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DRAFT SEVENTH POWER PLAN

PUBLIC HEARING

NORTHWEST POWER AND
CONSERVATION COUNCIL

PUBLIC HEARING
THURSDAY, NOVEMBER 19, 2015
5:00 P.M.

HILTON AIRPORT CONFERENCE CENTER
17620 INTERNATIONAL BOULEVARD
SEATTLE, WASHINGTON 98188

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COUNCIL MEMBERS PRESENT:

Phil Rockefeller

Tom Karier

1 **DRAFT SEVENTH POWER PLAN**

2 **PUBLIC HEARING**

3 **NORTHWEST POWER AND**

4 **CONSERVATION COUNCIL**

5 **PUBLIC HEARING**

6 **THURSDAY, NOVEMBER 19, 2015**

7 **5:00 P.M.**

8

9 **MR. ROCKEFELLER:** Good evening, everybody.

10 We're going to begin this hearing now. My name is
11 Phil Rockefeller. I'm a member of the Northwest
12 Power and Conservation Council representing Western
13 Washington. And with me is my colleague from
14 Eastern Washington, Tom Karier.

15 And I'm going to invite Tom to offer some
16 comments in just a moment, but first I need to let
17 you know that -- that we have conducted several
18 previous hearings in Washington State and are
19 scheduled to be at hearings in other parts of the
20 Pacific Northwest. But at each hearing we have some
21 --

22 **MR. CUNNINGHAM:** Could you speak a bit
23 closer to that microphone. We're having trouble
24 hearing you.

25 **MR. ROCKEFELLER:** Thank you. Is that

1 better.

2 **MR. CUNNINGHAM:** Yes.

3 **MR. ROCKEFELLER:** All right. I'm going to
4 begin with an opening statement that we read into
5 the record at each of the public hearings. First, I
6 welcome you to the hearing being held by the
7 Northwest Power and Conservation Council on our
8 Council's proposed Seventh Northwest Power Plan.
9 The Northwest Power Act directs the Council to
10 develop a regional conservation and electric power
11 plan, and to review that plan every five years.

12 The Council is now engaged in its latest
13 five-year power plan review. As part of this effort
14 Council has released a draft power plan on October
15 20th for public review and comment. Council will be
16 accepting written comments on the draft power plan
17 through December 18th. We also will hold public
18 hearings like this one, we have held some already,
19 and we will receive others to receive oral comments
20 on the draft plan in all four of the Northwest
21 states over the next several weeks.

22 If you would like to comment on the draft
23 power plan at this hearing we invite you to sign in
24 on a sheet that is provided for that purpose at the
25 back of the room or -- or just outside. You may

1 also leave written comments with us this evening if
2 you so desire. Your comments tonight will be
3 recorded, placed in the administrative record for
4 the power plan review and, most importantly,
5 carefully considered by all the Council members as
6 we make final power plan decisions early in 2016.
7 And THE same is true for all written comments that
8 would be submitted to the Council.

9 For those of you who do intend to testify
10 this evening, your name will be called in the order
11 that you signed up. Please begin your testimony by
12 stating your name and any organization with which
13 you're affiliated clearly for the benefit of our
14 court reporter. If you feel that spelling your name
15 will help to ensure accuracy in the record feel free
16 to do so. And also feel free to summarize your
17 testimony, particularly if you have a written
18 statement. Your full written statement, however,
19 will be included in the official record.

20 In the unlikely event that we have more
21 willing witnesses than available time we may need to
22 establish a time limit for each witness, but we hope
23 that won't be necessary this evening.

24 We will leave the official record open for
25 a period of ten days following this hearing to

1 enable those of you who are witnesses tonight to
2 submit additional written information, including any
3 material that might be requested by Council members
4 during this hearing. Public comments that are
5 submitted to the Council, including oral testimony
6 at tonight's hearing, will be posted on the
7 Council's website as soon as possible, and I think
8 we're talking about a matter of days, not weeks or
9 months.

10 For more information on the proposed
11 Seventh Power Plan, including the text of the draft
12 itself, please visit our Council website at
13 www.nwcouncil.org. And you may submit comments by
14 using the "provide comment" link that you will find
15 on the web page devoted to the draft power plan.

16 This might also be a good time for you to
17 turn off any cell phone devices that you have.

18 And now I'd like to invite my colleague,
19 Tom Karier, to offer some thoughts, including some -
20 - some relatively good news.

21 **MR. KARIER:** Thank you, Phil. And thanks
22 to all of you for coming. And we appreciate this.
23 We've been working on this power plan for about a
24 year, doing a lot of modeling and technical analysis
25 to identify an adequate, efficient, economical,

1 reliable power system for the Northwest. But our
2 favorite part of doing the plan is this, hearing
3 from the public about what your thoughts are about
4 this plan, what ideas we may have missed, and how we
5 can do it better. And so that's what we -- we want
6 to do today.

7 And I -- as -- as Phil alluded to I have a
8 housekeeping message, which is for those of you that
9 parked in the lot, we have some relief on the
10 parking, and I think it's a maximum of \$6.00 for
11 parking there. The signs were quite a bit higher
12 than that. But what you'll need to do is there's
13 some little tickets like this in the back -- John
14 Harrison's pointing -- holding them up. And you
15 want to grab one of those off the table in the back
16 before you leave, and then find a pay station,
17 somewhere in the hotel outside this door, and take
18 your ticket that you got from the -- from the
19 garage, and this new ticket, use those to pay your
20 bill at the pay station around here, and then use
21 your -- I think you need to use both of them
22 actually to get back out. So, if -- if you have any
23 questions you can check with the -- the hotel. But
24 make sure you grab one of these tickets and find a
25 pay station to get started.

1 Okay. Thanks.

2 **MR. ROCKEFELLER:** All right. Thank you.

3 And -- and as with other hearings we are delighted
4 to begin by offering a -- a summary of the major
5 findings of -- of this plan and the principle
6 recommendations. And we do so thanks to the
7 wonderful efforts of the director of our power
8 planning division, Tom Eckman, who is here this
9 evening, and he will kick off with his overview of
10 the core findings and recommendations of the plan.

11 So, Tom, if you would do that please.

12 Then we will begin with the actual hearing process,
13 and invite you up in the order you signed up. Thank
14 you.

15 **MR. ECKMAN:** Thank you, Phil. I guess
16 that's loud. Right? All right. Just a little bit
17 of background before we get into the -- the grass,
18 which hopefully will not keep you too long. We
19 analyzed over 20 different scenarios in this
20 particular power plan that looked at a range of
21 differing future conditions, and tried to identify a
22 robust set of resource strategies that could survive
23 those conditions in low cost and low risk ways.

24 We looked at conditions where we have
25 resources that were removed from the resource stack,

1 we limited the natural gas prices related to the
2 amount of conservation development to end
3 uncertainty in the development of existing resources
4 that might disappear. So, we -- we tested a bunch
5 of -- of strategies that looked at resource
6 uncertainty. We also tested a bunch of strategies
7 that dealt with carbon emissions and carbon policy,
8 and how might we reduce carbon emissions in this
9 region's power system under various policy
10 scenarios. And I'll talk about some of those
11 results, too.

12 We had an -- an analysis of what if we had
13 sustained low gas prices, would energy efficiency
14 and renewables or other resources be developed in
15 the same way if we expect the gas prices to range
16 over a higher range. And finally, what if we could
17 rely on the California market or the British
18 Columbia market for power to meet some of our needs.
19 If they spent the money could we take advantage of
20 that.

21 Finally, all these cost plans that I talk
22 about in this portfolio, every scenario that we
23 looked at we identified the best plan that was the
24 lowest cost, lowest risk, for that particular set of
25 futures. Each of the plans that we developed was

1 analyzed across 800 different future conditions.
2 So, when we produce a finding here the average is
3 what I'll show you, but in fact it's been tested --
4 each of these strategies has been tested across 800
5 different futures that range from high growth to low
6 growth, high gas prices to low gas prices, carbon
7 test prices or not.

8 So, now to the summary. The first
9 summary, I have a stereograph here; one is energy
10 and one is capacity. That's the peak demand we have.
11 The first graph here is energy, on the vertical axis
12 is average megawatts. This is about four Seattles
13 and a half high in terms of load. So, about 4500
14 megawatts of load there is what you could -- in the
15 green bar, or green wedge, there is what we
16 developed for energy efficiency on average over the
17 next two decades. That's a little better than four
18 Seattles worth of juice.

19 On top of that development there's a
20 little bit of natural gas that comes in in the mid,
21 late 20's, early 30's. Some solar and wind on top of
22 that, and those are largely developed to meet the
23 existing RPS in Oregon, Washington and Montana.
24 They're not developed for economic reasons, they're
25 not developed resource need. They're developed to

1 supply resources under current regulations.

2 On the capacity side for peak demand
3 energy efficiency is also the dominant resource
4 developed to meet future peak needs during the
5 winter. And so we have about 10,500 megawatts of
6 energy efficiency in megawatts, not average
7 megawatts, that on -- are online during peak periods
8 in the winter to meet capacity needs. On top of
9 that we develop a demand response, which is a new
10 resource in our stack. And it's purchase
11 curtailment, by and large, about 700 megawatts on
12 average, but it varies between 0 and maybe 2 to
13 3,000 megawatts, depending on the future condition.

14 A little bit of natural gas peakers come
15 online late in the game, pretty much synonymous with
16 the time we see them for energy, they're built for
17 capacity in the late '20 -- '25 to '30 time frame.

18 And finally there is some wind and solar
19 capacity added, but you couldn't see it on the chart
20 because it's not much. We can talk about that in
21 more detail as we get through the scenario results.

22 Another key finding is that all that
23 energy efficiency neutralizes low growth for the
24 next two decades. As a matter of fact, we have
25 declining loads at the regional level upon average

1 for about 15 years before they start to grow because
2 you've basically used up what cheap energy
3 efficiency we know how to do right now, and we have
4 a little bit to continue in the last five years.

5 So, loads begin to outstrip the amount of
6 conservation we do. But by and large there's no
7 load growth for two decades. That's the amount of
8 that green wedge there is the amount of energy
9 efficiency we expect to produce on average in the
10 resource portfolio that's preferred. That's about
11 4500 average megawatts.

12 On -- our load growth has been reduced
13 significantly over the last five years by efforts at
14 the Federal level to establish Federal appliance
15 efficiency standards. And this little wedge up
16 there on top is what loads would have been had we
17 not -- had those standards not been adopted. And
18 changed the load growth before conservation from
19 about 1.1 percent per year down to .8 percent per
20 year, about 1500 megawatts, 1500 average megawatts
21 or resource reduction being met by new appliance
22 standards, and transformers and refrigerators and
23 dish washers and what have you, and light.

24 On the carbon front, this is the average
25 carbon footprint, at the top line there it's -- in

1 2035 emissions for the power system -- on average,
2 for the years 2000 through 2012 it ranges in this
3 region because of hydro conditions from 40 to 60
4 million tons a year of carbon emissions from the
5 regional power system, not just within the four
6 states, but all those power plants, being Jim
7 Bridger in Wyoming, that supply power to the
8 Northwest.

9 If we don't retire -- if the announced
10 coal retirements don't take place, Centralia,
11 Boardman, and Valmy, we -- we move that number down
12 to about 55, just because we get additional
13 conservation built over the next two decades. So
14 that no coal retirements case builds about 4,000
15 megawatts of energy efficiency and we reduce demand
16 and coal dispatch as a consequence of that. So, we
17 do reduce about 10,000,000 megatons of carbon
18 production in 2035 just by building additional
19 conservation and RPS renewables, even if we didn't
20 retire those coal plants.

21 The next bar down shows that we get to 34
22 with those emission reductions from those coal
23 plants alone, plus building the additional 4,500
24 megawatts of energy efficiency and some renewables.

25 You go on down the stack here and

1 different ways to get lower emissions. We tried
2 some policy options, increasing the RPS to 35
3 percent across the region, and finally simply
4 retiring the coal plants that exist and inefficient
5 gas plants. That bottom line is maximum carbon
6 reduction of existing technology, retires all coal
7 plants in the region, including Jim Bridger and
8 Colstrip and everything else. And it also retires
9 any gas-fired plant that's inefficient, which in
10 technology terms is anything that has a heat rate
11 over 8500. So, that's the stack and how we get
12 there.

13 On the cost side that little emission
14 reduction from 20 to 29,000,000 metric tons from
15 34,000,000 has a price tag of about \$34,000,000,000.
16 Going from 34 to 12 has a price tag of about
17 \$20,000,000,000 simply by retiring the coal plants
18 and eliminating the gas plants. So, there's several
19 ways to get a carbon reduction; some cost less than
20 others.

21 On the resource strategy, the target for
22 energy efficiency over the next six years, 1400
23 average megawatts, ramping up to 4500 over the -- by
24 2035. We expand the use of demand response or we
25 expand the use of bargain power purchases to meet

1 demand going forward. Those are choices we need to
2 determine, whether they're the most risk-free and
3 the lowest cost. And we need to test that by
4 looking out to see what the California and British
5 Columbia market looks like relative to the cost of
6 building demand response.

7 When we look at renewable resources
8 there's a couple, three things we need to note.
9 First of all, there are some cost-effective
10 renewables that ought to be developed today.
11 They're dispatched -- or they're dispersed around
12 the countryside, they're not central station. There
13 are some research that we need to do to develop
14 resources in a renewable form that provide base load
15 energy and provide winter capacity.

16 And right now the wind and solar
17 technologies that we're deploying don't do that, and
18 so they don't fit with the resource needs the region
19 has. The sun isn't very high in the horizon in
20 December, that's when the winter peaks problems are,
21 and we can't get solar to do that. That's not true
22 elsewhere when they have summer peaks.

23 Finally, we didn't find that increasing
24 the amount of renewables in the portfolio was a very
25 cost -- cost effective way of reducing carbon

1 emissions. So, it's not part of our use/cost
2 strategy.

3 On the natural gas. We use natural gas
4 right now in this region when we don't have a lot of
5 water. Another way to use it is to -- to replace
6 the coal that's being retired, and we see increased
7 use of that existing natural gas to replace coal
8 retirements that are scheduled for this region. We
9 also see also energy efficiency replacing those
10 retirements. But, in addition to that, there is a
11 very low probability until the mid 20's where we see
12 the need for additional natural gas to meet the
13 regional resource adequacy requirements.

