

Climate Legislative and Executive Workgroup (CLEW) DRAFT Public Hearing Summary

October 23, 2013, 6:00 p.m. – 9:20 p.m.
Bell Harbor International Conference Center
2211 Alaskan Way, Seattle, WA 98121

Introductions

Bob Wheeler, the facilitator, introduced the Climate Legislative and Executive Workgroup and briefly discussed the public hearing process and ground rules.

The Governor thanked everyone for attending the meeting. In 2008, Washington (WA) adopted specific targets for cutting carbon pollution. By 2020, the State will need to achieve 1990 levels of greenhouse gas (GHG) emissions. The Workgroup was convened to determine how the State will meet those goals in the most cost-effective and fair way. The purpose of the public hearing was to hear the public's ideas about how the State should or should not cut its GHG emissions. The Governor noted that individuals may have differing opinions on this subject and expressed hope that this would be a respectful process.

Public Comment

Michael Mann. MacDonald-Miller Facility Solutions. #168.

Sectors Addressed: General – Green Jobs; RCI – Existing Building Stock; Electricity – Public Benefit Fund (PBF) & Property Assessed Clean Energy (PACE)

In reviewing the CLEW process, I understand that WA will not reach its GHG emission reduction goals without new policy tools. Through MacDonald-Miller Facility Solutions, we are pleased to show how good environmental policies can lead to job creation. We employ over 600 people across Western WA while reducing carbon emissions by making buildings run more efficiently. We make jobs out of reducing the energy that is wasted every day around us, typically saving between 20%, 30% and up to 50% in each building. I appreciate that in the last CLEW meeting Senator Ericksen brought up the importance of energy conservation. We recommend three policies: 1) Create a demand for energy efficient buildings by making building energy efficiency transparent. This would resemble a system similar to MPG's for cars. By having this information available, there will be an increased demand for more energy efficient buildings. 2) Make it easy for building owners to act by providing sources of capital upfront. This would include loans attached to the utility meters for commercial buildings or the PACE program. Through this method, we can unlock the job potential of the conservation industry. 3) Be efficient with our conservation resources – pool these resources across the State through a Public Benefit Fund like 30 other states have already done. We look forward to helping you create clean jobs as we transition to a low-carbon economy.

Renee Klein. American Lung Association. #308.

Sectors Addressed: General – Public Health; Transportation – Alternative Fuels

For more than 100 years, my organization has worked to improve public health. Today we are doing that by addressing climate change. We are working with businesses, communities, and residents in WA to help keep them healthy. Our experts know that climate change is a serious threat to public health. We support a clean fuel standard similar to that of California's (CA) Low

Carbon Fuel Standard (LCFS). We know that pollution from transportation is the biggest contributor to GHG emissions in the State and we know that this type of pollution hurts public health. Dirty air endangers the lives of many Washingtonians, and in particular the children, elderly, and the nearly 1 million residents we have living in our State with asthma and other respiratory diseases. Without serious action, the prevalence of these climate-related diseases will increase. In short, air pollution makes people sick and it shortens their lives. Clean fuel will relieve the health care costs associated with lung disease. As a State, we should invest in clean fuel and clean air. Clean fuels are a healthy solution for WA.

Maradel Gale. Sustainable Bainbridge & Sierra Club. #164.

Sectors Addressed: Transportation – Land Use & Public Transit; General – Ocean Acidification; Electricity – Coal Trains

I would like the State to focus on transportation. To me, the biggest issue to tackle in terms of cleaning up our air, creating a better environment for ourselves, and dealing with climate change is transportation. I don't want any more roads. No new roads. I want you to maintain the ones we have. I want to see more mass transit and intercity light rail routes. They are talking about cutting down bus routes in the Seattle area and that's nuts. We need to have more buses not fewer. I do not want coal trains to be a part of our transportation system. I do not believe it is okay for a few port commissioners to make a decision that will affect the rest of us. My own interest in climate change is in the acidification of the ocean. This will have detrimental effects on our ability to increase economic gains from our waters, as we are already having problems with the acidification killing our shellfish.

Jan James. Sierra Club. #16.

Sectors Addressed: Electricity – Coal Trains; General – Leadership

I represent the planet earth through the Sierra Club which represents the planet earth. We are facing the possibility of coal trains and coal ports coming to WA and this must be dealt with. There are a lot of things that we can't do to help the environment, but this is something WA can do and must do. How can we be leaders in the environmental movement if we don't do something here to solve global warming? If we allow coal to be shipped overseas, we aren't doing what we need to do. Even if we think that this is none of our business, China's pollution doesn't stop at its borders. The air and the water have no borders and I don't want to hear "if we don't do this, someone else will." This is not a moral argument.

Tyler Cumings. Synapse Energy Economics & Sierra Club. #123.

Sectors Addressed: General – Green Jobs; Electricity – Renewable Energy & Energy Efficiency

I did a study to estimate the job potential of WA investing in new energy resources in the state relative to out-of-state coal. We looked at investing in natural gas, energy efficiency, and wind and solar power. Our findings showed dramatic differences between investing in renewable energies relative to natural gas. Wind and energy efficiency investments create 40% to 50% more jobs than investment in natural gas per unit of energy produced. Solar created 5 to 10 times as many jobs as natural gas. The possibility for clean energy jobs outpaces fossil fuel jobs because they require more in-state labor and supplies. By investing in clean energy jobs, we are talking about recapturing dollars that were previously leaving the State. In-state wind generation has surpassed natural gas and coal generation in recent years in WA. Solar generation is

becoming a major player as costs of panels continue to decrease. Energy efficiency is the cheapest way to decrease our reliance on fossil fuels. Finally, transitioning off out-of-state coal will lead to reductions in carbon emissions, more jobs, and a cleaner environment.

Janna Treisman. Citizen. #185.

Sectors Addressed: Electricity – *Coal & Energy Efficiency*; General – *Environmental Education*

One of the things I want to see as an overarching theme from this Workgroup is determining the true cost of coal. I hear that coal right now can provide cheaper energy, but what is the cost 5 or 10 years down the line? What is the true cost of having our utilities rely on coal? What is the true cost of having coal shipped through our State? I work with farmers in the Snoqualmie Valley and they are standing with the farmers in Montana who have been having problems with pollution in the water. I would like to mention that WA does wonderful things but this can't stop at our borders. I would like to see a cost-analysis done on conservation and energy efficiency. I would like to see programs in our schools regarding conservation and energy efficiency. I would like to see our schools become the leaders in clean fuel and in educating our kids about the importance of clean air, energy, and water.

David Kendall. Citizens Climate Lobby. #39.

Sectors Addressed: General – *Ocean Acidification, Leadership, & Carbon Tax*

I am very concerned about ocean acidification impacting WA, as well as sea level rise, increased wildfires, storms, and droughts, and the loss of glaciers, which was demonstrated through the documentary Chasing Ice. I see the lack of U.S. action as alarming. I would like to see WA be a leader in implementing policies that drive solutions for this problem. I want to express my strong support for the Workgroup. As an active member of the Citizens Climate Lobby, I would like to urge you to consider a revenue neutral carbon tax as an alternative. This would be a steadily rising tax at the source with the revenues returning to the public to offset the rising cost of carbon fuels. This would allow for a clear price signal to the marketplace. This would also avoid cumbersome regulations and mechanisms necessitated by a cap-and-trade approach.

Duschka Fowler-Dunning. Bainbridge Graduate Institute. #307.

Sectors Addressed: General – *Green Jobs*; Electricity – *Renewable Energy*

I think we have an opportunity to pull the country out of the recession. John Kerry did a great YouTube video about building a new grid and comparing it to the tech boom. I think by supporting sustainable energy and sustainability in general we can pull WA and the rest of the country out of the recession. I will email you ways to do it.

Stella Foster. Representing Children. #240.

Sectors Addressed: General – *Public Health & Leadership*

I would like to thank the Governor for protecting my life and the future with the very best possible climate plan ever. I'm representing the children of the world as I speak to you today. Anyone who knows the science will tell you that now is the perfect time for a turning point. This climate plan is one of the first laws ever undertaken in the U.S. which is good. However, every year the world waits it will become harder to stop the suffering. Because CO₂ stays in the atmosphere for decades and centuries, what we do today will affect the world 30 to 200 years from now. Acting now will change the world forever. Not acting now will ruin the world forever.

It's your choice. Please don't make a weak plan and please don't support fossil fuels. You can't pretend that you don't know what you are doing if you support those.

Richard Ellison. Save Seattle's Trees. #25.

