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Interim Hearing on Emerging Utility Trends: Competition and Diversificaiton

Senate Committee on Energy and Public Utilities

California Legislature

SENATE COMMITTEE ON ENERGY AND PUBLIC UTILITIES

Senator Herschel Rosenthal, Chairman

Interim hearing on

EMERGING UTILITY TRENDS: COMPETITION AND DIVERSIFICATION

James E. West Center
University of California, Los Angeles

November 25, 1985

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California Legislature

SENATE COMMITTEE ON ENERGY AND PUBLIC UTILITIES

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AGENDA

EMERGING UTILITY TRENDS: COMPETITION AND DIVERSIFICATION
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James E. West Center
University of California, Los Angeles
Westwood Boulevard entrance

I. NATURAL GAS: Supply Options for Kern County Enhanced Oil Recovery	DISCUSSANTS
9:30 a.m.	
Don Vial President Public Utilities Commission	Fred John VP Regulatory Affairs So. Cal. Gas Co.
10:30 a.m.	Gene Satrap, Manager Gas Supply Management P G & E Co.
Terry Thorn Vice President Mohave Pipeline Operating Co.	Arturo Gandara Commissioner Ca. Energy Comm.
Walter Gerlach Vice President P.G.C. Interstate Transmission Co.	Representative Oil Company
Jared G. Carter Counsel Kern River Gas Transmission Company	

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November 25, 1985, continued

11:30 a.m.

Gary Simon
California Representative
El Paso Natural Gas Company

LUNCH BREAK Noon–2:00 p.m.

II. ELECTRICITY: Trade Opportunities with the Northwest	DISCUSSANTS
2:00 p.m.	
Charles Imbrecht Chairman California Energy Commission	Don Vial Commissioner Pub. Util. Comm.
3:00 p.m. Municipal Utilities	Bruce Oglesby Attorney P.G.& E. Co.
Archer Pugh Chairman Management Director California/Oregon Transmission Project	Representative So. Cal. Edison

CHAIRMAN HERSCHEL ROSENTHAL: Welcome to the hearing of the Senate Committee on Energy & Public Utilities. Let me introduce Senator Newt Russell to you, staff, Ann Gressani and Patti Stearns on my right.

Today we are examining proposed new energy projects which promise greater competition with our regulated utilities. This morning we will be talking about the market for natural gas, and the various proposals to serve substantial new volumes of gas to Kern County, the site of our heavy oil fields.

Internationally, the eyes of gas producers are on our own Kern County. The oil companies are sitting on massive reserves of heavy oil and in order to produce that oil within air quality goals, the oil companies will be buying a tremendous amount of new gas. The prospect of this new market delights gas producers all across the United States and Canada because they're sitting on a glut of natural gas and desperately seek new markets.

It sounds like a perfect match, doesn't it? Remember when it sounded like a great idea to break up Ma Bell? I'm afraid the analogy is painfully accurate. Competition in gas, like competition in telecommunications, is leading to producers falling over each other with price breaks for big industrial customers--customers big enough that they will not even need the traditional utility system to serve them. And left holding the bag for the built-in, fixed costs of the utility system are our residential ratepayers, the customers too small to leave the regulated utilities.

Today we will be looking into this threatened new form of potential "bypass" and try to find methods of protecting our ratepayer/constituents before the horses are out of the barn. We still have time to examine the needs in Kern County and set up conditions for new gas supplies that will not harm existing utility customers.

Our first speaker this morning with one plan to serve gas to Kern County was to be Don Vial, President of the California PUC, who will be here. His plane was late leaving San Francisco this morning. I understand the plane has probably landed at LAX and it will be a little while before he gets here. At this time, I also invite to the front of the room the panel discussants who will be able to react to the various gas supply proposals and raise pertinent questions. The discussants represent the utilities, Energy Commission, and oil companies.

So why don't we have the oil company representatives come up front here and also the discussants, Mr. Gandara, Mr. Satrap, Fred John, Terry Thorn. To begin with I've got to have kind of a brief description and overview of what EOR is and how you think we should deal with it. And gentlemen, please, we're late in starting so I'm going to ask all of the persons speaking to not read long statements, tell us briefly what it is you want to say so that we can move the hearing along. If it appears that people are a little bit too windy, I will be take the prerogative of the chair to shorten your presentation.

Joining us, Senator Barry Keene, a member of the committee. And so you haven't missed anything except my opening remarks. All right, gentlemen, somebody, Don Reisner, you want to introduce the persons who will tell us what EOR is?

MR. DON REISNER: Yes, thank you, Mr. Chairman. Don Reisner representing 11 oil companies. I have with me today two witnesses: One representing Chevron and another representing Shell. Witness Mr. Reichardt, Terry Reichardt will discuss from Chevron's point of view what the EOR process is. Mr. Knowles is here to answer any questions as to how that process pertains to Shell. There are obviously differences from one company to the next. They are slight so we're prepared to give you a little overview of the whole thing. This time I'd like to present Mr. Reichardt.

MR. TERRY REICHARDT: Good morning. My name is Terry Reichardt. I am manager for production engineering for the Western production region of Chevron, USA. In my opening remarks I will comment briefly on what EOR is. I will discuss what the alternative--a little bit of information on alternative fuels which will lead us to the conclusion, I hope, that gas is a very desirable fuel for the EOR projects. And I will talk a little bit about what the producer requirements are for a satisfactory supply of gas for those projects.

To begin with, what is EOR? EOR stands for "enhanced oil recovery." It's sometimes referred to a TEOR or "tertiary enhanced oil recivery." EOR applies to a number of processes that are used to produce oil from reservoirs after primary recovery and/or conventional secondary recovery processes. Included in the numerous EOR processes is the use of steam to recover heavy oils. Heavy oils are very thick and viscous at normal reservoir temperatures. It is very difficult for those oils to flow through a reservoir and into a producing well. The fact that they are very viscous makes that flow difficult. Sometimes there is no recovery at all through conventional producing means in recovering heavy oils from reservoirs.

One of the methods that is used to encouarge the oils to flow through the reservoir is the use of heat in the form of steam. That subject is what has brought us together today. Senator Rosenthal earlier said that EOR is all about making heavy oils thin and I very much agree with that view on the subject. I kind of think of it as making oils that behave almost like a solid into an oil that behaves much more like a liquid. The way a steam drive works is that steam is pumped through an injection well and into a producing rock. It has then the capability of heating up the very thick oils and make it easier for them to flow, then the steam also provides pressure to displace the oils towards producing wells.

To give some indication of the fact that this is a big and important business, I'll give you a few statistics on Chevron's steam activities. We currently produce about 65,0000 barrels of oil a day through steam drive processes. The fuel for that process requires currently burning about 9,000 barrels of oil per day and about 42 million cubic feet of gas today. That is the equivalent of almost 100 million cubic feet of gas a day.

We are in an ambitious expansion program to greatly increase our steam drive activities. It is our plans to invest approximately $2.5 billion over 15 years. Our plan is to increase our production from the current 65,000 barrels a day to about 180,000 barrels a day in the mid-1990s. The fuel that will be required for that expanded operation in the mid-'90s will amount to around 200 million cubic feet a day.

The plan that we have in progress right now is oriented towards conventional steam drive activities. In addition to what I've mentioned, we kind of have in the back of our minds that the technology will probably be improved and advanced over the years so we think that there's probably potential for even greater production.

