appliances, and machinery.

Now, I'd really like to tell you about the journeys of a couple of our team members. These are people I really want you to know about, because their transformation is a direct result of our ability to create jobs in a green and growing industry, where a trade can be learned and a promotion can be earned.

I met Rodrigo, Jr., through his father, Rodrigo, Sr., who has been employed by me for 11 years through Move In ready, LLC, a sister company to H.E.L.P. Group. He had been released from prison in early 2011. In fact, he had actually reached adulthood while incarcerated. He had no skills and little ambition. I saw a strong and bright young man, and I believed that he had the potential to learn and master a trade. He needed an opportunity to contribute to a growing business who needed him right back.

Today, Rodrigo, Jr., has earned his OSHA-30 certificate, his Lead-Safe Renovation certificate, and is a qualified Weatherization Installer. Today, he is a young father supporting his family and is playing a happy role in our community.

Yulma is another, now a success story. Unfortunately, she was abused in her marriage. As a single mother of two, with no personal resources, it was unthinkable to consider leaving her marriage, even to escape abuse, until a job opening with Move In Ready, LLC, a growing company back in 2002, gave her the encouragement and opportunity she needed.

Today, Yulma manages her own work schedule, directs others, and supports her 13-year-old daughter and 10-year-old son.

I am thrilled that you will get the opportunity to also hear Sary's story, another team member who is also testifying here today.

Like Rodrigo, Yulma, and Sary's stories, our company philosophy is to create the opportunity, invest in training, and fully support employee growth without micromanaging. We have found that within that environment, employees thrive and businesses profit.

We still need your help. We have come a long way, but our industry continues to need political understanding of our mission and goals, support for programs, and legislation that advances home energy efficiency.

Oregon's home performance industry is a leader in green job development, career-sustainable jobs with advancement potential, resulting in a skilled labor force with family supporting wages. Where once the industry consisted of single-skilled, low-earning workers, together we have created a labor force of multi-skilled professionals who have elevated the value of energy efficiency in Oregon. And I am really proud to be part of it.

Thank you.

[The prepared statement of Ms. Lopez-Dorsey follows:]

**Berenice Lopez-Dorsey
Testimony before the
Subcommittee on Green Jobs and the New Economy
of the United States Senate Committee on Environment and Public Works
Field Hearing Entitled
“An Efficient Way to Grow Jobs: Energy Upgrades that Save Families and Businesses Money, Reduce
Pollution, and Create Good Jobs.”
Portland, Oregon**

September 4, 2013

Our company, Home Energy Life performance Group, Incorporated also known as H.E.L.P. Group, was born from a desire to build an organization that encompassed green job values, assistance to homeowners, and skilled jobs with a long-term future. Home performance incorporates all three, and includes building science education and certification for employees.

I am an **immigrant**. I was born and raised in Oaxaca, Mexico. The youngest of 9, my father supported us by fishing while my mom took care of us. Growing up with very little in a large family, I learned self-reliance. My parents taught us the importance of hard work, commitment and the value of integrity & respect.

All of which become the core to the foundation of my businesses now.

My story developed in Mexico 21 years ago, when I met my husband, a “nice gringo”, fell madly in love and moved to the US and married him. 9 years later, I proudly became a US Citizen. For me, our country truly is the land of opportunities, where I was able to work, to learn new social and economics roots and finally to start a successful business out of necessity having to support my family after my husband becoming disabled in 2001. I want to stress how important political understanding and support is to this process. The concept that anyone can conceive a start-up, grow a profitable business, and provide long-term employment is symbolic of the American Dream. I am not saying it is easy; a lot of sacrifices have to be made along the way. For example: having to work 7 days a week, long hours, missing my daughters soccer games to secure the next sale, draining my personal bank account to make payroll because clients don’t pay on time. But if you ask me, “is it worth it?” and “would you do it all over again?” my reply would be ABSOLUTELY!

The simple fact that job creation is so possible in our nation, especially in Oregon, where energy conservation has always been in favor, meaning you can **dream in green**. I and my entire team take pride in helping Oregon families to enjoy healthy, more comfortable homes and lower utility bills.

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I am thrilled that you will get the opportunity to also hear the story of Sary Dobhran, another one of our team members who is testifying here today.

Like Rodrigo, Yulma and Sary's stories, our company philosophy is to create the opportunity, invest in training and fully support employee growth **without** micromanaging. We have found, that within that environment, employees thrive and businesses profit.

We still need your help! We have come a long way but our industry continues to need political understanding of our mission and goals, support for programs, and legislation that advances home energy efficiency.

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And I am proud to be part of it.

=====

Senator MERKLEY. Thank you so much. And as you indicated, we will now hear from one of your contractors or employees, Ms. Sary Dobhran.

STATEMENT OF SARY DOBHRAN, ENERGY AUDITOR AND HOME PERFORMANCE TECHNICIAN, HOME ENERGY LIFE PERFORMANCE GROUP

Ms. DOBHRAN. For the record, my name is Sary Dobhran. I'm an Energy Auditor and Home Performance Technician for Berenice's company, Home Energy Life Performance Group. I can't tell you what an honor it is to be a part of this roundtable. My journey with my Environmental Studies degree tells me that if I'm here today, then I must have done something right and decided to share my story if it's going to help the movement. So this is more or less a bio.

If you had told me in 2003, when I graduated with honors, that 4 years later I would be a single mom on welfare, I would have thought you were crazy. I was an emancipated young woman who had just completed a 4-year degree at the University of Oregon. I worked two jobs, studied full time and through the summers, because I was going to be the first person in my family to obtain a college education. I was going to be somebody.

I wanted to improve people's quality of life. My Environmental Studies degree was going to help people live more naturally and prevent disease and unemployment, rather than simply treating symptoms. I studied all of the world's problems and a lot of solutions that really exist and are happening every day.

I found it hard to get a job in my field at that time, so did my own environmental studies of Los Angeles, San Francisco, Turin, Italy, and, coincidentally, Oaxaca, Mexico. I learned two new languages, opened my eyes wide, tutored the head of energy in Turin, Italy, translated engineering documents for high speed trains, translated for international anti-globalization conferences, installed \$50,000 of sustainable landscapes, participated in Eco building projects with the Zapotec Indians, and always wondered what I could do in my own country.

In 2007, I returned to the U.S. from Mexico because I was a widow and expecting my first child. I did everything I could to find work, even if I had to wear the baby on my back, but there weren't even jobs to fight over. I moved back to Portland in 2010 where I hoped I could get back on my path. I had a lot of interviews for 6 months, but I was one of hundreds and sometimes thousands of applicants, sometimes over-qualified or not qualified enough.

In my free time, I studied the Portland Plan and all the major players in the area of sustainability. When I learned about the Oregon Tradeswomen, a nonprofit that helps women prepare themselves for jobs in the trades, I knew that it was going to lead to something. My welfare counselor, persuaded by my passion, made an exception and approved it as an apprenticeship.

I learned about the field of weatherization during that course, and I immediately knew it would marry my skilled background with my degree. Although I started out under the bus, or mobile home, rather, trained in low-income weatherization, it was a step in the right direction. I obtained a green career counselor at Native

American Youth and Families, applied for the Pathway out of Poverty grant through Worksource, and was hired by a nonprofit Clean Energy Works contractor.

I was drawn to this career because I saw that I could only go up. In the next year, I gained priceless experience in my trade and all the certificates I needed with the Building Performance Institute to work as a Residential Energy Analyst. I now inspect homes and rate their energy efficiency and test their combustion safety and educate clients.

All of my training was paid for by that grant. My current employer, H.E.L.P., has taught me how to generate home performance reports, make recommendations, and bid jobs. They also recently invested in me becoming certified to perform radon testing and mitigation, something that will bring them more business and me more growth and opportunity.

I like to speak for the unemployed because, to me, they are not just a statistic. They are the faces I saw every week in the unemployment line and in group interviews and job fairs. Some of us had college degrees and excellent employment history and several interviews a week with no success.

I would not be here today without the programs and organizations that create jobs and help the unemployed find their path to becoming productive, self-reliant members of the community.

[The prepared statement of Ms. Dobhran follows:]

Sary Dobhran
Testimony before the
Subcommittee on Green Jobs and the New Economy
of the United States Senate Committee on Environment and
Public Works
Field Hearing Entitled “An Efficient Way to Grow Jobs:
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Portland, Oregon

September 4, 2013

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I found it hard to get a job in my field then so did my own environmental studies of Los Angeles, San Francisco, Turin Italy and Oaxaca Mexico. I learned two new languages, opened my eyes wide, tutored the head of Energy in Turin, Italy, translated engineering documents for high speed trains, translated for international anti globalization conferences, installed \$50,000 sustainable landscapes, participated in Eco building projects with the Zapotec Indians and always wondered what I could do in my own country.

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I would not be here today without the programs and organizations that create jobs and help the unemployed find their path to becoming productive, self-reliant members of the community.

Senator MERKLEY. Thank you. Thank you for sharing your story and congratulations on your success.

Ms. Casey Barnard, Project Director, Emerald Cities Collaborative.

**STATEMENT OF CASEY BARNARD, PROJECT DIRECTOR,
EMERALD CITIES PORTLAND**

Ms. BARNARD. My name is Casey Barnard, and thank you very much for your invitation to participate in today's field hearing. I am Project Director for Emerald Cities, and we are part of a national Emerald Cities Collaborative, which is a coalition of organizations working together to retrofit building stock, create high-wage jobs, and revitalize local economies.

Today, I would like to speak with you about the Edith Green-Wendell Wyatt Federal Building Modernization Project in Portland, Oregon. Emerald Cities Portland helped to spearhead the Edith Green Workforce Mapping Project, including research on construction workforce demographics, union apprenticeship and community training programs, and activities to recruit and retain a diverse workforce.

The Edith Green Project involved the renovation of the General Services Administration's Edith Green Building to create a high performance green building consistent with the American Recovery and Reinvestment Act. The project was completed in May 2013 and is a great example of leveraging strong Federal investment to create lasting environmental and financial savings for the government, as well as good green jobs for the community.

The 536,000 square foot Edith Green Project will provide an office building that will outperform all but the top few percent of office buildings in the country. The new building is projected to achieve 55 percent energy savings and 60 percent water savings over the original building.

The Edith Green Project was funded through the American Recovery and Reinvestment Act and employed more than 90 companies and 764 workers. These jobs created opportunities for new workers through the utilization of apprentices and historically underserved workers. This included 19.8 percent apprentice participation, 17 percent minority craft worker participation, and 7.7 percent female craft worker participation.

In addition, \$26 million in subcontracts also created opportunities for disadvantaged business enterprises and small businesses. This included 24 percent minority owned businesses and 12 percent women owned businesses.

The GSA also piloted the use of a project labor agreement, otherwise known as a PLA, on the Edith Green Project. PLAs are pre-hire collective bargaining agreements with labor organizations, and they are intended to provide structure and stability and promote the efficient completion of construction projects by forecasting workforce needs, resolving disputes, and ensuring coordination among employers and labor unions.

