BEFORE THE NORTHWEST POWER AND CONSERVATION COUNCIL

Public Hearing on the Draft Sixth Power Plan
Portland, Oregon

PUBLIC HEARING
Wednesday, October 14, 2009
6:00 p.m.

APPEARANCES

Board Members

Melinda Eden - Oregon Member

Joan Dukes - Oregon Member

Dick Wallace - Washington Member

NWPCC Staff

Jeff King

Leann Bleakney

Karl Weist

Sandra Hirotsu

Mark Walker

Carol Winkel

John Shurts

Ken Corann

Charlie Grist

PUBLIC HEARING

PORTLAND, OREGON

6:00 P.M.

MS. DUKES: If everybody would take a seat. I'm Joan Dukes. I'm an Oregon member of the Northwest Power and Conservation Council. On my left is Melinda Eden, the other Oregon member of the Council and then sharing the floor today, and to her left is Dick Wallace, a Washington member of the Council. We welcome you here tonight to the last evening of the public hearings on the Northwest Power and Conservation Council's Draft Sixth Power Plan. There's a hearing tonight in Idaho Falls, so this is the last evening of our public hearings and our public outreach, although you can still give written testimony.

We have a number of staff here tonight, and I'll probably miss some of them, so sound off if I do. We're going to give an overview this evening of the plan, and then we're going to take in your public testimony right up here. And if you have not signed up already, please go to the entrance and sign up if you want to speak. Let's see. We have Mark Walker over here with the camera from Council

staff. Jeff King is with us here, and he's going to give you the overview. And Charlie Grist and Sandra Hirotsu is here at the entrance, and I know that John Shurts was -- is back here, so we have a number of staff here. Did I missed any staff? Apparently not.

Before we get started, we have a statement that we read at the beginning of every hearing, and Dick Wallace is going to give us that statement.

MR. WALLACE: Thank you, Madam Chair. Welcome to the public hearing held by the Northwest Power and Conservation Council on the Council's proposed Sixth Northwest Power Plan. The Northwest Power Act directs the Council to develop a regional conservation and electric power plan and to review that plan every five years. The Council is now engaged in its latest five-year power plan review. As part of this effort, the Council released a draft revised power plan on September 3rd for public review and comment.

The Council will be taking written comment on the draft Power Plan until November 6. The Council has also held public hearings like this one on the draft plan in all four Northwest states between now -- or since September and now.

If you would like to comment at this hearing, please sign in on a sheet provided for that purpose. You may also leave written comments with us this evening if you desire. Your comments will be recorded, placed in the Council's administrative record for the power plan review, and, most importantly, considered carefully by the Council as it makes its decisions on the final power plan later this year.

For more information on the proposed Sixth Power Plan, including the text of the draft plan itself, please visit the Council's website at www.nwcouncil.org. You may submit comments by using the "how to comment" link on the web page devoted to the draft Power Plan. Thank you.

MS. DUKES: Jeff, you want to give the overview?

MR. KING: Thank you, Joan. I'm going to see if this microphone works. Okay. I'm Jeff King. I'm with the power planning division of the Council. And what we have here is a fairly brief overview of the plan which provides basic background information regarding the plan and its findings. The goal of the plan, like the last plan of the Council, is to recommend a -- so much for the cord. That doesn't

work either -- is to recommend a low-cost, low-risk resource strategy to assure the region an adequate, efficient, economic, and reliable power system while supporting the implementation of the fish and wildlife program.

In preparing the plan, we look at a very broad variety of resources, both energy efficiency resources as well as generating resources, that could be developed in the future to meet both future electrical needs in the region as well as possibly replace some of the existing resources in the region. And shown in this chart is the array of resources that we examined for this plan, ranging from conservation over here on the right to the utility scale affordable pace -- I mean over here on the left, I'm sorry -- the utility scale affordable pace over here on the right. These are ranked in order of their megawatt cost, cost per megawatt hour of electricity, a megawatt hour meaning 1,000 kilowatt hours, which is a unit of electrical energy that most people are familiar with.

So here we have conservation which, on the average, is about $35 -- $30 per -- that about $30 a megawatt hour. Over here to the utility scale affordable pace that, over the lifetime of the plan,

would produce electricity at about $200 per megawatt hour. There are three resources on this chart that play a particularly important role in the plan. One, obviously, is conservation which is, as you see from this, the least-cost resource of all the ones that we looked at, and least cost by far. There's just no comparison with any other generating resources.

Another resource that plays a very important role in this plan is wind power. This particular bar over here represents the cost of wind power from wind projects developed in Oregon and Washington coming in at just a little bit less than $100 per megawatt hour.

And a third resource I would like to direct your attention to is gas-fired combined cycle plants, which is this bar here, coming in at a little bit less than $100 per megawatt hour. It's different than any others in that you see this orange piece on the top. You see that also on these as well. What is that orange cost component? That orange cost component is the carbon risk component. It's the present -- it's the levelized cost of our forecast of future carbon prices, and we've incorporated that into our estimated cost of fossil

fuel resources, being the resources that produce carbon dioxide.

Looking at the conservation. Here again, here we have the number of hours of megawatts of cost-effective conservation, and we can see that through all the cases that we looked at -- we looked a number of different scenarios, and for all of these scenarios, we find that 5- to 6000 megawatts of conservation, which is a vast majority of available conservation over the next 20 years, is cost-effective. And to give you a sense of the magnitude of that number, the current electricity consumption of the Northwest as a whole is about 20,000 average megawatts, so we have enough potential conservation available over the next 20 years to equal about one quarter of our current electrical consumption in the Northwest.

There's a few findings regarding conservation. As we've seen from the charts, the least cost of all the resources, there's enough of it to meet potentially 85 percent of demand growth over the next 20 years. Two nice attributes of conservation are that it avoids a risk in volatile fuel prices because it's a non-fueled resource, and it avoids the risk of potential carbon penalties,

it's a non-carbon-emitting resource, so its cost effectiveness is retained even if we have, say, carbon allowances -- have to purchase carbon allowances in the future. It contributes to meeting peak demand as well as our annual energy needs, and it creates local jobs and economic activity.

Findings with respect to renewable generation. Wind, as we saw on that chart, is cost competitive with other generating technologies. It's right down there on the lower end of the generating technologies to the right of that chart. There are other generating -- there are renewable resource technologies down over on that left-hand side of that chart, but they tend to be available in very limited quantity. Wind is different. Wind is available in very large quantities. It's commercially available, and it's a mature technology. And as a renewable, it avoids the risk of volatile fuel prices because it doesn't take fuel to operate once the plants are constructed, and it does not emit carbon, so it's a risk-free resource in terms of future global climate control policy. However, the variable output of wind does create integration challenges for the power system.

Natural gas, the third important resource

in this plan, does carry fuel price risk, but has much lower carbon emissions than coal, roughly a third of the carbon emissions of a coal plant, and some utilities may need to acquire natural gas plants in the near-term to provide energy capacity for wind integration services. Two of the attributes that natural gas brings to the table that are needed into the future is the ability to provide peak capacity at those times that we absolutely need the power. You can't depend on the wind to any great extent. You can depend on natural gas-fired power plants. That's a very important role of the technology. The other role is providing integration services. In the longer term, gas generation may also be needed to protect against high carbon costs. You can read that as -- as a substitute for other resources that emit more carbon which is coal.

And here's the portfolio of the plan put together over the 20-year period of 2010 to 2030. These are the resources that we see being developed in the -- under the expected value case. We see the bulk of the resources being developed is conservation, up to about 5,700 megawatts to 5800 megawatts on average. Another 1,400 megawatts of renewables, that's represented by this gray bar,

would be to developed to meet state renewable portfolio standards. Another 400 average megawatts of energy from what we've called discretionary wind, which is wind that's cost effective over and above the wind and other renewables that are called for by state renewable portfolio standards, and a relatively small amount of discretionary geothermal, simply because there doesn't appear to be a lot that's commercially available, and a little bit of gas combined cycle and some gas peakers which don't show on here because they only tend to operate only at times of peak need.

In terms of carbon risk, 88 percent of the carbon dioxide that is produced from the power system in the Northwest comes from coal fired power plants. That leaves the obvious conclusion that a significant reduction of carbon dioxide reduction has to come by displacing the operation of coal fired plants, and this -- (applause). If coal is -- the use of coal is reduced, natural gas generation will probably have to play a larger role because it will -- we will need substitutes over and above available renewables for that existing amount of coal.

The various scenarios we looked at, nearly

all of them reduce carbon dioxide production over historical levels. For the 1990 levels, 2005 levels, all the scenarios we looked at, the only two which it increases are scenarios in which we have no carbon control policies, and these two scenarios where we actually forced the removal of the coal plants, you can see we get a very significant reduction in carbon dioxide and a moderate amount of reduction in all of the other cases.

The heart of the plan, in a sense, is the action plan, the recommendations of the plan, and this is a summary of the recommendations that probably, if you counted them up, would be a hundred different individual actions that are called for. We tend to fall into these categories: "Acquire 1200 megawatts of new conservation by 2014." "Acquire new generation as required to meet state renewable portfolio standards with special efforts to acquire small-scaled renewables for generation." Those are the little guys that aren't available in abundance like wind is, but there is a lot of cost -- there is some cost effective resources of that type available. "Purchase additional cost-effective generation that's needed for energy firm capacity and flexibility." This is likely to be natural gas

generation. "Improve power system operating procedures to expand the ability to integrate wind power." We're going to need a lot more wind power, and we have to balance that wind power because it's an intermittent resource, and that's going to require being able to tap into the existing capability of the system to do that and perhaps expand that capability.

And, finally, there is an array of promising resources that are available to the Northwest. Some are unique to the Northwest like we have essentially the best wave power resource in the entire North American continent. We have excellent offshore wind resources, there is a potential for enhanced geothermal that's unique to the Northwest, and we're recommending that we aggressively tackle the research and development demonstration needed to bring those resources to the table, so that in the future we will have a wider array of low-carbon, cost-effective resources in development.

Do you want to -- is there any questions? I suppose we can field them at this time.

MS. DUKES: Sure. I suppose we can take a couple questions.

MR. KING: Sir?

AUDIENCE MEMBER: With all the money that's coming out of Washington, DC, right now for different projects to produce jobs, etcetera, are you guys tapping into that to do the research and hire people to do the new research that's coming, the wave energy, that kind of -- I mean are you tapping into that money?

MR. KING: Where's Charlie?

MS. DUKES: There's Charlie.

MR. KING: Charlie, We have a question that you might be able to --

MR. GRIST: Are we taking questions? I didn't know this was a Q and A session.

AUDIENCE MEMBER: I'm curious because there's a lot of money in Washington, DC, right now that they keep telling us to expect, so there's some money someplace. In the resource part, the wave action, the new energies that are coming onboard, are you guys tapping into that money to get -- to create new and interesting jobs?

MR. GRIST: Sir, I think you're talking about the American Recovery Act money, and there's a lot around, that is being used to a point by researchers around the county to develop that stuff. So I don't know -- I don't know if we have a good

report of where it's all going now, but it is all -- a lot of it is getting spent on research and development.

AUDIENCE MEMBER: But are you going to tap into that somehow? Who wants -- I need some money.

MS. DUKES: Just one other question here because we do need to get to the testimony.

AUDIENCE MEMBER: Very quick. I just want to know where we can get the details of how you came to the analysis of those localized costs.

MR. KING: They're in Appendix I of the plan. If you go to our website, www.nwcouncil.org, and click on "6th Power Plan", the table of contents will come up, and you look on the appendix side. There's a few incomplete sections to the appendix side. We're trying to get the complete thing up there over the next couple of weeks.

MS. DUKES: Okay. We'll start with testimony. And we just have a couple of requests. One is that when you -- before you start speaking, that you identify yourself and spell your last name, so we can get it right for the transcript. And the other is that you attempt to confine your comments to about three minutes. That will help us to get out of here, maybe, by about 8:30. Actually, there

is one other, and that is because there are so many people here this evening who want to speak, to keep things moving, if somebody else has already said the same thing that you want to say, it's okay just to comment that, you know, you agree with so-and-so on this particular topic, and then we can keep moving. The first one on the list is Angus Duncan. Next is John Prescott, and then John Saven.

ANGUS DUNCAN: Thank you, Council Members. My name is Angus Duncan, D-u-n-c-a-n. I hope someone on the Council remembers how to spell that. I'm speaking today -- I'm president of the Bonneville Environmental Foundation and chair of the Global Warming Commission. I'm speaking in that latter capacity tonight, although my testimony is my own, it's not the commission's. And I'm also speaking in some part as a former Council member who is deeply invested in your process, and your products, and your success, an investment that runs all the way back to the writing of the Northwest Power Act in 1980.

So I want to first express my appreciation for your labors since this public hearing process. This is -- the intwined issues of climate and energy are of unparalleled significance to this region, to

the world, and informing that today and inviting citizen dialog on these issues, I think, is no less important for the Council than the plan that you eventually adopt. I think the members of the staff are to be commended for the Sixth Power Plan which has significant strengths, especially in the areas of our most traditional strength, energy conservation, where we really set a mark for the rest of the country to try to follow historically. Staff analysis is, as expected, thoroughly professional. I've got some questions about some of the conclusions and some questions about the sufficiency of the questions posed by the plan. Let me try to just go down and give some bullet points if I can.

On energy efficiency, I think that certainly the recommended target of at least 5,800 average megawatts in conservation resource is a significant step forward for the Council and for the region. It does invite a couple of questions that I would put on the record. One is that I was not able to find any discussion of load shifting or space and water heating in the conservation chapter. Maybe they're somewhere else, but I couldn't find it, and if it is not there, then I think it perpetuates the

chronic failing of all the power plans of which I am aware. Demands for carbon efficiency reinforce the need to efficiently match resource to load.

Secondly, I have to infer from comparing the energy efficiency targets for the two most significant cases, I think in my mind, the $0 to $100 a ton, the carbon case, and the energy case, they only differ by about 16 average megawatts out of 5,800. I have to infer from that that the plan reflects current conservation technologies, but it still imposes a commercially available constraint on technology responses. For example, the draft acknowledges the availability of new LED lighting, but it appears to limit its expected applications to street light, parking lot, and outdoor area lighting. At current costs, those limits probably make sense, but those costs are clearly going to come down over the 20-year period. The technology may even -- probably will even be supplanted by a more carbon and cost-efficient technology. There's all sorts of options that you have not identified, and this is still more likely that it's on a carbon count, that stirs our collective, innovative juices as people and as companies. Examples of that kind of technology maturation and market penetration

occur, they abound, but we historically, as a Council, have just extrapolated from past regional experience, and we put a cap on it to where the technology is today. The Council's plan should include at least one scenario in this with steeper curves for efficiency gains and where it addresses a battery of storage technologies, electric vehicles, and solar efficiency and cost gains, among other emerging options.

With respect to climate goals, as a former Council member who with -- another member of the Council staff member is Tom Foley who first put the issue of climate in the power plan deliberations about 18 years ago and who has lamented the Council understating that significance since. I really appreciate the level of analysis included in this draft plan. It is a long overdue and vast improvement over prior plans. At the same time, the Council's draft significantly undershoots at least the Oregon and Washington adopted target reductions. It seeks to achieve 2030 emissions levels, by my calculations, 16 percent below 1990 levels, but Washington is targeting a 25 percent below 1990 levels for 2030, and for Oregon, if we interpolated the 2030 value, it would be about 23 percent below

1990 levels. The Council should have at least one case that treats these as hard constraints rather than risk factors, and these set levels may themselves prove too cautious if, as it is likely, the industrialized western world is compelled to produce emissions further and faster to accommodate emerging economies in China, India, and Brazil, and other countries, while the combined national plans still have to be besides the base goals set by the IPCC.

So our goals in Oregon and Washington probably are still conservative compared to what we will have to be. And I acknowledge it seems a little ungracious of me not to accept this very material step forward in treating climate in this draft because they are meeting for greenhouse gas reductions that you're targeting, but physical science, as I know you know, are neither gracious nor forgiving, and the Council needs to plan for a more aggressive reduction in greenhouse gases than it's planning for right now. And I'm not going to speak to the -- (applause) -- and I'll just leave the rest of my testimony for the record.

With respect to the plan's recommendations for coal, if we are in the carbon extreme regulatory

regime, and I hope we will be soon nationally, then I'm inclined to generally be agnostic on utility resource operating strategies. That is to say, the utilities in compliance with this enforced carbon cap, its resource strategies for doing so should be largely deferred to, but I would put a couple of important qualifications on that.

First, the idea that coal plants can be kept in reserve to be dispatched intermittently or mothballed rather than retired seems it's going to be pretty problematic to me. Maintenance costs, upgrades to meet evolving clean air and clean water standards could be significant expenses to load onto a mothball plant much as the ongoing ordinance discussions will attest. In the best of times, this will create perverse incentives to keep them operating, and in economic downturns like the one we're in right now, the political pressure to return the plants to base load service will be very great. At the same time, we're not seeing a lot of successful movement toward the clean coal technologies that promise us a low-carbon or carbon-free set of emissions for coal, and if we're relying heavily on conservation for replacing this resource, then I would argue that coal retirement does not

present an insurmountable cost barrier. With the expected FRUC allowances under the Waxman-Markey Climate Bill, those costs may be a wash or even negative. We did an analysis for the State of Oregon's Carbon Reduction Plan in 2006, and it suggested that meeting our 2020 goal under the light to medium to low growth conditions and relying largely on the same energy conservation your plan does to displace coal, we achieve ratepayer cost savings on average. Now, I have to emphasize "on average" because another analytic contribution I think the Council could and should make is to look not just at the average regional costs of meeting its goals, but also to look at the somewhat uneven distribution of these costs, positive and negative, across the region.

Let me close with a kind of longstanding general observation of mine on the Council's power planning process; that its great strength is in the professionalism of its analysis, and its weaknesses, when they show up, are most often a failure of imagination. Those are -- that's a quality in those models, try as we might, they just cannot supply. I submit that a failure of imagination lies behind the Council's slowness to fully incorporate the

challenge of climate change in its planning. The Council and EPA, I think, both missed wind's potential for very rapid regional deployment, and it leaves us playing catch-up with planning and integration issues, and Council plans, as I have already said, I think have been chronically technology conservative. We just stop too often at the water's edge. We wonder too little of what is over the horizon. In retrospect, my great regret of my time on the Council is that I didn't ask enough what-if questions. I asked enough of them to be double-staffed pretty regularly, but I still didn't ask enough of them. And if you're asking them, I'm confident that your staff and your state public, including the folks in this room, are capable of responding, and that you will end up adding still a greater value to the region to meet its energy and its climate goals. Thank you.

MS. DUKES: Will you have written testimony?

ANGUS DUNCAN: Yes. Thank you.

MS. DUKES: John Prescott.

JOHN PRESCOTT: Thank you, Council Members. I'll try to keep my comments to three minutes. I'm John Prescott, P-r-e-s-c-o-t-t. I'm

the president and CEO of PNGC Power. We're an energy cooperative, generation and energy cooperative, based here in Portland, and we're owned by 16 distribution cooperatives located throughout the Northwest. But tonight I'm also speaking as a power system engineer, and an engineer that has over 25 years experience dealing with power system issues in the Northwest.

The Sixth Power Plan represents very important work. Why? Because if we get this wrong, we may end up decreasing reliability, and I'm talking lights-out stuff, increasing costs beyond what the average citizen can afford, destroying our ability to compete globally, and harming the environment.

Specifically on the plan, I'd like to make three quick points. First, let me thank you and your staff for a job well done because you have a very open process, you listen to our concerns, and you've made meaningful adjustments, you've balanced competing interests, and I believe that you met your pre-stated goals.

Second point, we fully embrace energy efficiency and conservation. We appreciate the fact that you used a band approach rather than a specific

target. We're still somewhat concerned that even the lowest limit on that band of 1,100 average megawatts may not be obtainable, but I do believe we need to stretch goals to see just what we can attain in the area of conservation and energy efficiency. What we want to do is spend our time implementing instead of arguing about a band or a target, and that's just exactly what we intend to do. We also very much appreciate the two-year checking process, and I think that will go a long ways to assure the success of the conservation programs. A caution here. We need to be careful about counting on technology that is not accessible today. It's hopeful, but we need to make sure that it is available when we call on them.

Third point, we are very pleased that you recognize the value of hydropower. It is clean, flexible, and renewable power. It is the backbone of the Northwest power system. It enables greenhouse gas reduction strategies, and we are committed to continue our environmental mitigation measures associated with hydroelectric production. And by the way, we do plan on submitting more detailed comments by the November 6th date.

Finally, I urge you to continue on this

course to assure clean, reliable, and affordable power for future generations, and we all have a lot at stake. Thank you and good luck.

MS. DUKES: Thank you. Next is John Saven. And after him, Bo Downen.

JOHN SAVEN: Good evening. I'm John Saven, S-a-v-e-n. And no one ever spells my name right. I appreciate the opportunity to be here. I'm the chief executive officer of Northwest Requirements Utilities which is a trade association of 50 Bonneville customers. And we rely on Bonneville as our principle power supply. In the future, we are doing some stuff. Sir, with regard to your question, we have a $3 million application into the Department of Energy for geothermal development in five different states, and we hope that will be sufficient to meet large portions of our power supply needs in the future. We've signed a term sheet for our anaerobic adjusters in the Spokane area. So we are the folks that are going to go out and do the things that are in the plan. Given the time constraints, I will just let you know we will submit written comments and would be happy to discuss those at your leisure.

However, at a 40,000-foot level, I would

like to offer just a couple of comments about the plan. We think it's a very good guidepost for the region. Some of the key elements in it that we think are essential to be retained in the final plan is recognizing the high value of the existing federal power system, especially in a time of growing concern about climate change. Second, technology in energy efficiency is the first resource of choice, and the subtopics under that. We appreciate the Council asking Bonneville to work with the smaller and rural utilities to address their unique circumstances and special barriers facing them and allowing CFLs to count towards the conservation targets until federal standards take effect. We like the plan's willingness to consider a wide array of resources to meet future power supply needs. We think it fosters a demand response in Smart Grid initiatives, and we think it provides a flexible menu for a wide array of generating resources and conservation measures for utilities to meet their low growth needs.

There are some areas where we have some current concerns in the plan, and a few of them that I'd like to mention to you. The goals of energy efficiency should be based on realistic assumptions

regarding production readiness and deployment, and we would urge the Council to adopt conservation savings targets in the range of a 1,000 to 1,400 average megawatts rather than 1,100 to 1,400 average megawatts currently in the plan. The cost of power in the plan, under different scenarios, needs to be described in a way that it doesn't dilute the effect of different measures by basically spreading those costs through the entire region as opposed to the customers that would be impacted by those measures, and we think some of the analysis with regard to coal plant removal, dam breaching, and carbon regulation, etcetera, should have that further refinement.

With regard to Exhibit M, we would ask that you take another look at the cost of fish and wildlife enhancement programs, including increased flows and fish because we think those costs are understated. The replacement cost of resources for lost generation is not the embedded cost of the power system. It's the cost to replace an asset in current prices before the consideration of depreciation. A more accurate way to do this would be to look at BPA's recent analysis of pricing for Tier 2 for the low growth range and the indicative

of $64 millions per kilowatt hour. Using this value, the cost of providing 1,170 average megawatts of power for the amount lost due to fish and wildlife programs would be about $655 million.

Just a couple of other really quick points. The implication of the heavy reliance on wind generation, in our estimation, has not been fully analyzed and discussed. We would like the plan to have a further emphasis on the development of environmentally benign hydro and pump storage with an emphasis on increasing the output of existing hydroelectric facilities. And, finally, I would like to say that our organization has no support whatsoever for continued service to the direct service industries.

And with that, I would like to thank you again for taking the time to have an evening hearing and hear all of the speakers, and I wish you well, and we will be submitting written comments. Thank you.

MS. DUKES: Thank you. Bo Downen. And then after that is Eric Miller.

BO DOWNEN: Good evening, this evening's charges, and members this evening also. My name is Bo Downen, D-o-w-n-e-n. And, John, I don't want to

hear any more complaints. At least you get your name said. Just teasing. Terry's is. Thank you very much for the opportunity to comment on the Council's Sixth Power Plan. As I said, my name is Bo Downen, I'm here representing the Public Power Council this evening. PPC represents the region's public power out there which serve nearly half of the region's electric load. We have members that range in size from 10 customers to over 380,000 customers. Public Power has committed to serving the region reliably, efficiently, affordably, improving uses of the Council's plan to determine how this is most effectively accomplished.

PPC has actively followed the development of this plan from its basic stages to the draft release and intends to submit formal written comments ahead of the November 6th deadline. We appreciate the hard work the council members and staff have put into the draft and appreciate the willingness to work with us as you determine the processes for your models, have conducted your advisory committees, and elicit the perspectives at both your monthly meetings and the series of hearings that you have held over the last month and a half. We really appreciate that.

The draft plan has thoughtfully provided regional guidance to meet future power needs in a cost-effective and reasonable manner and realizes that no two utilities in the region are exactly alike and provides flexibility to both Bonneville Power and the region's utilities to meet their needs with the appropriate resource. As the plan focuses on the conservation on the -- pardon me, on conservation's importance to the region, public utility planners understand the role that conservation play as the region meets low growth in a cost-effective manner. We support the plan's acknowledgement that natural gas will also be needed in utility resource status moving forward in order to firm wind and other intermittent renewables that we've collected and support.

We appreciate the plan's discussions of the importance of the region hydro system. It's difficult, and, in fact, an understatement of the value of hydro power as we use it to firm and meet growing loads as well as keeping the region's CO2 footprint and its energy bills as low as possible. We believe the Council's plan properly assesses hydropower's value, and the plan would be, in fact, well served to further note the value of the power

produced by the lower Snake River dams which is enough to light the city of Seattle. We appreciate the Council's analysis of the region's hydro system and believe it provides a reasonable and reliable voice on an issue that's often misrepresented in public discourse.

There are, however, where PPC believes the Council could improve its plan and have worked with both members and staff previously to note these, and we're hopeful that the council members and staff will continue to work with us in these areas. We don't really believe that it's appropriate for the Council to represent the rates impacts as it has. In the plan's current rate analysis, the model broadly spreads the revenue requirements across the region and incorporates the changes that are proposed on top of it. We believe in more accurate representation of how future challenges will be met and who will bear the burden of the costs of meeting these challenges and to clarify it, and we're committed to working with you and your staff in the hopes that, together, we can provide this needed clarification before the plan is final.

We also believe the Council should work to more accurately analyze fish and wildlife costs in

the plan. As both John Prescott and John Saven said before me, in our opinion, the salmon, fish, and wildlife costs are measured against the PF rate, unlike most of the other elements of the plan which are -- have resources measured against the market costs. So we suggest that Council staff will work with BPA to correct these numbers and bring them into agreement with the rest of the plan, as well as the annual report that the Council annually submits to the governors.

As stated previously, although perhaps the rest of the conservation goals and regional utility NRPs are already showing a commitment to achieving as much cost-effective conservation as possible, the Council's five-year goal, however, should account for greater flexibility. While we do appreciate the target range that's been incorporated, it acknowledges future uncertainties. We believe that the Council should work over the next 45 days to take a look at this again, and, as John Saven previously said, move that low end of the range to a more appropriate 1,000 level all the way up to stretch goals of 1,400.

Again, PPC appreciates the work that council members and staff have undertaken for the

region in crafting its Sixth Power Plan over the course of the last. We appreciate the ability to participate in the process, and the Council's willingness to listen to other regional policymakers and technical experts. We are encouraged by the draft plan and leave with few adjustments. It will be a plan that leads the region towards the future. Thank you very much.

MS. DUKES: Eric Miller. And right after him will be Hugh Peach.

ERIC MILLER: Thank you for the opportunity to testify, and thank you to the Council for your work. My name is Eric Miller, M-i-l-l-e-r. I'm a resident in Portland, Oregon. I have a master's degree in public health from the Johns Hopkins University. I'm a physical therapist. I'm speaking to you tonight as a representative of Oregon Physicians for Social Responsibility, a Nobel Prize winning organization that has to do with the gravest challenges to human health.

I ask you to please examine carefully the written testimony on the health effects of coal that are being submitted. In the interest of time, I will not go into detail of that written testimony, but I'd like to point out that the draft plan's

attempts to put a price on carbon is missing a critical piece, and that is the health effects of coal. An accurate assessment of the true cost must include the medical and public health effects of coal. If the medical effects -- medical costs were internalized and accurately represented in the cost of extracting, transporting, and especially the burning of coal, I submit to you that we would shut down Boardman and all the coal plants tomorrow.

AUDIENCE MEMBER: Here, here.

ERIC MILLER: The comments we will be submitting go into detail of what these health effects are. I think it's critical you take the health issues into account and deliberate on whether we should continue to drive our power from coal or not.

For the remainder of my time, I want to tell you a story about a bridge in Portland. Some of you may be familiar with the Sellwood Bridge. It crosses the Willamette River a few miles south of here. It was built in 1925, some 85 years ago, and it's showing its age. The west side of the stance is slumping, the tresses are buckling, and there are cracks in the structure. Bridge inspectors who are experts on the structure and function of bridges

inspect it regularly. They put epoxy into the cracks, and they continue to say it's safe to cross. So our policymakers keep the bridge open, and we continue to drive 30,000 vehicles across it every day.

Now, similarly, we have experts on atmospheric science, we have oceanographers, we have specialists on the Arctic tundras, who have been examining our physical world for decades. Reports to the United Nations by IPCC, some 2,000 preeminent scientists from around the world are telling us that the bridge is no longer safe to cross. Continuing to burn fossil fuels, in particular coal, is like keeping a bridge open that our experts have deemed unsafe for us to use.

Eventually, the Sellwood Bridge, if not repaired, will become unsafe to cross. I trust the bridge inspectors are doing their job, and I trust the policymakers are listening to the bridge inspectors and will close the bridge should it become unsafe. You are the policymakers on energy for the Pacific Northwest. You have an exceptional opportunity to listen to our climate scientists and to heed their advice. For the health of our nation, and indeed the health of our world, it is time to

close the bridge. I ask you to listen to the climate science, base your decisions on that science, and help us close this unsafe bridge. Help us become a coal-free Northwest as rapidly as possible. Thank you.

MS. DUKES: Hugh Peach, and next is Jack Mayson.

HUGH PEACH: My name is Hugh, H-u-g-h, Peach, P-e-a-c-h, just like the fruit, peach. And I've got a small business in Beaverton -- I have to adjust these darn suspenders, I'm sorry -- and I give advice to utilities and commissions. I'm an advisor to the New York Commission staff, and I am the DSM savings advisor for the Providence of Nova Scotia, which has decided to try and follow Oregon as the model in DSM.

Another thing that both Oregon and Nova Scotia have in common is that they're both likely to survive intact if climate catastrophes were going to happen to us in the next 50 years. So I'm going to the jump to the end here first before I take too many minutes here and just say what I'd like to say directly to the heart of it. We're privileged to live in a region that can cease reliance on coal while other regions -- and I'm the advisor to

several major utilities in the south and the midwest who can't just give up on coal, and can't just give up on nuclear, and there will have to be more nuclear plants and there will have to be more coal plants, but not here, not in this region. So I have two recommendations for the Council. Please direct the technical staff to run some scenarios for phasing out coal by 2020 or 2025 or later, if necessary, and put them into the plan. The other thing is please modify the total resource cost tests, the TRC test, that you use to measure the conservation on the left of that draft and take account of peak oil, take account of climate change disasters that can happen to our region, and use a negative discount rate. Use a negative discount rate now so that people sitting in your chairs 30 years from now will have the resources to deal with very difficult situations so that we can deal with peak oil, peak gas, peak coal, and climate emergencies.