I'll now talk a little bit about the fuel situation. Currently, the steam generators which convert water into steam are fired with either crude oil or natural gas. Chevron has considered other fuels for that process, but when all factors are considered, items such economics, environmental effects, logistics, etc., it really turns out that there are simply no good alternatives at the current time other than crude oil and natural gas. Our preference is for natural gas. The economics are better with natural gas than with crude oil.

The capital expenditure in order to put in generators that are fired by natural gas are less than those that are fired by crude oil. That is because natural gas is a clean burning fuel and the pollution control equipment is not required that would be required for crude oil fired generators. The operating costs are also better for natural gas because of the high cost of operating the pollution control equipment on crude fired generators.

The gas results in less air emissions. I think everybody understands that the air quality problem in the San Joaquin Valley is substantial and we are concerned that if we have to continue burning crude oil, that our expansion plans could be curtailed. The favorable economics associated with the gas fired generator also will allow additional heavy oil reserves to be covered because of the more favorable economics.

In order to use gas to fire our generators, we have really three items that are key requirements: One, we need long-term commitment; two, we need a competitive price; and three, we need uninterruptible service. We need a long-term commitment because EOR projects are long-term projects. They require a substantial capital investment and typically have a life in the neighborhood of 15 to 20 years. In order to justify the capital expenditures for those projects, we need firm transportation supply in order to get approval. Price is very important. The major cost of running an EOR project is the cost of the fuel to turn the water into steam. We need a price at the burner tip that is competitive with the price of burning crude oil. We need a long-term assurance that prices will be competitive with crude oil, again, in order to embark upon the major expenditures that are required. Third, we need uninterruptible service. A steam drive is a continuous process. There are several detrimental things than can happen if interruptions occur during the process. When a steam injection well goes down, wellboard damage can happen. We can have backflow from the formation into the well which would plug up the well and result in decreased recoveries from the reservoir. We also, when we have interruptions, have a period of time when the reservoir can cool down. This will then take additional heat to catch up after the process begins again and the economics, as I mentioned, are highly dependent upon the fuel costs so we don't like to have period when any heat can escape or not be used in driving, in lessening the viscosity of the oil in driving it to the producing wells. And a third reason we need an uninterruptible supply is that when we do have an interruption we do have reservoirs where the production will drop dramatically, and when we do have interruptions in the production, that very adversely effects the economics of the project.

So in conclusion, those are the three key requirements we have for gas in order to find that to be a satisfactory long-term fuel for the EOR projects. That concludes my opening remarks on the EOR projects.

CHAIRMAN ROSENTHAL: Thank you. Do you have anything to add which is significantly different?

MR. DON KNOWLES: No, I would like to comment primarily in terms of our gas requirements and that sort of thing that Mr. Reichardt---my name is Don Knowles, I'm with Shell California in Bakersfield.

I would simply echo his comments as to the process, how it works. I think it's been well described for the committee this morning and in other forums. To put it into perspective, Shell's requirements, Shell California produces over 200,000 barrels of oil a day in California, and of that 150,000 barrels a day is produced in Central California, primarily in Kern County.

Our EOR recovery process is the same as Mr. Reichardt described that of introduction of heating the reservoir by way of steam generation. We currently require 100 to 150 million cubic feet per day of gas as fuel for our generators and we anticipate that that requirement could increase to over 200 million cubic feet per day by 1990.

Again, the primary requirements that Mr. Reichardt set out are reliability of service, uninterruptibility, cost competitive at the burner tip, because after all our truly alternative fuel is that of burning heavy crude.

CHAIRMAN ROSENTHAL; Yes, Senator Russell.

SENATOR NEWTON RUSSELL: Will you get getting into the issue of why the current system does not provide you with those kinds guarantees, prices and so forth?

MR. REISNER: Senator, I think we will be available to respond to that after the alternative methods of delivering the gas are described by the various projects.

CHAIRMAN ROSENTHAL: Fine. Thank you very much, gentlemen. I'll ask you now to make the seats available to Terry Thorn, Vice President of Mohave Pipeline, Walter Gerlach, Vice President of PGC Interstate Transmission Company, and Jared Carter, Counsel to the Kern River Gas Transmission Company.

Let me just throw out a question to the gentlemen from the pipelines which you might be able to answer when you're making your presentation. Why is it in the ratepayers' interest to allow private pipelines serve the cream industrial EOR market?

MR. TERENCE H. THORN: I left a rather dreary, chilly Fall day in Washington last night to come to beautiful Southern California. I don't know what you did with your weather, but...

CHAIRMAN ROSENTHAL: Liquid sunshine.

MR. THORN: Let me briefly describe the Mohave Pipeline project. As the Chairman said, my name is Terry Thorn. I am the Vice President of the Mojave Pipeline Operating Company.

The Mohave project was filed with the Federal Energy Regulatory Commission (FERC) on April 15, 1985, as a single purpose pipeline to transport natural gas to EOR fields in California. It is 383 miles in length. It originates in Topock, Arizona and will cost approximately $320 million to build.

I'd like to dispell the notion that one morning the combined management of Mohave Pipeline woke up and decided to build an interstate pipeline into California. Like any other business proposal of this magnitude, Mohave has been carefully thought out, was developed in response to a market need, and its success or failure will depend on how well the pipeline continues to meet the needs of its customers.

Now, what are these market needs? You've heard from the producer panel. Quickly, it makes sense to burn natural gas in these fields for two points: It's more efficient and it solves some of the environmental problems associated with expanding this production. Secondly, under the current regulatory scheme, burning more gas in these fields is not possible for two reasons: One, the reliability of service--these loads will be curtailed first; and secondly, the fluctuation in price. Right now, for the long-term type of investments needed to expand these fields, the price assurity is just not there.

So to summarize then, without a reliable supply of gas at a predictable price, EOR operators have not been willing to risk the considerable investments required to convert their EOR operations from burning portions of the oil produced to natural gas. Mohave Pipeline was conceived and is positioned to receive gas from anywhere in North America, to serve a single class of customers with no risk of curtailment, and to deliver this gas at a very economic and very predictable rate.

Now a lot of things have happened in California, especially in the context of the

CPUC, and I was hoping that Mr. Vial would have preceded me. The proposed transportation program singles out EOR markets and there is actually probably five important parts of this program that are especially targeted for this market--the 25 million cubic feet a year requirement, the 3.5 cents per therm rate, five-year contract duration, 50 percent take or pay requirements, and a promise to revisit the priority problem at a later date.

You have heard, well, you have not heard yet, but in reviewing the comments of the EOR producers in response to the transportation order, they raised several problems. One, it does nothing about the low priority status afforded that low. Two, future commissions may modify what this commission does in protecting that market, and three, the price still fluctuates too much, especially by tying it to the CPI. The price of housing could go up, therefore the cost of gas EOR fields could go up.

The consumer groups have raised other issues, in fact, a much broader issue where they are asking that everyone carefully weight the benefits to consumers of utility service to this market. I think if you look at their comments it is not as clear cut as people would maintain. In other words, is it worth turning the entire regulatory scheme in California on its head just to ensure that the EOR market is served by local utilities? This might be the classic case of the tail wagging the dog. I don't know.