This proved to be more than accurate on the Edith Green Project. The PLA established fair working conditions and family supporting wages, and an oversight committee created open lines of commu-

nication and allowed the project to be completed on time and on budget.

The Edith Green PLA also established the community fund to support education activities and the Workforce Mapping Project. Emerald Cities spearheaded that project along with CAWS, Constructing Hope, Oregon Tradeswomen, Portland Community College, Portland Youth Builders, and the Urban League.

The Workforce Mapping Project included interviews with construction trade unions, collaboration between community-based organizations and unions, a construction career guide for use in high schools, and assessments of demographic data and barriers to success for women and people of color. The project really highlighted the benefits of early community engagement by owners and contractors on large construction projects.

Overall, the Edith Green Project really successfully leveraged strong Federal investment to create lasting environmental and financial savings as well as good jobs for community members.

I would like to close by making a point about green jobs, in general. These green jobs are closely tied to the traditional construction trade and union infrastructure, allowing workers to use their existing skills and certifications, supplement their knowledge with green techniques and technologies, and continue to build strong careers that will be relevant for many decades to come.

I want to thank you, Senator Merkley, the Governor, and the Committee for the opportunity to speak today and tell the Edith Green story. The Emerald Cities Collaborative really welcomes the opportunity to work with you and your colleagues to insure greener, more sustainable and reliant communities.

And Tia will now speak a little bit about her personal experience on the project.

Thank you.

[The prepared statement of Ms. Barnard follows:]

CASEY BARNARD
Testimony before the
Subcommittee on Green Jobs and the New Economy
of the United States Senate Committee on Environment and Public Works
Field Hearing Entitled
“An Efficient Way to Grow Jobs: Energy Upgrades that Save Families and Businesses
Money, Reduce Pollution, and Create Good Jobs.”
Portland, Oregon

September 4, 2013

Mr. Chairman and Members of the Committee:

Thank you for your invitation to participate in today’s field hearing. My name is Casey Barnard and I am Project Director for Emerald Cities Portland, a coalition focused on greening our city, building our community and strengthening democracy. We are part of the national Emerald Cities Collaborative, a network of organizations working together to retrofit building stock, create high wage jobs, and revitalize local economies.

Emerald Cities’ work across the country supports President Obama's vision for an energy secure future and Climate Action Plan in establishing a new goal for energy efficiency standards, reducing barriers to investment in energy efficiency and expanding the President's Better Building Challenge. The Obama Administration believes the federal government should lead by example, and has already directed federal agencies to reduce greenhouse gas emissions by more than 15 percent - the equivalent of permanently taking 1.5 million cars off the road. In a second term, the President has raised the bar to 20% by 2020.

Today, I would like to speak with you about the Edith Green-Wendell Wyatt Federal Building Modernization Project in Portland, Oregon. Emerald Cities Portland spearheaded the Edith Green Workforce Mapping Project, intended to research construction workforce demographics, union apprenticeship and community training programs, and activities to recruit and retain a diverse workforce. The Edith Green project involved the renovation of the General Services Administration’s (GSA’s) Edith Green building to create a high performance green building consistent with the American Recovery and Reinvestment Act (ARRA) intention. The project was completed in May 2013 and is a great example of leveraging strong federal investment to create lasting environmental and financial savings for the government, as well as good green jobs for community members. With the Edith Green project, the federal government is leading by example and having a real impact on communities.

The 536,260 Square Foot Edith Green project in Portland, Oregon will exceed the aggressive energy and water conservation goals of the Energy Independence and Security Act (EISA), providing an office building that will outperform, in energy and water efficiency, all but the top few percent of office buildings in the country. The GSA is seeking LEED Platinum Certification for the Edith Green Building. The Edith Green building is projected to achieve 55% energy savings over the original building. The building will also achieve water conservation, with a projected potable water use reduction of 60% compared to baseline. The project also resulted in improved indoor air quality and work environment for federal employees.

Among numerous other measures, the integrated project team achieved energy and cost savings through these efficiency measures:

- Upgrade of mechanical, HVAC and plumbing systems.
- Replacement of concrete panels with a high performance glass curtain wall that made the building lighter, reducing seismic costs, while providing additional leasable space at the perimeter.
- External shading devices on building façades to minimize the solar heat gain during summer and respond to sun conditions.
- Addition of a 22,000 SF canopy roof to the building's roof for photo voltaic panels (PV) and water collection. PV panels are expected to produce 180kW of power.
- Collection and reuse of rainwater (165,000 gallon cistern).
- Energy efficient electric lighting systems with advanced controls to reduce lighting energy usage by 40% compared to Oregon Code.
- Modernized elevators incorporating energy saving features such as destination dispatch and regenerative energy generation technology.

Through the modernization, GSA was able to increase the usable square footage of the building by about 31,000 square feet, and increase its rentable area while reducing costs and environmental footprint. Now that the modernization is complete, 14 Federal agencies (occupying approximately 290,012 rentable square feet) will be moving from leased space throughout the City into Edith Green this year. The annual lease cost of this space was approximately \$10,100,000, and the move from commercial leases to federally owned space will save the government an estimated \$8,300,000. Federal agencies will see an estimated \$4,200,000 annual reduction in their rent.

The Edith Green project was funded through the American Recovery and Reinvestment Act and the final construction cost was \$139,000,000. The Edith Green project alone employed more than 90 companies – totaling approximately 650,567 on site labor hours (not including material supplier and off site manufacturing). There were 764 total workers, and these jobs created opportunities for new workers through utilization of apprentices, and for historically underserved workers. You will hear later from an IBEW electrical apprentice who had the opportunity to work on the Edith Green project. The Edith Green workforce included:

- 19.8% Apprentice Participation
- 17% Minority Craft Worker Participation
- 7.7% Female Craft Worker Participation

Approximately \$26 million in subcontracts were contracted to disadvantaged business enterprises and small businesses:

- 24% Minority Owned Businesses
- 12% Women Owned Businesses
- 17% Small Businesses

The GSA also piloted the use of a Project Labor Agreement (PLA) on the Edith Green project, consistent with President Obama's Executive Order 13502 for the Use of PLAs for Federal Construction Projects (issued in February 2009). Project Labor Agreements are pre-hire

collective bargaining agreements with one or more labor organizations that establish the terms and conditions of employment for a specific construction project.

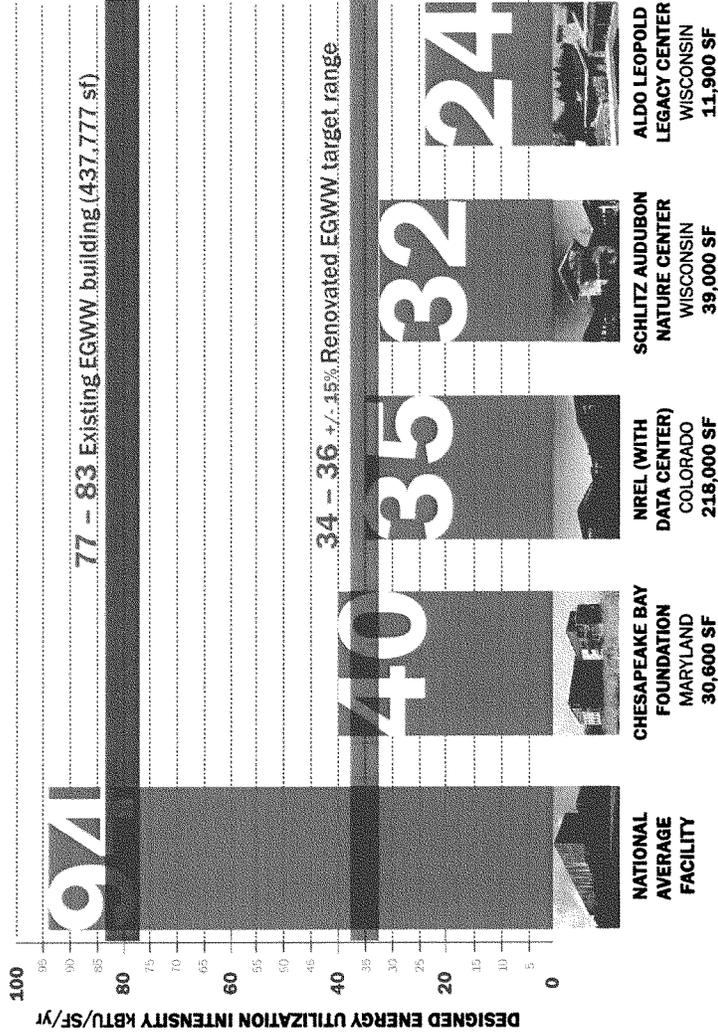
PLAs are intended to provide structure and stability, and promote the efficient completion of large-scale construction projects by reducing labor costs, resolving disputes, and ensuring coordination among various employers and labor organizations. This proved to be more than accurate on the Edith Green project. The PLA established fair working conditions and family supporting wages, as well as an ongoing Labor-Management Oversight Committee, which included regional construction labor unions and met regularly to forecast workforce needs, review workforce and subcontracting activities, make adjustments and develop creative solutions. By all counts, the PLA created open lines of communication and allowed the project to be completed on time and on budget.

The Edith Green PLA also established a community fund to support research and education activities and the Workforce Mapping Project, which Emerald Cities Portland spearheaded along with CAWS, Constructing Hope, Oregon Tradeswomen, Portland Community College, Portland YouthBuilders and the Urban League of Portland. The project involved research into existing construction workforce demographics, union apprenticeship programs and activities to recruit and retain a diverse workforce. This Workforce Mapping Project included interviews with regional construction trade unions, collaboration between community based organizations and unions, a construction career guide for use in high schools, and assessments of demographic data and barriers to success for women and people of color in the construction trades. The project highlighted the need for early community engagement by owners and contractors in large construction projects.

The Edith Green project successfully leveraged strong federal investment to create lasting environmental and financial savings, as well as good jobs for community members. I would like to close by making a point about green jobs in general. These “green jobs” are closely tied to the traditional construction trades and related union infrastructure – allowing workers to use their existing skills and certifications, supplement their knowledge with green techniques and technologies, and continue to build strong careers that will be relevant for many decades to come.

I want to thank US Senator Merkley and the Committee for the opportunity to testify and tell the Edith Green story. The Emerald Cities Collaborative welcomes the opportunity to work with you and your colleagues in the Congress to ensure greener, more sustainable and resilient communities.

PROGRAM ENERGY PERFORMANCE GOAL



EDITH GREEN-WENDELL WYATT FEDERAL BUILDING MODERNIZATION
MAY 4, 2012 V7
LIVING FUTURE

Senator MERKLEY. Thank you.

Tia, before you begin, the Governor has to head for Salem, so he has a few comments before he takes off.

Governor KITZHABER. Tia, I'm going to get a copy of your testimony because I've been anxious to hear it. I'm sure you have a wonderful story to tell.