14 Individual utilities are in different
15 positions; some don't have all the access to
16 transmission they need, some have need for
17 additional resources because of specific load growth
18 that occurs in their territory, or they have
19 ancillary service needs to integrate renewable
20 resources that they still have to build or that show
21 up in the case of Idaho Power under FERC
22 arrangements. So, they have different conditions
23 that might negate -- require them to meet new
24 resource requirements with natural gas.

25 On regional resource use, there's a lot of

1 exports and imports in this region. If we retain
2 some of those imports in this region there's
3 economic value that reduces everybody's cost in
4 aggregate, but it doesn't necessarily reduce your
5 cost. So, there's some economic transfers that
6 would occur within the region when some surplus
7 sales are sent to the region, and reduce resource
8 development needs in the region. Total costs go
9 down, but not necessarily everybody's costs go down.

10 We need to expand our resource options,
11 both for energy efficiency and particularly for
12 renewable resources that don't have variable output.
13 Again, the wind and solar that we looked at in this
14 plan don't fit that well with the resource needs
15 going forward, that's why they weren't selected very
16 well.

17 And, finally, we have to figure out how to
18 manage this process as it unfolds. The future as we
19 predicted doesn't always show up, and so in a couple
20 years the Council will go through an assessment of
21 where things have unfolded since the plan is
22 adopted, and make modifications, if necessary. So,
23 we'll stop there and go to the hearing.

24 **MR. ROCKEFELLER:** Thank you, Tom.

25 I have quite an extensive list here of

1 people who have signed up and who wish to testify.
2 So, I am going to suggest that you attempt to state
3 your views, if possible, with a three-minute period
4 roughly. We'll try not to be too -- too strict
5 about that, but -- but your cooperation in that will
6 ensure that other people have a chance to be heard
7 during the next hour and 45 minutes. Let me --
8 let's begin with Dave Cunningham.

9 **MR. CUNNINGHAM:** I -- I signed up to
10 register. I didn't sign up to speak, so I
11 apologize.

12 **MR. ROCKEFELLER:** All right. Thank you.
13 Then moving on to Martin Shuer.

14 **MR. SHUER:** Good evening. Thanks for
15 holding this public hearing tonight. My name's
16 Martin Shuer, it's S-h-u-e-r. I'm a Redmond,
17 Washington resident. I'm here with Sierra Club
18 tonight, but more importantly I'm here as a parent.
19 I have two high school aged children who, like me,
20 are very concerned about what the future holds for
21 them.

22 I attended the strategic climate action
23 plan signing at the Bullitt Center in Seattle
24 earlier this week, and I was really struck by the
25 fact that regionally we're on the cutting edge of

1 advocating for sound, sustainable energy policies
2 that are going to be paid for in bulk, not only
3 across the country, but globally, based on these
4 type of forward-thinking initiatives. And it -- it
5 ties into that old adage, you know, act locally,
6 think globally.

7 And I think regionally the Seventh plan
8 also is a great opportunity to look at how we're
9 going to utilize our resources, and not just
10 consider what's most cost effective in terms of
11 lowering energy costs or peoples' bills monthly, but
12 how this is really a down payment on everyone's
13 future.

14 And in moving to the Northwest from Maine
15 a couple of years ago I'm really struck by the fact
16 that we're seeing dramatic changes in the climate.
17 The snowpack in our -- in our mountains, for
18 instance, is akin to what you're finding in
19 California in the Sierras. So, the Olympic and
20 other ranges here in the Cascades are starting to be
21 northern cousins to the Sierras.

22 So, the dependance on hydro energy here,
23 while it's a fairly clean source of energy, is going
24 to become a decreasing, you know, source of
25 dependable energy production if we just don't have

1 water levels. And I'm sure other folks will speak
2 more technically tonight to hydrology and other
3 studies that would support that argument.

4 My concern, as someone who's thinking in
5 terms of what we're paying forward generationally,
6 is that nationally, to my best understanding, less
7 than two percent of our national energy demand is
8 based on sustainable energy resources; solar,
9 geothermal, wind, et cetera. And I think it -- it'd
10 be more important to start looking at how we can
11 further get away from the carbon polluting sources
12 that we have, like Colstrip, and looking at the
13 argument about oil trains versus pipelines, and just
14 getting away from oil altogether to safer, more
15 renewable sources of energy.

16 And I just believe this is going to be
17 something that's going to become more critical year
18 to year. I'm -- I'm just seeing an exponential
19 increase in the dramatic type of weather events and
20 climate events locally that we're witnessing, this
21 isn't going to be a linear equation. So, it's
22 really imperative that we act now, that we're
23 thinking about the next five years or ten years, but
24 we really need to be starting to think today about
25 what might be changing tomorrow or -- or next week.

1 It's -- it's going to accelerate.

2 The last comment I want to make, in the
3 interest of being brief and letting others be heard,
4 is probably this. The international conference
5 that's coming up in Paris starting on the 30th is
6 going to be a key opportunity for the world to reach
7 a consensus. We have an opportunity in this region
8 to -- to be a model for, like, not only the rest of
9 our country, but the rest of the world can look to,
10 and other innovative nations, like Germany, with
11 their solar use and Scandinavian countries that are
12 looking at geothermal and other sources, need to
13 develop this consensus, because, at the end of the
14 day, we all have to share this planet.

15 What we choose to do locally will have
16 regional and, potentially, global impacts. And the
17 sooner that we start leading as a better example for
18 the rest of the world then the better off we will be
19 generationally for our children that follow us.

20 So, thank you for your thoughtful
21 consideration of this plan. And, again, I would
22 just want to emphasize the importance to do whatever
23 you can do to get away from these carbon-sourced
24 energy producing plants. I know there's other
25 efficiencies built into appliances. And, to be

1 honest with you, fuel efficient cars aren't the
2 answer. They're not getting cars off the road, cuz
3 there'll be more people driving more fuel efficient
4 cars. It's getting to the alternative sources of
5 energy that in the long-run will really be in the
6 investment in our future.

7 So, thank you for hearing that and for
8 being here this evening.

9 **(Applause.)**

10 **MR. ROCKEFELLER:** Thank you.

11 The next -- the next person to testify
12 will be Ron Snell.

13 **MR. SNELL:** My name's Ron Snell. I'm from
14 Kirkland, Washington. I'm also here as a Sierra
15 Club volunteer. I want to thank you for hosting
16 these hearings. I really want to congratulate the
17 Council and its staff on excellent work in preparing
18 this Seventh Power Plan. I think that the focus,
19 overall focus, on energy efficiency and demand
20 response is exactly the kind of response we need to
21 meet most of the energy -- the region's future power
22 needs.

23 But, like all good plans, there is room
24 for improvement. And I think that the plan does
25 underestimate some of the contributions that

1 renewable energy, particularly solar, can play to
2 support our electrical power infrastructure.

3 Here in Washington our utilities and power
4 suppliers have recently seen some changes emerging,
5 which is a result of climate change, and are only
6 going to grow worse. Most recently Seattle City
7 Light, with its ample power supply, hydropower, it's
8 typically had a surplus to sell. This past year,
9 however, because of the low snowpack and warmer
10 temperatures it's been forced to buy power from
11 other providers. Other hydro providers in the
12 region have also had their challenges trying to
13 balance electrical power generation with irrigation
14 and fish.

15 Most recently the UDub's climate impact
16 group has provided some estimates in terms of what
17 we can expect in terms of decline of hydro resources
18 in the summer. Most recently they're estimating
19 that the Columbia Basin will see a decline of 15 to
20 20 percent of summertime hydro resources by 2040.
21 And this is at the same time as we're seeing
22 increasing, escalating summer temperatures, and
23 demand for air conditioning, hydro and power.

24 California, unfortunately, is sometimes a
25 harbinger of both good and ill. In the last four

1 years they have lost over 50 percent of their hydro
2 because of drought. We're not facing quite so
3 rigorous a decline, although our overall economic
4 impact could be much worse than California because
5 we are much more highly dependent on hydro than is
6 California.

7 I think that solar can play a role in
8 offsetting some of this hydro demand because of loss
9 of climate change. We have summers that are cooler
10 than California, lots of sunshine and longer days.
11 Solar is perfectly matched to meet this declining
12 supply, in terms of our hydro. I think we're facing
13 unprecedented changes in our electrical power
14 system. And I would encourage the Council to look
15 more closely at the impact of climate change on our
16 hydro resources, and the role that solar can play in
17 providing stable, clean, cost-effective electrical
18 power for Washington customers.

19 Thanks very much for the opportunity.

20 **(Applause.)**

21 **MR. ROCKEFELLER:** Thank you.

22 Your -- your enthusiasm is appreciated,
23 but I'd like to suggest that you refrain from
24 applauding. We're going to hear a diverse set of
25 viewpoints tonight. And our purpose is not to -- to

1 applaud or -- or boo or hiss for anyone. We're
2 pleased to have everybody express their views, and
3 we respect everybody's opportunity.

4 Next will be Kelly Hall.

5 **MS. HALL:** Good evening. My name is Kelly
6 Hall and I'm with Renewable Northwest. So, we are a
7 nonprofit advocacy coalition that's focused on
8 expanding renewable energy in the region. And I'll
9 keep my comments brief, and really just kind of want
10 to focus on the 35 percent RPS scenario.

11 So, we really appreciate the -- the
12 Council's releasing a draft of this plan and making
13 it available for public comment. And we think that
14 we -- that you continue to do an excellent job of
15 identifying and accounting for all the savings and
16 benefits that are associated with energy efficiency,
17 and this year demand response was great.

18 But we think that it's still lacking
19 prioritizing the cost effective renewable energy
20 resources. So, I mentioned that our -- our greatest
21 concern with the draft plan is the inclusion of the
22 35 percent RPS. We think this scenario is -- is
23 entirely driven by some -- some flawed assumptions
24 and modeling methodologies that really remove any
25 realistic build-out of renewables in the region.

1 We think that at the very best -- at the
2 very best this scenario could be renamed something
3 like surplus energy or something to better
4 illustrate the amount of energy that is exported
5 from the region, rather than the 35 percent RPS.

6 So, the two things in particular that we
7 really found concerning with this scenario is that -
8 - the first one is of the 8500 megawatts of new
9 renewables that were added to the system, 6500
10 megawatts was assumed to be from the Columbia River
11 Basin, the Columbia River Gorge. And we think that
12 that's the most expensive renewable resource that
13 was modeled by the Council, when we have other cost-
14 effective renewables identified in Montana wind, and
15 Idaho solar, and it's really restricted to only that
16 2200 megawatts.

17 And our second big concern was that all of
18 these renewables were added to a system without
19 retiring any coal plants or natural gas generation,
20 so we just had a 35 percent RPS that was added on to
21 all of these already existing resources.

22 So, we think those two things really just
23 make renewables look really expensive. And rather
24 than modeling what a 35 percent RPS would look like,
25 it just added on the energy. So, we -- we really

1 look forward to working with you guys on this issue,
2 and -- and hope to improve some of these assumptions
3 in -- in the final plan.

4 **MR. ROCKEFELLER:** Thank you very much.

5 Next is Ron Snell, I believe.

6 **MR. SNELL:** I've already testified.

7 **MR. ROCKEFELLER:** Is that -- okay. I'm
8 sorry, here, I didn't -- Ben Sibelman.

9 **MR. SIBELMAN:** So, hi. My name is Ben
10 Sibelman, S-i-b-e-l-m-a-n. I'm a software developer
11 from Redmond. And I am also a volunteer with the
12 Sierra Club. There is a few of us here today. And
13 I'd like to give some global perspective on the
14 situation, since part of what we're talking about
15 here is doing our part to tackle a global problem,
16 the -- the climate crisis.

17 Now, everyone knows -- well, a lot of
18 people anyway know about the Pope's encyclical on
19 climate and poverty, which is wonderful, in that we
20 have a head of an organization representing over a
21 billion people saying that we need to take strong,
22 sufficient action on this.

23 We have the government of India saying
24 that instead of building out electrical power lines
25 to regions that don't have it, the emergence can be

1 powered entirely by solar, that's 400,000,000
2 million people we're talking about.

3 China has been accused of opening a coal-
4 fired power plant every week with some justice, but
5 according to recent reports those power plants are
6 not actually being used. There's come sort of
7 momentum in this system and they're just opening and
8 idle -- idled plant every week.

9 In business we have, this is much lesser
10 known, about a thousand major corporations which
11 have either carbon neutral or have plans to do so in
12 the very near future. Now, on the West Coast
13 specifically we have -- California has passed a cap
14 on carbon, BC has a carbon tax. There's a major
15 movement afoot among governors for a West Coast
16 plan. And we have movements -- campaigns in this
17 State for both a cap -- possibly a cap and trade and
18 a carbon tax. I collected a few signatures for the
19 latter campaign this past year, and may collect
20 signatures for the former one next year if it --
21 well, I believe they already declared they're going
22 to have an initiative campaign.

23 So, I would like to applaud you for having
24 a focus on carbon emissions, and also the value of
25 basically the power that we never have to produce in

1 this plan. I would, however, observe that this
2 graph only shows the increased demand that you're
3 reporting, it doesn't talk about what we're doing
4 with the existing level of power production in terms
5 of shifting perhaps from one source to another.

6 The campaign I'm specifically part of,
7 Within Beyond Coal, which is within Sierra Club, is
8 coal-free PSE, which says that Colstrip, the eighth
9 most carbon-polluting coal plant in nation, needs to
10 be shut down. I would like to see more details on
11 what exactly that would involve.

12 And I would also urge you to consider
13 another piece of good news in the general global
14 movement, which is that renewables are becoming
15 cheaper at a very rapid rate, and also storage
16 technologies are coming online that may actually
17 make it more cost effective to use power that you
18 may say, well, it's not available in winter, or it's
19 not available at night, but if -- if storage
20 technologies are scaled up that's a potential future
21 where we could produce a bunch of solar in summer
22 and use it in winter.

23 Thank you for considering my ideas.

24 **MR. ROCKEFELLER:** Thank you.

