BEFORE THE

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

PUGET POWER & LIGHT COMPANY

INTEGRATED RESOURCE PLAN PRESENTATION

May 26, 1992

1:30 p.m.

Overlake Hospital Education Building

Bellevue, Washington

ORIGINAL

I N D E X

P R O C E E D I N G S

1:30 p.m.

CHAIRMAN NELSON: Good afternoon, ladies and gentlemen. This is a special meeting of the Utilities and Transportation Commission to receive and hear about the Puget Power Company's latest least cost plan. We'll start off -- our mode in these proceedings is to start off with a presentation by the company, followed by remarks from our commission staff which will be followed I think by remarks from public counsel and then we'll open it up to members of the public who wish to comment on the plan.

And so with that I ask if my colleagues have any opening remarks.

COMMISSIONER CASAD: Just good afternoon, ladies and gentlemen.

COMMISSIONER PARDINI: This is going to be the biggest darn public meeting in the whole wide world. The day after a two-day holiday in the middle of the afternoon in Bellevue, Washington. Good morning and welcome.

CHAIRMAN NELSON: With that, we will ask Mr. Rich Sonstelie, the new chairman of the company, to introduce his people.

MR. SONSTELIE: Good afternoon. I almost followed the advice of some of our people who wanted to see a bigger turn-out by initiating a press release that

announced that the company was proposing in the honor of our CEO who just stepped down last week that we were going to announce the John Ellis Nuclear Power Plant. We figured the advantage of that is we'd certainly get a big turn out. But it turns out that our integrated resource plan does not support that, so we are not going to do it, whatever John might have wanted.

Good afternoon. It's been over two years since our previous integrated resource plan presentation and I think a lot of progress has been made in pursuit of that plan.

Today I'm going to discuss some of this process as well as present several major policy perspectives identified in this plan. Corey Knutsen will follow with a description of the planning process. Jerry Lehenbauer will discuss demand side accomplishments and issues. Rich Lauckhart will conclude our part of the presentation with a supply side discussion.

The previous plan identified the need for changes in regulation to remove barriers to the aggressive pursuit of our least cost plan.

Thanks to the leadership of this commission, and the welcome input of other parties represented here today, significant changes in regulation have been adopted, albeit on an experimental basis. I believe the presentations to follow will show that the regulatory reform is producing the

desired results.

(SLIDE PRESENTATION.)

Our 1992 conservation target is triple that of two years ago and just as importantly, this resource continues to be very cost effective. Mr. Lauckhart will identify the results of our supply side acquisition process including two rounds of competitive bidding.

The environment in which we operate continues to change, however, and we urge this commission to be open to further regulatory changes which align regulatory policy with good public policy.

Some areas where new ideas are needed include first, large conservation investments present potential financing problems. These investments are not owned by us, and can present difficulties in limiting the amount of bondable property we have.

Secondly, there is presently no explicit legislative or regulatory mechanism to provide for repayment of conservation investment when an end use is switched to a new energy supplier.

Third, significant dependence on purchase power can erode the utility's financial strength, in particular its bond rating.

Fourth, there is strong potential for company participation in the development of renewable resources but

there are regulatory disincentives for such a strategy.

And finally, assuming a three-year cycle between general rate cases, some method for adjusting rates for changing costs of capital may be in order.

In the months to come, we plan to address these regulatory areas with the collaborative parties with whom we've been working and with the commission. I don't propose solutions to these today.

Before an in-depth presentation of a plan is given by the other speakers, I'd like to touch briefly on four areas. First, in this plan and in the strategies we are now pursuing we are emphasizing diversity.

As this slide illustrates, there are several types of diversity we are trying to build into our resource strategy. Resource type diversity is the avoidance of being overly dependent on any one type of resource added to the system. This helps minimize risk associated with costs, reliability of supply, environmental and public acceptance, and regulatory changes.

Fuel diversity refers to reducing exposure to risks associated with fuel prices, availability and use restrictions. Fuel diversity provides the flexibility for responding to potential limitations imposed on any one fuel type.

Based on experiences with natural gas in the 1970s,

questions still remain in our minds about potential supply interruptions, severe price variability, and problems with deliverability.

Acquisition diversity refers to balancing overall financial operating and other risks associated with resource acquisition methods. There are many uncertainties surrounding the non-utility market. This includes the ability of projects to deliver power according to their contract terms, yet we also know these contracts may change over time.

Also, as I just mentioned, rating agencies have increasingly been viewing contracts to purchase power as debt equivalents.

Another critical strategic aspect of this plan is an increased emphasis on conservation and renewable energy resources such as hydro, wind and geothermal, because these resources have low environmental effects.

New conservation supply curves were developed for this cycle and Jerry Lehenbauer will discuss conservation issues in detail later.

This plan gives a ten percent price credit to conservation of renewable resources throughout all scenarios. Additionally, preference is given to high-efficiency cogeneration over other thermal processes.

This approach is consistent with the resource priority

of the Northwest Power Planning Council's 1991 regional plan and the vast majority of views expressed in our public involvement efforts to be further described by Mr. Knutsen.

Resource acquisition strategies cannot be effectively implemented without adequate transmission. In response to our previous plan, transmission availability was recognized as another key concern facing least cost planning efforts. Transmission availability is critical for maintaining flexibility in acquiring low cost resources outside the service area and for making the most efficient use of existing and future resources.

Finally, I'd like to briefly mention some trends that both frame and reflect our planning efforts and business decisions.

Although our long-term resource need is significant, the projected resource deficit at the end of the planning cycle has been reduced by about 172 average megawatts since the last plan.

Some factors that have contributed to this effect include conservation measures, acquisition of additional purchase power contracts and reduced use per customer.

Use per customer -- this one is a little light (referring to slide). I'll give you the bottom line on this anyway.

Use per customer both within our service area and the

region has declined in the 1980s, as you can see or perhaps not see in this slide. The declines in use per customer in our service territory have outpaced those of the region. Our use per residential customer declined rapidly until 1985, and since 1987 use per residential customer has been declining again.

Factors that have contributed to this recent reduction include conservation, a higher percentage of customers living in multi-family units, and increased use of natural gas for space and water heating in residences. There's about 8 average megawatts of fuel switching per year occuring in our service area.

We're making no efforts to encourage fuel switching nor do we interfere with the fuel switching activities of gas companies within our service area.

These factors contributed to reductions in use per customer are more pronounced in our service area than in the region. This accounts for the sharper declines in our service area as compared to the region.

Another trend I'd like to mention is the decline in inflation adjusted annual residential customer bills. This slide demonstrates that the average inflation-adjusted residential bill declined by about 19 percent, between 1985 and 1990.

Weather-adjusted numbers, although not shown on this

slide, show a similar decline.

These declines have resulted from declines in use per customer that I just mentioned, and reductions in the inflation-adjusted electricity rates by about ten percent between 1985 and 1990. So both the rate is down, and the amount of usage is down; therefore, of course, the total bill is down in that time period.

It's important that I add that we do not expect this decline in the real price of electricity to continue in the next few years. We are bringing in over 400 megawatts of supply-side resources in 1993 and 1994. Though these resources, mostly contracts, are truly least-cost resources, there is still a degree of upward pressure on rates.

The upcoming periodic rates adjustment mechanism to be filed at the end of this week will include significant new resources.

Incidentally, though these new resources to serve our growing customer needs seem perhaps undramatic compared to those brought on in the 1980s, they in fact total more than Puget's share of Coal Strip 3 and Coal Strip 4 together.

Thank you for the opportunity to introduce our presentation and discuss some of our strategies. Corey Knutsen, Vice President of Corporate Planning, will discuss the integrated resource planning process.

MR. KNUTSEN: Well, of course, the purpose of our

least-cost planning process is to develop long-term strategies with short-term action plans than provide reliable low-cost resources for our customers over the long-term, and it's achieved by develop -- by evaluating a whole large number of alternatives with both quantitative and qualitative processes during our planning process. And this relatively complicated process here tries to schematically describe what's going on.

On the left, the quantitative processes include sales forecasts, estimating the conservation potential, financial modeling, doing the resource selection, and including a variety of economic factors.

And all of those quantitative processes have inputs to them by the public involvement process that includes a variety of players, including our traditional technical advisory committee. When I say traditional, in the past two planning cycles we have included this as a formal way of including the viewpoints of organizations that you see on the screen in front of you here on our formal technical advisory committee, and also at this time we have included the subject of least-cost planning, integrated resource planning, with our consumer panels, and our consumer panels provided us in around June 1991 with 76 recommendations on least-cost planning in the areas of conservation, traditional and alternative generation sources, rate policy

and planning, and communications about all of this subject, a spectrum of recommendations that we factored into the plan.

In addition to the technical advisory committee, the consumer panels, we also formed a number of other vehicles for gathering input from folks who wanted to be involved in our planning process.

We had a group we called the technical collaborative which focused primarily on demand-side issues and Jerry Lehenbauer will talk about that, a policy collaborative group that was formed around the response to your notice of inquiry having to do with regulatory barriers to least-cost planning, and followed through with the incentive filing we had.

Later in the process, we, in preparation for the rate design case which we've filed, we formed a couple of groups that provided input on that, and then, a recent development, I suppose, in the last several years that has become a very important part of our business is -- and on sort of a neighborhood by neighborhood basis we have been forming citizen advisory groups wherever we have a major transmission and distribution facility to add to that process.

This is kind of an expanding spectrum of public involvement process is becoming more and more a way of our

doing business in the company.

With the input of these groups and others that we've been working with, we've developed a variety of scenarios that we are using or have used and will use in the future to judge the -- to forecast the various futures that our company is likely to face, and find out what resources are best suited to meeting those futures.

In the medium scenario -- and we have a total of six scenarios here. The medium scenario is our base line forecast of economic activity and growth in the region, and it is sort of our middle of the road forecast.

Around that forecast, we have forecasted a medium high and a medium low which have basically the same economic parameters that are in the medium case -- excuse me; have the same fuel cost but in the medium high case we have a higher economic activity and medium low a little bit lower economic activity.

In the high case, we have the extra economic activity that's in the medium high, plus we've boosted the fuel prices so that we're facing, in addition to the higher level of economic activity that was in the medium high, in the high case we are also seeing a significant shift back from natural gas to electricity for heating modes and similarly in the low case we used the low economic activity that was in the medium low, and we lowered fuel prices below what was

in the other two cases. And what we are seeing there is a significant increase in activity towards using natural gas for the heating modes.

Another thing we explored along the way was something referred to as sudden loss of resource. It was a question that came up around a number of potential futures, but one that was on everybody's mind at the time was the potential loss of significant amounts of the mid Columbia resource due to in Endangered Species Act activity around the salmon in those -- the Snake and Columbia Rivers.

These scenarios about the future form the basis for developing a variety of load forecasts and here is our spread of load forecasts, and there's quite a bit on this slide, so I think I will take a moment to explain what's going on.

The left-hand axis, the Y axis there, is in average megawatts, and on here we show both load forecasts, and different categories of resources that are involved in the planning process.

The load forecasts are spread from low at the very bottom to high at the very top. The medium one, of course, being right there in the center. The resource categories, the purple is -- says 1987 resources. And the light blue is 1989 resource additions, and 1991 is in the green, 1991 resource additions.

So here are the two categories of resource additions that have occurred after each of the plans that we have brought before you, and if we charted the progress of the medium load forecast when compared to these resources, we see with the addition of the 1991 resources on a planning basis there is a slight surplus for a short period of time, but even with that, there is a substantial need for additional resources that is shown here.