Sectors Addressed: Transportation – Public Transit; Electricity – Coal Trains

My message is simple: people trains, not coal trains. It's really kind of scandalous how limited our train service is in the State. Once a day you can catch a train to Spokane and back if you can catch the return train at 1:00 in the morning. Sound Transit has train tracks that run from Everett to Tacoma but if you want to take the train sometime midday, good luck because there are no trains. However, the coal industry wants trains and we will give it to them? Meanwhile there is no money for people trains? This is absurd. We have train tracks already in place and we have freight trains, grain trains, but no train stops or people trains. I have to drive everywhere. I can go to Europe and Australia and hop on the train, but we have not invested in this here. We need to build the grid matrix of trains. We can boost our economy by having trains go to the small communities in our State. I may travel there if I had a public transportation option that would get me there. Those that are running for the Seattle mayor position say they do not want coal trains in Seattle but they don't say anything else about coal trains elsewhere. If they are saying this, it needs to be louder. I think Obama missed the boat when the federal government took over GM. They should have started building up the transit system in the U.S. and converting the business so that it could build not only classic cars but passenger trains. Boost the economy by improving the public transportation system.

Louis Wolf. Seattle Fuel Cell Lincoln Project. #8.

Sectors Addressed: Transportation – Clean Cars

Our neighbors in CA have hundreds of fuel cell vehicles on the road logging millions of miles. Additionally they have dozens of hydrogen fueling stations and over a hundred more planned with tax incentives to curb the cost. Does WA have or is it implementing any programs that encourage zero emission or hydrogen fuel cell vehicles?

Greg Rock. Energy Transitions NW. #49.

Sectors Addressed: General – Climate Impact Study; Electricity – Renewable Energy

I would like to urge CLEW to request SAIC to produce a complete climate impact study. By this I mean they should draw a box around WA and include quantitated estimates of all GHG emissions that are coming out of the State, as well as those being absorbed by our forests and other natural sinks. This seems to be far removed from what they are doing. They seem to be focusing on CO₂ emissions caused by fossil fuels. While it's true that burning fossil fuels is the primary contributor for human induced climate change, it may not necessarily mean that this is the most cost-effective way for us to reduce our total State impact. For example, we have very large forest and agricultural resources which create a lot of decomposing biomass. That means that WA is probably one of the largest producers of naturally occurring methane in the U.S. Methane is 20 to 60 times more potent than CO₂ emissions. We could capture that methane, burn it, and take advantage of a domestic renewable energy source while creating a negative GHG emission profile. These solutions will be ignored if they aren't part of the baseline. I would urge the Workgroup to produce a complete climate impact study that shows all the human and natural causes of GHG emissions.

Brian Anderson. Coal Free Bainbridge. #224.

Sectors Addressed: Electricity – Coal & Renewable Energy

Many who are part of Coal Free Bainbridge would like to see Puget Sound Energy (PSE) phase out coal. The only coal plant in WA, based in Centralia, is scheduled to close down, but we also need to close down the plant in Montana (MT), which is where PSE gets a lot of its energy. Thirty percent of PSE's energy comes from coal. When reading through the CLEW documents, I see no mention of the coal plant in MT. However, this plant is the second largest emitter of CO₂ in the Western U.S. By PSE's own estimate, we could replace energy coming from the MT plant with a 5% increase in electricity rates. The reason that PSE can charge less for energy provided by coal is because it does not have to pay for the full cost of coal; it doesn't have to pay the costs of cleaning up the groundwater they pollute, the costs associated with mercury in the fish we eat, the medical bills from people getting sick from arsenic, soot, and other pollutants, and no price for its contributions to global warming. PSE is assuming that it will continue to use this plant for the next 20 years. It will not change its ways without public pressure or action from elected officials. It is clear to many that we need to transition to renewable energies. Please find a way to do this.

Amy Cruver. Forgotten Man Coalition. #1.

Sectors Addressed: General – Oppose Action

I'm here because I want to make sure I understand what your mission is. I've heard you say that it is immoral not to address carbon emission policies. So then I need to ask if it is moral to put your constituents into economic servitude to accomplish these goals. Your policies are going to require a different form of government to implement them such as place-conscious planning and place-based programming. How does that align with our founding documents? I'm sensing a disconnect between those who make money and those who take money. The world invested over \$1 billion a day last year in addressing climate change. The World Economic Forum says we need over \$700 billion a year to see a reduction in climate change. For over two decades the U.S. has put about \$4 billion a year into this and we have what to show for it? Is it moral to deplete my discretionary income? Perhaps we should go ask the tax-exempt organizations to help because they have lots of money. Before you take any action on this, I would like to see a cost-benefit analysis, a statement on how it aligns with our constitution, and how it will add to the national debt. I also want you to use facts, not consensus in making your choices. I have a carbon-free terrarium here; it will neither support nor sustain life.

Jeff Finn. Plug In America (PIA). #45.

Sectors Addressed: Transportation – Clean Cars & Alternative Fuels

PIA is a national non-profit organization that is advocating for electric vehicles. We co-sponsor the national plug-in day, which was held at 98 locations across the U.S. This year, over 36,000 people participated. PIA encourages WA to adopt policies that 1) require the use of clean, low-carbon fuels; and 2) promote the use of zero-emission vehicles. To increase the use of zero-emission vehicles, the lowest-cost option for the State is to allow unrestricted access to HOV lanes. HOV lanes originated in CA as a way to comply with the Clean Air Act. The consultant's final report appears to be accurate for as far as it went; but it may lead the Task Force to underestimate the impact zero-emission vehicles can have on reducing GHG emissions. This is especially true if this policy is used in synergy with other policies such as the use of solar panels at charging stations.

Mike O'Brien. Seattle City Councilmember. #68.

Sectors Addressed: General – Leadership, Climate Justice, and Carbon Pricing; Electricity – Coal; Transportation; RCI

It was really encouraging to see that Olympia put aside its differences in supporting the creation of this Workgroup. I would like all the people in the audience to stand up if you support climate action now. As you can see, we have the popular will. Right now, we have the legislative and popular will and through this Workgroup we now have the technical report outlining what is required to get this done. The impacts of not acting are serious. In 30 years, the center of our maritime industry economy will be underwater. I want to make sure that WA is leading the charge to find solutions for climate change. As we move forward, we need to think about the impacts of climate change on disadvantaged communities and we also need to consider any opportunities this problem may present for them. Let's make sure the technology needed to address this issue is developed right here in WA. Also note, that it will not matter what we do in our State if we export coal and oil through our ports. Please, don't allow fossil fuels to be exported through our State. Finally, we need to have a price on carbon or a carbon cap and also have innovation solutions to our transportation and building codes. You have a strong partner in the people and government of Seattle.

John Plaza. Imperium Renewables. #211.

Sectors Addressed: Transportation – Alternative Fuels; General – Green Jobs

We own and operate a 100 million gallon a year biodiesel plant in Western WA. It is the second largest biodiesel plant in the U.S. We employ 45 people, of which 38 are employed in Grays Harbor County. The average compensation is \$65,000 a year. Policies that support clean energy support jobs in WA. We have displaced approximately 1.2 billion pounds of CO₂ since we have been in operation. Supporting policies that support the clean energy industry does produce jobs and support the economy. When we are at full capacity we also bring in about \$50 million in tax revenue to the State. Some of the policies being considered, such as the clean fuel standard, are coming forth as the best way to establish clean fuels because they are technology neutral. They incentivize having the least amount of carbon in the fuel. Study after study has come forth and shown that this is a real solution.

Brian Walsh. Iderdrola Renewables – Renewable NW Project. #109.

Sectors Addressed: Electricity – Renewable Energy; General – Green Jobs

I develop renewable energy projects in WA, CA, and Oregon (OR). The report to your Workgroup shows that I-937 is the most effective policy currently in place. This policy encourages WA utilities to increase their percentage of local, renewable energy resources with a target of 15% by 2020. The report calculated that by 2020, I-937 will be responsible for reducing 7.9 million metric tons of GHG due to increased use of renewable energy. Not only is this policy a success in reducing GHG and creating cost-competitive renewable energies, but it has led to billions of dollars of investment in WA and new jobs. Over \$8 billion has already been put into renewable energy and almost 3,000 megawatts have been installed. During construction, some of our projects pumped \$95 million into the regional economy. Klickitat County will receive over \$4.2 million in the next few years as a result of our projects. We need to keep moving forward in this direction. Maintaining the renewable goal is what is right for WA.

Jonathon Jones. Citizen. #127.