Now, this is a textbook for beginning first and second-year college students, 2008, Greenwood Press, and I was asked to write the sections on coal and fossil fuels which I want to just read for the record. I won't try to do it, but

I spent about a year writing it, so it's thoughtful and it's right to the topic of getting rid of coal. If I can just hand this to you.

And now just to say a few things very quickly. Coal continues to have a major role and has advanced in this civilization. It's more abundant and more easily available than any other fuel -- major fuel. Its high content -- we couldn't have metal without coal. We couldn't have developed our science without coal. Without coal, the carry-on capacity of the planet would be much less. We would have to decrease our population immensely without coal. Yet, there's a contradiction in the massive use of coal, and we're building hundreds of new coal generating stations in China, and India, and some in the U.S. Because it's going to hasten global warming and produce other environmental effects not helpful to human life, this is a contradiction without an easy solution. And as I said, I work as an advisor to several companies who are completely dependant on coal. Here in this region, we could move away from it.

And I would dispense with the rest of these comments and just put them into the record, if that's okay, and ask you to please lead us through

this contradiction in some way where you can balance it and try to get rid of coal in our region. Thanks.

MS. DUKES: Thank you. Jack Mayson. And after Jack, Hilary Foote.

JACK MAYSON: Hi, my name is Jack Mayson. I work for Seattle City Light. We're a customer on the utility municipal departments. And like my friends Bo and John who people may spell the last name incorrectly, it is M-a-y-s-o-n.

And Seattle is preparing and will file written comments, and my only purpose tonight is to say thank you to the Council and the staff for the open, transparent outreach process that you've used to develop this plan. Over the last couple of years, I've had dozens of meetings with Jeff, and Terry, and John, and Michael, and they've been very open in helping us understand the -- where they got the results they got and were very open and understanding about information that we've had to include. And so I want to set the record for the shortest time, and so I'll conclude by saying thank you again and written comments will be in the mail soon. Thank you.

MS. DUKES: Thank you. Hilary Foote. And

after Hilary is David -- oh, you're going to have to bear with me here. David Novic? Someone from Portland State.

AUDIENCE MEMBER: Yes.

MS. DUKES: Okay. You're next.

HILARY FOOTE: Great. Let me look at the Jack time. Hilary Foote, F-o-o-t-e. And I'm here tonight representing Horizon Wind Energy.

First of all, I'd like to thank the Council very much for their time and effort that they have dedicated to the creation of the Sixth Power Plan. We recognize that the Sixth Plan Power is significant, and that it calls for meeting all the low growth through conservation and renewables, and applaud the Council for developing a plan that is reflective of the region's desire to move towards a clean, green energy economy.

I noted in reviewing the comments that the Council has already received that the bulk of them have reflected that the Council proceed with even more aggressive levels in new renewables and conservation to assist the region in meeting carbon target goals. Now, we also believe that developing our wind resources beyond the 1,800 average megawatts identified in the plan will be desirable,

not only due to the economic development benefits associated with developing our wind resources as an export commodity, but also because it is critical to helping us achieve a truly green and sustainable economic future.

AUDIENCE MEMBER: Here, here.

HILARY FOOTE: However, in order to achieve these targets, it is becoming more and more obvious that the region must also address two key enabling factors; integration and transmission. And I'll limit my comments tonight to those two topics.

We do know that the plan does cover at length the need to address integration, but we also note that there is a disconnect in the plan on how it addresses integration issues in the latter chapters versus in the inception, in action plan. In the introduction and the action plan, the focus is on reducing demands for some flexibility, and in the bulk of the report and too in Chapter 11, the focus is on fully accessing the latent flexibility in the existing system. That is a very subtle difference in the language treatment, but it is very significant for those of us who are involved in the issue. Reducing demand for system flexibility is a step backwards, it's a move away from a problem, and

it is only in the introduction and in the action plan that reference is made of curtailing wind output and cutting wind schedules and the hours. These are measures that have significant negative implications to wind generators, particularly those who are operating and already have fixed long-term power purchase contracts. We're already starting to see some unintended consequences from the very steep measures already cutting into our schedules. There is the bourgeoning concern that narrower outputs in wind schedules may lead to a view of wind energy as interruptible or firm-contingent rather than a firm energy product and will have -- there's a fear that this is going to have significant adverse impacts on the value of wind.

So all of this is in direct contrast to how integration is treated in Chapter 11. The bulk of the report, which is focusing on a number of partnering solutions that are going to move the region towards the most efficient and cost-effective use of the system, and all of the tools that are identified in Chapter 11 as forecasting, and control room resources, and in the scheduling, expanding EDI, increasing the diversity of our resources, are all tools that the wind community very much

supports, encourages, and are going to help us unlock the unused flexibility in the system. So we request that the Council modify the language contained in the introduction and the action plan to omit unconditional references to curtailing wind resources and continuing in the language that reflects a move towards improving the flexibility of our system.

The other issue I wanted to touch on tonight is the importance of transmission capacity improvements. We believe the plan significantly underestimates the importance of adding transmission to our system. It will have a significant impact on our ability to encourage new renewable development to add system flexibility on market pricing and, indirectly, on fish and wildlife, the first in any idling transmission constrained resources. A great example of this is Montana. Out of all of the Northwestern states, Montana, by far, has the greatest untapped new resource potential. Transmission capacity out of Montana needs to be enabled so that Montana can develop commodity and reap the economic development benefits of it. In Montana, wind needs to be integrated into the Northwest systems.

Transmission capacity and extension will enable a diversity of benefits. Building new transmission areas with diverse resource profiles will reduce the demand on system flexibility. A great example of this, again, is Montana where the seasonal output profile of the wind resource there has heavily reached their peaking, and it's heavily an hour resource, and it's almost the exact inverse of what we see in the Columbia George which is what -- there are attempts to do light-load hour peaking and peaking in summer and spring. So then none of these two diverse resource profiles, the reserve and regulation obligation, leads to it being reduced, but in order to do that, we need to put transmission capacity into our system.

And I also mentioned that -- indirectly, how transmission capacity will have an affect on fish and wildlife. And this is maybe a overly technical point at this point, but increasing access to the markets will spring load demand that will reduce the likelihood that total coal and gas limitations will be approached or exceeded as Bonneville will be able to run more water through the generators to serve out-of-region market demand in the spring, rather than spilling the water over

dams. This has a big impact on not only fish and wildlife, but also on the rich community here in the Northwest. And by expanding the capacity on the energized -- in the region and outside the region, it will increase the diversity of resources, it will also lessen the burden on the balancing -- the balancing burden on the system, and it will reduce price for utilities through a bigger market. So we encourage the Council to advocate more directly and more aggressively for the investment in transmission capacity, both new hydro transmission lines as well as the remaining non-hydro solutions that are available out there. And we note that Bonneville has done an excellent job of developing an open season model, and we would suggest that they be encouraged to take a more active role in supporting the development of the transmission capacity throughout the region, particularly out in the other states.

So in sum, let's take full advantage of the flexibility of our regional system in a cooperative way. Rather than analyzing the resources, we're trying to encourage. And we would request that the Council recognize the critical importance of expanding transmission capacity and encourage models that seek a more aggressive

approach in enabling new capacity within the region and on the intersects. Thank you very much for your time.

MS. DUKES: Thank you. And after David is Ken Dragoon.

DAVID NOKOVIC: So thank you for the -- for giving me the opportunity to speak tonight. My name is David Nokovic, N-o-k-o-v-i-c, and I'm a student at Portland State University. There I work with the Sustainability Leadership Center as a student leader of sustainable economics.

I grew up less than 10 miles away from a coal-fired power plant, and I've seen the destruction it's caused locally. The asthma rates are particularly high in my hometown, including in my family, and abroad with fume clouds now crossing international borders. Since I was younger, I've wanted to change this trajectory that humanity is on; one of us living on a healthier planet.

Fast forward into my college years. I chose to attend Portland State University for its unique location and an education on sustainability that I could get nowhere else. We have been working hard at our university to become carbon neutral along with hundreds of other universities across the

nation. One of our most valiant efforts to reduce our carbon footprint has been focused on energy production in particular. We are an urban campus, and we don't have the land grants afforded to us that have been afforded to other state universities. This doesn't allow for much onsite energy production, especially within rented buildings. What this does allow us is the opportunity to be a large stakeholder in the energy purchasing within Portland in the larger energy system. We have recognized our unique position and have spoken loudly that the future generations of this nation's most adept thinkers do not want a university, nonetheless, in a nation powered by dirty, polluting fossil fuels.

Portland State University will be purchasing 100 percent renewable energy offsite starting in January 2010. We are incredibly excited about this at our university, and we feel that it is something to be celebrated. However, it does come at a cost. A high cost at that. PSU has been feeling the hit of the economic downturn like every school in the Oregon University System and across the nation, but we still remain steadfast in our decision to purchase renewable energy offsite. We

do this because the cost to society, if we do not shift away from coal-fired power, will be devastating. Trust us, if we could shut down all the coal-fired plants tomorrow, we would.

What we really want from you is a commitment to action. Universities and cities across the world has committed to carbon neutrally. We'd love to see the Pacific Northwest lead the nation in a coal-free future. Please make a commitment to action to eradicate coal power and dirty fossil fuel energy from your energy base production, and we will continue to celebrate and support you. Thank you for the opportunity to speak.

MS. DUKES: Thank you. Ken Dragoon. And after Ken is Allison Curtis.

KEN DRAGOON: Hi. I'm Ken Dragoon, D-r-a-g-o-o-n. I'm the research director for Renewable Northwest Project located here in Portland. The Renewable Northwest Project is a nonprofit renewable resource advocacy organization whose membership is made up of renewable and associated industries, environmental, educational, and ratepayer organizations. Our objective is to promote the responsible development of renewable resources, and

we appreciate this opportunity to comment on the draft -- the Council's latest plan.

The draft plan's finding that the low growth over the next 20 years can be met with a combination of energy efficiency and renewable energy is very encouraging. The region looks to the Power Council for leadership on energy issues. The Council's innovative and aggressive pursuit of conservation is a great example of the kind of positive influence the Council has had on the region. It's exactly that kind of leadership the Council needs to exhibit now with respect to transitioning the Northwest to affect substantial reductions in carbon emissions. Instead of viewing carbon emissions as a risk factor to manage, we need the Council to find the most economic, efficient, and reliable path to lower emissions. Although the plan correctly recognizes that future carbon costs are uncertain, the need to reduce emissions could hardly be more certain. The plan's focus on future technologies and policies is curious in my view. The needed technologies exist today. It's the policies, and the institutions that are writing it. The time for action is now.

I need to speak for a moment on

transmission issues. The Council's plan is almost silent on the considerable need to revamp the process for building transmission facilities. Transmission construction comes virtually silent -- was virtually silent in the aftermath of electric industry deregulation and new processes for constructing the transmission facilities has been slow to development. New facilities are needed to make the most efficient use of existing resources, to open renewable resource development to areas not currently reachable, and to better access the diversity of loads and resources for better price stability. We urge the Council to take a more active role in resolving the region's transmission needs.

On renewable energy, the Council correctly recognizes that renewable resources are now cost competitive with fossil fuel generation. Nevertheless, there are a few troubling passages in the draft plan that I'd like to note. On Page 7, it asserts that swings in wind generation have adversely affected hydropower operations for fish recovery. We are unaware of any such events. The renewable energy community understands that BPA's fish considerations come first, and we have worked

hard with Bonneville Power Administration to identify strategies to solve integration challenges within that framework. In our view, there's no reason for wind generation to adversely affect hydro operations for fish recovery. On the contrary, BPA's plan to increase nighttime flows to accommodate wind ramps is viewed as a positive result by at least some fish recovery advocates. We urge that this sentence be struck from the document.

Finally, we find components of the action plan's items in the action plan item labeled "Gen-8" unhelpful. Our written comments will be specific on the troubling aspects of Gen-8, but Part B in particular merits specific comment. We disagree with the premise that state renewable energy standards incorrectly trade off the carbon emissions benefit in energy efficiency and renewable energy generation. In our view, reaching regional goals will require all types of energy efficiency and renewable resources and not one or the other. The purposes of the standards are not merely to find the most efficient carbon reduction method available today, but multiple, including the development of renewable energy markets and infrastructure. The meat of the standards of the Council were primarily

interested in the most cost-effective means of reducing carbon emissions, which we urge it would probably look to including coal generation, when not needed for reliability. The action item poses an unwarranted and undemonstrated competition between conservation and renewables, and we hope you'll remove it.

We appreciate Council's difficult task and thoughtful work that's represented by the voluminous draft power plan. Thank you for this opportunity to comment and your thoughtful consideration in your plan.

MS. DUKES: Thank you. Allison. And after Allison is Jeff Bissonnette.

ALLISON CURTIS: Thank you for having me. My name is Allison Curtis, that's C-u-r-t-i-s, and I'm a freshman at Lewis & Clark College. I come to you as a representative of my school's environmental group and as a member of the youth.

A year ago, in making my decision on where to go to college, I had a wide range of things to consider. I thought about price, location, size, academic programs, extracurriculars, and a variety of other factors, but working as an environmental activist the year prior to applying for schools, I

knew that a large part of my decision would be on how sustainable our college was and what action they were taking to provide a green campus for their students. At Lewis & Clark, I found a new set of buildings, a sports center that its roof is covered with solar panels, an enormous and thriving environmental studies program with dedicated students, and even an optional green fee that students willingly pay in order for their energy to be provided by renewable resources, and an engaged student body who care about the environment and the rest of the world around them. It provided community gardens for its students and a powerful environmental group on campus where young people can plug into campaigns on and off campus, including an anti-coal campaign that we are developing this semester. This will act as an example for the surrounding community on environmental activism and sustainability.

You know, one of the most attractive aspects of Lewis & Clark was its location: Portland, a city that is known as being one of the most environmentally progressive places in the country. It was the first city to develop a growth boundary, an extremely progressive and revolutionary act. But

in order to be viewed as such an environmentally city, we must earn this. Just as my school acts as an example for our community, this city and its region act as examples for the rest of the country. We must demand clean energy that comes from renewable resources such as wind and solar. We must end our reliance on dirty energy sources, those mainly coming from coal. We call ourselves a clean city, yet 20 percent of Portland's energy comes from coal, the dirtiest form of energy that we mass produce. The students of Lewis & Clark, the University of Portland, and the general population itself is asking you to make decisions on this proposal that will set examples for our country.

The decisions you make will affect my generation the most. We will be most likely to see the harmful and terrifying effects of global warming. The students of Lewis & Clark would like to ask you to help the Northwest and its reliance on Boardman and coal power being shipped from out of state, and replace its energy with clean and renewable power. Again, thank you for listening to my speech. I hope that you recognize the support that you have from the youth on decisions you make regarding our increased reliance on renewables.

MS. DUKES: Thank you. And after Jeff is Terry Flores.

JEFF BISSONNETTE: Good evening, members of the Council. My name is Jeff Bissonnette, and that is spelled B-i-s-s-o-n-n-e-t-t-e. I am here representing the Citizens Utility Board of Oregon to represent residential ratepayers in the state. And since I have used most of my time spelling my last name, I will be brief on my remarks.

I want to say three things. First, congratulations and thanks to the Council for the aggressive energy efficiency goals that you've laid out in the plan. Thanks particularly to our Oregon members, Joan Dukes and Melinda Eden, for giving prior notice of the energy efficiency goals as they've been considered in Council.

Second, despite the fact that these goals are substantial, they are not in any way impossible. Here in Oregon, the Energy Trust of Oregon estimates that through 2020, we are running ahead of those goals already. The goals are ambitious, but very achievable, as we already have shown here in Oregon.

And, third, I will re-echo the calls that we have already heard from a number of speakers to be cognizant of the kind of policy environment that

we're currently operating in. Energy policy is not the same as climate policy, and so some could argue that the Council could ignore climate as beyond its purview. However, an energy policy is so close and so heavily influences climate policy that the Council should explicitly acknowledge that closeness and begin to lead the region to coordinate and integrate too, and the consumers in the region would be best served if you do. Thank you for holding these outreach sessions, and thank you for your attention.

MS. DUKES: Thank you. Terry. And after Terry is Jay Minthorn.

TERRY FLORES: Council members, good evening. Thank you for the opportunity to present these comments, and thank you for the opportunity to spell both my first name and my last name because they both get misspelled. Terry is actually T-e-r-r-y, and Flores is F-l-o-r-e-s. I'm the executive director of Northwest River Partners. We're an alliance of farms, ports, businesses, utilities; basically people that live and work along the river, Columbia River -- Columbia and Snake Rivers and depend on their -- depend on them for their livelihood and quality of life. We care deeply

about and really respect the federal hydro system in time, space, and cost-effective mitigation for fish and wildlife impacts of that system.

As you can guess, our comments tonight focus on how the power plan treats the region's hydro system, and the issue of removal of the Snake River dams in relationship between fish and energy needs and the calculation of fish costs independent to them. To step back for just a moment, we really appreciate all the hard work that you've done. What you do is really important in this region, and your staff and yourself provide very important independent analysis of some very hard issues as we can see here tonight. The public relies on you for education on these issues. Basically, people pay attention to your analyses and your recommendations. It's a very critical role, and we appreciate it.

We also appreciated the plan's recognition of the value of the hydropower system as a clean and renewable resource. In fact, the plan points out that maintaining the hydro system along with developing more conservation is key to keeping energy costs down as well as carbon emissions down. We sometimes don't realize, I think, how lucky we are to have the hydro system that we have here in

the Northwest. The fact is that the vision that you articulate in your plan of acquiring large amounts of energy efficiency, other renewable resources, wind in particular, and keeping our CO2 footprint small just couldn't be accomplished without the hydro system that we have. On the issues of climate change and dam removal, the draft plan clearly shows that it is not possible for the region to remove Snake River dams or dereg the hydro system without increasing energy costs and our carbon footprint. On dam removal, the analysis shows that 3.1 million tons of CO2 would be added each year, and that the cost would increase by $550 million per year to replace the lost hydro generation. It's a straightforward analysis. I would encourage you, though, because it is a very heated topic, to better document and explain in the analysis your key assumptions and your analytics so it doesn't get mischaracterized.

On the issues of relationship between fish and wildlife and energy, the plan also does a very good job recognizing and acknowledging that there is an inherent link between fish and energy. As hydro is lost, for example, through fish operations, there are unintended consequences, including increases in

CO2 emissions and potential climate change effects. We'd like to see you engaged even more actively in teeing up these tradeoffs, especially on many fish operations, so that decision makers and the public can be more informed about what those tradeoffs are. The plan tends to take a passive role. It implies that as long as the power system is okay and people can afford it broadly, then fish requirements can be whatever they think it should be. River Partners thinks it would be helpful if you were more active in analyzing and describing some of the inherent conflicts and tradeoffs that occur between fish and power. Summer-Skol (phonetic) is an example of that. Obviously, I'm not asking you to change the Skol regime that's been court ordered, but I think it's very helpful for decision makers and the public to know what those tradeoffs are and that a better description of those kinds of decisions would be helpful to all of us.

Just one final quick word on Appendix M which does the calculation of fish costs. I agree with some of those folks here tonight with our River Partners numbers as a flawed analysis as it currently stands. It's inconsistent with the economic analyses the BPA and other utilities in the

region uses. It's also inconsistent with the approach that you took in report of fish and wildlife expenditures to the governors, so I would just simply suggest that you change the Appendix M to be more consistent with the analysis that you used in the reports to the governors.

And then I want to thank you for all your hard work and the staff's hard work. Your credibility and technical analyses are very valuable to this region, and we think the power plan is fundamentally on track, and we hope you will consider a couple of the suggestions that I made tonight. Thank you.

MS. DUKES: Thank you. Jay Minthorn. And after Jay, John Morris.

JAY MINTHORN: Good evening, everyone. My name is Jay Minthorn. My indian name is Shiki kaikai (phonetic), White Badger. I've carried this name now for three generations, going on four generations, and my direction has always been -- I'm a third generation council for the Umatilla Tribe, and my direction has been to speak for my people, and this is important to look at what the treaty means to us.

The signing ceremony in Walla Walla give

us that direction when they negotiated. A negotiation -- and our leaders said that for seven generations to come -- "You people will fight to protect your treaty resources for seven generations to come." My father was a great Umatilla tribal councilman. I think back. Maybe he meant I'm that seventh generation. I've got over 20 years in as tribal councilman. I've got pretty close to 30 years in for the Columbia Intertribal Fish Commission. I'm glad to see the salmon back there. You made my day.

I'm the chairman of the nine Oregon tribes as they regain these resources, which is the salmon, the roots, the berries, the game, and the water. The water is what we call the blood of life. Every one of us sitting here have to remember we have to make sure that we protect our water. If we don't protect our water, we don't have the resources. We wouldn't be sitting here today without the water. Water is the blood of life. That's why we're still here today.

I went to fish Montana. I heard this talk. I had a Nez Perce brother listen to this. We weren't called on to speak. Many times we traveled the pow-wow circuit, we had the ceremonies where

they eat the resident fish here, and we'd eat the salmon. We'd all eat the game, the roots, and the berries. We sell these resources, all the products, around the world, and that's what we have to do here. We council talk about how do we talk to other people on the common interests so that we can all work with one voice. It's very important.

I don't come to a meeting and see something raised about coal and everything else. I'm 73 years old. I was part of the depression, the tail end, some of you folks remember it, they used to haul coal right through here. They hauled coal down there. You ended up -- I knew I was home because I could see the black smoke coming out. I could look across to my neighbor's home, and you know he's got his fire going, and these are the things that we look at. Our Chief Bill Bird said, when that depression was going on, it wasn't the ending that was the depression, it was the non-ending. Because for seven generations we protected our treaty resources. We had the fish, the game, the roots, and the berries. We protected those. That kept us out of the depression world that far. And I'll always remember these words.

And I've got a written statement here that

I would like to speak from what I've learned. And these resources are very important to all of us, but we have to understand, we have to share these resources, not fight over them and work it out. We say, "Government to government."

Sierra Club was just in eastern Oregon where the Corp of Engineers were at Indian Lake being trained about Umatilla treaty rights. The Sierra Club slept in the indian sweathouse. For over ten years slept in the indian sweathouse. Three days they listened to us talk about our Umatilla Tribe. They learned what I'm saying about how that would affect our resources. I don't know if we've got time, but I've got something printed that I'll read it real quick. Leave this here.

Okay. I'll start by, "The draft power plan is a good start, and we applaud its groundbreaking provisions in Montana providing conservation. The plan should ensure that BPA treat salmon equally with power production consistent with their Power Act. If successful, the Power Planning Council's conservation provisions will go a long way to relieving the pressure on the hydropower system and then the constant threat of putting power production before salmon production.

That said, we remain concerned that the power plan does not go far enough in promoting renewables and reducing the region's greenhouse gas emission. Currently, the plan does nothing to actually reduce the current level of greenhouse gases. Given the threat of climate change to our planet, our nation, the region, and the culture, we do not find that acceptable. Climate change is likely to severely impact our treaty reserve rights to fish and the gathering of traditional plants, all of which are important to our culture, religion, and economy, and our way of life.

The power plan will set goals that will reduce current greenhouse gas emissions and do so by phasing out the use of dirty coal plants which account for almost 90 percent of the power system greenhouse gases. The dirty coal plants, like the one in Boardman, Oregon, not only help drive climate change, but help load our fish with mercury. The Boardman plant, the only coal-fired power plant in the Columbia Basin, emits about 168 pounds of mercury per year right next to the Columbia River. BPA identifies atmospheric reposition of mercury as the primary pathway for mercury contamination of the Columbia River. The Power Planning Council must

take the lead in cleaning up or phasing out our coal products."

And these are just a few words I want to leave you with tonight from the Umatilla Tribe.

MS. DUKES: John Morris. After John is Lisa Adatto.

JOHN MORRIS: Good evening. My name is John Morris, M-o-r-r-i-s, and I'm the director of Fluid Market Strategies. We're an energy consulting firm here in Portland. And I wanted to make a few comments specifically around the conservation segment of the plan, and then a few others.

I want to fully support the notion of continuing the NEET Forum. I participated in the NEET Forum last year. I felt that it was a really good collection of people that have been doing this a while from around the region, and I really want to make sure that that is maintained moving forward. I also want to support tonight in continued funding to the Northwest Energy Efficiency Alliance. They're doing a real good job in the region, and their task is some pretty challenging goals, but I think, for the most part, they are well suited to meet the needs of the region. Specifically around META and market transformation efforts they are obtaining, I

think it should be noted that the Regional Technical Forum is going to be tasked with quite a load, especially as we're looking on to emerging technologies. I don't know if they're ready to do that today, but I would like it to be noted that the RTF should be considered for additional support.

A couple of the challenges that I have with the plan start with the midterm regional review. I really want to encourage the review not to be used as an opportunity to lower targets if the utilities are not meeting goals. I really want to make sure that that review is used to help utilities meet the existing targets, so I want to make sure that those are not the last.

And then I'll conclude by stating that I firmly believe that the plan is not aggressive enough when it comes to carbon reduction. And I want to share with the group an experience that I had with Climate Solutions earlier in the week. Climate Solutions gathered a lot of businesses in Portland together to meet with Senator Merkley and Congressman Woo around the carbon cap and trade that we are going to be considering, and, frankly, I heard things that scared me. Senator Merkley told us that they are considering having to remove the

cap and trade verbiage out of the plans. And, frankly, that can't happen. I mean we're in a time where we need folks to step up and be leaders, and the power plan can do that. We need to encourage you folks to take a stronger stand on that, and I can tell you the business community here in Portland supports that. Businesses such as Nike were there strongly supporting cap and trade legislation, along with my company and over 30 others supporting cap and trade. And if you guys are building a plan based on federal regulations that may or may not happen, we need to consider that. So that concludes my remarks. Thank you.

MS. DUKES: Lisa. And after Lisa is Ben Nelson.

LISA ADATTO: Thank you. My name is Lisa Adatto, A-d-a-t-t-o, and I'm the Oregon director for Climate Solutions, and we are a local organization that looks for profitable and sensible, realistic solutions for climate. We work with businesses around the region to promote their solutions for climate, and we work to build bridges between the business community, environmental community, the traditional and the new businesses.

First of all, I just have about five

points to make -- or four. Many people are creating lists, and I think that's helpful. One is I applaud the Council for this fabulous work. One of the things that I think is great about this work is that I think this is one of the first times I've seen sort of a unified vision about how we might go forward integrating some of the -- the many complex issues around the energy, climate, resource development, etcetera, and I would like to advocate that the Council recognize that this vision is not understood at all in the community, in our legislature, our legislators, our business community. The members of the public are confused, confused about how we move forward and how all the various moving parts work together. So this vision, think of it as really a pulpit, and think about ways to let people know how this works and how this fits together, and think about ways to publicize it and make it less complex so people can understand it.

Secondly, I'd like to applaud your focus on energy efficiency, and I'd like to advocate that you stick with the goals that you put in the plan. I believe that once you set goals, you make it more likely that those goals are achieved. As people -- other commentators have said they might be ambitious

or stretch goals, and that might be true, and I also believe that energy efficiency is difficult to do, so by putting goals in our plan and by creating motivation for the goals, that makes it much more likely that we look at every possible energy efficiency resource out there, that we create incentives to achieve those resources, and that's a good thing because, as you've shown, these resources are the least expensive and also very environmentally friendly. I'd also like to support the comments made earlier by Angus Duncan, and I'd like to see you look at the state climate goals. Oregon and Washington both have goals that we think is very reasonable for these because those were passed by our legislators -- legislation to integrate those into the plan, and we would like to see what the impacts would be and to see a vision for meeting those goals.

I also would like to support the comments and approach that your plan has taken toward renewables. I'd like to note that you predicate your evaluation of renewables and look at the states' RPSs, and I want to just note that those RPSs are very important pieces of policy, and there's a great lack of understanding about what an

RPS does for our vision and our plans in Oregon, and Washington, and throughout the region. The RPSs are under attack because many other groups would like to be included, and that could dilute the emphasis on new renewables, so I just wanted to note that we need to -- people need to understand how important the RPS is in promoting new renewable resources.

I'd also like to note that it's very justifiable and important that in your plan you include a price for carbon. We heard the last speaker talk about federal legislation, and I'd like to note that there's sort of a pincer movement going on in terms of a federal approach to carbon. There is, of course, a federal cap and trade under discussion in the senate right now having been passed by the house. In addition to that, there's EPA regulations. As the governor approached this regulation -- or if the cap and trade is not passed. And a third approach that we're seeing is that federal courts are allowing lawsuits for the first time, lawsuits on -- lawsuits that are -- they're allowing lawsuits for emissions, and some of those lawsuits include damages. So because of that, it's very justified to think that there will be a price on carbon, and I think as a way to protect our

consumers in the region against the costs of carbon is justified to include them.

Finally, I'd like to note that your plan -- your excellent plan requires a great deal of work and integration in order to implement, and I'd like to urge that as you look at those issues, that you even go beyond an action plan of suggestions and look into about who might be -- again, these are some of the questions you've asked in your plan, but who might be accountable, how do we get there, how do we get this wheel on the ground and start thinking about looking at a deeper level at the implementation issues. Thank you very much, and thank you for your leadership.

MS. DUKES: Thank you.

JOE WALSH: I'm Joe Walsh.

MS. DUKES: Joe Walsh. Is there a Ben Nelson? Ben Nelson? No? And no Joe Walsh? Oh, this is Joe Walsh. Okay.

JOE WALSH: My name is Joe Walsh, W-a-l-s-h. Prior to the meeting tonight, I asked you how many of these meetings were through because I was trying to figure out how I could say something that would make you understand how much trouble we're in. You have all the science, surely.

Let me tell you a story about when I was growing up. I was eight years old. My father was a custodian, and his job was to keep the public school warm. It was a coal-fired boiler room. And we got cold in December, and in December he used to get my cousin Danny and I to come and help him put the coal in these huge buckets, 2,000 pounds of coal, and we would throw it into the furnace. It was great fun for an eight-year-old. We were covered head to toe in black, and it was okay. I was with my dad. After we went home and used scouring powder to get the coal off our bodies, it took three or four days to get the black soot out of our lungs. We would blow our nose, and it would be black for three days.

Most of your energy experience has been from the burning of coal, but what about the people that dig it? What about the miners? What about black lung? What about taking a gorgeous mountain and destroying it? That's what coal does. It is poison in your hand. It's like a bullet. And now we have commercials saying we're going to have clean coal. It's a lie. It's a lie on a level of taking a bullet and wiping it down and saying, "It's clean, so it will not kill you." Coal must be stopped. Must be stopped. You cannot go in and say let's

take these furnaces of death and only use them in emergencies. Think of it as your child or your grandchildren will die the day you light it off because they will slowly suffocate. You would be better to shoot them. It would be more humane. You have to take those coal fires and stop them now. Not ten years from now. Not 20 years from now. Today. And if you don't do that, don't come in here and say you're doing your job because you're not.

MS. DUKES: Thank you. Bear with me here. Dana Weitraub? No? No Dana? Okay. Roger Cole. And after Roger, Nick Littlejohn. Maybe.

ROGER COLE: I am Roger Cole, C-o-l-e. Thank you, commissioner, for your efforts to guide future energy policies for our region. You may know who you are, but virtually every citizen in this region is affected by your decisions. I live in Vancouver, Washington. I get my electricity from Clark Public Utilities, and I participate in the Green Light Program.

