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NORTHWEST POWER AND CONSERVATION COUNCIL

IN RE: DRAFT SEVENTH
NORTHWEST POWER PLAN

DOUBLE TREE INN
100 MADISON STREET
MISSOULA, MONTANA
TUESDAY, NOVEMBER 10, 2015,
6:32 P.M.

PUBLIC HEARING TRANSCRIPT

NORTHWEST POWER and CONSERVATION
COUNCIL MEMBER
PAT SMITH

1 **IN RE: DRAFT SEVENTH**

2 **NORTHWEST POWER PLAN**

3 **PUBLIC HEARING**

4 **HELD ON**

5 **Tuesday, November 10, 2015**

6 **6:32 P.M.**

7

8 **MR. SMITH:** Good evening. Thank you all
9 for coming, very much appreciated. My name is Pat
10 Smith. I am one of two members of the Northwest
11 Power Council appointed by Governor Bullock as one
12 of the two representatives. I actually grew up in
13 Eastern Montana, but for the last 31 years I've
14 lived just north of Missoula, here in the Jocko
15 Valley.

16 The other Montana member of the Council is
17 Jennifer Anders, who can't be here tonight. She's
18 disappointed she can't be. She's had a loss in her
19 family that allows her not to be here tonight. The
20 Power Council itself consists of two members from
21 each of the four Northwest states, so there's eight.

22 The agenda tonight is that I will give a
23 very brief background on the Power Act and Council,
24 and then I'll explain the process for tonight. And
25 the main thing to know is, if you intend to offer

1 some testimony, please sign up. We're going to do
2 this in the order that people sign up.

3 And then Tom Eckman, here, who is our
4 Power Division Director, will give a high-elevation
5 overview of our Seventh Power Plan, and then we'll
6 proceed with the comments and testimony. So here's
7 some brief background. The Northwest Power Act was
8 passed in Congress in 1980.

9 It directs the Northwest Power and
10 Conservation Council to prepare a 20-year
11 electricity plan for the Northwest Region, and
12 update it at least every five years. It requires
13 that we prioritize resources to meet electricity
14 loads based on cost-effectiveness. It also
15 prioritizes energy efficiency and renewable energy,
16 if they are cost-effective resources.

17 This is the seventh five-year update to
18 the regional power plan, and we have been working on
19 the draft plan for the last 18 months. By law, our
20 planning process is transparent and reaches out to
21 engage utilities, organizations, states, tribes and
22 citizens of the region. In drafting this plan,
23 especially in regard to our planning assumptions
24 used in a lot of our modeling, we rely heavily on
25 six technical advisory committees comprised of

1 utility, governmental and organizations with energy
2 expertise.

3 In addition, for the first time this
4 planning process has also relied on a high-level
5 policy advisory committee consisting of policy
6 leaders from these same sectors. No other region in
7 the nation has anything like the Northwest Power
8 Council or undergo such a collaborative, transparent
9 electricity planning process as we employ at the
10 Northwest Power Council.

11 The Pacific Northwest has the nation's
12 largest hydro power resources, providing about half
13 of the electricity needs for the region. Since the
14 passage of the Northwest Power Act in 1980, and its
15 emphasis on energy efficiency, energy efficiency has
16 met more than half of the region's new electricity
17 demand. In fact, the draft Seventh Plan we'll be
18 talking about tonight, proposes that nearly all
19 future load growth in the region in the next 20
20 years can be met with low-cost energy efficiency.

21 Because of the Northwest's enormous hydro
22 power base, when combined with the 5,900 aMW of
23 energy efficiency that has been acquired in the
24 region since 1980 -- and 59 aMW (sic) of electricity
25 is roughly the amount of electricity consumed by

1 five cities the size of Seattle -- the Northwest
2 electricity is the cleanest in the nation. Energy
3 efficiency surpassed coal a few years ago as the
4 second largest resource the region relies on to meet
5 electricity needs. Of course, hydro power is still
6 first.

7 Primarily because of low-cost hydro power
8 and low-cost energy efficiency, the Northwest also
9 enjoys the lowest electricity rates in the nation.
10 With the release of the draft Seventh Power Plan and
11 the resource strategy proposed in it, we believe the
12 Northwest will continue to have the lowest cost,
13 cleanest electricity in the nation.

14 And let me now go into just the process
15 tonight, that we'll be using this same format
16 throughout the region, kicking off the hearings in
17 Montana, and then they will proceed west of here for
18 a number of weeks. Welcome to the public hearing
19 held by the Northwest Power and Conservation Council
20 on the Council's proposed Seventh Northwest Power
21 Plan.

22 The Northwest Power Act Council directs
23 the Council to develop a regional conservation and
24 electric power plan, and to review that plan every
25 five years. The Council is now engaged in its

1 latest five-year Power Plan review. As part of this
2 effort, the Council released the draft revised Power
3 Plan on October 20th for public review and comment.
4 The Council will be accepting written comment on the
5 draft power plan until December 18th.

6 The Council will also hold public hearings
7 like this to receive oral comments on the draft plan
8 in all four Northwest states in the next six weeks.
9 If you'd like to comment on the draft power plan at
10 this hearing, please sign in on the sheet at the
11 door. You may also leave written comments with us
12 this evening, if you desire.

13 Your comments tonight will be recorded by
14 our court reporter and placed in the Council's
15 administrative record for the power planning review,
16 and most importantly considered by the Council as it
17 makes its decisions on its final power plan in 2016.
18 So I'll just emphasize that point: Every word said
19 tonight will be in the transcript, and those Council
20 members that can't be here will be reviewing those
21 transcripts. So we really appreciate you coming
22 here tonight to show enough interest to be here and
23 personally testify.

24 For those of you who intend to testify
25 this evening, your name will be called in the order

1 you signed up. Please begin your testimony by
2 stating your name and organization clearly for the
3 benefit of our court reporter, and feel free to
4 summarize your testimony. Your full written
5 statement will be included in the official record.

6 Just looking at the folks in here tonight,
7 I think we'll have -- we won't need to put a time
8 limit on testimony, so we won't do that. Hopefully,
9 that doesn't become a problem, but I ask people to
10 be a little bit efficient with your comments just in
11 consideration of who is going to testify. I have 14
12 people so far as to who is going to testify tonight,
13 so that's the number of people who will be
14 testifying.

15 We will leave the official record for this
16 hearing open for ten days following this hearing, to
17 enable witnesses to submit additional written
18 information, including any material that might be
19 requested by Council members. That's just the
20 transcript for this hearing. As I mentioned before,
21 the full hearing record is open until December 18th.
22 So you can submit comments whenever you want through
23 December 18th, and as many times as you want.

24 All public comments submitted to the
25 Council, including the oral testimony at tonight's

1 hearing, will be posted on the Council's website as
2 soon as possible. So you can also go to that
3 website and review what comments are coming in, if
4 you're interested. At the meeting in Kalispell last
5 night, there were interested folks doing that, so
6 they knew what the public comment record was.

7 For more information on the proposed
8 Seventh Power Plan, including the text of the draft
9 plan itself, please visit the Council's website at
10 www.nwcouncil.org. You may submit comments by using
11 the "provide comment" link on the webpage devoted to
12 the draft Seventh Power Plan.

13 There won't be time for questions and
14 answers. But I did want to mention in addition to
15 Tom Eckman here, I would ask our staff, who are here
16 from Portland, to stand up, raise your hands,
17 identify yourselves. So there's some in the back.
18 Just be aware, if you want to talk to some folks who
19 have been working on this for a long time, there's a
20 lot of technical expertise. They are here, so feel
21 free to do that this evening, especially after the
22 meeting.

23 And so with that, we will now turn to Mr.
24 Eckman who will give you kind of a quick highlight,
25 a high-elevation overview. And then I will start

1 calling folks up in the order that they've signed
2 up. Thank you.

3 **MR. ECKMAN:** Thank you, Pat. I'm going to
4 stand up and point at things. I have about ten
5 slides to go through here. They are basically the
6 key findings from the plan that we developed from
7 the analysis, and also a summary of the resource
8 strategy that we're proposing as the draft plan.

9 There's a couple background slides I'm
10 going to zoom through really quickly, because Pat
11 covered that in his introduction. So as these go
12 through, don't worry, I'm not depriving you of
13 anything in particular. We're done with that.

14 All right. Key finding, the first one is
15 energy efficiency and demand response. We can meet
16 pretty much all load growth going forward. We don't
17 see any need for new generation in the near-term.
18 This is what it looks like.

19 On the energy side, on the left-hand side
20 of this graph, on the vertical side, the vertical
21 axis, is the aMW of resource that we anticipate
22 being developed over the next 20 years. And the
23 slices you'll see are the resource types. This
24 first green wedge is the energy efficiencies, about
25 4,500 aMW across multiple futures. On top of that

1 there's some natural gas, some solar, and some wind.

2 The solar and wind development is largely
3 being developed as a consequence of renewable
4 portfolio standards in Oregon, Montana, and
5 Washington. It's not being developed to fulfill
6 adequacy requirements. The conservation and the gas
7 generation are being developed because we need them
8 to keep the lights on.