Sectors Addressed: Electricity – Renewable Energy & Appliances

We need fast, nimble policies that will keep up with new energy developments. The energy grid is now a two-way grid. We want policies that will take advantage of this. Next time you replace your hot water heater, you will want to say “I want my hot water heater to generate two kilowatts of electricity.” The two way grid is making these products a reality and is helping keep down the price. Our homes should be able to capture waste heat energy and turn it into electricity with smarter, more efficient appliances. One policy should be that when you install a meter, it has a one-way capability so that if the power goes down you will not lose all your power. That way, if there is a storm and the power goes out the energy stored would allow the power to stay online. This would also help increase worker safety.

Court Olson. Construction Management Consultant. #78.

Sectors Addressed: RCI – Existing Building Stock; General – Green Jobs; Electricity – Energy Efficiency

I build and renovate commercial buildings. Forty-three percent of our national energy consumption is in our buildings. We could reduce this by half if we are really diligent, which translates to reducing 20% of our energy diet, and we could pay for it all through energy savings. I encourage you to look at this harder than it’s been looked at before. The utility and incentive programs are great, but they are typically only seeing 15% to 20% energy savings, and they don’t go far enough to achieve the maximum emission reductions because further reductions require more financial investment and the payoff period is longer. However, if the State offers the right kind of incentives and financing programs it could help foster this type of investment and we could conserve a lot of energy. There is a lot more potential in this arena. Fifty percent savings is typically possible.

Bill Dewey. Taylor Shellfish Farms. #272.

Sectors Addressed: General – Ocean Acidification & Leadership

Our company and our industry is being impacted by ocean acidification, which is a different problem caused by an increase in CO₂ emissions. In addition to climate change impacts, ocean acidification should be a compelling reason for your work. CO₂ is being absorbed by the ocean and reducing the amount of carbonate ions which are the building blocks for shells. The consequences of this are being seen in the shellfish industry and we have been having difficulties producing oyster seeds. Why does this matter? WA leads the country in shellfish farming. It is an economic engine in rural Western WA. There are a number of actions you can take to address this issue but, as a business, we would like to see recommendations that achieve the GHG goals in an equitable manner and that do not impact one sector disproportionately or harm the economy. Also as a business, we support incentives or market driven options. We believe the State has demonstrated outstanding leadership in this area. We wish you success in becoming leaders in GHG reductions.

Jerri Baruffi. Center for Self Governance. #155.

Sectors Addressed: General – Oppose Action

Most of the savings that we are talking about are after-tax incentives. How much those taxes cost all of us is something that no one is bringing up. The law as it is written requires us to find out how much it costs to reduce the CO₂ emissions. The cost is measurable but there are no anti-

carbon groups that will tell us how much these policies cost. What if it costs us \$100 a month? A week? A day? All of a sudden the groups that are even here today would say that that is too much and we need to back off. The time has come to figure out what the cost-benefit ratio is.

Strom Peterson. Edmonds City Council. #112.

Sectors Addressed: General – Leadership & Carbon Tax; Transportation – Land Use; Electricity – Coal Trains

One thing that I am proud of is that in Edmonds, we instituted the first ban on plastic bags. Other cities have followed suit. Here is an opportunity for WA to be a leader. We need to prove to the rest of the country that we will lead in determining solutions to this issue. We should look at a carbon tax. We should look at transit oriented development. Edmonds is right of the rail road tracks and would benefit from this. Also, we have the coal trains. We were one of the first cities to implement a resolution against the coal trains. I'm not saying all this to toot Edmonds' horn, but to show you that cities have an impact on what the State is doing. We can, as a State, have that same influence on other states in the country.

Robert Jeffery. Clean Green Farmers Market. #162.

Sectors Addressed: General – Climate Justice, Public Health; Transportation – Land Use, Local Food; Electricity – Coal Trains

According to a report authored by the Environmental Justice Climate Change Initiative, climate change disproportionately affects African Americans, minorities, and inter-city communities in terms of poor health, economic loss, and premature deaths at a rate 150% to 200% higher than other communities. Asthma, which is highly correlated with air pollution, also affects these communities at a higher rate, as demonstrated by African Americans having a 36% higher rate of asthma than whites. Over 4 million African Americans currently have asthma. Climate change is now more than just an environmental problem, but a race problem as well. African Americans are disproportionately impacted by climate change economically, physically, and through our social wellbeing. We must find a better way. We need stricter environmental laws. We need more campaigns to buy local food. It's estimated that the average American meal travels over 1,000 miles to get from the farm to the table. Coal trains and other 19th century ideas are not the way forward.

Zoe Foster. Plant for the Planet. #63.

Sectors Addressed: General – Leadership, Climate Justice, & Climate Sequestration; Electricity – Renewable Energy

I'm twelve years old and an ambassador for the international children's organization "Plant for the Planet." Though we are a children's group, I'm hoping to have your unbiased attention. We are an international organization run by elementary and middle school students. We have presented at the UN. While the adults are thinking about taking action, we have already taken action and figured out the solution. Each year we wait to take action is 30 more years of floods, droughts, fires, and extinctions. Our plan is called "Stop Talking, Start Planting" and it has three parts: 1) we need to plant 1 trillion trees worldwide by 2020; 2) we need to leave fossil fuels in the ground; and 3) we need to prioritize climate justice. Instead of buying coal, oil, and gas from poorer countries and polluting more, WA can assist those countries allowing them to keep the fossil fuels in the ground and help build a green economy. Thank you for taking me seriously, because when you are gone I will still be here.

Erika Shriner. Coal Free Bainbridge. #218.

Sectors Addressed: Electricity – Coal

I brought my three children with me today and I really hope this isn't some cute marketing ploy. I don't sleep half the time thinking about the planet we are leaving them. We know what the solutions are. We have been burning coal since the 1880s and somehow we haven't figured out how to move past this technology. If we had the same mindset with everything else we do in life, we would still have the rotary phone and typewriters. Somehow coal hasn't had to play by the same rules as the rest of technology. The fact that 30% of our energy comes from one of the dirtiest plants in the nation is a disgrace to all of us. When you are looking over and creating a plan for climate change, one of the things that has to be concluded is that we just need to get rid of coal. I hear these children talk about planting trees. How can we let kids take these actions when we continue to burn coal? Let's not let coal continue to ruin our lives.

Erling Skaar. Genetech Global. #89.

Sectors Addressed: General – Ocean Acidification, Green Jobs, Pricing Carbon, & Environmental Education; Electricity – Renewable Energy

I have been a commercial fisherman since the 1960s and I want you to reduce CO₂ emissions and get rid of ocean acidification. I want my sons to have the option of having the same lifestyle as me. I have burned a lot of diesel in my life as a fisherman. I started a company called Gentech Global in order to create a hydrologic generator that helps reduce diesel emissions on boats by 60% to 90%. I have three policy suggestions: 1) if you put a price on carbon pollution, use the money to help people reduce their fuel consumption; that way people won't just be penalized, but will also benefit from the price on carbon. 2) WA should provide neutral information on how best to reduce fuel consumption. 3) The State should promote the clean energy and energy efficiency industries. Come see us in Ballard and we will show you a piece of the solution.

Bobby Righi. Puget Sound Association for Retirement Action. #21.

Sectors Addressed: General – Green Jobs, TPP, & Carbon Tax

Through the Retirement Action Association, we work for a secure future – a future that includes a livable income, comprehensive and affordable healthcare, and access to affordable housing, transportation, and social services. We know that this is not possible unless we reduce GHG so that we have a stable climate. It also works the other way. Achieving more equality, social justice, and social status will help stop climate change. We've heard a lot of great ideas tonight such as the Smart Grid, more transportation, and energy efficiency. In WA, we need well-paying, sustainable jobs that have high social benefit and no carbon emissions. It turns out we have those types of jobs: people who care for our children, who pick our food, who care for the elderly, our teachers, maintenance workers, and many others. These are all carbon-free jobs. Raising the minimum wage and working to achieve income equality turns out to be a green policy. We need to reject the free trade agreements and stop TPP. I also support a fossil fuel tax.

Yale Wong. General Biodiesel. #233.

Sectors Addressed: Transportation – Alternative Fuels; General – Green Jobs

We collect waste from restaurants to create biodiesel. We have a proven process and a proven business model that is allowing us to use existing technologies to reduce CO₂ emissions. This is a plug-in, drop-in technology. We have reduced over 100 million pounds of carbon since we started the company. We don't have much time left to address this issue. We have to embrace as

much renewable fuel as possible to wean the nation off fossil fuels. WA should take steps to make sure that the next generation of fuel is produced within its borders.

Matt Kuharic. King County. #17.