Now, the end points of these various load forecasts range from in the high a total load in the year 2010 of 5300 megawatts, to the low of having a total load of 2404, or about 2400 megawatts in terms of total load in the year 2010.

What this means in terms of resource requirements is a high amount of resource being about 3300 megawatts in additional resources needed by the year 2010 to a low of about 450 average megawatts required in additional resources by the year 2010, and of course the timing of those resource additions are -- you can see as the chart shows here.

How do we go about deciding which resource we would use to meet these needs is shown a bit by this schematic diagram. Again, it's sort of a several phased process starting with the universe of potential resources, that's possible to meet this need and then we generally using various sources of information, narrow the field down, and

the kinds of information that we use to narrow the field from like phase one and phase two, of course, is the 1991 regional planning activity, Electric Power Research Institute's technical assessment guide.

These are organizations that have looked at that universe of potential resources and have narrowed the field a bit through their analyses and we took a look at their analyses and adopted for the most part what they viewed as something that seemed to make sense for us as well.

The list was narrowed again using input from those kinds of sources, input from our public involvement processes, and specific guidelines for -- that we've found important in our resource planning having to do with things that match our system; resource size; the operating experience we've had with various types of resources and that others have had; lead times, whether or not they match the timing of the need; diversity interests that Mr. Sonstelie mentioned a few minutes ago; and all these things brought together and have narrowed the field of potential resources that we thought would be valuable and available to met the need to this list here.

Where we have got cost effective conservation, renewable resources as depicted here, hydro, wind and geothermal, and for peaking needs we included in the plan combustion turbines and load management. Although the plan

primarily deals with energy requirements, we did include some discussion on what we would use for peaking purposes.

And then continuing on with the energy resources, high efficiency cogeneration as it has been described in some earlier process or proceedings before you, and the clean coal technology as well.

This list of resources matches the input that we've been receiving during our public planning process in terms of priorities and also the priority of the region as described in the Regional Power Plan.

What we did is we took this shorter list of resources out of the total possible universe of resources and we applied these resources to the need that was identified in the scenarios that we developed, and ran them through the quantitative process and have come up with how much of each type of resource, based on cost and availability, we would use to meet the various needs, and have come up with this table of resources used to meet each of the scenarios.

And here we have the medium scenario, and in the medium scenario we used a total of nearly 300 megawatts of conservation over the planning horizon. Renewables in somewhat limited here, somewhat because of cost and also because of the uncertainty about where, for example, hydro might be coming from, so what we have included in here is primarily resources that we were fairly confident were

available rather than sort of an unlimited supply curve with all of the uncertainties around siting.

This doesn't mean that we won't pursue a larger amount of renewables than is depicted here, it's just this is what seemed to be available. We put in high efficiency cogeneration of up to a thousand megawatts during that period of time and then clean coal entered later in the planning horizon starting in the year 2009. And with that, we met the 1600 megawatts that was identified as a need in the scenario, medium scenario.

In the medium high or high scenario, we show a range of resources, the conservation that is used increases. Now, part of that increase is due simply to -- because there's more economic activity, there is more buildings in that higher economic activity. The renewables increased as we introduce more wind and geothermal here, and we used a thousand megawatts in both the medium high and high scenario for high efficiency cogeneration.

The major swing in this higher level of need is taken up with clean coal which would start earlier and build larger than in the just plain medium scenario.

In the low to medium low scenario, we use less conservation, less renewables, less of high efficiency cogeneration and no clean coal at all. Not very much resources required.

Now, this low scenario is -- as well as the high scenario, they sort of describe what we see as the boundary of requirements for resources, and what they represent is either a very low level of economic activity lasting, persisting for 20 years, in this case, or a very high level of economic activity persisting for that period of time, and in each of those cases it's not a very highly likely event.

When we -- another thing that we do in the plan, besides just choosing the resources, we try to describe the range of costs for these resources, and the way that we do it, is we -- and the cost varies on a variety of -- depending upon the values, on the variety of key economic inputs. And the way that we assess the cost of each of these resource plans over that range of uncertainty is we run a number of integrations through a simulation model, about 500 integrations for each scenario and then come up with a distribution of resource costs, and what we have here is on the left-hand side there's some expression of the probabilities of any one of those potential outcomes.

And on the X axis going along there is the levelized cost of electricity, the 20-year levelized incremental future costs for any one of the scenarios, you know, for one of the scenarios that produced that cost under a set of assumed economic and other financial parameters.

And this is 20 years going forward from today. And as

you can see the distribution covers a wide range, the low being around 32 and the high being 77, to meet a variety of different futures under a different set of assumptions. The medium value there is in about the 55 or so range.

That number matches or is fairly close and consistent with the kind of avoided cost that we would be using, for example, in our competitive bidding process here just recently.

The planning process that I've described is our attempt to try and incorporate, explicitly incorporate all the uncertainties that we've seen, not all of them, but the ones that we believe are most likely to happen over the future and match that up with resources that will meet the need under that uncertain future.

The -- a real key component in all the scenarios that you saw was our conservation plans, and here to talk to you about that is Jerry Lehenbauer.

MR. LEHENBAUER: Thank you, Corey.

Basically I'd like to cover the major accomplishments for the last least-cost plan and then get into the action items for the plan that you've had given to you today.

The major accomplishments under conservation for the last plan includes the formation of a technical collaborative process, achieving aggressive targets, developing and beginning the implementation of a measurement

and evaluation plan, expanding our networks, and implementing a variety of new programs and measures.

The technical collaborative process, the group was actually formed in October of 1990, and developed the overall conservation goals and objectives and the guidelines that we have operated under in the past year and and half, including the development of the aggressive performance targets for all of our programs and the creation of the measurement and evaluation plan. This was done not only by the collaborative group but by a number of outside consultants that assist us with this, and the technical collaborative group also worked to a great length on the conservation potential.

The technical collaborative group includes such members as WSEO, NCAC, public counsel, BOMA, for commercial customers, ICNU for industrial customers, and a number of others including Puget conservation staff.

Again, in the last plan we pursued aggressive conservation targets. Originally, on the left-hand side under IRP action item, we had proposed a 10 to 15 average megawatt target for a two-year period, meaning about 8 megawatts for the one year.

In '91 with the collaborative group we then set the 16 average megawatt targets. On the right-hand side are the results and in 1990 we accomplished 8 average megawatts.

And in 1991 when we had the 16 megawatt goal we hit about 17 and a half for a total in excess of 25 megawatts during the last least-cost plan.

This is, I think, to my way of seeing it, it's probably the most aggressive achievement in the region for all the different programs that I've looked at.

The measurement and evaluation plan is actually a four-year plan, and it is for all of the programs, again designed to measure the annual target, to validate the energy savings and the cost effectiveness of all of the programs, to allow us to improve program delivery and participation, through a number of comparisons that we do to the estimates, and through market research, and a lot of survey work that gets done.

Again, through the survey work and through interviews we are getting a lot of ideas for developing new programs. And last but not least we hope to improve the savings estimates for future targets for least-cost planning.

Again, in the last plan, some of the things that we specifically accomplished, we developed a new commercial industrial program that included incentives for measures that go beyond the state energy code.

We initiated a motor rebate program. We provide incentives to suppliers of motors to purchase more -- to purchase an inventory of more efficient equipment.

We supported in cooperation with the region's utilities, a Residential Energy Code program, which is currently cofunded by Bonneville and provides builder incentives for the next four years. We launched a -- what we called Certified Comfort Plus; basically it was a residential new construction program that provided incentives for homes and apartments that exceeded the code. We conducted a low-income demonstration program and we were trying to evaluating the value of education and tie that to energy savings.

We implemented a very aggressive energy saving showerhead and faucet area program. I think to date we've installed and/or had delivered about 120,000 of those devices. We've had about 9,000 refrigerator rebates to date for refrigerators that exceed the appliance efficiency standards and we've provided through another rebate program about 25,000 residential compact flourescent lights.

In terms of expanding our networks, we have again in the last least-cost plan cycle we've gotten heavily involved with retail outlets such as Pay n' Pak, Ernst and Sears, and basically we offer our rebate programs through those outlets.

We've added contractor initiated activity. In other words, this is where contractors bring work to us directly and minimize our cost of marketing.

Another program under contractor initiated is in the

multi-family sector. We have crews that go in and install the lighting conservation measures. Under direct response marketing, we've used direct mail, very targeted direct mail, on a number of programs. Specifically it's been very successful on the energy saving showerhead program.

Under joint utility efforts, and these have been predominantly with Seattle, Tacoma and Snohomish, we've done some joint appliance efficiency promotion work. We are currently trying to develop a residential lighting program that will be offered to all the customers in the Puget Sound area and we are looking for ways to work together on evaluation of our programs.

And competitive bidding, we are still receiving or beginning to receive supplements or contracts for the 10 megawatts that were contracted for under this least-cost plan, and we've begun to enter into contract negotiations for the second round of competitive bidding.

So basically that's the sort of accomplishments for the last least-cost plan, and for the new least-cost plan, we are basically going to continue everything that's worked well, and for starters, I think the -- we are certainly going to continue the technical collaborative process. We're going to continue to aggressively implement the measurement evaluation plan and we're going to aggressively pursue conservation as a resource.

The rest of those items I'll get into in a little more detail, but they really support the aggressive pursuit of conservation.

The technical collaborative group continues to meet and currently they are monitoring the evaluation plan results as the results are coming in in bits and pieces. We plan to make presentations to the technical collaborative group and get involved in that process.

They are on an ongoing basis reviewing the performance of our existing programs. Probably in three months we'll be meeting to develop conservation targets for 1993, and on an ongoing basis they will participate in the every two-year evaluation of our conservation potential.

The measurement evaluation plan as I mentioned is under way. These particular categories, residential, retrofit, commercial energy demo, et cetera, there's something going on in each one of these categories right now and by that I mean there's some form of either statistical billing analysis, phone surveys, site visits, monitoring, some degree of metering; all sorts of activity right now in this plan.

And again, by the end of '93 we hope to have the majority of this plan completed, except for maybe the area of new construction.

On commercial new construction we're kind of working

with EPRI to try to get some cofunding and also some other regional utilities to try to get some cooperation because there's quite a bit of benefit in having a larger sample size.

Under aggressively pursuing conservation, as Corey mentioned, the potential under the medium scenario is in the range of about 300 average megawatts. Our current target for 1992 is 24 average megawatts. At the end of the fourth month we're on target for achieving that goal, and I think it was mentioned before, that goal is about a 50 percent increase over 1991.

Our '93 target will be established using the collaborative process. We hope to incorporate evaluation and customer research results, including the conservation potential assessment, that's currently in the least-cost plan, and certainly the Regional Power Plan conservation goals will also be taken into consideration.

And we're also going to aggressively pursue conservation by including customer participation through better targeting. We are looking at some more creative delivery mechanisms and we are looking at some -- continuing to try to increase customer awareness and education.

The second item of continuing the development of extended networks, there we believe there's some additional opportunity for working with other utilities. A recent

example is we conducted a several day chain accounts seminar with all of the Northwest utilities including publics and privates, and basically invited the chain accounts, the K-Marts, the Wal-Marts, the Circle Ks, the Nordstroms, and tried to market to this whole group at one time, all the different conservation offerings in the region.

We're accelerating the least -- or the lost opportunity conservation. And in that category we're hoping to reach higher participation rates in our commercial new construction program, and we're also very much in support of the work going on for developing a more efficient commercial code, which is currently being wrapped up. And we recently signed on for the manufactured housing acquisition program.