I have been paying attention for the past six months to what you're doing, and I generally like what has come out of this committee so far. How we generate our power has an effect on my health and my direct life. To me, global warming or

climate change is the biggest challenge of the 21st century. Your sixth plan needs to address climate change. Our power sources need to be clean and renewable. Initiative 947 in Washington state mandates 15 percent renewable energy by 2020. That's a good start. And Oregon has something similar to it. I don't know about the other states in the region. Your plan to embrace renewable energy should phase out dirty fossil fuels like coal as fast as possible.

Coal is unhealthy. It poisons the air and water. Coal contributes more carbon dioxide to our atmosphere than any other source. Please make a provision in your plan to phase out coal. Renewable energy sources like wind and hydro coupled with ambitious conservation targets such as you have in your plan can meet our power management needs far into the future, so keep up the good work.

MS. DUKES: Thank you. Nick Littlejohn? Nick Littlejohn. And after Nick is Mary Vogel.

NICK LITTLEJOHN: Good evening. My name is Nick Littlejohn. I know. It's ironic. But I'm a citizen who came here tonight to be an observer, someone who sits in the back to learn more about this and see the deliberations, but I felt -- I

guess public speaking is one of the most scary things people do in their lives, but I thought this is something so important that I have to do it. I have to come up here and talk before you.

So what I want to share is so, so very much, but it was really neat to see the Sierra Club out front and for them to talk about -- just letting people know how dirty coal is, and I think you guys are on a really great path to talk about conservation first. The whole idea is that energy production, the biggest thing should be megawatts. These are watts that we do not have to generate at the cost of pollution to our local environment. It's really maybe the phrase that -- I was born in Austin, Texas, and what's so neat about it is that in Austin our citizens got together to buy the utility, so we used -- we're off the coal. It seems like we -- so what's cool is we actually have the power to, as citizens, voted for the mix, what was created, and so because of that, we're doing some of the most utility scale wind generation in our generation. We're doing things like solar shading in the public library. It covers up the cars -- the electric cars. So what's so cool, thinking about it, is they can put more faith into customers'

innovative families to do conservation, to these simple steps. And it's so simple, you know, these things; replacing light bulbs, buying energy efficient appliances, getting rid of the old fridge. So I think that we can really rely on conservation. It's one of the major steps to not have to have dirty generation.

And I wanted to read here, and I won't quote all of it, maybe you know this stuff, but coal is so very dirty. It's a 100-year-old technology, and I think -- like in DC where the coal power plants -- it was down in Washington. It was just identified as being such as antiquated, old way of making power that it was finally shut down. So I just think that we've come to a point where we can switch -- we can learn, we can actually get to renewable, responsible ways of powering our society. I thank you all very much.

MS. DUKES: Thank you. Mary Vogel. Is Mary Vogel here? No? Tim Soper? Jesse Hunter? Okay. After Jesse is Gilly Burlingham.

JESSE HUNTER: Hi. My name is Jesse Hunter, H-u-n-t-e-r. I am a solar design consultant for a local solar company, and we work on small commercial systems to plan a million dollars up to a

100kw to maybe 300kw type stuff.

And I wanted to point out that Germany is the -- has a climate that's less sunny than Seattle, and they're the number one solar country in the world. They have terabots, and they're converging about 10 percent -- about 12 percent between wind and solar combined for their country's energy mix. In the United States, we're not even -- we're .0 and under -- maybe .01 under as far as solar. Wind is now perhaps .2 or .3. There's obviously a lot of potential for that stuff, and I don't think we need to be worried about implementing this stuff. In general, I think we need to -- as far as your cost analysis, which -- and, one, I totally respect the responsibility that you guys have because this is obviously a profound responsibility, but, again, I think the keyword here is externalization, and there's two forms. One, "If it's not in my back yard, maybe it's at somebody's else's expense." And the other one would be the mindset, "Not at my present moment's expense. It's at a future generation's expense, so my children." And so that's obviously -- that becomes a moral question, and part of the moral question is also a question of skill, so it's just a moral question, but how much

skill do we have to solve the moral dilemma. And so I think that's just some general things to think about.

We use a lot of energy in this country. We use more than any other population in the world, and I think we also need to consider the term, a phrase long ago, called "limits to growth". Ultimately, we can't go in this direction forever. We've known it for very long, and it isn't -- and it isn't a matter of future consequences. There's consequences that happen every moment, and it's just a matter of where it happens. So right now we have just roughly a billion hungry people, mouths, in this world, and this -- you know, this is very integral to energy. Energy, to me, is kind of what is the juice of life. It used to be wind energy from sailboats, then in pete and guano, then in coal 200 years ago which made the British Empire, then oil was really what was moving, and other fossil fuels is oil and gas, that's what's fueling our direction now, and there's consequences to using any of these.

Well, I just -- I think that it is important that your study shows that, yes, we can do a lot through energy conservation, so I applaud you on that and renewables, and, yes, I agree with

someone who said that it may be competition between the two. These are two things that both need to be implemented. And other things ticked off are homes. My own home is single-pane windows. There used to be -- there needs to be great incentives for that. There's so much that could be done with passive solar design like the house that they have in Germany, and I think we need to also look to Europe a lot more because they have been making a lot of great successes. Their populations are moving ahead very quickly and very clear-sightedly on these issues, and we can too. Thanks.

MS. DUKES: Thank you. Gilly? Is Gilly here? I guess not. Thomas Detman. And after Thomas is Katherine Kann.

THOMAS DETMAN: Thank you. My name is Thomas Detman, D-e-t-m-a-n. I'm a retired geophysicist. I've been following the climate science for about a quarter of a century. I would really like to thank the board members. I think what you're doing is very important.

There was a Saudi oil minister in the 1970s who was reported to have said, "The Stone Age did not end for lack of stone." And the oil age will end long before we are out of oil. According

to a paper in "Science" and reported in the Oregonian I think in January of 2008, the level of carbon dioxide in our atmosphere now is 27 percent higher than at any time during the last 650 million years, so we're going into uncharted territory with our planet. There are consequences to that, one of which -- you've heard many of them. One of them is ocean acidification. The ocean takes carbon dioxide from the atmosphere because there's more of it, it's readily soluble in water, and that makes the ocean more acidic because it becomes carbonated from protic acid, and that effects crustacean shells, and tiny crustaceans are a part of the base of the ocean food chain, so that's a threat to all of us.

So there's far more fossil fuel left on the earth than we dare to use, and I think the sooner that we bring the oil and coal age to an end, the better off we'll all be. And I think that Oregon and the United States have the brains and the heart to lead the world away from fossil fuels, and I hope we do it. Any astronomer will tell you that good planets are hard to find. I think we better take care of this one. Thank you.

MS. DUKES: Thank you. Catherine Kann? Tyler Gerlach? No Tyler, okay. Serge Vrabec?

We're thinning out. Steve Weiss? Didn't figure you left. And after Steve is Rhett. Okay.

STEVE WEISS: Hi, my name is Steve Weiss, W-e-i-s-s. I have a few extra other copies. We're going to have detailed comments. I'm not going to repeat things that I've said before in Astoria.

It's interesting. I went to Vancouver, BC, last week to give a presentation on the Council's lobby, and I just used some of the presentations that you have on your website. And I thought maybe 15 people would show up. It was 7:00 in the morning; you know, a breakfast meeting. About 80 people showed up in Vancouver; utility people, developers, city planners. It was pretty amazing the attention, and it's because they're excited by your modeling technology and modeling methodology, and they're excited about the plan. And I bring this up for a couple of reasons. Your model is better than anyone else, the best, and it's really well respected, and people want to know about it, and they want to know about the results. And so the first action item I would ask you to add is you really need a process for getting this plan out to local utilities. Right now -- (unintelligible) -- Michael Shimoa (phonetic) runs it. No one else can

run it. You need to simplify it so that utilities can use it. Utilities want to use it. It's much better than what they do.

But secondly, and probably more importantly, is that it shows that even people outside this country are looking to the Council for leadership. They respect this organization so much and the analyses that you do, that people all over the country are looking for it. I was at the AC Triple meeting in Chicago, and the comments in hearing your presentation, it was overwhelming support. And people were asking questions. People were asking me for my card, and someone asked me questions about it because they knew I was familiar with it. So this is important stuff, it's precedent-setting stuff, and you need to know how important that is.

Now, given that leadership and given the fact that three of the states and your two states have adopted climate goals, it's sort of shocking that you have a plan that does not actually reduce carbon emissions. What the plan does is it depends on somebody else. It analyzes carbon as a risk, but not as a cost, and just as, "Well, maybe someday in the future somebody will pass regulation out there,

and we're not even going to try very hard to help with that. Maybe it will happen, and if it happens, then our plan works pretty well." Well, that's not leadership. That's passivity. That's waiting for somebody else to take action. In your states, Washington and Oregon, you have, in law, targets. How can you approve a plan that doesn't even match the targets of the states you represent? I think we deserve a lot better.

I think there's some legal problems in that your plan does not recognize the cost of carbon dioxide. It sees it as a risk, not a cost. And Jeff Hammarlund is going to talk a little more about it. In our detailed comments, we'll talk about it more, but I think there's actually a legal problem if you look at this, and I'll point out things in the statute that require you to consider environmental extra -- as costs, not risks, and that means the emissions today are just as important, and probably more important for today, than the risk that might happen -- than the carbon that might be emitted 20 years from now. So you really need to -- you need to really incorporate carbon cost, not just carbon risk into your plan.

Now, since utilities and the states want

to take action to reduce their emissions, what this plan needs is direction and guidance for those utilities as to how they can reduce their emissions. So what we're asking is that you run some scenarios that have the model of constrained carbon to the targets that maybe the WCI has adopted and find out what is the best path to reduce emissions. Right now you have one arbitrarily determined case that it just shuts off the coal plants -- all the coal plants at once in 2020. We know that's probably not the optimum way. You need to use that modeling capability to find out what's the best. Should plants be -- which ones should be shut down first? Which ones -- should we just keep them for a few months out of the year on and running as some people suggested? Do your model and find out what's the least-cost, least-risk way to actually reach the carbon targets that states recognize, and in that the scientific community is helpful.

I want to -- it was brought up by a few people, the analysis in your Appendix M. I know this is way off for most people, but it was mentioned several times by the people challenging the way you calculate the cost for water that's used for still and for helping fish migrate down the

Columbia and the Snake Rivers. We support the analysis in Appendix M. Basically, what the other people heard about is Bonneville says that when you -- that if we need to develop resources to help fish, that the cheap resources, the conservation, is first used to serve locally, so it serves our big screen TVs. We use the cheap stuff to serve our TVs, and then what's left over, the expensive stuff, we use for fish. That's a marginal analysis that they're using when they come up with these $5- and $600 million numbers. As Appendix M shows, if you use equitable treatment which is required by the law to treat low growth equal with the fish protection, then you say, well, the conservation goes for both. The wind goes for both. The low-priced stuff and the high-priced stuff are both used to serve fish and the low growth, and so the costs are more like in the $300 million to $400 million for, for instance, removing dams or for what's been done for fish so far. So we really support Appendix M.

Finally, I'll end up with just sort of a conclusion. The Council's modeling capabilities is to end any reservations, it really is, but that technical capability must be managed with political leadership. Instead of waiting for others to put a

price on carbon, you must recognize that spewing tons of greenhouse gases into the atmosphere a cost, and the cost, the atmospheric cost, we are sure is a heck of a lot higher than the $12, $13, $15 bucks a ton. The damage to this planet is truly severe to the economy. The Act requires this cost to be incorporated into the plan rather than set aside as just another risk to be dealt with at some future time. The Council's plan must show us the way to meet responsibilities for the future demands. So thank you.

MS. DUKES: Thank you. Okay. Rhett is here. And after Rhett is Zephyr Thoreau.

RHETT LAWRENCE: Chairman, members of the Council, good evening. My name is Rhett Lawrence, L-a-w-r-e-n-c-e. I'm a policy analyst for Save Our Wild Salmon Coalition. Founded in 1991, SOS is a nationwide coalition of conservation organizations, commercial and sport fishing organizations, businesses, trade groups, and taxpayer advocates all joined in the commitment to protect and restore Pacific Northwest wild salmon and the communities that depend on them. Thank you for the opportunity to testify before you today. We will be submitting more detailed comments later, so tonight I wanted to

highlight some of our main concerns and echo a few of the other comments you've heard tonight.

First of all, we applaud the Council for drafting a plan that we think is a very good start, but which does not go far enough either on the energy side or on the salmon side. We need for the Council to be a strong leader to counteract the effects of global warming and to help restore our major salmon runs. You've already heard much about the energy side of the equation, and we concur that state laws in carbon dioxide levels and meeting all the energy demands on conservation are laudable goals, but merely stabilizing carbon in the region isn't good enough. We need to reduce carbon production as soon as possible and focus even more on conservation and energy efficiency. As illustrated clearly in the "Bright Future" report that was collaborated between Steve Weiss and the Northwest Energy Coalition, and bolstered by the Council staff's own research, we have plenty of untapped conservation potential in the region, so the final plan must call for a more aggressive conservation targets.

Furthermore, the final plan must start a course to getting rid of coal in our region. The

analysis in the draft plan make it clear that shutting down coal plants and replacing that dirty power with clean energy would be both doable and affordable. So with so many power alternatives in the region, why would we even bother with coal anyway?

But Save Our Wild Salmon's primary focus, of course, is on the story about salmon, and we believe the final plan must do more to ensure the continued existence of these iconic fish in our region. As you know, and has been stated already before on the Northwest Power Act of 1980, the Council's verse, "Both the planning and communities on -- can simultaneously give equatable treatment to fish and wildlife. Unfortunately, all too often, energy needs have trumped those of wild salmon, and we believe the Sixth Plan is the Council's opportunity to correct this historic imbalance."

SOS believes that the science is clear that removing the four lower Snake River dams is the best and perhaps only way to ensure the recovery of the endangered Columbia and Snake River salmon. As you know, the Council's staff on analysis has shown that replacing the power from these dams would have only minor rate impacts to consumers, and contrary

to some exaggerated claims that you've heard tonight and elsewhere, the Council's own model ensures that meeting the efficiency and renewables targets of the plan would mean that very few new resources would be needed to replace the dam's output. Unfortunately, the Council has chosen to ignore those findings in its recommendations. But we strongly urge the Council to keep those analyses in the plan, and we hope that they will guide your future actions.

So in conclusion, the bottom line is we can and must chart a path toward clean energy, wild salmon, and to help the economy and environment. We have more than enough clean energy and conservation at our disposal to meet future power needs, get rid of the region's coal, and restore endangered salmon by removing the four lower Snake River dams. Now we just need your leadership to get us there. So let's make the Sixth Power Plan as strong and forward-thinking as it can be. Thank you.

MS. DUKES: Thank you.

ZEPHYR MOORE: Zephyr Thoreau Moore. The author is in the middle there. My first name is Z-e-p-h-y-r M-o-o-r-e. Salmon are living and are in food. We can and must preserve their masterpiece. And to do that, we need to teach people how to

conserve. And a very easy way to do that, people have hot water heaters. Well, they only use really, really hot water a few times a day. Shut the hot water heater off at times in between. Just use the breaker box. Click, and it's off. Overnight? Well, click, it's off. There will be plenty of hot water when you need it. Just click it on before you use it. Restore the watersheds so we have ongoing stream flows. Help plant trees. Even on my business card, "Help plant trees." And that's all I have for right now. Thank you.

MS. DUKES: Jeff Hammarlund. And after Jeff is Jim Edelson.

JEFF HAMMARLUND: Good evening. It's been a long evening already. You have a number more to go, and everybody is still bright-eyed and bushy-tailed. I appreciate that. My name is Jeff Hammarlund, and I'm a member of the faculty of the Mark Hatfield School of Government at Portland State University. My name is spelled so incorrectly, I can hardly remember how to spell it. So I'll try hard. J-e-f-f H-a-m-m-a-r-l-u-n-d. And I am a member of the faculty of the Hatfield School of Government at Portland State. I teach a number of graduate courses and professional development courses on

energy policy. I have two graduate students, also professional development students, from the EPA, from both the region's utilities, the local utilities, so of course PGE that -- by the way, we have people who come from Clark PUDs, the Union PUD, as far away as Cowlitz PUD taking these courses which is really cool. Oregon Center for Efficiency Alliance, and Boardman Department of Energy PUC, so it's a real wonderful mixture of university students and professional development students, and we offer to send folks -- Clark, Washington state, Vancouver, sends their people, so we have this kind of nice mixture of students and professional development people.

I've been involved in the Council's Sixth Plan in quite a bit of detail. About last spring, the primary case cited focused on in the "Northwest Energy Policy in the Columbia River" class was the Council's Sixth Plan. Of course I was hoping to leave last spring, that didn't quite happen, but I had the honor of some wonderful Council staff give presentations; John King, Michael Shimoa (phonetic), John Harrison, let's see, Tom Hammond. One of my other classes on the Smart Grid, we had the honor of having Ken Corann, so our purpose has been -- so

it's been wonderful. And for those folks who are not -- in audience who don't -- aren't versed in this stuff, the Power Council has the preeminent staff, I think, in the country, bar none. Just flat out the best.

So one of the things we do in this course is we look at case studies. We look -- basically, our final exam question last spring was a simulation where the students were asked to make recommendations to you, the council members, on the Sixth Plan based on what we had at that point. I'm also -- and I should say that -- there was a question earlier on about funding opportunities such as a huge, wonderful grant just came out two weeks ago from the Department of Energy. $44 million specifically for the PUCs, but $100 million for universities, community colleges, trade groups, and so on, to really beef up their clean energy, renewable resource, and Smart Grid prevalence, and I'm very pleased to say that what we're trying to do in the Northwest have all the colleges and universities, community colleges, and so on collaborate together on a regional effort to have the -- to get a part of that money and have the best program we can for jobs in the future.

Now, I've also had the honor way back -- we'll go through a story about this. I was working on a PhD dissertation in 1978, the Brookings Institution, interviewed the term senator, which would have been Mark Hatfield -- I'm sorry, Senator Henrietta Jackson, and the ranking member, Mark Hatfield, is part my dissertation research. Unbeknownst to me, they were interviewing me to join the committee staff to write a piece of legislation that is the subject of my PhD dissertation, and that's the Northwest Power and Conversation Act, so I had the honor of being one of the staff who developed the writing of the provision in the legislation that created energy conservation as a resource. Of course, the member of the committee, and my hats off to him, that really championed that is Senator Hatfield right here in Oregon. So I'm incredibly delighted to see what has happened from that. We had no idea that the Council would be able to come up with as sophisticated a plan that you have now in the Sixth Plan, and the work that's done on energy efficiency in particular is incredibly, incredibly impressive, and I just -- my hat's off to you guys.

But I do have some concerns -- Steve Weiss

is from the -- I'm also wearing another hat tonight. I'm also the Chair of the Oregon Caucus of the Northwest Energy Coalition, so I have this technical point to bring out, but it's an important one, and that is the Council really needs to understand, in my view, a key thing between planning for risks and internalizing external costs. Utility and Council planners, almost uniformly, deal with carbon -- CO2 emissions as a risk, as historically been the case. That is, the utilities plan the carbon price on the distribution of carbon prices or distribution of carbon prices reflect the possible costs, in some cases, someday maybe congress will impose some sort of CO2 regulation, and this paradigm of CO2 emissions did not have a cost until congress or some other authority, some regulatory body, perhaps establishes one. As a result, today's emissions are assumed to inherently have no costs at all. By my view, the Council is subject to the Northwest Power and Conservation Act. I was there, and I remember working on these provisions. Specifically, the Act says little about risks, but a lot about costs, including environmental costs.

Section 34B includes, I'm quoting now, "Quantify for environmental costs and benefits in

overall system costs." Section 483C, "Part of the Council's plan is to include," and I'm going to the end now, "the methodology for determining, one, viable environmental costs and benefits." Simply put, the Council was required, in my view, to treat important pollutants such as CO2 as a cost, not just a risk. That could make current emissions just as important and just as costly as future emissions. So I agree with the Northwest Power -- the Northwest Energy Coalition and others who are making this argument that the Council's current draft plan, while outstanding in many, many ways, violates the Act by failing to determine and quantify both environmental costs of greenhouse gas emissions and that of including those costs as system costs.

I want make one final point, that adhering to the Act's requirements might significantly change resource for energy recommendations. Specifically, the Council analyzed a wide range of CO2 costs. It never actually determined the costs as the Act requires. This omission, I think, has several consequences, and I'll just end with this. One, it sends BPA and the regions's utilities a message that CO2 isn't really a problem yet. It's not a problem until congress, or the courts, or somebody tells

them it is. The policy is pollute all you want now until someone takes it seriously. That's kind of the one version of the message it sends. The draft plan's current policy scenario is not dramatically different from scenarios with high future carbon risks because the risk factor is variable rather than embedded. Assigning a cost to CO2 will result in emissions reductions.

Two real quick more points. The draft plan provides little direction to utilities to reduce their emissions in accordance with the targets that Oregon, and Washington, and Montana have already set. And then as we've seen already, in keeping emissions flat -- CO2 emissions flat, it does not meet the current climate challenge.

The draft plan does show that the region -- does not show the region's least-cost, leas-risk path, in my view, to carbon reductions. For example, the Council modeled just one case, just one case, for actually reducing emissions. It was a one-time complete coal shutdown case. Frankly, a rather unrealistic scenario, but they all kind of shut down on the same day. It was all like in 2020. So the Council should model in the plan and compare various spaced out approaches to find the best

approach, the least cost and the least risk, use this approach for that phaseout that comes with a lower cost and bill impacts to the region where it's actually limiting total hours of coal plant operations, and planning phaseouts to getting the least -- the most efficient plan would be the way to go. Thank you.

MS. DUKES: Thank you. Jim Edelson. And after Jim is Dan Cobb.

JIM EDELSON: Thank you. My name is Jim Edelson, E-d-e-l-s-o-n. I'm a consultant in energy efficiency and climate issues. I have represented the Ecumenical Ministries of Oregon, I was on Governor Kulengowski's Carbon Allocations Task Force and his Energy Efficiency Workgroup, and, in addition, I am a consultant on national building codes and the state codes here in Oregon, and Massachusetts, and other states. It is my honor to testify on the Sixth Power Plan. Today I am testifying on my own behalf.

The Sixth Plan offers some of the best regional electricity planning in the world, and this is paying off as great hope that the Northwest region can and will move away from fossil fuels for the basis of electricity generation. I would like

to offer the observation that not only -- these energy efficiency trends, though, this plan captures much of the potential that energy efficiency can deliver.

But in my area of expertise, commercial building codes, I believe the plan does severely underestimate the paradigm shift under way in this sector. By looking at the diagram I have distributed, it will help illustrate why this region will achieve much greater savings in its commercial building sector in the next 20 years. The diagram you see was prepared by Harold Tilly (phonetic) of the Architectural Energy Company of San Francisco. He is one of the deans of building codes in our nation. This illustrates a massive shift going underway. For the past generation, we have talked about how much energy a building can save; that is, every three-year cycle, save maybe five, maybe six, maybe four percent. I'm happy to inform you that this paradigm is shifting. In 2012, both the national model codes, one which I helped write, the International Energy Conservation Code and the ANSI 90.1 will both recognize 30 percent energy savings over the baseline. That's 30 percent; not three, not five, not ten. 30 percent over the baseline of

90.1 in 2004. And this will be near the limit of that traditional approach. Beyond that, you'll see beyond 2015, this is the -- the question will not be phrased as how much can we save, but how much energy does a building require and does its users actually use. These will be behavioral questions. These will be environmental questions. These will be new questions.

I'm happy to say to you that the best savings is in the rock, in the concrete. How we're looking at it is -- there's a tremendous amount of steam behind this effort. The U.S. Department of Energy and all of the national labs are working furiously to figure out how we get to 30 percent, how we get to 50 percent, and then what is the pathway to zero. No modeler, not even the great modelers here in Portland by this plan, could capture this paradigm shift. What I want to say is that these building improvements are not just happening in Oregon and Washington. These building -- these improvements are happening nationally and will become standard and practiced nationally. No state, not even Idaho, not even Montana, should act as we lived in the last generation.

Bottom line, we will never need to build

another base load fossil fuel plant for this region. I believe the net number for 2030 should not be 7,400 average megawatts, as it is capable of 3.3 in electricity demand for the commercial sector, but the number should be closer to 6,000 average megawatt hours. I think you have underestimated by half the actual potential -- not potential, the actual accomplishment in energy efficiency we will build into this region as the natural replacement and renovation of the commercial building sector takes place. I look forward to seeing your final plan, and hopefully the final plan will recognize this paradigm shift, and I hope the energy efficiency numbers are adjusted. Thank you very much.

MS. DUKES: Thank you. Okay. Dean Cobb. And after Dan is Tyler Bristow.

DAN COBB: Thanks for letting me talk with you. It's late. For me it is, anyway. And the time you're giving us this evening is valuable, and I appreciate it greatly. I work at Intel. I don't represent Intel. Intel is the largest purchaser of renewable power in the state. That's big. Intel seems to care about this issue of global warming and renewable power. Intel just recently installed a

large array of solar panels in its Jones Farm, Oregon campus in Hillsboro. That's big for us, and most of the employees are motivated by that, they were inspired about by that, and I'm not sure why there's a lot more -- not a lot more here tonight. Now I have to worry that maybe I wasn't loud enough.

Anyway, I -- well, I think the transition that happened for me over time, and I -- yeah, I voted for Ron Regan. Last year, I voted for someone else: Barack Obama. Now, that just shows you that there's been a transition in my mind. So recently I went to this -- a meeting that made me aware. It was a meeting at the World Trade Center where I got to take a look at PGE's plans. The idea that PGE would present a plan that shows no net reductions in CO2 emissions here, now, in this time in history is absolutely ludicrous. It's insulting. It's contemptuous. The evidence for global warming -- now, I'm not a science of -- climate science, I'm not -- that's not my field, but I do a fair amount of reading in highly technical journals. The evidence around this is overwhelming. You know, we've got big, big problems. And as a private citizen with my first grandson on the way, we've got problems, and I don't want him facing a future that

is so catastrophic.

The evidence doesn't look good. Even now with polar icecaps melting, with Greenland suffering rapid meltdown, with ocean conveyor systems suffering slowdown, with acidification of the oceans, these are big issues that most people don't pay much attention to, but it's going to impact the planet in a disastrous way, I would think, within 50 to 100 years. And at that time, the world population growth will be in the neighborhood of 12 billion, all them living -- many of them living in highly stressed environments already, so kind of the possibility for massive human loss is high.

Back to my point here a little bit. So the point here is that we live in an important time in human history, and your role is far more important today than it was 20 years ago. At least what we know. The positions you have today have global impact. You're not just deciding power policy for the Northwest consumers and only thinking about the cost of power and how to move it around and distribute it. You're making decisions that truly could have global impact because you see a lot of human organizations like you around the planet that are making these decisions, so you might say

you are at the cusp of it, you're at the top of it. You might say you're all the president of the United States or something because you represent that level of power, so the decisions you make have a lot of influence.

If I was in your seat, I would kill coal as soon as I possibly could. I mean as soon as possible. I don't care about the cost of power. If I had the choice to buy electricity that wasn't produced by coal, I would not buy it. It's like two powers on the shelf; one that is green power, and one that is toxic power from the very first moment it's pulled out of the ground until it's tossed into the air where it poisons all of us. The nation that uses coal to generate power is suicidal. It's absurd. We know better than that. We really know better. And the science tells us that.

There's a whole commentary of people don't actually buy into this global warming and that we're being convened to it. Our universities graduate fabulous scientists in all disciplines, and we've achieved breakthroughs across the board, and it's phenomenal. It really is impressive. The naysayers would have us believe that those same universities, when it comes to climate science, produced idiots

because they can't -- we're not supposed to trust the scientists about the unfolding disaster that we see around us. We're supposed to think, oh, that's not us, nothing to do with us. I think that they're right. I think that these climate scientists know damn well what they're talking about, and I don't want to gamble on a future that may be very wrong. I don't go to Las Vegas very often because I don't want to go lose. The house has the advantage, and I don't like losing that much money. So they say, "Well, your luck may change." Yeah, right. I don't go very often. Now, the house odds are something like -- you know, whatever, 60, 65, 70 percent, but you're only gambling $100, or $200, or $300 hopefully. We, without taking aggressive action on global warming, are gambling with odds that are grossly against us. The odds against us in terms of the catastrophe of global warming are catastrophically high, and yet we're willing to gamble the planet. I don't get that.

We've got to take aggressive action near-term to close these power -- these coal-fired plants down within the next five years. We have the technology to do it. Again, I work for an employer that is into technology. We can do this. We can do

it near-term, and we really have to. I don't really envy you for your position, but your obligations to society are huge. They're much, much higher than they used to be, and perhaps you need a giant raise of some kind to impress upon you the fact that's true. I don't know. But we have problems, and you guys have got to help us solve them. Thanks.

MS. DUKES: Thank you. Tyler. And after Tyler is Joel Batterman.

TYLER BRISTOW: Hello. My name is Tyler. I'm a student at Mount Hood Community College. I was born and raised here in Portland. And, first, I'd like to thank you, NWPCC, for the decision not to build any new coal plants in the state of Oregon and acting in the best interest of the community.

Growing up in Portland and the Northwest -- growing up in the Northwest, excuse me, our region has a great love for its lush forests, salmon runs, iconic rivers like the Willamette. These resources give us what we need to survive day-to-day. Today we have the technology that will allow us to move into a clean, renewable energy future in a manner which can have a truly positive impact on our economy. By providing new jobs in energy engineering, green energy, maintenance and

construction of a renewable energy infrastructure, it can truly help out the economy to move in the right direction, so I thank you for taking the first steps.

Coal plants like in Boardman poison our environment, rivers, and communities with toxins such as mercury, asbestos, and sulfur dioxide. I think these places, the rivers and streams that we have all grown up around and learned so much about through nature and life, should be areas for enjoyment, community building, learning about nature; not toxic waste dumps. These toxins are killing innocent people not just in Oregon, but worldwide. It's time for a clean, safe energy. Oregon deserves a safe environment. How is it that our society continues to rely on this deadly energy source? The $600 million that Boardman requires to meet the 1976 Clean Energy Standards should be spent on safe, clean energy. Instead of investing it in inadequate solutions, we should move toward lasting, permanent solutions to our energy needs. As Boardman is planned to shut down by 2040 as it is, this is a complete waste of money.

The growing eminence of the planet's climate crisis will not be stopped by anything less

than immediate action. Coal is responsible for over 42 billion tons of greenhouse gas worldwide, and Boardman burns more than 5 million tons of coal each year. That's a trainload every other day. 150,000 perish each year due to the effects of climate change through catastrophic hurricanes, melting icecaps, droughts, and rising sea levels. Our reliance on coal must come to an end. We have the means to save the planet from catastrophic effects of climate change, but we must act now, and you must shut down the Boardman coal plant.

Thank you, NWPCC, for your movements against the world's dirtiest energy source. I hope you continue in this direction in serving the Northwest in a manner which promotes a greater public good and health. Thank you.

MS. DUKES: Joel Batterman. And after Joel is Borden Beck.

JOEL BATTERMAN: Hi. My name is Joel Batterman, and that's B-a-t-t-e-r-m-a-n. I'm a student at Reed College here in Portland. We're on -- I'm a member of the Greenboard, the student environmental group, and the campus coordinator for the Cascade Climate Network, the Northwest's regional student environmental organization. I'd

like to express my sincere thanks to you for being here today.

I come here with a lot of hope and a lot of fear. The fear is there because I know that we are in deadly serious trouble. The power that we've drawn every day to live our lives and make our livelihoods is simultaneously endangering lives and livelihoods, those people around the world, those people not yet born, and our people. It can be easy to forgive this now that we've swept the coal dust form our cities, but the fact remains that here in Portland, perhaps the nation's sustainability capital, nearly half the electricity we use to light our compact fluorescent light bulbs, shelled out power in our hybrid electric cars or electric assist bicycles, if you prefer, nearly half of that energy comes from burning toxic black rocks, the kind my grandfather was mining half a century ago, the kind whose dust may have helped kill him.