9 On the capacity side, this chart shows on
10 the vertical axis MW not aMW. This is peak energy
11 coming from various sources as we go forward in
12 time. The big wedge, again, is energy efficiency.
13 It contributes about 10,500 MW of capacity on winter
14 peak times. On top of that we have about 700 MW, on
15 average, of demand response resources being
16 developed, and then some natural gas resources are
17 at the tail end.

18 Wind and solar wedge are too small to see,
19 but they are there. The wind and solar we have in
20 this region doesn't contribute significantly to
21 winter capacity needs. And so those resources don't
22 meet that particular requirement. When we look at
23 the need for new resources, this is the load
24 forecast going forward, on average. This is the
25 demand for the region starting at around 2016, and

1 around 21,000 aMW a year and ending up at about the
2 same point in 2035.

3 This is the load growth before energy
4 efficiency, about 4,500 MW, plus, of resource
5 requirement. And that blue area is what we will
6 actually have generation for. And it looks like
7 it's basically the same today as it would be in
8 2035, after energy efficiency. On top of that,
9 we've already subtracted the impact of federal
10 standards that have been adopted since 2010. And
11 that's another 1,500 aMW that disappear that we
12 don't have to meet.

13 With new conservation programs, they will
14 come in the form of efficient refrigerators, motors,
15 transformers, and lights that the federal government
16 now has established minimum efficiency standards for
17 since 2010. When we look across, we test 800
18 specific futures, conditions. And in 80 percent of
19 those, we meet 100 percent of load growth with
20 energy efficiency.

21 So there are 20 percent of the futures
22 where energy efficiency does not meet all load
23 growth, but on average, it does. So in the high
24 load growth conditions, we have additional resource
25 requirements that need to be developed. Should we

1 see those, we will see gas generation primarily as
2 the fill-in resource behind energy efficiency.

3 But upon the average case, across multiple
4 scenarios, this first one is the existing policy
5 case. This is the net load after efficiency that we
6 see, basically a replication of the chart I just
7 showed you. In a couple other scenarios, the carbon
8 cost risk scenario, we raised the cost of carbon in
9 the region starting at zero to a number of around
10 \$50 a MW, \$12 MMTE by the time we get to 2035.

11 Did that develop more energy efficiency or
12 other resources? The answer is, the same line
13 appears. We didn't develop additional resources in
14 response to that carbon price. We looked at, on the
15 other side, low natural gas prices. We took the low
16 end of the natural gas price forecast that we have
17 and said all futures will be like that. Again, not
18 very sensitive to low natural gas prices.

19 We still met virtually all load growth
20 with energy efficiency in the average case. When we
21 decided to build less conservation, that is, build
22 conservation only up to the point where it would be
23 below the price of wholesale market power, we did
24 develop less because of a lower limit for cost-
25 effectiveness. Under that case, we still maintained

1 no load growth for the first 15 years.

2 There's enough cheap conservation to
3 offset load growth for the next decade and a half,
4 even under very low gas prices, and under the
5 conditions where we only buy conservation up to
6 market price. That particular scenario, building it
7 up to market price, raised the average cost of the
8 total system by \$14 billion. That's on a base of
9 around 90 billion. So it was a significant
10 underinvestment in cost-effective resources to
11 follow that path.

12 When we look at what can replace existing
13 coal plants, there are three coal plants in the
14 region that already have announced their retirement,
15 one in this state that's already been retired, the
16 Corette Plant. We have the Centralia projects in
17 Washington state, Boardman in Oregon and North Valmy
18 in Nevada. This is the natural gas consumption for
19 existing generation.

20 It would appear on the planet if we hadn't
21 retired and don't plan to retire those coal plants.
22 Since we are, they're already announced for
23 retirement, existing gas generation will be utilized
24 more heavily to make up for that differential in
25 coal generation. Under other scenarios, where we

1 had the carbon cost risk and we imposed, again, the
2 zero to \$100 carbon cost on the power testimony over
3 time, we see natural gas generation going -- being
4 dispatched in greater amounts because it now makes
5 more sense to generate with natural gas than it does
6 with existing coal plants.

7 Because the carbon cost has been imposed
8 on the coal cost, and that makes it more expensive
9 than natural gas. In one scenario, we looked at the
10 maximum CO2 reduction scenario. We retired all coal
11 plants in the region. That would include Colstrip
12 and Jim Bridger in Wyoming, as well as the coal
13 plants already announced for retirement. That
14 significantly bumped up the amount of natural gas
15 generation that we would see in 2030 -- or by 2025
16 when we retire the coal plants.

17 So that hop up there in the middle is when
18 we see a deviation from announced coal plant
19 retirements on the blue line to those that haven't
20 been announced. But if we took them out, we'd see,
21 again, natural gas coming in and filling in the gap.
22 If we add a higher renewable portfolio standard, 35
23 percent instead of roughly the 20 that we have
24 today, we see a lot of renewable resources coming
25 in, and the natural gas dispatch goes down.

1 The reason that happens is, if you add a
2 lot of low-cost renewable generation to the system,
3 natural gas is no longer competitive. And so
4 renewables dispatch ahead of it, because they're
5 zero cost dispatch. Whereas, natural gas has to pay
6 for the fuel. You already own these plants, you
7 just have to pay for the fuel.

8 This is the carbon generation we have
9 going forward, if we don't have any coal plant
10 retirements. It starts at around 34 MMTE, 32 MMTE
11 for the system as whole, and stays flat pretty much
12 through the entire time frame. That line embeds in
13 at 3,500 MW of energy efficiency, so it's meeting
14 some load growth with energy efficiency.

15 But the coal plants that we have today are
16 very inexpensive to dispatch, and they continue to
17 run. Some of them have been announced for
18 retirement, those three. And if we impose that on
19 the system, we see carbon generation dropping from
20 about 32 MMTE a year down to around 22 to 23, simply
21 from those coal plant retirements.

22 And that blue line embeds in it about
23 4,500 MW of energy efficiency to maintain load
24 growths, so we're not building new gas-fired
25 generation on top of it. If we impose the social

1 cost of carbon in 2016, one of the scenarios we
2 looked at imposed a cost running from about \$40 a
3 tonne in 2016 up to \$60 a tonne in 2035.

4 Again, CO2 emissions drop immediately
5 because we just raised the price of carbon
6 generation by coal or gas, and those plants now
7 don't dispatch and more efficient plants and
8 additional renewables come in, but not many. It's
9 largely we're seeing a replacement of existing coal
10 plants with gas generation on the red line.

11 If we take the gradual approach of raising
12 carbon prices, we get that line. That's the zero to
13 start with, and \$50 to end. If we curb all of our
14 appetite for coal entirely by removing it from the
15 fleet, we get down to around 12 MMTE a year by
16 removing all the coal and all the gas plants that
17 are inefficient in the region. By that meaning,
18 those that have a heat rate of 8,500 Btu/kWh. So
19 all of those are not dispatched and we reduce, in
20 the maximum scenario, about an 80 percent reduction
21 in carbon production from the beginning case.

22 The renewables do about the same as the
23 social cost of carbon -- or as the carbon cost risk
24 by the time we see at the end of the 35 percent
25 renewable. They get down to around 16 to 18 MMTE.

1 That is the EPA regulation that we have to satisfy.

2 And if we don't remove the coal plants we already
3 have announced for retirement, we don't meet it.

4 But since they are already scheduled for
5 retirement by 2026, we fall way under in the
6 scenarios that we looked at. So achieving this,
7 EPA's carbon regulations under 111D and B is pretty
8 straightforward, given the announced coal plant
9 retirements we already have in the region. This is
10 at the regional level. This does not speak to the
11 state issues.

12 As I said before, at the regional level,
13 CO2 emissions can be dropped by about 80 percent
14 using maximum technology that we have available
15 today that's existing. On the other hand, using the
16 RPS to do that is expensive and not particularly
17 effective, and I'll show you a chart that gives the
18 comparisons.

19 This is a chart that rank orders the
20 emissions that we have in our resource portfolio for
21 the region to provide power. The average CO2
22 emissions across the entire region, four states,
23 about 55 MMTE, between 2000 and 2012. That's the
24 average. A bunch of water years they're good, some
25 if they're bad, some cheap gas prices, some

1 expensive gas prices. The range is from about 40
2 MMTE a year up to 65 MMTE a year; on average, around
3 55.

4 With no coal plant retirements, that
5 number drops to 45. If you take the existing policy
6 where those coal plants are retired, we get to 34
7 MMTE by 2035. That includes energy efficiency. If
8 we add a resource portfolio to that deck, we get
9 down to 29 from 35.

10 All the way down to the bottom on the red
11 bar is the 12 MMTE I mentioned earlier that happens
12 if you extract all of the existing technology
13 capability and you replace existing coal plants and
14 inefficient natural gas. So about an 80 percent
15 reduction from the 55 to the 12 is possible using
16 existing technology.