Sectors Addressed: Transportation – *Alternative Fuels*; Electricity – *Renewable Energy & Energy Efficiency*; Transportation – *Public Transit*

We are very supportive of the CLEW. In King County, we are already feeling the impacts of climate change through increased flood risk, reduced summer stream flows, sea level rise, and decreasing mountain snowpack. All of these examples are impacting public health, public and private property, forestry practices, fishing, and other sectors of our economy. King County is committed to economic and environmental sustainability. We have adopted our own emission reduction targets and have implemented a number of policies to help us reach these targets. We are creating strategies such as open space acquisition, waste reduction, recycling, and investing in transit and energy efficiency policies. The Low Carbon Fuel Standard, renewable energy standards, transit investments, and energy efficiency policies are all policies that align with King County's ideas. We hope you will actively engage local governments when designing policies. We encourage you to 1) be bold and take a comprehensive approach that addresses the sources of carbon pollution; 2) recognize the direct effect of transit and its potential to reduce carbon pollution; 3) consider market-based solutions to capture the impacts of carbon pollution; 4) prioritize energy efficiency and renewable energy production; and 5) support actions by local governments and businesses to reduce CO₂ emissions in order to build a green economy.

John Anderson. Citizen. #347.

Sectors Addressed: General – *Sewage*

Four years ago the pipe that comes from the upper part of our town and distributes out effluent to the treatment plant broke putting sewage into Eagle Harbor and the Puget Sound. This Labor Day, it happened again and another 500,000 gallons were spilled on the beach. This pipe has been a problem for years. Could you help the City of Bainbridge Island figure it out? It is long overdue. This is difficult to figure out. The Gates Foundation is helping other countries figure it out. Why can't Bainbridge?

Craig Kenworth. Puget Sound Clean Air Agency. #246.

Sectors Addressed: Transportation – *Alternative Fuels*; General – *Climate Justice & Public Health*

Cost and equity is something you will grapple with when determining which policies and actions to implement. Intergenerational equity is another issue to consider. The choices you make in this State will affect those who haven't been born yet. What will future generations say about us when they see the impacts of climate change? Will they accept our excuses that it was too hard to act? That we were so focused on the present that we didn't defend the future? That we were so intent on compromise? The climate will not compromise with them. A Low Carbon Fuel Standard is a great way to take care of the lungs of today and the climate of tomorrow. It reduces particulate matter (PM), smog emissions, and the emissions that cause cancer. The good news is that businesses across WA are already producing clean fuels and making it work for their bottom line. Let's advance a clean fuel standard. Let's defend the future.

Mark Phillips. Fitch Fuel Catalyst Technology. #352.

Sectors Addressed: Transportation – Alternative Fuels; General – Green Jobs

I want to educate the public and businesses about a technology that helps improve the combustion of fossil fuels including diesel, methane, and propane. These fuels aren't optimal but they are being used. This technology is called a fuel catalyst. A catalyst is a material that interacts with a chemical reaction without becoming a part of the reaction. The type of catalyst in my product is a metal alloy material that was invented in World War II. It's called the Fitch Fuel Catalyst. Everyone can use it, it's available, and it's cost-effective. I use it for fishing boats with great results.

Joan Schrammeek. Citizen. #255.

Sectors Addressed: Electricity – Renewable Energy & Coal Trains; General – Green Jobs

Solar energy offers great energy solutions. There are incentives in WA that allow you to purchase made-in-WA solar energy infrastructure for your home. I did this and was able to do it because of the incentives from the State. I hope that you would prevent these incentives from sun setting in 2020. My other idea is an incentive for hiring WA contractors to install solar equipment on your home. My messages for tonight are: buy local, go solar, and say no to coal trains. Coal trains and oil trains pose a safety risk to our communities.

UW Professor of Chemistry and Environmental Science. #265.

Sectors Addressed: Transportation; Electricity – Coal & Renewable Energy

When I teach environmental science, my classes do comparisons between states. We are doing well in most areas, but there are two areas that we are not doing well in: 1) transportation and 2) the PSE coal strip plant. We are well above the national average on per capita emissions from transportation. We are in desperate need of improving our transportation system. On the coal strip plant, it provides 21% of the GHG emissions for WA and is the largest source of sulfur, nitrogen, and CO₂ emissions in the region. You can see the emissions from this plant from space. Coal-by-wire is really the sore toes on our very good carbon footprint for the state. We need to replace that plant with renewable energies, such as solar. My own solar panels are helping produce electricity in my house even with the fog.

Tim Yates. Citizen. #309.

Sectors Addressed: General – Opposes Action

Let's assume that we have a free market-based system. By definition, if you have to create the system, then it is not market-based. The RCW that established the GHG emission reduction targets says that we should not manipulate the system. If we do, we will be violating the RCW. A market-based system will be what works, and I mean a real, free market-based system. I'm all for low-emission cars, biofuels, and anything that can self-sustain itself without public sector money. If you change our system then there will be winners and losers. I don't think it is appropriate for the government to pick winners and losers. I will buy sustainable products when they are cheap. I want to see free market-based solutions, not manipulated market-based solutions.

Emily Johnston. 350 Seattle. #161.

Sectors Addressed: Electricity – Coal Trains; General – Leadership

The book “Climate Casinos” talks about economics and decisions around climate change policies. The author of this book joked that he would have his “economist card” revoked if he didn’t support the carbon tax. But he also said that tight reductions on carbon would give the same results. All the efforts we’ve made to become a clean energy economy will be moot if we allow coal trains to come through WA or rely on Bakken oil. The decision on coal trains will be the largest decision in terms of climate impacts in our lifetime. We have to look at what we are supporting. If we claim we are carbon neutral but support coal trains, history will not look at us kindly. To be an international leader in climate change, we must say no to coal trains.

Brian Grunkemeyer. Sierra Club Energy Committee. #245.

Sectors Addressed: Electricity – Coal; General – Carbon Tax, Utilities and Transportation Commission

I’ve participated in PSE’s integrated resource process for the last few years. A lot of what we do in the City has to do with correcting market failures. We need to correct for market failures, and the failure to capture the true price of carbon is one of the worst in history. To accomplish this, we need to: 1) shut down the PSE coal plant in MT. Two of the four units associated with the plant are very close to being uneconomical. If PSE pulls its support from the plant, we have a chance to shut it down in 2017. 2) Implement a carbon tax. Professor Bauman has a lot of information on the carbon tax, including polls about how it could work and be acceptable. 3) Utilities and Transportation Committee (UTC). The UTC and their integrated resources plans show where the rubber meets the road in terms of achieving your goals. You need to help them. They don’t understand that this has been their charge. With the right statutes you can make them the best tool to achieve these reductions.

Mayor Mike McGinn. #363.

Sectors Addressed: Electricity – Energy Efficiency & Coal; General – Green Jobs & Leadership; Transportation – Public Transit

In Seattle, we have worked on Climate Change from our policies on green buildings to promoting alternative ways to get around and it is working for us. We have a very strong economy and energy efficiency is something that we are beginning to export. This is what we should be exporting, our energy efficiency technology, not coal. It is job creation as well. The other thing I want to speak to here is that I looked at this chart and the single biggest source of GHG emissions is on road gasoline and we know in this City people will choose alternatives if given the opportunity. It is very critical that the legislature give us the local funding options to expand Metro and give Sound Transit the opportunity to expand and electrify transit. A lot of our buses are electric trolley buses. Give us the local funding options we need to rebuild our streets so they can support walking and biking for multi-use neighborhoods. That will be great on climate and for our health and our local economy. The final point I would like to make is that we are the first generation that can see the effects of climate change and the last generation that can do anything about it. I hope you treat this with great urgency.

Anne Engstrom. Citizens Climate Lobby. #64.

Sectors Addressed: General – Carbon Tax

The Citizens Climate Lobby is a grassroots organization. We are expanding rapidly due to our dynamic approach to lobbying for a carbon tax. We like the idea of cap, but not the trade. The European cap-and-trade has been a failure. The permit prices are so low that there won't be a cap and few reductions will be recorded. Trading and the use of offsets are impossible to regulate. Auctions do not make fees predictable which makes it difficult for businesses to plan. We support a rising fee on carbon at the source with the revenues being returned back to the citizens. This is transparent for businesses and equitable for citizens. Conservative economists believe that a revenue neutral carbon tax or a tax swap will help increase jobs, income, and innovation. The best climate plan is seen in Canada with the carbon tax. It has allowed people to pay less taxes overall. We want you to consider this.

Laurie Nyford. Citizen. #306.