Thanks to coal power, we can gain the gift of light with a flick of a switch. But that very same action may steal the breath of someone downwind, and it's now crystal clear that whether or not we pay daily witness to the polluting smoke, they touch us all the same. What happens out of

Oregon or other states also does not stay there. We have only one atmosphere. If we carry on the status quo, if we carry forward our dependence on polluting power plants, we will scorch the atmosphere beyond recognition, impairing the future of the earth and human civilization. This is not proxy. This is the most carefully peer reviewed science the world has ever seen, and it's severe.

But I also come here with a lot of hope. That's because I know that the tools we need to escape disaster already exist today. The same scientific methods and techniques that brought us catastrophic global warming have also given us the tools to end it. In the past few decades, we've pioneered a few methods of extracting energy from the ground that's used nowhere else. We have incredible tank systems that draw on sun and use of wind turbines to harness the air instead of fouling it. Most importantly, we're finding new ways of conservation through powering technologies and living our lives without the massive expenditure of kilowatts that we've come to take for granted. We can still look forward to new discoveries, but we already have all the know-how we need to turn back the climate crisis for good. That's the hope.

But what remains for now is only hope. Know-how is nothing without leadership. I complement the Council on the power plan which recognizes the value of conservation, as our national leadership so recently refused to do, but the Council's plan does not go nearly far enough. We must end, absolutely, our reliance on toxic fossil fuels or endure a catastrophe without precedent in human history. Time for doing so is quickly running out. In many ways, time has run out. We need to start doing all the right things right now. Every moment we equivocate brings untold catastrophe in years to come. We cannot simply keep the fire at its current size. We're suffocating, and we need to put it out.

As the Council contemplates the power plan, it has the power to choose between fulfilling our worst fears and satisfying our greatest hopes. It's no small power. And I do hope that you'll keep my generation in mind. Remember us or we'll remember you. I urge you, whatever the pressures you feel, give us hope and take the path of light and love. Thank you.

MS. DUKES: Borden Beck. And after that we have Richard Eisler.

BORDEN BECK: My name is Borden Beck, and I am a middle school teacher here in the metropolitan area, so I hope that maybe I'm speaking for, in addition to the college kids who have spoken tonight, maybe some of the younger kids.

AUDIENCE MEMBER: Your mic's off.

BORDEN BECK: I can just talk loud. Well, we'll just go talking loud while this goes on. Anyway, I hope that I also represent my students, but my -- you know, the 13-year-olds who are not going to come out this late to talk to you guys. But the decisions that you make are going to affect the college kids and my kids far more than they are you or I because they're going to be around longer to deal with it, so I sometimes often use the analogy with kids of computer stuff with 20th century technology and how, you know, they need -- we all need to move into the 21st century, and I see the issue with coal as being the same thing. It's a 20th century technology. It was great a hundred years ago, I guess, but it is not something that we should be pursuing in the 21st century. It should be solutions that meet our modern day sensibilities.

Coal, it's a very dirty source of energy. A lot of people talked about it, with the gas ring,

and mercury, and sludge that's left behind, of course the enormous carbon dioxide pumped into the atmosphere. We should be pursuing conservation and alternative energy more vigorously than what you guys are proposing. And besides the pollution, you know, it's a disgraceful impact on the landscape, the mining of coal, whether it's strip-mining in Montana or the mountaintop removal in the Appalachians. You know, those lands are not going to heal for generations. They are going to be bare landscapes.

And, in my mind, the primary beneficiary of continuing coal is just the coal companies are going to make money off of it. It is not the citizens of Oregon and the energy users of Oregon. So rather than investing hundreds of millions of dollars to perpetuate, you know, cleaner coal generation, which I consider a propaganda tool for media consumption because coal is not clean energy no matter what we do with it, we should be investing that money in clean energy generation and conservation. When you calculate the costs, which is part of your job to make and advocate for cheap energies, I would encourage you to consider these environmental costs that are very real. However

hard they are to put numbers on, they are absolutely real, and they will affect our future generations for, you know, centuries.

And, you know, whether it's human health, or air quality, or downstream water quality from mines, they all carry a price, and we can crunch numbers, you know, all sorts of different ways and statistics to advocate for cheap energy, but the reality is that coal power generation is no longer in our social or economic interests, at least not in the interests of us regular citizens who use it. I think it's your job to advocate for power solutions that benefits Oregonians -- the Northwesterners, not merely the bottom line, that helps perpetuate the coal companies and their generation, and the power plants, I suppose. You know, the absolute cheapest solution for energy to ratepayers does not mean that it is the best if you do not include all these other environmental effects from dirty coal.

So I'll leave you with this analogy. When I go to the store and buy a pair of shoes, you know, we all love the cheap bargains that are out there, but that does not mean that the cheapest shoe for sale in the store is the best shoe for me to buy, and it's rarely the one that I will buy. I will buy

one that fits well, I will buy one that lasts long, and that is going to be the better choice anytime. I hope you will help us wean ourselves from coal. It's a losing proposition for future generations.

MS. DUKES: Thank you. Richard Eisler. Richard Eisler? Martha Perez.

MARTHA PEREZ: Hi. I'm Martha Perez. My name is spelled Martha, M-a-r-t-h-a, Perez, P-e-r-e-z. And I'd like to thank the Sierra Club and the salmon advocates for inviting me. I'm a former employee of Bonneville Power Administration Energy Efficiency Office. I served as a student intern. And -- but that -- okay. Thanks. I served as a student intern in the energy efficiency office. I'm a registered member of the Klamath Tribes of southern Oregon.

And a couple of things that I learned in my experience -- and I'm very proud of my service, but I also realize the constraints that our government is facing with respect to global warming. Even if you do everything -- even if the Council were to do everything that you good folks are recommending, it's not going to be enough to stop what's happening. And even if we don't do anything at all, mother nature will take care of it, so --

you know. I don't mean to sound so pessimistic, but I dedicate my testimony to the already victims of Hurricane Katrina. If our plans were working and our models, and we have time to do the models to make this work, we would have prevented that, right?

So, basically, here's what I think. What I've learned is that Celilo Falls was drowned. Native Americans were very saddened, but I also learned that a lot of the non-natives were crying tears on the day with Celilo Falls, and I would like to see Celilo Falls restored someday. I call that a diversity issue.

And the models, we don't have time for modeling to see best practices. There's no more time. Let's try pilot programs targeted to how we seek our resources. In other words, you know, you have to -- you can make a choice. Either -- you're subsidizing coal with government taxpayer dollars at the expense of subsidizing new pilot programs that could continue to explore what we're already doing in addition to what we're doing.

We don't have the political will right now to overcome the corporate interests in this game. That can change with public finance campaigns. I am glad to see that Jeff Bissonnette is here and Mr.

Minthorn is here because I'd like to run for office someday, too, and not sell out, and send an example to the young people about how you can actually be in the game and not sell out. Thank you.

The other thing, when I worked at BPA, we talked -- in our team meetings, we talked about kilowatt hours. You know, I took a lot of notes about our meetings, and I remember distinctly this conversation we're having right now. We rarely had those kind of conversations at our team meetings. We just talked about things in terms of like kilowatt hours, all the, you know, RFAs, MOUs, and all the technical government jargon that the public doesn't understand. I mean, you know, people like -- we have a contract that caused -- that occurred without question because BPA doesn't do a public input process like we're doing tonight. But there's a lot of cracks in the foundation, and I'm just going to be up front with you about that. We can -- you know, we have a long ways to go in addressing these things, so --

And, now, you know, I'll just speak from my heart. You know, there's permits in place that you can challenge legally. A lot of these things are going to end up in a court of law, so if you

know that ahead of time, you can psych yourself to prepare. You can confront the stakeholders meetings. We need to put this -- there's also a lot of conferences that the corporations and individuals go to that promote coal that you can rally, you can confront, you can continue to do those letters, you can continue to do this, you can do sit-ins. It's strictly on how radical the individual wants to be -- or how the individuals want to be on action. Because this is all about action. This is just testimony, so even if you do something tonight beyond -- because you don't have the power, right? It's mother nature. It's a hurricane, you know. I just don't mean to be pessimistic about it, but, you know, I wish you all the best of luck.

And our healthcare system is not prepared for -- you know, Hurricane Katrina hit the hospitals in a matter of a few hours. It was a disaster zone. They did these things and -- you know. So until we get that political will to -- you know, that's something under your folks' control. You don't have the power, but I, as an individual, can do something or Mother Nature as a force will do much better. Thank you.

MS. DUKES: Thank you. We have about

eight minutes, and they're going to take the room back, but I have about four names left, so we should be able to do this. Fred Heutte. And after Fred is Jessica Hassler.

FRED HEUTTE: Hi there. Fred Heutte. That's spelled H-u-e-t-t-e. I'm currently the co-lead of the Sierra Club's federal and international climate campaign. This is one of several national campaigns the club is running, one of them the Un-Coal Campaign which we have a wonderful turnout from our Un-Coal folks here tonight.

I recall being at the very first meeting of the Council in 1981. Hadn't been around a lot lately, though, so I'll get back to that in a minute. But I remember that, and, actually, I was interested to see at least one other person who was at that meeting, Roy Hemmingway, who was here earlier who was a member of the first Council. And along with Roy was a member from Washington state, Chuck Collins, who, not at that first meeting, but later in the year, came up with a phrase that has stuck with me ever since, which is that the whole point of this plan is buy only what you need, and buy the cheapest things first. I think today he would say buy the cheapest and cleanest. But Chuck

was from the business side of things, not from the power side, so I think he wanted to find a way to explain in a rule of thumb the essence of what this process is all about, and that has stuck with me ever since.

The fact that this process has managed to last three decades and is producing and continues to produce tremendous value for this region has great importance not only for us, but I think globally as our mission goes along. My recommendation to you on consideration of this draft, first of all, it's very important for us to take our responsibilities about greenhouse gas emissions seriously. There are the quantifiable and non-quantifiable cost amendments referred to in the Act that Jeff Hammarlund talked about, and it's not just a question of coal. We also have to eventually consider the use of natural gas in this region, another greenhouse gas emitter. But I think we also have to recognize the important role of coal and gas, but especially coal that play a role in bringing us the quality of life that we've got.

It's time to move beyond coal, however, and that's the whole point. The Sierra Club is working on a lot of what I call "groups". But I

think we also ought to recognize the value coal has provided, and the fact is that the people who provided the coal from the coal plants are good people. We are part of their society. They are a part of ours. We ought to reflect on their contributions to our current way of life and what we've gained from that. In the labor movement, there's a concept called "just transition". It's important for us to have just transition from the current power system. We've got to deal with the various problems we have including greenhouse emissions, but also to make it a just transition, so we should remember, as we move away from coal, that we have to take care of those people in that industry just as they have taken care of us.

I notice in the room that there is a very nice memento of the work that was done in this building nearly a decade ago to renovate it. The signatures that you see on the back wall there are members of labor unions who worked in this building to produce this wonderful renovated facility. It's energy efficient, has day-lighting, has what was years ago a much more modernized power -- power and heat and lighting system that we've got in here. The fact that we have built -- in the ceiling, you

can see some of the work and some of techniques that have been used to produce exactly the kinds of outputs we need for energy efficiency. Now, it terms of going to look at this -- I'm not a real expert in this stuff, but I'm sure others are so because they would probably find lots of things to be improved. One of the problems -- one of the issues with energy efficiency is it's the low-hanging fruit that it's throwing back. So we know that as time goes on, we're going need a lot more work done in this region to weatherize, upgrade, make more efficient every building that we've got.

The second point, therefore, that I will bring to your attention is that it's really important for the Council and for the region to get serious about bringing this energy efficiency at scale. Every single building in this region, including ones that have already been retrofitted, are going to need an additional treatment door monitors, including this one. There are tremendous benefits to gain from that, and we should not underestimate the importance of thinking at scale. The region's always been, as my friend Rob was saying, very good at least-cost planning and not so good at least-cost doing, and so I think we need to

move in that direction as quickly as possible and realize both the systemic benefits and the economic and social benefits that would arise.

The last thing I want to say is something about a broader question. One reason I'm not in this process very much anymore is that I'm actually involved in the UN Climate Negotiations. I was in Bangkok last Friday as they were closing the last session. I'll be going to Barcelona, and then on to Copenhagen. That process is drifting into a real deadlock situation. I think a couple important things that are missing right now at the UN Climate Negotiations are competence or experience and trust. They haven't learned from what we're doing here in the Northwest, and I think the Council and the whole region ought to be telling our story globally. We don't know everything. We don't have all best answers, but we have a lot of good ones. We can learn from others, but we have a lot to teach. The experience that this process has brought has shown a solid policy basis in the law of 1980 and in the very serious efforts the Council has made over the last three decades to do a proper job and to learn from the actual experience we have doing energy efficiency renewables in the field, and bringing

that back into the plain. This is critically important for building that same level of experience globally.

And the second thing is trust. I mean we're not exactly one big happy family in the Northwest all the time, but consider where we were in 1981 with a crashed economy, with the region at each other's throats over nuclear power, the Wolf's plants (phonetic), and other things. We've come a long ways since then, and the Council has played a big role in it.

So I really encourage you in be bold, do not falter and stay the course in your consideration of the final plan. Thank you.

MS. DUKES: Jessica? Jessica Hassler? Okay. Joe Esmonde? And after is Bradley Hewtz, H-e-w-t-z.

JOE ESMONDE: Good evening members of the Council and Former State Senator Joan. My name in Joe Esmonde. I'm a business agent for the IBEW Local 48 here in Portland, and I just wanted to say a few words. Not about policy or salmon. I worked with Mr. Grist on energy -- himself on energy efficiency. I just wanted to let you know -- and I wish you had the wand to open up the money -- you

have a very trained and skilled workforce here in the state of Oregon who are going through roughly 30 to 35 percent unemployment right now. Energy efficiency projects would put these people to work, so -- and I have the same message to our U.S. senators.

We at IBEW kind of got ahead of the curve. I've got 1,700 people training in solar installations, the same people who do this, who do Intel, who do hydro, fix low voltage, so we have the same kind of people who work in wind, probably a few hundred on hydro, and as far as the wave technology, one of our contractors works with Oregon Ironworks on the new wave buoy system. EV, we are part of a federal grant to have EV stations. Electricity, we wire that stuff. We have -- most of our major contractors are being certified and have been for a number of years. We have installed the largest solar here in Oregon out here on Airport Way, and we do work on the specialty codes to reach code for more energy efficiency in new buildings. And the street cars that you see out here, we will -- that should be coming out in this state, and I think Seattle and Tucson are being wired by us. So we were -- we're excited about this.

But we need to go to work. The transmission line, as you know, we must, to tell you again, they're probably older than I am, so you can see a little wear that gets on them. So if you can do anything to expedite those transmission lines so those wind and -- for those windmill projects and eventually large solar arrays over in eastern Oregon, which has some of the best sun in the country, can be hooked up.

That's -- that's about it. I do -- I like to stand back here where it must have been my show. There is transmission going on. I wish we had some leadership in the country to get the environmental people, the construction people, the business community, and say, look, you want this, you've got to do this, and back and forth. We need a very strong leadership, and if you can send a signal to whoever you report to, that would be great, because the same people who want to put up wind ought to fight about some environmental impact. It's not that simple. I'm just -- I'm trying to make a 40,000-foot deal, so a lot of frustration. Thank you.

MS. DUKES: Thank you. Bradley. You are the last one we have signed up.

BRADLEY HEINTZ: Well, thank you. Thank you for your patience. My name is Bradley Heintz, that's H-e-i-n-t-z, and I'm here with the association of several play groups. I'm a father of two little boys, I have a four-year-old and a five-year-old, and I thought you guys might like to hear the perspective of a person who's not an expert on what's happening here. Myself, as well as the folks who I'm working with, we're all pretty much very busy with our very small boys and girls.

But I want to tell you a little story about a hike that I went out on last summer. I went to Cape Lookout with my two boys. If you go to Cape Lookout and you walk along the bluff there, there's a trail that goes down to the beach, and there's lots of old spruce trees there. As we're walking down this trail, I saw some English ivy, which is an invasive plant, and so my boys and I stopped. It looked like just a little bit, and we started to pull up the ivy. We spent about an hour there really pulling it up, and it was a lot of work. It was a lot of hard work. And what happened was one little tiny bit of ivy got started there. That's the only piece I've ever been seen there, and I've probably been there 12 times, and we caught that

early. We do a lot of hiking here up in the Forest Park area as well as all around Portland, and often times we cut English ivy because it's an invasive species and we find huge ivy ropes that you have to cut with little saws, and it's a fight that's difficult to win. And with what's happening with Boardman, I see it as the equivalent to the situation that we were faced with when we were down at Cape Lookout.

The other thing I wanted to let you guys know is you may wonder what are parents doing with their little kids. I mean are they home using power to watch -- video games? What exactly are they doing? And I want to let you guys know that my four-year-old, and myself, and my five-year-old, in past year, have over a hundred days hiking, canoeing, backpacking, fishing. This summer alone, we went backpacking 12 times, we went camping six times, canoe camping once. And I keep thinking it's going to end, but just this last Monday, we were at the Indian Wilderness Area -- Indian Heaven Wilderness Area catching the last dry days there. So we're trying our best to educate our little ones on the most important thing. And this is coming from a dad who's got a master's in business

administration, a master's in business information systems, I've got a degree in math and econ, and I think the most important thing is to teach my kids about living systems, and so that's what we're doing. And so I just ask that you guys do your part, and we'll do ours. Thank you.

MS. DUKES: Thank you. I want to thank you, and I'm sure my colleagues do, too, for taking the time and coming out tonight and sharing your thoughts with us. You are now part of our permanent record, and we will take all of this testimony into consideration. For any of you who would still like to offer comments to us, you can certainly send them through the mail or you can go to our website, www.nwcouncil.org and you can make the comments on the plan to us through that -- through the website. So, again, thank you very much for coming.

(Whereupon, the meeting was adjourned at 8:45 p.m.)

CERTIFICATE

I, Jea Oh, do hereby certify that pursuant to the Rules of Civil Procedure, the witness named herein appeared before me at the time and place set forth in the caption herein; that at the said time and place, I reported in stenotype all testimony adduced and other oral proceedings had in the foregoing matter; and that the foregoing transcript pages constitute a full, true and correct record of such testimony adduced and oral proceeding had and of the whole thereof.

IN WITNESS HEREOF, I have hereunto set my hand this 28th day of October, 2009.

/Signed June 01, 2012

Jea Oh Commission Expiration

$

$0 18:6

$100
7:14
7:18
18:7
93:16
105:14

$12 87:4

$13 87:4

$15 87:4

$200 7:1
105:14

$3 26:14

$30 6:23
6:23

$300 86:18
105:14

$35 6:23

$400 86:18

$44 93:15

$5 86:10

$550 59:13

$600 86:11
107:17

$64 29:1

$655 29:4

0

0 78:8

01 78:9

1

1,000 6:19
28:3
33:22

1,100 25:2
28:4

1,170 29:2

1,400
10:24
28:3
28:4
33:23

1,700
125:8

1,800
41:24

10 30:9
47:12
78:6

100
48:17
103:9

100kw 78:1

100-year-old
77:10

11 42:19
43:17
43:22

12 78:6
103:10
127:25
128:18

1200 12:16

13-year-olds
112:10

15 75:5
82:11

150,000
108:4

16 18:8
19:22
24:4

168 65:21

18 19:14

1925 35:21

1970s
80:23

1976
107:18

1978 94:3

1980 16:21
89:12
123:21

1981
119:13
124:7

1990
12:2
19:22
19:23
20:1

1991 87:17

2

2 28:25
78:10

2,000
36:10
73:7

20 8:10
8:15
8:22
50:4
55:9
62:7
74:7
84:22
99:11
103:17

20,000
8:14

200 79:17

2004 100:1

2005 12:2

2006 22:5

2008 38:22
81:2

2010 10:19
48:18

2012 99:20

2014 12:16

2015 100:3

2020
22:6
38:8
56:20
75:5
85:10
97:23

2025 38:8

2030 10:19
19:21
19:24
19:25
101:2

2040
107:22

20th
112:16
112:20

20-year
10:19
18:18

21st
75:1
112:18
112:22

23 19:25

25 19:23
24:7

27 81:3

3

3 78:10

3.1 59:11

3.3 101:3

30 38:16
62:8
68:9
99:23
99:24
99:25
100:14
125:2

30,000
36:4

300kw 78:1

34B 95:24

35 125:3

380,000
30:9

3rd 4:19

4

40,000-foot

26:25
126:22
400 11:2
42 108:2
45 33:19
48 124:21
483C 96:1

5
5 8:8
108:3
5,700
10:23
5,800
17:17
18:9
50 26:11
37:20
100:15
103:8
5800 10:23

6
6 4:22
6,000
101:5
6:00 3:3
60 105:13
6000 8:8
65 105:13
650 81:4
6th
15:13
25:24
30:17

7
7 51:20
7,400
101:3
7:00 82:11
70 105:13
73 63:10

8
8:30 15:25
8:45
129:19
80 82:13
85 8:21
35:21
88 11:13

9
90 65:16
90.1 99:23
100:1
947 75:4

A
ability
10:8
13:2
24:14
34:2
44:14
able
13:6
14:11
17:21
45:23
94:19
119:3
abound
19:1
abroad
47:16
absolute
114:16
absolutely
10:9
102:17
111:7
114:1
absurd
104:16
abundance
12:21
abundant
39:7
AC 83:9
academic
53:23
accept
20:14
acceptable
65:8
access
45:19
51:11
accessible
25:13
accessing
42:20
accommodate 20:6
52:6
accomplished 30:13
59:5
accomplishment
101:8
accordance
97:11
According
80:25
account
33:15
35:14
38:13
38:13
65:16
accountable 72:10
accurate
28:23
32:17
35:3
accurately
32:25
35:6
achievable
56:22
achieve
19:21
22:9
42:4
42:8
70:7
99:10
achieved
69:24
104:22
achieving
33:13
acid 81:12
acidic
81:11
acidification 81:8
103:5
acknowledge
20:13
57:6
acknowledgement
31:13
acknowledges 18:13
33:18
acknowledging
59:22
acquire
10:4
12:15
12:17
12:19
acquiring
59:2
across
22:16
32:15
36:4
47:25
48:23
49:7
63:15
104:22
act 4:14

14:22
16:21
54:17
54:25
55:4
64:21
87:6
89:12
94:11
95:20
95:21
96:13
96:20
100:23
108:10
120:15

acting
106:15

action
12:11
14:18
42:16
42:17
43:1
44:4
49:6
49:10
50:24
52:10
52:11
53:4
54:2
72:7
82:22
84:5
85:1
105:15
105:21
108:1
109:22
118:9
118:10

actions
12:14
90:9

active
46:16
51:14
60:10

actively
30:14
60:2

activism
54:18

activist
53:25

activity
9:6

acts 55:2

Act's
96:17

actual
101:7
101:8
123:24

actually
12:6
15:25
57:18
65:5
76:18
77:16
83:21
84:15
85:17
96:20
97:20
98:4
100:5
104:19
117:3
119:15
123:6

Adatto
66:6
68:17

A-d-a-t-t-o
68:17

ADATTO
68:16

add
44:15
82:22

added
59:12

adding
23:16
44:12

addition
71:16
98:16
112:4
116:21

additional
12:23
67:6
122:19

address
27:11
42:9
42:13
75:2

addresses
19:6
42:15

addressing
117:20

adept
48:13

adequate
6:2

adhering
96:16

adjourned
129:18

adjust
37:11

adjusted
101:14

adjusters
26:19

adjustments
24:20
34:6

administration
52:1
115:11
129:1

administrative 5:5

adopt 17:4
28:2

adopted
19:20
83:20
85:6

advanced
39:6

advantage
46:19
105:9

adverse
43:14

adversely
51:22
52:4

advice
36:24
37:12

advisor
37:13
37:14
37:25
39:20

advisory
30:22

advocacy
49:21

advocate
46:9
69:9
69:21
113:23
114:8
114:12

advocates
52:8
87:20
115:10

affect
45:17
50:13
52:4
55:15
64:13
112:12
114:2

affected

51:22
74:17

afford
24:13
60:8

affordable
6:15
6:16
6:25
26:1
89:4

affordably
30:11

afforded
48:4
48:5

aftermath
51:5

against
10:15
33:3
33:5
72:1
105:17
105:17
108:13

age
35:22
80:23
80:24
81:17

agent
124:20

aggressive
20:20
41:21
46:25
50:8
56:12
67:16
88:22
105:15
105:21

aggressively 13:16
46:10

agnostic
21:2

ago
19:14
35:21
53:20
79:7
79:18
93:15
103:17
109:18
112:21
121:18
121:23

agreement
33:8

ahead
30:17
56:20
80:10
118:1
125:7

air
21:12
75:11
104:14
110:18
114:5

Airport
125:19

alike 31:5

alliance
57:21
66:20
92:8

Allison
49:16
53:13
53:14
53:15
53:16

Allocations 98:14

allow 48:6
48:8
106:21

allowances
9:3
9:4 22:2

allowing
27:13
71:20
71:22

alone
128:17

already
3:23
16:3
23:6
33:13
41:19
43:6
43:7
43:9
56:21
56:22
56:24
88:9
89:11
91:15
97:13
97:13
103:12
110:11
110:24
116:2
116:20
122:18

alternative 113:4

alternatives 89:4

am 18:1
37:13
56:5
74:13
77:23
91:22
98:16
98:19
112:2
116:24
126:3

amazing
82:15

ambitious
56:21
69:25
75:16

amendments
120:14

American
13:13
14:22

Americans
116:8

among 19:8

amount
11:7
11:23
12:8
29:3
100:11
102:20

amounts
59:2

anaerobic
26:19

analogy
112:16
114:20

analyses
58:16
60:25
61:9
83:8
90:8

analysis
15:10
17:10
19:16
22:4
22:20
28:11
28:24
32:3
32:14
58:13
59:11
59:15
59:17
60:23
61:5
78:14
85:21
86:2
86:9

89:1
89:23
analyst
87:16
analytic
22:11
analytics
59:18
analyze
32:25
analyzed
29:8
96:19
analyzes
83:23
analyzing
46:21
60:11
Angus 16:7
16:9
16:10
23:21
70:11
annual 9:5
33:9
annually
33:9
ANSI 99:22
answers
123:18
anti-coal
54:16
antiquated
77:13
anymore
123:6
anyone
82:19
anything
107:25
115:24
126:5
anytime
115:2
anyway
89:6
101:19
102:7
112:9
Appalachians 113:9
Apparently
4:5
appear
11:8
appears
18:14
appendix
15:11
15:14
15:15
60:20
61:4
85:21
86:2
86:11
86:20
applaud
41:15
64:17
69:2
69:20
79:24
88:3
applause
11:19
20:22
appliances
77:4
application 26:14
applications 18:14
applying
53:25
appreciate
19:16
24:24
25:9
26:8
27:10
30:18
30:19
30:25
31:17
32:2
33:16
34:2
50:1
53:8
58:10
58:17
91:17
101:21
appreciated 58:18
appreciates 33:24
appreciation 16:22
approach
24:25
47:1
61:2
70:20
71:13
71:19
98:1
98:2
100:2
approached
45:22
71:17
approaches
97:25
appropriate 31:7
32:12
33:22
approve
84:7
arbitrarily 85:8
Architectural
99:13
Arctic
36:8
area 18:15
25:5
26:20
99:5
112:3
128:2
128:21
128:22
areas 17:6
27:22
32:11
45:3
51:10
107:10
aren't
12:20
93:2
argue
21:25
57:2
arguing
25:7
argument
96:11
arise
123:3
array 6:12
13:9
13:19
27:16
27:19
102:1
arrays
126:7
articulate
59:2
asbestos
107:7
aside 87:7
aspects
52:13
54:20
asserts
51:21
assesses
31:23
assessment

35:3
asset 28:21
Assigning 97:7
assist 41:22 109:15
associated 25:22 42:2 49:22
associatio n 26:10 127:4
assumed 95:18
assumption s 27:25 59:18
assure 6:2 25:10 26:1
asthma 47:14
Astoria 82:6
astronomer 81:21
atmosphere 75:13 81:3 81:9 87:2 110:2
110:4 113:3
atmospheri c 36:7 65:23 87:3
attack 71:3
attain 25:4
attempt 15:23
attempts 35:1 45:10
attend 47:21
attention 7:16 57:11 58:16 74:21 82:15 103:7 122:14
attest 21:15
attractive 54:20
attributes 8:22 10:7
audience 14:1 14:14 15:4 15:8 35:10
41:4 42:6 93:2 112:6
Austin 76:15 76:16
author 90:22
authority 95:16
availabili ty 18:13
available 8:10 8:15 9:14 9:16 9:17 11:9 11:23 12:20 12:23 13:10 18:11 25:15 39:7 46:13 52:22
average 6:23 8:14 10:24 11:2 17:18 18:8 22:10 22:11 22:13
24:13 25:2 28:4 28:4 29:2 41:24 101:3 101:5
avoids 8:23 8:25 9:18
aware 18:2 102:12
away 39:22 42:25 47:12 49:2 81:20 92:6 98:24 121:13

B

backbone 25:18
background 5:22
backpackin g 128:17 128:18
backwards 42:25
Badger 61:18
balance 13:4 40:1
balanced 24:20
balancing 46:6 46:7
band 24:25 25:2 25:7
Bangkok 123:8
bar 7:11 7:17 10:25 93:4
Barack 102:10
Barcelona 123:9
bare 113:10
bargains 114:22
barrier 22:1
barriers 27:12
base 20:9 21:19 37:2 49:11 81:13 101:1
based 24:3 27:25 68:10 93:11

baseline
99:24
99:25
basic 5:22
30:15
basically
28:8
57:22
58:15
86:2
93:7
116:6
Basin
65:21
basis
98:25
123:21
Batterman
106:9
108:17
108:20
B-a-t-t-e-r-m-a-n
108:20
BATTERMAN
108:19
battery
19:7
BC 82:8
beach
127:15
bear 32:19
41:2
74:10
Beaverton
37:10
Beck
108:18
111:24
112:1
112:1
112:7
become
36:17
36:21
37:4
47:24
100:22
becomes
78:23
81:11
becoming
42:8
beef 93:18
begin 57:7
beginning
4:8
38:21
behalf
98:20
behavioral
100:6
behind
22:24
100:12
113:1
believe
24:21
25:3
31:23
32:4
32:12
32:17
32:24
33:18
41:23
44:11
67:16
69:23
70:2
89:9
89:17
99:6
101:2
104:24
believes
32:7
89:19
Ben
68:14
72:17
72:18
beneficiary 113:12
benefit
52:17
benefits
42:1
44:23
45:2
95:25
96:4
114:13
122:21
123:2
123:3
benign
29:10
berries
62:14
63:3
63:22
besides
20:9
113:5
best 13:12
21:15
57:9
82:19
85:7
85:12
89:21
93:5
93:24
97:25
98:21
100:9
106:15
114:18
114:24
116:14
118:15
123:17
126:8
128:23
better
51:11
51:12
59:16
60:17
74:5
81:18
81:22
82:19
83:3
84:9
104:16
104:17
115:2
118:23
beyond
24:12
41:24
57:3
72:7
100:2
100:3
110:4
118:12
120:23
bicycles
109:16
bigger
46:8
biggest
75:1
76:11
bill
22:3
63:17
98:3
billion
79:13
103:11
108:2
bills
31:22
Bird 63:17
Bissonnette
53:14
56:4
116:25
B-i-s-s-o-n-n-e-t-t-e 56:5
BISSONNETTE 56:3
bit 7:13