Increasing our emphasis in the commercial industrial sector is an outcome of the conservation assessment that was done in this least-cost plan. It looks like about 60 percent of that 300 megawatt potential is in the commercial and industrial sector. We're finding that a lot of that resource is also very cost effective.

Next item is developing and testing new programs. We are looking at things like golden carrots, which is sort of a research project for more efficient refrigerators. We're again looking for new methods to do more in the area of mobile homes and apartments, residential lighting and we are pursuing new technology in cooperation with a number of EPRI

activities.

In the last item of analyzing capacity values, load management and fuel switching, for the most part conservation has always been viewed as an energy resource and we haven't done a lot of analytical work on our side to look at the capacity value, but now in light of trying to get more integration into transmission and distribution, some of this work will begin.

In the area of fuel switching, we agreed to the technical collaborative process to analyze the value of fuel switching as a resource and this has worked as being -- it hasn't begun yet, but it's being talked about with WSUO and the UTC staff.

And now I'm starting to talk about things that are not conservation. I'd better quit and turn it over to Rich Lauckhart to talk about the supply-side issues. Thank you.

MR. LAUCKHART: Thank you. Well, I will be focusing my discussion mostly around the accomplishments of the last plan, what we've done there. In that discussion I will weave in some of the concepts that as a result of that action those items have now been folded into our new plan and then at the end, I will sort of talk a little bit about the specific action, as we've described for next time.

If you read the last plan, that's probably been a while since you've read our 1989 plan, there were eight specific

action items on the supply-side, and then there were some other action items that were sort of miscellaneous that involved the supply-side of the company, and I will talk not about all of those, but some of those.

I will talk about our recent contract and competitive bidding, what's happened with utility contract negotiations, company-owned resources, capacities, peaking and voltage instability. I'll talk a little bit about transition availability, and environmental considerations.

This is a slide you've seen in various forms recently. Since the last plan, we have acquired over 400 average megawatts of power through new contracts, and you can see that first one is the Snohomish PUD conservation transfer. It was 6 average megawatts and try as we might, everybody else decided to keep their conservation for themselves so there wasn't a lot of interest in further conservation transfers.

We picked up 180 megawatts of this 400 or so through our first competitive bid, and if you can recall in that competitive bid, we had one gas fired cogenerator on the supply-side. That's at Ensearch.

We had a geothermal plant in the supply-side in California and a municipal solid waste. And since that time the municipal solid waste plant has been officially terminated.

After that competitive bidding and really driven by that competitive bid, we selected two other projects, Tenaska project at British Petroleum refinery, and Texaco Phase II.

And one of the primary reasons for doing that was that one of the utility contracts we had hoped to accomplish which was actually to purchase some power from Basin Electric, did not materialize and we needed more power and we felt we were in good shape having now just been through a competitive bid and knowing what the market was. So we accomplished those two contracts.

I'm going to cover a lot of mileage with this slide. I end up with one slide and a lot of things to talk about so you can put that in your mind and then lean back if you want.

Up in the right-hand corner, new supply resources. The big buzzword here, of course, is non-utility generator, and as we've all noticed there seems to be a lot of potential, and a lot of interest on the part of developers to become independent power producers.

Although there's a lot of potential identified there, there are a number of uncertainties that we are getting more and more familiar with as we proceed to work with these people, and some of the questions have been raised before, will they deliver, and a new question that's coming up is

can they do it cheaper than the utilities.

We are relying on some very large projects here. The Ensearch project is, as was mentioned earlier, as large as our share of Coal Strip 4. We have a lot of eggs in some of these baskets.

The financial market has some concerns. And that is both from the standpoint of the rating agencies as Rich Sonstelie mentioned, and also there is the banking industry who is being relied upon to finance one of these projects, is beginning to be more and more concerned at the risks that they might be taking in the financing and we're finding out they are turning to the utility to try to place back some of the risk that the utility passed off to the developer, back to the utility.

As a result of this, our new side supply resources strategy, as has been mentioned before, is focusing more on resource diversity, and the balanced resource portfolio you saw the slides on earlier.

The next above the circle is natural gas. We have a lot of our generation that's planned to come on line fuelled by natural gas.

And there seems to be a lot of natural gas out there and the price seems to be very competitive. But we are beginning to be concerned about the number of eggs we've got in this basket. There is issues as described earlier about

the reliability of that supply, the price, potentially environmental impacts from burning lots of natural gas.

So our new strategy is to try to strive to avoid over-reliance on any one fuel type, and particularly with respect to gas, to continue to closely monitor the natural gas markets.

The next slide, mid-Columbia, it really captures a lot of activity that we've been working on in the hydro generation area. To start off with, I'll remind you that we have a number of our main power supply contracts that are coming up for renegotiation or will be expiring in the next several years.

Canadian entitlement is one of the first ones in 1998. The Canadians who sold their share of the downstream benefits to U.S. utilities such as Puget are going to be asking for that power back.

There is an issue about, well, do they really want it back or are they willing to sell it to us, at what kind of a price. We are finding out that with the new government in British Columbia it's hard to get answers to these questions, and in fact, we are supposed to be delivering this power at a place called [Oliver], which is in eastern Washington, and nobody had any transmission there and it couldn't be built by the year 1998.

So we are beginning to be a little bit concerned about

working some kind of arrangement with the Canadians so that at a minimum we avoid having to build this transmission.

We also have associated with that the Canadian Entitlement Allocation Agreements which says the Canadians think they have some power coming back to them from the United States. Who in the United States has to provide that power?

And it's assumed that Puget, being on the Columbia River with our power purchase contracts will be responsible for some of that return, and there is a debate over how much each utility need to have returned. And the difficulty regarding that is complicated by the difficulty in working with the Canadians on what it is that will be returned to them.

In addition to that batch of issues, there are five mid-Columbia projects that we are involved in. Those contracts begin to expire, the first one in the year 2005, the last one in the year 2018, and we are continuing to discuss the beginning part of renewing those contracts.

The project license holders, the PUDs over there are somewhat reluctant to jump on this issue right away. On the one hand, they think they have a gold mine about to return to them. On the other hand, they recognize they have a threat of losing their licenses there, so they're working slowly with us through the issues on contract renegotiation.

Also expiring is the Pacific Northwest Coordination Agreement, and as you know, this is the agreement that allowed us to coordinate all the hydro on the east side to the benefit of all the hydro owners to get the most out of the system, and that also has links to the Canadian Entitlement Allocations.

And then on hydro, we continue to work on our own hydro projects. Snoqualmie Falls, White River, Nooksack, we have plans to improve those hydro facilities, plus we continue to look for new small hydro sites that can be brought into our system such as Stone Creek, which is already under construction and will be on line late this year, and a number of -- other small hydro plants that we would like to develop and include as a resource through rate case additions.

At this point, I just might note that since there was no other place to put it on the slides, that speaking of small resources, and small hydro, we have determined that small resources are attractive to us for a number of reasons.

Number one, now that we have met our big resource needs, we've moved ourselves from a deficit position to more resource balance, but small resource benefits our load growth. They are easier to integrate into our transmission system, and as far as cogeneration goes, small resources are

more likely to be high efficient cogeneration facilities if they are located in our service territory.

And finally, if we are going to be using independent power producers, and projects end up getting cancelled if they're smaller projects, they won't have as big an impact on us, so as a result of that, we've expressed a preference for new resources that are less than 70 megawatts.

Okay. Moving off the Mid-Columbia over to endangered species. We thought we had a major accomplishment here over endangered species when the region worked together to develop a joint plan that we thought would help the recovery of all threatened stocks of fish. But we are not sure that joint plan is going to work. We've got a lot of work to do with that. I'll talk about that in a moment.

The transmission and distribution side, transmission and distribution needs are driven by peak loads, not so much energy loads and before I talk about peak and T & D I just want to mention briefly, peak loads and generation. We have more and more need to watch what our peaking capability is versus what the potential peak load will be.

We did a little bit of work in this plan to talk about those issues, and certainly have not completely exhausted the discussion that needs to be developed on those issues, but we have recognized the need to do something there. We are using currently simple cycle, combustion turbine and

short-term peak purchases as sort of the base upon which we would evaluate the cost effectiveness of any other peak resources, including the demand side activities.

On transmission and distribution, peaking problems in the Puget Sound area have, as you know, brought to our consciousness a concern about Puget Sound voltage collapse, and we have put together a contingency plan, in cooperation with Bonneville, Snohomish, Tacoma and Seattle City Light that will much reduce the possibility of that happening, but we need to be continually aware that as our loads grow, we have to monitor this situation, and react accordingly.

Also on transmission and distribution we continue to press forward, we think rather successfully, with our efforts to acquire third AC rights, and to develop rights on what we call the Northern Intertie.

In addition, on transmission and distribution, a very major issue to us is EMF, and you are all aware that EMF is very publically discussed and is becoming a major obstacle to building any new T & D facilities. We understand that we have an obligation to continue to research EMF issues, to provide appropriate information to the public on these issues, and we also have people available to go out and measure EMF for people who are concerned about it, and interestingly enough the measurements that we provide to people are pretty surprising to them on how much EMF

transmission facilities cause versus what other things in the home might cause.

(Brief recess taken.)

MR. LEHENBAUER: I want to talk just a little bit to some key environmental issues that we have been dealing with over the last couple of years and we will continue to deal with. The first one is the Clean Air Act amendments.

These Clean Air Act amendments have a direct impact on our coal strip in Centralia units, in that those are the kind of coal unit amendments we are trying to address.

Coal strip itself is essentially okay, even with the requirements required in the year 2000, so we are not real concerned with having to spend a lot of money on coal strip. Centralia needs to have some things done to it in order to comply in the year 2000 with the new Clean Air Act amendments.

But options for complying with that are currently under examination we are not prepared today to say what our definitive plan is.

On the Endangered Species Act, as I mentioned before we thought we had a regional consensus on this. There is -- the utilities worked with a number of people, the governors, the Regional Power Planning Council, to put together a plan to help the weak stocks. We thought it was a balanced plan

that dealt with hatchery habitat, harvest, and the power system.

That plan was pretty much adopted by the Regional Council, but the next step is for -- next to report, to put together a recovery team that comes up with the official plan, and we continue to educate that team as we go along in the kind of plan that we put together in the hopes they will adopt it as their recovery plan. They are in the process of working that and it's not known how long it will take them to come up with their official recovery plan.

The Council meanwhile has moved into Phase 3 of their fish and wildlife plan and have indicated that they may be changing some of the things in the original of what we thought the regional consensus was.

In the process, once something has been listed as endangered you cannot what you call take any of the species and at one point in time I thought "take" meant if it was an elephant you couldn't shoot it.

But it turns out "take" means all kinds of things including harass. You can't even harass these endangered species and when it comes to fish in a river that begins to be a very complicated issue.

NMFS, in making a finding of no jeopardy and allowing us to continue to operate this year, took the regional plan, and made it what we think was a little bit worse which means

had a little bit more impact on power than we had proposed and we didn't think there was any good biological justification for that, but they took that step. Even with that step they have now been sued or they're about to be sued by a number of parties saying that they didn't do enough.

Then there was also a suit brought against the Regional Council for its portion in supporting this plan, and It looks like utilities are now also going to sue NMFS on the basis that they didn't look at some of the other parts of harvest and habitat.

So this Endangered Species Act and our attempt to have a regional consensus may be breaking up, and at this point it's very difficult to determine the impact on the power system, but there will be in all likelihood a substantial impact on the power system no matter what plan is eventually adopted as a recovery plan.