17 Now, the price tag: To get from 34 to 29
18 is about \$34 billion if we try and do it with an
19 RPS. To get from 34 to 12 is about \$20 billion
20 incremental, if we do it simply by retiring the coal
21 plants and inefficient natural gas plants. So
22 that's a much more economical way to achieve those
23 carbon reductions.

24 So, resource strategy is made up of energy
25 efficiency, 1,400 MW target by 2021, 31 aMW by 2026,

1 and 4,500 aMW by 2035. So that's the energy
2 efficiency portfolio. On top of that, we need to
3 expand the use of demand response to meet our winter
4 peak capacity needs. In the case of renewable
5 development, we need to encourage development of
6 renewable resources that provide winter capacity --
7 that's the bottom line -- and not necessarily
8 increase the use of RPS with those existing
9 resources that we have.

10 It doesn't provide winter capacity,
11 because we still have to build gas generation to
12 provide the winter capacity even though we build RPS
13 resources. So that's a very expensive way to
14 backfill resource needs for the region. Other
15 elements, natural gas. We see increased use of
16 existing natural gas, but a low probability to
17 develop the need for new natural gas, because we've
18 offset the need for resource development by
19 mitigating that with energy efficiency. So no new
20 load growth, not need for new resources.

21 In terms of regional resource use, we
22 presently produce a surplus, on occasion, in this
23 region. Making use of that surplus internally would
24 be an advantage because of the need for less
25 resource development in the region. There are some

1 issues about doing that: Some people will bear the
2 cost of that, and others will get the benefit. So
3 that's a difficult solution to have.

4 Finally, we need to expand emerging
5 technology, particularly renewable resources, as I
6 said earlier, that have less variable output, things
7 like geothermal, wave energy, or other noncarbon
8 bearing resources. So that's the strategy, and
9 we'll take testimony.

10 **MR. SMITH:** Thank you, Tom. And as I
11 mentioned before, please -- we'll call you in the
12 order that you signed up. That list is now about
13 doubled. So, again, I'm not going to set any time
14 limits, because not everyone is going to use the
15 same amount of time. We'll try to be flexible on
16 that. But just if everyone did five minutes of who
17 is signed up here, that will be two hours, if
18 everybody -- and there's no time limit here.

19 We're willing to go as long as we need to
20 be here, but we're trying to be as efficient as we
21 can. So that's how we'll proceed. And when you
22 come up, please, again, state your name. If you're
23 representing an organization, please mention that
24 for the court reporter. So we'll start off with Rex
25 Griffin.

1 **MR. GRIFFIN:** Well, obviously, I'm Rex
2 Griffin. I'm president of Western Montana
3 Generation and Transmission. That's made up of
4 members of the six co-ops in Western Montana, plus
5 Mission Valley Power; starting with Vigilante,
6 Monida Pass, to Townsend, Ravalli Electric in the
7 Bitterroot, Missoula Electric, Mission Valley,
8 Flathead Electric, Eureka is Lincoln Electric, and
9 the Cut Bank/Browning area is Glacier Electric.

10 I appreciate the Council coming to
11 Missoula and the opportunity to speak to you. We
12 have a number of concerns. We will submit a more in
13 depth written one to you. But I did want to address
14 a couple of issues here out of respect for you
15 people coming to us.

16 As I understand the Seventh Plan uses
17 \$3.50 for the price of natural gas in the model that
18 they used to build this plan. The price is now
19 closer to \$2, and is not likely to increase
20 dramatically in the near future, probably not even
21 much in the long term. This is real relevant when
22 you start comparing the cost to those renewable
23 variable resources. The plan does not take into
24 consideration the fact that we are, as co-ops, have
25 aggressively embraced the energy efficiency.

1 Energy efficient is very similar to the
2 fish program where the cost-effectiveness of the
3 programs have already been taken that are worth
4 doing. So you're now looking at huge investments
5 for very small gains. I think that leaves a little
6 bit of question to relying that strongly on energy
7 efficiency being cost-effective until better
8 technology has been developed.

9 On the demand response, in other areas of
10 the country where there's more industry, it's
11 probably more reasonable for looking at that. But
12 you all realize that when you talk demand response
13 in Western Montana, you're talking residences that
14 are going to figure out a way to shut down power in
15 those peak demands.

16 If preference customers that are forced to
17 invest in new resources to meet compliance, even
18 though they do not have load growth, and that's by
19 mandates coming down to us, is going to result in
20 huge rate increases for our members. We are deeply
21 concerned that the Seventh Power Plan is creating a
22 single-point goal for energy efficiency acquisition
23 over the six years. A range would be more
24 appropriate, given the uncertainty and the
25 assumptions used by the Council in developing their

1 plan. And, again, I thank you for the opportunity
2 to speak.

3 **MR. SMITH:** Thank you, Mr. Griffin. Next
4 on the list is Tim Faber.

5 **MR. FABER:** Pass.

6 **MR. SMITH:** Next is Ellen Knight.

7 **MS. KNIGHT:** Well, I, too, thank you for
8 coming. My name is Ellen Knight. I live at 5800
9 Roderick in Missoula. In the early days of the
10 Northwest Power Plan beginning planning council, I
11 was very lucky to be involved with the Northwest
12 Conservation Act Coalition. We decided about
13 stipulated energy priorities for our region, with
14 conservation the number one alternative, along with
15 alternative energy and with fuel production and
16 nuclear following. I remain dedicated to that list
17 of priorities, and it sure looks like you all are --
18 have been continuing to move in that direction.

19 While we didn't know about climate change
20 at the time the first plan was implemented, we do
21 now. Reducing our carbon footprint is extremely
22 important. Those priorities fit very well with that
23 goal as well. While no longer so heavily involved,
24 I want to make my voice of support for those
25 priorities continuing, along with the urgent need

1 for reduction in our regional carbon footprint.

2 And so here's what I'd like to see, which
3 is kind of what you've laid out: Energy efficiency,
4 the cheapest most effective immediately available
5 resource. It's great to get efficient goals in the
6 plan for all sectors, urban and rural. And it seems
7 to me that energy efficiency gains require plenty of
8 hands on labor. It's good for jobs.

9 Demand response, it seems logical to use
10 this technique for obtaining more efficient use of
11 the energy supply we have, forestalling the need to
12 build more fossil fuel plants. Emphasizing new
13 sources of renewable energy, Montana is ripe for
14 more solar. Maybe there will be a new solar array
15 coming to Missoula. And certainly for wind, please
16 focus on that and plan for a need with cost-
17 effective renewable energy resources for our region.

18 Reducing dependence on fossil plants
19 should be a key goal. And it looks like you're
20 moving in that direction too. We need to move away
21 from these resources of the past and develop the
22 conservation and renewable resources that will take
23 us far more sustainably into the future.

24 I want to say further that I hear very
25 little about decentralizing our power resources;

1 although, certainly that's what conservation actions
2 do. That would reduce the energy loss through
3 transmission. Another topic I did not hear much
4 about in public discussion, but which has to be on
5 the minds of energy planners, is the value of
6 decentralized systems from the national defense
7 standpoint.

8 Another topic I address very often,
9 actually, big power plants and associated long
10 transmission lines passing through wild or rural
11 lands as well as urban areas are hard to defend.
12 And these are unusual times for people, and
13 disbursal of energy resources would be advantageous.
14 Thank you for coming to Missoula.

15 **MR. SMITH:** Thank you, Ms. Knight. Next
16 on the list is Harold Hoem.

17 **MR. HOEM:** Good evening, gentlemen. Thank
18 you for having this here. My name is Harold Hoem.
19 I live in the Rattlesnake here in Missoula. I
20 formerly also lived in Washington state, so I'm
21 familiar with "Whoops" and the problems that led you
22 to form your Council. I also was a commercial
23 fisherman, so I'm interested in the conservation end
24 of things. That really is not mainly why I'm
25 speaking here tonight. I'm president of the Montana

1 Elders for a Livable Tomorrow, but I'm speaking for
2 myself here tonight.

3 The Seventh Plan seems really good on
4 energy efficiency, and I applaud you for taking that
5 to task. It's most important. You get a lot more
6 bangs for your buck. As far as retiring existing
7 coal plants, an analysis of this is paramount.
8 Montana has also got the aging plants at Colstrip to
9 consider.

10 The main customers are Washington and
11 other states, and they have spoken up about wanting
12 cleaner power, and I do too. These units are prime
13 for retirement, being dirty, unreliable, and
14 expensive to fix. What a change to the numbers in
15 the plan when this happens.

16 To keep all of this effort from being an
17 exercise in futility, I mean, as far as climate
18 change issues are concerned, we must account for the
19 CO2 that's locked up in the coal rolling west
20 through our region to Asia. You cannot ignore the
21 negative side of this practice globally on climate
22 degradation. We will all pay a higher price for
23 this if it's not stopped. I mean, this is actually
24 killing people over there in Asia. I don't know how
25 many people I've talked to that have been to China

1 and seen the gagging air they have over there.