25 Bill Westre.

1 **MR. WESTRE:** Hi. I'm Bill Westre. I'm a
2 retired mechanical engineer and volunteer with the
3 Sierra Club, and I'd like to commend the Commission
4 for a very comprehensive plan. It's very
5 informative. It's very readable. And -- and I
6 support most of the conclusions, especially that we
7 can meet power requirements in the future by
8 maximizing energy efficiency and demand response.

9 Hopefully we can retire the remaining coal
10 plants without resorting to building natural gas
11 plants. We engineers generally like to choose the
12 low-risk options and natural gas is probably the --
13 the low-risk option. But we are also concerned
14 about show stoppers, those things which prevent
15 systems from working.

16 I've been around a long time, and I
17 believe we live in one of the most fluid times when
18 conditions change extremely fast. And I think this
19 is especially true of our understanding of climate
20 change. It was only a couple of years ago that a
21 few climate scientists started saying that we have
22 to leave the majority of fossil fuels in the ground.
23 Now, that is the emerging scientific consensus, and
24 public consciousness is growing rapidly. In my
25 opinion, climate change is the show stopper for

1 natural gas plants. The current low risk could very
2 well become very high risk in just a few years.

3 What is the cost of energy produced based
4 on a life cycle cost of a natural gas plant that has
5 to be retired for climate reasons long before its
6 useful design life? I think that question needs to
7 be answered.

8 I think we need to focus on renewable
9 energy sources for near-term and long-term energy.
10 The cost is trending down, efficiency is trending
11 up. They are carbon free. They are a near
12 unlimited resource. They are sustainable. They
13 have low environmental footprint and are a leader in
14 jobs creation. I'd like to see you study some more
15 of the use of solar, thermal with storage, as is
16 being used in plants in California. I think that
17 could reduce some of the peak demand problems we
18 have.

19 And finally in my reading of the report I
20 did find one piece of data that seems to dated. And
21 at chapter 13, page 22, states that solar cell
22 efficiency is 14 to 16 percent. The solar panels on
23 my roof are 18-and-a-half percent efficient, and
24 were installed five years ago. You can buy new
25 panels today that are 21-and-a-half or 22 percent

1 efficient.

2 Thank you for this fine plan and the
3 privilege to comment.

4 **MR. ROCKEFELLER:** Thank you.

5 Wayne Morter.

6 **MR. MORTER:** Good evening. I'm Wayne
7 Morter, M-o-r-t-e-r, I'm director of power
8 management at Seattle City Light. I'm responsible
9 for power marketing, trading, operations planning,
10 long-term resource planning, resource acquisitions,
11 and all of the regional affairs.

12 City Light serves Seattle and six suburban
13 areas in the Seattle region. We serve over 400,000
14 customers in total. We've been a carbon-neutral
15 utility since 2005. Our energy efficiency program
16 is one of the longest running in the nation, it
17 started in 1978, it's acquired nearly 200 average
18 megawatts of conservation.

19 Our other resources, besides energy
20 conservation, which is our first choice for new
21 ones, is hydro at Cedar Falls, Skagit and our
22 boundary project on Pend Oreille River. Each of
23 those we work to run cost effectively and
24 environmentally efficiently. Our customers also
25 enjoy other renewable resources that we've brought

1 into the portfolio.

2 I want to thank you for the plan. I want
3 to say that City Light is very supportive of the
4 plan's conclusions on continued significant energy
5 conservation, demand response and the use of the
6 fossil plants we have rather than building new ones.
7 That's important to us.

8 The Council's plan is very important to
9 the region. We utilize that for baseline energy
10 efficiency program, we look at the center piece of
11 evaluating energy-related issues on climate change,
12 and resource adequacy, and cost of power.

13 I do have a couple specifics points on the
14 plan for consideration. One -- in fact, we were
15 just -- I'm on the natural gas advisory committee.
16 We've been recently asked to update some of our
17 estimates of cost. Those costs of the plan was
18 locked in in '14, our pricing -- we have come down
19 some. So, I think it's important for the Council to
20 consider maybe looking at that snapshot a little
21 closer when the modeling is wrong.

22 Load changes. Very significant for us.
23 We're seeing some very strange things in what's the
24 fastest growing city in the country, our load's
25 actually declining on an weather-adjusted basis.

1 We're digging into that. It could be a combination
2 of factors, but one of those may be some underlying
3 Federal standard factors that we're not considering
4 in the forecast. And the Council's in the, I think,
5 it's Appendix F, has some dynamic standards that
6 have been considered, and ran some scenarios on
7 that. I think that merits further research in the
8 plan.

9 Also there's a -- in the effort -- and
10 this -- these two points I'm making here at the end
11 are gaps in my own resource planning we're in the
12 middle of. Would be the tax and regulatory changes
13 for renewables. A lot of those will lapse in the
14 next two years. But the current -- it'd be nice to
15 consider what if those were extended. So, we
16 thought maybe update if those were extended in the
17 future, which will make these already declining
18 costs come down even further. That's something for
19 consideration, of perhaps doing an update if those
20 are extended within the next two years. I think
21 it's very important that we look at that.

22 And, again, thank you. City Light is very
23 supportive of the overall conclusions of the plan.

24 **MR. ROCKEFELLER:** Thank you.

25 Next I'd like to invite up Pat Sumption.

1 **MS. SUMPTION:** Good afternoon. I don't
2 know if that's good enough, but I'll try. My name
3 is Patricia Sumption, S-u-m-p-t-i-o-n. And I'm
4 representing several organizations, Friends of the
5 Green River, I'm working with Sierra Club on some of
6 these issues, and I also work with some groups that
7 are working on the Skykomish River where a low-power
8 dam is proposed.

9 But I'm also representing some salmon I
10 have known. I am a bowler and I have watched salmon
11 trying to work their way up a big rapid, the kind
12 they go up, and then they go back, and then go up,
13 and then go back and eventually they may make it.
14 And they're friends of mine. I've watched them on
15 several rivers.

16 When I was a child I watched Indians
17 fishing from scaffolding on the Columbia and its
18 tributaries. We don't see that as much as we used
19 to, because some of those places that they -- that
20 were their fishing grounds are no longer available,
21 they're under what water because of the flooding of
22 the rivers, the Columbia, the Snake and so forth
23 that make it impossible for them to fish there.

24 I have four grandchildren. I would like
25 them to grow up in the Northwest that I grew up in.

1 And I would like them to be able to see a natural
2 world that's working, that's still -- where it's
3 still possible for fish to make it up the rivers,
4 all the way up the rivers, and that's not the case
5 in some places.

6 The Snake River gets a very few salmon all
7 the way up to the top, because of the dams on lower
8 Snake. We -- we don't need anymore dams. We need
9 fewer dams. And we need this power plan to have a -
10 - a section in it about the -- the -- taking the --
11 the four lower dams on the Snake River out so that
12 that can be possible.

13 And it was -- it's missing from this plan.
14 It was an appendix for the Sixth plan. We need to
15 have that added to this. And I realize there's no
16 time to get it done by December 18th, but we can
17 expect it to get done and be added perhaps as an
18 appendix. I don't know exactly. But it needs to be
19 out there where the public can see it, and so we can
20 understand that it can be done. That it's more
21 likely to be able to do it. We -- we have more
22 things, more information available to tell us that,
23 yes, we can take those dams out without causing
24 major problems with power, and provide for the
25 salmon and other natural things that we care about.

1 So, I -- I would like us to remember, all
2 of us, that we're connected, that those of you who
3 take the comments from the public need to be sure
4 you're not so invested one way of thinking or -- or
5 listening to the people who talk one way, that you
6 do hear the little guy, the person who stands at a
7 river and watches the salmon trying to climb the
8 river. Because we can do it. We can have it all.
9 We can't necessarily do it the way we've always done
10 it, but we can have all the energy we need if we're
11 not hoggish about it.

12 We need to do a renewable -- renewable
13 energy sources, and we can do a better job on that,
14 and we can do a better job on a lot of things. We
15 shouldn't downplay the solar energy, the other
16 renewable sources, because they're growing in their
17 ability to provide the energy that we need.

18 I'm not going into any technical details
19 here, because I know there are other people here who
20 can do a better job of that. And we're going to be,
21 I'm sure a lot of us here and others who aren't
22 here, writing -- the written comments that will get
23 more into the details.

24 But I'm talking to you because I feel
25 connected to the salmon, to the Tribes, to the

1 rivers, and I feel connected to human beings who
2 care about those things. And I think we can have
3 what we need and want in this Northwest area. Thank
4 you.

5 **MR. ROCKEFELLER:** Thank you.

6 Andrea Matzke.

7 **MS. MATZKE:** Hi. I'm Andrea Matzke. And
8 I'm with Wild Washington Rivers and the State of
9 Washington, being a resident born and raised here.
10 And, I first of all, your presence or organization
11 is something that we just -- we need in the area.
12 You're our safety net for some of the bad decisions
13 that made some good money. So, thank you. And
14 thank you for really emphasizing conservation.
15 Because, you know, technology is -- is going to
16 allow us to do a lot more with much less.

17 I -- I have some questions. I don't know
18 if this is the right format, but I have a couple
19 questions that were within the plan. And if this is
20 not the right format, then I will -- I will find the
21 right format. But there were just a couple of
22 things I was unclear about. For instance, does -- I
23 know that there is a big focus on efficient,
24 economical and reliable power sources. And I'm
25 wondering if run of the river hydro is considered

1 reliable? So, is -- I don't know -- if I -- this is
2 wrong format, then you can -- you can direct me.

3 **MR. KARIER:** So, I -- I can -- I could
4 give you a short answer, and then for a longer
5 answer you'll have to contact our staff and -- or us
6 on a -- in a different context. Because I realize
7 we only have about three minutes per person.

8 **MS. MATZKE:** No. I apologize --

9 **MR. KARIER:** But we -- but we did include
10 consideration of run of the river, small hydro
11 projects. We didn't model it explicitly, but
12 there's some brief discussion about it. We assume
13 that -- we know that it exists in some places, and
14 it's a very local resource, and has to be assessed
15 locally. And it doesn't lend itself to the kind of
16 work that -- that we did. We think there's some of
17 it, not enough to change the basic results of the
18 plan.

19 **MS. MATZKE:** Thank you. I appreciate
20 that.

21 **MR. KARIER:** Okay.

22 **MS. MATZKE:** I also wanted to appreciate
23 the carbon focus. One of the -- one of the issues
24 that we've been waiting to become more public is the
25 methane issue. And finally Obama announced that

1 there was going to be a reduction in methane, or --
2 or striving for a reduction in methane by 2025,
3 about 40 percent. And I was wondering if -- also I
4 know dams are a big source of creating methane. And
5 I just -- I wasn't sure if that was in the -- in the
6 next plan if that was going to be considered as
7 well.

8 So, again, my questions don't have to be
9 answered in this format. But those were some
10 clarities that I was hoping to understand.

11 And the -- there's one other kind of
12 question. I -- I was reading how the -- when you
13 add up the -- the costs and -- and -- all the costs
14 involved with the fish and wildlife plan, it comes
15 up to about \$650,000,000 a year. But I was wondering
16 if you -- the Federal Power Act has a section, and
17 it's Title 18, and it's 10(a)1. And it talks about
18 that the purposes -- or the -- the resource must be
19 weighed for its recreation, fish, wildlife,
20 enjoyment of -- of the public, those values, as well
21 as -- as the -- as the energy it produces. I'm not
22 saying it very clearly.

23 But now I was wondering if in that
24 650,000,000, if -- if that is taken into
25 consideration. There are -- there's an economic

1 report from FERC Economics about the Skykomish
2 Valley if it were left un -- you know, intact, the
3 economic benefit has been estimated to be
4 245,000,000 to 3.2 billion a year. So, I -- so, I
5 was thinking, you know, in all fairness when you
6 look at the cost, I think -- and it might be there
7 and I just didn't see it. So --

8 **MR. ROCKEFELLER:** Andrea, I'd like to
9 suggest that if you can find the time that you put
10 some of your concerns into writing, and -- and add
11 that to your comments tonight, so that we can look
12 at them in more detail.

13 **MS. MATZKE:** Sure.

14 **MR. ROCKEFELLER:** Would that be helpful to
15 you?

16 **MS. MATZKE:** Oh, very, yes. I -- I --
17 again, I didn't know if this was -- I -- I called
18 the Council and if -- if this was -- I could ask
19 questions, and they said, well --

20 **MR. ROCKEFELLER:** You can say whatever you
21 wish.

22 **MS. MATZKE:** All right.

23 **MR. ROCKEFELLER:** I'm just suggesting that
24 it might -- might be constructive to have your
25 thoughts or questions in writing.

1 **MS. MATZKE:** Yes. Thank you. Thank you
2 very much. I appreciate it.

3 **MR. ROCKEFELLER:** Okay. Thank you.

4 Next is Janet Way.

5 **MS. WAY:** Good evening. I'm Janet Way.
6 I'm also -- I'm a volunteer with the Sierra Club,
7 I'm also representing, along with Andrea, the Wild
8 Washington Rivers, which is a Washington State
9 nonprofit.

10 We support the strongest conservation
11 goals. And we applaud you for -- for endorsing that
12 as a goal. I feel like that is a very important
13 aspect of what you're doing. However, we do have a
14 number of concerns. We believe that conservation
15 should not mean increasing hydro. It should -- it
16 should mean conservation. Increasing hydro should
17 not be -- hydro.

18 Under I-937 hydro is not considered as a
19 renewable source. We should emphasize actual
20 renewable, like wind and solar, rather than hydro.
21 Even -- even as -- I'm repeating some of the things
22 Andrea said. But even the Obama administration has
23 emphasized the threat of methane as a greenhouse
24 gas, and that should be a consideration for you.

25 We ask for a dam removal analysis to be

1 put into the plan as -- as an amendment, if
2 necessary, to improve fish habitat. We ask that you
3 delay -- deny exemptions on new hydro, such as that
4 proposed on the extraordinary Skykomish River.

5 Any power generated by this Sunset Falls
6 proposed project would be minuscule, and would not
7 be worth the adverse impact it would cause, and not
8 even available at the times when it is most needed.
9 Sunset -- and I wanted to just briefly give you a --
10 a little folder here just to look at for a second
11 while I finish. It's some pictures of the Sunset
12 Falls.