The conclusion is that Mohave was conceived and is designed to serve a new incremental market for natural gas. It offers firm price and reliable service. It's objective is not to capture markets whichthe utilities are best able to serve, but in the context of today's markets and even under the new regulatory environment and the proposed order, we believe there is still a need and a place for Mohave Pipeline. That concludes my comments.

CHAIRMAN ROSENTHAL: Question, Senator Russell?

SENATOR RUSSELL: Just after deregulation took place there were attempts to nullify contracts that had been developed during the scarcity period and work that out. Now if you have a long-term 20-year contract, how would those kinds of circumstances affect that contract, or would they?

MR. THORN: Well, Senator, they wouldn't. Mohave Pipeline is unique in the Federal regulatory scheme. We are a transporter of gas. We will not buy any gas, we will not sell any gas. The customer is the EOR producers who purchase gas. Whether they will move their own supplies from around the country into California or they will go into the marketplace and buy gas, those contracts will be between them and the producing source. We merely transport the gas so we don't have that contract problem.

SENATOR RUSSELL: Well, I understand that but you won't have a pipeline either if the purchasers of this gas can't get some kind of an arrangement. My question was for them--maybe I'm directing it to the wrong person--how would those kinds of circumstances affect the long-term contract because Southern California Gas Company was doing everything they could and others to change those long-term contracts which when they were developed and signed was the wisdom of the day, but things changed and they were trying to get out from under. Is there such a thing as a 20-year guaranteed price? Maybe I ought to ask Southern California Gas or here, I'll ask this fellow over here. Mr. John?

MR. FRED JOHN: Yes, Senator. As far as the price that would be set by the Public Utilities Commission, obviously, that is subject to change.

SENATOR RUSSELL: Under this scenario?

MR. JOHN: I think the scenario they're talking about, but it really should be left to the producers, is I think what the producers are saying is they would have their own supplies that they've developed in other areas of the country, primarily the Southwestern United States and possibly even Canada, and it would be those supplies that would enter the San Joaquin Valley and the utility or the pipeline company would merely be the transporters. So it's different from a contract that a distributor like us would sign with a pipeline company or produce.

SENATOR RUSSELL: So if this pipeline is built and you buy from the producers---I guess you wouldn't buy it either.

MR. JOHN: I think what you've got to understand in this situation the producer oftentimes is also the customer. He's the end-user as well as the producer.

SENATOR RUSSELL: Okay, well, at the right time, Mr. Chairman, I'd like to find out how permanent or how guaranteed is a 20-year contract under the fluctuating situations of our economy and regulatory bodies, and so forth, whenever that comes up.

MR. JOHN: On that point, though, Senator, I think it should be noted and unfortunately Commissioner Vial isn't here to talk about his own decision, but I think what the Commission's tried to do in their decision is establish a price to the EOR producer that will fluctuate in a minimal fashion, and it's a base rate and it's ties to fluctuations in utility margin. To say that there's going to be a price forever and that's it, I think that's your question, and that's probably not in the scheme of things.

SENATOR RUSSELL: Well, if you say 20 years is in the scheme of things, okay. I don't think it's forever but...

CHAIRMAN ROSENTHAL: Well, maybe we'll have an answer to that a little bit later. Let me ask another question that you might want to deal with. What are your intentions regarding non-EOR customers?

MR. THORN: Mohave was conceived and was filed with the FERC as a single purpose pipeline to serve just the EOR market. There's no intention of the management to serve any other load other than the producers associated with EOR.

SENATOR RUSSELL: Is there a guarantee of that?

MR. THORN: As much as anything is guaranteed. I might add that the partnership agreement as drawn up between Pacific Lighting and El Paso Natural Gas and HNG Internorth is that it would take a unanimous vote of the partners to serve any load other than EOR markets. I think that if you look carefully at that partnership, I think that it would not be likely as much as that is guaranteed that that unanimous vote would occur.

CHAIRMAN ROSENTHAL: Well, I guess, let me ask Pacific Lighting then. If you used your veto to block service to non-EOR customers, would you not be running afoul of the antitrust laws?

MR. JOHN: Senator, I don't want to beg the question, but I'm here representing Southern California Gas Company.

CHAIRMAN ROSENTHAL: Okay.

MR. JOHN: There will be a spokesman here tomorrow from Pacific Lighting Corporation who can address any questions you have about Mohave.

CHAIRMAN ROSENTHAL: How about Mr. Thorn? Could you answer that particular question? From your viewpoint?

MR. THORN: Well, from my viewpoint a management decision on how you run your business, I guess that faces the same risk that the California Public Utilities Commission would have legally in carving out a special rate or a special service to just the EOR producers. They have the same problem. Would they end up in court? To be honest, right now I can't answer that.

CHAIRMAN ROSENTHAL: How about the---wouldn't you actually be competing then with other lines coming into California which are now providing the oil companies with some of the gas now?

MR. THORN: That is our intent, to compete for this market. You have to understand that if we receive our certificate of approval in the Spring of 1987 that there's no guarantee that the pipeline will be built. We will look at the market conditions. My management will not decide if the pipeline is built. EOR producers will decide if the pipeline is built and if in the next 18 months they have signed significant contracts with the existing utilities or with other pipelines, then we'll have to make the economic judgment in 1987 that there's no long a place for Mohave. We are here to compete for that load and the marketplace will decide whether Mohave is built.

CHAIRMAN ROSENTHAL: Okay. Do you have anything further?

MR. JARED G. CARTER: Yes, I do, Senator. Jared Carter is my name. I'm representing Kern River Gas Transmission Company. Perhaps in the absence of Commissioner Vial having explained his proposal, it would be helpful for me before I start talking about our proposal to just take a minute. I gave each one of you a little map and if you open that up it has transposed on it the various pipelines involved, as well as the various supply areas involved. The supply areas are the little hatched or dotted areas on the map.

At the present time, California is served by the pipelines running in along the south from the supply areas in the south and the southwest that you see. To a certain extent you have PG&E's line, PGT, coming down from the Alberta area down through Washington and Oregon into California. What Kern River proposes is the blue line that you see which will hook up with Northwest Pipeline's existing system that you see running from the Washington area in a general southeasterly direction down to what's called the San Juan Field and it hooks up with British Columbia and Alberta Supply.

It also, and here's the distinctive feature of it, will hook into the large, prolific, undedicated reserves in the area that you see there in the Rocky Mountains. That's the new feature that that provides.

Now, what the CPUC has done, and I understood the reason, the purpose for these hearings is that they've come out with a proposal to allow or to--it's dressed up as ordering--but allowing PG&E and Southern California Gas to pick up gas from El Paso and Transwestern at the California border and transport it. That means they don't buy it as they do now but they transport it for a fee through their systems to the fields in Kern County. One of the expressed reasons behind their order was to keep an interstate pipeline out of California. In other words, what you have here is an attempt by the CPUC to further the policy objectives of PG&E and Southern California Gas to keep out any interstate pipeline from California, and their theory is, and I'm confident that they mean well, is that that's going to be good for consumers because in the long-run no competition will allow the existing utilities to spread the costs over their system to everyone's benefit.

I'm going to turn to my statement now and comment on this arrangement. I've submitted some testimony that I'm not going to read. It responds to the questions that you've asked. What we propose to do, as I've mentioned, is to build this line from Opal, Wyoming to Bakersfield, California to transport to the EOR market gas from the prolific, undedicated supplies in the Rocky Mountains. Those supplies are not now being used to serve California. They're adequate to meet the demand of the EOR market and they are available on terms responsive to the EOR producers' needs.