2 It's really uncogitable that we should be
3 contributing to this. We can't just clean up our
4 own back yard and transfer the mess somewhere else.
5 If I had one broad suggestion, it would be for the
6 Council to develop a plan that places a higher value
7 on carbon-free energy and accounts for the true cost
8 of fossil fuels without selling renewable short. And
9 this can add up in things like increased forest fire
10 costs, decreases in water.

11 Take a look out the window at the Clark
12 Fork. It's pretty low. And that stuff goes on to
13 the coast, which affects the power situation over
14 there and the hydro power. The area that needs the
15 most improvement, I think, in the plan concerns
16 renewable energy and capacity needs. Montana's
17 enormous wind reserves mix well with the wind
18 already in the BPA system. And there's an explicit
19 requirement to give priority to renewable energy.

20 Please preserve demand response as an
21 important part of the plan. I understand there's
22 some folks that want to see that go away. As far as
23 natural gas is concerned, I've got a lot of
24 questions about that, but I'll address them
25 separately in writing. The gentleman said the price

1 is now closer to \$2. It was \$2.32 this morning.

2 That does affect things. I mean, but the
3 other problem with natural gas is that it's very
4 volatile, and your projections also account for it
5 going to \$10. So why would you invest in things
6 that are -- that have this volatility? It's very
7 hard to predict what the price is going to be five
8 years, ten years, twenty years from now.

9 I want to mention one thing: Germany.
10 This latest issue of the National Geographic has a
11 great account of Germany and how they've dealt with
12 their climate issues, and their nuclear issues, and
13 their coal issues, and problems with monopolies.
14 There's so many parallels with our region here, not
15 totally, but there are a lot of parallels.

16 Nuclear troubles set them off on a policy
17 to replace that with renewable energy, such as wind
18 and solar. The national will translated into
19 favorable laws. The National Geographic discusses
20 this in some depth. Beginning in 1991 to 1994 with
21 the Thousand Roof Project -- boy, we should have one
22 of those here. Every city ought to have one of
23 these -- there are now 1.7 million solar roofs.
24 Talk about attitude making a difference. And I
25 think we should all take a positive attitude on

1 this. We've got a huge problem with climate change.

2 And just to say we're going to have a
3 transition period, it's not enough. We really need
4 a revolution here. And those people in Germany
5 realize this. They're working hard. They have
6 offshore wind, hydro electric, and they have solar.
7 Unfortunately, they also have an Achilles heel in
8 its lignite coal. And they have stranded asset
9 problems just like we have here in Montana.

10 We should look closely at Germany's effort
11 to come to grips with the climate problem. There's
12 so much to be learned from their mistakes, as well
13 as their successes. They've really led the way, and
14 it would behoove us to closely analyze what's
15 happened in Germany and see if we can't use some of
16 that information in developing our own plans. Thank
17 you very much for taking our testimony.

18 **MR. SMITH:** Thank you, Mr. Hoem. And next
19 is Jan Hoem.

20 **MS. HOEM:** Hello. Thank you so much for
21 taking our testimony tonight. My name is Jan Hoem.
22 I live at 16 Greenbriar Lane. I've always hated the
23 game of monopoly. It's too much like life where the
24 rich get richer and the poor get mad. This draft
25 Seventh Power Plan with Idaho, Montana, Oregon and

1 Washington working together for common benefits has
2 many unmonopoly qualities.

3 It brings us together as a region, which
4 is good, even natural. If you look at the rivers,
5 the roads, the trade we share, and most of us have
6 family and friends to the west. It's not that
7 profits don't matter; they do. But we can help each
8 other out in their pursuit.

9 Energy efficiency is a no-brainer, easy
10 and low cost. Thanks for making this a big element
11 in your plan. I want to talk about the demand
12 response part of this plan, where reducing the
13 energy demand during high use times is good for
14 energy companies. How can it also be good for us?

15 If you know that all of your energy used
16 between 9 p.m. at night and 6 a.m. in the morning
17 was free, would that change the time you use the
18 clothes dryer, the dishwasher, the heater, or the
19 air conditioner? It would make a world of
20 difference to me.

21 In Texas, where 10 percent of their energy
22 is from wind -- and wind does blow most strongly at
23 night -- more than 50 retained electric companies
24 are trying out this plan. They don't have any
25 monopoly there in Texas, not in this realm, anyway.

1 Their goal is for customers to turn down
2 the dial when wholesale prices are highest and dial
3 it up when they are the lowest. By encouraging
4 energy use at night, the utilities reduce some of
5 the cost that an oversupply of wind energy places on
6 the power grid.

7 There are other demand response
8 applications. In Maryland, customers earn rebate
9 credits on their bills for every kWh they use less
10 during high demand times. Italy and Massachusetts
11 have their own uses, and experts from Norway are
12 helping companies.

13 No energy market has gone as far as Texas,
14 however. Smart meters are in most of their homes,
15 and they send information about electricity movement
16 to and from the home and within the country --
17 within the state.

18 In Washington, Idaho, Oregon and Montana,
19 let's set our goals high for renewables -- that's
20 the part of the plan that I find the weakest -- and
21 see how we can use demand response to our mutual
22 advantage. That's one of the things this Seventh
23 Power Plan can do for all of us. Thank you so much.

24 **MR. SMITH:** Thank you, Ms. Hoem. Next is
25 Diego Rivas.

1 **MR. RIVAS:** Member Smith, Staff of the
2 Power Council, my name is Diego Rivas, and I'm a
3 Senior Policy Associate with the Northwest Energy
4 Coalition, based here in Montana. Most of you are
5 aware, but for the record, the coalition is an
6 alliance of more than 100 environmental, civic and
7 human service organizations, as well as businesses
8 and utilities in Montana, Idaho, Washington, Oregon
9 and British Columbia.

10 I want to first thank the members of our
11 Montana delegation, Member Smith and Member Anders
12 for all of the diligence on the Seventh Plan. The
13 plan is a tremendous undertaking and provides a huge
14 benefit for the region. The coalition appreciates
15 all the hard work that went into the development of
16 the plan, and we look forward to seeing some of the
17 benefits come to fruition.

18 One of those benefits is the increased
19 acquisition of energy efficiency, as we've heard
20 here already. The Council's past leadership on this
21 issue is already providing tremendous energy and
22 dollar savings for the region, including those
23 Western Montana co-ops taking advantage of BPA's
24 energy efficiency programs. The region's continued
25 and increased reliance on this cheapest and most

1 environmentally friendly resource will continue to
2 pay dividends far into the future.

3 Piling onto the \$3.5 billion per year we
4 are already saving. We applaud the Council's
5 recognition that energy efficiency is not only the
6 most cost-effective energy resource, but that it
7 also plays a critical role as a capacity resource as
8 well, especially during the winter months. As such,
9 the draft plans call for the region to acquire 4,500
10 aMW over the next 20 years is a great minimum goal.

11 As has been the case in the past, we are
12 hopeful that the region can surpass this target.
13 One of the key ways to do that is to ensure that
14 everybody has the opportunity to participate in
15 energy efficiency programs. That means all
16 utilities, be it investor-owned utilities, rural
17 electric co-ops, municipal utilities, east side of
18 the region, west side of the region, all utilities
19 must make every effort to acquire all cost-effective
20 energy efficiency in their service territory.

21 BPA remains a critical part of this and
22 must continue to be involved if the region is going
23 to meet its energy efficiency goals. There remains
24 a lot of low-hanging fruit, from lighting, to
25 heating, and Western Montana is ripe for energy

1 efficiency acquisition.

2 Also speaking of everyone participating, I
3 want to also highlight Action Item 1 in the model
4 conservation standards, recognizing that all
5 customer segments should participate in energy
6 efficiency programs, and that EPA has a duty to
7 ensure that benefits are disbursed equitably
8 throughout the region.

9 MCS-1 looks to expand the reach of energy
10 efficiency programs to low income customers and
11 other hard to reach segments, including customers in
12 rural regions, like much of Montana, small
13 businesses and others. These customers already pay
14 for energy efficiency programs, and stand to benefit
15 the most by participating and reducing energy bills.

16 This is an extremely important piece of
17 the plan, and we applaud the Council for its
18 inclusion. Secondly, we applaud the Council's
19 inclusion of demand response as a vital part of
20 meeting the region's peak hour needs. Demand
21 response programs, like energy efficiency, reduces
22 the region's need for capacity resources, as
23 evidenced by the draft plan signaling no need for
24 construction of new natural gas plants for at least
25 ten years.

1 Once again, this saves the region's
2 customers money. A few of the region's utilities
3 have experience with demand response, their programs
4 overall having overwhelming success. We look
5 forward to demand response becoming a bigger part of
6 the region's portfolio. And to ensure this happens,
7 we encourage the Council to include specific target
8 numbers of between 700 and 1,100 MW over the next 20
9 years in the plan.

10 Having a specific target for the region's
11 utilities to look to will further develop this
12 important peak and call shaping resource. Lastly, I
13 just want to mention, again, that the Seventh Plan
14 sees no need to build new natural gas plants for at
15 least the next ten years.