13 **MR. ROCKEFELLER:** Janet, I've visited
14 Sunset Falls. I'm familiar.

15 **MS. WAY:** Good. Well, then, this is just
16 a reminder. And as you know it is a habitat for
17 seven species of anadromous fish. It's -- it's an
18 extraordinary place, not only the -- the falls, but
19 the whole reach, which is a very unusual S-shaped
20 oxbow, in effect. And, so, it's very extraordinary.

21 Let's see. On, and again, the -- the
22 recreational value cannot be denied as, repeating
23 what Andrea said, the FERC economic study which
24 estimated this -- FERC estimated the value between
25 3,000,000,000 to 250,000,000. And -- and so that

1 should be a -- a consideration, not only on the
2 Skykomish, but on any -- any of the rivers, that are
3 impacted by hydro.

4 And, so, we appreciate your time and your
5 investment in conservation. And we'd appreciate if
6 you would consider our comments as part of the
7 record.

8 **MR. ROCKEFELLER:** Thank you.

9 **MS. WAY:** Thank you.

10 **MR. ROCKEFELLER:** Nancy Hirsh.

11 **MS. HIRSH:** Good evening, Chair
12 Rockefeller, Council Member Karier. My name is
13 Nancy Hirsh. I'm executive director of the
14 Northwest Energy Coalition. Congratulations to the
15 Council and staff for a plan development process
16 that has been open and transparent and very-well
17 managed. We know that the level of effort and
18 investment in creating the plan has been huge. We
19 know that, because we've been with you every step of
20 the way in the development of the plan.

21 We're pleased with the draft plan's
22 prescription to develop 4500 average megawatts of
23 energy efficiency. The Council has well documented
24 the -- the economic benefits, the environmental
25 benefits, and the job benefits that come from this

1 investment.

2 And given all these benefits from energy
3 efficiency, we would urge the Council, and utilities
4 across the region, to consider those 4500 average
5 megawatts as a floor, not a ceiling, for energy
6 efficiency, and to not put a -- put a range in, but
7 to say at least 4500 average megawatts. In fact,
8 the Council identifies even more savings than that
9 in its analysis.

10 And we applaud the Council. What is
11 particularly compelling about the draft energy
12 efficiency analysis is the contribution energy
13 efficiency savings make to reducing peak energy
14 demand. This finding provides a significant new
15 tool for utilities in meeting their peak energy
16 needs.

17 And along those same lines we -- we
18 applaud the draft plan's focus on demand response.
19 These programs are critical for reducing peak power
20 needs, and incenting customers to shift power use
21 away from periods of high demand makes the whole
22 system more efficient and cost effective. It's
23 certainly preferable to building new long-lived
24 fossil generation to meet very short-term needs.

25 We do note, however, that the scale of the

1 demand response resource identified in the modeling
2 is missing from the draft plan resource strategy.
3 We encourage the Council to include a 700 to 1100
4 megawatt range for demand response resources
5 specifically in the final plan.

6 We also thank the Council for including
7 critical language calling out the need to focus on
8 assuring low income families and other hard-to-reach
9 populations get their share of energy efficiency
10 services and the savings benefits. Community
11 members living in manufactured housing and
12 multifamily buildings, as well as rural communities
13 and small businesses all pay for energy efficiency
14 programs through their bills, and they should all
15 also benefit from those programs that serve them.

16 I'll note a few areas that we find are
17 lacking in the plan. First, it calls only for the
18 new renewables required by the -- by the portfolio
19 standards in the region, and relies on increased
20 natural gas use to replace coal-fired generation to
21 deal with winter peak capacity in low years, low
22 water years, and when we retire the coal plants.

23 We believe that the evolving electricity
24 grid will provide a variety of ways, other than only
25 natural gas, to address variable resources and meet

1 capacity needs. The Council needs to integrate into
2 its resource modeling distributed energy generation,
3 smart grid applications, regional purchases, storage
4 and other flexible technologies that are coming into
5 the market today. These new resources are declining
6 in cost, and accelerating in use, and the Council
7 should analyze them as a new systemic portfolio that
8 integrates them, rather than just stacking resources
9 on top of each other, which is more of the
10 traditional approach of the Council plan.

11 And, finally, the energy coalition has
12 produced a paper that puts the net cost of removing
13 and replacing the power and capacity outputs of the
14 floor -- of the four lower Snake River dams at about
15 a dollar per month per customer. That's pretty
16 affordable for an effective way to restore several
17 of the wild salmon species the power system has put,
18 and is keeping, on the endangered species list.

19 We consider our study a preliminary study,
20 a rough cut, if you will. As noted the Council has
21 the modeling resources and the staff to do a more
22 complete study. We urge you to do a more complete
23 study and use recent and critically evaluated data
24 on the current and anticipated future costs for
25 keeping the dams in operation.

1 Thank you for the opportunity to be here
2 this evening and for listening to public comment.
3 We look forward to working with you and the Council
4 staff in the future.

5 **MR. ROCKEFELLER:** Thank you.

6 Steve Gelb.

7 **MR. GELB:** Good evening, Council. I'm
8 Steve Gelb, with Emerald City Seattle. We are a
9 nonprofit collaborative of government, community
10 groups, labor and businesses promoting energy
11 efficiency and equity in the Seattle area. And I
12 wanted to applaud the plan for its increased use of
13 energy efficiency as our cheapest source of -- of
14 energy, and for assuring that low-income families
15 benefit from energy efficiency investments.

16 And I want to tell you a little bit about
17 a program we are implementing on the ground called
18 Renew, which is working with multifamily affordable
19 housing. And proving that, as Nancy mentioned
20 earlier, that the projections for energy efficiency
21 really should be a floor of -- of what is possible.

22 Our program offers beginning-to-end
23 project support, predevelopment financing, and
24 project financing for nonprofits who run affordable
25 housing. We are seeing very significant savings in

1 -- in energy, even in newer buildings ten years old
2 and -- and older. And even in previously
3 retrofitted buildings that folks thought had saved
4 all the energy they could. Technologies like LED
5 lamps, lighting controls, HVAC controls, and
6 continued use of basic measures that have been used
7 for years are still great opportunities for saving
8 energy.

9 But the other thing we're seeing is a
10 systems approach and whole building approach is
11 saving energy and these are, I think, hard to
12 document and we don't see them in the plan. These
13 are operating buildings better, using controls,
14 remote access and training of staff that can
15 significantly improve the efficiency of the
16 buildings.

17 Utilities need to support programs like
18 the Renew program we've developed that overcome
19 barriers of capacity to implement energy efficiency,
20 technical expertise, development funding, and
21 project funding for these kinds of opportunities.
22 And if we do I think we can see even greater
23 efficiency than you call for on the plan.

24 Thank you very much.

25 **MR. ROCKEFELLER:** Thank you.

1 We are a little bit past the half way mark
2 this evening, and we have perhaps more than half of
3 the number who have signed up yet to testify. So,
4 again, I would like to suggest that, if you can,
5 keep your remarks within a three-minute time span,
6 so that other people will have the opportunity.

7 Diane Shisk.

8 **MS. SHISK:** I'm Diane Shisk. I live here
9 in Seattle, and I'm a volunteer with the Sierra
10 Club. And I, too, want to really appreciate all the
11 work that went into making a really good plan that
12 addresses energy efficiency and makes that the --
13 the priority for the plan.

14 I'm also really excited actually about the
15 demand response system that you're -- that you're
16 planning on. What I've heard about it in other
17 places it's been very effective, and I really look
18 forward to seeing it here.

19 I think like so many people I've been
20 paying a lot of attention to the upcoming climate
21 talks in Paris, and I'm struck by the fact that with
22 every nation making their very best efforts to
23 reduce greenhouse gas emissions the conclusion is
24 it's not enough to get us -- to -- to keep us below
25 two degrees centigrade of global warming in the next

1 period.

2 And so that I think that a good plan just
3 actually isn't enough at this time, that we have to
4 push harder, and we have to push further, and that
5 what that means for us is really is weaning
6 ourselves very quickly off of fossil fuels. And I
7 really appreciate the way in the Northwest we've
8 closed so many coal plants, but I think we need to
9 speed up the retirement of the coal plants, and that
10 natural gas actually is not a clean energy form, and
11 that we can't use -- it can't be part of our plan
12 for the future. That they are way more -- that
13 every -- every month renewables become more
14 effective, more efficient, more cost affordable and
15 we've got to be looking there.

16 And, once again, the -- that the Northwest
17 should be the model for our future. Thank you.

18 **MR. ROCKEFELLER:** Thank you.

19 Rebecca Wolfe.

20 **MS. WOLFE:** Good evening. I'm from
21 Edmonds, Washington, and I worked with the Sierra
22 Club, and I also work with an organization called
23 Our Children's Trust. I am a teacher, a long-time
24 teacher. And I'm very concerned about the future,
25 that is why I worked with a lot of other people to

1 get I-937 passed, the Energy Independence and
2 Security Act. And I think we forget the "and
3 security" part. I think what happens to our
4 environment directly relates to our security.

5 And, so, I do want to thank the Council.
6 I have huge admiration for the Council and the work
7 that you do. I go to your website and try to get
8 information frequently about things that I'm
9 learning about, so thank you for the work that you
10 do.

11 I'm here to just reinforce practically
12 everything that's been said already. And I read,
13 and it's true, in your documents that there is huge
14 uncertainty as we move into this climate change era.
15 We don't know exactly how much more rain we're going
16 to have, or snowpack, although we know there's going
17 to be less.

18 So, I think people are becoming smarter,
19 generally smarter, consumers of energy. And we need
20 to become even smarter. And you also already have
21 some programs to do that, the smart -- smart meters
22 and so forth.

23 I do want to say that I think your energy
24 efficiency targets could be more aggressive or more
25 -- less conservative. We need to be ambitious, more

1 ambitious, and we need to be a leader. We need to
2 be a leader in this -- we are in the best part of
3 the U.S., in my opinion. I was born and raised in
4 North Carolina. I've lived in Oregon. Oregon's not
5 bad. But Washington and -- well, Oregon's part of
6 the four states I realize.

7 But, anyway, I do think the Pacific
8 Northwest is -- is just an awesome part of the
9 world, and we need to keep it that way. And we can
10 do our part. I -- in general, I would like to just
11 urge you to do everything you can to get off all
12 fossil fuels, including natural gas. I've been
13 studying a lot about what's happening with
14 fracturing, fracking, and we -- we shouldn't be
15 doing that. We just don't need to be doing that.
16 And that's about the only way we're going to get
17 natural gas is out of the earth.

18 So, please, do anything you can to
19 discourage more natural gas. Although it -- I know
20 it's been called a transition fuel, but it's not a
21 good way to transition, and we'll -- we will need to
22 use some as we taper off, but that should a high
23 goal, a very high priority goal.

24 In your calculations in your modelings
25 please be sure that you consider the retirements of

1 the coal plants fully. That we -- we're way ahead
2 of what we thought we would be doing in terms of
3 retiring coal plants.

4 And also, finally, I just want to say I'm
5 kind of sun worshiper, I really -- not to lie in it,
6 but I do think solar energy is very, very exciting
7 for the future, as well as wind energy, although it
8 may be a little bit more uncertain. But for sure a
9 lot of solar in the future. And basically we just
10 need to be sure that we don't do anything to add to
11 our climate pollution for the future, for our
12 children, and for all generations ahead of us.

13 And, finally, I did want to mention that I
14 also support the removal of the Snake River dams,
15 the lower Snake River dams, for the benefit of
16 salmon.

17 And I keep saying finally, but finally
18 finally, I also am very opposed to low-flow hydro
19 because of what it does to our fish and other biota
20 in the system. I really am very concerned about
21 that. And when we need the most power we're going
22 to have the least water. And one thing that is not
23 uncertain is that fish do need water.

24 Thank you.

25 **MR. ROCKEFELLER:** Sameer Ranade? Did I

1 pronounce that correctly?

2 **MR. RANADE:** Ranade.

3 **MR. ROCKEFELLER:** Would you spell that
4 please.

5 **MR. RANADE:** Yeah. R-a-n-a-d-e. Hi
6 members of the Council. My name is Sameer Ranade.
7 I'm -- I work as a climate and clean energy campaign
8 associate for the Washington Environmental Council.
9 We're a nonprofit statewide advocacy organization
10 that's been driving positive change to solve
11 Washington's most critical environmental challenges
12 since 1967.

13 So, I first want to say thank you and your
14 staff for your -- for your leadership and your --
15 your hard work in putting together this -- this
16 plan, and ensuring that we have a safe, reliable and
17 affordable supply of -- of electricity.

18 And as you noted in your Sixth Power Plan
19 the impacts of climate change are -- are quite
20 significant, from the floods, the wildfires, the
21 droughts, the ocean acidification. And these
22 impacts will certainly intensify unless we
23 accelerate the transition to a low carbon economy.
24 And -- and we -- we believe we can build an economy
25 that's -- that's strong and clean.

1 And that Washington State, and the broader
2 Northwest region, has this spirit of innovation and
3 technological leadership that we really must harness
4 now, and sustainable electricity is an important
5 pillar of that. And in -- in looking in your plan
6 we're -- we're really supportive of some of the
7 pieces, but we think there's others that don't go
8 far enough in reducing carbon emissions or take
9 advantage and -- of the opportunities to invest in
10 renewable energy, both for the environmental and
11 economic benefits that they offer.

12 We strongly support the plan's description
13 of the role of energy efficiency in meeting the
14 energy needs of our region in the next 20 years. We
15 support the expectation that no new natural gas
16 plants are needed to support load growth in the next
17 10 years.

18 We are, however, disappointed that your
19 plan seemingly limits renewable growth to the State
20 RPSes. As we move past 2020, and have no new RPS
21 targets, and in particular as we see coal-fired
22 electricity in the region retired, we should expand
23 our expectations of what place new renewables can
24 fill in our electricity portfolio, and not only
25 expand their ability to meet -- meet peak demand,

1 but also replace coal generation rather than
2 reverting to the assumption that the replacement
3 will be natural gas.