Global climate change. We are talking here about greenhouse gas emissions, and we recognize that utilities can play a major role in reducing greenhouse gas emissions, but the difficulty here is in assessing the effects of greenhouse emissions, there is a lot of debate on whether something is happening here or not.

But we will continue to support research on this issue, and we will certainly monitor national energy policies as

they proceed with discussing the greenhouse gases.

And finally on environmental externalities, there's a lot of question marks there and a lot of dollars there, but there's a national debate on externalities and there's no agreement on what should be done here. In fact, as far as monitorization of some of these externalities goes, there's a camp over here that says any number is better than zero and there's another camp over here that says zero is the correct answer.

The New England states who were one of the leaders in monitorization of environmental externalities are rethinking their approach to monitorization and whether that makes sense today or not. There is another running debate on whether the PUDs should be telling the utilities what to do or whether the environmental regulatory bodies should be telling the utilities what to do.

Through all that, of course, Puget has adopted what we call a 10 percent price credit to renewable resources. We have asked our consumer panels to dig into this issue. This in some jargons is called contingency valuation which is to ask your customers how much they're willing to pay to possibly avoid some kind of risk to the environment. Our consumer panels are just now bringing forth their draft recommendations.

And finally, of course, the Washington State Energy

Office has a process going on that we are trying to stay in tune with, and we expect something out of them sometime late this year or early next year.

So that's where we are in environmental issues.

Now, the rest of these slides, there's several of them I'm going to go through very fast. They're just the action items that we have in this plan for next year, the specific action items, and they're all written in the plan if you want to spend some more time on them.

We will look for renewable resources and high efficiency cogeneration for the next two years, and we are going to monitor the contracts we've already signed to make sure that we can rely on those, or we know when it's time to go do something else, because we can't.

We are looking for peaking resources on both the demand side and the supply-side. We are going to do what we need to do to make sure that Shuffleton continues to be available as an emergency standby resource.

Creston is an interesting one if you saw our coal needs earlier, Creston was once a coal site that we were going to develop before the world said that gas was cheap and available. And then in our last plan we said we would continue that option.

This plan says offer it to the region, if the region doesn't want it, we will not continue that resource site as

an option.

And then we will -- this is the planning and evaluation action items: Assess competitive bidding results; monitor technological advancements of new resources, both the supply and demand side monitoring natural gas; those are al pretty straightforward. Monitoring renewables and other resource developments; and of course EPRI and a number of people are working on that kind of stuff, and we say we'll continue our support of EPRI. And we're also going to be very close to the electric vehicle business as that is becoming maybe one way to clean up the environment. We have a couple of interests there. One is what will it do to our load if that really happens, and number two is can we help clean up the environment by supporting that.

T&D action items: Continue to -- the transmission access legislation is going to happen and a national energy strategy is of great interest to us, it's both in our minds, opportunity and we've been heavily involved in that. The second one of course is interties and we want to use those interties to give us more flexibility to get additional resources and also to make better use of our existing resources.

Growth Management Act activity is very big right at this moment and very time consuming and a lot of the governmental agencies that are required to are putting a lot

of time into this and this is our time to get in there and talk about transmission and distribution corridors and we cannot miss this opportunity.

Working on the Share of the Shortage Agreement is slow coming together, but it's going to get there. We talked about the coordination agreement.

We continue to talk to Bonneville about NR rate stability. It's getting to be old, the discussion is kind of one way.

And then as Rich Sonstelie mentioned before, we want to continue regulation that supports the least-cost plan and rates design stuff that goes with that.

So that's all I have. Thank you very much.

CHAIRMAN NELSON: I have just a few questions for the company panel.

Mr. Sonstelie, you've talked about regulation and legislation dealing with end-use switching and installation. I presume you're talking about a situation we heard from a public witness I think in a prior proceeding when she talked about her neighbors using Puget to install conservation and then switching to Washington Natural immediately after that was done. Is that the situation?

MR. SONSTELIE: Yes, that's exactly the situation. As I indicated, I don't have some solution to propose today but I do think it's something -- I feel it's a fairness issue as

much as it is anything else and I do think it's something that we need some creativity to address, and as I say, we will be working with the collaborators to look at some alternative ideas in that area.

CHAIRMAN NELSON: I do think it arrested all of our attention, I think, when we heard about it.

I wondered also, I didn't see in the plan -- as you know, we just approved a fuel switching program for Washington Water Power, and I have just recently begun to hear stories in regulatory conference type settings about trying to use the Utility Commission to, if you will, to integrate a resource plan across utilities systems, and given your competitive situation with Washington Natural Gas, is that realistic for you to be thinking about or do you have any notions of where you might be headed in terms of the competition cooperation set of issues here?

MR. SONSTELIE: Maybe I could take a piece of that answer and ask Jerry Lehenbauer to talk a little bit about the efforts we have got right now with the collaboratives who are proposing to take a look at fuel switching.

Our position at this point, and obviously we wouldn't be working with the collaborators if it was one of these where our position was such that we thought we were never going to be willing to look at something else, so that's obviously why we want some input on this and why our

customers are also an important source of input on this.

Right now, there are a lot of conversions going on in our service territory. Just the three-year total I've got here is between 16,400 furnaces and 20,200 water heaters over the last three years, '89, '90 and '91. That's a fair amount of conversion going on and it's obviously going on for economic reasons. There's not much question about it.

It's been our position so far that given that kind of conversion going on, and given a very strong conservation program, that we were at the point that the level of continuing growth was such that we had a plan that could meet that, that was both a cost effective plan from a customer standpoint and an environmentally sound plan, so there was a -- we felt that that combination of conservation, a degree of fuel switching, and a plan that was both environmentally sound and I think cost effective was such that we didn't feel, at least at this point, that unilaterally we were going to propose that our customers would be stepping in there and somehow financing a fuel switching program.

But I will tell you that the idea that things like that are looked at, as part of a least cost planning process rather than you assume an answer at the beginning. It's part of our commitment.

So, I don't think it's inappropriate to examine that as

part of a least-cost planning process, and to examine it, obviously in terms of the impact on both utilities, and both sets of customers, et cetera, is also I think very appropriate, and maybe Jerry could make a comment on how we are pursuing it.

MR. LEHENBAUER: We have discussed a fair amount of detail each year in the collaborative meetings that we've had and we have reached the agreement or consensus that Puget needs to begin working more closely with the gas companies in our service territory and trying to sort of cooperate efforts so that we're not aggressively pursuing conservation in a community where they are aggressively pursuing fuel switching.

So we've begun to do those kinds of things and we have tried to target our efforts directly to customers that are either not about to fuel switch, or customers, for example, the gas and water heater customers that are not yet targeted, at least not initially by any of our programs for water heating conservation.

So those are the kind of efforts that we've embarked on. I have personally met with the gas company at least every other month for the last year, looking for opportunities where we can work together, where we can share research efforts and again try to target our efforts so that we don't conflict with their conversion activities.

The conversion numbers that Rich mentioned are close to -- between 7 and 8 average megawatts per year, so it's a significant amount of resources that's being converted.

CHAIRMAN NELSON: I look forward to hearing more about that.

The second question, one of the action items is you mentioned you've been targeting conservation to reduce transmission and distribution requirements in high load growth areas. I wonder exactly what are you talking about there? I don't know who that's for.

MR. KNUTSEN: All right. In our transmission and distribution plan, primarily here in our distribution plan, we take a look to see how the load is growing in an area, and chart the need for additional distribution capability, a new substation, perhaps raising the voltage on a certain portion of the lines.

And it's occurred to us that we could perhaps forestall for some period of time the need for that additional distribution equipment if we took our conservation programs that we were going to do companywide, and take a look at that geographical area where the loads is raising so rapidly that we need to install some additional equipment and target that geographical area, to more intensely put conservation in there to see if we can't have an effect on that growing load in that area and perhaps realize some savings in the

distribution side. It's not a planning tool that distribution engineers grew up with or went to school to learn about. But it is -- so we are having some early meetings to talk about how that might be put in their tool kit, how we might be able to use that. That's what I meant. I hope I understand what you mean.

CHAIRMAN NELSON: I think it's an interesting issue and as far as feasibility, I can see some sort of equity issues and availability of conservation to everybody in your service territory and so on, but exploration certainly sounds appropriate.

MR. KNUTSEN: One thing that we have noticed in our public involvement processes around transmission and distribution facilities, I mean this is an issue not particularly initiated by Puget but raised every time by customer groups, I mean, you know, the idea, and I think we can easily fall into a little bit of a trap that conservation is the answer to absolutely everything.

Clearly it's the single central part of our resource strategy but it's not always the answer to everything, but our customer groups do bring it up. It is generally customer initiated in terms of, you know, you say you need this facility in two years, can you either not need it at all or postpone it another two or three by a really active conservation program.

So I will tell you that it has come up largely through customer initiatives more than our own initiative I think initially.

CHAIRMAN NELSON: Thank you. I see my colleagues have questions for you.

COMMISSIONER CASAD: Well, I want to ask a lot of questions, premised on the presentation. But I think that they're mostly probably questions that have been asked before and will be asked again, but I would like to initially follow up a little bit on the Chairman's questions about fuel switching.

Will you describe to me where and why that is different than decoupling?

MR. SONSTELIE: Yes. Obviously from the standpoint of negative financial impact on Puget shareholders the decoupling that is currently in effect in this state has relieved significantly that particular concern.

One of the reasons it's different from decoupling in my mind is that if we were actually in the process of convincing our customers to fuel switch, whether that was through incentives we were providing or sponsoring somebody else's -- cosponsoring somebody else's program, et cetera, it not only -- it might accomplish some of the same things that are already being accomplished, but it does strike me that as a non-combination company, our ability as a utility,

and my ability as a utility manager, to have some degree of control over supply and price of natural gas as a non-natural gas company is very limited.

And you know, I have, frankly, somewhat of a philosophical problem with the idea of convincing people to utilize a fuel which I don't supply, which I don't have any control over supply or transportation et cetera, and I think that's a step that's beyond sort of the idea of decoupling and removing that disincentive.

I think it a lot more has to do with what my obligation is to those customers, in terms of in effect taking the extra step of saying, "And I think you should switch to natural gas."

Right now, we are spending a lot of time, as Mr. Lauckhart kind of indicated, worrying about supply, price, and transportation relative to contracts we or our other contractors have for natural gas or power plants, and that is sort of on a fairly high sort of transmission level, but -- I feel like it's a step -- again, if we were a combination company I think you've got a different story there. You've got a company that both can work out the financial aspects of it but also has a degree of responsibility already to take care of supply and transportation and that's something that we are missing in that equation.

COMMISSIONER CASAD: Well, the reason -- it would seem to me that the reason why it would be a concern to you would be because you would lose revenue, you would lose sales, because somebody is switching to gas from electricity. Would that not -- and as a follow on that, is that not the genesis of a decoupling program which is to decouple sales from profit?

MR. SONSTELIE: I'm sorry -- I tried to -- what I was trying to indicate and I don't think I communicated it real clearly, was that in fact decoupling is aimed just at that concern.

So what I was saying was while decoupling I think effectively addresses that particular concern about the lost revenue associated with either fuel switching or aggressive conservation or whatever the activity might be, the other concern that is not addressed by decoupling, and that's the distinction I was trying to make, is about whether or not we as an electric utility should in effect be convincing customers.

As it is, we don't try to get them to stay, you understand. We don't try to counter. We don't have an ad that says no, please stay with electricity. What we have not taken is the step to say, "and we think you ought to switch to natural gas," and the reason is, number one, we haven't seen something, and this is being looked at now,

that says whether or not that would be in the best interests of our customers and our shareholders, et cetera whether it is in fact consistent with the least-cost approach.