I just wanted to very, very briefly say that one thing Andrew mentioned was the triple bottom line. When you think about the economic bottom line and the environmental bottom line, there's a social bottom line as well.

I'm struck that the First Lady is spending a lot of time working on the issue of poverty, and she talked to an unemployed young man not too long ago and said, "How can there be so much unemployment when there's so much work that needs to be done?" And we have a Nation that has so much capital sitting on the sidelines, and there's so much work that needs to be done. Part of it, we're talking about today, keeping our forests healthy, taking care of the elderly at home, a whole host of things.

I think what you're a part of here today and what the green building and the green energy and the energy efficient movement really is about is trying to deploy the great wealth of this Nation, putting people to work at jobs that actually makes society better and builds families and builds communities. So I thank you all for your commitment, for all you're doing, and, certainly, Senator Merkley, for your tremendous leadership on this. I'm honored to have been able to participate today.

Thank you very much.

[Applause]

Senator MERKLEY. Thank you very much, Governor. I know that finding time in your schedule to do any gathering like this is challenging and just reflects on your commitment to energy and the environment and the economy.

Ms. Tia Vonil, electrical apprentice, Oregon Tradeswomen.

**STATEMENT OF TIA VONIL, ELECTRICAL APPRENTICE,
OREGON TRADESWOMEN, INC.**

Ms. VONIL. Mr. Chairman and members of the Committee, thank you for your invitation to participate in today's field hearing. My name is Tia Vonil, and I am a Local 48 second year electrical apprentice. I have greatly benefited from participation in the incredible nonprofit organization, Oregon Tradeswomen, as well as the opportunity to work on the federally funded Edith Green-Wendell Wyatt Modernization Project.

Before I began a career in the trades, I attended an elite university, joined the Navy via the United States Naval Academy, and traveled the world. Soon after I began college, I realized that the traditional path of university education was not for me. I desired a more independent, hands-on education where I could achieve tangible, practical results, rather than a theoretical degree in a major that would leave me few post-graduate job options and a mountain of debt. I also had trouble accepting a life in the Navy back during the dark ages of Don't Ask-Don't Tell.

After living abroad for nearly 10 years, I returned to the U.S. with the dream of a career in the electrical field. When trying to

access this path in France, I encountered systematic blockades based on my gender.

In comparison, after returning to the U.S., at my local electrician's union, the application process was transparent and straightforward. I was excited to begin, but knew little about the intricacies of the electrical trade.

Walking in my neighborhood in northeast Portland, I serendipitously stumbled upon an organization called Oregon Tradeswomen, a community-based nonprofit dedicated to promoting success for women in the trades. I signed up for the Trades and Apprenticeship Career Class, a free, 5-week pre-apprenticeship training class that helps women prepare for a high skilled career in construction. During the class, I learned skills that prepared me for a successful apprenticeship and introduced me to green collar career opportunities.

Programs like OTI that benefit from Federal grants are crucial to the success of women in the trades, because they expose women to areas of expertise that they, unfortunately, are not normally exposed to. The work of this organization helps diversify the construction workforce, provides alternative perspectives, and encourages green building technologies and employment opportunities. I am proud to now sit on the board of this organization and work to help women excel in the trades the way they supported and helped me.

As a Local 48 apprentice, I earn while I learn, and the training is paid for by the union. I get experiential as well as classroom education, and the career is active and rewarding, where the sites and tasks are ever changing. The Edith Green Project was a significant part of my training because it was my first project as an electrical apprentice.

On the Edith Green Project, I performed standard electrical tasks such as wiring and conduit installation. This project also introduced me to energy saving installations and instilled in me an ever-present sensitivity to green electrical practices.

As someone in the trenches, I can tell you that it is imperative that our government continue to invest in green building projects like Edith Green. This project was important because it was a stellar example that, contrary to common thought, commercial buildings can be energy efficient. The Edith Green Building also put skilled tradesmen and tradeswomen who had been laid off back to work and is reminiscent of successful public works projects in America's history that revitalized an idle workforce.

Since the Edith Green Building, I have been on several other green projects, including two newly constructed commercial LEED buildings. I have also worked on solar powered highway signs in Astoria and electrical vehicle charging stations in Clackamas.

I strongly believe in the importance of green construction, and I look forward to more experience doing green electrical work. I know that the more training and experience I accumulate in this field, the more I can contribute to an increasingly energy resilient America.

There is more work to be done, and Federal investments are essential to the task. Skilled tradesmen and tradeswomen across the country, like myself, are standing by, ready to build.

I want to highlight the importance of coalitions of labor, community, environment, and government, such as the Emerald Cities Collaborative. These coalitions help to promote construction projects that pay living wages and benefits, while supporting the environment and an equitable workforce.

I would like to close by thanking U.S. Senator Merkley and this Subcommittee for the opportunity to share my story. I hope that my personal testimony gave you insight into the worker's perspective on how green jobs support and enhance this new generation of the American construction industry.

[The prepared statement of Ms. Vonil follows:]

TIA VONIL
Testimony before the
Subcommittee on Green Jobs and the New
Economy
of the United States Senate Committee on
Environment and Public Works
Field Hearing Entitled
“An Efficient Way to Grow Jobs: Energy
Upgrades that Save Families and Businesses
Money, Reduce Pollution and Create Good
Jobs.”
Portland, Oregon
September 4, 2013

Mr. Chairman and Members of the Committee:

Thank you for your invitation to participate in today’s field hearing. My name is Tia Vonil and I am a second year electrical apprentice and Local 48 union member. I have greatly benefited from participation in the incredible non profit organization Oregon Tradeswomen Inc, as well as the opportunity to work on the federally funded Edith Green – Wendell Wyatt Federal Building Modernization Project - now one of the greenest buildings in the country.

Before I began a career in the trades, I attended an elite university as a NCAA athlete, joined the U.S. Navy via the United States Naval Academy, and traveled the world. Soon after I began college, I realized that the “traditional” path of university education was not for me - I desired a more independent, hands on education where I could achieve tangible, practical results rather than a theoretical degree in a major that would leave me few post-graduate job options and a mountain of debt. I also had trouble accepting a life in the Navy, back during the dark ages of DADT, where my country wanted me to live a contradiction, asking me to adhere to a strict code of honor while simultaneously asking me to lie about who I truly was. After living abroad for nearly ten years, I returned to the United States with the dream of a career in the electrical field. When I tried to access the path to being an electrician in France, I encountered systematic blockades, a convoluted, insular organization, and regular discrimination based on my gender, which made all attempts to enter the electrical field nearly impossible. In comparison, after returning to the U.S., when I went to my local electrician’s union, the application process was fair, transparent, equal, based on merit, and straightforward. I was excited to begin the interview and testing, but, being brand new to everything, knew little about the intricacies of the electrical trade.

Walking in my neighborhood in northeast Portland, I serendipitously stumbled upon an organization called Oregon Tradeswomen, a community-based nonprofit dedicated to promoting success for women in the trades through education, leadership, and mentorship. I signed up for Oregon Tradeswomen’s Trades and Apprenticeship Career Class (TACC), a free, 5-week pre-apprenticeship training class that helps women prepare for a high skilled career in construction, and the rest was history. During the class, I learned skills that prepared me for a

successful apprenticeship and introduced me to green collar career opportunities. It was at OTI where I was first introduced to and captivated by green building concepts such as alternative materials, the importance of conservation and reuse, storm water management, deconstruction vs. demolition, green and solar roofing, and brownfields. Programs like OTI that benefit from federal grants are crucial to the success of women in the trades because they work against the institutionalized misogyny so deeply embedded in the construction industry (trust me I could tell you horror stories that cause you to question the century we're in), and expose women to areas of expertise that they unfortunately are not exposed to via the gendered experience of growing up in our society. The work of this organization helps diversify the construction workforce, provide alternate perspectives, and encourages green building technologies and employment opportunities. I am proud to now sit on the board of Oregon Tradeswomen Inc and work to help women excel in the trades the way they supported and helped me get to where I am today.

My experience as an apprentice has been great so far. As a member of the Local 48 of the International Brotherhood of Electrical Workers I earn while I learn, and the training is paid for by the union. I get experiential as well as classroom education, where I can apply my knowledge in real situations. It is an exciting, dynamic, active, and rewarding job where the sites and tasks are ever changing.

The Edith Green project was a significant part of my training because it was my first project as an electrical apprentice. On the Edith Green project, I performed standard electrical tasks such as wiring and conduit installation. This project also introduced me to energy saving installations involving devices such as occupancy sensors, daylight compensation sensors, and solar panels. I now don't see why these devices shouldn't be a part of every electrical installation when possible.

As someone in the trenches, I can tell you that it is imperative that our government continues to invest in green building projects like Edith Green, which are not only ecological, sustainable, and save money in the long run, but also create good jobs and training opportunities. This project was important because it was a stellar example that, contrary to common thought, commercial buildings can be energy efficient. As an electrician, this project instilled in me an ever-present sensitivity to green electrical practices. The Edith Green Wyndall Wyatt building also put skilled tradesmen and tradeswomen who had been laid off back to work, and is reminiscent of successful public works projects in America's history that revitalized an idle workforce. I've never been on a construction site where there were so many smiling faces. It was obvious that we all took pride in such a ground breaking project. Since the Edith Green building I have been on several other green projects including two newly constructed commercial LEED buildings. I have also worked on smaller green projects including service work on solar powered highway signs in Astoria, and electrical vehicle charging stations in Clackamas.

I strongly believe in the importance of green construction and I look forward to more experience doing green electrical work. I know that the more training and experience I accumulate in this field, the more I can contribute to an increasingly energy resilient America, and an America that decreases its reliance on finite resources. It is so important that we use renewable energy, ecologically, but also because the way we use energy affects our relationships with other nations.

In a day and age where the climate is threatened by excessive consumption, and economies all over the world remain fragile, it is all the more vital to invest in green construction because it is energy efficient and job creating. There is more work to be done, and federal investments are essential to the task. Skilled tradesmen and tradeswomen across the country, like myself, are standing by, ready to build.

I want to highlight the importance of coalitions of labor, community, environment and government such as the Emerald Cities Collaborative. These coalitions help to promote construction projects that pay living wages and benefits, while supporting the environment and an equitable workforce. I would like to close by thanking U.S. Senator Merkley and this subcommittee for the opportunity to share my story. I hope that my personal testimony gave you insight into the worker's perspective on how green jobs support and enhance this new generation of the American construction industry.

Senator MERKLEY. Thank you very much, and it does give insight. I appreciate it very much.

To shift from one green project, the Edith Green, to another project, the new school in Vernonia, we're so delighted to have Dr. Kenneth Cox, Superintendent of Vernonia School District.

Welcome.

**STATEMENT OF KENNETH COX, PH.D., SUPERINTENDENT,
VERNONIA SCHOOL DISTRICT, STATE OF OREGON**

Mr. COX. Thank you, Senator. We appreciate the opportunity to meet with you today, for this invitation. I'd like to thank you, the Governor, and our elected representatives for your ongoing support of the Vernonia project.