16 Gas plants are expensive, and reducing or
17 eliminating new build keep costs low for Montana's
18 consumers. It's important that the Council, BPA,
19 and the region's utilities work together to create
20 more efficient power markets, improved transmission,
21 and take advantage of energy efficiency and demand
22 response, as well as emerging technologies to
23 bolster renewable energy contribution, such as
24 battery and other types of storage to ensure that a
25 rush to gas by individual utilities does not occur.

1 Again, thank you all for all of your work
2 to improve all things energy in the Northwest
3 Region. We're all better off because of it. Thank
4 you.

5 **MR. SMITH:** Thank you, Mr. Rivas. Next is
6 Mark Heileson.

7 **MR. HEILESON:** Hello. Thanks again for
8 coming to Missoula. My name is Mark Heileson. I'm
9 the Senior Field Organizing Manager for the
10 Northwest Region of the Sierra Club, and I also work
11 with the Montana Chapter, which has over 2,000
12 members in the state of Montana.

13 I'd like to start with continuing the
14 applause for the energy efficiency. We think this
15 continues to prove that this is a most cost-
16 effective, abundant resource, and it continues to be
17 abundant. And we believe that it should be
18 something we should pursue as much as we can and
19 aggressively as we can in this plan.

20 However, we do also feel that we should be
21 learning from the past, and we should be backing
22 away from climate pollution sources. We believe
23 that this plan is a little light on emphasizing new
24 renewable energy resources, and it's continued to
25 rely on natural gas. We feel that actually Montana

1 has always been an energy exporting state, and it
2 continues to be one. But it has to know what
3 customers want.

4 And the customers outside of the state of
5 Montana continue to want renewable, climate-friendly
6 resources. And the first rule of good business is
7 knowing that the customer is always right. And I
8 think that something that would be more aggressive
9 is renewable energy. It would provide more jobs,
10 and also be better on the climate and health, speed
11 up the retirement of coal, and get us away from more
12 climate polluting resources.

13 Again, I really appreciate the opportunity
14 to speak here tonight. My organization will be
15 submitting detailed comments, and I just wanted to
16 add just a few things just to say, thank you, again.

17 **MR. SMITH:** Thank you, Mr. Heileson. And
18 next is Marta Meengs. Sorry about the
19 pronunciation.

20 **MS. MEENGs:** Hi there. I'm Marta Meengs.
21 I'm from Missoula, Montana. And I also appreciate
22 how much thought you put into this plan. And my
23 main concern is climate change, and that's why I'm
24 here.

25 I have a quote that I just read, that "We

1 need to reduce carbon pollution 6 percent a year if
2 we're going to keep rising temperatures below 2
3 degrees celsius." And that is something that I want
4 to always be on the back burner when any kind of
5 plans are made.

6 And I really do appreciate the efficiency
7 part, that I'm actually learning about that. But
8 what I want to see emphasized more is the social
9 cost of carbon, and to increase your renewable
10 focus.

11 I'm leery of a dependence on natural gas.
12 And I read so much about the dangers, of extracting
13 that to our water, to many other systems that are so
14 important. And I don't think relying so heavily on
15 natural gas is wise, even though we have to in this
16 transition. So more emphasis on renewables.

17 And then making it affordable for low-
18 income people. So, I mean, I'm reading about having
19 solar co-ops where people can purchase a solar panel
20 and it still goes into the grid, and even renters
21 can be part of this. There's just a lot of great
22 ideas out there, and I would like to see us really
23 emphasize the renewables. So thank you again.

24 **MR. SMITH:** Thank you, Ms. Meengs. And
25 next is Jim Morton.

1 **MR. MORTON:** Good evening, Member Smith,
2 Members of the Council staff. First I would -- my
3 name is Jim Morton. I'm the Executive Director of
4 the Human

5 Resource Council. We're a community
6 action partnership that serves three counties in
7 Western Montana: Missoula, Mineral and Ravalli
8 counties. As one of those who saw and participated
9 in the development of the first model plan, I have
10 to really compliment you, Member Smith, and your
11 staff to see thirty some years later a plan that is
12 emphasizing energy efficiency, that discusses the
13 fact that we will meet the clean power plan.

14 I think it's just a tribute to the resolve
15 of the citizens of the Northwest, the fact that they
16 value the environment, they want to think outside
17 the box, and they value what we have in this
18 Northwest. Thirty some years ago people came out in
19 droves to explain to elected officials how much they
20 love this land, and how much they appreciated what
21 God, the creator, had given us.

22 So I have to, again, compliment the work.
23 I know staff spends a lot of time. Tom Eckman spent
24 a few minutes on some slides, but I know hours, and
25 hours, days went into this. But I want to speak

1 mainly to the action plan, the part of the model
2 conservation standards, especially No. 1, the hard-
3 to-reach segment. We administer and operate, and
4 have since 1975, energy efficiency programs for low-
5 income individuals.

6 I have actually been around long enough to
7 have been involved in those plans, it was part of
8 our attempt in the late '70s to install solar on
9 low-income peoples' homes. The State of Montana had
10 a program through the Coal Board using coal trust
11 funds. And we applied and were awarded funds for
12 that. The reason why I want to explain a little bit
13 about the low-income conservation programs is, that
14 in Montana the households that participate in the
15 energy assistance program are automatically eligible
16 for energy efficiency programs.

17 About two-thirds of the households that we
18 serve, over 4,000 households, close to 10,000 people
19 in our three counties, two-thirds of those household
20 are earning income. And it's important for me to
21 have people recognize that those low-income
22 households and individuals are working. They are
23 working multiple jobs. Montana ranks as one of the
24 highest in the nation in terms of the number of jobs
25 that are citizens that have to work to make ends

1 meet.

2 So in Montana, if a household qualifies
3 for energy assistance, you're put on a waiting list.
4 About 30 percent of the individuals in any one year
5 do not apply in subsequent years, so we have
6 households coming in and out of the program. To me
7 that's important because we're weatherizing these
8 households, the housing stock of our particular
9 three counties. But this is replicated across all
10 56 counties in Montana.

11 So we have thousands of people on waiting
12 lists just in our three counties for energy
13 efficiency services. We have untold numbers, tens
14 of thousands of housing stock, households, dwellings
15 that qualify to have energy efficiency services. So
16 over a time, we have a very large number of
17 households waiting.

18 I think it is important that the Council
19 continues to stress this program. Bonneville's low-
20 income working group is certainly a part of that.
21 But we're really dealing with housing stock in our
22 communities. We have the means to address a whole
23 lot of issues, from safety, to energy efficiency to
24 make where we live much better for folks who are
25 working, for the most part, and adding to our

1 economy.

2 And I know, Pat, you had a lot to do with
3 this language, and I want to personally thank you
4 for that. And I think people in our community
5 really see you as a leader. And I'm not just saying
6 that because you've been around a long time. But
7 you've been a leader because you have practiced your
8 convictions, and I'm really grateful that Governor
9 Bullock appointed you as Council. So, thank you.

10 **MR. SMITH:** Thank you, Mr. Morton. Next
11 is Claudia Narsisco.

12 **MS. NARSISCO:** Narsisco.

13 **MR. SMITH:** Narsisco, excuse me.

14 **MS. NARSISCO:** Thank you very much. My
15 name is Claudia Narsisco. I live here in Missoula,
16 Montana. Do I have to give my house address, or --

17 **MR. SMITH:** No.

18 **MS. NARSISCO:** And I have a copy that I'd
19 like to leave you with also, Pat. I'm reading this.
20 My comment has been drafted by the energy chair for
21 the Montana Chapter of the Sierra Club. His name is
22 Jonathan Matthews. He lives in Helena, so he's
23 unable to be here tonight.

24 The more than 2,000 members and supporters
25 of the Montana Chapter of the Sierra Club thank you

1 for the very good start on the draft of the Seventh
2 Plan and strongly urge you to ensure that the final
3 version of the plan prioritizes energy efficiency
4 and demand response resources achieves the greatest
5 possible reduction in carbon pollution, and provides
6 a strong vision for developing the region's clean
7 energy resources.

8 We support the Seventh's planned goal of
9 meeting all new energy load growth with energy
10 efficiency for the next 20 years. Energy efficiency
11 is by far the least cost, least risk, and lowest
12 carbon resource available. Efficiency protects
13 customers pocketbooks from the high cost of new
14 power plants. In Montana, energy efficiency
15 resulted in over \$78 million in net benefits for
16 NorthWestern Energy customers between 2007 and 2011.

17 Montana could develop a lot more energy
18 efficiency, and the draft Seventh Plan provides a
19 blueprint for Montana utilities to pursue energy
20 savings. Benefits of energy efficiency -- and this
21 is mentioned a couple of times by the previous
22 people giving testimony -- should be distributed
23 equitably so that low-income, rural, and other hard-
24 to-reach populations are better served.

25 The Council should preserve the demand

1 response as a high priority. Demand response
2 measures are incentives that change when people use
3 and don't use power, and reduce energy needs during
4 peak times. Demand Response, like energy efficiency,
5 saves consumers money because it prevents utilities
6 from building costly natural gas plants that only
7 run periodically.