But secondly, the underlying concern that I am convincing somebody -- I'm personalizing that a little bit -- convincing somebody to switch to a fuel over which I have no ability to control either price or supply, and I don't know if that's an appropriate role for the electric utility, is my point there.

COMMISSIONER CASAD: It's a complicated question, and I think that one can look at the overall benefits, and allegedly what's driving least-cost planning, and allegedly what's driving decoupling and allegedly what's driving you and what's driving us is our desire to procure the most cost effective resource we can and we -- if that's conservation right now.

And from an overall perspective, not from the perspective of an electric utility or a gas utility, whatever we can do to procure that most cost-effective resource, i.e. conservation, is a positive step.

It has impacts on electric utilities obviously, and that's why we've embarked on this whole decoupling experiment, to see just what those impacts are. And we've tried to separate profits from sales but we can't avoid the integration of the questioning, that question, that issue is

there.

I would hope as you examine it, that you would examine it not only from the context that you've discussed but also in the context of your PRAM filing. And when you -- when you try to develop the base costs and resource costs for your customers, if you could somehow develop -- and I quite frankly don't know if this is possible -- develop some measure of the fuel switching potential and what it means, and do it and try to examine that in the context of your -- establishing your base cost, your resource cost, and I think that would be an interesting exercise to see how that worked.

MR. SONSTELIE: I think that is what we are trying to do, is to exam that question, in a more quantitative way, by virtue of putting it through the discipline of a least-cost planning process, and I think that's exactly what we would do, and I think that's what Mr. Lehenbauer was referring to.

COMMISSIONER CASAD: I continue to be puzzled, and this is not a question that you can answer at first hand, but it's a question in which you have much closer exposure than I.

I am continually baffled by rating agencies threatening to lower the ratings of electric utilities because a significant portion of their resources are purchased power, and the reason that I am still confounded by that is that

the whole trend in the electric utility industry is towards non-utility generators, IPPs, amending PUCA, reviewing transmission access, all predicated on the role that's being played by independent power producers and non-utility generators.

And so it seems to me that rating agencies have been as aware of that as everybody else as it has taken place over time and I'm a little amazed that they haven't accommodated themselves to the reality of that particular series of events.

MR. LEHENBAUER: Let me offer a comment on it. I am not sure I can fully explain it either but at least some of the observations that I've heard from rating agencies, because we have been spending a lot of time on this, it was an issue, there was the questionnaire that we were asked to fill out that staff was aware of and we shared with them. Number one, we have been working with rating agencies to at least have them differentiate among types of contracts because that's been very critical. Remember, a lot of the utilities they're talking about are taking in effect some take or pay contracts, particularly those that are capacity-oriented companies, and so our contracts have been different from that standpoint.

Secondly, many of the contracts we currently have, and we probably do more contracting or as much contracting as

any medium to large industrial utility in the United States right now. But many of those contracts are those long-term mid-Columbia contracts, which I don't think by any stretch of the imagination are considered risky. The risk is losing them. The risk of having them is obviously a minimal risk because there's such a low cost.

What I have heard from the rating agencies that makes the most sense to me, because I do think they're starting to now do a better job of differentiating between types of contracting instead of just talking about contracting, period, as something negative.

Let me at least try this piece of the explanation because it's the one that made the most sense to me.

The nature of the risk when going from a build strategy to a contracting strategy changes. I don't think they're saying it is more risk. As a matter of fact, I think most of them would admit that many of the risks that you had in building you do not have and you've passed on a significant number of risks.

Their feeling is that traditional regulation with rate basing, et cetera, of a utility built asset had a way to specifically recognize that risk and allow the utility an opportunity to earn on its investment, and therefore, while there was risk, there was also a reward. There was an opportunity to earn something for shareholders by virtue of

having taken on that risk.

I think their issue is again not that there is greater risk associated with contracting but that in most jurisdictions, that particular risk which has to do with, you know, whether or not the investment is really needed, whether there will be changes in the contract over time, whether as we are starting to see now, some of the financial community tries to shift some of that risk back to the utility.

It's more the issue of whether or not that risk, whatever it may be, is compensated, or whether if it's strictly a pass-through situation, there is a degree of risk.

Now, again, we could argue over how much and I would submit that the risk is in total, if you add all the kinds of risk, is probably a smaller overall risk than building, but it is uncompensated and I think that's the concern, that it is being passed through, and therefore, there is no underlying equity or no underlying equity return or anything else, that is supporting ultimately -- remember their concern is the bondholder.

And the bondholder is sitting in line after many of those contracts, and before the utility's shareholder and what those rating agencies like to see, is they like to see the shareholder in the action, because that's a protection

for the bondholder who is in line, if you will, in front of that shareholder.

And I think their concern is -- I think some of them are communicating it badly because it sounds like we've just now discovered there's risk. I think it's more that there is risk and we are concerned that it is unrecognized by regulators and therefore uncompensated.

COMMISSIONER CASAD: We will continue the discussion. I have a couple ancillary points that Mr. Lauckhart raised.

One is the viability of those contracts which you have with many independent power producers or cogenerators. I applaud Puget's efforts in minimizing that risk through the financing. You've avoided the level, the problem of levelized cost by the contract terms that you have adopted in financing.

The other question which you've raised and which is interesting, I haven't heard for quite some time, was who could do it cheaper. For quite some time it was generally conceded that due to leveraging that that independent power producer can do it cheaper and there was a large body of thought that didn't think that was correct, that a utility could still do it cheaper because of its abilities and so forth. That issue then apparently is not dead, and it is still alive and well and being discussed.

MR. LAUCKHART: Very much so. It actually is not so

much of a debate any more, I don't think. I think most people think that the utility and ICC can do it about the same cost. They may be able to get a little more leverage but their cost of capital for both their equity and their debt is higher.

COMMISSIONER CASAD: Because you had also indicated that there was concern about the utility being used as the guarantor of the financial viability of the NUG, but that's really nothing new, the utility has always been used as a guarantor of the financial viability of the NUG. You've always noticed, once you have the contract in hand, the IPP didn't have any problem getting financing. In the absence of that contract, they had all kinds of problems in getting financing.

And the utility's financial viability has always been the principal motivator for any kind of a contract of that type. So that doesn't strike me as anything new.

MR. LAUCKHART: What we are finding out now is that even with the contract we have now, they may be having difficulty getting financing. That's new. That's a revelation to us. Unless we are willing to make some other extensions.

COMMISSIONER CASAD: Also the third AC ownership issue, I thought that had been resolved. I see in your resource planning, it's still up in the air as to how the third AC

ownership situation is going to work out. I thought that was all resolved.

MR. LAUCKHART: Well, what we have developed with Bonneville is a memorandum of understanding that if after they go through an environmental process, and of course we can't offer them anything until they're through with the NEPA process, their conclusion is to offer it, and they've made this as their preferred alternative, but if they go through that process and the preferred alternative is something they decide then to ultimately offer, then we have some rules under how that would be offered.

Right at this point there are more people asking for shares of that than they had intended to offer. There's about 1500 being requested and only 725 that they were going to offer and we have asked for 400.

So, there is a couple hurdles. First they have to finish their EIS process. Then they have to offer it, and then there's detailed contracts to be put together, and then there's an allocation of what they can offer to those people who ask for it, and all those steps have to be, you know, covered here in the next twelve months.

COMMISSIONER CASAD: There must have been some kind of recent change, then. I thought that it had all been sorted out, that the amount they were going to offer, that was established, that they had come up with a price offering

that was too high, and was rejected by the investor-owned utilities, that they then come up with this surrogate ownership approach, and had guaranteed the offering of ownership or surrogate ownership shares in the third AC to investor owned utilities of which you had asked for 400 megawatts.

MR. LAUCKHART: Well, all that's true except they haven't guaranteed the offer yet. The memorandum of understanding which is a 20-page letter, or has a 20-page attachment to it, gets into all that detail, what the price will be and how everything will work, but it still hasn't officially been offered yet. They can't offer it until they've been through the NEPA process.

COMMISSIONER CASAD: But you're comfortable with the surrogate ownership arrangement, you're comfortable with the price and comfortable with the fact that it has been approached now in a way which you think is fair. The only thing that is hanging is -- everybody understands all the rules -- is just the final offering. Would that be a correct statement of what you just said?

MR. LAUCKHART: Well, no, they have to -- I mean I think there's some programs they have to go through in the NEPA process. We're hoping that it will come out in the sense that if it does, then -- and we're optimistic that it will -- then we're fairly comfortable with the whole

package.

COMMISSIONER CASAD: Thank you.

COMMISSIONER PARDINI: Thank you, Madam Chairman and Commissioner Casad. My questions are about six or seven plus three out of the book. I'm addressing them to each of you individually. My questions will be relatively short. How long you stay depends on you.

First, Rich, congratulations. I haven't seen you since your official appointment as a chief executive officer and I wish you well.

I think it comes at an interesting time, and I think that your assuming that power and leadership of that company also comes at an interesting time as presaged by Commissioner Casad's remarks because the industry is in a state of turmoil.

You may or may not be aware of Standard and Poor's directory furnished to each of the Commissioners. Their 3 or 4 page analysis, as well as EPRI on the purchase power of conservation investment, increased risk, and there is going to be additional significant risk for utilities and so you're stepping into a trench.

Knowing that and knowing your background, knowing the understanding that you have of the transfer of risk to the utilities, knowing that you have an interest in protecting stockholders, Standard and Poor comes in a bondholder's

position, IPP's come from making a buck and either making it or walking away, walking through the Chapter Eleven, leaving you with pieces to pick up, leaving the financial institutions with pieces to pick up.

It appears that your plan for the future is more of what we have just gone through with no plans for significant building. The only thing is a 90 average megawatt coal plant somewhere in the future. Your power supply guy said maybe we should give that up.

What's your vision of the future of this company and how is it going to tie into this least-cost plan?

MR. SONSTELIE: Well, I think one of the pieces that -- first, thank you for your congratulations. And you're right, I think there's some curse about may you live in interesting times, so I thought of that as you offered me the congratulations.

One of the, I think, important things that this Commission has done, and I urge you to stick with it. I don't think there's been any consideration to back off it, is you've indicated that utilities under your jurisdiction will go through this kind of planning process every two years, and I think that's really important that we continue in this state, because it is a moving target out there.

And as I look back on two plans ago, if you examine that '87 plan with the one we've talked about now, there's

been a good bit of shift in terms of what we identify as the preferred resources, and even what we identify as the alternative scenarios in terms of the load side of that.

It seems to me that the smart way to run a utility here in these changing times is to maintain a plan that has the flexibility to recognize that there are some changes that have occurred, and we don't know what those are right now.

I mean, I would kid you if I said I had a vision of, you know, what that electric future would look like in terms of the options available and in terms of what additional uses of electricity might be or what the world natural gas price would be.

And it seems to me that the prudent factors for us to do, and as I say, as we've indicated, we tend to do that with others, not off by ourselves, is to make sure that we're revisiting the assumptions, revisiting the alternatives frequently, and I think every two years is about the right time period for that because it takes a lot of work to do that.

If in fact it turns out that in the intervening two-year period, and Mr. Lauckhart indicated, we have, in this last competitive bid, have indicated a preference for smaller resources, and a preference for renewables, partly on the basis that we did have a significant amount of natural gas, and some larger plants which were very cost

effective but nonetheless do carry some of the risk that we talked about here in dealing with third-party suppliers, in dealing with a fuel that had at least uncertainty in our minds in terms of price and availability on into the future.