In December 2007, a winter storm stalled over the Oregon coast, and 11 inches of rain fell in 24 hours. It inundated our schools with 3 to 5 feet of water, and they were only 100 yards from the sewer lagoons, and so the water was tainted. We survived that. It was considered a flash flood. The next day, everything was all gone except for a thin layer of silt throughout the school. All three of our schools were flooded.

As the result of an Oregon Solutions Partnership that Governor Kulongoski put together the following spring, we were able to find a location for a new school. And in September of last year, our students attended school there for the first time. The new school is 135,000 square feet. It was much larger initially, but we said we can't build that big of a school. We have to consolidate multi-use areas, and they were able to redirect the design.

As I met with the architects prior to the building, we used the term, sustainability, over and over again, because the community had been flooded 10 years earlier. At that time, the water didn't recede for 3 days. They wiped down the walls and went back to school a couple of months later. We found some results of that when we tore the walls down in 2007.

But the idea was that if we're going to rebuild this school, we have to rebuild the community. And we used the idea of sustainability as the foundation for that rebuilding. We knew that the school we tore down just this last summer was built in 1936, and this building needed to last well into the 22nd century, because in many districts, you build a building at a time—elementary, middle, high school—and you start over 20 or 30 years later—we don't have that opportunity.

This new building will be the first K-12 public school in the Nation to achieve a LEED Platinum status. This is done through a radiant floor system, where both heating and cooling is done through tubing in the concrete floors, and a biomass boiler that ARRA funds from the Oregon Department of Energy grant helped pay for that provides heating for that system. We have multi-use spaces. Over 40 percent of the building is space that can be used by the community, and it is used often.

As we looked at the financial challenge we faced, the district passed a \$13 million bond. We built a \$40 million building. The gap was filled with funds from FEMA, and, as I mentioned, the results of support from the Oregon legislature provided some funding. We received two different loans from—the Cool Schools loan provided

over 5 percent there, and all total, the Department of Energy has provided 8 percent of the funding for that school.

One of the questions that sometimes comes up is: "What difference does it make if you have a new school?" Before we had the new school, I talked to the staff and said, "We need to focus on sustainability." And 3 years before we got into the school, we turned around our curriculum so that all classes at all grade levels, K-12, focus on natural resources.

We have sustainability days twice a year, when students go out and plant trees. We are going to be a site for the Bureau of Land Management Native Plant Nursery, where we will grow plants that will be used in local and regional stream restoration.

All these things were done with the idea that we have to look to a different future. Oregon is timber country, and Vernonia was the heart of it, at one time boasting the largest electric sawmill in the world. But when 3-foot-diameter trees ran out, the mill closed down.

The difference it has made is that we're now seeing families move back into the community. Before the flood in 1996, we had over 800 students. When I came in 2006, we had 720. Today, we have 550. Hopefully, next week, when we get back into school, we'll have a little bit more than that. I know that there are a number of families moving into the community.

We did a study last spring to determine what the difference was between students' behavior at the old site, where they were in modulars, and the new school. We found a full 50 percent reduction in student referrals across the board at all grade levels.

So it has made a difference. It has made a difference to the students. It has made a difference to the community, and the community has a future because of the impact of these kinds of programs and this kind of forward thinking as to what needs to happen in the future.

I thank you for this opportunity.

[The prepared testimony of Mr. Cox follows:]

VERNONIA SCHOOL DISTRICT 47J

www.vernonia.k12.or.us



Testimony on behalf of Vernonia School District 47J for the Senate Committee on Environment and Public Works

August 30, 2013

In December 2007 a winter storm stalled over Oregon's coastal range and dropped 11" of rain in 24 hours over the mountains surrounding Vernonia, which is located at the confluence of the Nehalem River, Rock Creek, and Bear Creek, all of which flooded that day. To make matters worse, the city's sewer lagoons, located directly south of all three of Vernonia's schools, were breached causing three to five feet of contaminated 'black water' to flow into our schools. The next morning it was all gone and we were faced with a thin layer of black water silt on everything in our buildings and two inches of mud everywhere outside them.

The cleanup costs were nearly \$1.5 million, then came the repairs and rebuilding. We invested nearly \$5 million in insurance money in minimally repairing buildings so they could be occupied again, even though they were in the 500 year flood plain, and this was the second time in 12 years that they had been flooded. Our students, staff, and community members were traumatized and whenever it rained for any length of time you could feel the tension rise as people wondered if we would flood again. Some children would panic and ask for their parents when they saw rain puddles outside.

The Vernonia School District is located 45 miles northwest of Portland, Oregon. The community has a long history in the timber industry, and one time in the 1940s boasting the largest electric saw mill in the world. However, with the decline of large timbers three feet in diameter and larger, the mill closed in the early 1950s and there has been little economic development since. This is primarily due to the fact that the community is quite isolated, though its 30 miles form a number of larger communities and has become a bedroom community of sorts with over 75% of the workforce living in the community working outside of Vernonia.

The Vernonia School District currently serves approximately 550 students though that number was over 800 before the flood of 1996 and more than 700 prior to the flood in 2007. The free and reduced rate in the district is currently 50 to 51% and reports that approximately 15% of our students qualify for Special Education services.

The Vernonia High School Class of 2012 graduated without ever having a locker during their high school years. During their entire high school career their high school consisted of modular classrooms with no covered hallways, a cafeteria and five classrooms that used to be the middle school, and a gym with a portable floor. The portable classrooms were located two blocks away from the gym and music room. Our students had to carry their backpacks with all their books in them, back and forth between the different areas of campus through all kinds of Oregon weather.

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VERNONIA MIDDLE SCHOOL
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VERNONIA ELEM. SCHOOL
1000 Missouri Avenue
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69163 Hwy. 47
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In 2008, the spring after the flood, Governor Kulongoski authorized an Oregon Solutions Project for Vernonia Schools. This designation made it possible to bring everyone to the table to determine how to best help the Vernonia School District recover from this catastrophe. The group consisted of city, county, state and federally elected officials and/or their representatives; state and federal agencies such as the Department of Land Conservation and Development, Oregon Department of Transportation, Department of Environmental Quality, and the Army Corp of Engineers; community college and state universities such as Portland Community College, Portland State University, and Oregon State University Extension Service among others.

The primary focus of the group for the first year was to help determine a site for the new schools out of the flood plain and how they could be funded. The Oregon Solutions Team helped to coordinate a Transportation Growth Management (TGM) program study, which was completed in February 2009, reviewed three different potential sites, and made a site recommendation to the Vernonia School Board. The site chosen was near the center of the community and on a hill out of the flood plain.

Later that year the district began the process of purchasing property and worked with Boora Architects to design the new school, including the necessary road and sewer infrastructure to support the building in its new location. The district asked for a building that would be highly sustainable and provide reduced maintenance costs for many years, because it would last well into the 22nd century.

The 135,000 square foot facility was opened in September 2012. It is on track to be the first K-12 public school building to achieve LEED Platinum certification in the nation. This state of the art building features a bio-mass boiler that provides hot water to the radiant floor heating system; skylights and window walls that make the best use of daylight; and multiple use areas where students of all grades and community members and groups can come together. It is designed so that it can easily be enlarged to accommodate thirty years of growth in the community.

As we begin our second year of occupying the new school, we have found that the school layout and the close proximity of all our students have improved student behavior. Our high school students are aware of the need to be better examples to the younger children and in a study that was completed earlier this year we found a 50% reduction in student discipline referrals in the new school in all grade levels.

The funding for the new school has been a challenge. Once the architects had a basic design we were able to go to the community, and in November 2009, in the midst of the recession, Vernonia patrons passed a \$13 million bond with a greater than 60% approval rate. Throughout the state and region this was seen as a 'down payment' by the community, their 'skin in the game' commitment to their future and others started pitching in. The District received over \$10 million from FEMA when they purchased our old buildings with the assurance that we would take them down and nothing would ever be built in their place. The Ford Family Foundation of Roseburg, Oregon provided a \$1 million challenge grant which was matched by corporations and foundations from across the state, providing \$2 million toward the project. The Oregon Department of Transportation took over the road construction to the new school totaling over \$1 million. In 2013 the Oregon Legislature was able to provide \$4 million in direct support to the district. The district also received a \$1 million grant from the Oregon Department of Energy to pay for the biomass boiler and other energy saving upgrades.

In addition to these grants the District was able to obtain construction loans through two federal programs. The first was a \$3.3 million Quality School Construction Bond loan, and the others were two 'Cool Schools' loans from the Oregon Department of Energy. The first of these loans was for \$1 million and the second for \$1.2 million. These funds made it possible for us to meet our obligations and get our students in the building in September 2012. Over the past five years we have had many dealings with many public agencies, both state and federal. We have had many positive experiences with all of them, however, I can truly say that it was the Oregon Department of Energy and those staff working with the Sustainable School Energy Loan Program who seemed to go above and beyond to help our district get the funding necessary to complete our new school.

Today the District has approximately \$5.5 million in outstanding debt for our new school. The total price of the project was approximately \$41 million. We continue to look for grants and donations that will help us meet the heavy debt burden that we face. We appreciate the help that the district has received from our elected state and federal representatives. It is our hope that we will get the continued support of the state and federal governments we need as we look to the future for our small community.

Sincerely,

A handwritten signature in black ink, appearing to read "Kenneth W. Cox", written over a horizontal line.

Kenneth W. Cox, Ph.D.
Superintendent

Build a



The large derrick will be used to install the 110-foot-tall concrete wall that will protect the town from flooding.

SCHOOL, save a TOWN

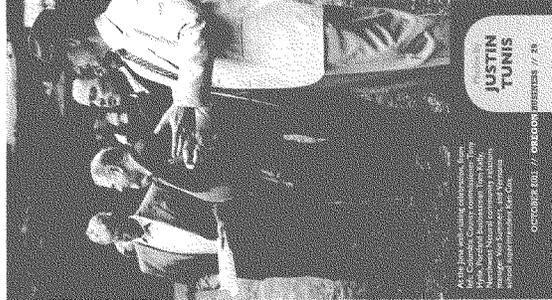
Flood-ravaged Vernonia stakes its future on a new green school and the hope of what it can ignite

By **ROBIN DOUSSARD**

In the winter of 2012, a series of Pacific storms unleashed their fury on Vernonia, a small town in rural northwest Oregon that sits on the Nehalem River. The river crested seven feet above flood stage, inundating the town's downtown buildings, the town's sewer and electric systems, community health clinic, senior center and food bank. The entire school district — elementary, middle and high schools along with the town's library — was underwater. The damage to Vernonia's property was estimated at \$119 million. How could this tiny community survive such loss? There were some options: rebuild the town as it was, or start over. The town chose to invent this struggling town surrounded by lush forests, streams and parkland, and in those places plant a future.