Basically, it's our position that expansion of the EOR production by the use of natural gas will provide very substantial economic and environmental benefits for all of the citizens of California. Those benefits can be realized, however, only if the gas delivery system acceptable to the producers can be implemented. Kern River is the only project we believe can meet this test and by bringing competition and a new delivery system and new sources of supply to the state, Kern River will benefit all of California's consumers, not just EOR producers, more than will any of the competing projects. This includes most emphatically the project proposed by the CPUC in it's October 17 order.

Let me explain why this position is valid and why the key points in favor of the opposition is not. We designed our project in response to the desires of the EOR producers. Those desires apparently have not changed. In its comments on the October 17 order by the CPUC, Chevron, USA stated, and let me quote that, "Although there will undoubtedly be situations where thermal EOR operators would find the proposal useful," that's the CPUC proposal, "it's simply not adequate as a comprehensive solution to the needs for EOR fuel. It completely fails to provide satisfactory safeguards for the two major requirements of supply and competitive pricing, and it is thus not competitive with interstate pipeline proposals." That's the end of Chevron's quote.

We will continue to propose an interstate project if the producers continue to hold these views. An interstate project will be free from changeable CPUC regulations and it will assure to all Californians the benefit of competition in the California marketplace. This is an extremely important point. The price benefits now available to all U.S. gas consumers and the transportation service to be afforded California industrial gas users under the CPUC's October 17 order are not likely to survive disappearance of the current gas bubble unless continued competition is assured.

In the 1960s the U.S. Supreme Court made El Paso divest itself of the Northwest Pipeline Company because Northwest offered the possibility of interjecting needed competition into the California gas market, but unfortunately, not until now has this potential been real. And in that same time period of the '60s, the California utilities and the CPUC were successful in preventing Tennessee Gas from supplying California industrial users with a dedicated and abundant supply of cheap gas. Same arguments were used as are now being used.

Not until the last few months, after an interstate line was proposed for the EOR market, have the CPUC and the California utilities shown any sign of being responsive to California industry. If the threat or presence of an interstate line's removed again, who's so naive to believe that the CPUC and the California utilities will continue to demonstrate concern for the plight of California's industrial gas consumer? Only the Kern River project, and not the competing interstates, can adequately meet the needs of the EOR market and connect California with new sources of supply under terms that will assure this market the benefits of a reliable, reasonably priced gas supply for an extended period of time.

The Mohave and El Dorado projects propose to supply the EOR market from southwestern supply sources, which I've mentioned to you, that presently supply California and other populated areas of the United States. You can see that from the gas pipeline distribution system. When the current gas bubble has burst or sailed by, implementation of Mohave or El Dorado would serve only to increase existing pressure for these supplies and it seems unlikely that congressmen from the Midwest and the Northeast will sit idly by while California satiates it's appetite for Southwest gas if a supply shortage exists.

Now the arguments made that the Rocky Mountains in Canadian gas can be delivered to California by El Paso and Transwestern as cheaply and reliably as it can be delivered by Kern River, but that's simply not true. From the map that I've shown you, you can see that the gas would have to travel a much greater distance if Kern River is not built. The facilities to carry the required volumes of gas from the Rockies to El Paso and Transwestern's line and over those lines to the California border do not now exist. The line of Northwest that comes down from where Kern River breaks off will now carry an excess of around 50 to 75 million cubic feet a day, and if we're trying to get an extra 350 or 500 down there, about $450 million is going to be required to expand it.

Moreover, it's simply not true that adequate volumes of Rocky Mountain and Canadian gas can be exchanged for gas now going from the Southwest to the Midwest to obviate the need for the Kern River project.

Let me now deal for a moment with the question of the competing proposals effect on residential ratepayers. I know that's one of your major issues. The CPUC has largely based its order on the assumption that intrastate transportation will benefit ratepayers by keeping an interstate line out of California. We don't doubt, as I mentioned, their good intentions, but we think its reasoning is flawed and its efforts to thwart Kern River is shortsighted and counterproductive.

First, the CPUC's assumption that the utilities and their suppliers can serve the EOR market with their existing system is simply not true and this has been admitted by PG&E, Mohave, and the chairman of Pacific Lighting in formal documents that they have either given to the FERC, or in statements to their shareholders.

Second, the CPUC has failed to consider the question of who will pay for unneeded expansion of their utility system. If Kern River is certificated and implemented and their expanded capacity is not needed, obviously, the existing residential ratepayers are going to pay for those unnecessary expansions.

Third, the CPUC has failed to address adequately whether California's traditional sources of supply are adequate to meet California's long-term needs.

Fourth, and I think perhaps most importantly, the CPUC has blinders on when it comes to the question whether competition in the state gas market will benefit all of the citizens of this state, including residential ratepayers. Perhaps the CPUC thinks that monopoly is good. Perhaps it doesn't quite understand that it's really a part of the existing monopoly. In any event, we believe that it's wrong and we hope that this committee will avoid following its lead.

In response to your question concerning Kern River's intent to serve other industrial customer, we've not sought that authority. If those customers receive adequate service from the utilities after Kern River is built, perhaps the question whether we should later seek that authority will never arise.

Let me leave you with an additional thought and a request. Our project and other interstate projects must be subjected to a complete environmental study before FERC decides which projects to certify. In the course of that study, which will be conducted by the California State Lands Commission pursuant to a memorandum agreement with the FERC, one of the alternatives to be studied will be the project CPUC proposes to implement in its October 17 order. We've assumed up until now that the State Lands Commission will do an adequate and unbiased job of this study and that the CPUC will cooperate to determine the environmental effects of all alternatives facing the state in this most fundamental and important issue of energy policy.

You can imagine how surprised we were to receive comments, dated November 13, from the State Lands Commission to the FERC concerning the October 17 order, to learn that the State Lands Commission says that an interstate pipeline is not necessary because existing intrastate facilities are adequate to serve the EOR market. And not one single word

about the environment or the question of whether the CPUC has done any environmental study. We're raising these issues with the CPUC and the
being made today.

Long ago, Mr. Chairman, sponsors of Kern River had to endorse, and willingly did so, the concepts that monopolies are bad and concern for the environment's good. Apparently, some state agencies, at least the CPUC and segments of the Lands Commission, have not come this far. They seem to believe that monopoly is good and concern for the environment is unnecessary. Our request to you is to help us convince them otherwise. Thank you.

CHAIRMAN ROSENTHAL: Let me ask the discussants, if you will, tell us how the pipelines will affect your interest and raise some questions that might be on your mind so that we can have some cross discussion here.

SENATOR BARRY KEENE: Senator, is it possible to ask some clarifying questions?

CHAIRMAN ROSENTHAL: Yes, yes. All right. Senator Keene.

SENATOR KEENE: Just some clarifying questions on the testimony that was just presented. It seems to me you've made out a very powerful case for competition and I would hope that it produces some response that joins the issue so that we can more fully understand it. I'm looking at your map here and can't help but noticing that through the creative selection of pinpoints, your pipeline is much thicker than all the others that are shown there.

MR. CARTER: We weren't sure the color would make it stand out enough by itself. [Laughs.]