4 We also echo Renewable Northwest's
5 concerns about the assumptions modeling and
6 representation around renewable energy, which can
7 result in misinformation at best, and missed
8 opportunities to invest in carbon-free and cost-
9 effective renewable energy in the broader Pacific
10 Northwest.

11 I just want to emphasize the importance of
12 energy diversification. We certainly know that
13 hydropower, due to droughts, can be a risk. And
14 there is an inverse relationship with production and
15 cost. So, the renewable energy the -- the market as
16 it scales costs will come down and most predictions
17 are that renewable energy in the long-run will be
18 cheaper than conventional energy.

19 And I -- I just want to close with a quote
20 from Governor Inslee in a speech that he gave to
21 your group in July of 2013. His direction to you
22 was to continue to move the ball forward on reducing
23 the carbon impact of our electricity sector based on
24 the great work that you did on the Sixth plan. Your
25 Sixth plan took a good look at climate change. It

1 set a high bar for clean energy. I believe your
2 Seventh Power Plan needs to go even further. I ask
3 that the Seventh Power Plan fully address how the
4 Northwest will reduce carbon pollution for our
5 electricity further, faster in the most effective,
6 efficient way possible.

7 The plan should facilitate and accelerate
8 the transition from coal power and identify the
9 steepest reasonable glide path for making this final
10 transition. It should specify how we will better
11 manage the power whole during low-water years and
12 overgeneration during high-water years. As a 20-
13 year plan, it should lay out a clear and date-
14 certain path to an electrical system that is one
15 hundred percent carbon-free and renewable through
16 preserving and enhancing our hydropower base,
17 accelerating energy efficiency and deploying all
18 renewable sources effectively in an integrated
19 manner across the region and the West.

20 And I believe that your plan is a great
21 step in that direction, with some modifications as
22 has been recommended. And thanks, again, for
23 working, for your leadership in this.

24 **MR. ROCKEFELLER:** Thank you.

25 John Christensen.

1 **MR. CHRISTENSEN:** Hi. My name's John
2 Christensen. Thank you for making this plan
3 available for public comment. I'm just here really
4 to speak from the heart and to echo a lot of what
5 I've heard around the room today, and that is that I
6 -- I really like the energy efficiency focus your
7 plan has taken. But I do feel that using natural
8 gas as a bridge to a -- to a cleaner energy future
9 is not necessarily the way to go. I think natural
10 gas is more of a road block right now.

11 And so coming from someone who hopes to
12 pass on a great climate situation to my kids one day
13 I would encourage you to really look at -- at these
14 renewable options, and to feel a responsibility not
15 just to come up with a great plan in the short run,
16 but to embrace a -- a long-run view. I know in the
17 long-run we're all dead. But -- but I think if
18 there's an issue where there is a time to take -- to
19 take a view, to take a long-run view, this is --
20 this is the one. Thank you.

21 **MR. ROCKEFELLER:** Thank you.

22 Bill Sampson.

23 **UNKNOWN VOICE:** Mr. Chairman, in the
24 interest of time could I suggest that you read the
25 next name after the one you call to the podium?

1 **MR. ROCKEFELLER:** I'll be happy to do
2 that.

3 It's hard to read this one. Is it Jess
4 Kastle?

5 **MS. KOSKI:** Koski.

6 **MR. ROCKEFELLER:** Okay. So, you will be
7 next Jess.

8 **MR. SAMPSON:** Hi. My name is Bill
9 Sampson, and I'm a Seattle resident and Sierra Club
10 volunteer. Overall, I think your plan is very
11 impressive, and I like the focus on energy
12 efficiency. Energy efficiency regionally cuts
13 electric bills by billions of dollars every year.
14 And, so, with this in mind I'd like to see an even
15 higher target than the 4,500 megawatt savings
16 target.

17 The other point I'd like to make is about
18 global warming. Fossil fuels are warming the planet
19 and cause many negative health impacts. And
20 renewable energy is becoming cheaper and more
21 efficient all the time. And so, with this in mind,
22 I would like to see fossil fuels completely cut out
23 from the plan. Thank you.

24 **MR. ROCKEFELLER:** Thank you.

25 Jess. Next is Bill Adams.

1 **MS. KOSKI:** Hi. Thank you. Jessica
2 Koski, it's K-o-s-k-i. And thank you for the
3 opportunity to testify. I'm here with the Sierra
4 Club. And I want to start by commending the Council
5 for doing an excellent job identifying the power of
6 energy efficiency and demand response in meeting our
7 energy needs.

8 But, none the less, as Ron said, every
9 good plan has areas for improvement. And we feel
10 that the Council severely undervalues the benefit of
11 clean energy. First, the model is short-sided, in
12 that it doesn't retire any additional coal plants
13 beyond those that are already slated to close. And
14 we stood here five years ago and told you that the
15 Council needed to plan for a coal-free future. And
16 in the years since the Sierra Club's Beyond Coal
17 team has retired three coal plants in the region,
18 Boardman, Centralia and North Valmy.

19 And, so, you can trust us when we say that
20 more are on the way. And you need to plan for that.
21 And if you don't trust us, you can trust the
22 numbers. Just in the past few years 200 and -- or,
23 excuse me, 264 coal companies have gone bankrupt.
24 Peabody Energy and Arch, two of the largest coal
25 producers, have lost 1.2 billion dollars in the last

1 year.

2 So, if the Council wants its plan to be at
3 all relevant it needs to be planning for a coal-free
4 future. And when it does that it becomes clear that
5 there is much greater space for the development of
6 renewable energy, and that it is much more valuable
7 than it's currently being evaluated at.

8 In addition, by focusing too narrowly on
9 how to meet peak winter demand the Council misses a
10 lot of the other benefits that are associated with
11 renewable energy. For example, renewable energy
12 promises greater stability in energy prices, whereas
13 the cost of renewables is projected to only go down,
14 fossil fuels are subject to rapid price swings.
15 Between 2009 and 2013 the price of wind and solar
16 both fell by more than 60 percent, and prices are
17 only going to continue to drop as the technology
18 improves and companies are able to take advantage of
19 economies of scale.

20 The model also fails to take into account
21 the fact that renewables allow for a more reliable
22 and resilient energy grid. Wind and solar are less
23 susceptible to large-scale failure because they're
24 distributed and modular. So, just this past week we
25 have witnessed the vulnerability of a fossil fuel

1 infrastructure with a single storm leaving over
2 200,000 Washington residents without power. And
3 increased resiliency is only going to become more
4 important as climate change leads to more extreme
5 weather events.

6 And then, lastly, coal and natural gas
7 require huge amounts of water. Wind and solar
8 require none. And with the threat of crippling
9 drought becoming increasingly real, even here in the
10 Pacific Northwest, which we often think about as
11 lush, it's time that we retire those very thirsty
12 fossil fuels. So, one more reason to evaluate -- or
13 fully evaluate the benefits of renewable energy.

14 So, with that it's bound -- it's vital to
15 our region's future in both energy and otherwise
16 that the Council adopt a more prudent and wholistic
17 view of the benefits of renewable energy.

18 Thank you.

19 **MR. ROCKEFELLER:** Thank you.

20 Bill Adams. And then Mary Paynter.

21 **MR. ADAMS:** Thank you for allowing me to
22 testify this evening. My name is Bill Adams. I'm
23 from Saltwater Unitarian Church in Des Moines, just
24 a few miles south of here. This whole thing boils
25 down to responsibility, the type of responsibility

1 that our teachers and parents try to instill us --
2 instill in us when we were young. And the type of
3 responsibility that we're teaching our own children.

4 The first step of responsibility should be
5 closing the Colstrip plant, it is the responsible
6 thing to do. It eliminates carbon dioxide poisoning
7 in the atmosphere. And, obviously, it's responsible
8 to retrain the displaced workers and help them find
9 new jobs. And I understand it's now Federal
10 legislation requires that.

11 My utility company, Puget Sound Energy, I
12 understand receives 30 percent of its electricity
13 from Colstrip. Okay. This is a shortfall. The
14 shortfall can be made up by more energy efficiency.
15 PSE and the other utilities should be aggressively
16 promoting energy efficiency. There's nothing wrong
17 with washing our clothes, and our dishes, and drying
18 our clothes in the evening hours when it's off peak,
19 absolutely nothing.

20 Myself, six years ago I installed -- I had
21 installed a tankless water heater. I started saving
22 money right off the bat by -- by reducing my -- my
23 energy requirements. That tankless heater is going
24 to be -- the investment in the heater is going to be
25 paid for in about two years. It's a -- it's a --

1 it's a no-brainer. Efficiency is -- is the method to
2 -- to make up the shortfall.

3 Thank you.

4 **MR. ROCKEFELLER:** Thank you.

5 Mary Paynter. And then Margo Rolf.

6 **MS. PAYNTER:** Thank you for providing
7 this opportunity to comment on the -- on the draft
8 power plan. My name is Mary Paynter. I live in Des
9 Moines and I'm a Washington State native, and a
10 Puget Sound Energy ratepayer for a long time.

11 To avert the worst, most catastrophic
12 effects of climate change there's an emerging
13 consensus that we need to reduce carbon emissions.
14 I've read all the requisite books by Naomi Klein,
15 and Elizabeth Kolbert, Bill McKibben, and marched in
16 my share of protests and demonstrations, joined in
17 chants demanding an immediate dismantling of the
18 entire fossil fuel industry, and cheered on the
19 kayaktivists protesting Shell Oil's arctic
20 exploration.

21 At these events there's typically a lot of
22 general talk and rhetoric about transitioning to
23 renewable sources of energy, such as solar and wind.
24 But in my view not enough concrete, persuasive
25 information setting out how exactly this transition

1 is going to happen. For me, it's almost impossible
2 to imagine a future entirely free of fossil-fuel
3 energy.

4 But, never the less, as we move toward
5 that future, you know, part of what we have to do is
6 ask people to make sacrifices today in order to keep
7 our descendents from suffering, from -- yeah, 50 or
8 75 years from now. And that's a hard sell. What
9 kinds of sacrifices; driving, comfort, doing without
10 our electronic devices. It's a really difficult
11 problem.

12 One approach to solving it is to vastly
13 increase funding for research and development,
14 hoping for an energy miracle sometime in the next 15
15 years. If we rely on miracles though we may not
16 bother to do the fairly simple, cost-effective
17 things we can accomplish right now. And then if the
18 miracle does not arrive we're toast, literally.

19 That's all the preamble to why I'm excited
20 to become familiar with this Seventh draft plan,
21 just an ordinary person. I'm not an expert on
22 energy economics. But I do think I get the gist of
23 this plan, the plan to eliminate -- delineate steps
24 we can take now that will enable our region to meet
25 electrical energy demands for the next 20 years,

1 while transitioning away from fossil fuel, and thus
2 reducing carbon emissions.

3 I actually had no idea we could reduce
4 energy use so dramatically through strategies of
5 energy efficiency, dealing with peak demand,
6 increasing use of renewables, and investing in the
7 electrical grid. That said, the plan could be
8 stronger.

9 Number one -- I have three points -- this
10 plan should call for speeding up the retirement of
11 coal-fired electrical plants. As a Puget Sound
12 Energy customer the fact that I get up to 30 percent
13 or more -- or so of my electricity from a dirty,
14 polluting, coal-fired electrical plant in Colstrip,
15 Montana is appalling. As a ratepayer I do not want
16 to be responsible for the clean-up of this plant and
17 its myriad pollution problems, nor does it make
18 sense to me to invest in fixing Colstrip.

19 Money spent to fix it would be better
20 spent developing renewables, investing in
21 retrofitting programs, and strengthening the grid.
22 Coal is only a cheap source of energy because coal
23 companies do not pay to clean up the messes that
24 they make.

25 Number two, regarding peak demand. Back

1 in the early 2000's my utility company, Puget Sound
2 Energy, allowed customers to opt for off-peak energy
3 use. We were told we could save money by doing
4 that. Then the news broke that many of us were
5 actually paying more under the off-peak plan than
6 under the regular plan. We felt like we had been
7 deliberately misled. Utilities with a track record
8 like PSE's need to rebuild customer trust by being
9 meticulously transparent and accurate when they
10 inaugurate such plans.

11 And number three, if we follow through
12 with the energy efficiency elements of the plan, and
13 the other factors, we should not need to build new
14 natural gas plants. Private energy companies, such
15 as PSE, should not be incentivized for investing in
16 unnecessary gas plants, and passing the costs on to
17 ratepayers.

18 While natural gas burns cleanly, the
19 extraction and transport of methane, and the
20 building of natural gas plants, all contribute
21 greenhouse gases and make our planet problems worse.
22 Furthermore, methane leaks are not well-monitored,
23 and current data suggests they are much more
24 widespread than previously thought. When unburned
25 the methane escapes into the atmosphere. It is an

1 extremely potent greenhouse gas, actually much worse
2 than CO2.

3 But thank you for your work. I really
4 appreciate the opportunity.

5 **MR. ROCKEFELLER:** Thank you.

6 Margo Rolf, to be followed by John Corr.

7 **MS. ROLF:** My name is Margo Rolf. I live
8 in Federal Way, Washington. Puget Sound Energy is
9 my provider. I am a ratepayer. I'm thankful that
10 the plan shows that we will meet our energy needs
11 with energy efficiency, demand response and
12 renewable resources for the next 20 years. And the
13 closing of three coal-fired power plants in the
14 Northwest, which will lower carbon dioxide in our
15 atmosphere, is to be applauded.

16 But carbon emissions still remain a
17 mammoth problem. Coal produces about 15 percent of
18 the electricity used in the Northwest, but it's
19 responsible for 85 percent of the carbon emissions,
20 according to Tom Eckman, director of power planning
21 for the Northwest Power and Conservation Council.

22 I ask, therefore, that you go beyond the
23 three closures, help us find a clean, and safe, and
24 sustainable way to replace the energy produced by
25 coal, so that we may close Colstrip in Montana. It

1 is dirty. It pollutes the air, the land and the
2 water beneath it. And it contributes every day,
3 every hour, every minute to climate change. I do
4 not want to pay higher rates to mitigate Colstrip
5 for it to just be business as usual. It needs to
6 close.