Raise that wall

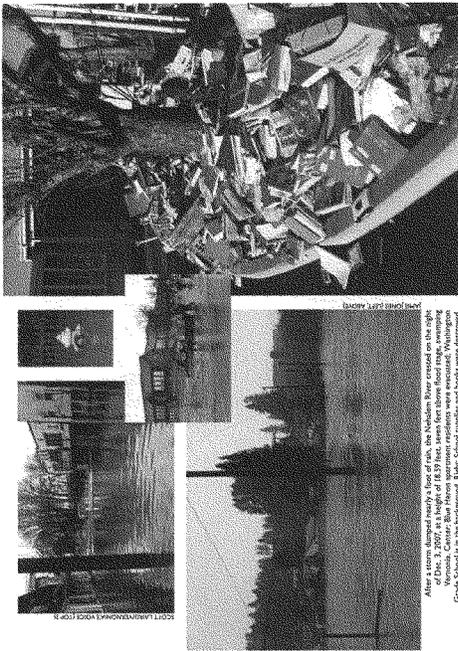
On a cool, rainy day, a group of about 100 people — town officials, teachers, and students — gathered on a hill overlooking the construction of Vernonia's new \$93 million K-12 school. The town's leaders had to identify a workable site out of the flood plain, negotiate a raft of land-use and zoning regulations, upgrade roads and infrastructure, and find the money to begin. All this while patiently watching families, students, bus-



JUSTIN TUNIS

OCTOBER 2013 / **ENTREPRENEUR** 51

Justin Tunis, Vernonia's mayor, stands with town officials and students at the new school site. Photo by Justin Tunis.



After a storm, dumped nearby a flood of rain, the Nohalem Power erected on the right the school building. In the background, the school supplies and books were destroyed. Grade School in the background. Right: School supplies and books were destroyed.

Northwest, Natural, 4,000 each from the citizens of Nohalem and Maupin, gifts from the Klamath National Forest. The school was a local business family, worth \$50,000. About \$38,000 has been raised from community fundations, and \$2.2 million has come from the state. The school is now open for business. The Oregon business community has helped out. "When we went to see the school building, we were all pretty excited," says Kelly. "We have a lot of business in the Portland area, and we're all pretty excited. We've come about Vermontia" and Tom Kelly and Northwest Natural and Portland leaders such as Ken Thurston and Sue Dizon, and business officials, citizens and businesspeople.

During the depths of the recession in November 2008, voters of the Vermontia School District approved a \$17 million school bond, a "down payment" on a new school that was then bonded by \$10 million from the state. The bond was approved by 61% of voters. Then many others began putting their chips on Vermontia, including \$75,000 from several timber companies, \$300,000 from

son members with ethics. The newspaper subsequently wrote several editorial supporting Vermontia. Kelly and Kelly, who are an Nohalem and Maupin, who were worried fundraising would fall flat. "But we were not worried about fundraising for the school," he says. "I've been really impressed with how many people in the Portland business community have helped out."

The Roseburg-based Ford Family Foundation, which was founded by the late Jim Ford, donated \$1 million to the school. Kelly and Kelly made a \$1 million challenge grant. The town's leadership had hoped for a \$1 million challenge grant from the Community Building and as the disaster was unfolding, those claims were rubbing to pull the town together, says foundation

"We don't build schools ... This is about building a new community around its intrinsic assets."

Tom Kelly, Vermontia Foundation

After a storm, dumped nearby a flood of rain, the Nohalem Power erected on the right the school building. In the background, the school supplies and books were destroyed. Grade School in the background. Right: School supplies and books were destroyed.

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Build a SCHOOL, Save a TOWN

Like other small towns across Oregon — across America — Vermontia struggles with a lack of economic activity. The town is in an urban area, scarce capital, aging infrastructure, and the erosion of its youth. These problems have deeply depressed the town's economy. "We have to reinvent ourselves," says Scott Laird, editor and publisher of Vermontia. "We have to have a vision."

But the town does have a Mayberry-esque charm, townspeople say it's a safe place to live. The town is in a beautiful area, the foothills of the Oregon Coast Range, in a picturesque natural beauty, and a scenic view. The town is in a beautiful area, the foothills of the Oregon Coast Range, in a picturesque natural beauty, and a scenic view. The town is in a beautiful area, the foothills of the Oregon Coast Range, in a picturesque natural beauty, and a scenic view.

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TIMELINE // Vermontia

1881: Vermontia is incorporated

1883: Railroad arrives

1883: Oregon-American electric-powered lumber mill completed

1931: Washington Grade School opens

1883: Vermontia High School opens

1975: O-A mill closes

1886: 501-year Road hits Vermontia on Feb. 8

1965: Vermontia Middle School opens

1971: second 501-year Road hits on Dec. 3

1986: Vermontia schools designated an Oregon Showcase project

SEPTEMBER: High school demolished, middle/high school students move to modular classrooms

1998: FEBRUARY: 5th class for new school APRIL: lead-use program begins on new school lines finishes in just eight months NOVEMBER: school bond passes with more than 61% of the vote, with 1.68% turnout

2010: JANUARY/FEBRUARY: Vermontia Rural Sustainability Commission launched FEBRUARY: NW Natural makes \$100,000 donation APRIL: Oregon Dept. of Energy awards \$1.1 million for green energy projects

2011: AUGUST: Vermontia holds its "biggest school reunion" DECEMBER: new school breaks ground, ODOT awards \$1.8 million for transportation/energy projects

2012: JANUARY: \$17.2 million FEMA grant announced JUNE: first well is raised on new school site FALL: community fundraising begins 2013: new K-12 school is set to open in September

The new \$55 million K-12 school is set to be dedicated by LED Johnson during an evening ceremony.



RIGHT: Steve Miller, the CEO of the Columbia County Resource Center, is seen with the four recovery managers and chair of the planning commission and chair of the county board of commissioners. **BELOW:** Brad Coates shows Photoshopped images of the future of the town of Vernonia, Oregon.

the University of Portland and its participation in both social work and psychology during the flood trauma into triumph. "I want to work with displaced families, orphans, home kids, and the new curriculum and the rural sustainability program are meant to lift overall student achievement, and also benefit college-bound students. I've got our high school



LEFT: Steve Miller, the CEO of the Columbia County Resource Center, is seen with the four recovery managers and chair of the planning commission and chair of the county board of commissioners.

that we deconstruct the Washington grade school and use those materials for a center because it only walls the walls," says Miller. "We've become the rural sustainability center," says an equally undaunted Miller, whose son is a senior at Columbia High and daughter is a senior at Vernonia High. "We've got parks, all these rivers and streams, several outdoor schools. Every single part of our natural surroundings is the source of our pride."

The new curriculum and the rural sustainability program are meant to lift overall student achievement, and also benefit college-bound students. I've got our high school



LEFT: Steve Miller, the CEO of the Columbia County Resource Center, is seen with the four recovery managers and chair of the planning commission and chair of the county board of commissioners.

"If it wasn't for this you might as well wipe Vernonia off the map."

school would attract more families and students in the local area, how to position the school in the future. "The generation was always, 'What's the economic future of the town?'" says Allen Kemp. "The Oregonians that in 2000 thought the city looked 20 years into the future and imagined that the new LED platinum K-12 school would be the new center of the town."

It was now the "black & center of Oregon," where Stuck Stewart state park was connected to a thriving downtown frequented by residents and tourists, drawn by its parks and

Build a SCHOOL.
SAVE A TOWN.

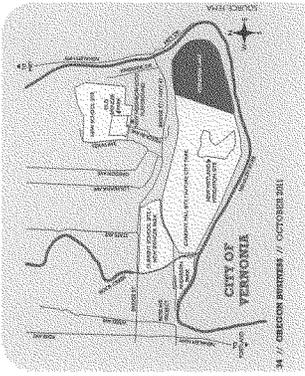
President Norman Smith. "We don't build schools," says Smith. "We build communities. We're talking about building a new community around its intrinsic assets."

And, as Hyde points out, those assets include the town's natural beauty. "We have a million bond feet of timber were harvested. You can't ignore that," he says. "You can't say we're not going to build a green economy, and the color of money was green. There were opportunities involved sustainable energy and other ideas and the Vernonia team pounced on them. One of the ideas in with the town was to build wood products and a focus on a natural resources curriculum. The Pioneer Institute, a business development group, provided a program linking the health of residents and the environment. The vision would have been to connect students, citizens and culture. Reconnecting Vernonia's economy to its natural resources was an idea waiting to happen. The idea and the effort with the destruction of its school."

Making it green
On a basic economic level, the school district means jobs, with about 85 employees. It's the town's largest employer. And a better

many students. Kelly Stevens was a supervisor when the flood destroyed her home. "We didn't have a lot of books, no jobs. We didn't have a gym for a while. It's just a matter of time to have these challenges just down me hunker toward college. It was inspirational in a way. I say I don't think I would be where I am today."

Despite the disappointments, the 19-year-old Stevens is now on a four-year scholarship at



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Build a SCHOOL, save a TOWN



Vernonia has built a new school to raise children.

programs. A Division of Local Management program in Multnomah allows the district to build a new school, and the district wants to create a native plant nursery and garden.

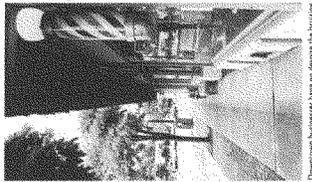
She has started OSU's training with university help with the natural resources curriculum, and its rural studies program will track the school's impact on the town. The district also plans to develop classes using Vernonia as a case study, but that has stalled.

Miller, "University partnerships are baby steps. The No. 1 thing is our C-12 education." She says the school will be a model for other towns that can look pretty good to a town like Vernonia.

Beyond the school

As vital as a new school is and an innovative center inside the challenge is Vernonia's economic future. The town's critical storage of light industrial and commercial land, a shrinking tax base, inadequate broadband access, costly water rates, a wastewater treatment plant that can't handle more than 100,000 gallons a day, and a lack of affordable housing are really just buying time with the school.

Recent political turmoil also has delayed traction on recovery efforts. Over the years, Vernonia has had several city councilors who had fired interim city administrator Bill Isaac because he had helped with the investigation of police Sgt.



Downtown businesses hang on despite the housing economy that has ebbed about one block.

'I can see this town being like Hood River.'

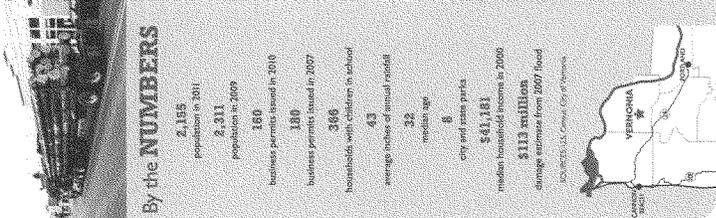
Tom Reilly, Portland businessman, Vernonia project co-chair

Michael Voss, who eventually "went left" for his second career, Vernonia has had about seven city managers in eight years.