Sectors Addressed: General – Opposes Action

Our economy depends on the transportation system and moving goods out of the ports. Carbon regulations make this difficult and penalize the transportation industry. VMT reductions will hurt industries, affect how people live, and damage available job opportunities. Clean energy is a mainstay of WA. In 2011, WA was the leading producer of hydroelectric power and produced 29% of the nation's net hydropower. This energy is renewable, reliable, and resilient. We should supplement hydropower with nuclear power. France is doing this and is energy independent. It is helping create jobs and prosperity. France is the size of the Pacific Northwest and is the world's largest net exporter of electricity due to its very low cost of generation. They are now building plants in the UK. WA is not producing a significant amount of the world's GHG emissions. My main question is what are the costs of these proposed regulations? Instead of reducing trace amounts of GHG we should concentrate on building clean energy that is cost-effective and proven.

#285.

Sectors Addressed: Electricity – Coal Trains

I have a background in aerospace engineering. I read an article today about a complaint that was filed in U.S. District Court against BSNF about the coal dust found in the Spokane River. 500 to 3,500 pounds of coal dust and coal chunks fall off their trains per car on their way from MT to the coast. That equates to more than 60,000 to 420,000 pounds of coal dust per train. By BSNF's own admission, coal dust contains mercury, arsenic, uranium, and hundreds of other contaminants. I'm not here to offer more solutions. I want to put an exclamation point on the devastation of a coal terminal in our State.

Chris Mayfast. Restaurateur. #320.

Sectors Addressed: Electricity – Dams

In order to optimize the solutions to climate change we need to adequately prioritize the assets and funds of this community. Governor, you pushed forward a \$130 million spending bill – the Yakima Basin Plan – which helps the Yakima Valley agricultural industry adapt to climate change. However, this Plan is not an efficient way to bring about climate change adaptation and will cost tax payers billions of dollars. The plan also calls for the construction of two massive dams in Eastern WA. We are decommissioning dams, and should not be building new ones. This

seems like an effort from the Bureau of Reclamation to return to devastating water practices that have had negative effects on our environment. We cannot afford to squander millions of dollars on dams with the excuse of adapting to climate change. My request is that you prioritize real solutions, not ones that build new dams. Take the money from that plan and use it for real change.

#44.

Sectors Addressed: General – Ocean Acidification & Public Health; Electricity – Renewable Energy

No rational person questions that climate change is impacting our planet. The oceans are more acidic. Shellfish cannot create shells anymore, which is a problem because fish eat shellfish. Fish and the fishing industry are very important to WA's economy. Up to 25% of the pollution in the air in the Western states is coming from Asia. In some Asian areas they are told not to go to school or to work because the pollution is too thick. The planet runs on the sun and it's free energy. We need to start implementing rational solutions. The State should offer support to help me put solar on my house. Please tax the guys that have the big cars.

#206.

Sectors Addressed: General – Climate Justice

I export one of WA's least appreciated products: education. I teach environmental science at a community college and about ¾ of my students are from Asian countries. They are not immigrants but they intend to return home and build their own economies. One of the comments I get a lot from these students that I don't get from those who grew up in the U.S. is: "No one has ever told me that my lifestyle could affect the functioning of the earth." The other eye opening experience they have is that they realize that free market economics do not count externalities. Air pollution is a classic example. When doing your economic studies, I want you to count all the costs including the externalities and the opportunity costs that are created when we have massive inequality among people. Societies with greater levels of equality have high levels of public health, which allows them to reduce their tax burden and frees the population to concentrate on innovation. Please count all the costs when moving forward and work to support social equality.

Haifa Iverson. Power Past Coal. #38.

Sectors Addressed: Electricity – Renewable Energy; General – Green Jobs, Environmental Education & Leadership; Transportation – Clean Cars

As a high school science teacher, I am teaching the next generation of science standards that have been recently adopted. In them they state that science is at the heart of our nation's innovation, our ability to lead, and our ability to create jobs in the future. If students are expected to learn, design, evaluate, model, and find solutions, then we need to build awareness and provide options to responding to pollution, and in doing so provide an economy that invests in renewable energy and sustainable technologies. I want to see a bipartisan and organized approach to addressing different types of pollution, energy reduction, and preserving biodiversity. We need to use scientific evidence of increased release of carbon dioxide and other GHGs as a driver for reducing these emissions. The transportation sector is the State's largest source of GHG emissions. We need to reduce burning fossil fuels and invest in electric vehicles and hybrid technology through rebates and tax incentives. I was able to purchase the Nissan Leaf

because of the federal tax rebates and WA's omission of sales tax associated with electric vehicle purchases. We also need to address stormwater, the biggest polluter of Puget Sound. Through the education of our citizens, we can create an environmentally conscious culture and sustainable jobs. I think we can lead the nation in the actions that we take. Please take positive steps forward.

Karl Seck. Mercuris Biofuels. #18.

Sectors Addressed: Transportation – Alternative Fuels

We are located in Ferndale, WA and are developing a technology that converts waste biomass (e.g. agricultural and forest residues) into drop-in cellulosic jet fuel and diesel. We want to grow our company in WA and throughout the whole country. I support a low carbon fuel standard that benefits fuels that reduce the carbon footprint the most. For example, if I can reduce GHG emissions by 90% I should get more benefit than someone who reduces emissions by 50%. In CA, they have a grant system that helps businesses build a pilot plant or a startup plant. That's really important. For those that say the market should determine a business's success, know that I am competing with one of the most entrenched and powerful markets in history – the oil industry.

Kevin Kuper. Biodiesel Production Firm. #144.

Sectors Addressed: Transportation – Alternative Fuels; General – Green Jobs

I am with a local biodiesel production firm and we produce 6 million gallons of biodiesel a year, which translates to 127 million pounds of displaced carbon. We employ 27 individuals in WA. We are seeking to expand with the passage and support from a local clean fuels program and a low carbon fuel standard (LCFS) in WA. One gallon of biodiesel has 100% less sulfate, 50% less carbon, and 50% less particulates than petroleum diesel. It is a drop-in solution, so it is here and now. Our product is made from used cooking oil. We currently participate in CA's market because of the LCFS. It is working. A ton of carbon last year was \$8 and now it is \$82. That's real money, real jobs, and real support of the local economies. I support an LCFS in WA because it will increase jobs, reduce carbon, and reduce particulate matter.

Senator Ericksen commented that every Thursday in the Senate Energy Committee they have "New Energy Thursdays." If anyone would like to present during New Energy Thursdays, contact Senator Ericksen's office and it will be scheduled during the Legislative session this year.

Jeremy Stone. Clean Power Research & E2. #284

Sectors Addressed: General – Carbon Pricing

I own a clean tech software company that employs 15 people and I am part of E2. I want to institute carbon pricing, such as a revenue neutral carbon tax. Everyone responds to price signals and we currently are not capturing the full cost of carbon. Using fossil fuels seems cheap although it has very expensive consequences. We will continue to burn carbon as long as it's cheap. Carbon pricing will allow us to put a price on carbon and use that revenue somewhere else, such as reducing sales tax, B&O tax, payroll tax, or whatever you would like. Carbon pricing can make the economy more efficient because you can reduce taxes in other places. We should tax what we burn not what we earn. British Columbia (BC) implemented a revenue neutral carbon tax and since then its economy has outperformed the rest of Canada's. From a business perspective, you do not need to make a decision between prosperity and solving the

climate crisis. If we don't solve the climate crisis we have no prosperity. It makes no business sense to do things that seem cheap in the short-term but cause long-term damage to the environment. We need to decarbonize our economy and build a clean energy future.

Phoebe Warren. Citizen. #364.

Sectors Addressed: General – Non-renewable Energy Tax

I recommend a tax on non-renewable energy to motivate reductions in GHG emissions because it allows more flexibility than prescriptive programs. I want a non-renewable energy tax as opposed to a carbon tax so that it doesn't incentivize nuclear energy as nuclear energy is unsafe since we have yet to close the fuel cycle. If taxation is not politically or economically feasible, I recommend looking at the green taxation shift strategy Canada has implemented where the total tax burden remains unchanged. The introduction of an energy tax is counterbalanced by reductions in other taxes. We could do the same and use the revenue from the tax to help the poor with low-income weatherization of their homes to help reduce disproportionate impacts on lower-income individuals.

John MacLean. NW New Energy. #50.

Sectors Addressed: Transportation – Alternative Fuels

I am an independent consultant focused on building renewable energy solutions. Through my job I have interviewed everyone – growers, refiners, distributors, policymakers, and more – to figure out the barriers to implementing alternative fuels. I found that the biggest barriers to our success are economic barriers, not scientific barriers. We need plentiful and affordable feedstock supplies coupled with highly scalable production facilities to support the industry. The best way to help is through a clean fuel standard. CA's LCFS has been very successful. It's early in the rollout but there is zero evidence that the LCFS has contributed to an increase in gas prices. I welcome the chance to share this research. The supply of biofuels has increase significantly as intended by the LCFS. We should be a leader and with the right policies, "Grown in WA" will no longer just apply to apples – but to the energy that powers America.