7 Recently in the publication the Atlantic,
8 Bill Gates, having pledged 2,000,000,000 to research
9 and development for our way out of coming collision
10 with planetary climate change, said that we need an
11 energy miracle. I don't think we can wait for a big
12 miracle. We need to start on our own. Adding the
13 closure of Colstrip to Northwest efforts will be
14 another step in the right direction.

15 In your stated mission your first core
16 value is we take the long view. We work for the
17 well-being of future generations, not just our own.
18 And I thank you for that on behalf of my grandson.

19 **MR. ROCKEFELLER:** Thank you.

20 Mr. Corr. And next Joseph Bogaard.

21 **MR. CORR:** Oh. Des Moines, Washington,
22 Saltwater Church, John Corr. Dear sirs, no ladies -
23 - well, plenty of ladies back there. Many of us
24 have kids and grandkids that we wish to have lives
25 not threatened by further climate change.

1 Therefore, I desire Puget Sound Energy to stop
2 buying energy from coal-fired producers in Montana.
3 I would be glad to pay higher electric bills to help
4 PSE achieve this.

5 Thank you.

6 **MR. ROCKEFELLER:** Thank you.

7 Joseph Bogaard, to be followed by Court
8 Olson.

9 **MR. BOGAARD:** Good evening. And thanks
10 for the opportunity to -- to speak with you tonight.
11 My name is Joseph Bogaard, B-o-g-a-a-r-d. I'm the
12 executive director of Save Our Wild Salmon
13 Coalition. SOS is a diverse coalition of more than
14 50 member groups, with millions of members in the
15 Northwest and across the nation. We represent a
16 range of interests that are particularly of --
17 particularly well-represented in the Northwest,
18 conservationists, commercial fishermen, sport
19 fishermen, clean energy advocates and many
20 businesses.

21 Abundant self-sustaining populations of
22 wild salmon are a priceless legacy in the Pacific
23 Northwest for the ecology, the economy and the
24 culture. They support jobs and businesses, culture
25 -- cultures, and communities and other fish and

1 wildlife populations as well. The Northwest needs a
2 strategy that builds the infrastructure that
3 supports clean energy and wild salmon and steelhead.
4 We -- we view it as the Council's duty to strike
5 this balance to assure a future that has wild salmon
6 and clean energy, and provide the equitable
7 treatment of these resources. And I don't think
8 we're there yet.

9 With -- with -- well, bear with me as I
10 sort through my comments. I'm -- I'm trying to
11 shorten things up, since we're overtime.

12 First of all, I want to say we -- we
13 appreciate the many months of hard work that have
14 gone into producing the draft, and the opportunity
15 to provide feedback on it. On the energy side, I'll
16 be very brief, and it's pretty consistent with what
17 you've already heard this evening. We have strong -
18 - we're strongly supportive of the draft plan's
19 prescription to develop 4500 average megawatts of
20 energy efficiency. We hope that you consider that
21 as a minimum, as opposed to a maximum.

22 We support the plan's focus on demand
23 response, and suggest that, as NWE did -- NVEC did
24 earlier, that the plan urge a specific target in the
25 final version. And we also would like to add to the

1 plan's program to better meet the needs of low
2 income families across the region is a good
3 addition, it's right, and necessary, and we
4 appreciate that.

5 Now, I want to spend a little more time on
6 fish and wildlife, and its intersection with the
7 hydro system. SOS is disappointed with the Seventh
8 draft plan. The draft Seventh plan, in -- insofar
9 as it includes no analysis that looks at the cost of
10 replacing the energy of the four lower Snake River
11 dams with clean, affordable and carbon-free
12 resources.

13 Five years ago, as you both know, the
14 Council's Sixth Power Plan modeled the affordability
15 of replacing the energy of these dams. Despite many
16 trends, economic, legal, public, climate related,
17 moral, indicating the dam removal makes more sense
18 today than it did five years ago, the Council so far
19 has failed to update that analysis in the Seventh
20 draft plan. We think that's a mistake. And I'll
21 share sort of three points quickly on -- on -- on
22 why.

23 Last summer, as many people in this room
24 know, we lost at least 250,000 salmon in the
25 Columbia and Snake Rivers and their reservoirs that

1 were as a result of low flows and -- and -- and hot
2 temperatures of the water that were made hotter as a
3 result of the hydro system. One percent of
4 critically endangered Snake River sockeye
5 successfully made it back to their spawning grounds
6 in Idaho -- central Idaho. 99 of them -- 99 percent
7 of the sockeye salmon that -- that made it to the
8 mouth of Columbia succumbed to hot water in the
9 lower Columbia and the lower Snake Rivers.

10 It's -- it's a good bet that this sort of
11 hot water episodes are going to become more
12 frequent, more intense, and longer lasting, and we
13 need strategies that are going to keep -- maintain a
14 future that protects wild salmon, as well as green
15 energy, and we're got -- we've got opportunities to
16 do that, and we need to pursue them.

17 And Nancy Hirsh earlier mentioned the
18 report that the NVEC did that looked at what -- what
19 it would cost to replace the energy with clean
20 carbon-free resources. And -- and the numbers they
21 generated indicate that it's very affordable for the
22 region. And to pursue that very effective salmon
23 restoration measure.

24 In short, many populations of wild salmon
25 still in the Columbia Basin, despite lots of effort,

1 lots of money, and lots of time, remain at great
2 risk of extinction. The status quo isn't working,
3 and more is needed. And dam removal and a free
4 flowing lower Snake River looks more and more
5 attractive and necessary.

6 With this in mind, we feel that it's
7 critical the Council build on the Sixth Plan's dam
8 removal energy replacement analysis in the Seventh
9 plan. We recognize at this stage that some critical
10 information gaps must be addressed in order to
11 complete a meaningful analysis. And rather than
12 calling on the Council to include an up-to-date
13 analysis in the Seventh plan, which there's probably
14 too little time for, given some of those needs, we
15 ask the Council commit to completing an addendum to
16 the plan the first quarter of 2016 that looks at
17 what it would take to replace the energy, in terms
18 of cost, with clean carbon-free resources, and
19 incorporates the avoided cost of continuing to
20 maintain infrastructure that's going to continue to
21 increase in costs over time, because it's aging
22 infrastructure.

23 A meaningful analysis will depend on
24 obtaining accurate information from Bonneville and
25 the Corps on their anticipated costs to operate and

1 maintain the lower Snake River dams into the future.
2 And this info must be complete, it must be made
3 publicly available, and it needs to be critically
4 reviewed.

5 With so much money and effort going into
6 recovery efforts in the Columbia Basin, and such
7 very, at best, mixed results, an accurate assessment
8 by the Council of the cost to replace the energy
9 produced by these four dams will be extremely
10 valuable to the people of the region, and its
11 policymakers.

12 Thanks for this opportunity to make
13 comment.

14 **MR. ROCKEFELLER:** Thank you.

15 Court Olson, and then Millie Wagner.

16 **MR. OLSON:** Thank you for this -- thank
17 you for this opportunity to speak to you tonight.
18 I'm sorry, my timer's not working very well here.
19 My name's Court Olson, C-o-u-r-t O-l-s-o-n, and I
20 live in Bellevue, Washington. I'm a professional in
21 the building industry. I'm a consultant that leads
22 my clients through the design and construction of
23 buildings. Some of my clients have included the
24 Washington Public Utility District Association, the
25 City of Olympia, and their city hall, and several

1 other buildings.

2 Over the last 15 years, and especially the
3 last ten, I've been focused on doing green
4 buildings. And I want to share with you some of the
5 research and information that I have learned that
6 would, I believe, lead you to conclude not only is
7 your demand forecast for the future 20 years flat,
8 but it should be declining, because we have the
9 potential if we really take global warming and
10 climate change seriously, and -- and want to do the
11 changes that we need to do to drastically reduce our
12 demand side, while still having a healthy economy,
13 and saving the planet.

14 And those conclusions are based on a few
15 facts I want to share with you, and then I'm going
16 to leave you some backup that supports those facts,
17 so that if you don't already know you can -- you can
18 research them further yourself.

19 First of all, you know that 75 percent of
20 the electrical energy that's generated in our nation
21 is feeding buildings, so feeding buildings account
22 for 75 percent of all the energy that we consume.

23 Secondly, the buildings that we are
24 building new these days have the capability of being
25 what we call net zero. If we just have strong

1 enough requirements to make them so we can do it.
2 So, the big question is what do we do with the
3 existing stock. It's forecast that in 25 to 30
4 years 75 percent our existing buildings are still
5 going to be with us, so we need to do something
6 about that stock. Something more than is being done
7 by the utilities in their positive programs to
8 increase energy efficiency.

9 As I've looked at the programs in my
10 locality, most of those programs are resulting in a
11 15 to 20 percent reduction in the energy consumption
12 in the building, but all the research that I've
13 done, and it's supported by the handouts I'm going
14 to give you, indicates we have a general potential
15 about 50 percent energy consumption reduction in
16 most of our existing building stock.

17 So, if we project that across the board to
18 be a 50 percent reduction, and 75 percent of the
19 energy consumed by the electrical utility grid, that
20 indicates to me that we have the potential of
21 reducing probably 30 to 40 percent of our energy
22 consumption in the next 20 years, especially when
23 you take into account renewables, and putting solar
24 panels on buildings.

25 So, as I think my time is close to being

1 up, I want to wrap up here, just encourage you to be
2 more aggressive in your projection. The public
3 speakers that you've heard so far, and many more
4 that I've heard in other such hearings, are going to
5 be demanding increasingly this energy efficiency
6 movement and the conversion to renewable energy.
7 But the real potential is with the existing building
8 stock. Over a short period of time we could cut
9 that consumption in half, and still feed our economy
10 with all the jobs that would be supported in that
11 sort of work.

12 So, I appreciate the time that you've
13 taken here to hear us all. And I want to leave
14 these handouts with you that are three reputable
15 organizations, including our own Federal Department
16 of Energy that are forecasting a potential for 50
17 percent energy saving in existing buildings.

18 **MR. ROCKEFELLER:** Thank you.

19 Millie Wagner, and then Shawn Collins.

20 **COURT REPORTER:** I'm going to take just
21 one second.

22 **MR. ROCKEFELLER:** Okay. We're going to
23 take a brief break.

24 **(Whereupon, there was a brief pause in the**
25 **proceeding.)**

1 **MR. ROCKEFELLER:** Let's resume.

2 **MS. WAGNER:** Hello. I'm Millie Wagner. I
3 live in Seattle and I --

4 **MR. ROCKEFELLER:** You might want to wait
5 till -- could we have some silence so we can hear
6 the witness. Conversations outside, please, at this
7 point. Okay.

8 **MS. WAGNER:** Hello. I'm Millie Wagner.
9 I'm a resident of Seattle, and I'm here as a Sierra
10 Club volunteer and a concerned resident of our
11 planet. Thank you, Council, for making these
12 hearings possible, and for all the work that you
13 have done on this plan. I believe that you've done
14 a fantastic job identifying the value of efficiency
15 and demand response programs. And I do hope that
16 these results are as strong in the final plan as
17 they are in the draft.

18 That said, I encourage you to reconsider
19 how you evaluate renewables. They are our future.
20 They are necessary for our survival. We know that
21 the increasing severity of storms from climate
22 change can no longer be ignored, and it is time to
23 make changes now to keep to fossil fuels in the
24 ground and to ramp up our renewables.

25 I thank you very much for your work and I

1 do please urge you to continue to put much effort in
2 renewables.

3 **MR. ROCKEFELLER:** Thank you.

4 **MR. KARIER:** Thanks.

5 **MR. ROCKEFELLER:** Shawn Collins. And then
6 Mo Avery.

7 **MR. COLLINS:** Good evening, Council
8 Members. My name is Shawn Collins. I'm here with
9 The Energy Project. I'd like to thank you for
10 providing an opportunity to provide comment on the
11 Seventh plan.

12 First of all, I'd like to thank -- thank
13 the Council members for inclusion of language
14 concerning low income households throughout the
15 region. This is an important topic, in terms of
16 providing equity among ratepayers to access energy
17 efficiency services, particularly considering the
18 increase in poverty in Washington State and
19 throughout the region.

20 I would also like to underscore the value
21 of focusing on multifamily, small rural utilities,
22 as well as manufactured homes within the plan.
23 Those are all areas with a lot of potential for
24 increasing energy efficiency. There's also mention
25 of analyzing and identifying non-energy benefits.

1 We see a lot of -- of value in being able to
2 quantify those benefits through the work that's
3 being completed in the energy efficiency. So, I'd
4 like to congratulate the Council for including that.

5 And that concludes my statements for this
6 evening. Thank you.

7 **MR. ROCKEFELLER:** Thank you.

8 Mo Avery, to be followed by Doug Howell.

9 **MS. AVERY:** Hello. My name is Mo Avery.
10 I am here as a member of the Young Leaders in the
11 green movement, a program of Got Green. Got Green
12 works to make sure the promises of the green
13 movement are accessible to low income communities of
14 color in South Seattle and South King County.

15 I am here today because the Young Leaders,
16 Got Green and myself are part of a larger movement
17 to make sure that those in positions of power are
18 making decisions that benefit our communities and
19 the environment at the same time.

20 I would like to start by acknowledging
21 that the Council has done a good job by including
22 important energy efficiency standards in their
23 plans. Now, you have the ability to build on those
24 successes by supporting renewable energy sources and
25 cutting problematic ties with coal and natural gas

1 in this energy plan.

2 Renewables enable us to protect the
3 environment, while producing more jobs and lowering
4 the cost of energy usage to the consumer. As a
5 young woman of color, from a low income background,
6 currently working in low income communities of
7 color, I am advocating that it is time to prioritize
8 these communities in the benefits that can come from
9 supporting renewable energy sources.

10 In a face-to-face survey the Young Leaders
11 said with low income young adults of color, we found
12 that having a job that benefits both their community
13 and the environment is a high priority. With an
14 energy plan that puts renewables at the forefront,
15 this Council has the ability to support the creation
16 of jobs that could help move communities out of
17 poverty that are often left behind.

18 This plan is good, but with a plan to move
19 our energy production to renewables our region could
20 set a standard of which the benefits could address
21 both poverty and climate change at the same time.