SENATOR KEENE: My question goes, though, my serious question goes to the fact that the magenta, I think that's what it's called, colored pipeline designated in the legend, the Williams Company pipelines, either connects up at the San Juan River or practically connects up with the red pipeline that then moves westward into California.

MR. CARTER: Yes.

SENATOR KEENE: While the route is not as direct as the one that you propose, it appears to be an already constructed, existing or almost existing connection. Why would that not be preferable to the one that you're proposing for that reason?

MR. CARTER: Perhaps an argument could be made that it would, Senator Keene, if it would carry anywhere near the needed volume. There's excess capacity in that line. My understanding to the effect it's somewhere in the neighborhood between 50 and 100 million a day, and what you're looking at is we propose to carry initially 700 million with easy and ready economical expansion up to 1 billion more. Now, you simply can't carry anywhere near the volumes we're talking about over that Northwest pipeline route down to the San Juan Feel to hook off with the El Paso or Transwestern system without spending at least spending $450 million. Our total project is going to be 825, including the California lay. By the time that you expand all of the systems necessary to deliver this gas from the Rocky Mountain area down through Northwest's system and then through the existing systems to the California border, and fromthe California border to the Bakersfield market, it is our belief, and we're prepared to deal with that in testimony before FERC, that the cost of our line is going to be substantially less and therefore, substantially less of a total cost to whatever consumers benefit from that gas.

We all know a saying that the shortest distance between two points is a straight line and that applies even when you're building gas pipelines.

SENATOR KEENE: The cheapest distance. The other question I had relates to the operative features of the PUC order that you say would effectively exclude interstate pipelines, private interstate pipelines. What are the operative features of that order, and the other part of the question is is it appealable, and have you appealed, and that sort of thing?

MR. CARTER: None of the provisions of their order would directly preclude an interstate line. They don't have the authority to do that. Federal law will preempt the state law and the FERC could license an interstate line regardless of what the PUC says. But in their order itself, the PUC said the reason we're doing this order is to thwart or prevent the implementation of an interstate pipeline, and it's rather apparent that their tactic and the tactic of SoCal Gas and PUC is to begin the service to the oil companies, lock it in and then oppose any building of the interstate line by drawing out proceedings in the FERC, and if necessary, by, I would assume, legal proceedings. You know much better than I that once you've got inertia on your side, you are 95 percent of the way home. So the point I'm trying to make to this committee is don't fall into that trap that the CPUC has of saying, "Let's thwart an interstate line and get service into the area through the existing systems so that we never have an interstate line."

We're certainly not against any interim benefits that the producers are going to get from transportation, or for any other industrial customers getting those benefits, but don't take it to the next step.

SENATOR KEENE: Okay, but I'm trying to stand in the shoes of the PUC and they're saying, or appear to be saying that we know what there is and we're attempting to deal with what is; we don't know what there might be, we know there are a lot of proposals but we don't know what there might be out there, so if we fail to act on what there is to make that available for these purposes, we're not doing our job as the PUC. What would be your response to that kind of thinking?

MR. CARTER: I'd say you're too generous because their words belie that generous intent. They say, "We know what there is and we know what there can be and let's stop an interstate line." This is a conscious policy decision by the CPUC to stop the implementation of an interstate line. They don't want any competition or threat of competition in California.

SENATOR KEENE: Thank you very much. Thank you, Mr. Chairman, for your indulgence.

CHAIRMAN ROSENTHAL: Senator.

SENATOR RUSSELL: I wanted to ask a question to try to capsulize for my understanding, are you saying that the need for gas supplies for this field is such that the existing supply lines that now exist cannot serve that without some additional expansion, and you mentioned $450 million? Is that what you're saying?

MR. CARTER: No. The $450 million was in response to a slightly different question. I am saying, though, that the initial market of 700,000 cubic feet per day, 700 million, cannot be met through the existing facility and certainly, the projected 1.1 billion cubic feet per day, which everyone estimates is the market, cannot be met and that Mohave has recognized that in its application, the...

SENATOR RUSSELL: Well, okay, I think you've answered my question. So what we're saying then is that to get gas for this purpose, there will have to be an expansion or construction of a new facility or expansion of existing ones?

MR. CARTER: Yes, sir.

SENATOR RUSSELL: And what we're talking about is gas specifically and only from your pipeline for this project? Is that correct? You're not going to be selling it, using the pipeline to branch off and to serve other California consumers? Is that correct?

MR. CARTER: That's the authority we've sought, Senator. We've made no commitment that we're not going to branch off and if five years from now the other industrial consumers are still being subjected to a discriminatory pricing formula for transportation or purchase by the CPUC, I would assume they would come to us and to the FERC and say, "We need some more authority."

SENATOR RUSSELL: Okay, Mr. Chairman, I would think that during the course of this hearing that we try to understand what, as I think one of your early questions was to determine what costs are going to be addressed by forcing it to go through the existing system, and what increased costs to the other consumers will occur by building a new system. I assume it addresses just those fixed costs of having a pipeline there, whether it's empty or full of gas, there's certain costs of maintaining that and that's part of the cost the consumer pays.

CHAIRMAN ROSENTHAL: Yes, I'd like to ask utilities who have a different concept of the problem to respond so we can have some cross discussion here. You've heard him say that you can't do it, so somebody else should do it. Yes, sir.

MR. FRANK MORRIS: Mr. Chairman, members of the panel, my name is Frank Morris. I'm the Industrial/Commercial Markets Services Manager of Southern California Gas Company. With your indulgence I'd like to touch on four points very quickly. First, I'd like to describe the size of the market we're dealing with. Secondly, the capacity of the existing utilities to serve that market. Just briefly, the EOR customers' concern with respect to taking service from the existing utilities, and then a need for a transportation tariff in the State of California.

The size of the market you may have heard described at being the largest on the North American Continent. It's estimated to be about 1 billion cubic feet of gas per day. At today's rates that would convert to about $1 billion a year in annual revenue. The utilities in California, Southern California Gas Company and Pacific Gas and Electric, current have in place facilities capable of serving the entire estimated potential load of the EOR requirements in the San Joaquin Valley. Southern California Gas Company alone has the capability of serving 450,000,000 cubic feet of gas per day, and we have under contract right now 250,000,000 cubic feet of gas to be served to the EOR customers in San Joaquin Valley, an additional 85,000,000 for EOR related cogeneration loads.

We have for many years served the San Joaquin Valley, the Southern San Joaquin Valley. We have an extensive distribution system and transmission system capable of moving that gas up there. In addition to that, PG&E has two major transmission lines going directly through the area, so the existing facilities are in place without any major capital investment to serve the entire projected load.

CHAIRMAN ROSENTHAL: On that point, Senator Russell.

SENATOR RUSSELL: The ultimate 1 billion, whatever it was, you can serve that? You can serve the initial 700,000,000 need?

MR. MORRIS: Let me give you a breakdown...

SENATOR RUSSELL: Just say yes or no.

MR. MORRIS: Yes, we can.

SENATOR RUSSELL: You can.

MR. MORRIS: We can serve the entire projected...

SENATOR RUSSELL: That's in direct contradiction to what this gentlemen has said, is that correct? Do I understand it?

MR. MORRIS: Yes.

SENATOR RUSSELL: Thank you.