7:18
11:9
92:16
103:14
127:19
127:23

black
63:14
73:10
73:13
73:14
73:18
109:17

blood
62:15
62:20

blow 73:14

bluff
127:14

Bo 26:5
29:21
29:23
29:25
30:5
40:9

board 56:6
80:20
104:22

Boardman
35:9
55:20
65:18
65:20
92:8
107:5
107:17
107:22
108:3
108:11
128:7

bodies
73:12

body 54:11
95:16

boiler
73:4

bold
124:12

bolstered
88:19

Bonneville
16:13
26:11
26:12
27:10
31:5
45:23
46:13
52:1
86:3
115:11

Borden
108:18
111:24
112:1
112:1
112:7

borders
47:17

born 76:14
106:12
109:9

bother
89:5

bottom
90:10
100:25
114:14

boundary
54:24

bourgeoning 43:10

box 91:5

boys 127:5
127:10
127:13
127:18

BPA 33:7
60:25
64:19
65:23
96:23
117:5
117:16

BPA's
28:24
51:24
52:5

Bradley
124:16
126:24
127:1
127:2

brains
81:19

Brazil
20:7

breaching
28:12

breaker
91:5

breakfast
82:12

breakthroughs
104:22

breath
109:22

bridge
35:18
35:19
35:24
36:3
36:12
36:14
36:16
36:18
36:19
36:20
37:1
37:3

bridges
35:25
68:22

brief 5:21
56:9

Bright
88:17

bright-eyed
91:16

bring
13:18
33:7
81:17
82:18
95:4
122:14

bringing
120:21
122:16
123:25

brings
10:7
111:12

Bristow
101:17
106:10

British
79:18

broad 6:7

broader
123:5

broadly
32:15
60:8

Brookings
94:3

brother
62:23

brought
85:20
110:12
123:20

buckets
73:7

buckling
35:23

bucks 87:4

build
68:22
100:25
101:9
106:14

building
39:14
45:2
51:3
68:10

98:16
99:6
99:11
99:14
99:17
100:5
100:19
100:20
101:10
107:11
121:18
121:20
122:12
122:17
124:2

buildings
48:7
54:5
125:21

built
35:21
121:25

bulbs 77:3
109:14

bulk 10:22
41:19
42:19
43:17

bullet
17:14
73:20
73:23

buoy
125:14

burden
32:19
46:6
46:7

Burlingham
77:21

burn 36:13

burning
35:8
73:16
109:17

burns
108:3

bushy
91:16

business
37:10
68:6
68:23
69:12
91:10
120:1
124:20
126:14
128:25
129:1

businesses
57:21
67:20
68:7
68:20
68:24
87:20

busy
127:10

buy
76:16
104:9
104:10
104:19
114:21
114:24
114:25
114:25
115:1
119:23
119:24
119:25

buying
77:3

C

calculate
85:24
113:22

calculation 58:8
60:21

calculations 19:22

camera
3:25

campaign
54:16
119:8
119:10

campaigns
54:15
116:24
119:9

camping
128:18
128:19

campus
48:3
54:3
54:14
54:15
102:2
108:23

canoe
128:19

canoeing
128:17

cap 19:3
21:5
67:22
68:1
68:8
68:9
71:14
71:18

capabilities 86:22

capability
13:7
13:8
85:12
86:24

capable
23:15
101:3

capacity
10:5
10:9
12:24
16:15
39:11
44:10
44:21
45:1
45:15
45:17
46:3
46:11
46:17
46:24
47:1

Cape
127:13
127:13
128:9

capital
109:13

capture
100:18

captures
99:2

carbon
7:22
7:24 8:2
8:25 9:3
9:3 9:21
10:2
10:3
10:15
10:17
11:13
11:14
11:17
12:1
12:5
12:8
18:2
18:7
18:20
18:22
20:25
21:4
21:22
22:5
28:12
35:1
41:22
47:24
48:2
49:7
50:14
50:15
50:18
52:16

52:22
53:2
58:23
59:10
67:17
67:22
71:10
71:13
71:25
72:1
75:12
81:3
81:8
83:22
83:23
84:11
84:21
84:23
84:24
85:5
85:18
87:1
88:11
88:13
88:14
95:8
95:10
95:11
95:12
97:5
97:18
98:14
113:2

carbonated
81:11

card 83:13
91:10

care 54:11
57:25
81:23
101:24
104:8
115:25
121:14
121:15

careful
25:12

carefully
5:7
34:21
110:7

carried
61:18

carry 10:1
39:10
110:2
110:3
114:6

cars 76:23
76:24
109:15
125:22

Cascade
108:24

case 10:21
18:7
18:7
20:2
85:8
92:17
93:7
95:9
97:19
97:20
97:21

cases
8:6 12:9
18:6
95:13

catastrophe 105:18
111:8
111:13

catastrophes 37:19

catastrophic 103:1
108:6
108:9
110:13

catastrophically
105:19

catching
128:22

catch-up
23:4

categories
12:15

Catherine
81:24

Caucus
95:2

caught
127:25

caused
47:14
117:15

caution
25:11

cautious
20:4

cease
37:24

ceiling
121:25

celebrate
49:12

celebrated
48:20

Celilo
116:7
116:10
116:11

center
47:10
54:5
92:7
102:13

centuries
114:3

century
75:2
80:19
109:18
112:17
112:18
112:20
112:22

CEO 24:1

ceremonies
62:25

ceremony
61:25

certain
50:20

certainly
17:17
129:13

certified
125:17

CFLs 27:13

chain
81:14

chair 4:10
16:13
95:2

chairman
62:12
87:14

chairs
38:16

challenge
23:1
75:1
97:15
117:24

challenges
9:24
32:18
32:20
34:20
52:2
67:7

challenging
66:22
85:23

championed
94:16

change
23:1
27:7
38:13
47:18
59:7
60:1
60:14
61:4

65:6
65:8
65:19
75:1
75:3
96:17
105:11
108:6
108:10
116:24

changes
32:16

chapter
17:23
42:19
43:17
43:22

chapters
42:16

charges
29:24

Charlie
4:2 14:8
14:9
14:10

chart 6:12
7:2
9:8 9:11
9:14
90:11

charts
8:19

cheap 86:5
86:7
113:23
114:8
114:22

cheapest
114:16
114:23
119:24
119:25

checking
25:9

Chicago
83:10

chief 26:9
63:17

child 74:2

children
78:22

China 20:7
39:15

choice
27:9
104:9
115:2
116:17

choose
111:17

chose
47:21

chosen
90:6

chronic
18:1

chronicall y 23:6

Chuck
119:20
119:25

circuit
62:25

circumstan ces
27:12

cited
92:17

cities
49:6
109:11

citizen
17:2
24:13
74:16
75:23
102:24

citizens
56:6
76:16
76:19
113:15
114:11

city
32:2
40:7
54:21
54:24
55:2
55:3
55:9
82:14

civilizati on
39:6
110:6

claims
90:1

clarificat ion
32:23

clarify
32:20

Clark
53:17
54:4
54:21
55:11
55:18
74:19
92:5
92:11

class
92:18

classes
92:24

clean
21:12
21:12
21:21
25:17
26:1
41:17
55:5
55:8
55:21
58:19
73:21
73:23
75:3
89:3
90:11
90:13
93:18
106:22
107:14
107:18
107:19
113:19
113:21

cleaner
113:17

cleanest
119:25

cleaning
66:1

clear 89:1
89:19
109:23

clearly
18:17
59:7
88:17

clear-sightedl y 80:11

click
15:13
91:5
91:6
91:7

climate
9:22
16:24
19:10
19:13
20:15
22:3
23:1
23:18
27:7
36:23
37:2
37:19
38:13
38:19
57:2
57:3
57:5
59:6

60:1
65:6
65:8
65:18
67:19
67:20
68:18
68:20
68:22
69:8
70:12
75:1
75:2
78:3
80:18
83:20
97:15
98:12
102:19
104:25
105:5
107:25
108:5
108:10
108:24
110:25
119:8
123:7
123:12

close
22:17
36:20
37:1
37:3
57:4
62:8
105:22

closeness
57:6

closer
101:5

closing
123:8

clouds
47:16

club
64:6
64:9
76:6
115:9
119:9
120:24

Club's
119:7

co 119:6

CO2
31:21
59:4
59:12
60:1
95:8
95:14
95:14
96:6
96:19
96:24
97:7
97:14
102:15

coal
10:2
10:3
10:17
11:15
11:18
11:19
11:20
11:24
12:6
20:25
21:8
21:21
21:23
21:25
22:9
28:12
34:22
35:3
35:5
35:8
35:9
35:15
36:13
37:24
38:2
38:4
38:8
38:19
38:24
39:2
39:5
39:9
39:10
39:10
39:13
39:14
39:15
39:21
40:2
45:21
49:10
53:3
55:8
55:10
55:20
63:9
63:12
63:12
65:15
65:17
66:1
73:6
73:7
73:12
73:16
73:19
73:22
73:24
74:6
75:9
75:11
75:12
75:14
76:8
76:17
77:9
77:11
79:17
81:17
85:9
85:9
88:25
89:2
89:5
90:15
97:21
98:4
104:6
104:10
104:15
106:14
107:5
108:1
108:3
108:8
108:11
109:10
109:20
112:19
112:24
113:7
113:13
113:13
113:17
113:19
114:9
114:15
114:19
115:3
116:18
118:5
119:10
120:16
120:20
120:20
120:23
121:1
121:3
121:3
121:13

coal-fired
47:13
49:2
49:4
65:20
73:4
105:22

coal-free
37:4
49:9

coalition
87:17
87:18
88:19
95:3
96:10

Cobb
98:9
101:16
101:18

code 99:22
125:20
codes
98:17
98:17
99:6
99:14
99:21
125:20
cognizant
56:25
cold 73:5
Cole 74:11
74:13
C-o-l-e
74:13
COLE 74:13
collaborate 93:23
collaborated 88:18
colleagues
129:8
collected
31:16
collection
66:16
collective
18:23
college
38:22
47:20
53:17
53:21
54:2
106:11
108:21
112:4
112:13
colleges
93:17
93:21
93:22
Collins
119:20
Columbia
45:9
57:23
57:23
62:9
65:21
65:22
65:25
86:1
89:22
92:18
combination 50:5
combined
7:16
11:10
20:8
78:7
comes
11:15
51:4
55:5
55:9
67:17
98:2
104:25
109:17
coming
7:13
7:17
14:2
14:5
14:18
55:8
63:14
125:23
128:24
129:9
129:17
commended
17:5
comment
4:20
4:21 5:1
5:14
16:5
30:3
50:1
52:14
53:11
commentary
104:18
commentators 69:25
comments
5:3
5:4 5:13
15:23
23:24
25:24
26:23
27:1
29:19
30:17
35:11
39:24
40:12
40:23
41:18
42:11
52:12
57:16
58:4
66:11
70:11
70:19
82:5
83:10
84:14
87:25
88:2
129:13
129:15
commercial
77:25
87:19
99:5
99:10
101:4
101:10
commercially
9:17
11:9
18:11
commercials 73:21
Commission
16:14
37:13
62:10
commissioner 74:14
commissions 37:12
commission's 16:16
commitment
33:13
49:6
49:10
87:21
committed
25:21
30:10
32:21
49:7
committee
74:23
94:9
94:15
committees
30:22
commodity
42:3
44:22
common
37:18
63:6
communities
87:22
89:13
107:6
community
43:25
46:2
51:24
54:13
54:18
55:3
68:6
68:23
68:23
69:11
69:13
85:19
93:17

93:22
106:11
106:15
107:11
126:15

compact
109:14

companies
18:24
39:20
113:13
114:15

company
68:9
77:24
99:13

compare
97:24

compared
20:12

comparing
18:4

comparison
7:7

compelled
20:5

compete
24:14

competence
123:13

competing
24:21

competitio n 53:5
80:1

competitiv e 9:9
51:18

complaints
30:1

complement
111:3

complete
15:16
97:21
107:23

completely
39:21

complex
69:7
69:19

compliance
21:4

component
7:21
7:22
7:22

components
52:10

computer
112:16

concept
121:8

concern
27:7
43:10

concerned
25:1
65:1

concerns
24:19
27:23
88:1
94:25

conclude
40:22
67:15

concludes
68:12

conclusion
11:16
86:22
90:10

conclusion s 17:12

concrete
100:10

concur
88:10

conditions
22:7

conducted
30:21

conference s 118:4

confident
23:14

confine
15:23

conflicts
60:12

confront
118:2
118:6

confused
69:13
69:14

congratula tions
56:11

congress
95:13
95:15
96:25

Congressma n 67:22

consequenc es
43:8
59:25
79:10
79:11
79:21
81:6
96:22

conservati on 3:7
3:13
4:12
4:15
6:14
6:22 7:4
8:3
8:5
8:9 8:10
8:15
8:19
8:23
10:23
12:16
17:8
17:18
17:23
18:10
21:24
22:8
24:24
25:5
25:11
27:14
27:20
28:2
31:8
31:11
33:12
33:14
38:12
41:14
41:22
50:9
53:6
58:22
64:19
64:22
66:11
75:16
76:10
77:1
77:5
79:24
86:5
86:14
87:18
88:12
88:16
88:21
88:23
90:13
94:14
95:20
99:22
110:20
111:4
113:3
113:22

conservati on's
31:9

conservati ve 20:12

23:7
conserve 91:1
consider 27:15 53:22 61:12 68:12 79:6 84:17 113:18 113:24 120:17 124:6
considerable 51:2
consideration 28:22 53:11 120:11 124:13 129:12
considerations 51:25
considered 5:7 56:16 67:6
considering 67:23 67:25
consistent 61:5 64:20
constant 64:24
constrained 44:17 85:5
constraint 18:11
constraints 20:2 26:22 115:19
constructed 9:20
constructing 51:7
construction 51:4 107:1 126:14
consultant 77:23 98:11 98:16
consulting 66:9
consumers 57:8 72:1 89:25 103:20
consumption 8:13 8:17 113:19
contained 44:4
contamination 65:24
contemplates 111:16
contemptuous 102:18
content 39:8
contents 15:13
continent 13:13
continue 25:21 25:25 32:11 35:15 36:2 36:4 49:12 108:14 116:20 118:6 118:7
continued 29:14 66:19 89:10
continues 39:5 107:16 120:7
continuing 36:12 44:6 66:14 113:13
contract 117:15
contractors 125:13 125:17
contracts 43:7
contradiction 39:13 39:19 40:1
contrary 52:5 89:25
contrast 43:16
contributes 9:4 75:12
contribution 22:11
contributions 121:6
control 9:22 12:5 43:22 118:21
convened 104:20
converging 78:5
conversation 94:11 117:9
conversations 117:10
conveyor 103:4
cool 76:18 76:24 92:7
cooperative 24:2 24:3 46:21
cooperatives 24:4
coordinate 57:7
coordinator 108:23
Copenhagen 123:10
copies 82:4
Corann 92:25
cord 5:25
Corp 64:7
corporate 116:23
corporations 118:4
correct 33:7 89:18
correctly

50:18
51:16

cost
6:18
6:18 7:6
7:11
7:21
7:22
7:23
7:25
8:20 9:1
9:8 11:4
12:21
12:22
19:8
22:1
22:9
28:5
28:16
28:19
28:20
28:21
29:2
35:3
35:6
38:10
48:21
48:21
49:1
51:17
59:13
76:13
78:13
83:24
84:11
84:12
84:23
85:24
87:2
87:3
87:3
87:6
95:15
96:6
97:7
98:1
98:3
103:21
104:8
120:14

cost-effective 8:5
8:11
12:23
13:20
31:3
31:12
33:14
43:20
53:1
58:2

cost-efficient 18:20

costly
96:8

costs
10:15
15:10
18:16
18:17
21:11
22:3
22:13
22:15
24:12
28:9
28:18
32:19
32:25
33:3
33:6
35:5
50:18
58:8
58:23
59:10
60:21
72:1
84:18
86:17
95:7
95:12
95:18
95:22
95:23
95:25
96:1
96:4
96:14
96:15
96:15
96:19
96:20
113:22
113:25

council
3:7
3:9 3:11
3:25
4:12
4:14
4:16
4:18
4:21
4:23 5:7
5:20
5:24
16:9
16:11
16:17
17:3
17:19
19:2
19:11
19:12
19:14
20:1
20:19
22:12
23:2
23:5
23:10
23:23
27:10
28:2
30:6
30:18
32:8
32:10
32:13
32:24
33:6
33:9
33:19
33:25
34:12
38:6
40:13
41:10
41:15
41:19
41:20
44:3
46:9
46:23
50:7
50:10
50:12
50:16
51:13
51:16
52:25
56:4
56:11
56:16
57:3
57:6
57:14
61:21
63:5
65:25
69:3
69:10
83:6
87:15
88:3
88:7
88:20
90:6
90:8
92:21
93:3
93:10
94:19
95:5
95:7
95:19
96:5
96:19
97:19
97:24
111:3
111:16
115:21
119:13
119:18
122:15
123:15
123:22
124:10
124:19

councilman

62:6
62:8
Council's
3:13
4:12 5:5
5:12
19:4
19:19
22:18
22:25
30:4
30:12
31:23
32:3
33:15
34:3
50:2
50:8
51:1
53:8
64:22
82:9
86:22
87:9
89:13
89:17
89:23
90:2
92:15
92:19
96:2
96:11
111:6
count
18:23
27:13
counted
12:13
counteract
88:7
counting
25:12
countries
20:8
country
17:9
54:23
55:4
55:14
78:4
79:4
83:6
83:9
93:4
126:9
126:13
country's
78:7
county
14:24
couple
13:24
15:17
15:19
17:20
21:6
27:1
29:5
40:15
61:12
67:7
82:18
115:17
123:11
coupled
75:15
course
26:1
34:2
71:14
88:25
89:8
92:4
92:19
93:6
94:15
113:2
124:13
courses
91:25
91:25
92:6
court
60:15
117:25
courts
71:20
96:25
cousin
73:6
cover
42:12
covered
54:5
73:9
covers
76:23
Cowlitz
92:6
cracks
35:24
36:2
117:18
crafting
34:1
crashed
124:7
create
9:23
14:20
21:16
70:6
created
76:20
94:14
creates
9:6
creating
69:1
70:3
creation
41:11
credibility 61:9
crisis
107:25
110:25
critical
35:2
35:13
42:3
46:23
58:17
critically
124:1
cross 36:2
36:12
36:17
crosses
35:20
crossing
47:16
crunch
114:6
crustacean
81:12
crustaceans 81:13
crying
116:9
crystal
109:23
culture
65:7
65:11
curious
14:14
50:21
current
8:12
8:16
18:10
18:16
27:23
28:22
32:14
65:5
65:14
96:7
96:11
97:4
97:15
111:14
121:6
121:10
currently
28:5
51:11
57:1
60:24
65:4

119:6
curtailing
43:2
44:5
Curtis
49:16
53:16
C-u-r-t-i-s
53:16
CURTIS
53:15
curve
125:7
curves
19:6
cusp 104:1
custodian
73:3
customer
40:7
customers
26:11
28:10
30:9
30:10
76:25
cut
128:3
128:5
cutting
43:3
43:9
cycle 7:16
11:10
99:18

D

dad
73:10
128:25
daily
109:24
dam
28:12
59:7
59:11
damage
87:5
damages
71:23
damn 105:6
dams
32:1
46:1
58:7
59:9
86:19
89:20
89:24
90:16
dam's 90:5
Dan 98:9
101:17
101:18
Dana 74:11
74:11
Danny 73:6
dare 81:16
darn 37:11
date 25:24
David 41:1
41:2
47:4
47:6
47:8
day 36:5
62:11
74:3
91:3
97:23
108:4
109:6
112:23
116:10
day-lighting
121:22
days 33:19
64:11
73:12
73:14
128:16
128:22
day-to-day
106:20
DC 14:2
14:15
77:11
deadline
30:17
deadlock
123:11
deadly
107:16
109:5
deal 38:17
38:18
72:4
95:8
112:15
121:10
126:22
dealing
24:7
dealt 87:8
Dean
101:16
deans
99:14
death 74:1
decade
121:18
decades
36:9
110:14
120:7
123:23
December
73:5
73:5
decided
37:15
deciding
103:19
decision
48:25
53:20
54:1
60:4
60:16
106:13
decisions
5:8 37:2
55:13
55:15
55:24
60:18
74:17
103:22
103:25
104:4
112:12
decrease
39:12
decreasing
24:11
dedicate
116:2
dedicated
41:11
54:7
deemed
36:14
deeper
72:12
deeply
16:18
57:25
deferred
21:6
degree
34:15
129:2
deliberate
35:14
deliberations
19:13
75:25
delighted
94:18
deliver
99:4
demand

8:21 9:5
27:17
42:24
45:4
45:20
45:24
55:5
101:4

demands
18:2
42:18
87:10
88:12

demonstration
13:17

Department
26:15
92:8
93:15
100:12

departments 40:8

depend
10:10
10:11
57:24
57:24
87:23

dependant
39:21

dependence
110:3

depends
83:22

deployment
23:3
28:1

depreciation 28:23

depression
63:10
63:18
63:19
63:23

dereg 59:9

deregulation 51:6

described
28:7

describing
60:11

description 60:18

deserve
84:9

deserves
107:15

design
77:23
80:7

desirable
41:25

desire 5:4
41:16

despite
56:17

destroying
24:13
73:19

destruction 47:14

detail
34:24
35:12
92:16

detailed
25:24
82:5
84:14
87:25

details
15:9

determine
30:12
30:20
96:13

determined
85:8
96:20

determining 96:3

Detman
80:14
80:17

D-e-t-m-a-n
80:17

DETMAN
80:16

devastating 49:3

develop
4:14
14:24
40:15
44:22
54:24
86:4

developed
6:9 7:12
10:20
10:22
11:1
39:9
94:13

developers
82:14

developing
41:15
41:23
42:2
46:14
54:16
58:22

development
13:17
13:20
15:3
26:16
29:9
30:14
42:1
44:14
44:23
46:17
49:25
51:8
51:10
52:23
69:9
91:25
92:2
92:10
92:13

devoted
5:14

diagram
99:8
99:11

dialog
17:2

Dick
3:10 4:9

die 74:3

differ
18:8

difference
42:22

different
7:19 8:7
9:15
12:14
14:3
26:16
28:6
28:8
97:5
114:7

difficult
31:19
38:18
53:8
70:2
128:6

dig 73:17

dilemma
79:1

dilute
28:7
71:4

dioxide
8:2
11:14
11:17
12:1
12:8

75:12
81:3
81:8
84:12
88:11
107:7
113:2

direct
7:16
29:15
38:6
43:16
74:25

direction
61:20
61:22
62:1
79:8
79:20
85:2
97:10
107:3
108:14
123:1

directly
37:23
46:9

director
49:18
57:20
66:8
68:17

directs
4:14

dirtiest
55:10
108:13

dirty
48:14
49:11
55:7
65:15
65:17
75:9
76:8
77:7
77:10
89:2
112:24
114:19

disagree
52:14

disaster
105:2
110:11
118:18

disasters
38:14

disastrous
103:8

disciplines 104:21

disconnect
42:14

discount
38:15
38:15

discourse
32:6

discoveries 110:23

discretionary 11:3
11:7

discuss
26:24

discussed
29:8

discussion
17:22
71:15

discussions
21:15
31:17

disgraceful 113:6

dispatched
21:9

dispense
39:23

displace
22:9

displacing
11:18

disposal
90:14

dissertation
94:3
94:7
94:10

distinctly
117:8

distribute
103:22

distributed 99:9

distribution 22:15
24:4
95:11
95:11

diverse
45:3
45:12

diversity
43:24
45:2
46:5
51:12
116:12

division
5:20

doable
89:3

document
52:9
59:17

dollars
77:25
113:17
116:18

done 24:18
46:14
58:10
80:6
86:19
94:21
121:17
122:11

door
122:19

double-staffed
23:12

Downen
26:5
29:21
29:25
30:5

D-o-w-n-e-n
29:25

DOWNEN
29:23

downstream
114:5

downturn
48:22

downturns
21:17

downwind
109:23

dozens
40:16

D-r-a
49:17

draft 3:13
4:18
4:22
4:24
5:11
5:15
18:12
19:17
19:19
20:16
30:15
30:19
31:1
34:6
34:25
38:12
50:2
50:3
51:20
53:10

59:7
64:16
89:1
96:11
97:3
97:9
97:16
120:11

drafting
88:4

Dragoon
47:5
49:15
49:17
49:17

dramatically 97:4

draw
110:17

drawn
109:6

drifting
123:10

drive
35:15
36:4
65:18

droughts
108:7

drowned
116:7

dry 128:22

DSM
37:14
37:16

due 29:3
42:1
108:5

Dukes
3:5
3:6 5:16
13:23
14:9
15:6
15:18
23:19
23:22
26:4
29:21
34:9
37:6
40:4
40:25
41:5
47:4
49:15
53:13
56:1
56:14
57:12
61:14
66:5
68:14
72:15
72:17
74:10
75:19
77:19
80:13
81:24
87:12
90:20
91:12
98:8
101:16
106:8
108:17
111:24
115:5
118:25
124:15
126:24
129:7

dumps
107:12

Duncan
16:7
16:10
70:11

D-u-n-c-a-n
16:10

DUNCAN
16:9
23:21

during
81:4

dust
109:10
109:19

E

earlier
67:19
70:11
93:13
119:18

early
128:1

earn 55:2

earth
81:16
110:5

easily
39:7

eastern
64:6
126:7

easy 39:19
91:1
109:9

eat 63:1
63:1
63:2

echo 88:1

econ 129:2

economic
6:3
9:6
21:17
42:1
42:5
44:23
48:22
50:16
60:25
114:10
123:2

economics
47:11

economies
20:7

economy
41:17
65:12
87:6
90:12
106:24
107:2
124:7

Ecumenical
98:13

Edelson
91:13
98:8
98:11

E-d-e-l-s-o-n
98:11

EDELSON
98:10

Eden 3:8
56:14

edge 23:8

EDI 43:24

educate
128:23

education
47:22
58:15

educational 49:23

effect
27:15
28:7
74:24

effective
11:4
12:22

effectively 30:13

effectiveness 9:2

effects
34:22
35:2
35:4
35:5
35:13
39:18

55:17
60:1
81:12
88:8
108:5
108:9
114:19

efficiency
6:7
17:16
18:2
18:5
19:6
19:8
24:24
25:5
27:8
27:25
50:5
52:17
52:19
56:12
56:15
59:3
66:20
69:21
70:2
70:6
88:16
90:3
92:7
94:22
98:12
98:15
99:2
99:3
101:8
101:14
115:12
115:14
122:3
122:8
122:16
123:25
124:24
125:4
125:21

efficient
6:3
43:20
50:16
51:9
52:22
77:4
98:6
121:22
122:12

efficientl y 18:3
30:11

effort
4:18
41:10
93:23
100:12

efforts
12:18
48:1
66:25
74:14
123:22

eight 73:2
119:1

eight-year-old
73:9

Eisler
111:25
115:5
115:6

either 6:1
88:5
116:17

electric
4:15
19:7
30:8
51:5
76:24
109:15
109:15

electrical
6:10
6:20
8:17

electricit y 6:19
7:1 8:12
74:18
98:22
98:25
101:4
104:9
109:13
125:15

elements
27:3
33:4

elicit
30:22

else
16:3
17:24
47:23
63:9
82:19
82:25
83:23
84:5
102:9
110:16

else's
78:19

elsewhere
90:2

embedded
28:20
97:7

embrace
24:23
75:8

emergencie s
38:20
74:2

emerging
19:9
20:7
67:3

eminence
107:24

emission
65:4

emissions
10:2
10:3
19:21
20:6
21:23
50:14
50:15
50:17
50:19
52:16
53:2
58:23
60:1
65:14
71:22
83:22
84:19
85:1
85:3
85:7
95:9
95:15
95:17
96:7
96:8
96:14
97:8
97:11
97:14
97:14
97:20
102:16
120:13
121:12

emit
9:21
10:17

emits
65:21

emitted
84:22

emitter
120:18

emphasis
29:9
29:11
71:4

emphasize
22:10

Empire
79:18

employee

115:11
employees
102:3
employer
105:24
enable
45:2
enabled
44:22
enables
25:19
enabling
42:10
47:1
encourage
44:14
46:9
46:22
46:25
59:15
67:9
68:4
113:24
124:12
encouraged
34:5
46:15
encourages
44:1
encouraging 50:6
endangered
89:22
90:15
endangering 109:7
endure
111:8
energies
14:18
113:24
energized
46:4
energy 6:7
6:20 9:5
10:5
11:3
12:24
14:6
16:24
17:7
17:16
18:5
18:7
22:8
23:17
24:2
24:2
24:23
25:5
26:15
27:8
27:24
31:22
36:21
41:8
41:17
43:11
43:13
48:2
48:6
48:9
48:10
48:17
48:25
49:11
49:11
50:5
50:6
50:7
51:16
51:24
52:15
52:17
52:17
52:19
52:24
54:9
55:5
55:7
55:9
55:10
55:21
56:12
56:15
56:19
57:1
57:4
58:7
58:23
59:3
59:10
59:21
59:23
66:9
66:20
69:8
69:21
70:2
70:5
73:15
74:15
75:5
75:8
75:15
76:10
77:3
78:7
79:4
79:15
79:15
79:16
79:24
88:6
88:10
88:12
88:16
88:19
89:3
89:16
90:11
90:13
92:1
92:8
92:18
93:15
93:18
94:14
94:22
95:3
96:10
96:18
98:11
98:15
99:2
99:3
99:13
99:17
99:22
99:23
100:4
100:13
101:8
101:13
106:22
106:24
106:25
107:1
107:14
107:16
107:18
107:19
107:21
108:13
109:16
110:15
112:24
113:4
113:15
113:19
113:21
114:8
114:17
115:11
115:14
121:22
122:3
122:8
122:16
123:24
124:23
124:23
125:3
125:21
enforced
21:4
engaged
4:17
54:10
60:2
engineer
24:6
24:6
engineering 106:25
Engineers
64:7
English