22 Thank you very much.

23 **(Applause.)**

24 **MR. ROCKEFELLER:** Doug Howell and then
25 next is, I believe, James Valdez.

1 **MR. HOWELL:** Thank you very much for
2 having this evening here today. It's great to be
3 here. If you had a choice today to -- whether to be
4 in Olympia for committee days or to be here for this
5 hearing, this is by far the better choice. I'm
6 actually -- I actually believe it's going to be the
7 far more productive choice for a clean energy
8 future, so thank you so much for having this here
9 tonight.

10 I first would like to talk about energy
11 efficiency. I'd like to associate myself with the
12 comments made by that lovely young lady from the
13 Northwest Energy Coalition, in that on the -- for
14 the -- the targets that you're setting on the 1400
15 megawatts in that first five years. I -- I just
16 want to say how critical it is that we keep those
17 targets in place.

18 This range idea that's now cropping up is
19 just totally unacceptable. It should -- obviously,
20 consistently we've exceeded those targets. If we
21 put in a range it means the only thing that we're
22 going to do is drop below that target. And so we
23 can't allow that. That 1400 in the five years has
24 to be a floor. And that range idea I just think is
25 going to undermine it. We're already concerned it's

1 being lowballed.

2 Within the energy efficiency program we've
3 heard some concern from some of the public utilities
4 about the inequity, about it not getting to all the
5 customers. I think one of the things that we have
6 to do is to underscore and prioritize that the
7 outreach on the efficiency is going to be directed
8 to the low income communities and households.

9 On the demand response, terrific to see
10 this time around just how valuable that is. Again,
11 we want to make sure that we're not backing off on
12 this idea that we would go forward without a target,
13 without -- without any kind of accountability in the
14 form of clear targets for that 700 minimum up to
15 1100. We will see backsliding. We've got to keep
16 that in place.

17 In the area of natural gas it's great to
18 see that in almost all the scenarios that we won't
19 need any natural gas going forward. And I -- I want
20 to point to one piece of the plan that you're making
21 a recommendation, and that's this improved regional
22 collaboration. We've had many conversations with
23 the Council that we see this disconnect. And we know
24 that you put in an allowance for the individual
25 utilities to have to carve their own path, but

1 unless and until we move towards this improved
2 regional collaboration, I think we're going to see a
3 little bit of gaming of the system, we're going to
4 see shopping around for the models.

5 On one hand we'll see a utility say that
6 the regional portfolio model doesn't apply to us,
7 that the resource adequacy model tells us that we're
8 going to need a boatload of new gas. And unless and
9 until we get closer to this regional -- improved
10 regional collaboration, and really get a more
11 systematic approach across all the utilities we're
12 going to see a gaming of the system.

13 What I'd like to see going forward in the
14 plan is a much clearer blueprint, are the steps that
15 are needed to have us achieve that regional
16 collaboration. I think the EIM that was talked
17 about in the plan is a piece of it, but there's a
18 whole lot more that we can do. The clearer we are
19 about that game -- game plan to get us to a regional
20 system the better.

21 The other piece about the -- the natural
22 gas I just want to highlight is that one of the
23 things that was missed, we talk about this, while we
24 know it's hard to capture, but there is a growing
25 body of evidence in the life cycle analysis of

1 natural gas, that when you look at the drilling, the
2 extraction, the transport, the redistribution, and
3 the end-use combustion, by the time you all -- add
4 it all up the estimates are a little over three
5 percent. If you're getting leakage in that system,
6 in that life cycle, it can end up being as bad as
7 coal.

8 So, let's not think that this is a
9 transition to a cleaner, brighter future if we're
10 going to be moving into all this natural gas, which
11 is what we are seeing in the integrated resource
12 plans across the region with the private utilities.
13 So, direction of that's just going the wrong way.

14 I -- I was really interested to hear, and
15 we just discovered this this afternoon, you know,
16 five years when we were here we were down by the
17 Seattle Center. And at the time we just weren't
18 envisioning all those coal plant closures, and low
19 and behold five years later here we are three down,
20 two to go. We're getting there. We just need to
21 have that more robustly incorporated into the model,
22 because then it will have a different effect in how
23 we deal with things like renewables. And we are
24 getting closer. We'd be a lot of closer if you were
25 still down in Olympia, by the way, but that's a

1 different story.

2 Okay. The last thing I want to say is
3 just that a little bit on that -- on the -- on the
4 renewables, and just reinforce some of the things
5 being said. Very disappointed about what we're
6 seeing with that, and how it's being undervalued.
7 We believe there's a lot more value. And we're also
8 be -- we're very disappointed about how we're seeing
9 some of your good analysis being used to undermine
10 some efforts to really advance renewables.

11 So, what you say, and what you do, has a
12 profound effect. And we like all the good stuff.
13 And when we see some of this undervaluing of a
14 really critical resource, like renewables, we know
15 that's going to get taken out of context. So, I -- I
16 would caution us going forward that we really have
17 to fundamentally revisit how we are using the -- the
18 resource portfolio model, and how it's really
19 providing the true value of how we're dealing with
20 renewables.

21 That said, I just want to say you guys are
22 doing an awesome job. You really have some of the
23 best staff in the country, everybody knows that. We
24 look to you. And I just hope that when we go
25 forward in this next five years that the work you're

1 doing is getting maximized and not minimized. And
2 part of that is by setting those firm targets to
3 make sure there's no backsliding.

4 Thank you.

5 **MR. ROCKEFELLER:** Thank you.

6 James Valdez, to be followed by Kelly
7 Hall.

8 **MR. VALDEZ:** Good evening. And thank you.
9 My name is James Valdez. And I was raised in the
10 Renton, Washington area, live in Portland, and I
11 will admit that I did stop by Olympia on my way up
12 here. I'm here representing a nonprofit
13 organization called Northwest Sustainable Energy for
14 Economic Development, Also know as Northwest SEED,
15 based out of Seattle.

16 We help do education, technical
17 assistance, and advocacy towards local distributive
18 customer focused energy solutions. And we thank the
19 Council for your work in energy in developing the
20 Seventh Power Plan, and really recognize the -- the
21 role that the Council plays in setting the vision
22 forward for our entire region in our energy future.

23 That said, I -- I think that we agree with
24 many of the points that have already been made. We
25 strongly support the focus on energy efficiency in

1 the plan. We do see that that should be a floor
2 instead of a flexible sort of range. We also do --
3 do acknowledge the -- the work that's being done on
4 demand response, and the role that that can play.

5 And really we do feel it's important that
6 low income communities and communities of color are
7 taken into account as a foundational part of our
8 energy future moving forward, to ensure that the
9 costs and impacts of -- of energy development are --
10 are equitably distributed.

11 We also really -- we recognized that the
12 focus on -- of the plan is really mostly on utility
13 scale investments. But we want to highlight the
14 opportunities and, I think, a vision that the -- the
15 Council could project in looking at a customer-
16 focused role for deploying the energy future and
17 especially on renewables, energy storage and demand
18 response. We see that taking a wholistic view of
19 the -- of the ways that customers can participate in
20 energy future should really be a foundational piece
21 of our energy strategy moving forward, and moving
22 away from a centralized development of -- of energy
23 resources.

24 And other -- other stakeholders have
25 mentioned this. But distributed renewables really

1 offer a lot of benefits, including the additional
2 reliability, reduction of transmission losses, and
3 also increased resiliency. And, so, instead of just
4 focusing on capacity and energy sufficiency as part
5 of our plan, and for the lowest cost opportunities,
6 we really should focus on resiliency.

7 And all the modeling that's been done in
8 the region for climate change does show that we'll -
9 - we'll have increased hazards in -- in our -- in
10 our region, and we'll have to respond to those. And
11 I -- I would just point out that today is a perfect
12 example, and while we're sitting here very
13 comfortably in a, you know, fairly warm and -- and
14 lit environment, there are thousands of customers
15 who are without power and in the cold. And it was a
16 sunny day after the storm.

17 And we, with some forethought and planning
18 and investment, could have energy storage with
19 solar, which would provide some of those customers
20 the opportunity to not be running diesel generators
21 or -- which are dirty and dangerous, but they could
22 be filling a portion of their energy needs, and
23 getting through the night, and lighting -- lighting
24 their dark night with renewable energy and energy
25 storage.

1 So, I urge us to think creatively and
2 think about long-term resilience both on a regional
3 level, as well as the distribution side level. And
4 I'll just close by saying that, you know, another
5 stakeholder mentioned that in the long-run we're all
6 dead, which is hard to disagree with, but in the
7 long-run really we have a 100 percent renewable
8 energy future. Because if we do -- if we do go
9 towards a future where we frack the last well, and
10 we drill the last bit of coal, we'll have to move to
11 renewables anyway, but our goal is, and our vision
12 as the Northwest, should be to be leave as much
13 fossil fuels in the ground and to move toward a 100
14 percent renewable energy future as quickly as
15 possible.

16 So, thank you to the Council for your
17 consideration, and the all the work that you're
18 putting in this plan. And look forward to future
19 versions and working with you on this process.

20 **MR. ROCKEFELLER:** Thank you.

21 Kelly Hall. And then --

22 **UNKNOWN VOICES:** Kelly signed in twice.

23 She already spoke.

24 **MR. ROCKEFELLER:** She -- okay. Good --
25 good point. Thank you.

1 Sally Wolf. And then Elizabeth Willmott.

2 **MS. WOLF:** Good evening. My name is Sally
3 Wolf. I live in Seattle. I'm excited to be able to
4 speak with you this evening. And, of course, like
5 everyone else in the room I want to thank you for
6 all the work you've done to put into the plan. I
7 know full well how hard it is to bring disparate
8 interests together and come up with a solid plan,
9 which you have done.

10 And you're no doubt feeling the pressure
11 caused by the fact that climate change is here.
12 Climate change is a global issue, and while you have
13 expanded your reach over the years since 1985, your
14 charge is addressing conservation and electric power
15 in the Pacific Northwest. I'm not sure that's broad
16 enough for the coming years. And I would challenge
17 the Council to act with courage as you make
18 revisions to this draft plan.

19 What is the global impact of the decisions
20 and recommendations you make. I believe if you
21 asked this question for each position you take
22 you'll realize that there is tremendous room for
23 acting with courage and conviction, as we think
24 about the real impact of the recommendations that
25 you make.

1 Your third resource option is new natural
2 gas-fired generation, because it's the most cost
3 effective. I would ask you if you have truly
4 assessed the cost of adding so much natural gas to
5 the power plan. Most of the true cost of expanding
6 fossil fuels, as we all know, are really hidden.
7 Clean environment versus power is the age-old
8 debate. And so far power has always won, even given
9 the small victories for the living creatures among
10 us. Isn't it time to give power and the quality of
11 our environment equal footing.

12 So I would suggest that you -- that you
13 have strong recommendations as part of your plan, a
14 greater reduction in the power consumption
15 generally, that you recommend more resource be added
16 to the development and implementation of renewable
17 energy, and reduce our dependence on fossil fuels.

18 That the four dams of the lower Snake
19 River be removed as soon as possible, given the dire
20 consequences on sockeye salmon and other aspects of
21 our environment if we don't. And that the true cost
22 of each of your recommendations be included in your
23 analysis.

24 Thank you very much.

25 **MR. ROCKEFELLER:** Thank you.

1 Elizabeth Willmott, and then Sarru Tekola.

2 **MS. WILLMOTT:** Hello. I am Elizabeth
3 Willmott, with Climate Solutions. Climate Solutions
4 is a Northwest based clean energy nonprofit
5 organization, whose mission is to celebrate
6 practical and profitable solutions to global
7 warming. I manage Climate Solutions new energy
8 cities program, which has partnered since 2009 with
9 Northwest communities to achieve deep carbon
10 reduction.

11 Climate Solutions appreciates the depth
12 and care of work by Council members and staff to
13 produce this plan. To reach our State and local
14 climate targets we must decarbonize the electric
15 grid in the Northwest in the next 10 to 15 years at
16 the most. For example, King County and local cities
17 with which I work, representing 1.5 million people,
18 and significant commercial activity, have set a goal
19 of using 90 percent renewable electricity County-
20 wide by 2030, including hydropower, as part of a
21 pathway to cut County-wide carbon emissions in half
22 by 2030.

23 This, of course, requires partnership and
24 advocacy beyond the borders of these local
25 jurisdictions to achieve deep energy efficiency, and

1 aggressive renewable energy adoption at utility
2 scale, and as distributed resources.

3 Along these lines we at Climate Solutions
4 support the drafts -- the draft plan's conclusion
5 that the region can get 4500 average megawatts of
6 new energy efficiency over the next 20 years. We
7 also strongly support the plan's focus on energy
8 efficiency in low income communities.

9 Energy efficiency, as you know, is the
10 cleanest, cheapest resource, and the plan rightly
11 prioritizes it going forward, as we have in the
12 past.

13 Second, we also strongly support the
14 conclusion, also consistent with King County goals,
15 that the region will not need new natural gas plants
16 in the coming ten years. In fact, we hope that the
17 Council, as Doug Howell had previously mentioned,
18 can help guide further regional action to alleviate
19 individual utilities needs for new natural gas, and
20 help to avoid individual utilities building their
21 own new natural gas plants.

22 Third, the draft plan's conclusions about
23 implementing demand response to meet peak demand are
24 encouraging. This is not a result that the region
25 should shrink from. And indeed we recommend that

1 the final plan should include a specific target of
2 700 to 1100 megawatt of demand response.

3 Fourth, the draft plan shows that the
4 region's currently planned investments in energy
5 efficiency and renewables put the region on track
6 for a 35 percent cut in carbon emissions by 2035.
7 Even more important is that we could cut carbon
8 emissions by 80 percent at a moderate additional
9 cost, by shutting down coal plants and relying on
10 existing known clean technologies. We strongly
11 support this pathway.

12 Our biggest critique, however, of the
13 draft plan, is its treatment of renewables, calling
14 only for those renewables that are already planned
15 in the region and absence of discussion about
16 storage. We believe that these are flaws in the
17 model underlying the plan, as it focuses on solving
18 winter peak, without the benefit of rapidly emerging
19 technologies in demand response and storage. We
20 join with others in encouraging Council's staff to
21 work with other natural modeling experts to conduct
22 a complimentary study focused on how the region can
23 meet our carbon reduction targets by incorporating a
24 diversity of non-fossil approaches.