MR. MORRIS: The load of 1.2 billion cubic feet that was referred to by Mr. Carter includes some load that is going to be served by gas that is produced in the area and is not, therefore, gas that would be subject to either service by the utilities or an out of state pipeline. There is gas produced in the area that would be used in enhanced oil recovery and there is a certain amount of equipment that will always burn oil because of its location, because of backup needs, and so forth. So the actual load that has to be served by a pipeline or the utility company is closer to 900,000,000 cubic feet of gas a day.

SNEATOR RUSSELL: Ultimately or initially?

MR. MORRIS: These estimates are based on the projected expansion as of 1990. Now in association with the EOR load, which is the production of oil, there is cogeneration potential. The cogeneration potential is, of course, much more efficient to operate. As a result, it displaces the need for some of the heat that would be required in the EOR operation. The actual EOR requirements, based on DOG production figures in the fields and the production figures of the various suppliers or operators in the fields of up there, is about 650,000,000 cubic feet a day of pur EOR requirement, an additional 250,000,000 cubic feet per day is EOR cogeneration related load, for a total of about 900,000,000 cubic feet a day. That is what the market is.

CHAIRMAN ROSENTHAL: So that the figures of the 1.2 that was mentioned did not take into consideration the cogeneration? Did not take into consideration the amount of gas that's there already in that community, but the total amount needed by the companies there for their EOR? Is that what you said?

MR. MORRIS: The total amount of gas required for EOR operations and cogeneration amounts to about 1.2 billion; 300,000,000 of that will be supplied either in the area by oil or by locally produced gas, and the market that would be supplied by the utility companies or an outside pipeline is about 900,000,000 cubic feet of gas per day.

CHAIRMAN ROSENTHAL: Now that would indicate to me that since you have facilities which are able to deliver more gas than we are now delivering, what's the cost for maintaining such an excess capacity to the ratepayers right now?

MR. MORRIS: That is one of the areas that I wanted to touch on. There has been some discussion about whether it would be to the advantage of existing ratepayers for us, for the California utilities to serve that load and I think that the fact that we have capacity, both PG&E and ourselves, that is not being utilized is an answer to that question. Any of that capacity that is utilized as a result of serving this market is going to benefit all of the ratepayers in California.

CHAIRMAN ROSENTHAL: Senator Keene.

SENATOR KEENE: May I ask a question on that point? You have an unutilized capacity of 900,000,000?

MR. MORRIS: We, Southern California Gas Company, has an unutilized capacity right now of 450,000,000 cubic feet of gas per day that we could use, we could serve in the San Joaquin Valley. PG&E has something in excess of that, about the same equivalent load.

SENATOR KEENE: So you're saying that together your unutilized capacity will be able to meet the needs?

MR. MORRIS: Together, the unutilized capacity will exceed the market requirements projected for EOR in the San Joaquin Valley.

SENATOR KEENE: And if at that point there is growth in California, an increase in demand for natural gas and all of the unutilized capacity has been used, what happens?

MR. MORRIS: An existing gas distribution system and transmission system is a living thing. It grows and is added to as loads need to be served, as communities are built and pipelines need to be extended in to serve those communities, those pipelines are extended in.

SENATOR KEENE: I'm talking about the main branches of the pipeline. I take it that that's where the capacity has its limitations.

MR. MORRIS: Well, it has its limitations to the degree that we have more capacity available between the two systems than is going to be needed to serve the EOR requirements in the San Joaquin Valley. Now you must recognize that all of the expansion on the PG&E

system or on the SoCal system is not going to be just in the San Joaquin Valley. Our distribution system runs all the way from the Mexican border to the San Joaquin Valley. It's a very large system.

SENATOR KEENE: Well, if after you've met the Kern County needs, just through the force of population growth there is an increased need for natural gas, it seems to me that you have to build another pipleine or PG&E would have to build another pipeline, or Kern River would have to build another pipeline, or somebody would to serve existing needs because you will have utilized all of the available pipeline space.

MR. MORRIS: There is more capacity in other parts of the system. I am talking about the capacity specifically to serve the San Joaquin Valley. There is more capacity to serve Orange County, or in the case of PG&E, I would assume to serve the San Francisco area. We're talking about capacity that is available right now, without any major capital investment, to serve the San Joaquin Valley. That's to get gas from the California border into the San Joaquin Valley.

SENATOR KEENE: How long have you had this excess capacity?

MR. MORRIS: This capacity has been there for some period of time. It's not always excess. It's a matter of where development is taking place, where loads are developing, the way you shift the gas from one part of your system to another part of your system.

SENATOR KEENE: Well, my question still is how long have you had the unused capacity?

MR. MORRIS: This capacity was designed into the system when it was built.

SENATOR KEENE: For what purpose? With Kern County in mind or something else in mind?

MR. MORRIS: I think the--and I was not involved in the initial design of SoCal's or PG&E's system, but that gas is brought in from out of the state a long way away to serve the entire State of California and it was done some 40 years ago.

SENATOR KEENE: Why wouldn't utility consumers say that that's an example of excessive investment and overbuilding of pipeline capacity?

MR. MORRIS: I don't think it was a case of overbuilding. It was a case of expecting and planning for expected expansion in the California market which has taken place. It has been a regular growing market and the largest natural gas market in the country.

SENATOR KEENE: Okay, but now the argument is that if interstate pipelines were to come in, private interstate pipelines were to come in, that would be a poor investment in the future unlike the investment that was made 40 years ago by Southern Cal Gas Company which provided for sufficient excess to accommodate growth.

MR. MORRIS: I'm not going to say that that is a poor investment. What I am saying is that currently we have a system in and paid for that is capable of serving the requirements that are up there. Whether it's prudent to bring in another pipeline for some future load that may materialize or not is a question for someone else.

SENATOR KEENE: But isn't that your argument in favor of the PUC order that it is an unjustifiable additional investment when you have the capacity and ultimately the consumer will have to pay for that investment? That's not your argument?

MR. MORRIS: I think you have to look at two things, Senator. One is you've got certain underutilized capacity in the system. Is it more cost effective to the customers on your system to use that capacity? Assuming all that capacity is fully utilized, I think the next question you have to raise is, is it more cost effective to build incrementally on your existing utility system, or is it more cost effective to allow another system to be built? The point Mr. Carter kept making which I feel needs some response, the concept kept being talked about was a private interstate pipeline. There's no such thing as a private interstate pipeline when you go to the FERC. FERC has to determine whether it's in the public convenience and necessity, or the public interest to build a brand new interstate pipeline. What you also have to realize is there are two interstate pipelines presently serving Southern California: El Paso; and Transwestern. So what the PUC and the utilities are doing is saying to the FERC, "In reaching your decision as to what's in the public interest, you have to recognize that there are existing distribution facilities within the State of California that can serve this market." That's, you know, and when people talk about competition versus monopoly, I think the point Chairman Rosenthal made at the beginning, everybody talked about telephone competition as the be all and the end all. I think we have some question marks today as to whether that unfettered competition is in the overall public interest, especially of the high priority customers.

SENATOR KEENE: I assume somebody's question just got answered, but it really wasn't mine. [Laughter.] I guess my question still is, 40 years ago--we're dealing a little loosely with the factual situation, I understand, but sometime ago you built in some unused capacity on the theory there would be additional growth. Maybe that was prudent, maybe it wasn't. It may turn out to be prudent if that unused capacity is utilized here for the transmission to Kern County. On the other hand, on the other hand, you're now arguing, it appears to me, that there should not be additional capacity here, an additional pipeline should not be built because that would burden the consumers ultimately and it's not an appropriate investment. If that's not it, I wish you would tell me what is it because I'm trying to understand your argument. I really am and I haven't...