8 Montana has tremendous opportunity for
9 demand response because most utilities have not
10 pursued it so far as a resource. The Council should
11 identify a range of demand response goals or
12 targets, and this will help the individual utilities
13 pursue it as a key resource.

14 We believe that the Council's plan should
15 achieve the greatest possible reduction in carbon
16 pollution, which will require retiring costly coal
17 plants. Renewable energy and energy efficiency
18 investments have already put the four Northwest
19 states on track for a 35 percent reduction in carbon
20 pollution by 2015. The draft Seventh Plan estimates
21 that we can reduce the region's carbon footprint by
22 as much as 80 percent if we retire existing coal
23 plants and the most inefficient natural gas plants.

24 Existing coal plants, as we all know, like
25 Colstrip, are dirty and inefficient, and we

1 encourage their retirement. Pursuing energy
2 efficiency while taking existing coal plants off
3 line will allow for the deep cuts in carbon
4 pollution that protect public health and save
5 consumers money.

6 We believe that the Council's Seventh Plan
7 should provide a stronger vision for developing the
8 region's renewable energy resources. The draft plan
9 falls short of identifying opportunities for
10 renewable energy resources to meet carbon reduction
11 goals cost-effectively. The Council should examine
12 how Montana's tremendous wind resources and energy
13 storage technologies can contribute to regional
14 resource diversity and needs. And I know several
15 people that pointed out other examples. And
16 Germany, by Harold Hoem, I thought that was a really
17 good comment, and we'd like to emphasize that.

18 The Council's Seventh Plan must enact our
19 region's energy efficiency carbon reduction and
20 clean energy potentials, because the situation that
21 we are currently in regarding climate change is so
22 grave. We don't really have time to waste on this
23 anymore. This past March was the first month that
24 CO2 levels in the atmosphere were above 400 parts
25 per million for the entire month.

1 According to NASA, NASA's Erica Bovaird
2 "CO2 concentrations haven't been this high in
3 millions of years." And I'm not going to read some
4 of the statistics here. But in the letter that
5 we're submitting, you'll see them.

6 So, Mr. Smith, and Ms. Anders, who is not
7 here, 13 of the 15 hottest years on record have all
8 occurred since 2000. Also, this marks the 38th
9 consecutive year with global temperatures above
10 average.

11 I'll look through here. In 1960, the peak
12 seasonal CO2 concentrations at NOAA's Mauna Loa
13 Observatory Station was below 320 parts per million.
14 Now, it is over 400. The average observed CO2 level
15 has been rising in a straight line between 1960 when
16 this monitoring began and now. Over the last 10,000
17 years, the average CO2 levels, as observed in
18 Antarctic ice core samples, have been well below 300
19 parts per million, only to escalate sharply with the
20 beginning of the industrial revolution and
21 subsequent dramatic increases in human population.

22 Climate scientists estimate that we need
23 to get atmospheric CO2 levels below 350 parts per
24 million to avoid calamitous climate change that tips
25 out of control and creates a runaway feedback loop

1 with no hope of arresting it. Clearly, we are in a
2 crisis situation that demands bold, effective
3 actions. We believe that this plan takes the steps
4 towards those actions, and we certainly encourage,
5 Mr. Smith, you as our representative on the Council,
6 to do everything in your power to see that we cross
7 that threshold.

8 The thousands of members and supporters of
9 the Montana Chapter of the Sierra Club call on you
10 to be leaders on the Northwest Power and
11 Conservation Council, ensuring that the Council's
12 Seventh Plan emphasizes energy efficiency, carbon
13 reduction, and clean energy development. Thank you
14 very much.

15 **MR. SMITH:** Thank you, Ms. Narsisco.

16 **MS. NARSISCO:** I'm going to give you a
17 copy.

18 **MR. SMITH:** That's great.

19 **MS. NARSISCO:** And we might change it
20 before it's final.

21 **MR. SMITH:** If you don't have any
22 materials tonight, just get them into the record at
23 any time and they'll be part of the record. Next is
24 Jeff Smith.

25 **MR. SMITH:** My name is Jeff Smith. I live

1 at 105 Channel Drive in Missoula, and I'm cochair of
2 350 Missoula, which is an affiliate of the
3 International Organization 350.org. Thank you for
4 coming to Missoula. Welcome to Missoula. We really
5 appreciate the ability to talk to you about energy
6 future.

7 We applaud your reliance on energy
8 efficiency, and we appreciate the clarity of the
9 choices you laid out with your chart, particularly
10 the low carbon charting that you did with the 12
11 MMTE of carbon, and the way that we get there. I
12 could hear the pride that you have in your work,
13 that this is the cleanest and cheapest energy
14 infrastructure in the nation. I think we all feel
15 that pride, and we appreciate your work in getting
16 us there.

17 But we are making a great transition from
18 fossil fuels to renewable energy. We have an
19 opportunity to set an example for the rest of the
20 nation. It sounds like we're part way there. But
21 we have a big job ahead of us, and we've wasted far
22 too much time dealing with climate denial and
23 obfuscation. We can go further, and we can go
24 faster, and I would encourage you to go there.

25 According to the International Panel on

1 Climate Change, we have a carbon budget. And three-
2 quarters of the already identified fossil fuel
3 resources need to stay in the ground if we're going
4 to meet our goal of keeping rising temperatures
5 below 2 degrees celsius. That's a big task. It's
6 good that you're looking at a low carbon scenario,
7 and that goal is in the right direction.

8 I would call your attention to the work of
9 Robert Pollen, Ph.D., an economist at the University
10 of Massachusetts. He has a school study that talks
11 about the 1.2 percent solution. And it includes
12 \$200 billion a year for 20 years investment in this
13 great transition from fossil fuels to renewable
14 energy infrastructure. And the 1.2 percent refers to
15 1.2 percent investment of our gross national
16 product.

17 1.2 percent of our gross national product
18 per year for 20 years will get us an 85 percent
19 renewable energy portfolio infrastructure. And I
20 wonder what the proportional response of the 1.2
21 percent solution for this region would be? His
22 work, incidentally, includes all the costs of
23 retaining displaced fossil fuel industry workers,
24 and that's part of the bottom line that he
25 describes.

1 You've done some good work here. We would
2 love a scenario where we have maximum incentives for
3 solar and wind. That solar and wind are the
4 priority where individuals can help in the
5 generation of their own power, where communities can
6 plan without penalty, and with incentives, to move
7 to renewables and reduce their carbon emissions.
8 Because every dollar that we spend on the fossil
9 fuel infrastructure from now on takes that dollar
10 from getting us where we need to go.

11 And I want you to take us further and
12 faster with our budget that the IPCC describes, with
13 the limits on the carbon emissions, the support
14 systems of this plant impose on us. Our children
15 and our grandchildren are calling to us. We need to
16 go further, faster to this great transition. We
17 need to keep all the temperatures below those 2
18 degree celsius. That's the goal. We build back the
19 policy back from that goal. So thank you.

20 **MR. SMITH:** Thank you, Mr. Smith. Next is
21 Robert Gentry.

22 **MR. GENTRY:** Thank you, Council Member
23 Smith and Staff for your time and attention here
24 tonight. I'm Robert Gentry. I'm a member of the
25 board of directors of the Montana Environmental

1 Information Center. MEIC is a nonprofit
2 environmental conservation organization based in
3 Helena, Montana. We have -- we represent over 5,000
4 located in Montana and across the United States.
5 MEIC appreciates the opportunity to submit some
6 brief general comments on this draft power plan.

7 We will also be submitting written
8 comments that will expand on these general points.
9 So the Seventh Power Plan is, of course, of critical
10 importance to Montana, not only because rural
11 electric cooperatives of Western Montana buy their
12 power from BPA, but the plan also factors into the
13 resource procurement analysis performed by investor-
14 owned utilities, primarily NorthWestern Energy.

15 The Seventh Power Plan can also prove
16 useful for utilities in Washington and Oregon, with
17 majority ownership of Montana's Colstrip Units 1 and
18 2, by helping these utilities determine what are the
19 least cost and least risky resources to replace
20 Colstrip in their portfolio. The BPA's service
21 territory in Montana may only extend to Townsend,
22 but the Seventh Power Plan influences energy
23 decisions statewide.

24 MEIC supports the strong energy efficiency
25 targets in the draft plan and encourages the Council

1 to maintain the interim and the final energy
2 efficiency savings goals in the final plan. While
3 some may consider energy efficiency targets
4 ambitious, we know, and history has demonstrated,
5 that these targets are achievable.

6 Energy efficiency is the cleanest, most
7 reliable, and affordable energy resource. And, in
8 fact, as pointed out by an earlier commenter,
9 between 2007 and 2011, energy efficiency programs
10 resulted in NorthWestern Energy customers net
11 benefit of over 78 million.

12 And that amounted to \$3.70 in benefits for
13 every dollar spent on energy efficiency. Montana
14 can realize much more energy efficiency benefits if
15 electric cooperatives and investor-owned utilities
16 use the strong efficiency goals in the Seventh Plan
17 as a benchmark for their energy efficiency savings
18 targets over time. MEIC also supports the draft
19 plan's emphasis on demand response as the preferred
20 resource for meeting winter peak needs.