25 Thank you for your work, and the

1 opportunity to testify.

2 **MR. ROCKEFELLER:** Thank you.

3 Sarru Tekola, then Joel Kawahara.

4 **MS. TEKOLA:** Hello. I'm here on behalf of
5 Council Member O'Brien.

6 **MR. ROCKEFELLER:** Would you state your
7 name for the record, please.

8 **MS. TEKOLA:** My name is Sarru Tekola.

9 **MR. ROCKEFELLER:** Thank you.

10 **MS. TEKOLA:** And, so, Council Member
11 O'Brien's happy to see the priority on energy
12 efficiency. It's a good first step. However, the
13 renewable energy sector of this plan is concerning.
14 Recommending only the mandatory minimums for the
15 Northwest states is not progress, it's compliance
16 with the law.

17 We should not be praising the efforts here
18 for complying with the law, that is accepted --
19 expected. Leadership requires us to go beyond what
20 is expected. We here in the Northwest, one of the
21 greenest corners of the world, we can do better than
22 compliance. We can move toward carbon neutrality.
23 Meaningful steps toward carbon neutrality mean that
24 we do not increase the use of natural gas, as this
25 plan recommends, but rather we realize the power of

1 renewable energy.

2 We like to make the excuse we need more
3 research before we can act, but that is simply not
4 true. A report published by the Scientific
5 American, by Stanford researchers Jacobson and
6 Delucchi, said we have all the technology we need to
7 go completely fossil-fuel free by 2030. All that is
8 left is the political and social will. So, I ask you
9 here to have the political and social will to
10 incorporate more renewable energy in your plan.

11 Salmon are around a \$1,000,000,000
12 industry in Washington, on top of having cultural
13 and spiritual significance to the first peoples of
14 this land. This year around 250,000 salmon died in
15 overheated rivers in the Pacific Northwest. The
16 water was low, constrained by the lack of snowpack,
17 and spread thin, having to be shared between human
18 usage and for hydropower. The salmon were at the
19 bottom of the list, and as such many died.

20 Hydropower has many benefits as well as
21 consequences; however, combined with climate change
22 and drought conditions in some cases the benefits
23 outweigh the cost. This was the case for the Elwha
24 Dam, whose salmon population in the Elwha River has
25 fallen to only one percent of their original

1 population. Once the old dam was no longer
2 profitable, it was removed, and the salmon
3 immediately rebounded. In the first year the salmon
4 population rebounded by two-thirds of what it had
5 been.

6 In the face of climate change and warming
7 rivers, which are deadly to salmon, salmon recovery
8 must include dam removal of outdated and low-
9 functioning dams. And it should start by taking an
10 honest look at the four large, but limited-output
11 dams on the lower Snake River.

12 Thank you for your time.

13 **MR. ROCKEFELLER:** Thank you.

14 Joel Kawahara, and Connie Voget next.

15 **MR. KAWAHARA:** Thank you for the
16 opportunity to speak. For the record, my name is
17 Joel Kawahara. I'm from Quilcene, Washington. I am
18 a commercial salmon fisherman. I trolled in Alaska,
19 Washington and Oregon. And I don't know how I can
20 follow that young lady and be effective, but -- so,
21 I want to support the energy recommendations of the
22 Northwest Energy Coalition.

23 I recommend that the power council
24 increase efforts to recover salmon and resources in
25 the Columbia Basin. In spite of the so-called

1 record run of fall chinook we -- in the Columbia
2 this year, we all know the river was fatally hot for
3 sockeye salmon, and the recovery of the sockeye
4 salmon into the Snake River has been set back
5 tremendously.

6 In addition to a record run of adults back
7 to the Columbia of chinook, we know that it was a
8 record year for mortality of juvenile, of migrants.
9 We are burning the candle at both ends as far as
10 salmon are concerned. And that's no path to
11 recovery.

12 Based on that I recommend that the Council
13 initiate the addendum that Save Our Wild Salmon was
14 mentioning to examine fully and completely the
15 feasibility of the four lower Snake River dams, to
16 see whether or not we can afford to have them in
17 terms of recovery of salmon resources, and whether
18 or not just as generators and providers of
19 transportation to Lewiston and Clarkston, whether or
20 not that even makes sense anymore. If were just
21 spending money to have dams just for the sake of
22 having dams, meanwhile killing salmon resources.
23 That question needs to be -- that question needs to
24 be responsibly answered in the Seventh plan, and in
25 the addendum sounds like a great place to start.

1 Finally, salmon mitigation until recovery
2 of resources is critical. The Council should
3 consider funding Mitchell Act hatcheries -- hatch --
4 excuse me, Mitchell Act hatcheries directly. These
5 hatcheries are directly responsible through the
6 mitigation of losses to salmon resources caused by
7 the dams built for Bonneville Power Administration.
8 Although BPA funds numerous fish and wildlife
9 programs, most direct damage to salmon resources is
10 the dams, that is, in my eyes, the responsibility of
11 Bonneville Power Administration, they should take
12 over or augment funding to the Mitchell Act
13 hatcheries.

14 Thank you for the opportunity to speak.
15 I'll be submitting written testimony.

16 **MR. ROCKEFELLER:** Thank you.

17 Connie -- is it Voget.

18 **MS. VOGET:** Voget.

19 **MR. ROCKEFELLER:** Okay. Thank you.

20 **MS. VOGET:** Yes. Good evening. My name
21 is Connie Voget.

22 **MR. ROCKEFELLER:** And, by the way, excuse
23 me for interrupting, but following your presentation
24 will Brian Grunkemeyer. Go ahead.

25 **MS. VOGET:** I am a member of various

1 organizations dedicated to climate action, including
2 Earth Ministry and the green team at my church,
3 Keystone United Church of Christ. And I care deeply
4 about protecting creation in a just manner. All my
5 remarks are completely redundant, but I think
6 sometime redundancy is good, so I'm going to offer
7 them.

8 Thank you for your important work and
9 thank you for this opportunity. My comments concern
10 salmon river restoration in the Snake River Basin,
11 and the role that replacing the four lower Snake
12 River dams would play. As we all know, salmon are
13 critically important to the ecology of the
14 Northwest, and have major economic and cultural
15 value, particularly for Native Americans. Dams are
16 a major factor in the decline of this valuable
17 resource, blocking river flow and creating stagnant
18 reservoirs. Climate change is further exacerbating
19 the problem through raising water temperature.

20 Billions of taxpayer dollars have been
21 wasted on failed salmon recovery plans that ignored
22 sound science. Replacing the four lower Snake River
23 dams would be an important first step in restoring
24 the salmon. Please conduct a cost/benefit analysis
25 for taking this first step, and substituting

1 generation with -- power generation with other
2 carbon-free sources. This analysis, of course,
3 would have to include consideration of alternatives
4 to barging farm products to market, and
5 consideration of other ways to mitigate community
6 impact.

7 And I have an epilogue here. National --
8 the National Renewable Energy Lab says a major
9 increase in renewable power is economically viable
10 in many parts of the U.S. when social costs of
11 carbon are factored in.

12 Thank you very much.

13 **MR. ROCKEFELLER:** Thank you.

14 Brian Grunkemeyer. And I'm not sure I
15 pronounced your name correctly. My apologies.

16 **MR. GRUNKEMEYER:** Grunkemeyer. It's
17 great. Hello. My name is Brian Grunkemeyer. I am
18 the chair of the Sierra Club energy committee. I am
19 a PSE ratepayer, and also for the last six years
20 I've been an active participant in PSE's integrated
21 resource plan advisory group. Thank you very much
22 for coming up with such a strong plan.

23 I have some very specific requests for you
24 though to improve the plan in the future. So,
25 first, I would -- I really want your staff to do a

1 better job researching energy storage. Specifically
2 we have two energy storage projects here in this
3 State adjacent to some of our existing dams, using
4 some sort of pump storage. These are both around
5 two gigawatts each, which is a heck of a lot of
6 power. We also know that FERC is about half way
7 through the permitting process for those energy
8 storage projects.

9 So, if these projects and salmon can
10 coexist peacefully, then we really need to explore
11 this. It will help lower our wind integration cost,
12 so we could build more wind farms, and it might,
13 might, even give us some options on the four lower
14 Snake River dams. So, please consider that.

15 Second, I want to talk about the social
16 costs of carbon. As you know, the Federal
17 Government has established a social cost of carbon
18 that is very, very high, not in the range of \$50 a
19 ton, but closer to around 2 or 300, depending on
20 which versions of technical reports you look at. We
21 need to consider dispatching our power plants to
22 reflect this cost, whether or not we actually pay
23 the carbon price. You can think of this as a fake
24 carbon tax.

25 For the states that do not yet have a

1 carbon tax or any carbon price mechanism
2 implemented, then we need to actually take it upon
3 ourselves to operate the existing fleet of plants
4 differently. And I think that you could provide
5 some interesting direction to utilities on how to do
6 that. Please consider that, especially for states
7 like Montana that have a lot of coal plants.

8 So, my next part is all about how you can
9 help us. Specifically, Puget Sound Energy has some
10 disconnects from your regional vision when they go
11 and implement their integrated resource plan. Your
12 power plans do an amazing job at talking about
13 energy efficiency, and not needing to build new
14 power plants. However, in PSE's draft IRP they're
15 planning to build about six new power plants over
16 the next 20 years, most of those being natural gas.
17 It's truly bizarre there is such a huge disconnect
18 between your staff and Puget Sound Energy's staff.
19 And we need some help to fix this.

20 So, I've got four areas where I think that
21 this can help in particular. The first is the
22 weather forecasts. We have been asking PSE to model
23 the impact of climate change on the amount of load
24 that we are going to see in the future for heating.
25 The assumption is that weather over the past several

1 decades has actually been getting warmer, very
2 consistent with climate change. This would lead to
3 a lower average amount of energy needed. We have no
4 idea whether this will affect the peak demand, but
5 the average demand should be way lower.

6 This is not reflected in any of PSE's
7 math, and may allow them to overbuild. This is only
8 an impact of perhaps two or three percent in terms
9 of their load, but it's a very significant amount
10 when it comes to building power plants. So, if --
11 if you guys and the BPA could look at the impact of
12 weather, on both the heating degree days as well the
13 hydro forecast, then that would provide a lot more
14 certainty here regionally.

15 Next I want to talk about demand response.
16 I -- I think it's great that you guys are including
17 this in your plan. Puget Sound Energy is even
18 looking at this in their IRP. However, we need them
19 to do a better job there. Specifically, we need to
20 prepare for more centralized control of consumer
21 devices in their homes. The best example of this is
22 hot water heaters that can be controlled by the
23 utility, and so the load can be shifted from peak
24 times of the day to off-peak times during the day.
25 This is a very valuable technique, and I think that

1 we need a very crisp understanding of the economics
2 for it. The reason why is that that same load
3 shifting ability is going to come up in other parts
4 of the economy, specifically electric vehicles.

5 So, if you look at a electric vehicle
6 company, like Tesla, they have predictions for
7 having somewhere around one gigawatt worth of
8 dispatchable load roving around in the State on two
9 -- on four wheels by 2020. Specifically, people can
10 charge their electric cars at home, when they get
11 home at night at peak times, causing a huge impact
12 in increased demand, or we could do some sort of
13 load shifting scheme where, with centralized
14 control, we could move all of the demand to off-peak
15 times. This is great use of demand response. And
16 we now have the technology to be able to do this
17 effectively.

18 Specifically, I talked with J. B. Straubel
19 from Tesla, he's their CTO. He believes they're
20 going to be doing that by 2020. So, he'll be back
21 in a few years to talk about how to monetize a
22 third-party load aggregation service. If you guys
23 can at least be prepared with the economics for
24 that, in terms of what would be a reasonable
25 compensation, I think that will help smooth the

1 adoption of new demand response technologies here in
2 the region.

3 Next I want to talk briefly about demand
4 projections. PSE has some really interesting
5 commentary on your map. They believe that your
6 staff has made some bad errors, and that by 2020 or
7 2021 we are going to have about two or three
8 gigawatts of less power available in the region than
9 what your staff is currently modeling. I don't
10 fully understand the root of this disconnect, but
11 you guys need to get on top of that, because we're
12 getting the wrong decisions as a result.

13 And the last point I wanted to bring up is
14 PSE's doing something very peculiar in their
15 integrated resource plan this time around. They
16 have switched from a loss of load probability to a
17 new mathematical measure called expected unserved
18 energy. This EUE switch is a very complicated way
19 of, essentially, justifying building new power
20 plants.

21 I'm not here to accuse them of trying to
22 overbuild on capacity using a different set of math;
23 however, I do think it's something that your
24 technical staff can take a very careful look at,
25 because there's something a little bit fishy going

1 on there. It could be a real benefit to the
2 ratepayers, but you need to go into this with open
3 eyes.

4 So, thank you very much for this. And I
5 look forward to any assistance you guys can provide.
6 Thank you.

7 **MR. ROCKEFELLER:** Thank you.

8 Is there anyone else who wishes to testify
9 that hasn't already? Okay. Well, that completes
10 the list of people who signed in. Thank you so much
11 for coming tonight.

12 **(Applause.)**

13 **MR. ROCKEFELLER:** This hearing is
14 adjourned.

15 **(Whereupon, the hearing was concluded at**
16 **7:25 p.m.)**

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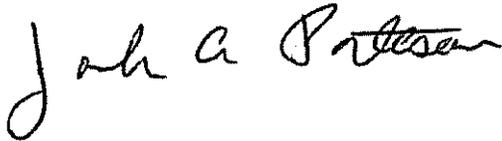
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1 CERTIFICATE

2
3 I, John A. Portesan, do hereby certify that
4 I reported all proceedings adduced in the foregoing matter
5 and that the foregoing transcript pages constitutes a
6 full, true and accurate record of said proceedings to the
7 best of my ability.

8
9 I further certify that I am neither related
10 to counsel or any party to the proceedings nor have any
11 interest in the outcome of the proceedings.

12
13 IN WITNESS HEREOF, I have hereunto set my
14 hand this 30th day of November, 2015.

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19 _____
20 John A. Portesan
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