MR. GENE SATRAP: Senator, may I try?

SENATOR KEENE: Yes.

MR. SATRAP: My name is Gene Satrup with Pacific Gas and Electric Company. Just for a quick background I am its manager for gas supply management. That responsibility is to purchase gas in California, the Rocky Mountains and mid-continent, as well as to deal with these producers to sell gas into the enhanced oil recovery market here in Kern County, as well as in Fresno County and Monterey County where we deal in the San Ardo Oil Field, and the Coalinga Oil Field.

I'd like to try to answer your question, Senator, by saying that the PG&E system, and I'm restricting my comment to the PG&E system, was built to serve the San Francisco Bay region. About three-fifths of PG&E's market is in the San Francisco area. There was not spare capacity put on those pipelines that I'm assuming are on your map that depict our mains, 300a and 300b. What happened was the cost of gas became so prohibitive and it as a resource became scare that industrial customers left the PG&E system for alternate fuel. And that developed the capacity that is available today.

Planned conservation assisted us gaining additional capacity on that main system. We don't believe that through traditional marketing we will recover the sales to fill those lines as we enjoyed in the '40s, and '50s, and early '60s, so that the PG&E system, and I'm assuming the same for Southern California Gas Company through its management, did not overbuild projecting or anticipating loads. They lost loads and now we're attempting to get back full capacity. The purpose being to spread the fixed costs of these systems over greater units sold, therefore, reducing costs to all of our ratepayers.

SENATOR KEENE: I understand that part of the position. Is the other part of it then, is the corollary to that that you do oppose, therefore, investment and other so-called private out-of-state pipelines, which are incorrectly called "private out-of-state" pipelines, according to the witness. But whatever they're called, whatever you choose to call them, you do oppose them and the additional capacity they would create because it would undercut this position that you've just taken?

MR. SATRAP: Yes, sir. Our opposition to the interstate pipelines revolves on the fact that the capacity available between PG&E and SoCal systems collectively, can be used to serve this market through transportation.

SENATOR KEENE: Okay, I understand that then and that answers that question. What about the question of your having to go around two sides of a triangle and the additional costs associated with that as compared with Kern County and this map that I have in front of me--Kern River, rather, and this map that I have in front of me? Not you, not PG&E, rather Southern California Gas.

MR. JOHN: I'm somewhat at a disadvantage, Senator, since I don't have the map. [Handing him map.] I think that goes back to the question of access to the Rocky Mountain gas and I think the assumption that Kern River's made is that their route is the most direct and cheapest way of getting that gas into California. I think that's something that PG&E might want to comment on more than us since that line also ties back into Canada and I think PG&E can indicate that it has the ability to get Canadian or Rocky Mountain gas through its own utility system.

MR. SATRAP: Thank you, Fred. I'd like to start by commenting on Mr. Carter's comment about the unavailability of Rocky Mountain gas...

SENATOR KEENE: Wait. Would you start by responding to my question? I know you have a presentation and I don't want to defer your presentation except that I'll understand your presentation better once I understand your position.

MR. SATRAP: Not understanding the engineering of the proposed Kern River pipeline, I can only say that that route was selected for the business purposes of that company. We don't understand that particular route as being anymore efficient method by which

Rocky Mountain Gas or Canadian Gas can flow to California. I don't know the reason for the selection of the route.

SENATOR KEENE: The distances look shorter than the distances over which the gas would have to travel to get to Kern County through the other pipelines.

MR. SATRAP: Shorter, yes, sir, but if I understand from that...

SENATOR KEENE: I'm interested in the costs associated with that. As a lay person I'm interested in the costs associated with that.

MR. SATRAP: If I understand the map, some of those other lines appear to be existing pipelines. Pipelines in place that could be expanded on an incremental basis so that I think you'd have to compare what the cost is to expand an existing line with a brand new line and I'm...

SENATOR KEENE: I understand that and I'm not focusing, therefore, on that portion of it. I'm focusing rather on the cost of moving the gas from the fields where the gas exist; the hatched areas over to Bakersfield.

MR. SATRAP: If I may try, yes, moving gas in its most direct route is least expensive for the fuel that's required to move it, or the loss of inventory that you have in the moving of that gas. The reason this route was selected, I don't know if that was one of the governing criterias in it or not. I'm familiar with what the planning criteria was.

SENATOR KEENE: Okay. My final question is a general one and you may choose to respond in the course of your overall presentation or in recapitulating at some point, but as far as the consumer is concerned it seems to me there is an underlying issue of whether the benefits of monopoly outweight the detriments of the loss of competition. In this situation, in this particular situation and I understand the reasons for monopoly in the utility industry generally--would you at some point address that issue of whether the purchaser benefits by competition or loses through the loss of advantages of monopoly if you allow these other pipelines to come in. It's an underlying question for me in the scale as to which way it tips so I would hope that you could address that in some definitive way. Thank you. Thanks, Mr. Chairman.

CHAIRMAN ROSENTHAL: Any other comment? Mr. Gandara.

MR. ARTURO GANDARA: Thank you very much, Mr. Chairman and committee. I appreciate the invitation on behalf of the Energy Commission. At the same time I'd like to clarify that my comments are my own since we don't have any prepared testimony and, therefore, the Commission has not necessarily reviewed it and/or approved it. And also let me say that I was assigned this seat--I do not sit here because I'm opposed to interstate pipelines or because I support the utility proposals or the gas distribution situation, nor do I disfavor them.

What I would like to do in terms of my comments since it was communicated to me in my invitation was to assist the committee in its consideration and deliberation of this issue is to perhaps back up a little bit and ask what I consider to be some fundamental questions that any public policymaker has to deal with and the first one is to ask whether one has come to a conclusion that we want more oil produced? We have started off with the assumption that we're going to burn gas to produce more oil and I think there's a real fundamental question, do we need more oil produced at this time, both in terms of the national interest and/or in terms of the benefits to California?

I refer to oil because oil and gas are inexplicably linked. Their pricing is linked and that there is an assymetry that curiously develop when we look at oil and gas. Oil we tend to look in terms of national interest, and gas we tend to look in terms of the state. So the first question is do we want more oil produced? The price of oil is the lowest it's been in many years. Our projections indicate that oil prices at the crude level will continue to decrease. That it will take at least ten years for oil prices to even come back to the point where it is right now.

We have a situation at the national level where the President has authorized the export of oil, of coconut oil from Alaska to Japan. We have a situation where the filling of the petroleum reserve has been limited to about 500,000,000 barrels instead of the expected 750,000,000 barrels. So in the large strategic picture, do we want more oil produced? If we look at the reasons sometimes given for the producing of more oil, it is given that we wish to displace foreign imports. If we look at the history of where the displacement of foreign imports has come from, we find that 70 percent of foreign imports have been displaced by conservation, 20 percent...

SENATOR RUSSELL: How many percent?

MR. GANDARA: Seventy percent.

SENATOR RUSSELL: Seven-zero?

MR. GANDARA: Yes. Twenty percent has been displaced for alternative fuels. Ten percent has been displaced by increased domestic production. That's on a national scale. Of that 10 percent increased domestic production, if we were to increase to burn all the gas we could and increase all the production we could from the Kern County oil field, would we produce a significant amount of gas that would figure--a significant amount of oil that would displace in terms of meeting those national goals or not?