21 Demand response strategies that reduce
22 peak needs avoid the cost and risks associated with
23 overbuilding our energy system. These additional
24 and often unnecessary costs, of course, are borne by
25 the region's consumers. A study just published last

1 week by Advanced Energy Economy found that every
2 dollar spent on demand response in Massachusetts and
3 Illinois saved consumers between 2 and \$3.

4 This adds up quickly. And Montana has
5 very few demand response programs, so there is a lot
6 of low-hanging fruit available there, and low-cost
7 opportunities that will benefit consumers statewide.

8 And MEIC recommends that the Council
9 improve the draft plan by conducting a much more
10 robust analysis of how the region's renewable
11 resources and energy storage opportunities can
12 contribute to carbon reduction and diversity and
13 reliability of energy sources. Specifically, the
14 Council should analyze how Montana's tremendous wind
15 resources could contribute to the region's energy
16 and capacity needs.

17 Montana's wind resource has above average
18 capacity factors and matches up very well with the
19 wind already delivering power to BPA's system. The
20 Council should take the long view in this and future
21 plans by considering how renewable resources and
22 other emerging technologies can play a role in
23 meeting peak needs, replacing existing dirty and
24 costly coal generation while contributing to a low-
25 cost, low-carbon energy grid. Thank you very much

1 for your time.

2 **MR. SMITH:** Thank you, Mr. Gentry. Next
3 is Robert Baily.

4 **MR. BAILY:** I'm going to pass.

5 **MR. SMITH:** Okay. Next is Diana Maneta.

6 **MS. MANETA:** Thank you very much. My name
7 is Diana Maneta. I'm the Executive Director of the
8 Montana Renewable Energy Association, MREA, and we
9 very much appreciate the opportunity to comment here
10 tonight, as well as the Council's thoughtful and
11 thorough efforts in preparing the draft Seventh
12 Power Plan.

13 MREA is a nonprofit organization with a
14 mission to expand the use of renewable energy in
15 Montana and a focus on distributed and community-
16 scale renewable energy systems, such as rooftop
17 solar PV. Our members include dozens of Montana-
18 based renewable energy businesses as well as
19 organizations and individuals who share our goals of
20 making renewable energy more affordable and
21 accessible for Montanans.

22 MREA supports the draft plan's emphasis on
23 energy efficiency and demand response as key
24 strategies to save consumers money, improve
25 reliability and reduce carbon pollution, and we urge

1 the Council to maintain the prioritization of
2 efficiency and demand response in the final plan.

3 We also support the draft plan's
4 endorsement of solar resources and its
5 acknowledgement that the declining cost of solar and
6 its potential to provide summer peaking services
7 make it an increasingly valuable supply resource.
8 Likewise, we support the draft plan's endorsement of
9 cost-effective small-scale renewable resources,
10 including distributed solar PV. We do believe, as
11 several others have commented here tonight, that the
12 draft plan would be strengthened by a more thorough
13 consideration of energy storage, which has the
14 potential to increase renewable energy's
15 contribution to the Northwest's capacity needs.

16 And, specifically, I wanted to point out -
17 - to call out one of the action items in the draft
18 plan, ANLYS-2, I believe it was, and we urge the
19 Council to implement that action item specifically
20 to allow for the inclusion of rooftop solar with
21 electricity storage in future modeling work.

22 Development of both utility-scale and
23 distributed-solar resources in the Northwest will
24 diversify our region's energy supply, will
25 contribute to the long-term stability of customer

1 electric bills, and development of solar energy will
2 also drive job creation.

3 I think it's important to mention that
4 here. Solar development puts engineers,
5 electricians, heavy equipment operators, and solar
6 installation technicians to work in Montana and
7 around the Northwest region. Thank you so much for
8 the opportunity to comment.

9 **MR. SMITH:** Thank you, Ms. Maneta. We're
10 doing good on time. I appreciate it. Next is Lee
11 Tavennor.

12 **MR. TAVENNOR:** My name is Lee Tavennor.
13 I'm from Missoula. I would like to encourage the
14 Council to study and support net metering policies
15 in the Northwest. Net metering is an important part
16 of developing rooftop solar. Thank you.

17 **MR. SMITH:** Thank you, Mr. Tavennor. Next
18 is William Flanery.

19 **MR. FLANERY:** My name is William Flanery.
20 I live in Missoula. I'm a member of the Sierra Club
21 and the Air Quality Advisory Council, Missoula City
22 and County. I speak for myself and not for the
23 organizations, however. I do endorse the emphasis
24 on energy efficiency and demand response. And
25 enough has been said on that already.

1 I want to suggest that natural gas ought
2 to be given further consideration because it can
3 serve as a bridge to the greater use of renewables.
4 Renewables are limited in their applicability so
5 far, and it will take a number of years before we
6 can really have renewables be a major source of
7 power for this region.

8 And I'm suggesting that we should make use
9 of natural gas in the interim between getting rid of
10 the coal-fired power plants, in addition to the ones
11 that are already scheduled for retirement, Colstrip
12 and the one in Wyoming also, because of the damage
13 to our environment, and the effect on climate
14 change. But not only that, but also the effect on
15 human health.

16 We've seen how excessive use of coal and
17 supplying energy in China is leading to a great
18 number of illness and deaths, and we ought to keep
19 that in mind, as well as the effect on climate of
20 these coal-fired power plants.

21 Also, I would suggest that natural gas,
22 while it does contribute less emissions that affect
23 climate change, it has its own drawbacks, such as
24 the fracking that is poisoning underground water in
25 so many places. And it really is not a desirable

1 solution for the long term, but it can be useful in
2 the short term. I want to thank all of you for your
3 work on this important issue, and look forward to
4 hearing further on it. Thank you.

5 **MR. SMITH:** Thank you, Mr. Flanery. Next
6 is Claudia Brown.

7 **MS. BROWN:** Hello. I'm Claudia Brown from
8 Missoula. I'm with Transition Missoula, which is a
9 part of the National and International Transition
10 Movement, which aims to develop local economies and
11 resilient communities to better enable us to deal
12 with climate change, and resource depletion, and
13 economic uncertainty.

14 So I thank you very much for this
15 opportunity to speak, and for your hard work. I was
16 impressed with your graphing and your plans.
17 However, I'm also very impressed with how late we
18 are coming to this, to these solutions, that we're
19 running out of time.

20 And so it will take the dedication of all
21 of us. What Transition Missoula is doing, which is
22 part of a national program, is a neighborhood
23 program called Transition Streets. It's forming
24 neighborhood groups to use a vetted manual to reduce
25 household emissions and save money in energy, food,

1 water, waste and transportation. So we are aiming
2 to engage local households, ordinary people.

3 And I do want to stress that I think that
4 it's important to actually aim for the most CO2
5 emissions that we can, to aim for the greatest
6 amount. And I'm concerned about the problems with
7 natural gas, with the methane, which is so much more
8 polluting than CO2, and also with the problems with
9 water. And I'm not sure about fracking in Montana.
10 But fracking, I think, has to be eliminated.

11 And, also, I want to mention that in terms
12 of the cost of lowering emissions, to consider along
13 with the cost, the cost of all of the flooding, and
14 fires, and other effects of climate change and how
15 that is going to disrupt everybody. Thank you very
16 much.

17 **MR. SMITH:** Thank you very much, Ms.
18 Brown. And next is Jerome Walker.

19 **MR. WALKER:** Thank you for the chance of
20 making comments, and I appreciate you coming here to
21 Missoula. I live here in Missoula in an 87-year-old
22 house, a bungalow over in the university section.
23 My wife and I bought that house two years ago. And
24 we totally agree with your idea that efficiency is
25 the low-hanging fruit and the first place to start.

1 So that's what we did, we had an energy
2 audit. We added extra insulation, sealed all the
3 cracks we could find, put in more efficient
4 appliances, used nothing about LED light bulbs
5 throughout the house. That was the first step. But
6 before we moved into the house, we also added 18
7 photovoltaic panels up on the roof. I didn't have
8 an optimum orientation on the roof. Part of the
9 roof sloped to the west, part to the east.

10 So we put some panels on both sides,
11 mainly on the west. And that has worked very well.
12 I've monitored it now for a year, and I'm glad to
13 say that seven months out of the year here we --
14 those photovoltaic panels produce more electricity
15 than my wife, and I, and our dog use. And during
16 the five months in the winter, of course, a little
17 bit less. But the excess that we produce during the
18 seven months more than compensates for the five
19 months that we're in debit.

20 Some over all, we have a zero electric
21 bill, except for the connection charge, which I
22 think is ten bucks a month. Now, I have a lot of
23 friends who have told me that they would like to do
24 the same thing with photovoltaics and energy
25 efficiency. But one of the disincentives -- and I'm

1 sure there are people here in the room that would
2 like to probably have a zero electric bill as well,
3 or a ten-buck electric connection charge. But
4 there's a significant disincentive, and that's the
5 up-front cost. In spite of the generous tax credit,
6 federal and state, there's still that up-front cost
7 which is a disincentive.