"The city has stopped," says Randy Durvaso, Vernonia's mayor. "The city council has spent six months fighting among ourselves instead of talking one of business," says publisher of the town's newspaper, People are not trying to keep their head above water." (In early September, a nonpartisan council elected Reilly as city manager.)

Reilly says the recession about nine shops have closed in the small, aging downtown, including a nursery, several restaurants, a hair salon and a hair salon. He says that 10% to 20% of the homes slated for flood help are being lost to foreclosures, including eight homes in just three blocks on the town's main street. The homes are slated to be demolished.

"Vernonia has been through an awful lot and it shows," says Sen. Jeff Johnson, who is the town's largest donor. He says the center project, a \$3 million social service "hub" to house the nonprofit health clinic, center and food bank that were wiped



out in the flood. Proposed along with the 2,000-square-foot hub is a business hub and provides energy for nearby buildings, a project that has received federal seed money. Perhaps most critically, the city lost its

"We don't build schools ... This is about building a new community around its intrinsic assets."

Vernonia Southside Truck Therapy Foundation

and forgo growth," he asks, "or do we move into Washington County? It's hard to make a business case to stay in this town right now." The city is trying to find and acquire land outside its growth boundary is an endgame that could take many more years to complete. "Right now, if a business says Sharon Berna, a local indoor and chair of the economic development committee.

This deeply hurts the town's ability to attract new businesses," says Heidi Brown of Curtis started Photo Solutions in 1988, and party with 10 employees. Curtis, who is also a photographer and glass-machining company has lived in Vernonia for 21 years and doesn't plan to leave.

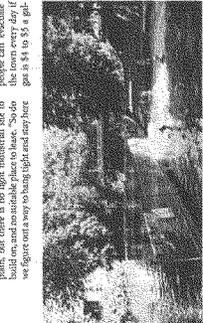
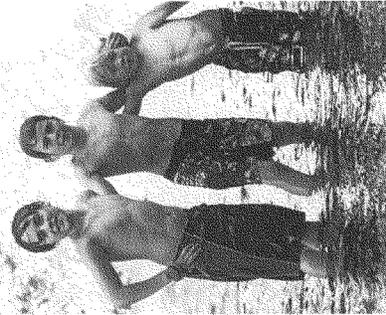
"When I look at the town every day, I don't see how we figure out a way to hang tight and stay here and build on our intrinsic assets." She says the goal is \$4 to \$5 a gallon

lone," says Curtis, who transferred his eighth-grader to a Beaverton school after the flood. "We're not going to apply jobs out here."

One bit of progress is the recently-approved rezoning of 27 acres of land owned by Vernonia Municipal Airport, outside the city's growth boundary.

Veronica Southside Truck Therapy Foundation, who is on the economic development committee, estimates he spent a quarter of a million dollars to get his property rezoned. The rezoning is a key piece of the city's compact with Vernonia along with new industries to the airport. His goal is to create at least 30 jobs and he's getting it. In years, he says, he's been able to get his own Technetwork and TAVY Firearms, a gun reproduction business with \$2 million in revenue. They moved to Vernonia 20 years ago and he's been able to get his own boxes company. They also transferred their children out of the school district.

But Berna still has fight in him despite the only remaining fight, and also the oblique



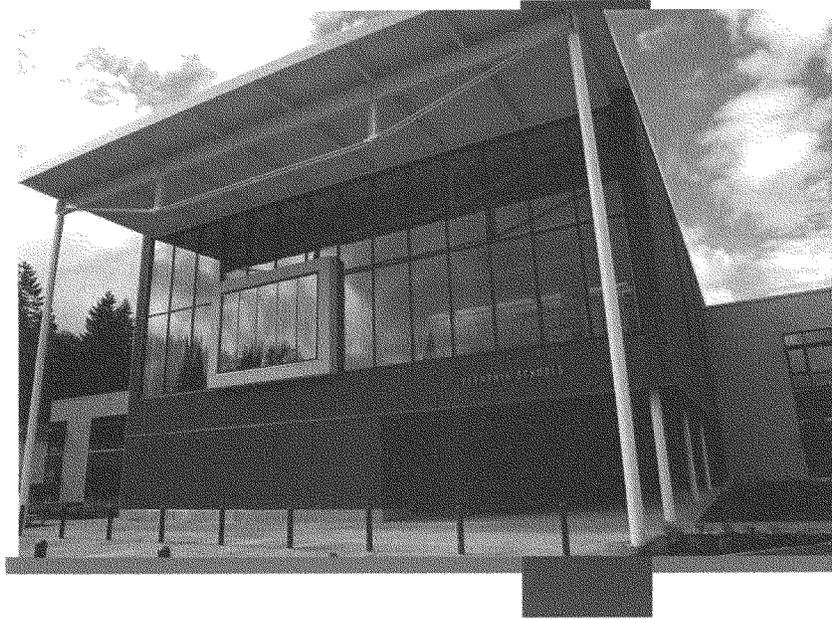
ALONG THE RIVER, Vernonia's new community center is being built on land made available to the town every day by storming up Rock Creek, which runs through the center of town.

"If you think of Vernonia as a lot of different models for how rural Oregon can survive in the 21st century."

Alissa Steyer, Oregon State University

catalyst

The campaign for Vernonia's schools



"Vernonia is an example of how Oregonians can pull together in the face of tragedy and build back stronger. Vernonia and what people statewide have helped to accomplish here embodies the character and community spirit so inherent to Oregonians."

– Ted Kulongoski, former Governor of Oregon

A rural community perseveres

Nestled in the scenic Upper Nehalem River Valley, Vernonia, Oregon, is a rugged logging community that is persevering in the face of adversity. Just 45 miles northwest of Portland, Vernonia has been at the center of Oregon's traditional timber industry and a bedroom community to the state's "silicon forest" high-tech industry.

But in 2007, the second of two 500-year floods in 11 years swept through the town, destroying much of the city's public infrastructure and property. Five feet of floodwater poured into the elementary school, middle school and high school, rendering them uninhabitable. Vernonia's health clinic, food bank, senior center, both electrical substations, and the waste water treatment facility were also inundated. Half of the district's 2,200 homes suffered damage.

Vernonia was put in the unprecedented position of having to rebuild an entire K-12 school district all at once—a feat few towns can accomplish on their own. But with people across Oregon helping, Vernonians are not only rebuilding their schools on high ground, but building back stronger to position the community for the future.

This is Oregon's barn-raising, and it is already one of Oregon's great success stories.

Building a school, saving a town

Like many rural towns, Vernonia's schools are the heart and soul of its community. Strong schools are naturally vital to Vernonia's economic stability, not only as the community's largest employer, but also by making it possible for businesses and families to choose to stay in or to move to Vernonia. Additionally, as the only large gathering place in the city, the school serves as the town's community center.

Recognizing this, Oregonians and the nation are stepping up to provide assistance and help raise the \$40 million dollars needed to replace Vernonia's schools and community center. We knew from the beginning, with a deadline of Fall 2012 to begin tearing down the old schools and the unprecedented need to fund construction of an entire K-12 district, that we would have to secure a combination of funding and bridge financing to open the schools on time.

"Vernonia shows us how such an innovative school/community center approach can drive recovery and rural economic development—it's a unique model from an extraordinary community."

— Norm Smith, President, The Ford Family Foundation, a \$1 million grantor to Vernonia's school and community center

With support from leaders from across Oregon, we have already secured more than \$35 million in funding. This includes a \$13 million bond that Vernonia residents approved in 2009, despite the recession and the community's other flood-related expenses and challenges. We secured a FEMA waiver bringing in an additional \$11 million, and we completed a \$1 million challenge grant from The Ford Family Foundation with gifts from businesses, foundations and individuals from across Oregon. We were also successful in securing \$5.6 million in bridge financing, and we are now focusing on securing the funds to pay this down by late 2013.

The school welcomed its first students in the fall of 2012 at a ceremony attended by local residents, federal and state officials, and business and philanthropic leaders from all corners of the state. Although the school is open and classes are in session, more work needs to be done to top off the campaign and complete the vision.

An investment in creating the schools of the future

Residents are creating a spark that will position this timber town for the future through educational and economic opportunities tied to the area's natural resources heritage. The new school exemplifies green design, and is the first LEED-Platinum designed integrated K-12 public school in the country. The design fosters a healthy and productive learning environment, and provides an annual energy cost savings estimated at more than 45 percent.

Vernonia's new school is:

- carefully located in a central, accessible and safe location high above the floodplain;
- built for current classroom capacity and at least 30 years of projected population growth;
- a unique-to-Oregon integrated K-12 model; and
- a case study in investing in schools as a means to catalyze rural economic development and recovery.

While we have much to celebrate, there is still work to do. We are now in the crucial, final fundraising push to complete the school, including:

- purchasing and installing laboratory equipment in the science classrooms;
- purchasing and installing audio-visual equipment throughout the school;
- purchasing and installing a video security system throughout the school;
- developing the nearby wetlands "living laboratory" to provide hands-on learning opportunities;
- fully funding construction financing that allowed us to open the schools prior to the demolition deadline.

"We want Vernonia's schools to be a model of excellence in education. This new facility, designed to be a center for research about sustainable forestry and clean energy, will link our students with academics and researchers from across Oregon and beyond. More than that, Vernonia's new school is the heart of our town."

– Kenneth Cox, Ph.D., Superintendent, Vernonia School District

Help us make history

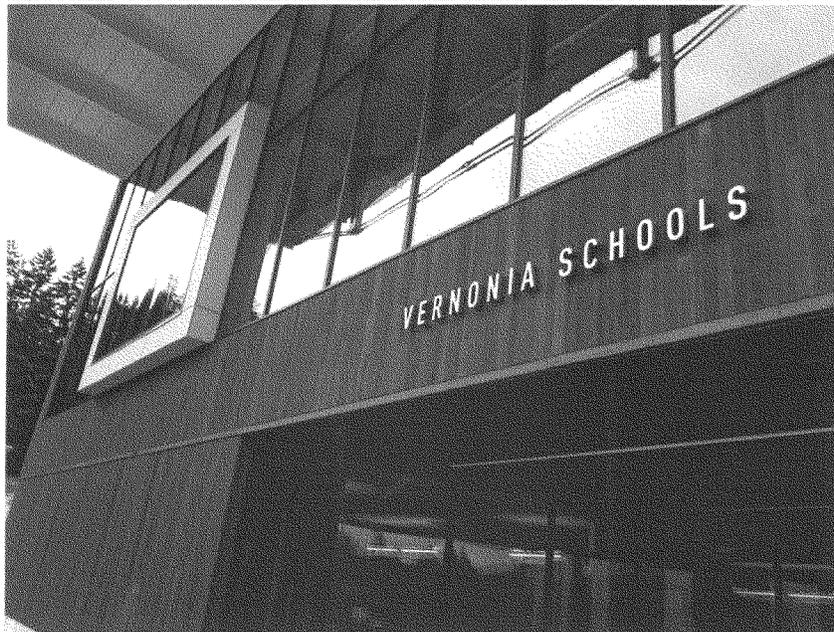
Through the investments of federal and state government, the generosity of businesses, philanthropists and families statewide, and the heroic efforts of the people in twice-flooded Vernonia, we are turning tragedy into triumph. We are reestablishing the heart of a historic Oregon community, and developing sustainable schools and community center that are a model for other communities.