127:17
128:3
enhanced
13:15
enhancement 28:17
enjoyment
107:11
enormous
54:6
113:2
ensure
64:19
89:9
89:21
ensures
90:2
entire
13:13
28:9
entrance
3:23 4:3
environment
24:15
54:11
56:25
76:13
90:12
107:6
107:15
environmental
16:13
25:21
39:17
49:23
53:18
53:24
54:7
54:14
54:18
68:23
84:18
95:23
95:25
96:4
96:14
100:7
108:23
108:25
113:25
114:19
126:13
126:20
environmentally
29:10
54:23
55:1
70:10
environments
103:12
envy 106:2
EPA 23:2
71:17
92:2
e-p-h-y-r 90:23
epoxy 36:1
equal 8:16
86:13
equally
64:20
equatable
89:14
equation
88:10
equitable
86:12
equivalent
128:7
equivocate
111:12
eradicate
49:10
Eric 29:22
34:9
34:11
34:13
35:11
escape
110:11
Esmonde
124:16
124:18
124:20
especially
17:6
27:6
35:7
48:7
60:3
67:3
120:20
essence
120:3
essential
27:4
essentially 13:12
establishes 95:17
estimated
7:25
estimates
56:19
estimation
29:7
etcetera
14:3
28:13
69:9
Europe
80:8
EV
125:14
125:15
evaluation
70:22
evening
3:12
3:15
3:20 5:4
16:2
26:6
29:17
29:23
29:24
30:6
56:3
57:15
61:16
66:7
75:21
87:15
91:14
91:15
101:20
124:18
evening's
29:23
events
51:23
eventually
17:4
36:16
120:17
126:7
everybody
3:5
91:16
everyone
61:16
everything
63:9
115:21
115:22
123:17
evidence
102:18
102:22
103:2
evolving
21:12
e-w-t-z
124:17
exact 45:8
exactly
25:8
31:4
50:11
122:2
124:5
128:13
exaggerated 90:1

exam 93:8
examine
34:21
examined
6:13
examining
36:9
example
18:12
44:18
45:5
50:9
54:17
55:3
59:24
60:13
97:19
117:2
examples
18:24
55:4
55:14
exceeded
45:22
excellent
13:13
46:14
72:4
exceptiona l 36:22
excited
48:18
82:16
82:17
125:25
excuse
106:17
executive
26:9
57:19
exhibit
28:15
50:12
exist
50:22
110:11
existence
89:10
existing
6:11
11:23
13:6
27:5
29:12
42:21
51:9
67:13
expand
13:2
13:8
expanding
43:23
46:3
46:24
expect
14:16
expected
10:21
17:10
18:14
22:2
expedite
126:5
expenditur e 110:21
expenditur es 61:3
expense
78:19
78:21
78:22
116:19
expenses
21:13
expensive
70:9
86:8
experience
19:3
24:7
67:18
73:15
115:18
123:13
123:20
123:24
124:2
expert
122:5
127:7
expertise
99:5
experts
34:5
35:25
36:6
36:14
explain
59:17
120:3
explicitly
57:6
explore
116:20
export
42:3
express
16:22
109:1
extension
45:1
extent
10:11
external
95:7
externaliz ation
78:17
extra 82:4
84:18
extracting
35:7
110:15
extracurri culars
53:23
extrapolat ed 19:2
extreme
20:25
extremely
54:25

F

fabulous
69:3
104:21
faced
128:8
facilities
29:12
51:3
51:7
51:8
facility
121:21
facing
27:13
102:25
115:20
fact 24:24
31:19
31:24
56:17
58:20
59:1
83:19
106:5
109:11
120:6
121:2
121:25
factor
50:15
97:6
factors
20:3
42:10
53:24
faculty
91:18
91:23
failing
18:1
96:13
failure
22:21
22:24

fair
102:20
fairly
5:21
faith
76:25
fall 12:15
Falls 3:14
116:7
116:10
116:11
falter
124:13
familiar
6:21
35:19
83:14
families
77:1
family
47:16
124:5
Farm 102:1
farms
57:21
fast 47:20
75:10
faster
20:6
father
62:5
73:2
127:4
fear 43:13
109:4
109:4
fears
111:18
federal
27:6
27:14
58:1
68:11
71:11
71:13
71:14
71:20
119:7
125:15
fee 54:8
feel 48:19
111:22
feeling
48:22
felt 66:15
75:25
field
13:22
102:20
123:25
fight 62:3
64:4
126:20
128:5
figure
72:23
82:1
100:14
file 40:11
final
5:8 27:4
32:23
60:20
88:22
88:24
89:9
93:8
96:16
101:11
101:12
124:14
finally
13:9
25:25
29:12
52:10
72:3
77:14
86:21
finance
116:24
finding
50:3
110:19
findings
5:23
8:18 9:7
90:6
fire 63:16
111:14
fired
11:15
11:19
fires 74:6
firm 12:24
31:15
31:20
43:12
66:10
firm-contingent 43:12
firmly
67:16
first 16:7
16:22
19:12
21:8
24:17
27:8
37:21
38:22
41:9
44:16
51:25
54:24
56:10
57:17
68:25
69:5
71:20
76:10
82:22
85:13
86:6
88:3
90:22
102:24
104:12
106:12
107:3
119:12
119:18
119:20
119:24
120:11
fish 6:4
28:16
28:18
29:3
32:25
33:2
44:16
45:18
46:1
51:22
51:25
52:5
52:8
58:2
58:7
58:8
59:20
59:23
59:24
60:3
60:8
60:12
60:21
61:2
62:9
62:22
63:1
63:21
65:10
65:19
85:25
86:5
86:9
86:13
86:16
86:20
89:10
89:15
fishing
87:19
128:17
fits 69:17
115:1
five
4:16
26:16
68:25

99:18
99:25
105:23
127:5
five-year 4:17 33:15
five-year-old 128:15
fix 125:10
fixed 43:6
flat 93:4 97:14 97:14
flawed 60:23
flexibility 12:25 31:5 33:16 42:18 42:20 42:24 44:2 44:7 44:15 45:4 46:20
flexible 25:18 27:19
flick 109:21
floor 3:9
Flores 56:2 57:19
F-l-o-r-e-s 57:19
FLORES 57:14
flows 28:18 52:6 91:9
Fluid 66:9
fluorescent 109:14
focus 42:17 42:20 50:20 58:5 69:20 88:15 89:7
focused 48:2 92:17
focuses 31:7
focusing 43:18
Foley 19:12
folks 23:15 26:20 60:22 63:11
68:3
68:5
92:11
93:1
115:22
118:21
119:11
127:8
food 81:14 90:24
Foote 40:5 40:25 41:7
F-o-o-t-e 41:7
FOOTE 41:6 42:7
footprint 31:22 48:2 59:4 59:10
force 98:14 118:23
forced 12:6
forecast 7:24
forecasting 43:22
Forest 128:1
forests 106:18
forever 79:8
forgive 109:10
forgiving 20:19
form 55:10 109:11
formal 30:16
former 16:17 19:10 115:10 124:19
forms 78:18
forth 126:16
Forum 66:14 66:15 67:2
forward 17:19 20:15 31:14 47:20 66:18 69:7 69:14 90:18 101:11 110:3 110:23
fossil 7:25 36:13 38:24 48:15
49:11
51:18
75:9
79:19
81:15
81:20
98:24
101:1
111:8
fosters 27:17
fouling 110:18
foundation 16:13 117:18
Founded 87:17
four-year-old 127:5 128:15
framework 52:3
Francisco 99:13
frankly 67:23 68:2 97:21
Fred 119:3 119:3 119:5 119:5
free 21:23
freshman 53:17

Friday 123:8
fridge 77:4
friend 122:23
friendly 70:10
friends 40:9
front 76:7 117:19
FRUC 22:2
fruit 37:9 122:9
frustration 126:22
fuel 8:1 8:24 9:19 9:19 10:1 39:8 39:8 49:11 51:18 81:15 101:1
fueling 79:20
fuels 36:13 38:24 48:15 75:9 79:19 81:20 98:24 111:8
fulfilling 111:17
full 46:19
fully 22:25 24:23 29:8 42:20 66:13
fume 47:16
fun 73:8
function 35:25
fundamentally 61:11
funding 66:19 93:13
furiously 100:14
furnace 73:8
furnaces 74:1
Furthermore 88:24
future 6:9 6:9 7:24 9:4 9:22 10:8 13:19 26:2 26:13 26:18 27:16 31:2 32:18 33:18 34:7 42:5 48:12 49:9 50:18 50:20 74:15 75:18 78:21 79:10 83:25 87:8 87:10 88:17 90:9 90:14 93:25 96:8 97:5 102:25 105:7 106:22 110:5 114:2 115:4

G

gain 109:20 122:21
gained 121:7
gains 19:6 19:8
gamble 105:7 105:20
gambling 105:14 105:16
game 62:14 63:2 63:21 116:23 117:4
games 128:13
gardens 54:13
gas 9:25 10:4 10:7 10:14 11:10 11:10 11:20 12:25 20:16 25:20 31:13 38:19 45:21 65:3 65:14 79:20 96:14 108:2 112:25 120:13 120:18 120:18 120:20
gases 20:20 65:6 65:17 87:2
gas-fired 7:16 10:11
gathered 67:20
gathering 65:10
Gen-8 52:11 52:13
general 22:18 55:12 78:13 79:2
generally 21:2 74:22
generate 74:24 76:12 104:15
generating 6:8 7:7 9:9 9:11 9:12 27:19 39:15
generation 9:8 10:14 11:20 12:17 12:19 12:24

13:1
24:2
28:20
29:7
51:18
51:21
52:4
52:18
53:3
55:16
59:14
61:21
62:7
76:21
76:22
77:7
98:25
99:16
100:24
111:20
113:18
113:21
114:9
114:15

generations 26:2
48:12
61:19
61:20
62:3
62:4
63:20
113:10
114:2
115:4

generation's 78:22

generators
43:5
45:24

geophysicist 80:18

George
45:9

geothermal
11:7
13:15
26:15

Gerlach
81:25

Germany
78:2
80:8

gets 126:4

getting
15:2
39:2
77:4
82:23
88:25
98:5

giant
106:4

gift
109:20

Gilly
77:21
80:13
80:13

girls
127:10

given
26:22
65:6
83:18
83:18
110:13

giving
47:7
56:14
101:20

glad 62:10
116:25

global
9:22
16:14
39:17
55:17
74:25
88:8
101:24
102:18
103:19
103:23
104:19
105:16
105:18
110:13
115:20

globally
24:14
120:9
123:16
124:3

goal
5:23
22:6
33:15

goals
19:10
20:9
20:11
22:14
23:18
24:22
25:4
27:24
33:12
33:23
41:23
52:18
56:12
56:15
56:17
56:21
56:21
65:13
66:22
67:11
69:22
69:23
69:24
70:1
70:3
70:4
70:12
70:13
70:18
83:20
88:13

g-o-o-n
49:18

gorgeous
73:18

government
64:5
64:5
91:19
91:23
115:20
116:18
117:13

governor
71:17
98:14

governors
33:10
61:3
61:6

gracious
20:18

graduate
91:24
92:1
104:20

grandchildren 74:3

grandfather 109:18

grandson
102:24

grant
93:14
125:15

granted
110:22

grants
48:4

gravest
34:20

gray 10:25

great
10:11
21:19
22:19
23:9
41:6
44:17
45:5
50:9
62:5
69:4
70:25
72:4
73:8

76:9
80:5
80:10
98:23
100:16
106:18
112:20
120:8
126:18

greater
23:17
33:16
99:10
108:15

greatest
44:20
111:18

greatly
101:21

green
41:17
42:4
54:3
54:8
74:20
104:11
106:25

Greenboard
108:22

greenhouse
20:16
20:20
25:20
65:3
65:5
65:14
65:17
87:2
96:14

108:2
120:13
120:18
121:11

Greenland
103:3

Greenwood
38:23

grew 47:12

Grid 27:18
92:24
93:19

Grist
4:2
14:12
14:21
124:23

grossly
105:17

ground
72:11
104:13
110:16

groundbreaking
64:18

group
53:19
54:14
67:18
108:23

groups
71:3
87:20
93:17
120:25
127:4

growing
27:7
31:21
73:2
106:16
106:17
107:24

grown
107:9

growth
8:21
22:7
27:21
28:25
31:11
41:14
50:4
54:24
79:7
86:13
86:17
103:10

guano
79:17

guess 58:4
76:1
80:14
112:21

guidance
31:2
85:2

guide
74:14
90:9

guidepost
27:2

guys 12:20
14:4
14:19
68:10

76:8
78:15
94:24
106:7
112:11
113:5
127:6
128:10
128:14
129:5

H

half
30:7
30:25
101:7
109:13
109:16
109:18

Hammarlund
84:13
91:12
91:18
120:15

H-a-m-m-a-r-l-u-n-d
91:22

HAMMARLUND
91:14

Hammond
92:23

hand
39:3
73:20

hanging
122:9

happen
37:20
38:14
68:2
68:11
79:11
84:2
84:21
92:20

happened
94:18
102:8
127:22

happens
79:12
84:2
109:25

happy
26:23
99:19
100:9
124:5

hard
20:2
30:18
47:24
52:1
58:10
58:13
61:8
61:8
81:22
84:1
91:21
114:1
127:22

hardly
50:20
91:21

harmful
55:17

harming
24:14
harness
110:18
Harold
99:12
Harrison
92:23
Hassler
119:4
124:15
hasten
39:16
hat 95:1
Hatfield
91:19
91:23
94:5
94:7
94:17
hats 94:16
hat's
94:23
haul 63:12
hauled
63:12
haven't
123:14
having
53:15
67:25
71:15
92:25
117:9
head 73:9
heal
113:10
health
34:15
34:20
34:22
35:2
35:4
35:12
35:14
36:24
36:25
74:24
108:16
114:4
healthcare
118:16
healthier
47:19
hear 29:18
30:1
127:6
heard
56:24
62:22
67:24
71:10
81:7
86:3
88:2
88:9
90:1
hearing
3:1 3:14
4:8 4:11
5:2
16:23
29:17
83:11
hearings
3:12
3:15
4:23
30:24
heart
12:10
37:23
81:20
117:23
heat
121:24
heated
59:16
heater
91:4
heaters
91:2
heating
17:23
Heaven
128:21
heavily
21:24
45:7
45:7
57:5
heavy 29:6
heck 87:4
heed 36:24
Heintz
127:2
H-e-i-n-t-z
127:3
HEINTZ
127:1
held
4:11
4:23
30:24
Hello
106:10
help 15:24
37:3
37:3
44:1
55:19
65:18
65:19
67:12
73:6
84:1
86:4
88:8
90:12
91:9
91:10
99:9
106:7
107:2
115:3
helped
99:21
109:19
helpful
39:18
60:10
60:16
60:19
69:2
85:19
helping
40:18
42:4
85:25
helps
114:14
Hemmingway
119:17
Henrietta
94:6
here's
10:18
116:6
he's 4:1
63:16
Heutte
119:3
119:5
119:5
Hewtz
124:16
Hi 40:6
49:17
77:22
82:3
108:19
115:7
119:5
high 10:15
27:5
39:8
47:15
48:21
97:5
103:13
105:19
higher
81:4
87:4
106:3
highlight
88:1

highly
102:21
103:12
high-priced
86:16
hike
127:12
hiking
128:1
128:16
Hilary
40:5
40:25
41:1
41:6
41:7
42:7
Hillsboro
102:2
hire 14:5
Hirotsu
4:3
historic
89:18
historical
12:2
historically
17:9
19:1
95:9
history
102:16
103:16
111:9
hit
48:22
118:17
holding
57:9
home 63:13
63:15
73:11
80:4
128:12
homes 80:3
hometown
47:15
honor
92:21
92:24
94:1
94:12
98:18
Hood
106:11
hooked
126:9
hope 16:10
21:1
26:16
53:6
55:23
61:11
81:21
90:9
98:23
101:13
108:13
109:3
110:9
110:25
111:1
111:19
111:22
112:3
112:9
115:3
hopeful
25:14
32:10
hopefully
101:12
105:15
hopes
32:22
111:18
hoping
92:19
Hopkins
34:16
horizon
23:9
41:8
hospitals
118:17
hot 91:2
91:3
91:3
91:6
hour
6:18
6:19
6:24 7:2
7:14
7:18
29:1
45:8
45:10
127:20
hours 6:20
8:4 43:3
98:4
101:6
117:7
117:12
118:18
house
71:16
80:7
105:9
105:12
H-u-e-t-t-e
119:6
huge
73:7
93:14
106:3
128:4
Hugh 34:10
37:6
37:8
H-u-g-h
37:8
HUGH 37:8
human
34:20
39:18
103:13
103:16
103:24
110:6
111:9
114:4
humane
74:5
humanity
47:18
hundred
12:13
112:20
125:12
128:16
hundreds
39:14
47:25
113:16
hungry
79:13
Hunter
77:20
77:23
H-u-n-t-e-r
77:23
HUNTER
77:22
hurricane
116:3
118:13
118:17
hurricanes
108:6
hybrid
109:15
hydro
29:10
31:18
31:20
32:3
46:11
52:4
58:1
58:6
58:21
58:25
59:6
59:9

59:14
59:23
75:15
125:10
125:12

hydroelectric
25:22
29:12

hydropower
25:17
51:22
58:19
64:23

hydropower's 31:24

I

IBEW
124:20
125:7

icecaps
103:3
108:7

iconic
89:10
106:19

I'd
24:16
27:24
34:25
37:22
41:9
51:20
69:20
69:21
70:10
70:11
70:21
71:8
71:11
72:3
72:5
106:13
108:25
115:9
117:1

Idaho 3:14
100:23

idea
21:8
76:10
94:19
102:14

identified
18:21
41:25
43:22
77:13

identifies
65:23

identify
15:21
52:2

idiots
104:25

idling
44:17

ignore
57:3
90:6

I'll
3:19
20:22
23:24
40:22
42:11
63:24
64:15
64:16
67:15
84:16
86:21
91:21
96:22
114:20
117:22
119:14
123:9

illustrate
99:9

illustrated 88:17

illustrates 99:15

I'm 3:6
3:6 5:18
5:19
5:20
6:16
14:14
16:12
16:12
16:14
16:16
20:21
21:2
23:13
23:25
23:25
24:5
24:11
26:6
26:9
30:5
34:14
34:16
34:16
37:11
37:12
37:20
37:25
41:7
47:8
49:17
49:18
53:17
57:19
60:14
61:20
62:6
62:10
62:12
63:10
64:12
66:8
68:17
72:16
75:22
80:17
82:5
87:16
91:18
93:11
93:20
94:5
94:17
95:1
95:2
95:24
96:2
98:11
99:19
100:9
102:4
102:19
102:19
106:11
108:20
108:22
112:3
115:7
115:10
115:14
115:18
117:18
119:6
122:4
122:5
123:5
123:6
124:20
126:21
126:21
127:3
127:4
127:9
129:8

imagination
22:22
22:24

imbalance
89:18

immediate
108:1

immensely
39:12

impact
44:13
46:1
65:9
103:7
103:19
103:23
106:23
113:6

126:20
impacted 28:10
impacts 32:13 43:14 58:3 70:17 89:25 98:3
impairing 110:5
implement 72:5
implementation 6:4 72:13
implemented 80:3
implementing 25:6 78:12
implication 29:6
implications 43:5
implies 60:6
importance 31:9 31:18 44:10 44:12 46:24 120:9 122:22
important 7:3 7:10 9:25 10:12 17:3 21:7 24:10 58:11 58:12 61:23 63:7 64:2 65:11 70:24 71:6 71:9 76:3 79:23 80:21 83:15 83:17 84:19 84:20 95:4 96:6 96:8 103:15 103:17 120:12 120:19 121:9 122:15 123:11 124:2 128:24 129:3
importantly 5:7 83:5 110:19
impose 95:13
imposes 18:11
impossible 56:18
impress 106:5
impressive 94:23 104:23
improve 13:1 32:8
improved 122:7
improvement 19:18
improvements 44:11 100:19 100:21
improving 30:12 44:7
inadequate 107:20
incentives 21:16 70:7 80:5
inception 42:16
inclined 21:2
include 19:5 35:4 40:21 71:10 71:23 72:2 96:2 114:18
included 19:16 71:4
includes 95:24
including 5:11 23:15 28:17 47:15 52:23 53:3 54:15 59:25 95:23 96:15 121:11 122:18 122:20
incomplete 15:15
inconsistent 60:24 61:1
incorporate 22:25 84:23
incorporated 7:25 33:17 87:7
incorporates 32:16
incorrectly 40:10 52:16 91:20
increase 46:5 52:6 59:13
increased 28:17 55:25
increases 12:4 59:25
increasing 24:12 29:11 43:24 45:19 59:10
incredible 110:17
incredibly 48:18 94:18 94:22 94:23
indeed 36:25
independent 58:8 58:13
India 20:7

39:15
indian
61:17
64:7
64:9
64:10
128:21
128:21
indicative
28:25
indirectly
44:16
45:16
individual
12:14
118:8
118:22
individuals
118:4
118:9
industrialized
20:5
industries
29:15
49:22
industry
51:6
121:15
infer 18:4
18:9
influence
50:10
104:5
influences
57:5
inform
99:19
information 5:10
5:22
40:20
129:1
informed
60:5
informing
17:1
infrastructure
52:24
107:1
inherent
59:23
60:11
inherently
95:18
Initiative
75:4
initiatives 27:18
innocent
107:13
innovative
18:23
50:8
77:1
input
117:17
inspect
36:1
inspectors
35:24
36:18
36:20
inspired
102:4
installations
125:9
installed
101:25
125:18
instance
86:19
instead
25:7
50:14
86:25
107:19
110:18
Institution 94:4
institutions 50:23
insulting
102:17
insurmountable
22:1
intact
37:19
integral
79:15
integrate
13:2
57:8
70:16
integrated
44:24
integrating 69:7
integration 9:24
10:6
10:13
23:5
42:10
42:13
42:15
43:17
52:2
72:5
Intel
101:21
101:22
101:22
101:23
101:25
125:10
intend
25:8
intends
30:16
interest
34:23
106:15
interested
53:1
119:16
interesting
14:20
82:7
interests
24:21
63:6
114:10
114:11
116:23
intermittent
13:5
31:15
intermittently
21:9
intern
115:12
115:14
internalized 35:6
internalizing 95:7
international
47:17
99:22
119:7
interpolated 19:24
interruptible
43:12
intersects
47:2
Intertribal 62:9
interviewed 94:4
interviewing 94:8
introduction 42:17

43:1
44:4
intwined
16:24
invasive
127:18
128:3
inverse
45:8
invested
16:18
investing
107:19
113:16
113:20
investment
16:19
46:10
invite
17:20
inviting
17:1
115:10
involved
42:23
92:15
123:7
IPCC 20:10
36:10
ironic
75:22
Ironworks
125:13
isn't 79:9
79:10
88:14
96:24
issue
19:13
32:5
42:24
44:9
58:6
101:24
112:19
116:12
issues
16:24
17:2
23:5
24:7
35:14
42:15
50:7
51:1
58:13
58:15
59:6
59:20
69:8
72:6
72:13
80:12
98:12
103:6
122:8
item 52:11
53:4
82:22
items
52:11
it's
7:18
7:23
7:23
8:24 9:1
9:10
9:16
9:17
9:21
13:4
15:1
16:4
16:16
18:22
20:21
21:10
25:13
27:2
28:21
31:18
32:12
35:13
35:22
36:2
39:1
39:2
39:6
39:16
42:25
45:7
45:8
47:14
50:11
50:22
58:17
59:14
60:16
60:24
61:1
63:7
71:8
71:23
73:20
73:22
73:22
73:23
75:22
76:14
77:2
77:6
77:10
78:18
78:19
78:21
78:25
79:11
81:9
82:7
82:15
82:19
83:2
83:15
83:20
91:5
91:6
91:14
92:9
93:1
95:4
96:24
98:3
101:19
102:17
102:17
103:7
104:10
104:13
104:13
104:15
104:22
107:14
109:23
110:8
111:19
112:19
112:24
113:6
113:7
114:4
114:12
114:25
115:4
115:23
118:7
118:13
118:13
120:11
120:16
120:23
121:8
121:21
122:8
122:9
122:14
126:20
128:3
128:5
128:19
I've 17:11
37:10
40:16
47:13
47:17
61:18
62:7
62:8
63:25
64:1
64:14
69:5
80:18
82:6
92:15
94:1
116:7
125:8
127:24
127:24
129:2

ivy 127:17
127:20
127:23
128:3
128:4

J

Jack
37:6
40:4
40:5
40:6
40:6
41:7

Jackson
94:6

January
48:18
81:2

jargon
117:13

Jay
57:13
61:14
61:15
61:16
61:17

Jeff 4:1
5:16
5:19
40:16
53:14
56:1
56:4
84:13
91:12
91:13
91:17
116:25
120:15

J-e-f-f
91:22

JEFF
56:3
91:14

Jesse
77:20
77:21
77:22
77:22

Jessica
119:4
124:15
124:15

Jim
91:13
98:8
98:9
98:10
98:10

Joan 3:6
5:18
56:14
124:19

job
24:18
36:18
46:14
59:22
66:21
73:3
74:9
113:23
114:12
123:23

jobs 9:6
14:3
14:20
93:25
106:24

Joe
72:16
72:16
72:17
72:18
72:19
72:20
72:20
124:16
124:18
124:20

Joel 106:9
108:17
108:18
108:19
108:19

John 4:4
16:8
16:8
23:22
23:23
23:25
26:4
26:6
26:6
29:25
33:1
33:1
33:20
40:9
40:17
61:15
66:5
66:5
66:7
66:8
92:22
92:23

Johns
34:15

join 94:8

joined
87:21

Jones
102:1

journals
102:21

juice
79:16

juices
18:23

jump 37:21

justifiabl e 71:9

justified
71:24
72:2

K

kaikai
61:18

Kann 80:15
81:24

Katherine
80:15

Katrina
116:3
118:17

Ken 47:5
49:15
49:16
49:17
49:17
92:25

key 27:3
42:9
58:22
59:17
95:6

keyword
78:17

kids 112:4
112:5
112:13
112:13
112:16
128:12
129:3

kill 73:24
104:6
109:19

killing
107:13

kilowatt
6:20
29:1
117:7
117:12

kilowatts
110:22

kinds
60:18
122:2

King 4:1
5:18
5:19
13:25
14:8
14:10
15:11
92:22

Klamath

115:15
knew
54:1
63:13
83:14
know-how
110:24
111:2
known
54:22
79:9
Kulengowski's
98:14

L

labeled
52:11
labor
121:7
121:20
labors
16:23
labs
100:13
lack 70:25
80:24
laid 56:12
Lake 64:7
lamented
19:14
land 48:4
lands
113:9
landscape
113:6
landscapes
113:11
language
42:22
44:3
44:6
large 9:16
26:17
48:9
54:1
59:2
102:1
126:7
largely
21:6
22:8
larger
11:21
48:10
largest
101:22
125:18
Las 105:8
last
3:11
3:15
5:24
15:21
30:24
34:2
40:9
40:15
56:8
57:17
66:15
67:14
71:10
81:4
82:8
92:16
92:20
93:8
100:24
102:9
120:7
123:4
123:8
123:8
123:23
126:25
127:12
128:20
128:22
lasting
107:20
lasts
115:1
late
101:19
112:11
lately
119:14
latent
42:20
later
5:8 38:8
87:25
119:21
latest
4:17
50:2
latter
16:15
42:15
laudable
88:12
law 84:6
86:12
117:25
123:21
Lawrence
87:15
L-a-w-r-e-n-c-e 87:16
LAWRENCE
87:14
laws 88:11
lawsuits
71:20
71:21
71:21
71:22
71:23
lead 39:25
43:11
49:8
57:7
66:1
81:20
119:7
leader
47:11
88:7
leaders
62:2
68:3
leadership
47:10
50:7
50:11
72:14
83:7
83:18
84:4
86:25
90:17
111:2
111:5
126:13
126:17
leads 34:7
45:13
learn
75:24
77:16
123:19
123:23
learned
64:1
64:12
107:9
115:17
116:7
116:9
123:14
learning
107:11
leas-risk
97:17
least
7:6 8:20
17:17
19:5
19:19
20:1
30:1
52:7
70:9
98:1
98:1
98:6
103:17

114:10
119:16
least-cost
7:5
85:17
97:17
122:24
122:25
least-risk
85:17
leave
5:3
20:22
34:6
64:15
66:4
92:20
114:20
leaves
11:16
23:4
LED 18:13
left-hand
9:13
legal
84:10
84:15
legally
117:24
legislation 68:8
70:15
71:11
94:9
94:14
legislators
69:12
70:15
legislature 69:12
leisure
26:24
length
42:13
less
7:13
7:18
17:2
39:11
47:12
69:19
78:3
107:25
lessen
46:6
let's 3:24
46:19
73:25
90:17
92:23
116:15
letters
118:6
letting
76:7
101:18
level
19:16
26:25
33:22
65:5
72:12
73:22
81:2
104:3
124:2
levelized
7:23
levels
12:2
12:2
12:3
19:21
19:22
19:24
20:1
20:3
41:21
88:11
108:7
Lewis
53:17
54:4
54:21
55:11
55:18
library
76:23
lie
73:22
73:22
lies 22:24
life 39:18
57:25
62:15
62:20
65:12
74:25
79:16
107:10
120:21
121:6
lifetime
6:25
light
18:15
22:6
32:2
40:7
74:3
74:20
77:3
109:13
109:14
109:21
111:22
lighting
18:13
18:16
121:24
light-load
45:10
lights-out
24:12
likelihood
45:21
likely
12:25
18:22
20:4
37:18
55:16
65:9
69:24
70:5
limit
18:14
25:2
42:11
100:1
limitation
s 45:22
limited
9:15
limiting
98:4
limits
18:16
79:7
line 90:10
100:25
114:14
126:2
lines
46:11
126:5
link
5:14
59:23
Lisa
66:6
68:14
68:14
68:16
68:16
list 16:7
listen
24:19
34:4
36:23
37:1
62:23
listened
64:11
listening
36:19
55:22
lists 69:2

little
7:13
7:18
11:9
12:20
20:14
23:8
84:13
95:22
97:10
103:14
126:4
127:5
127:11
127:19
127:23
128:5
128:12
128:23

Littlejohn
74:12
75:19
75:20
75:21
75:22

live 37:24
57:22
74:17
103:15
109:6

lived
100:24

livelihood
57:25

livelihood s
109:7
109:8

lives 76:2
109:6
109:7
110:21

living
47:19
90:23
103:11
103:11
110:21
129:4

load 17:22
18:3
21:13
21:19
30:8
45:20
65:19
67:2
101:1

loads
31:21
51:12

lobby 82:9

local
9:6
68:18
76:13
77:24
82:24
92:3
124:21

localized
15:10

locally
47:14
86:6

located
24:4
49:19

location
47:22
53:22
54:21

long 19:17
25:10
60:7
64:22
79:7
79:9
80:25
91:15
115:1
117:20
124:10

longer
10:14
36:12
112:14
114:9

longstandi ng 22:17

long-term
43:6

Lookout
127:13
127:14
128:9

lose 105:9

losing
105:10
115:4

loss
103:13

lost 28:20
29:3
59:14
59:24

lot 11:8
12:21
13:3
14:15
14:23
15:2
18:15
21:20
26:2
67:20
78:10
79:4
79:24
80:9
80:9
84:9
87:4
95:22
102:5
102:5
103:23
104:4
109:3
109:3
110:9
112:25
116:9
117:7
117:18
117:24
118:3
119:13
120:25
122:10
123:18
123:19
126:22
127:21
127:22
128:1

lots 122:6
127:16

loud 102:6
112:7
112:8

loudly
48:12

love
49:8
106:18
111:23
114:22

low 22:7
27:21
28:25
31:11
31:22
33:21
41:14
50:3
86:13
86:17
122:8
125:10

low-carbon
13:19
21:22

low-cost
6:1

lower 9:10
10:2
32:1
50:17
67:10
89:20
90:16
98:3

lowest 25:2
low-priced 86:15
low-risk 6:1
luck 26:3 105:11 118:15
lucky 58:24
ludicrous 102:17
lung 73:18
lungs 73:13
lush 106:18