8 I was fortunate to be able to do this, but
9 there are many people who would benefit, I think,
10 from a plan that's been adopted by a lot of other
11 utilities in other parts of the country who provide
12 the solar panels and pay for them. And the customer
13 pays for that -- in return pays that back over a
14 period of time, the life expectancy of the solar
15 panels, which is maybe 20 or 25 years.

16 That's a way of getting around that
17 disincentive of the up-front cost. And I would
18 certainly encourage utilities here in Montana to
19 consider doing that. It makes sense to go solar
20 over the long term, but getting over that initial
21 hump of the up-front disincentive requires, I think,
22 some creative solutions.

23 The other thing that I'd like to comment
24 on is, as a retired physician, I'm greatly concerned
25 about the health impacts of continuing to burn coal,

1 any coal. And not only the mercury emissions, which
2 end up in our water in our streams, in the lakes
3 here in Montana, but also particulates. When I
4 practiced medicine I was a neurologist, and I can
5 tell you that nothing is more toxic to a developing
6 human brain than mercury.

7 And so I worry a great deal about this,
8 and I would like to see this plan modified by adding
9 Colstrip to the list of the three other aging coal
10 plants that you plan to retire.

11 I appreciate the opportunity of commenting. Thank
12 you.

13 **MR. SMITH:** Thank you, Mr. Walker. And
14 next is Jim Monroe.

15 **MR. MONROE:** Pass.

16 **MR. SMITH:** Then Robert McKelvy.

17 **MR. MCKELVY:** You know, I really can't add
18 anything to what we've heard already.

19 **MR. SMITH:** Okay.

20 **MR. MCKELVY:** It's quite amazing.

21 **MR. SMITH:** I would agree with that
22 statement. It's been a great job, great evening,
23 great comments. That's the end of the list that I
24 have now. I would invite anybody else who wants to
25 come up here. If you haven't signed up, feel free to

1 come forward.

2 **UNIDENTIFIED AUDIENCE:** Is it opened up
3 for questions?

4 **MR. SMITH:** No, it really isn't for the
5 purpose of question and answer. Let's go through
6 the testimony. Afterwards, let's talk. I mean, as
7 I said, we have a number of people from Portland
8 here who have a lot of expertise. So we're willing
9 to talk as long as you want up here about whatever
10 you want to talk about. But let's get through the
11 court reporter process with testimony first.

12 **MR. YORK:** My name is Randy York. I'm
13 speaking on behalf of my family, my wife, my kids,
14 and my grandkids. And I don't have an awful lot to
15 add, because I agree wholeheartedly about energy
16 efficiency. But what bothers me is we're all trying
17 to fit new wrinkles into the same paradigm that
18 we've been living with. And we really aren't going
19 to pose a solution to global warming. We've got to
20 create a whole new paradigm.

21 We can't be as much worried about the
22 initial cost to society, because the costs that
23 we're going to see down the road are going to be
24 much more exorbitant than the initial costs we're
25 facing today. And what really bothers me, in 1975

1 at the age of 25, when I was working on my
2 environmental studies certification at the
3 university here, my project and paper was on
4 conservation alternatives, or the viable
5 alternatives.

6 That was 40 years ago, and I hear
7 everybody talking today about it. Conservation?
8 We've got to be a little more efficient. What have
9 we been doing for the last 40 years, people? We've
10 got to 2035 for a reduction. We don't have 20 years
11 to get behind the ball. We've got to do it within
12 the next ten -- next decade. We've wasted the 15
13 years with obfuscation and the denial.

14 And we need to have programs and plans
15 that are written that are going to hold these
16 private utilities' feet to the fire, that they need
17 to worry more about the environment and the people
18 than their profits. So there's got to be something
19 in stone where our people in this state, our
20 political leaders, got to realize that we're going
21 to have to make sacrifices.

22 We just can't worry about it. To be
23 honest with you, we're not going to conserve our way
24 out of this mess. Conservation should be paramount.
25 But the next thing is getting us completely off of

1 fossil fuels, not in 20 years, but within 10 to 15.

2 So thank you. I appreciate it.

3 **MR. SMITH:** Thank you.

4 **MR. LOGAN:** My name is Steve Logan. I'm a
5 builder here in Missoula, and I wanted to comment on
6 the power plan. Twenty-five years ago I was hired
7 by Bonneville Power Administration to train 12,000
8 builders, architects, and engineers in the Pacific
9 Northwest to do conservation in buildings,
10 commercial and residential buildings. I was stunned
11 by the amount of conservation opportunities there
12 were in the Pacific Northwest.

13 So I wanted to put on the record that I'm
14 stunned, still, to see that there's 4,500 MW of
15 conservation energy that we still can save in this
16 region. So that seems to indicate to me that the
17 vast waste that I saw in buildings 25 years ago
18 still exists.

19 We started a green box program here in
20 Missoula four years ago and found out that the
21 sample of 222 houses that we monitored, 40 percent
22 of them didn't even have attic insulation. So the
23 behavioral changes, I think, are paramount to the
24 systemic changes that we need and that Bonneville
25 Power is providing us.

1 All of us have the opportunity to go home
2 and change the way we turn on lights and use energy.
3 And all of those incremental changes will make a
4 vast change in the energy requirements that we need.
5 I don't think we need more wind. I don't think we
6 need more hydro. We need to change our behavior so
7 that we waste less of this distant resource that
8 somebody else produces and sacrifices watersheds and
9 air to get it to us.

10 So tonight we heard about a few people
11 that have made significant changes in their houses,
12 and their behavior can do this. So I'd like to say
13 that as complex as the Pacific Northwest Power Plan
14 is for all of us to utilize, the finger pointing
15 goes back to all of us individually who use this
16 grid and the distant impacts we don't really feel
17 very much.

18 So I would thank you for identifying to us
19 again on the graph tonight that there's 4,500 MW
20 still of power that we can save without producing
21 any more at all, but I'm just saying what we don't
22 seem to know is there. So thanks, Pat.

23 **MR. SMITH:** Thank you, Mr. Logan. Is
24 there anybody else? Feel free. So let me -- if
25 there's no one else, just remember the record is

1 open to December 18th. Chad, over here to my left,
2 is our web master. And it's really easy to submit
3 comments on the webpage. You can get a lot of
4 information there, and also understand what comments
5 are coming in from the region.

6 Let me just mention what happens from here
7 on out. After receiving the comments from the
8 region -- and we actually proactively engage, as
9 we're required to by statute, with the utilities,
10 and stakeholders, and states, and tribes throughout
11 the process to get maximum input here. Just before
12 the holidays we'll kind of go dark and work on
13 revisions to the plan. Based on those comments that
14 we had, over the holidays we'll probably come up
15 with a final plan at our February meeting.

16 And then that will be the plan that would,
17 once approved, will lock in for the region really
18 for the next five years. Even though it's 20-year
19 plan, it will be revisited in five years, and things
20 all change from what we thought. The future is
21 forgot predictable. That's for certain. And I'd
22 also mention that the plan that's adopted is in
23 large part, at least in part of the substantive sort
24 of goals that we adopt, are binding on a large
25 federal agency called the Bonneville Power

1 Administration, which sells the power from the huge
2 hydro power resources and one nuclear plant in the
3 Northwest. So it really has an effect there.

4 But we also have a lot of interest in this
5 plan for private utilities, such as NorthWestern
6 Energy, those type of utilities. And they're
7 involved in our plan all the way along in our
8 committees and stuff. So they pay attention to it
9 as well, because we dive deep into information, and
10 so they use that, especially our scenario analysis
11 when they do their two-year plans for their own
12 utilities.

13 The reason, as was mentioned here earlier
14 by one of the people who testified, the Council was
15 created because of past problems with power planning
16 in the Northwest, the reference to "Whoops," is
17 where five nuclear plants were proposed and only one
18 was built. And two of those went bankrupt in one of
19 the largest municipal bankruptcies in U.S. history.

20 And the other three were backed by the
21 Bonneville Power Administration, and only one of
22 those were built. So consumers are still paying
23 billions of dollars today in your utilities bills
24 for the two plants that were not built, which were
25 backed by the Bonneville Power Administration.

1 So the purpose of this planning that we're
2 doing sort of arises out of that where we're trying
3 to be cost-effective with the decisions going
4 forward. So that's sort of the effect of how this
5 came about, and what we do. And we pay very close
6 attention to what folks say in the region.

7 And we work real closely with utilities
8 and all folks to try to do the best we can with the
9 plan, knowing the future, we won't get it right,
10 because it's always different than you think, but we
11 come as close as we can. We try to come up with the
12 lowest cost resource strategies for the future. So
13 that's it. We'll be around for questions and
14 answers afterwards. Thank you very much for coming
15 out.

16 **(Thereupon, the hearing adjourned at 8:10**
17 **p.m.)**

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1 CERTIFICATE

2
3 I, David E. Hix, do hereby certify that I
4 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 18th day of November, 2015.

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20 David E. Hix
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