#201.

Sectors Addressed: General – Green Jobs

When you consider the policies, please stick to the basics. Money will follow if you make the right decisions. I don't want you to give incentives to companies that poison our environment just because they give us jobs. There are plenty of opportunities today.

Gary Piazion. Citizens Climate Lobby. #327.

Sectors Addressed: General – Carbon Tax

I am a physical therapist and in my spare time I am the President of the Whidbey Island Environmental Action Network and recently created the Climate Reality Education and Advocacy Team. I am also the co-founder of the Sustainable Whidbey Coalition, the co-founder of the Green Team at Whidbey General Hospital, and the co-founder of the Greening Congregation of Whidbey Island. I am here as the spokesperson for the Whidbey Island Chapter of the Citizens Climate Lobby and we are here to applaud and support you in this initiative. We support a carbon tax that would be revenue neutral and market driven. More and more economically conservative people and organizations are getting behind such a measure, such as Alan Greenspan and David Brooks. They are realizing that we have a problem and that no one

will make money on a dead planet. Life is priceless and we should begin to cherish that and make the rational choices that are before us. We have plenty of solutions; we just need the courage and wisdom to implement them. Catastrophe is certain if we don't.

Philipp Schmidt-Pathman. Zero Landfill Initiative. #273.

Sectors Addressed: Waste Management; General – Green Jobs

I've heard a lot tonight about coal trains, but what about garbage trains? There is a law in the European Union (EU) to move away from landfills. Every country in the EU has to show the Union how they plan to phase out landfilling. Germany, by this move, has reduced 30 to 60 million tons of CO₂ every year. They have also created approximately 450,000 jobs and retained about \$1 billion in their local economies by closing the loop. Two companies in the U.S. control about 80% of the waste and recycling operations. When you ask the question of where the waste or the materials go when they get recycled, we don't get the end of the line story. We need to set substantial goals to phasing out landfilling.

Keith Maw. Citizen. #291.

Sectors Addressed: Transportation – GMA; General – Carbon Tax

I am a retired planner and have worked under the Growth Management Act (GMA). I have a lot of experience looking at and analyzing climate change policies. My observations are: 1) without some sort of pricing on carbon, all the various solutions, regardless of how well they stand on their own, will not be adequate to meet the challenge of the scale of CO₂ reductions that are necessary for keeping the climate on the rails. I'm personally an advocate of the carbon tax but I don't think it really matters what the system is as long as it is predictable and fair across time. 2) The CLEW is placing some emphasis on the GMA to be a significant reducer of GHG. I don't think this is realistic assumption without significant changes to the GMA.

Paul Biribland. Energy Strategies Consultant. #46.

Sectors Addressed: Electricity – Energy Efficiency

In the process of my work, I interact with carbon emission verifiers and carbon offset verifiers and they will tell you that the CA cap and trade system is working and getting results. They will also tell you that it is probably the most complex and convoluted system ever devised by humankind. The innovation that it drives is too often the innovation that comes from Wall Street, and as far as I'm concerned, innovation from Wall Street is something I've had quite enough of. Along those lines, there is an approach to energy management that was actually pioneered here in the Northwest. It is basically applying continuous improvement techniques, or LEAN techniques, to energy management. I've seen phenomenal results from this. Not only do they have conventional savings from equipment upgrades but we are driving non-capital innovation that is changing the processes and human behavior, which costs nothing. We are seeing energy savings and savings in water use as well. This approach doesn't cost a lot to implement and I would advise that this should be included in your plan. The WSU Extension Energy Program knows a lot about this program.

Rob Smith. National Parks Conservation Association. #335.

Sectors Addressed: Electricity – Coal & Renewable Energy

I am the NW Regional Director of the National Parks Conservation Association, which is a non-partisan organization with more than 26,000 members in WA. The North Cascades National Park

is home to nearly 1/3 of all glaciers within the lower 48 states, and they are all in retreat due to the warming climate. That means less water and earlier runoff into the Ross Lake reservoir, making it more difficult to balance recreation, fish runs, and power generation. Customers from Seattle City Light receive 24% of their electricity from the Ross powerhouse. Mt. Rainier National Park is losing its subalpine meadows to forest as the climate changes. Paradise could literally become paradise lost as snowfall allows trees to invade where wildflowers now bloom. The Olympia National Park's glaciers feed the Elwa River and are now shrinking, causing 25% less stream flow in the summer months. The coal power plant in MT, which is 1/3 owned by PSE, contributes to the carbon in the atmosphere that is shrinking our glaciers. Please make PSE pay the full cost of using this plant or better yet, transition to clean energy. Our national parks are letting us know that carbon pollution is a problem. Please act before the last glacier melts and we can still pass on WA's natural heritage to future generations.

Menno van Wyk. Citizen. #40.

Sectors Addressed: General – Leadership & Carbon Pricing

I am a recovering former corporate executive who found great pleasure in starting and growing businesses large and small. I would like to suggest that we in WA have an opportunity to do something in the public arena that no one else has been able to do – be bold, stop doing business as usual, and leave behind the ideological, partisan, and political limitations that you believe you still have to pay attention to. This is an existential threat to our country. We need to lead in our typical Pacific Northwest fashion, and come up with public policies that will allow the creativity of the people around here to harness practical solutions in the private and public sectors. Put everything else aside – this is the biggest thing we have had to face in the last 200 years. I think pricing carbon properly, at a minimum \$30 to \$40 per ton, will allow us to harness our innovation.

Dan Evans. Promus Energy. #337.

Sectors Addressed: Transportation – Alternative Fuels

I am president of Promus Energy in Seattle and we focus on producing renewable natural gas from organic waste for transportation fuels. I want to urge you to support the clean fuel standard that is before us. It can be a very powerful driver for a clean energy economy here in WA. The Promus Energy model takes organic waste, primarily from the agriculture and food processing industry, and runs that through anaerobic digesters. On the backside we have an array of renewable products such as renewable natural gas, bio fertilizers, and renewable peat moss substitute. We get carbon credits. Our first project in Central WA is converting existing digesters or building new digesters and converting them from electricity, which hasn't been economical, to fuel. Our product is half the price of diesel and with incentives we can be cheaper than gas from fracking.

Tara Anderson. Sustainable Works. #138.

Sectors Addressed: RCI – Existing Building Stock, Advancing Building Codes; General – Green Jobs

We would like you to invest in local and State energy programs that improve the energy efficiency of the existing building stock. If we are going to make advances in CO₂ reductions we can't focus only on new buildings, and we need to retrofit what we have now. We urge you to take an aggressive approach to guarantee that energy efficiency be achievable for all populations

and ensure we take a conscious approach to cost-effectiveness that allows for living wage careers. Our organization is an example of how to do this. Advancing building codes is one strategy we can employ to help address climate change. However, I would like to remind you that while our current codes place no restrictions on green construction, (I'm not sure how many of you have tried to get an innovative new building through the permitting process) it's not easy. We need to invest in educating building officials and encourage them to become comfortable with non-traditional construction techniques as well.

Rose DeFawe. Environmental Scientist. #247.

Sectors Addressed: Electricity – Coal; General – Public Health; Transportation – Public Transit

Today I would like to focus on cancer. One in 20 cancer cases are linked to genetics and the rest are caused by damage to DNA from something in our environment. We have been burning coal since the 1880s. Since then, we have found out that burning and mining coal releases cadmium, chromium, lead, nickel, mercury, beryllium, arsenic, thorium, and radioisotope strontium, in addition to hydrocarbons and volatile and organic carbon. These toxins are released into our soil, water, and air. When it's in the soil, plants that we eat uptake the toxins. Many of these toxins are carcinogens. Also, lead poisoning is very difficult for our children. I support clean, non-toxic energy. We need to phase out coal in addition to supporting public transportation like trains.

James Dailey. Micro Energy Credits. #283

Sectors Addressed: Electricity – Energy Efficiency; General – Carbon Pricing

Micro Energy Credits is a WA based company that is transacting in the global carbon market. In 2012, my company won the King County green company of the year award. We make it possible for those in developing countries to make clean energy choices. This is made possible by the existing carbon markets in Europe and voluntary offsets by leading American companies. Carbon markets work and they can work here to enable better energy choices. In Mongolia, one of the individuals we work with spends 40% of her income on fuel in the Winter. By purchasing a home insulation kit and a fuel efficient stove from us it reduced her fuel expenditures by 50%. This has been good for the health of her child and lets her save money. We've reached over 100,000 households and over 1 million people. This is the equivalent of 500,000 tons of carbon emissions reduced or 94,000 fewer cars on the road. The European markets spurred our innovation and allowed us to create a new model. The current instability in the market is a big issue for us. We need stable carbon markets. We need design features like a price floor. We need a price on carbon.