We are building more than a school – we are building a hub to catalyze educational and economic opportunities in the region. We need your help to finish the job. Please join us and invest in *Catalyst, the campaign for Vernonia’s schools*. We are making history in Vernonia and you can help us complete one of Oregon’s great success stories.

For more information, please contact:

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Senator MERKLEY. Thank you very much, Superintendent Cox.

I thank all of our witnesses. I'm going to ask some questions of all of you to enhance this conversation. Then we will officially wrap up and adjourn and then continue with a more informal conversation. I'm going to proceed in the same order that the witnesses presented their information. Each of you presented a particular lens on the green jobs economy, and I appreciate it very much.

Andrew, one of the things that I was curious about is did your experience from this building, with the various green building technologies, translate into other opportunities in the construction world, or do you anticipate that it will down the road?

Mr. COLAS. I would say yes. I think the biggest thing that we were able to get from this opportunity was exposure, and I think that's key for small businesses, for people to be able to see that even if you're a small business, if you're willing to put in the hard work, like Miss Berenice said, you can do a good job. So I think it was something that we were able to showcase, that we could work on projects like this.

And we have worked on several other projects. We worked with the Portland Community College in Newberg. We built a LEED Platinum net zero building out there, and we've been able to work on more projects. But I think the big emphasis that we still continue to push forward is that when we're on projects, we want to be able to take other businesses along with us, to help small businesses get opportunities. If small businesses aren't getting opportunities on these types of projects, then it's really not sustainable.

Senator MERKLEY. Which building was that in Newberg?

Mr. COLAS. The Portland Community College's new facility out in Newberg. It's a LEED Platinum net zero building.

Senator MERKLEY. It was not that many years ago that LEED Platinum was just a twinkle in our eyes, and now we hear about building after building achieving that status.

We've heard about some of these projects and the involvement with minority contracting and with women and so forth. Do you have any insights on things we should do to engage minority communities and minority owned businesses more in similar types of projects?

Mr. COLAS. Yes. I'm actually in another role. I'm the president of the National Association of Minority Contractors, and it's a group of minority contractors that have come together. We have really good, qualified members as a part of that base.

I think, again, if you can really push and instill the triple bottom line of sustainability, the social, environmental, and economic impact, and every time you look at a project, you ask what social impact it's had, I think people will start to resonate that. When you're talking about green projects, it's not just about solar panels. It's about putting people to work, and I think if you start pushing that, it will become synonymous with sustainability.

That's, I think, something that's lacking right now. It's not because people want it to be, but it's just because of the highly technical nature of this type of work. But as we've seen from all the different people that have testified here, clearly, there's women's businesses out there and there's minority businesses out there that

can do a good job. And there's minority women that are in apprenticeships that can do a good job on these projects.

So I would say if you can push that and ask that question each time somebody talks about a LEED Platinum building, I think then we'll start to see a real change.

Senator MERKLEY. Thank you very much.

Mr. Smith, you mentioned in your testimony that before Clean Energy Works, there were about 200 homes per year that were going through substantial energy-saving renovations or retrofits. But I didn't catch—so how many homes per year now across Oregon?

Mr. SMITH. Thank you, Mr. Chairman, for the question and for the honor to be here. We project that we'll do about 1,300 homes this year. What we have now, thanks to the Federal investment, is an asset that's been built that can actually crank out retrofits on jobs in a scalable fashion. So without much additional investment in the core operating infrastructure, we can actually double our production. We just need a little more support from a program operating standpoint.

One of the challenges that this industry has faced with deep home energy retrofits and deep retrofits, in general, is that utility dollars, rate payer dollars, are constrained in their ability to value job creation, equity outcomes, health and safety. Really, what they focus on is the lowest cost installation as a matter of what is considered cost-effective.

We really need to look at that policy as we move forward. We really need policy that insures that rate payer dollars can mingle effectively with public dollars that want all these outcomes we're talking about here today and the private dollars that are, as the Governor mentioned, sitting on the sidelines, ready to play. We need all these sources of capital to be working productively together, and we need policy to enable that.

Senator MERKLEY. By the way, that 1,300 per year—is that just the Clean Energy Works?

Mr. SMITH. That just in Clean Energy Works, yes. I would suspect that the entire marketplace is probably—we're probably close to three-quarters of the market. So I would suspect it's in the neighborhood of 1,800 this year.

Senator MERKLEY. So that's a 9-fold or maybe more of a 10-fold expansion in terms of this part of the economy.

Mr. SMITH. That's right.

Senator MERKLEY. In terms of geographic range around Oregon, is the work spreading? Is it still primarily urban? Have we got a good rural component going or plans to do some?

Mr. SMITH. Yes, Mr. Chair. Thank you for the question. Eighty-two percent of the State's population has access to Clean Energy Works right now. The majority of the work—largely because the population and the areas that started first were close to Portland—is still urban. We have coverage everywhere.

There are some unique challenges in rural communities, both on the workforce side and the contracting side, as well as the utility framework, where EPA serves the local utilities. And we have the same challenges there with utility funding and rate payer dollar deployment.

But there's a lot more skill building and capacity development that needs to take place in rural communities. Actually, in the Columbia-Pacific region of the State, we helped contractors get—paved their way to get all the way through the training that's required that Berenice spoke of—had the mentor, I believe, you and other Clean Energy Works contractors—to help them get ready for capacity that could lead to scale. And then what we want to do once we've built that capacity is come in and really crank up the demand and get that job creation going.

Senator MERKLEY. Great. Thank you. Now, one more piece of this puzzle—one of the goals has been to develop as much on-bill lending as possible, where people repay through their electrical bill or their natural gas bill. Have you forged partnerships with that? Is there more potential to forge partnerships? How well does that work when you're able to do that?

Mr. SMITH. Yes, Mr. Chair. Thank you for the question. We have forged great partnerships with utilities. I gave Sunny and PGE some credit previously and Northwest Natural and Pacific Power. Legislation was useful in enabling that.

But I think we've found a way to make it minimal, in terms of impact on utilities. Costs are covered. We have scalable engagement with capital who values the low default rates that come when you enable folks to pay back these projects on their utility bill, and it's a really important part of the equation. Customers do value the ability to pay back on their utility bill.

There are other forms of loan repayment that are also useful. It doesn't solve all the problems, but it is a very useful piece of the puzzle.

Senator MERKLEY. The thing that I really like about that is that folks see the energy savings on their bill, and if their loan is on there as well, they realize they were able to upgrade their home, often practically paying for it with energy savings themselves. Thus, it's a win-win all the way around. Thank you very much.

Berenice, thank you for sharing your story and your entrepreneurial efforts. And I loved that “absolutely, except for every now and then.” These are the challenges of building a small business. How have you seen the size of your company grow, say, over the last 5 years?

Ms. LOPEZ-DORSEY. Well, H.E.L.P. Group started off in 2008. When everybody was laying off people, we were organizing ourselves to qualify for stimulus money. And thanks to President Obama, Oregon ended up with \$20 million. That helped pay the Clean Energy Works Oregon.

So since then—I think you were at my first project 5 years ago, and there were four of us. Now, we have 20 and mentor a lot of contractors. So it's been a tremendous help. I'm hoping that out of the 1,300 homes that is estimated next year, we get at least 200 so we can keep the jobs.

It's been great. It's been favorable for job creation and being able to bring people into that triple bottom line economy. We definitely need to do a little bit more in being able to understand that the contracts shouldn't always go to the lowest bidder, because that's the difference between paying 100 percent health insurance for an

employee and having the employee take money to pay for their own health insurance.

So you guys have been tremendous in supporting this type of situation, but we need more work. But we thank you for your support.

Senator MERKLEY. And, Berenice, you said in your testimony that the average savings, I believe, were 34 percent. Do you have someone go back in and do an evaluation? Is it your own company, or is it a third party? How do you calculate the impact? Is it from actually looking at real bills that folks received down the line after the changes were made?

Ms. LOPEZ-DORSEY. We do a pre-test prior to the retrofitting, and then once the retrofitting is done, we go back and do a post-test, and we are able to quantify the energy savings. And that's just—what we're able to quantify is the kilowatt hours reduction. It doesn't even include the health and safety of the house, which also has tremendous value. I hope that at some point in the near future, we'll be able to put a value to that and be able to see that.

Senator MERKLEY. Thank you.

And, Sary, we appreciated very much your story. You said you have two children?

Ms. DOBHRAN. I have one.

Senator MERKLEY. You have one child. So as you have become invested in this line of work—obviously, a strong connection to your interest in environmental efforts back when you were in college—do you see this as a family sustaining career, a strong financial platform, if you will, for raising your child?

Ms. DOBHRAN. I do, and I would like to speak to that, first of all, how it affects my relationship with my child and the way he views me, and, second, how it affects my relationship with his community, his school, my community and what role that I play there. But my son is extremely proud of me. I am really honored that I got the time, albeit on welfare, to be one-on-one with him.

And I did wear him on my back. I was an organic farmer. So he has a lot of my same social skills from, you know, selling organic produce or being part of the community and what-not. But even when I have hard days and I don't want to go to work, he always pats me on the back and says, "I'm proud of you, Mom. You're doing good."

And when people say, "What does your mom do?", he says, "She crawls under houses." But that's because I have long days where I say, "I spent all day under a house." But that means a great deal to me, not only as—you know, when I became emancipated, I proved that I could take care of myself, and I put myself through school. And I was not going to fail there, not in front of my child, especially.

So he sees that women are strong and they're powerful and we can do it. I'm able to be the head of the household and provide for him. When people say, "What do you want to be when you grow up?", he says, "I want to be a worker like my mom, and race cars."

[Laughter.]

Anyway, really interesting is that not only do I take care of me and my son so I'm not reliant on welfare, but I also am able to support his school, which is a nonprofit. It was a struggling school, and he was the first student. So for me to go to work full time means

that I needed somebody, you know, employed full time, and that person is actually who put me in touch with the Oregon Tradeswomen.

I have put in an organic farm there at the school, and I recently helped them write for a North Portland Small Business Development grant in order to upgrade the buildings. His school is now expanding from a small, inefficient house that I found has asbestos, and it's not actually—it's got some safety hazards. They're going to expand from that to the basement of the church.

So I was able to go in and inspect it and we did the job for radon testing, quick retrofitting, energy upgrades, all of it. That was just recently submitted. But I'm very excited at how it all comes full circle, and it expands in its revolution.

Senator MERKLEY. Well, there is nothing like a living wage job as a foundation for a family, so that is terrific.