And so what I think we're going to do as a strategy, is to plan these options with a lot of participation, to reexamine those frequently.

I will tell you that I think it is a significantly better situation than it was a decade ago, and from this standpoint, I'm echoing to some extent the remarks of Randy Hardy, the new BPA administrator. I was on a panel at the Northwest Public Power Association, their annual meeting last week, and he talked about the plans for BPA through the year 2000 and then for ten years after that. And one of the comments he made which I agreed with and the other powers did too, is that right now in the Northwest we ten to have probably more options available to us or seem to be available to us than in fact we had a few years ago.

Puget has not rejected at all the idea that we should do building. Right now, that is being confined largely to small hydro, but the options to build additional combustion turbines or to go combined cycle with those or to end up in an ownership position with some other resources that we're now looking at bidding where it may be more effective to have Puget in fact as a part owner on some of these. That

may be the most cost effective alternative.

Those are all things this company is still very open to. I think we are fortunate that in the first round of bidding for resources that will be coming in here in '93 and '94, we were frankly at that point the only buyer out there. Now, there are now five northwest utilities doing competitive bidding. We were the only one and I think as a result the contracts we have are very attractive and they're with very large players: ENSEARCH, Mission Energy -- these are very big players -- Tenaska -- whose ability to deliver at least, you know, on a commercial term, they might give you a hard time on, but in terms of whether they're going to be there tomorrow, that risk is significantly minimized when you're working with bidders as strong as these particular bidders.

That's not always an option that may be available to Puget. It's one of the reasons why we're looking towards smaller projects to minimize that kind of risk, but I guess -- I don't know if that's the kind of grand vision you were imagining in my answer, but I do think that one of the smartest things we can do in this kind of time is to maintain a very flexible strategy that in fact has the option to move and to change, and I think that's the one that was presented today.

I do think it's very flexible and I do think that two

years from now it can make some, if not dramatic changes -- I don't imagine dramatic changes -- it can change.

COMMISSIONER PARDINI: One follow-up question.

If it is the strategy of the company to rely on either small projects themselves or large projects put together by experts, cogeneration, efficient cogeneration, whatever, and the company still expresses its concern about the cost of gas, and the unreliability of those supplies and those prices before it embarks on those projects themselves, are not your IPP's and partners and copartners using that as an energy source, and if so, what's the difference?

MR. SONSTELIE: Well, I think in fact the bidders -- let's just use for example, Commissioner, the contracts coming in in the next couple of years. Those are bidders that you know, because you were briefed on those contracts, you know, we got a firm price, firm natural gas prices.

These are companies and we used ENSEARCH as the example, who have a significant ability to deal in the natural gas market, and in fact ENSEARCH's case have a significant amount of natural gas as their resource that they can draw on.

I think their ability to get these contracts by giving -- I mean, we were not willing in our first round nor this round to even consider bidders who were trying to pass on the natural gas price and availability risk to Puget and a

lot of them bid on that basis. They said, you know, here's the construction cost and we'd like you to bear the costs associated with variability in gas prices.

We fortunately had enough good bids that we didn't have to take any of those. We were able to take them from other bidders who, number one, were guaranteeing the price, but number two, we asked them questions about their source of supply and Mr. Lauckhart is really an expert on this, about their sources of supply, et cetera, and listened to the kind of answers they had about whether or not they could really make these changes.

And it was our belief that the risk associated with these particular bidders in terms of ability to deliver on this was significantly lower than it would be if you were out there with, say, some other bidder or out there taking the natural gas risk yourself.

We are not a big player in natural gas, which these are big players in natural gas markets and we think they have -- can assess those business risks, let me put it that way, significantly better than Puget can.

COMMISSIONER PARDINI: Thank you.

Mr. Knutsen, you put up the chart which you called the resource chart or the busy one. Regretedly, I didn't find it in my book. Is that going to be part of your plan or can you refer it to me in the book? I'm sure it's in several

charts but you had it put together in one real neat little package.

MR. KNUTSEN: Not in the plan and I can make that chart available to you.

COMMISSIONER PARDINI: Do you intend it to be part of the plan?

MR. KNUTSEN: No, it's not in the plan. As you've pointed out it shows up in several charts, on pages...

COMMISSIONER PARDINI: That chart if I am correct was entitled the low to medium low scenario evaluation. Is that your forecast?

MR. KNUTSEN: Are you referring to the one that had the resources and then the range of load forecasts, is that what you mean?

COMMISSIONER PARDINI: I believe that's what it was. It's the one that wasn't quite in focus. I couldn't quite see it. I thought it said on it "low to medium low scenarios".

MR. KNUTSEN: That covered all of the scenarios from low to high in load forecasts, if you're referring to the one I'm thinking of. It sort of had five load forecasts on it and it had resources underneath it, and that was not in the book. Do you want me to put it up on the screen?

COMMISSIONER PARDINI: No, I'll look at it. We don't need to take up everybody's time. I may have misunderstood

it.

MR. KNUTSEN: But that was meant to cover all the load forecasts.

COMMISSIONER PARDINI: I'd like a copy of it if I might. I guess more than anything so I can try and figure it out. Thank you.

Conservation: One hundred and twenty thousand shower heads have been distributed/installed. Do we know which is which?

MR. KNUTSEN: Yes. I would say probably 75 percent of those shower heads were distributed through a direct response marketing campaign. The balance were installed directly by either Puget employees, water heating contractors or specific contractors that we hired to do that work in the multi-family sector.

Of the ones that we have distributed we are currently just about completing the evaluation and the evaluation looks like our estimates of installations were all right on. I don't have the exact numbers but I believe it was like 75 percent of the ones that were distributed are still installed three months later, and then there was another test where we are looking at how they're doing a year later.

COMMISSIONER PARDINI: I'd be interested in seeing that because that's significantly different than the experience of Pacific Power and their distribution on their limited

trial basis program which they really didn't come anywhere near the kind of penetration that you have achieved. Congratulations.

MR. KNUTSEN: We did a fair amount of pretesting and market research at the beginning of this whole program to test products, and to test different delivery mechanisms and that's why, I think, we had better estimates when we started.

COMMISSIONER PARDINI: You indicated today as you have in many public statements the savings of 17 average megawatts. The last formal opportunity that we had to question in this regard, there was not yet developed an accurate measure of -- method of measuring these savings. Has that methodology been developed, and to what do you attribute the 17 average megawatt claim?

MR. KNUTSEN: The methodology was developed by the technical collaborative group, and what we did was we took each specific program or in some cases even the specific conservation measure and spent a fair amount of time with not only the technical collaborative group, but also other experts in energy savings and energy conservation, and came up with specifics numbers that we would use for all the different Puget programs for measurements, which is not the same as evaluation, but from there you can count and all you have -- how many kilowatt hours do you get, for example, for

a new apartment, et cetera, with a thousand square feet.

All that kind of information is developed, and is part of the measurement evaluation plan, so that's in place, and that's what we use to determine the number 17.58.

Now, as we do the evaluation plan, if we learn that any of those numbers were incorrect, either plus or minus, then we adjust, on a forward-looking basis, those numbers for the next cycle of setting performance targets, and so on and so on.

COMMISSIONER PARDINI: Do you take credit this year for the savings attributable to new construction under your energy efficient program?

MR. KNUTSEN: Yes, we took credit for -- on the new construction there were about three different programs under way, but I think the one that you asked me about is the mandatory -- although we don't call it mandatory -- because it had strong builder incentives with it. We found that the minute those incentives were removed, the builders would no longer build to that code.

So I call it a code program that was definitely linked to incentive payments, of which Puget pays approximately 25 percent of the builder incentive and Bonneville about 75 percent.

But, yes, we did receive, as part of our 17 megawatts -- I think that was maybe over target, one and a half, and I

think that's partially true because a fair amount of time is spent working with the local jurisdictions and the builders in ensuring that these measures get installed properly.

COMMISSIONER PARDINI: On Page 32, you cited in the planning process supply-side planning changes, and you indicate a Share of the Shortage Agreement. This is a new one on me. Can somebody tell me about the Share of Shortage Agreement, please.

MR. KNUTSEN: Sure. This topic first came up in the late '70s when there was a drought out here and we were very short and on the verge of thinking that we were going to be experiencing brownouts in the northwest. At that time there was a strong desire amongst a lot of people, including the energy offices of the state and the Governor to have a Share the Shortage Agreement, which all that says is if one utility is going to come up to the point, they don't have enough resources to met their loads, what we will do is we will have everybody share region-wide that shortage, distribute the shortage, and then there's some -- well, how do you balance the economics of that question.

Well, those questions all came up in the concept of share the shortage. In 1980 when Bonneville signed the new power sales contracts for 20 years which all utilities signed, there was a requirement in there that we continue the effort to develop this regional share the shortage

agreement.

Well, shortly after that, our region got this great big surplus and everybody said why waste our time developing a share the shortage agreement. About a year and a half ago somebody raised the point that we were running out of surplus --

CHAIRMAN NELSON: Mike Katz.

MR. KNUTSEN: And then he left. But that got everybody back on the kick that we're supposed to be developing this share the shortage agreement, and we've been working that through PMECC for over a year now trying to put this agreement in place, and it's an agreement that just does that, a utility doesn't get enough resources, he's supposed to go out and try to find all the resources he can, he may get close, but if he thinks he's not going to make it he gets to call up and say, "I think I'm going to be short," and somebody else is supposed to help him out. If they can't help him out, then you move into what -- a phase they call regional curtailment, where all the governors will ask people to voluntarily curtail and that will then free up some resource that gets shared and if that doesn't work then you go into the mandatory curtailment phase.

But that's all buried in a very thick set of documents that are still in the draft form.

CHAIRMAN NELSON: And from a governmental perspective

under the auspices of our State Energy offices that's being coordinated toward Washington?

MR. SONSTELIE: Commissioner Pardini, let me follow up with one comment on that.

I've been involved and Bob Myers particularly has been involved in a lot of regional discussions on this, and one of the things that has changed from the late 1970's version of this to today is I think there's more of an assumption today that this would happen, the shortage would happen, not because some utility had backed away from its obligation to develop new resources, but because some regional resource would in fact suddenly not be available.

In other words, it wouldn't be bad planning or unwillingness to step up to meet a customer need, but it would be that some major regional resource suddenly became unavailable and that therefore that's the sort of situation that you're not sort of out to punish the utility and its customers, you're out to try to establish as equitable a way to share that shortage as you can.

COMMISSIONER PARDINI: I'm interested in that because the major resource of the area is 1750 average megawatts of conservation of which I have a very skeptical view of achieving and that is set in the time frame where unless we start some of base plan construction and some other forms of achieving that, it will come upon us, and we'll be looking

at eight, ten, twelve year lead times in order to do something.

We were solving many of these problems with purchased power. Purchased power is no longer the bible of least-cost planning, demand-side planning and integrated resources. Purchased power is going away because there is no purchased power. Now it appears to me that we've gone to conservation and we've gone to in some instances cogeneration. These have now replaced purchased power in the cycle of things that we are doing.

And if they don't materialize and if gas prices do go up to some extent and I believe that they will, they won't stay -- and people are capping then, saying they're below the cost, then of course they're going to force the price up, then we will run into the shortage situation if lead times are necessary.

I think it is time -- whoever thought we wouldn't be watering our lawns in the northwest. And the next brownout is not going to be lawns and that is why I have some interest in following up on the share the shortage thing because I am concerned about that.

I also need to ask about industrial conservation. We've heard all of this talk about primarily residential. That's where the programs are. Supply curve shows the majority of industrial conservation is available at three

cents per kilowatt hour cost level.