Jeff Hughes. Seattle Children's Hospital. #113.

Sectors Addressed: General – Public Health, Disincentives, & Carbon Sequestration

I want to piggy back on what the CEO of the American Lung Association said. Our largest patient population at Seattle Children's Hospital is asthma sufferers. A lot of what I wanted to say has been said. A couple of other things I wanted to note are that one of the things that is important when talking about a carbon tax is to include carbon sequestration. We also need to use disincentives as much as we use incentives. One of the things we've learned when we were developing our transportation system, which has the third largest shuttle fleet in WA, is that once we had a balance between incentives and disincentives, learning took place. Once that took hold,

the system worked a lot more effectively. Finally, we have turned on a Ferrari engine once we hit 450 ppm. We need to take our foot off the gas.

Brad Warren. Citizen. #125.

Sectors Addressed: General – Ocean Acidification & Carbon Pricing

I grew up in a fishing family. My family lost a lot of things when the dams went up and this taught me that habitat matters. When I learned about ocean acidification, I realized that this is a bigger problem than we have ever seen before. It wasn't difficult for those in the fishing and seafood production industry to be convinced that something needed to be done. We have 42,000 jobs in WA and \$1.7 billion in trade that are dependent on the fishing and seafood markets. If we don't reduce carbon we will regret it. I support putting a price on carbon. Not everyone that I work with would agree with that. However, if you burn carbon for a living, you need to be able to live with the policies we create or else you will be stuck so bad that you are working against progress. We don't want to make these people the enemies of the state; we need to help them win by solving the problem and supporting their future. Let's design this correctly.

Matt O'Laughlin. K2 Sports. #116.

Sectors Addressed: General – Green Jobs

K2 Sports is based in Sodo and has 250 employees in Seattle, with 450 employees worldwide. We started on Vashon over 50 years ago and in this time we have become snow farmers. If it doesn't snow, we don't have customers. Clearly this impacts the livelihood of our employees, athletes, retailers, vendors, as well as our customers and the financial health of our business. The NRDC put out a report about the jobs and revenue tied to the winter tourism industry. In the U.S., this industry generates \$12 billion in revenues and supports 212,000 jobs along with \$7 billion in salary. In WA, winter tourism supports 6,000 jobs and \$348 million in economic revenue. It is projected that there will be 40% to 70% decrease in snowpack in the Pacific Northwest by 2050.

John Carrol. Silicon Energy. #72.

Sectors Addressed: Electricity – Renewable Energy; General – Green Jobs

Last year, Silicon Energy produced almost 2 megawatts of made-in WA solar modules. WA is the birth place of solar technology and we are proud to carry on that legacy of green energy. Our product is well known for its robustness, durability, and performance. Economically, we are looking at the continuation of a performance-based incentive, which will continue to promote local manufacturing and innovation. Solar, when it is locally produced, produces about 13.5 jobs for every million dollars spent. I think you should look at what Minnesota's and Austin's municipal utilities have been looking at, which is an alternative to net metering known as the value of solar. The value of solar is an objective methodology that evaluates distributable generation that is produced in very close proximity to where it is utilized. When combined with the buy all, sell all tradition that keeps the utilities whole, it often replaces the utility's objections to solar. Finally, we would like to make sure that when you are talking about leasing with the PSE model you balance that with local manufacturing.

John Sherwin. Citizen. #203.

Sectors Addressed: Electricity – Renewable Energy & Coal; General – Leadership

I am a small business owner and an activist with the Coal Free PSE Campaign. One of the most important steps we can take in reducing our GHG emissions is shutting down the PSE coal plant. We need a new energy system that will drastically reduce carbon pollution, maximize national security, and stimulate innovation. We no longer have the luxury of time, but the good news is that we can do this quickly and already have roadmaps in place. We can look at the Sierra Club's replacing coal report and the Rocky Mountain Institute for a roadmap on how to do this. WA State has tremendous expertise and we are uniquely posed to lead the country into a clean energy era, revitalize the State's economy, and create a blueprint that can be used nationwide. We can be the first U.S. state to go off coal and create new technologies that can be exported around the world. We can make changes to our transportation systems and make our homes and buildings more efficient. We can help create a new agricultural system that sequesters carbon and produces more nutrient-rich food. We need to think big and act decisively and boldly.

Mike Doherty. Clallam County Commissioner. #80.

Sectors Addressed: Electricity – Renewable Energy; General – Real Estate & Climate Justice

I want to submit three studies to the record: 1) comments before the House Energy Committee by the Secretary of Energy. He outlines a common sense approach to the casual relationship to the problem and he urges dramatic action. 2) September 2013 report by James Hanson, where he outlines the dramatic consequences of inaction. 3) A report on climate vulnerability in Clallam County. If you look at this study, you can apply a lot of the lessons and concerns to the lowland areas around Puget Sound. It includes precipitation changes, ocean acidification, sea level rise, coastal flooding, and human health issues. One thing people haven't mentioned is that some of the most expensive property in WA is the lowland areas in Puget Sound. I hope you look at these studies and try to find allies in the real estate industry. If they want to keep selling these parcels, they need to do something to save them. We also need to consider our treaty obligations with the tribes. In order to avoid litigation, we need to pay attention to our duty as co-managers and our obligations to the shellfish and fishing industries. We should also prioritize solar.

Karin Frank. Washington Interfaith Power and Light. #4.

Sectors Addressed: Transportation; General – Carbon Pricing

I am here to represent the religious response to climate change. There has been unanimous support from religious organizations to address climate change and climate justice. I want to name a few of the faith traditions that have stated that it is time to enact climate legislation: World Council of Churches, World Alliance of Reformed Churches, Church World Service, National Council of the Churches of Christ, YMCA, the Salvation Army, American Baptist Church, Alliance of Baptists, Southern Baptist Church, Roman Catholic Church, Orthodox Ecumenical Council, Episcopal Church, Church of the Brethren, National Association of Evangelicals, Christian Reform Church, Evangelical Church of America, the Mennonite Church, Presbyterian Church of USA, American Friend Society, the United Church of Christ, United Methodist Church, Reformed Church of America, Unitarian Universalist Church, Muslim World League, Baha'i Faith, Shinto Faith, International Buddhist Confederation, the Jane Institute, countless indigenous organizations, the World Jewish Congress, the Jewish Council for Public Affairs, Reformed Judaism, Renewal Judaism, Conservative Judaism, Council of the Religious Institutions of the Holy Land, the United Religious Initiatives, and the World Council of

Religious Leaders. We support taking strong action including a cap and trade system, taxes on carbon, and transportation reform.

Ryan Lamberg. National Biodiesel Board. #157.

Sectors Addressed: Transportation – Alternative Fuels; General – Green Jobs

I want to thank you for your leadership around the clean fuel standard. This will bring a lot more money into the State. I think a lot of people have repeated the concepts but it is important to understand that by producing more in-state fuels we will not only improve production but also the regional economy. We will be able to keep all the money that may leave the State if we don't take bold action. For biodiesel, this is a real fuel and we have produced over a billion gallons over the last couple of years. This is actually being produced and making changes for the producers, restaurateurs, and farmers. There are 150 plants across the U.S. A clean fuel standard will support more investment in WA. The solution to volatile fuel prices can be a clear price signal to the market through the clean fuel standard, bringing jobs to WA.

Silver Moon (Pamela Johnson). Sierra Club. #331.

Sectors Addressed: Electricity – Energy Efficiency; General – Environmental Education

I was so happy to see that King County was replacing the libraries in the eastern section of the county during the recession. It signaled that libraries were a high priority. However, when I went to visit the libraries I couldn't determine if it had an energy efficient design. There were no signs of energy efficiency. This is an example of how we need to create a hoop and determine what we want. The most important thing to do is decrease our carbon emissions. I think this will entail fireside chats, education, and time on television to show how we will change the way we are doing things. Every project that is taken on should be looked at through green eyes. I think you will find huge support of this.

Steven Gelb. Emerald Cities Seattle. #76.