M

Madam 4:10
magnitude 8:12
mail 40:23 129:14
main 88:1
mainly 55:8
maintained 66:18
maintaining 58:21
maintenance 21:11
106:25
major 38:1 39:5 39:8 77:6 88:9 125:16
majority 8:9
makers 60:4 60:16
manage 50:15
managed 86:24 120:6
management 75:17
mandates 75:5
manner 31:3 31:12 106:22 108:15
marginal 86:9
mark 3:25 17:8 91:19 94:5 94:6
market 18:25 33:5 44:15 45:24 46:8 66:9 66:25
markets 45:20 52:24
Martha 115:6 115:7 115:8
M-a-r-t-h-a 115:8
MARTHA 115:7
Mary 75:20 77:19 77:20
mass 55:10
Massachusetts 98:18
massive 39:14 99:15 103:13 110:21
masterpiece 90:24
master's 34:15 128:25 129:1
match 18:3 84:7
material 20:15
math 129:2
matter 79:10 79:12 113:20 118:18
maturation 18:25
mature 9:17
may 5:3 5:13 10:4 10:14 18:19 20:3 22:3 24:11 25:3 35:19 40:9 43:11 68:11 68:11 74:15 80:1 105:7 105:11 109:19 109:22 128:11
maybe 15:25 17:23 45:18 62:6 74:12 76:14 77:9 78:1 78:9 78:19 82:11 83:24 84:2 85:6 95:13 99:18 99:18 99:19 102:6 112:3 112:5
Mayson 37:7 40:4 40:6
M-a-y-s-o-n 40:10
MAYSON 40:6
mean 6:15 14:6 68:2 90:4 104:7 114:17 114:23 116:1 117:14 118:14 124:4 128:12
meaning 6:19

meaningful
24:20
means 53:1
61:24
84:19
108:9
meant 62:6
measure
38:11
measured
33:3
33:5
measures
25:22
27:20
28:8
28:10
43:4
43:9
meat 52:25
media
113:19
medical
35:4
35:5
35:5
medium
22:7
meet 6:9
8:21
11:1
12:17
21:12
23:17
26:17
27:16
27:21
31:2
31:6
31:20
66:23
67:13
67:21
75:17
87:10
90:14
97:15
107:18
112:23
meeting
9:4
20:16
22:6
22:13
32:19
41:13
41:22
63:8
67:11
70:18
72:21
82:12
83:10
88:11
90:3
102:12
102:13
119:12
119:17
119:20
129:18
meetings
30:23
40:16
72:22
117:6
117:8
117:10
118:3
meets
31:11
megawatt
6:18
6:18
6:19
6:24 7:1
7:14
7:18
101:6
megawatts
8:4
8:8 8:14
10:23
10:24
10:24
11:2
12:16
17:18
18:8
25:3
28:4
28:5
29:2
41:25
76:11
101:3
Melinda
3:8
56:14
meltdown
103:4
melting
103:3
108:6
member 3:6
3:8 3:10
14:1
14:14
15:4
15:8
16:17
19:11
19:11
19:12
35:10
41:4
42:6
53:19
91:18
91:22
94:6
94:15
108:22
112:6
115:15
119:18
119:19
members
16:9
17:4
23:24
29:24
30:8
30:18
32:9
32:10
33:25
56:3
56:14
57:14
69:13
80:20
87:14
93:10
121:20
124:18
membership
49:21
memento
121:17
mention
27:24
mentioned
45:16
85:23
menu 27:19
mercury
65:19
65:22
65:23
65:24
107:7
113:1
merely
52:21
88:13
114:14
merits
52:14
Merkley
67:21
67:24
message
96:23
97:3
125:5
met
24:21
32:18
50:4
META 66:24
metal 39:9
method
52:22

methodology 82:17 96:3
methods 110:12 110:15
metropolitan 112:3
Michael 40:17 82:25 92:22
microphone 5:19
mic's 112:6
middle 90:22 112:2
midterm 67:8
midwest 38:1
migrate 85:25
miles 35:20 47:12
Miller 29:22 34:9 34:13
M-i-l-l-e-r 34:13
MILLER 34:11 35:11
million 26:14 29:4 59:11 59:13 77:25 81:4 86:11 86:18 86:18 93:15 93:16 107:17 108:3
millions 29:1 113:16
mind 18:6 102:11 111:20 113:12
mindset 78:20
mine 22:18
miners 73:17
mines 114:6
mining 109:18 113:7
minister 80:22
Ministries 98:13
minor 89:25
Minthorn 57:13 61:14 61:16 61:17 117:1
minute 119:15
minutes 15:24 23:25 37:22 119:1
mischaracterized 59:19
misrepresented 32:5
miss 3:19
missed 4:5 23:2
missing 35:1 123:12
mission 120:10
misspelled 57:18
mitigation 25:21 58:2
mix 76:19 78:7
mixture 92:9 92:13
model 32:14 37:16 46:15 82:19 85:5 85:16 90:2 97:24 99:21
modeled 97:19
modeler 100:16
modelers 100:17
modeling 82:16 82:16 85:11 86:22 116:14
models 22:23 30:21 46:25 116:4 116:4 116:13
moderate 12:8
modern 112:23
modernized 121:23
modify 38:10 44:3
moment 50:25 58:9 79:11 104:12 111:12
moment's 78:21
Monday 128:20
money 14:1 14:7 14:15 14:17 14:19 14:22 15:5 93:24 105:10 107:23 113:14 113:21 124:25
monitors 122:20
Montana 44:18 44:19 44:21 44:22 44:24 45:5 62:22 64:18 97:12 100:23

113:8
month 30:24
monthly 30:23
months 74:22 85:15
Moore 90:21
M-o-o-r-e 90:23
MOORE 90:21
moral 78:23 78:24 78:25 79:1
morning 82:12
Morris 61:15 66:5 66:8
M-o-r-r-i-s 66:8
MORRIS 66:7
mothball 21:14
mothballed 21:10
mother 115:25 118:13
118:23
motivated 102:3
motivation 70:4
Mount 106:11
mountain 73:18
mountaintop 113:8
MOUs 117:12
mouths 79:13
move 33:21 39:22 41:16 42:25 43:19 44:7 69:14 98:24 103:21 106:21 107:2 107:20 112:18 120:23 121:13 123:1
movement 21:21 71:12 121:7
movements 108:12
moving 16:3 16:6 31:14 66:18 69:15 79:19 80:10
multiple 52:23
municipal 40:8
myself 127:8 128:15

N

narrower 43:10
nation 36:24 48:1 48:14 48:24 49:9 65:7 99:15 104:14
national 20:8 98:16 99:21 100:13 111:5 119:8
nationally 21:1 100:21 100:22
nation's 48:12 109:12
Nations 36:10
nationwide 87:18
Native 116:8
natural 9:25 10:4 10:7 10:11 11:20 12:25 31:13 101:9 120:17
nature 107:10 107:12 115:25 118:13 118:23
naysayers 104:23
nearly 11:25 30:7 109:13 109:16 111:6 121:18
near-term 10:5 106:1
neat 76:6 76:15
necessary 38:9
NEET 66:14 66:15
negative 22:4 22:15 38:15 38:15 43:4
negotiated 62:1
negotiation 62:2
Negotiations 123:7 123:13
neighborhood 103:10
neighbor's 63:15
neither 20:18
Nelson 68:15 72:18 72:18
net 101:2 102:15
Network 108:24
neutral

47:24
neutrally 49:7
Neverthele ss 51:19
Nez 62:23
nice 8:22 92:12 121:17
Nick 74:12 75:19 75:20 75:20 75:21 75:22
nighttime 52:6
Nike 68:7
nine 62:12
Nobel 34:18
Nokovic 47:8
N-o-k-o-v-i-c 47:8
NOKOVIC 47:6
non 63:19
non-carbon-emitting 9:1
none 45:11 93:4
nonetheles s 48:14
non-fueled 8:24
non-hydro 46:12
non-natives 116:9
nonprofit 49:20
non-quantifi able 120:14
nor 20:19
North 13:13
Northwest 3:7 3:12 4:11 4:13 4:13 4:24 8:13 8:17 11:15 13:11 13:11 13:15 16:20 24:5 24:8 25:19 26:9 36:22 37:4
44:25 46:3 49:8 49:19 49:20 50:13 55:19 57:20 59:1 66:20 87:22 88:19 89:12 92:17 93:21 94:11 95:3 95:19 96:9 96:9 98:23 103:20 106:16 106:17 108:15 123:15 124:6
Northweste rn 44:19
Northweste rners 114:13
Northwest' s 108:24
nose 73:14
note 31:25 32:9 42:14 46:13 51:20
70:21 70:23 71:5 71:8 71:12 72:3
noted 41:18 67:1 67:5
notes 117:7
nothing 65:4 105:4 111:2
notice 56:15 121:16
notion 66:13
Nova 37:14 37:17
November 4:22 25:24 30:17
Novic 41:2
nowhere 47:23 110:16
NRPs 33:13
nuclear 38:3 38:4 124:8
NWPCC
106:13 108:12

O

Obama 102:10
objective 49:24
obligation 45:13
obligation s 106:2
observatio n 22:18 99:1
observer 75:23
obtainable 25:3
obtaining 66:25
obvious 11:16 42:9
obviously 7:4 60:14 78:10 78:16 78:23
occur 19:1 60:12
occurred 117:15
ocean 81:8 81:8

81:10
81:13
103:4
oceanographers 36:7
oceans 103:6
odds 105:12
105:16
105:17
offer 27:1
92:10
99:1
129:13
offers 98:21
office 115:12
115:14
117:1
officer 26:9
offshore 13:14
offsite 48:17
48:25
oh 41:1
72:18
105:3
oil 38:13
38:19
79:18
79:20
80:22
80:24
80:25
81:17
okay 5:19
15:18
16:4
39:25
41:5
60:7
64:16
72:19
73:10
74:11
77:21
81:25
82:2
87:12
101:16
115:13
124:16
old 63:10
73:2
77:4
77:13
127:16
older 126:3
omission 96:21
omit 44:5
onboard 14:18
ones 7:5
85:13
85:14
122:18
123:18
128:23
one-time 97:21
ongoing 21:14
91:8
onsite 48:6
onto 21:13
open 24:19
36:3
36:14
40:14
40:18
40:19
46:14
51:10
124:25
operate 9:20
11:11
operating 13:1
21:3
21:17
43:6
57:1
operation 11:18
operations 51:22
52:5
59:24
60:4
98:5
opinion 33:2
opportunities 93:13
opportunity 26:8
30:3
34:12
36:23
47:7
48:8
49:13
50:1
53:10
57:15
57:16
67:10
87:23
89:18
opposed 28:9
optimum 85:11
optional 54:8
options 18:21
19:9
orange 7:20
7:21
7:22
order 6:18
31:14
42:7
45:14
54:9
55:1
72:5
ordered 60:15
ordinance 21:14
Oregon 3:2
3:6
3:8 7:12
19:20
19:24
20:11
34:14
34:18
37:15
37:17
48:23
56:6
56:13
56:19
56:19
56:22
62:12
64:6
65:18
68:17
70:13
71:1
75:6
81:19
84:6
92:7
94:17
95:2
97:12
98:13
98:17
100:20
102:2
106:14
107:13
107:15
110:1
113:15

113:15
115:16
125:2
125:13
125:19
126:8

Oregonian
81:2

Oregonians
114:13

Oregon's
22:5

organization 29:13
34:19
49:21
68:18
83:7
108:25

organizations
49:24
87:18
87:19
103:24

others
7:19
66:12
68:9
86:25
96:10
122:5
123:19

other's
124:8

ought
121:1
121:5
123:16
126:19

ours 121:5
129:6

ourselves
55:8
115:3

outdoor
18:15

out-of-region
45:24

output
9:23
29:11
43:3
45:6
90:5

outputs
43:10
122:3

outreach
3:16
40:14
57:10

outside
46:4
83:6

outstanding 96:12

overall
96:1

overcome
116:23

overdue
19:17

overly
45:18

Overnight
91:5

overview
3:20 4:2
5:17
5:21

overwhelming 83:11
102:22

owned 24:3

P

p.m 3:3
129:19

pace
6:15
6:17
6:25

Pacific
36:22
49:8
87:22

page
5:14
51:20

pair
114:21

panels
54:6
102:1

paper 81:1

paradigm
95:14
99:7
99:20
100:18
101:13

pardon
31:8

parents
128:11

Park 128:2

parking
18:15

participate 34:3
74:19

participated 66:14

particular
7:11
16:6
36:13
48:3
52:14
59:4
94:22

particularly 7:3
43:5
46:18
47:15
56:13

partnering
43:19

Partners
57:20
60:9
60:23

pass 83:25

passages
51:19

passed
70:15
71:16
71:18

passive
60:6
80:6

passivity
84:4

past
19:2
74:21
99:16
110:14
128:16

path 50:17
76:9
85:7
90:11
97:18
111:22

pathway
65:24
100:16

patience
127:2

pay 54:9
58:15
103:7
109:24

paying
74:21
98:23

peach
34:10
37:6
37:9
37:9

P-e-a-c-h 37:9

PEACH 37:8
peak 9:5
10:9
11:12
38:13
38:19
38:19
38:19
peakers
11:10
peaking
45:7
45:10
45:11
peer 110:7
penalties
8:25
penetratio n 18:25
people
6:21
14:5
16:2
18:24
38:16
40:9
54:14
57:22
58:15
60:7
61:22
62:3
63:6
66:16
69:1
69:17
69:19
69:24
71:6
73:16
76:2
76:8
79:13
82:11
82:13
82:14
82:20
83:5
83:8
83:12
83:12
85:15
85:21
85:22
85:23
86:3
90:25
91:1
92:5
92:12
92:14
103:6
104:18
107:13
109:8
109:9
109:9
112:25
117:3
117:14
121:2
121:4
121:14
125:4
125:8
125:9
125:11
126:14
126:14
126:19
per 6:18
6:23 7:1
7:14
7:18
29:1
59:13
65:22
Perce
62:23
percent
8:21
11:13
19:22
19:23
19:25
48:17
55:9
65:16
75:5
78:6
78:6
81:3
99:19
99:23
99:24
99:25
100:14
100:15
105:13
125:3
P-e-r-e
115:8
Perez
115:6
115:7
115:7
115:8
perhaps
13:7
33:11
78:10
89:21
95:16
106:4
109:12
period
10:19
18:18
perish
108:5
permanent
107:21
129:10
permits
117:23
perpetuate
113:17
114:14
perpetuate s 17:25
person
119:16
127:7
perspectiv e 127:7
perspectiv es 30:22
perverse
21:16
pessimisti c
116:1
118:14
pete 79:17
PF 33:3
PGE 92:4
102:14
PGE's
102:14
phase 75:9
75:14
phaseout
98:2
phaseouts
98:5
phasing
38:8
65:15
66:1
PhD 94:3
94:10
phenomenal
104:23
phonetic
60:13
61:18
82:25
92:22
99:12
124:9
phrase
76:14
79:7
119:21
phrased
100:4
physical
20:17
34:16
36:9
Physicians
34:18
piece 7:20

35:2
94:9
127:24
pieces
70:24
pilot
116:15
116:19
pincer
71:12
pioneered
110:15
placed 5:5
places
54:23
107:8
plain
124:1
plan
3:14
3:21
4:13
4:15
4:16
4:17
4:19
4:22
4:24 5:6
5:8 5:11
5:11
5:15
5:22
5:23
5:24
5:24 6:6
6:13
6:25 7:3
7:10
10:1
10:18
12:10
12:11
12:11
15:12
15:13
17:3
17:5
17:13
18:9
19:4
19:13
19:17
20:19
22:5
22:8
24:9
24:16
25:23
26:21
27:2
27:4
27:23
28:5
28:6
29:9
30:4
30:12
30:15
31:1
31:7
31:23
31:24
32:8
32:23
33:1
33:4
33:8
34:1
34:6
34:7
38:9
40:15
41:12
41:12
41:15
41:25
42:12
42:14
42:16
42:17
43:2
44:4
44:11
50:2
50:18
51:1
51:20
52:6
52:11
53:10
53:12
56:13
58:5
58:20
59:2
59:7
59:21
60:6
61:10
64:17
64:19
65:2
65:4
65:13
66:12
67:8
67:16
68:4
68:10
69:22
70:3
70:16
70:20
71:9
72:3
72:4
72:7
72:9
75:2
75:8
75:14
75:17
77:25
82:17
82:23
83:21
83:22
84:3
84:7
84:11
84:24
85:2
87:7
87:9
88:4
88:22
88:24
89:1
89:9
89:17
90:4
90:8
90:18
92:16
92:19
93:11
94:20
94:21
95:10
96:2
96:11
97:10
97:16
97:24
98:6
98:19
98:21
99:2
99:6
100:17
101:12
101:12
102:15
111:3
111:6
111:17
119:23
124:14
129:16
planet
39:11
47:19
65:7
81:6
87:5
103:8
103:24
105:20
108:9
planets
81:22
planet's
107:24
planned
107:22
planners
31:10
82:14
95:8
planning
5:20

20:21
22:19
23:1
23:4
64:21
65:25
89:13
95:6
98:5
98:22
122:24

plans 18:1
19:18
20:8
23:5
68:1
71:1
102:14
116:3

plan's
20:24
27:15
31:12
31:17
32:14
34:25
50:3
50:20
52:11
58:18
97:4

plant 10:3
21:14
28:12
47:13
65:20
65:20
91:9
91:10
98:4

101:1
108:11
127:18

plants
7:17
9:20
10:5
10:12
11:16
11:19
12:7
21:8
21:19
35:9
38:4
38:5
49:4
65:10
65:15
65:17
77:12
85:9
85:10
85:13
89:2
105:22
106:14
107:5
110:4
114:16
121:3
124:9

play 7:3
11:21
31:11
120:20
127:4

played
124:10

playing
23:4

plays 7:9

please
3:23 5:2
5:12
34:21
38:6
38:10
39:25
49:9
75:13

pleased
25:16
93:20

plenty
88:20
91:6

plug 54:15

PNGC 24:1

point
14:23
24:23
25:16
34:25
45:19
45:19
77:15
78:2
84:16
93:11
95:4
96:16
103:14
103:15
119:23
120:24
122:13

points
17:14
24:17
29:6
58:20
69:1
97:9

poison
73:20
107:5

poisons
75:11
104:14

polar
103:3

policies
12:5
50:21
50:23
74:15

policy
9:22
56:25
57:1
57:2
57:4
57:5
70:24
87:16
92:1
92:18
97:1
97:4
103:20
123:21
124:22

policymakers
34:4
36:3
36:19

36:21

political
21:18
86:24
116:22
118:20

pollutants
96:6

pollute
97:1

polluting
48:14
109:24
110:3

pollution
76:13
113:5

population
39:12
55:12
79:5
103:10

populations 80:10

portfolio
10:18
11:2
11:6
12:18

portions
26:17

Portland
3:2 24:3
34:14
35:18
41:3
47:9
47:21

48:10
48:16
49:19
54:21
55:12
66:10
67:21
68:6
91:19
91:24
100:17
106:12
106:16
108:21
109:12
124:21
128:2

Portland's
55:9

ports
57:21

posed
17:13

poses 53:4

position
48:11
106:2

positions
103:18

positive
22:15
50:10
52:7
106:23

possibilit
y 103:13

possible
31:22
33:14
37:5
59:8
70:5
75:10
88:15
95:12
104:8
123:1

possibly
6:10
104:7

potential
8:15
8:25
13:14
23:3
44:20
60:1
78:11
88:21
99:3
101:7
101:7

potentiall
y 8:21

pounds
65:21
73:7

powder
73:11

power
3:7 3:13
3:13
4:12
4:13
4:14
4:15
4:17
4:19
4:22 5:6
5:8 5:11
5:15
5:20 6:3
7:10
7:12
9:24
10:10
10:12
11:14
11:15
13:1
13:3
13:3
13:4
13:12
15:13
16:21
17:5
18:1
19:13
22:18
24:1
24:6
24:7
24:9
25:18
25:19
26:2
26:12
26:18
27:6
27:16
28:5
28:21
29:3
30:4
30:5
30:7
30:10
31:2
31:6
31:20
31:25
34:1
35:15
41:12
41:12
43:7
47:13
49:2
49:10
50:7
52:1
53:10
55:20
55:22
58:5
60:7
60:13
61:10
64:16
64:20
64:21
64:21
64:24
65:2
65:13
65:16
65:20
65:25
68:4
74:24
75:3
75:17
76:19
77:11
77:14
89:3
89:4
89:12
89:24
90:14
90:18
93:3
94:11
95:19
96:9
98:19
101:23
101:25
103:19
103:21
104:4
104:8
104:11
104:12
104:15
105:22
109:5
109:15
109:20
110:4
111:3
111:16
111:17
111:19
114:9
114:12
114:15
115:11
118:12
118:22
120:2
121:10
121:23
121:23
124:8
128:12

powered
48:14

powerful

54:13
powering
77:17
110:20
powers
104:11
pow-wow
62:25
PPC 30:6
30:14
32:7
33:24
practiced
100:22
practices
116:14
precedent
111:9
precedent-setting
83:16
predicate
70:21
preeminent
36:10
93:3
prefer
109:16
premise
52:15
prepare
118:2
prepared
99:12
118:16
preparing
6:6
40:11
Prescott
16:8
23:22
23:25
33:1
P-r-e-s-c-o-t-t 23:25
PRESCOTT
23:23
present
7:23
22:1
57:15
78:21
102:15
presentation
82:8
83:11
presentations
82:10
92:22
preserve
90:24
president
16:12
24:1
104:2
Press
38:23
pressure
21:18
64:23
pressures
111:21
pre-stated
24:22
pretty
21:11
23:12
62:8
66:22
82:14
84:3
127:9
prevalence
93:19
prevented
116:5
previously
32:9
33:11
33:21
price 10:1
35:1
46:8
51:12
53:22
71:10
71:24
87:1
95:10
114:6
prices
7:24
8:24
9:19
28:22
95:11
95:12
pricing
28:24
44:15
primarily
52:25
primary
65:24
89:7
92:17
113:12
principle
26:12
printed
64:14
prior
19:18
53:25
56:15
72:21
private
102:23
privileged
37:23
Prize
34:19
probably
3:19
11:21
12:13
18:16
18:19
20:12
53:3
83:4
84:20
85:10
122:6
125:11
126:3
127:25
problem
42:25
84:15
96:24
96:24
problematic 21:11
problems
84:10
102:23
102:25
106:6
121:11
122:7
procedures
13:2
proceed
41:20
process
16:18
16:23
22:19
24:19
25:9
34:3
40:14
51:3
82:23
117:17
120:4
120:6
123:6
123:10
123:20
processes
30:21
51:6
produce
7:1

8:1 14:3
20:6
39:17
55:11
120:8
121:21
122:2

produced
11:14
32:1
104:10
104:25

producing
120:7

product
43:13

production
12:1
25:22
28:1
48:3
48:7
49:12
64:20
64:25
64:25
76:11
88:15

products
16:19
63:3
66:2

profession al 17:11
91:25
92:2
92:10
92:13

profession alism
22:20

profile
45:6

profiles
45:3
45:12

profitable
68:19

profound
78:16

program
6:5 54:7
74:20
93:25

programs
25:11
28:17
29:4
53:23
116:15
116:19

progressiv e
54:23
54:25

Project
49:19
49:20

projects
7:12
14:3
125:4
126:6

promise
21:22

promising
13:10

promote
49:24
68:21
118:5

promotes
108:15

promoting
65:2
71:7

propaganda
113:18

proper
123:23

properly
31:23

proposal
55:14

proposed
4:13
5:10
32:17

proposing
113:5

propositio n 115:4

protect
10:15
62:4
62:17
62:18
71:25
87:21

protected
63:20
63:22

protection
86:13

protic
81:12

proud
115:18

prove 20:4

provide
10:5
10:8
32:22
54:3
58:12

provided
5:2 31:1
54:10
54:12
121:2
121:3

Providence
37:14

provides
5:22
27:18
31:5
32:4
97:10

providing
10:13
29:2
64:18
106:24

provision
75:14
94:13

provisions
64:18
64:22
95:21

proxy
110:6

PSU 48:21

psych
118:1

public 3:1
3:12
3:15
3:16
3:22
4:11
4:19
4:23
16:23
23:14
30:5
30:7
30:10
31:9
32:6
34:15
35:4
58:14
60:4
60:16
69:13
73:3
74:19
76:1
76:23
108:16
116:24
117:13
117:16

publicize
69:18

PUC 92:8

PUCs 93:16

PUD 92:5

92:6
PUDs 92:5
pull
127:20
pulled
104:13
pulling
127:21
pulpit
69:16
pump 29:10
pumped
113:2
purchase
9:3
12:23
43:7
48:25
purchaser
101:22
purchasing
48:9
48:17
purpose
5:3
40:12
92:25
purposes
52:21
pursuing
112:22
113:3
pursuit
50:8
purview
57:4
putting
64:24
70:3

Q

qualifications
21:7
quality
22:22
57:25
114:5
114:5
120:21
quantifiable
120:14
quantify
95:25
96:13
quantities
9:16
quantity
9:15
quarter
8:16
80:19
question
14:10
15:6
26:14
78:23
78:24
78:24
78:25
93:8
93:13
100:3
117:16
120:16
123:5
questions
13:21
13:24
14:12
17:11
17:12
17:13
17:20
23:11
72:9
83:12
83:14
100:6
100:7
100:8
quick 15:8
24:17
29:5
60:20
64:15
97:9
quickly
39:5
80:11
111:10
123:1
quite 67:2
92:16
92:20
quo 110:3
quote 77:9
quoting
95:24

R

radical
118:8
raise
106:4
raised
63:9
106:12
rally
118:5
ramps 52:7
range 28:3
28:25
30:9
33:17
33:21
53:21
96:19
ranging
6:13
ranked
6:17
ranking
94:6
rapid 23:3
103:4
rapidly
37:4
rarely
114:25
117:9
rate 32:14
33:3
38:15
38:16
89:25
ratepayer
22:9
49:23
ratepayers
56:7
114:17
rates
32:13
47:14
rather
20:2
21:10
24:25
28:4
43:12
45:25
46:21
87:7
97:6
97:22
113:16
reach
85:17
125:20
reachable
51:11
reached
45:7
reaching
52:18
readily
81:10
readiness
28:1
reading
102:21
ready 67:4
real 64:15
66:21
92:9
97:9
113:25

114:2
122:4
123:10
realistic
27:25
68:19
reality
114:9
realize
58:24
115:19
123:2
realizes
31:3
really
17:8
19:15
29:5
30:25
32:12
49:5
58:1
58:9
58:11
66:15
66:17
67:9
67:11
69:16
76:6
76:9
76:14
77:5
79:19
80:20
82:20
82:23
84:22
84:23
86:20
86:23
91:2
91:3
92:7
93:18
94:16
95:5
96:24
104:16
104:23
106:1
106:1
122:14
124:12
127:21
reap 44:23
reason
52:4
123:5
reasonable
31:3
32:4
70:14
reasons
82:18
recall
119:12
received
41:19
recent
28:24
recently
101:25
102:11
111:5
recognitio n 58:18
110:5
recognize
25:17
41:12
46:23
55:23
69:10
84:11
85:18
87:1
99:23
101:12
120:19
121:1
recognized
48:11
recognizes
50:18
51:17
111:4
recognizin g 27:5
59:22
recommend
5:25 6:1
recommenda tion
120:10
recommenda tions
12:11
12:12
20:24
38:6
58:16
90:7
93:10
96:18
recommende d 17:17
recommendi ng 13:16
115:23
record 5:6
17:21
20:23
38:25
39:24
40:21
129:11
recorded
5:5
recovery
14:22
51:23
52:5
52:8
89:21
reduce
12:1
45:4
45:21
46:7
48:1
50:19
65:5
65:14
83:21
85:1
85:3
85:7
88:14
97:11
reduced
11:20
45:13
reducing
42:18
42:24
53:2
65:3
97:20
reduction
11:17
11:17
12:8
12:9
20:20
22:5
25:20
52:22
67:17
reductions
19:20
20:17
50:14
97:8
97:18
102:15
re-echo
56:23
Reed
108:21
reference
43:2
references
44:5
referred
120:15
refinement
28:14
reflect
95:12
121:5
reflected
41:20

reflective
41:16
reflects
18:10
44:7
refused
111:5
regain
62:13
Regan
102:9
regard
26:13
28:11
28:15
regarding
5:23
8:18
28:1
55:25
regime
21:1
60:15
region 6:2
6:10
6:12
16:25
17:20
22:16
23:17
27:3
28:9
30:11
31:4
31:9
31:11
31:18
32:16
34:1
34:7
37:24
38:5
38:14
39:22
40:2
41:22
42:9
43:20
46:4
46:4
46:18
47:1
50:6
50:11
55:4
57:7
57:8
58:11
59:8
61:1
61:10
65:7
66:17
66:21
66:24
68:21
71:2
72:1
74:15
74:17
75:8
88:13
88:21
88:25
89:5
89:11
97:16
98:3
98:24
99:9
101:1
101:9
106:17
120:8
120:18
122:11
122:15
122:17
123:16
124:7
regional
4:14
19:2
22:13
23:3
31:2
33:12
34:4
46:20
52:18
67:1
67:8
93:23
98:22
108:25
regions
37:25
region's
30:6
30:8
31:6
31:21
32:3
41:16
51:14
58:5
65:3
90:15
92:3
97:17
122:23
regions's
96:23
registered
115:15
regret
23:9
regular
114:11
regularly
23:12
36:1
regulation
28:13
45:13
71:18
83:25
95:14
regulations
68:11
71:17
regulatory
20:25
95:16
reinforce
18:2
relationship
58:7
59:20
relatively
11:7
release
30:16
released
4:18
reliability
24:11
53:4
reliable
6:3 26:1
32:4
50:17
reliably
30:11
reliance
29:6
37:24
55:7
55:19
55:25
108:8
111:7
relies
58:14
relieving
64:23
religion
65:11
rely 26:11
77:5
107:16
relying
21:23
22:7
remain
48:24
65:1
remainder
35:17
remaining
46:12

remains
109:11
111:1

remarks
56:9
68:13

remember
62:16
63:11
63:24
91:21
95:20
111:20
111:21
117:8
119:15
121:13

remembers
16:11

removal
12:6
28:12
58:6
59:7
59:11
113:8

remove
53:7
59:8
67:25

removing
86:19
89:20
90:16

renewable
9:7 9:12
9:18
11:1
11:6
12:18
25:18
44:14
48:17
48:25
49:18
49:20
49:20
49:22
49:25
50:5
51:10
51:16
51:17
51:24
52:15
52:17
52:20
52:24
54:10
55:6
55:22
58:20
59:3
71:7
75:4
75:5
75:8
75:14
77:17
93:19
101:23
101:25
106:22
107:1

renewables
10:25
11:5
11:23
12:19
31:15
41:14
41:21
53:6
55:25
65:3
70:21
70:22
71:5
79:25
90:3
123:25

renovate
121:18

renovated
121:21

renovation
101:10

rented
48:7

repaired
36:17

repeat
82:6

replace
6:11
28:21
55:21
59:14
90:5

replacement
28:19
101:9

replacing
21:24
77:3
89:2
89:24

report
15:1
33:9
42:19
43:18
61:2
88:17
126:18

reported
80:23
81:1

reports
36:9
61:6

reposition
65:23

represent
32:13
56:7
84:8
101:22
104:3
112:9

representation
32:18

representative
34:17
53:18

represented
10:25
35:6
53:9
98:12

representing
30:5
41:8
56:6

represents
7:11
24:9
30:6

request
44:3
46:23

requests
15:19

require
13:6
52:19
84:17
100:5

required
12:17
86:12
96:5

requirements 26:10
32:15
60:8
96:17

requires
72:4
87:6
96:21
107:17

research
13:17
14:4
14:5
15:2
49:18
88:20

94:7
researchers 14:24
reservations 86:23
reserve
21:9
45:12
65:9
resident
34:14
63:1
residential 56:7
resolving
51:14
resource
6:2
7:5
7:9 7:15
8:24 9:1
9:13
9:21
9:25
13:5
13:12
14:17
17:18
18:3
21:3
21:5
21:24
27:9
31:7
31:14
38:10
44:20
45:3
45:6
45:8
45:12
49:21
51:10
58:20
69:8
70:6
93:19
94:15
96:18
resources
6:7
6:8
6:8 6:11
6:13 7:2
7:8
8:1
8:1 8:20
10:17
10:20
10:22
12:22
13:10
13:14
13:18
13:20
27:16
27:20
28:19
33:5
38:17
41:24
42:2
43:23
43:24
44:6
44:17
46:5
46:22
49:25
51:9
51:12
51:17
52:20
54:10
55:6
59:3
62:4
62:13
62:18
63:3
63:21
64:2
64:4
64:13
70:7
70:8
71:7
86:4
86:5
90:4
106:19
116:16
respect
9:7
19:10
20:24
50:12
58:1
78:14
83:7
115:20
respected
82:20
responding
23:16
response
27:17
responses
18:12
responsibilities
87:10
120:12
responsibility
34:18
78:15
78:16
responsible
49:25
77:17
108:1
rest
17:9
20:23
33:8
33:12
39:23
54:12
55:4
restore
87:21
88:8
90:15
91:8
restored
116:11
result
52:7
95:17
97:7
results
40:19
82:21
retained
9:2 27:4
retired
21:10
80:17
retirement
21:25
retrofitted 122:18
retrospect
23:9
return
21:18
revamp
51:2
revenue
32:15
review
4:15
4:17
4:20 5:6
67:9
67:9
67:12
reviewed
110:7
reviewing
41:18
revised
4:19
revolutionary
54:25
RFAs
117:12
Rhett 82:2
87:12
87:13
87:14