You mentioned, I believe, in your testimony, that you were the first in your family to go to college, as was I. Did you have a significant challenge with college debt?

Ms. DOBHRAN. I still do. I'm kind of proud of myself. I was able to pay for three-quarters of my degree by myself. I worked two jobs, sincerely, especially the first 2 years, and then I qualified for grants and scholarships.

A lot of my grant writing experience comes from advocating for myself and finding ways to fund my education.

So I came out with about \$25,000 debt. And, you know, you plug away at that.

Senator MERKLEY. Well, that's right at the average for students who are coming out with debt. And for many, it does become a millstone, and it's a part of the challenge of getting life on track. But, anyway, you've overcome many challenges, and thank you. You're an inspiration.

And, Casey, you talked about this green Workforce Mapping Project. Was that solely a project within the context of the Edith Green-Wendell Wyatt Building, or was it related to a set of projects that might happen down the line?

Ms. BARNARD. Well, initially, the Workforce Mapping Project was just related to the Edith Green Project. So I'd like to highlight the Project Labor Agreement, which was a really important part of the Edith Green Project, but also the community component, and that's a piece that I'd like to see made even stronger on future public projects. It allowed the funding for the Workforce Mapping Project to pay for Emerald Cities' participation along with other community groups.

But it really gave me the time to go and sit down with apprenticeship coordinators, business managers, and most of the regional trade unions and get a better sense of how their system works from within. That is a really big asset to our community and one that many high schoolers out in the world don't know much about.

So that's the main—Emerald Cities wants to see how we can tap into the existing resources and bring resources to the community groups that help educate community members, train them, and get them into that pipeline that results in, you know, no college loans at the end of the day. But we are actually working with some community partners on an ODOT, Oregon Department of Transpor-

tation, and Bureau of Labor and Industries project, where we're expanding on the energy work we did for the Edith Green Workforce Mapping Project, really digging into what the experience is like for an apprentice on the job.

Senator MERKLEY. So that term, workforce mapping, was relatively—well, it was new to me, not relatively new. It was new. I looked at your statistics that you cited in your testimony of the level of apprentice participation, minority craft worker participation, and also minority and women's businesses. Essentially, are those the outcomes from the Workforce Mapping Project?

I was trying to understand what contractors, subcontractors—how do we bring a diverse workforce to bear in an effective manner? Is that essentially what we're talking about when we talk about workforce mapping, conscientious or thoughtful planning related to participation?

Ms. BARNARD. I wish I could take credit for all of that. But, really, I would say that the outcome of the project labor agreement would set goals for those utilizations, and then establish the ongoing oversight committees. The oversight committees spearheaded my work on the Workforce Mapping Project, but also met regularly and came up with creative solutions.

So, you know, when you're trying to drive apprentice utilization, there's a limited number of apprentices currently in the pipeline. Groups like Oregon Tradeswomen and Constructing Hope help feed that pipeline, and so being connected to them, forecasting, "OK. In 6 months, this project is really going to need more workers from the electrical union or another trade. Where do we find those workers? How do we start looking for them and driving that pipeline?"

Senator MERKLEY. I believe that Emerald Cities is also involved in assisting Hacienda Community Development Corporation in developing more energy conservation strategies for their work. This is of great interest to me, because I used to develop affordable housing, and I have seen kind of that community take up this goal. But could you share a little bit about that project?

Ms. BARNARD. Yes. We are really a community partner among many that are supporting Hacienda's work. But they are rehabbing their Clara Vista buildings, and so beginning in October of this year, they'll be breaking ground on the initial 35-unit rehab, as well as an office space. That'll be about a 9-month project.

And then beginning in 2015, they'll break ground on those remaining 108 units. So that'll really turn those affordable housing units that are already a community asset into really livable, efficient spaces. I believe Colas Construction is actually involved in those projects, and we're looking at trying to apply community benefits to those projects to make sure that they utilize minority and women businesses and get more women and people of color on the job.

Senator MERKLEY. Terrific. Thank you.

And, Tia, I mispronounced your name the first time. Is it Vonil?

Ms. VONIL. Vonil.

Senator MERKLEY. Vonil. I'm delighted to have you share your story. I was intrigued as you said you were walking down the street, and you stumbled into the Oregon Tradeswomen. Do they

have a storefront, or did you walk into somebody carrying some tools? Tell us a little bit more about that.

Ms. VONIL. I was new to the neighborhood and was walking down MLK and saw the storefront that said Oregon Tradeswomen. As someone with ambitions of entering the electrical trade, I said, “Well, hey, I’m soon going to be an Oregon tradeswoman” and just literally knocked on the door.

Senator MERKLEY. And that led to a path that got you into the IBEW apprenticeship program, or were you already aware of that?

Ms. VONIL. Yes. I had already started the application process. But the timing was so great that before my final interview, I was able to complete the trades and apprenticeship class, and that really helped me prepare for the math test and an interview.

Senator MERKLEY. Tremendous. Now, how long is your apprenticeship? When will you finish it? Do you see a sustainable family living wage job as you participate in this trade?

Ms. VONIL. The apprenticeship is a 5-year apprenticeship, 8,000 hours of on-the-job training. So I’m on my second year. I’ve still got a ways to go, but I know that it’s going to work out. And, absolutely, the wages will be livable for me. I don’t have a family, so that makes it even more livable.

[Laughter.]

Senator MERKLEY. Before I had children, I heard people with children say you’re never so well off as before you have children.

[Laughter.]

Senator MERKLEY. I didn’t really understand what they meant until we had our children. And, by the way, you mentioned and put more detail in your written testimony about the challenges of Don’t Ask-Don’t Tell, and I was proud to help in that policy for our Nation. I think the military is doing very well with the new strategy.

Ms. VONIL. Well, thank you for that, for your support on that issue.

Senator MERKLEY. You’re welcome. Thank you. And best of luck as you pursue this trade.

And, Superintendent Cox, the school is a phenomenal school, and I encourage anyone here to consider visiting it. When I went to see it at the ribbon cutting, and I saw it—I went to see the space before a shovel had been put in the ground, the vision that was being put together by so many different partners. But to see it constructed, it embodies this powerful connection between the community and the timber industry.

As you may be aware, my father was a millwright in a Myrtle Creek mill when I was born. It’s so much a part of our Oregon heritage, in general.

But there were a tremendous number of partnerships in making that vision come to reality. Have you continued to see those partnerships play a role in shaping the community after the construction was completed?

Mr. COX. We continued those partnerships. I heard a number of people say that the Vernonia Oregon Solutions was the first time that all of the Oregon university systems came together to see how they could help support that project. We still have relationships with them through extension agents.

There's a greenhouse nursery that we're looking at. We're hoping that these partnerships will continue to grow as we look for ways to finalize the project and move it forward. A lot of the partnerships are still there. We're still continuing to work with corporations, meeting almost every month to look for the final funding for the program. But it has been a unique opportunity to bring people together that you never thought would show up at the table.

Senator MERKLEY. Thank you. I just want to do a little advertisement for Vernonia, because I thought when I saw the school and what it brought to the community—and you mentioned all the common rooms and the focus on the energy. If my children were very young, I'd be thinking about moving to Vernonia.

You mentioned that you have a larger student count this coming year, and if you do, I'm sure it's in part attributable to the incredible spirit that was developed in the community along with the infrastructure related to strengthening the education system. You said that you see less measures for truancy, and that that kind of student behavior is changing. So that is a positive all the way around.

You also mentioned that LEED Platinum status is being sought. Has that already been secured? What are the steps that remain in that process?

Mr. COX. The LEED Platinum status—you have to have so many points. Fifty-eight is the benchmark, and we currently have—or we're trying to make sure that we have 59. We've submitted our application. They've come back with some questions, and we're just finalizing responses to those to get that certification.

Senator MERKLEY. Let me ask specifically about your biomass boiler. This helps symbolize the connection to the timber community.

This is a situation where the Environmental Protection Agency—a conversation I've been having with them since I came into office was over the difference between carbon recirculating in a surface cycle between air and trees—the difference between that and fossil fuels that collect and add to that carbon cycle. In fact, the EPA has been doing scientific studies that back this up. That is a very different component.

Is it a pellet system or a brick system? How is it working? Can you recommend it to others?

Mr. COX. Well, we do use a pellet system. We have a 35-ton silo out in back of the school, and the pellets are augured into the biomass boiler. We used that throughout the year last year. This year, we have a backup gas boiler, and we'll be using both to determine which would be the most cost-effective. We were able to get an excellent price from a local pellet supplier in Columbia City, so that's really helped us in that regard.

Senator MERKLEY. Well, I'm going to make some closing comments. Thank you very much, Superintendent.

Much of this discussion has been around energy efficiency in buildings, which is appropriate, because we have three very sizable contributors to energy issues, one being transportation, and one being electricity generation, and the third being buildings. And in the past, people kind of overlooked how important buildings were in this conversation. Obviously, that's changing, and it's good for

the environment and certainly good for the economy as we've heard today.

There is another sector where a lot can be done, and that's in manufacturing. We do have some examples around Oregon where companies have made significant changes in their manufacturing processes that save substantial sums. Gunderson, which builds and repairs railroad cars, has had quite a transformation—Warn Industries, Darigold, Portland Hospital Service Corporation, Boise Cascade Company's pilot rock mill, which I visited the other day.

I won't go into details here, but much more could be done, because there's no national focus on this. So I'm going to be introducing a bill this coming month that focuses on energy savings in the manufacturing process. This, too, would be good for our productivity and our cost competitiveness, good for the environment, and help to sustain and grow our manufacturing sector.

Certainly, if we don't make things in America, we will not have a middle class in America. So it's well worth focusing on. I've been very struck by the companies I have talked to about how the savings have been so tremendous with very short payback periods. And I keep hearing comments like, "If only we had paused and thought about doing this 10 years earlier, because we see the dollars that would have been saved over those years." So I think it's an area well worth adding to our current work on buildings.

So thank you, each of you. This is a process we hope to keep growing. There is huge potential to expand through the Rural Energy Savings Program, which would create a whole new set of rural electrical co-ops as partners. They have been terrific collaborators in my Rural Energy Savings Program bill, a bipartisan bill, as I mentioned at the outset, that passed the Senate twice. We hope to get it through the House and have it for the President.

I hope that this hearing and you all sharing your stories will help to continue the momentum. All of you who have come to attend today—this is an unusual hearing. We don't often get to hold field hearings. This is actually my very first hearing as chair of the Subcommittee on Green Jobs. So I was delighted to be able to do this.

When you first come into the Senate, you don't get to chair a subcommittee. But now that I'm a couple of years down the line here and have a little bit of seniority, I had the opportunity to do this. This particular Committee is very close to my heart because of how it reverberates in helping to build the middle class and a better world at the same time.

So thank you for attending the inaugural meeting, for me, as chair of this Subcommittee. I hope this conversation will continue and the momentum will continue.

The Subcommittee is adjourned.

[Whereupon, at 11:42 a.m., the hearing was adjourned.]