Sectors Addressed: RCI – Existing Building Stock; General – Green Jobs; Electricity – Energy Efficiency

Emerald Cities Seattle is a collaborative group between businesses, labor, the community, and the government dedicated to protecting our environment and building our economy primarily through retrofitting buildings. Buildings use over 30% of our energy in WA and account for a significant part of GHG emissions. We have what we need to make buildings more efficient including a skilled workforce, training programs, contractors to do the work, and capital. However, because of our low energy rates, retrofits are not happening to scale. We can only incentivize business owners so far. We need new mechanisms such as: 1) local authorities to enact energy efficiency property tax credits for multifamily buildings to overcome the split incentives between renters and owners. 2) We need to continue to support proven models such as the Renewable Energy Community Efficiency program that provide a one-stop shop for consumers. We need to replicate that in multifamily buildings and the large and small commercial building sectors. 3) A price on carbon may help but only if it's high enough that it will send the appropriate signal to business owners and incentivize them to action. Instead we think a performance-based building code with required efficiency standards that are supported by one-stop programs is a great solution for us.

Brock Howell. Cascade Bicycle Club. #190.

Sectors Addressed: Transportation – Land Use

I grew up in Central WA on a small farm. My freedom was riding my bike into downtown Prosser. When I-82 was built I wasn't able to safely get into town anymore. It also hurt my community. Businesses started closing down as individuals were able to head to big box stores instead. Transportation and how we invest in it is very important. To address climate change, we will need to address transportation. There will be a million and half people that will move to the region in the coming years. We need to invest in electric vehicles and other ways to get the million and a half people around. We need to make sure that local governments have the authority to address public transportation, including walking and bike paths. These are easy tools to invest in as long as we reprioritize our transportation dollars and the State priorities filter down into the local governments.

Kathy. Citizen. #251.

Sectors Addressed: Electricity – Renewable Energy & Energy Efficiency; General – Public Health

I am a walker, runner, bicyclist, and hiker. I'm concerned about the air I breathe. Solar and wind should be encouraged and made affordable to all. There is no such thing as clean coal, whether it is burnt here or overseas like China, where the trade winds blow it back into our front and back yard. I remember growing up and taking 3 minute showers, driving 55 mph to save gas, and turning the lights off. We need to get back to thinking about energy efficient actions. Clean energy will lead to a clean environment. I want WA to be a place that I am proud of.

Lars Johansson. Co-chair NW Energy Angels. #20.

Sectors Addressed: General – Green Jobs & Carbon Pricing

We are trying to create a vibrant, clean tech economy here in the Northwest. With 70 members, NW Energy Angels invested \$4.2 million in 15 companies last year. Today I'm speaking for myself, and I am very much pro-business. I think we need to actively engage capitalism and entrepreneurs to help develop solutions for climate change. For that to happen, we need government to play its part. I strongly support many of the proposed policies, such as the clean fuel standard and appliance standards. I'd like to spell out the importance of carbon pricing. When determining which companies to invest in, we do not look at companies that rely on government subsidies. We also do not want their competition to be unfairly subsidized. I'm not talking about explicit government subsidies but rather the fact that carbon emissions are free. That is a market disturbing subsidy. We think this needs to be addressed. For those that deny the science, we are already seeing costs through public health as demonstrated by respiratory illnesses and the like.

Mary. Citizen. #96.

Sectors Addressed: Electricity – Natural Gas & Renewable Energy; Transportation – Clean Cars

I want to speak about GHG emissions associated with the use of natural gas. It has been called clean, but the evidence has been growing that natural gas leakage makes it no better than diesel or coal, especially if it's coming from fracking. EPA has been using industry estimates to estimate leakage. Recent independent studies show that leakage is somewhere between 4% and as high as 15%. Simply put, natural gas is methane and its warming potential is much higher than

CO₂. If we assume the 4% leakage rate, it puts natural gas's warming potential equal to that of coal and higher than diesel. The replacement of coal with natural gas would be a mistake. We should use solar, geothermal, and wind instead. Please pass on using natural gas for transportation fuels and increase the use of electric vehicles.

Lisa Marcus. 350 Seattle. #251.

Sectors Addressed: Transportation – No Car Day

My outside the box idea is to have no car days, for example one Sunday a month. I just want you to be brave and do the right thing.

Eric Berman. NW Energy Angels & E2. #74.

Sectors Addressed: General – Green Jobs, Leadership, & Carbon Pricing

We see about 30 companies a year through NW Energy Angels, which is strong evidence that there are business opportunities for sustainable technology and clean fuels. The biggest challenge is the implicit subsidies that the fossil fuel industry is getting through the lack of price on carbon. This is the single, largest thing you can address. By ensuring WA leadership on clean energy and policies, the innovations we develop here will be something we can export to other areas. In China and Scandinavia, we saw two governments making sustainability a priority and crafting policies to ensure industries are moving in the right direction. They are doing this because people are demanding it. The most striking thing we saw in both countries was that since 1990, GDP doubled, energy was flat, and carbon was down by 20%.

Carlo Voli. 350.org. #367.

Sectors Addressed: Electricity – Renewable Energy; General – Environmental Education

I helped implement the Edmonds Community Solar Cooperative. I would like to see policies encourage in-state production of renewable energies. This would include improving and extending the solar incentives that are set to sunset in 2020. I would like to see a big campaign to educate residents to reduce the amount of idling we do in our cars – waiting for ferries, trains, and bridges to lower. However, none of the ideas will make much of an impact if we allow our State to become a fossil fuel corridor. We should have no new infrastructure to transport, refine, or export fossil fuels. It would be like trying to end an addiction to drugs while continuing to deal drugs. We should also stop bringing tar sands in. I hope that with the clean fuel standard, we can eliminate tar sands oil for good.

Stephanie Meyn. Washington Clean Cities Coalition. #91.

Sectors Addressed: General – Carbon Pricing & Cap and Trade; Transportation – Alternative Fuels

We support renewable fuels and advanced vehicle technologies. We would like to see carbon market policies that result in transportation emission reductions either through a cap and trade system, carbon tax, or the low carbon fuel standard. We are especially interested in seeing the low carbon fuel standard implemented in WA. We need these policies to result in a reliable, stable market for renewable fuels. This will help shift our transportation industry into a new era of clean fuels. Last year alone, members of our coalition eliminated 15 million gallons of petroleum through the use of local, sustainable fuels. This in turn, reduced 97,000 metric tons of carbon and prevented \$38 million from being spent outside the State on foreign oil. More is possible and more is needed to hit the reduction targets. We need a level playing field to allow these domestic

fuels to get a foothold in WA's markets and be accessible to everyone. This work will allow us to expand, as well as help the State's economy and improve human health.

Sara Patton. NW Energy Coalition. #179.

Sectors Addressed: General – Leadership; Electricity – Energy Efficiency & Renewable Energy

Failing to address the causes of climate change will be more expensive than not acting now. It is critical to understand the economic benefits, not just the cost of investing in change. I appreciate your leadership so that our business can have the ability to benefit from the process of change and not be subject to the burden. No silver bullet policy by itself will allow us to achieve our goal. We need to maintain and augment the I-937 goals to keep us on the correct path. SAIC stressed energy code improvements. This is the type of policy that would drive innovation. Our State's Building Council needs more resources to work effectively with building owners to achieve these goals and create low-carbon buildings. The State should signal to the marketplace that carbon dioxide emissions come with limits and costs, while supporting development in clean energy and at the same time allowing the market to determine solutions.

Richard Voget. Plant for the Planet. #14.

Sectors Addressed: General – Leadership

I want to talk about timing. The UN Climate Change Panel generated four different scenarios for 2100. Only one of these scenarios would produce a climate change of 2 degrees. To get that, global emissions would need to peak in 2020. That's only 7 years away. I want you to propose something bold and stay with it. When the compromising starts, just keep telling them they only have 7 years. If you don't you will be stealing our future. I want to make sure that the future we give our children is not horrific.

KC Golden. Citizen. #37.

Sectors Addressed: General – Leadership & Carbon Pricing; Transportation – Alternative Fuels

Tonight you've heard a lot of passionate remarks from a number of communities around the State that are hungry to be a part of the solution. This issue is big and it has a lot of solutions, but at the end of the day, it's not that complicated. It's about the will and having a public policy infrastructure – not a set of incentives – that can unleash all that optimism and all that willingness to be a part of the solution. Everyone is concerned about cost. Nothing, however, will cost as much as standing in the middle of the road and letting this thing run us over. The great news is that we have the ability to engineer the solutions and actually be leaders. A few simple public policy tools can help us do it: 1) responsible limits on climate pollution; 2) an end to free carbon dumping; and 3) a real transition to clean fuels in this State. These are all things that are already on your list, are ready to go, and that the people in this room are dying to be a part of implementing.

Closing

The Governor thanked everyone for attending. The meeting was adjourned at 9:15 p.m.