87:15
rich 46:2
Richard
111:25
115:5
115:6
rid 39:2
40:2
77:4
88:25
90:14
rights
64:8
65:9
ring
112:25
rising
108:7
risk
7:22
8:23
8:25
9:18
10:1
11:13
20:3
50:15
83:23
84:12
84:20
84:24
87:8
95:9
96:7
97:6
98:1
risk-free
9:21
risks
84:18
95:6
95:22
97:6
river 32:1
35:20
57:20
57:22
57:23
58:7
59:9
60:9
60:22
65:22
65:25
89:20
89:22
90:16
92:18
rivers
57:23
86:1
106:19
107:6
107:8
Rob 122:23
rock
100:10
rocks
109:17
Roger
74:11
74:12
74:13
74:13
role 7:3
7:10
10:12
10:13
11:21
31:10
39:5
46:16
51:14
58:17
60:6
103:16
120:20
120:21
124:11
Ron 102:9
roof 54:5
room 23:15
43:23
73:4
119:1
121:16
roots
62:14
63:2
63:22
ropes
128:4
roughly
10:2
79:13
125:2
Roy 119:17
119:19
RPS 71:1
71:7
RPSs 70:23
70:24
71:2
RTF 67:6
rule 120:3
run 38:7
45:23
83:1
85:4
111:10
117:1
running
56:20
85:15
111:10
119:9
runs 16:19
82:25
88:9
106:18
rural
27:11
r-y 57:19

S

saddened
116:8
safe
36:2
36:12
107:14
107:15
107:19
sailboats
79:17
sale
114:24
salmon
33:2
62:10
62:13
63:2
64:20
64:25
87:17
87:22
88:6
88:9
89:8
89:16
89:22
90:12
90:15
90:23
106:18
115:10
124:22
Salmon's
89:7
San 99:13
Sandra 4:2
satisfying
111:18
Saudi
80:22
save 87:16
89:7
99:17
99:18
100:4
108:9
Saven 16:8
26:5
26:7
33:1
33:20
S-a-v-e-n 26:7
SAVEN 26:6
savings

22:10
28:3
37:14
99:10
99:23
100:10

saw 9:8
127:17

saws 128:5

scale 6:15
6:16
6:24
76:21
122:17
122:22

scared
67:24

scary 76:1

scenario
19:5
97:4
97:22

scenarios
8:7
8:8
11:25
12:3
12:4
12:5
28:6
38:7
85:4
97:5

schedules
43:3
43:9
43:11

scheduling
43:23

school
48:23
55:2
73:3
91:19
91:23
112:2

schools
53:25

school's
53:18

science
20:18
36:7
37:2
37:3
39:10
72:25
80:19
81:1
89:19
102:19
102:19
104:17
104:25
110:7

scientific
85:19
110:12

scientists
36:11
36:23
104:21
105:2
105:5

scorch
110:4

Scotia
37:15
37:18

scouring
73:11

screen
86:7

sea 108:7

season
46:14

seasonal
45:6

seat 3:6
104:6

Seattle
32:2
40:7
40:11
78:3
125:24

second
24:23
27:7
56:17
122:13
124:4

secondly
18:4
69:20
83:4

second-year
38:22

Section
95:24
96:1

sections
15:15
38:24

sector
99:8
99:11
101:4
101:10

seeing
21:20
71:19
101:11

seek 46:25
116:16

seeks
19:21

seems
20:13
21:10
76:17
101:24

seen
8:19
47:13
69:5
97:13
110:8
127:24

sees 84:12

segment
66:12

sell
63:3
117:2
117:4

Sellwood
35:19
36:16

semester
54:17

senate
71:15

senator
67:21
67:24
94:4
94:5
94:17
124:19

senators
125:6

send 92:11
117:2
126:17
129:13

sends
92:12
96:23
97:3

sense 8:11
12:10
18:17

sensibilities
112:23

sensible
68:19

sentence
52:9

September
4:19
4:25

Serge
81:25

series
30:23

serious
109:5
122:16
123:22
seriously
97:2
120:13
serve 30:7
45:24
86:6
86:7
86:16
served
31:25
57:9
115:12
115:13
serves
86:6
service
21:19
29:14
29:15
115:18
services
10:6
10:14
serving
30:10
108:14
session
14:13
123:9
sessions
57:10
seven 62:2
62:4
63:20
seventh
62:7
several
38:1
39:20
85:23
96:21
119:8
127:4
severe
87:5
110:8
severely
65:9
99:6
shading
76:22
share 64:3
67:18
76:5
sharing
3:9
129:9
sheet
5:2
26:19
shelf
104:11
shelled
109:14
shells
81:12
shift 49:2
99:7
99:15
100:18
101:13
shifting
17:22
99:20
Shiki
61:17
Shimoa
82:25
92:22
shipped
55:20
shocking
83:20
shoe
114:23
114:24
shoes
114:21
shoot 74:5
shortest
40:22
showed
82:13
showing
33:13
35:22
shown 6:12
56:22
70:8
89:23
123:20
shows 59:7
59:11
79:23
83:5
86:11
102:10
102:15
Shurts 4:4
shut
35:8
49:3
77:14
85:13
91:3
97:23
107:22
108:11
shutdown
97:21
shuts 85:9
shutting
89:2
Sierra
64:6
64:9
76:6
115:9
119:7
120:24
sign
3:24 5:2
signal
126:17
signatures
121:19
signed
3:23
26:18
126:25
significance 16:25
19:15
significant
11:17
12:7
17:6
17:19
18:6
21:13
41:13
42:23
43:4
43:14
44:13
significantly
19:19
44:11
96:17
signing
61:25
silent
51:2
51:4
51:5
similar
75:7
similarly
36:6
simple
77:2
77:2
126:21
simplify
83:1
simply
11:8
61:4
96:4
111:13
simulation

93:8
simultaneously 89:14 109:7
sincere 109:1
single 122:17
single-pane 80:4
Sir 13:25 14:21 26:13
sit-ins 118:7
sits 75:24
sitting 38:16 62:16 62:19
situation 123:11 128:8
situations 38:18
six 74:22 99:18 128:18
sixth 3:13 4:13 5:10 17:5 24:9
30:4 34:1 41:11 41:12 75:2 89:17 90:18 92:15 92:19 93:11 94:21 98:19 98:21
size 30:9 53:22 111:14
skill 78:25 79:1
skilled 125:1
Skol 60:15
slept 64:9 64:10
slow 51:8
slowdown 103:5
slowly 74:4
slowness 22:25
sludge 113:1
slumping 35:23
small 11:7 37:10 59:5 77:24 111:19 127:10
smaller 27:11
small-scaled 12:19
Smart 27:18 92:24 93:19
smoke 63:14 109:24
Snake 32:1 57:23 58:6 59:9 86:1 89:20 89:22 90:16
so-and-so 16:5
social 34:18 114:10 123:3
society 49:1 77:17 106:3 107:16 121:4
solar 19:8 54:6 55:6 76:22 77:23 77:24 78:4 78:7 78:9 80:7 102:1 125:8 125:19 126:7
solid 123:21
soluble 81:10
solution 39:19 114:17
solutions 43:19 46:12 67:19 67:20 68:18 68:20 68:21 107:20 107:21 112:23 114:12
solve 52:2 79:1 106:7
somebody 16:3 83:23 83:25
84:5 96:25
somebody's 78:19
someday 83:24 95:13 116:11 117:2
somehow 15:5
someone 16:11 41:2 75:24 80:1 83:13 97:2 102:9 109:22
someplace 14:17
somewhat 22:14 25:1
somewhere 17:24
sooner 81:17
soot 73:13
Soper 77:20
sophisticated 94:20
sorry 6:16 37:11

94:5
sort
69:6
71:12
83:20
86:21
95:13
sorts
18:21
114:7
SOS
87:17
89:19
sound 3:19
116:1
source
75:13
107:17
108:13
112:24
sources
55:7
75:3
75:15
south
35:20
38:1
southern
115:16
space
17:22
58:2
spaced
97:25
speak 3:24
16:2
20:22
47:7
49:14
50:25
61:22
62:24
64:1
117:22
speaker
71:11
speakers
29:18
56:24
speaking
15:20
16:12
16:14
16:17
24:5
34:17
76:1
112:3
special
12:18
27:12
specialists 36:8
specialty
125:20
species
128:4
specific
24:25
52:12
52:14
specifically 24:16
66:11
66:24
93:16
95:21
96:18
speech
55:23
spell
15:21
16:11
40:9
57:17
91:21
spelled
56:5
91:20
115:8
119:6
spelling
56:8
spells
26:7
spend 25:6
spent 15:2
39:1
107:18
127:20
spewing
87:1
spilling
45:25
Spokane
26:20
spoken
48:11
112:4
sport
87:19
sports
54:5
spreading
28:8
spreads
32:15
spring
45:11
45:20
45:25
92:16
92:20
93:8
spruce
127:16
stability
51:13
stabilizing 88:13
staff 3:18
4:1
4:5
4:5 17:4
17:10
19:12
23:14
24:18
30:19
32:9
32:10
32:21
33:6
33:25
37:13
38:7
40:13
58:12
89:23
92:21
93:4
94:9
94:12
staff's
61:8
88:20
stages
30:15
stake 26:3
stakeholder 48:9
stakeholders 118:2
stance
35:22
stand 68:5
126:11
standard
100:22
standards
11:2
11:6
12:18
21:13
27:14
52:16
52:21
52:25
107:18
stands
60:24
start
15:18
15:20
64:16
64:17
67:8
72:11
75:6
88:4

88:24
111:11
started
4:7
127:19
127:23
starting
43:7
48:18
state 11:1
11:6
12:17
22:4
23:14
41:3
47:9
47:21
48:5
48:16
52:15
55:21
56:7
70:12
75:4
88:11
91:19
91:24
92:11
98:17
100:23
101:23
106:14
119:19
124:19
125:2
125:23
stated
33:11
89:11
statement
4:7
4:9
63:25
states
4:24
26:16
44:19
46:18
70:23
75:7
78:8
81:19
83:19
83:19
84:5
84:8
84:25
85:18
98:18
104:3
110:1
stating
67:15
stations
39:15
125:15
statistics
114:8
status
31:14
110:2
statute
84:17
stay 110:1
124:13
steadfast
48:24
steal
109:22
steam
100:12
steep 43:8
steeper
19:5
step 17:19
20:15
42:25
58:9
68:3
steps 77:2
77:6
107:4
Steve 82:1
82:2
82:3
82:3
88:18
94:25
stick
69:22
stirs
18:23
stone
80:23
80:24
stop
23:7
74:6
115:23
stopped
73:24
73:25
107:25
127:18
storage
19:7
29:10
store
114:21
114:24
story
35:18
73:1
89:8
94:2
123:16
127:11
straightforward
59:15
strategies
21:3
21:5
25:20
52:2
66:9
strategy
6:2
stream
91:9
streams
107:8
street
18:15
125:22
strength
17:7
22:19
strengths
17:6
stressed
103:12
stretch
25:4
33:23
70:1
strictly
118:8
strip-mining
113:7
strong
88:7
90:18
126:17
stronger
68:5
strongly
68:8
90:7
struck
52:9
structure
35:24
35:25
stuck
119:22
120:4
student
47:9
47:11
54:11
106:11
108:21
108:22
108:25
115:12
115:14
students
38:22

54:4
54:8
54:9
54:13
55:11
55:18
92:1
92:2
92:9
92:10
92:13
93:9
112:9

studies
54:7
93:7

stuff
14:24
24:12
26:13
77:9
78:1
78:11
78:12
83:15
83:16
86:7
86:8
86:15
86:16
93:3
112:16
122:5
125:16

subject
94:10
95:19

submit
5:13
22:24
26:23
30:16
35:8

submits
33:9

submitted
34:23

submitting
25:23
29:19
35:12
87:24

subsidizing 116:18
116:19

substantial
50:13
56:18

substitute
10:16

substitutes 11:22

subtle
42:21

subtopics
27:9

success
16:19
25:11

successes
80:10

successful
21:21
64:21

suffering
103:3
103:5

sufficiency 17:13

sufficient
26:17

suffocate
74:4

suffocating 111:14

suggest
33:6
46:15
61:4

suggested
22:6
85:16

suggestions
61:12
72:7

suicidal
104:15

suited
66:23

sulfur
107:7

sum 46:19

summary
12:12

summer
45:11
127:12
128:17

Summer-Skol
60:13

sun 110:17
126:8

sunny 78:3

supplanted
18:19

supply
22:23
26:12
26:18
27:17

support
29:14
31:12
31:16
49:13
55:23
66:13
66:19
67:6
70:10
70:19
83:12
86:1
86:20

supporting
6:4
46:16
68:8
68:9

supports
44:1
68:7

suppose
13:22
13:23
114:16

supposed
105:1
105:3

sure 13:23
25:14
62:17
66:18
67:12
67:13
87:3
102:4
122:5
129:8

surely
72:25

surrounding 54:18

survive
37:19
106:20

suspenders
37:11

sustainability
47:10
47:22
54:19
109:12

sustainable 42:4
47:11
54:2

sweathouse
64:9
64:10

swept
109:10

swings
51:21

switch
77:16
109:21
system 6:3
9:24
11:15
13:1
13:7
24:6
24:7
25:19
27:6
28:21
31:18
32:3
42:21
42:24
43:21
44:2
44:8
44:13
44:15
45:4
45:15
46:7
46:20
48:10
48:23
58:1
58:3
58:6
58:19
58:21
58:25
59:6
59:9
60:7
64:23
65:16
96:1
96:15
118:16
121:10
121:24
125:14
systemic
123:2
systems
44:25
77:25
103:4
110:17
129:2
129:4

T

table 10:7
13:18
15:13
tackle
13:16
tail 63:11
tailed
91:17
taking
4:21
14:12
29:17
54:3
73:18
73:22
92:6
105:15
107:3
129:8
talk 62:23
63:5
63:5
64:11
71:11
76:4
76:7
76:9
84:13
84:14
101:18
112:7
112:11
talked
99:16
112:25
117:6
117:6
117:11
120:15
talking
14:21
24:12
105:6
112:8
tank
110:17
tap 13:6
15:4
tapping
14:4
14:7
14:19
target
17:17
19:20
25:1
25:7
33:17
41:23
targeted
116:15
targeting
19:23
20:17
targets
18:5
27:14
28:3
42:8
67:10
67:13
75:16
84:6
84:8
85:6
85:18
88:23
90:3
97:12
task
53:8
66:21
98:14
tasked
67:2
taxpayer
87:20
116:18
teach
90:25
91:24
123:19
129:3
teacher
112:2
team 117:6
117:10
tears
116:10
teasing
30:2
technical
34:5
38:7
45:19
61:9
67:1
86:24
95:3
102:21
117:13
techniques
110:12
122:1
technologies 9:9
9:11
9:13
18:10
19:7
21:22
50:21
50:22
67:4
110:20
technology
9:18
10:13
18:12
18:18
18:20
18:25
19:4
23:7
25:13
27:8
77:10
82:16
105:24
105:25
106:21

112:17
112:20
125:12
teeing
60:3
ten
64:10
74:7
99:25
tend
9:14
11:11
12:15
tends 60:6
T-e-r
57:18
terabots
78:5
term 10:14
26:19
79:6
94:4
105:22
terms 9:22
11:13
71:13
105:17
117:11
122:4
terrifying
55:17
territory
81:5
Terry
40:17
56:2
57:12
57:13
57:14
57:18
Terry's
30:2
test 38:11
testify
34:12
87:24
98:19
testifying
98:20
testimony
3:17
3:22
15:7
15:19
16:15
20:23
23:20
34:22
34:24
116:2
118:11
129:11
tests
38:11
Texas
76:15
text 5:11
textbook
38:21
thank 4:10
5:15
5:18
16:9
23:18
23:21
23:23
24:17
26:3
26:4
29:16
29:19
29:21
30:2
34:8
34:11
34:12
37:5
40:4
40:13
40:22
40:24
40:25
41:9
47:2
47:4
47:6
49:13
49:15
53:10
53:13
53:15
55:22
56:1
57:9
57:10
57:12
57:15
57:16
61:7
61:13
61:14
68:13
68:16
72:13
72:14
72:15
74:10
74:14
75:19
77:18
77:19
80:13
80:16
80:20
81:23
81:24
87:11
87:12
87:23
90:19
90:20
91:11
98:7
98:8
98:10
101:14
101:16
106:8
106:13
107:3
108:12
108:16
111:23
115:5
115:9
117:4
118:24
118:25
124:14
126:22
126:24
127:1
127:1
129:6
129:7
129:7
129:17
thanks
40:3
56:11
56:13
80:12
101:18
106:7
109:1
109:20
115:13
that's
10:12
10:25
11:4
11:9
12:24
13:5
13:15
14:2
14:5
22:22
25:8
32:5
33:17
39:25
53:9
53:16
60:15
62:20
63:4
69:2
70:7
73:19
75:6
78:3
78:23
79:2
79:20
81:14
84:3
84:4
84:4

85:10
85:24
86:9
91:10
94:11
94:21
97:2
99:24
101:23
102:2
102:20
105:3
106:5
108:4
108:20
110:10
110:16
110:25
113:1
118:20
119:6
120:24
126:10
126:10
127:3
127:23
128:5
129:4

themselves
20:4

therapist
34:16

therefore
122:13

there's
3:14 7:6
8:18
8:20
14:9
14:15
14:16
14:22
15:15
18:20
39:13
43:13
52:3
70:25
71:12
71:16
78:10
78:18
79:10
79:21
80:6
81:9
81:15
84:10
84:15
100:11
102:5
102:10
104:18
116:14
117:17
117:23
118:3
121:8
127:14
127:15

they're
15:11
17:24
37:18
66:20
67:4
71:21
78:4
78:5
82:15
82:17
86:10
105:4
105:6
106:3
112:14
119:1
126:3

they've
40:17
56:16

thinkers
48:13

thinning
82:1

third 7:15
9:25
10:3
25:16
56:23
61:21
71:19

Thomas
80:14
80:15
80:16
80:17

Thoreau
87:13
90:21

thoroughly
17:10

thoughtful
39:1
53:9
53:11

thoughtful ly 31:1

thoughts
129:10

threat
64:24
65:6
81:14

three-year
99:18

thriving
54:6

throats
124:8

throughout
24:4
46:17
71:2

throw 73:8

throwing
122:9

thumb
120:3

ticked
80:3

Tier 28:25

Tilly
99:12

Tim 77:20

tiny 81:13
127:23

today
3:9
16:12
17:1
19:4
25:13
50:22
52:23
62:19
62:21
67:5
74:8
84:19
84:20
87:24
98:19
103:17
103:18
106:20
109:2
110:11
119:24

today's
95:17

toe 73:9

Tom
19:12
92:23

tomorrow
35:9
49:4

ton 18:7
87:5

tonight
3:11
3:14
3:18
16:15
24:5
34:17
40:12
41:8
42:11
44:10
47:7
58:4
58:14
60:22

61:13
66:4
66:19
72:21
75:23
87:25
88:2
90:1
95:1
102:5
112:5
117:17
118:11
119:11
129:9

tons 59:12
87:2
108:2
108:3

tool
113:18

tools
43:21
43:25
110:10
110:14

top 7:20
32:17
104:1

topic 16:6
39:2
59:16

topics
42:11

tossed
104:13

total
38:10
45:21
98:4

totally
78:14

touch 44:9
109:25

toward
21:21
70:20
90:11
107:20

towards
27:13
34:7
41:16
43:20
44:7

toxic
104:12
107:12
109:17
111:7

toxins
107:6
107:12

track
61:11

trade
26:10
52:16
67:22
68:1
68:8
68:10
71:14
71:18
87:20
93:17
102:13

tradeoffs
60:3
60:5
60:12
60:17

traditiona l 17:7
65:10
68:24
100:2

trail
127:15
127:17

trained
64:8
125:1

training
125:8

trainload
108:4

trajectory
47:18

transcript
15:22

transforma tion
66:25

transition
102:7
102:11
121:8
121:9
121:12

transition ing
50:13

transmissi on 42:10
44:10
44:12
44:17
44:21
45:1
45:3
45:14
45:17
46:10
46:11
46:17
46:24
51:1
51:3
51:4
51:7
51:14
126:2
126:5
126:12

transparen t 40:14

transporti ng 35:7

traveled
62:24

TRC 38:11

treat
64:19
86:13
96:5

treated
43:17

treating
20:15

treatment
42:22
86:12
89:14
122:19

treats
20:2
58:5

treaty
61:23
62:4
63:21
64:8
65:9

trees 91:9
91:10
127:16

tremendous
100:11
120:8
122:20

trends
99:2

tresses
35:23

tribal
62:5
62:8

Tribe
61:21
64:12
66:4

tribes
62:12
115:15

Triple
83:10

trouble
72:24
109:5

troubling
51:19
52:13
true
35:3
70:1
106:6
truly 42:4
87:5
103:23
106:23
107:2
trumped
89:16
trust
36:17
36:18
49:3
56:19
105:1
123:13
124:4
try 17:9
17:14
22:23
23:24
37:15
38:25
40:2
84:1
91:21
116:15
trying
15:16
46:22
72:23
93:20
126:21
128:23
Tucson
125:24
tundras
36:8
turbines
110:18
turn
110:24
turnout
119:10
TVs 86:7
86:8
two-year
25:9
Tyler
81:25
81:25
101:17
106:8
106:9
106:10
106:10
type 12:23
78:1
types
52:19

U

U.S
39:16
100:12
125:5
Ultimately
79:8
Umatilla
61:21
62:5
64:8
64:12
66:4
Un 119:9
123:7
123:12
unaware
51:23
Unbeknownst 94:8
uncertain
50:19
uncertainties
33:18
uncharted
81:5
Un-Coal
119:11
unconditional 44:5
undemonstrated
53:5
underestimate 99:7
122:22
underestimated
101:6
underestimates
44:12
undershoots 19:19
understand
31:10
40:18
64:3
69:19
71:6
72:24
95:5
117:14
understanding
40:20
70:25
understands 51:24
understated 28:19
understatement
31:19
understating 19:15
understood
69:11
undertaken
33:25
underway
99:16
unemployment 125:3
uneven
22:14
unfolding
105:2
Unfortunately
89:15
90:5
ungracious
20:14
unhealthy
75:11
unhelpful
52:12
unified
69:6
uniformly
95:8
unintelligible
82:24
unintended
43:8
59:25
Union 92:5
unions
121:20
unique
13:11
13:15
27:12
47:22
48:11
unit 6:20
United
36:10
78:8
81:19
104:2
universities 47:25
48:5
49:6
93:17
93:22

104:20
104:24
university
34:16
47:9
47:21
47:24
48:13
48:16
48:19
48:23
55:12
91:20
92:9
unlike
33:4
unlock
44:2
unparalleled 16:25
unrealistic 97:22
unsafe
36:15
36:17
36:21
37:3
untapped
44:20
88:21
untold
111:12
unused
44:2
unwarranted 53:5
upgrade
122:11
upgrades
21:12
upon 106:5
urban 48:3
urge 25:25
28:2
51:13
52:8
53:2
72:6
90:7
111:21
users
100:5
113:15
utilities
10:4
21:4
26:10
27:11
27:20
31:4
31:6
37:12
38:1
46:8
57:21
60:25
67:11
67:12
74:19
82:24
83:1
83:2
84:25
85:3
92:3
92:4
95:10
96:23
97:10
utility
6:15
6:16
6:24
21:2
31:10
31:14
33:12
40:8
56:6
76:17
76:21
82:13
95:7

V

valiant
48:1
valuable
61:9
101:20
value
10:21
19:25
23:17
25:17
27:5
29:2
31:20
31:24
31:25
43:15
58:19
111:4
120:8
121:1
Vancouver
74:18
82:7
82:13
92:11
variable
9:23
97:6
variety
6:7
53:23
various
11:25
69:15
97:25
121:11
vast 8:9
19:17
Vegas
105:8
vehicles
19:7
36:4
verbiage
68:1
verse
89:13
versed
93:2
version
97:3
versus
42:16
viable
96:4
victims
116:2
video
128:13
view 43:11
50:21
52:3
52:18
95:6
95:19
96:5
97:18
viewed
52:7
55:1
viewing
50:14
vigorously
113:4
violates
96:12
virtually
51:4
51:5
74:16
vision
59:1
69:6
69:10
69:15
70:17
71:1
visit 5:12
Vogel
75:20
77:19
77:20
voice 32:5
63:7
volatile
8:23

9:19
voltage 125:10
voluminous 53:9
voted 76:19 102:8 102:9
Vrabec 81:25

W

waiting 84:4 86:25
walk 127:14
Walker 3:25
walking 127:16
wall 121:19
Walla 61:25 61:25
Wallace 3:10 4:9 4:10
W-a-l-s 72:20
Walsh 72:16 72:16 72:17 72:18 72:19 72:20 72:20
wand 124:25
warm 73:4
warming 16:14 39:17 55:18 74:25 88:8 101:24 102:18 104:19 105:16 105:18 110:13 115:20
wash 22:3
Washington 3:10 7:13 14:2 14:15 19:20 19:23 20:11 70:13 71:2 74:18 75:4 77:12 84:6 92:11 97:12 100:20 119:19
wasn't 63:18 102:6 104:9
waste 107:12 107:23
watch 128:13
water 17:23 21:12 45:23 45:25 62:14 62:15 62:17 62:18 62:19 62:20 75:12 81:10 85:24 91:2 91:3 91:4 91:7 114:5
water's 23:8
watersheds 91:8
watts 76:12
wave 13:12 14:6 14:17 125:12 125:14
Waxman-Markey 22:2
ways 25:10 69:16 69:18 77:17 96:12 110:19 111:10 114:7 117:20 124:10
WCI 85:6
weaknesses 22:20
wean 115:3
wear 126:4
wearing 95:1
weatherize 122:11
web 5:14
website 5:12 15:12 82:10 129:14 129:16
we'd 49:8 60:2 63:1 63:2
week 67:19 82:8
weeks 15:17 93:14
Weiss 82:1 82:3 88:18 94:25
W-e-i-s-s 82:4
WEISS 82:3
Weitraub 74:11
welcome 3:11 4:11
we'll 15:18 81:18 84:14 94:2 111:20 112:8 129:6
we're 3:20 3:21 13:3 13:16 15:16 21:18 21:20 21:23 24:1 24:3 25:1 32:10 32:20 37:23 39:14 40:7 43:7 46:22

57:1
57:20
62:20
66:9
67:3
68:2
71:19
72:24
73:21
76:17
76:20
76:22
78:8
78:8
81:5
82:1
82:4
84:1
85:4
93:20
100:10
104:19
105:1
105:3
105:19
108:21
110:19
111:14
116:20
116:21
117:9
117:17
122:10
123:14
124:5
125:25
127:9
127:16
128:23
129:4

west 35:22

western
20:5

we've 7:24
8:19
11:3
26:18
31:16
40:20
64:14
77:15
79:9
97:13
102:23
102:24
104:21
105:21
109:5
109:10
110:14
110:22
120:21
121:7
121:10
121:24
122:12
124:9

whatever
60:9
105:13
111:21

what-if
23:11

whatsoever
29:14

wheel
72:11

Where's
14:8

Whereupon
129:18

whether
35:14
109:23
113:7
114:4

White
61:18

whoever
126:18

whole 8:13
76:10
104:18
119:22
120:24
123:15

who's
127:7
128:25

whose
49:21
109:19

wide 27:16
27:19
53:21
96:19

wider
13:19

wild 87:17
87:22
89:7
89:16
90:11

Wilderness
128:21
128:22

wildlife
6:5
28:17
29:4
32:25
33:3
44:16
45:18
46:2
58:3
59:21
61:3
89:15

Willamette
35:20
106:19

willing
105:19

willingly
54:9

willingnes s
27:15
30:20
34:4

win 128:6

wind
7:10
7:11
7:12 9:8
9:15
9:15
9:23
10:6
10:10
11:3
11:4
11:5
12:21
13:2
13:3
13:4
13:14
29:7
31:15
41:8
41:24
42:2
43:2
43:3
43:5
43:11
43:11
43:15
43:25
44:5
44:24
45:6
51:21
52:4
52:6
55:6
59:4
75:15
76:21
78:6
78:9
79:16
86:15
110:18
125:11
126:6
126:19

windmill
126:6

windows
80:4

wind's
23:2

winning
34:19

wiping
73:23
wire
125:16
wired
125:24
wish 29:18
118:15
124:25
126:12
witness
109:24
Wolf's
124:8
wonder
23:8
128:11
wonderful
92:9
92:21
93:1
93:14
119:10
121:21
Woo 67:22
work 6:1
24:10
27:10
30:18
30:20
32:11
32:24
33:6
33:19
33:24
34:13
39:20
40:7
47:9
53:9
57:22
58:10
61:8
61:8
63:7
64:4
68:20
68:22
69:3
69:4
69:15
72:4
75:18
77:24
94:21
101:21
105:24
116:5
121:17
122:1
122:11
125:4
125:11
125:20
126:1
127:21
127:22
worked
32:8
51:25
117:5
121:20
124:22
workforce
125:1
Workgroup
98:15
working
32:21
47:23
53:24
94:2
95:21
100:13
116:3
120:25
127:9
works 5:19
69:17
84:3
125:13
world 17:1
20:5
36:9
36:11
36:25
49:7
54:12
63:4
63:23
78:5
79:5
79:14
81:20
98:22
102:13
103:9
109:8
110:7
world's
108:13
worldwide
107:14
108:2
worried
78:12
worry
102:6
worst
111:18
write
38:23
94:9
99:21
writing
16:20
39:1
50:23
94:13
written
3:17
4:21 5:3
23:19
26:23
29:19
30:16
34:22
34:24
40:12
40:23
52:12
63:25
wrong
24:10
105:7
www.nwcouncil.org
5:13
15:12
129:15

Y

yard 78:19
year-old
127:6
yet
39:13
55:9
96:24
105:19
109:9
York 37:13
you'll
53:6
100:2
111:19
young
54:14
117:3
younger
47:17
112:5
yourself
15:21
58:12
118:1
youth
53:19
55:24
you've
24:20
24:20
40:14
56:12
58:10
70:8
72:9
81:7
88:2
88:9
90:1
126:15

Z

Zephyr
87:13
90:21
90:21

zero
100:16

zone
118:18