I've heard generalizations about being in that program. When are we really going to hear about it and when are we going to go full bore on commercial?

And I don't even know the distinction between commercial and industrial. I know we are going to learn that over the next several months in this restructure thing, but -- how about industrial. You talked about a rebate on motors. I wasn't aware of anybody giving a rebate on motors.

MR. LEHENBAUER: We are gearing up right now in industrial, and historically the problem with industrial is that they don't trust just anybody to come in and manipulate or work with their process, so what we've done over the last four or five years, we've done a number of lighting retrofits with our large industrials, to sort of begin to build this trust with these customers. I think we've gone a long way in doing that.

We're now developing what I would call two to five year plans with the Arcos and the Texacos, the Georgia Pacifics, and again there is going to be some very significant projects. I think this year alone we've probably done over five million dollars in just industrial conservation projects.

So there's a lot of activity going on and there's a lot

on the drawing board that will be coming on line, so to speak, over the next two to five years.

COMMISSIONER PARDINI: A week ago today your company was cited in the Wall Street Journal on outages and high tech industries, and I assume that's a process that you're talking about to work on in order to gain their confidence. I think it was Georgia Pacific, wasn't it?

MR. LEHENBAUER: I think that could be viewed as an example of one of our customer's concerns, the reliability, although prior to the reliability concern with Georgia Pacific we had probably completed half a dozen conservation projects over the last six or seven years.

COMMISSIONER PARDINI: One last question: Is the Tenaska project on target, on schedule?

MR. LEHENBAUER: Well, I'd like to think so. They don't have their financing yet, and we are finding out that financing is a big milestone in essence. They are having a little trouble lining up all the permits just like all the rest of us have. There's also people that have some problems with some of the aspects of it, we are still hopeful they are going to be on time.

COMMISSIONER PARDINI: Thank you.

CHAIRMAN NELSON: Just to remind everyone, that typically we leave the record open for 30 days to take written comment from people. There may be some further

written questions we may have from you unless there are any other questions right now.

COMMISSIONER CASAD: Just one quick follow up on bids.

When you were discussing the measurement of conservation and specifically measuring over 17 megawatts, you indicate that those measuring devices are not yet exact and that they would be reviewed, and that there were errors, that on a going forward basis you would adjust that.

And that concerns me substantially if there is not a way to adjust the reward the company gets for achieving this 17 megawatts of conservation, if the measurement is wrong and you achieve your objective and you get the incentive that's included in that, and then subsequently we find out that in fact you did not get the 17 megawatts, and you're only going to do this on a looking forward basis, then the rate payers are going to be out some money.

Tell me that's not true.

MR. LEHENBAUER: Well, it's true. I don't think it's quite as risky or as much of a concern. Again in forming those numbers and developing those estimates of savings, none of that was done by the company doing it by itself. There was a large group. As a matter of fact, it was a group twice the size of the collaborative group that spent an inordinate amount of time and used a lot of information that's available in the country and in the northwest; in

other words, we have proven information, for example residential retrofit programs.

There have been so many of those programs run in the northwest that the ability to predict savings is very high, so I think that the way that you protect from what you're describing is that you go into that process with relatively conservative numbers so that the likelihood of us coming in at 17 megawatts is not going to happen.

There's another way to protect against that, which is to carefully review the results, which I intend to do.

COMMISSIONER CASAD: Yeah. The other one was just very briefly on industrial and commercial conservation, I don't think there's any question in anybody's mind that the most fertile field for conservation is in the industrial area if you're going to come close at al to achieving your projected conservation objective you're going to have to do it largely in the industrial area because the residential side of houses has already been milked dry.

So that it seems to me to be the area where you're going to have to achieve your objectives, and I -- quite frankly, I was a little at a quandary that you seem to not be certain that you're going -- gearing up to do this. I guess I thought maybe your process was a lot more mature.

MR. LEHENBAUER: I think it is a lot more mature. The specific question I was trying to answer was specifically

related to very large industrials as far as our commercial and industrial effort has been significant. We began doing commercial retrofit in 1980 and we never stopped, and we've done in essence thousands of projects since 1980.

We currently have approximately six employees that their full-time job is commercial and industrial conservation, including a very elaborate network of contractors outside the company and consulting engineers, but in the industrial sector, purely industrial, that has taken us longer than we expected.

We've done a lot of lighting but not as much in other areas as we'd like to.

COMMISSIONER CASAD: As Mike Katz said, the price is a great incentive.

Thank you for the presentation today and speaking for all of us, we're very pleased with the progress you seem to be making and the seriousness with which the company takes all this.

Now I'll turn it over to the next institutional players, the Commission staff and the public counsel.

(Recess taken.)

CHAIRMAN NELSON: I wonder if we can have people take their seats. Thank you.

Bruce Folsom from the Commission staff.

MR. FOLSOM: Good afternoon, Commissioners. My name is

Bruce Folsom with the utilities staff. My title is electric program manager.

To avoid being dry and making the ride home longer, I'm going to be very brief. I'm going to refer you to some written comments staff has put together and will transmit to the Commission secretary soon.

I do want to state for the record that this is Puget's third least-cost plan. The process and resulting plan have decreased in quality with each planning cycle. For the first time staff believes that overall this integrated resource plan meets or perhaps exceeds the goals and objectives that we envision with least-cost planning.

What I'd like to do is summarize five different areas and share staff observations with you.

The first is process. Puget's process has been quite a good one relative to the least-cost planning processes we have seen with the gas industry and the electric industry. Puget has elected to go with topical meetings, where each meeting is preceded by written comments which allows each party to develop some advanced level of understanding before going in.

Currently Puget is the only utility that uses this methodology in the electric side, and we appreciate the ease with which it is participated because of it.

The second thing I'd like to touch on are caveats,

specifically what least-cost planning is and what it isn't.

Briefly, this is a planning document and as a planning document, it should remain fluid and be open to change. A concern that staff has is that in the future there may be filings made by utilities with justification that it was in the least-cost plan.

I'd like to point out that there is some detailed analysis in the plan. Likewise, there are some broad points that will require future analysis.

Some cases in point would be the golden carrot program that Mr. Lehenbauer mentioned. While it is mentioned in the plan, the golden carrot program would need specific UTC approvals to go forward from a rate making perspective. That issue would need to be addressed at that time.

Likewise with Mr. Sonstelie's comments about changing cost of capital and ways to deal with this in the future, that too would obviously need specific regulatory action.

So I again want to emphasize that this is a planning document that will require future Commission decisions in the future to either implement it or make changes.

There are several items in Puget's plan, and this is Commission staff point number three, that should be highlighted. One thing of interest is that Puget asserts the need for 1600 average megawatts of new resources in the next 20 years.

Puget has a current load of 2100 average megawatts. This new load growth with the medium high forecast would represent a 75 percent increase in resource requirements. This obviously would have a severe upward rate impact when and should this occur.

Likewise, another interesting point is that Puget knows that for each 100 kilowatt hours saved per average residential rate payer, this results in a system savings of 8 average megawatts.

Currently Puget's average customer usage is at the 12,500 kilowatt hour level. If Puget were to be able to reduce average customer use to 10,000 kilowatt hours per customer, then this would free up 200 average megawatts on the system.

This represents the mentioned Tenaska on projects or the Sumas projects. Now, that's a lot of power, and to the extent that conservation is a cost effective resource, it is quite sizeable.

The key points in staff comments are on Page 5, and the point that staff would like to make is that there are several items in this integrated resource plan that will require further discussion and/or documentation. Staff itemizes these concerns starting on Page 6 in the bulleted sections.

As an example, you've heard mentioned that conservation

has a risk associated with it. You've heard that non-utility generation has a risk associated with it. These comments were not fully addressed by the Technical Advisory Committee and should be the source of future analysis.

Staff in particular may disagree with the non-utility generating risk. We've done some preliminary research in this area and think that we're starting to get to the bottom of the issue, and what we see is a lot of risk shifting. The banks are trying to shift risks, the bond rating agencies are trying to shift risks, everybody is trying to shift risk.

We think that when Puget makes the case with Wall Street and the rating agencies and point out the unique aspects of the contracts and the conservative nature with which Puget has approached these contracts that Washington State jurisdictional utilities will not be cast in the same basket as California utilities and other jurisdictions.

In fact, if we get behind the Duffenfelts formula and some of the Standard and Poor items that you mentioned you will find that there is a substantial amount of qualitative analysis that would reduce some of the risk that Wall Street alleges can be found.

Also, there is mention on Table 1, Page 11 that -- under resource diversity considerations regulatory support for resource planning and acquisition is critical.

We agree, but we are not certain whether or not this means additional regulatory issues, or the current forms of regulation are adequate. We think that the PRAM and other items have significantly reduced risks to shareholders and we'll be looking forward to clarification on some of these items.

Also, when it comes to a comment that targets in later years regarding DSM may decrease, that will be a function of what's going on at the time regarding price and supply, but that may be -- what we may actually see are increases in DSM targets.

There are several other items that we note, and we will submit this for the record through these written comments.

What I would like to do is mention one more thing in this regard, and that is the action plan summary has some broad statements, such as "pursue small generation facilities of less that 70 megawatts" and also, "to pursue acquisition of high-efficiency cogeneration resources".

In the future it would be beneficial to the Commission for the utilities to define what this means in a little more detail. We suspect and hope that it will be something along the lines of explaining to plant managers,, who have products to get out that there are other ways that they can enhance their bottom line and that would be through installation of high efficiency cogen, but this is only speculation at this

point.

There are several areas that this plan is particularly strong on. I opened my comments by saying that this is the best plan staff has seen to date. It -- we would be here a long time if I were to walk through all the areas with which we agree, but there are two areas that I would like to acknowledge.

One is the concern about natural gas availability and the effect on future pricing. We concur and want to avoid risk shifting to rate payers in this regard.

The second area that we particularly concur with is the need for capacity evaluation that can be had both from a DSM perspective and transmission perspective.

I believe that it was stated earlier that this will be dealt with by the collaborative process. My expectations are slightly different. In the collaborative process we have stated that this is something the company needs to look at and bring back two parties who want to comment on it. So while this will be dealt with in the collaborative, this is the responsibility of the company, to propose a way to deal with this, and let the parties comment.

And in fact, there was a lot of discussion earlier about the collaborative. I'd like to emphasize that the collaborative is a sounding board, and most of the proposals start with the utility and the utility does come forward

with proposals and the like. It is not a situation where the parties start from scratch for the most part and put together the scenarios that they would like. And if there's any misunderstanding left that the ideas do not start with the utility, I'd like to make sure that that's not the situation, that ideas do for the most part start or are the responsibility of the utility.

Lastly, this brings up the future of least-cost planning. I'm sorry; do you have a question?

CHAIRMAN NELSON: I'll ask it in a minute.

MR. FOLSOM: Okay. Lastly, this brings up the future of least-cost planning issues. In the past staff has always stated what we sense will be the next major issue to come down the road in least-cost planning. This one was particularly difficult to speculate on, because we think that on the learning curve, Puget has risen quite high, and in fact may be reaching a plateau.

The utility has done a very good job with being responsive to the rule, with coming forward with the items that one would suspect would be fully discussed, so the question that we would like to ask is what would constitute a fourth successful plan for Puget, and in our view, the major area will be in refining what the utility has put forward.

In particular, several studies have been mentioned. In

fact, if you will recall the action items, the majority of them were pursue and study and examining. We would suggest that the next plan will be a refinement and the senior management you've had up here will have its hands full in making sure those studies are done and completed so that the next plan can benefit from that data and those studies.

With that, I'd like to conclude by saying that this plan is not perfect. It's the best one we've seen so far, and for the most part, we're pleased with where Puget is headed, recognizing that there are refinements that are necessary.

CHAIRMAN NELSON: Just a couple of questions. There was too many negatives in that sentence you made about the process. The staff continues -- did you say the staff continues to think that the company is the captain of this planning ship? Is that what you said?

MR. FOLSOM: By all means, and the utility I think would agree also. My concern, Chairman Nelson, is that in listening to the collaborative, one may question from the outside looking in to what extent is the collaborative captain of the ship, or is the leadership being provided by the utility.

To the extent that new ideas come from a discussion of these issues that occurs, but we as staff want to emphasize that the company is captain of the ship.

CHAIRMAN NELSON: The goal again, the role, is to open up the process.

MR. FOLSOM: Right.

CHAIRMAN NELSON: Obviously the company own the responsibility for both planning and least-cost resource acquisition.

And I guess there was going to be a second larger question, we've seen now in jurisdictions elsewhere around the country, commissions moving to sort of elaborate a rather formal process in the collaborative. And I'm inclined not to want to do that, and yet -- not with this utility, it seems, but with some other utilities, we have run into glitches and let's just be frank about it, between staff and public counsel and things like that.

Does staff think that these glitches can be ironed out informally, or do you think a more formal chartering rule is necessary in the collaborative?

MR. FOLSOM: I prefer to keep it relatively informal, and recognize that the Commission is always there to deal with these issues in a litigated case, and so the concept is to try to reach agreement informally and then bring it to the Commission for full examination.

Should the parties not be able to see eye to eye, I would be hesitant to set up another mechanism when we have a very good one for us, which is full examination by the

Commission.

CHAIRMAN NELSON: And it looks like, Mr. Knutsen, from the people with whom they interact and the number of meetings, his job must be essentially going to meetings all the time.

MR. FOLSOM: He tends to eat a lot of chocolate chip cookies.

COMMISSIONER CASAD: Lucky dog.

CHAIRMAN NELSON: I'll ask one other question. In your paper you talk about having the competitive bid come right after the least-cost planning, Bruce? I didn't understand your logic there.

MR. FOLSOM: The logic is that the precious data is right after least-cost planning is finalized, and we've had a situation, not so much with Puget but with the other utilities where by the time the bid comes out, it may be a year and a half after the least-cost plan.

Obviously the bid has new information in it, but it would be most helpful to the marketplace to have the most recent freshest information out there in the form of the IRP and then go to market with the bid. This is something that we've talked with the other two utilities about and we may have a staff-initiated suggestion for the current -- for the the current RFP rule, Request For Proposal rule Where we will want to consider aligning the two.

CHAIRMAN NELSON: Well, couldn't a countervailing consideration be that the same staff of the utility are involved in both, and there might be some problem for management with trying to have what appear to be time consuming processes right on top of each other?

MR. FOLSOM: They would be successive; they would not be going on at the same time.

CHAIRMAN NELSON: Okay. We'll hear what the company has to say about the suggestion. Other questions?

COMMISSIONER CASAD: I just have a couple of very brief observations.

I think staff's assessment of the plan is a correct one, and I think probably also, it is probably worthwhile for us to review the bidding very briefly, but prior to doing that, I think that I would like to see additional definitions essentially in the plan. You mentioned the 1600 megawatts, that they predict need by 2010, 300 will be procured by conservation.

I'm not particularly concerned, quite frankly, about their ability to get the other, the remainder through a number of options, but a little more definition there obviously would be worthwhile for everybody.

I think though also that we need to review the bidding on just what the plan is and what it was supposed to be at the outset and in fact it is a planning document, and it is

not done with a degree of certainty. It's like load forecasts. Rarely are they correct, but you absolutely have to have them in order to lend coherence to the process.

And that's kind of the way I see the integrated resource plan. It's not a document of certitude; it is a moving target. Things will change, but it lends a degree of coherence to the process that we would not otherwise have. I think over the past couple of years it has done that. I think the company has done an excellent job. I think it has accomplished its objectives. We certainly have a far better sense today of where Puget is going and how it intends to get there than we would have had four years ago.

So I think it is successful. I tend to view the plan that way, and I think that if the company and the technical collaborative group, and the staff tend to view it that way too, and I think that's the way it should be done.

MR. FOLSOM: We think Puget has come a very long way. The point of our comments is to recognize that their high on the learning curve and what we say two years from now may be much more refined as opposed to major incremental changes.

CHAIRMAN NELSON: Thank you. Any questions?

COMMISSIONER PARDINI: Just a note of caution, Mr. Folsom. Last Friday night, I guess, Thursday, whatever, I watched the basketball game between the Blazers and Seattle; it was a pretty good game. My wife was pretty agitated with

me. She had a movie on television and the game ran on long and I got off the ball game and she watched the movie, and I sat down and picked this up.

And somewhere about an hour later this man was tied against a tree, five people out there just took their guns and shot him. I said, yeah, that's a pretty crude justice. I looked up at the explosion and said, "Why did they do that?" She said, "Well, he was a collaborator."

For those of us who remember the underground in World War II, and the French "collaborators", we're careful about the use of that word. That's the only comment I'll make.

COMMISSIONER CASAD: I was up at a basketball game myself.

CHAIRMAN NELSON: Thank you, Bruce.

And next we'll hear from Kevin Winter from the Public Council staff.

MR. WINTER: This is a nice podium here. I can stand behind it safely.

Good afternoon, Commissioners. My name is Kevin Winter. I work at the Public Council section of the Attorney General's office and I'm going to be -- have some brief comments and then we will be on our way today.

Public council and other parties have been working very hard with Puget over the last couple of years on a number of important issues, including implementation of 1990-'91

least-cost action plan. I think it would be very difficult for the company to include in this least-cost plan everything they have worked on and accomplished over the last two years.

The plan does do a good job, however, in communicating a number of the accomplishments and issues that they have been looking into over the last few years.

The primary factor in this least-cost plan is that Puget faces the need for new resources. The challenges of meeting the resource deficit that they're facing is not just finding new resources, but in dealing with the uncertainty surrounding new resources as the company spoke today about. There's the uncertain size of the deficit over time and the other conditions that the company mentioned.

Some of the company's responses to these challenges have been particularly positive and demand-side management, I believe their programs are aggressive, they are innovative, comprehensive and result-oriented, which is somewhat different than other utilities in the region.

The company is committed to acquiring as much cost effective DSM as it can and has good measurement and evaluation plans to verify that the resource is existing -- exists and has been acquired, and we feel that's very important as well.

On the supply side, the company also has a number of

positive elements to planning, the resource diversity by type of resource, the size of resource and the location of the resource, and we feel that's a good idea. We also feel that it is wise to use renewables and high efficiency cogen as well as conservation as a top resource priority.

We agree with the company that capacity issues need further attention and we hope to participate in the investigation of that issue in the next least-cost plan.

I'd just like to quickly mention that the company's analysis of the census data is a positive and worthwhile activity to get to know their customers better and we are encouraged by the effort the company has made.

I agree with staff, with Mr. Folsom, when he says that this is one of the best plans that we have seen, although I have a slightly different meaning when I say that. I think the company's action plan, and the activities that they have been up to, and will continue in the future are some of the best ideas and the best things going on in the region.

Unfortunately I think this least-cost plan does not capture or communicate a lot of the positive things that this company is doing.

The company has done an excellent job in identifying the major uncertainties they had to consider in mapping out short-term and long-term resource strategies. Unfortunately the scenario analysis section in the plan does not do as

good a job as could have been done in incorporating these considerations into the company's analysis of the resource strategies.

I think the plan's primary shortcoming is that it does not contain a demonstration that the chosen strategy is least-cost. It doesn't compare itself to alternative strategies and compare the overall cost, and I think that's an important part of a least-cost plan.

Another bit of information I think would have been helpful is what Mr. Lauckhart was mentioning about externalities. While Mr. Lauckhart and I don't agree on how externalities should be dealt with, I don't think that we disagree that the information concerning the total amount of air emissions and other environmental information would have been useful in the plan, and then we kind of argued about what that information means and how to use it. But I think it would have been useful to have it in the plan.

In general, I think the company needs to do a "what if" analysis in its scenario analysis section. What if the fish plan falls apart, what if there's a carbon tax, what if natural gas prices go way up, what does that do to our revenue requirements and how will the company deal with that, and do we have the best strategy for dealing with that.

I agree with the company that their resource strategy

and their action plan would probably minimize cost and minimize risk to its customers, but I believe the company needs to better demonstrate those facts in its least-cost plan. I think they can demonstrate them but I think they should do that, do so in the plan.

Also I think further in-depth analysis of the scenario may reveal ways of lowering resource cost, which is an important benefit to the company and its customers.

In conclusion, I'd like just to say that I support the company's action plan items, I encourage the company to continue to improve its plan as much as it has over the last few years and to continue to seek ways to lower its cost to customers, and I'd like to recommend to the Commission that it accept the company's plan while making a note of the suggestions I have made to improve the company's future plans, and I will be filing written comments within 30 days.

Thank you for the opportunity to comment.

CHAIRMAN NELSON: Thank you, Mr. Winter. Any questions?

COMMISSIONER CASAD: It's really not particularly directed at you, but I just happened to think about it. It's something I've been thinking about before. So you're there.

The company has indicated that it was interested in pursuing electric cars. They're going to be active in this

area of research. One could view that simply as a load-building device if that's the result. Also one can look at it entirely differently, because it could be all off the -- and it could be a reasonable course of action. I'm uncertain. The issue has been raised. I don't think anybody has really looked at it. There's not much information available.

I would appreciate the development of more information as we go along so that we can better understand the impacts of pursuing that particular line of activity.

MR. WINTER: I'll raise that in the first meeting.

COMMISSIONER CASAD: Thank you.

CHAIRMAN NELSON: And I actually think that is an important point. We, the Commissioners, I think especially feel that the public is being resistant to new taxes for social and environmental purposes as it seems to be in this political era. We see utilities being increasingly asked to do things that have social and environmental purposes and then we have to ask ourselves what are the tradeoffs for the ratepayers versus the taxpayers. So I think that would be an interesting area to have your comment on.

Clearing the air, of course, is in all of our interests, but we're not at all sure that we want to encourage, for example, Washington Natural to get into compressed natural gas refueling station building business.

MR. WINTER: Well, I just want to make sure that I was clear on my earlier point, that I wasn't recommending any particular externality quantification or strategy. I was merely raising this in their plan. I know it's quite easy to calculate how much -- how many tons of emissions are associated with different resource strategies and we can use that information to decide how much effort and how much time we need to spend.

CHAIRMAN NELSON: No, I think your point was clear and I think it's sensible. As long as it's easy data to acquire. After all, natural gas is being touted as a panacea in the field but it is a fossil fuel and it does have emissions.

Thank you.

Other comments or questions? Now, are there any members of the public here who wish to speak? Just the regular public.

(No response.)

CHAIRMAN NELSON: Does the company wish to say anything before we adjourn today?

Well, thank you all for your attention. We will stand in recess.

(Proceedings concluded at 4:00 p.m.)

C E R T I F I C A T E

This is to certify that the hearing held before the WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION,

In the Matter of:

PUGET SOUND POWER & LIGHT COMPANY
ELECTRIC LEAST COST PLAN
PRESENTATION

Date: MAY 26, 1992

Place: Bellevue, Washington

was taken as therein appears, and that this is the original transcript thereof for the files of the Commission.

Official Reporter