In any case, that begs the fundamental question. Is a displacement of oil at this point in time in our nation's history in the best interests of the country? Should we not perhaps reconsider whether this may be the best of all times to purchase oil? There are some who argue that that in fact may be the case. With an excess of production capacity to actual production in the Middle East close to 10,000,000 barrels per day, with OPEC in disarray there is considerable thought that in fact the increased production would not increase purchases of imports might in fact produce any upward pressure on prices.

The second big question that I would ask is if, nonetheless, we come to the conclusion that we do want more oil produced domestically and that if we do want that oil to be produced from the Kern County oil fields in particular in California, the question is do we want more gas consumed to produce that oil, because that's what we're embarking on.

We're embarking on a gas consumption policy unless we talk just about EOR in Kern County. There's also, as was brought out in some of the questioning that there will be increasing demand from cogeneration itself that's non-EOR cogeneration because of the state policies that have promoted it in the past, as well as PURPA (Public Utilities Regulating Policy Act of 1978), and also there's residential and commercial consumption of gas that will be increasing. So the question will be: will there be enough gas in the future? What is the projected demand and supply and demand/supply in balance? So there's that fundamental question, do we want to burn gas to produce oil to be able then to produce gasoline and go that circuitous route?

One of the--of course, there may be many reasons why you want more oil produced and why you may want gas to result or to feed that production. One of the ones that was given that I would at least like to balance the comment out is that the benefit that has been given that I heard was that it is environmentally beneficial. There is no doubt that per btu that if you burn gas rather than oil, you wind up with less emissions. But if we really look at what's happening in the Kern County area and you look at the air pollution permits, we're looking essentially at air pollution levels. And so what we're talking is about increasing efficiency, that is there won't necessarily be an environmental benefit as a result of less emissions because the production will increase to the level that will in fact wind up having no particular offset. I may be wrong, but I know of no proposals that says, "If you let us burn gas, we will reduce our overall levels by 25 percent," or anything like that. The whole idea is that you do gain efficiency because you can produce more oil per pound of pollution, but the pounds of pollution will likely remain the same.

While if you do decide that you do want to burn gas to produce oil, then what are the options and the pros and the cons? For that you really are doing the right thing, what you're doing today. What are stakes and who wins and who loses? Can you realistically restructure markets without redistributing benefits and burdens? The answer to that obviously, is no, but the assumption should not be made that the current structure is the fairest.

SENATOR RUSSELL: Could you say that again? I didn't--could you repeat that?

MR. GANDARA: Yes, what I was saying is that I don't believe you can restructure markets without redistributing benefits and burdens, but the assemption should not also be made that, therefore, you do not disturb this current situation because I would assume that the current situation would be the fairest.

The issue that I see that you have focused on is control versus gas price competition, and that is who controls and can it be maintained? It has already been mentioned that interstate pipelines have Federal preemption, therefore, we realistically ask what actually can be done by the state and/or by a state legislature to limit, if it were to desire to do so, an interstate pipeline? Well, the protections and involvements can be long and lengthy and perhaps something could be done, but the fact of the matter is that the Federal preemption, it would be a way by which certainly control would be limited, and that's what we see in the exchange here.

On the other hand, there is gas price competition that is being experienced in other parts of the country and would there be benefits whereby it would be a better risk for California to introduce some gas price competition or some more, not that it's absent. And, in fact, deal with a little bit loss of control. I'd like to state here that I don't think the issue really is whether it's an issue of the PUC proposal versus the interstate pipeline, maybe it's both. If you really are talking about bringing competition to bear on the market, it does seem that the multiplication of buyers and sellers would certainly benefit the gas price in competition. Here in California, as you know, we have some of the highest electricity rates in the country. We have that because we have some of the highest costs of fuel input, that is both gas and oil, and the situation could very well be that the increased gas price competition would have beneficial effects in being able to restructure all those markets. And that's to say that the PUC proposal would be a step in the right direction. Whether everybody is happy with it or not is another issue. That also doesn't mean that that should preclude any other competition from entering the marketplace.

In fact, I would be more concerned about so many prospects for the limitations of the buyers than I would be about the multiplication of the sellers and that is to say that if, in fact, the purchase of gas through the pipelines is going to be limited to EOR purposes, then does the ratepayer care what interstate pipeline it is? I'm not quite so certain that should be the case. That would, in fact, be discriminatory application of the benefits to California, if there is benefit from gas price competition. So that's a little bit of an inconsistency that you should look at.

From the other point of view, we have had, of course, an insulated gas distribution situation for many years and you can ask the question whether that has benefitted the state from the point of view of gas price competition.

I guess I'd like to kind of end my initial comments by also leaving you with an additional thought that when you look at it from the point of view of gas price competition, is the issue really the EOR market at all? I mean, if you were to assume that demand were to be constant and supply were to be constant, would there still be a benefit to an interstate pipeline or not? Would there still be a benefit toward having a multiplication of buyers and sellers, having more buyers to bring pressure in the marketplace? So the arguments could be, of course, many on both sides and I think you've heard all of them. I don't think that you will have an easy time of resolving these issues in your mind, but I'd like to raise at least those considerations to you because I think they are very fundamental questions and at least several of them back up two steps, I think, from where we started. So with that, I would be pleased to try an answer any of the questions that you all may have.

CHAIRMAN ROSENTHAL: Any further comment?

SENATOR RUSSELL: I have a question of Mr. John.

CHAIRMAN ROSENTHAL: All right.

SENATOR RUSSELL: We've been talking about fixed costs and can you tell me when a consumer buys "x" amount of gas, what percentage of that is attributed to fixed costs and what is attributed to the cost of the gas?

MR. JOHN: Okay. At the present time, out of every--and I'm only talking about Southern California Gas Company now--out of every dollar of revenue, approximately 75 percent goes to the cost of gas and approximately 25 percent is fixed costs; and when I'm talking about fixed costs that includes labor, nonlabor costs, taxes to the government, and your return on investment.

SENATOR RUSSELL: Then are you saying that that would, then if you have a less supply of gas going through, the portion of those costs, fixed costs would increase? Or the portion would be the same but I guess the dollar value would increase?

MR. JOHN: I think the real impact is how do you allocate those fixed costs that are not being picked up by certain customers and I think that's the real key here. If you've got more customers on your system you can spread those costs over a larger base, thereby putting a lesser burden on those customers remaining on the system. If you don't have those increased customers, or if you lose customers--for example, right now Southern California Gas Company is serving a fair amount of load to EOR and cogeneration. If we lost those customers, those fixed costs that they're presently picking up would have to be spread elsewhere and that was the point that Gene Satrap was making earlier. What created problems in the late '70s and early '80s was as the price of gas increased and oil prices decreased, customers left the system and those fixed costs had to be spread.

SENATOR RUSSELL: Well, your fixed costs as it relates to manpower and workers, and so forth, you have less gas to supply, you need probably less workers. If you have more, you mean to say you have the same number of, same fixed costs when the pipeline was first built and you had this tremendous excess capacity?

MR. JOHN: You see what's happening right now, Senator, is we're still adding a substantial number of customers a year. Right now we have little over 4 million customers. You still have to go out and serve those customers, especially the residential; and of our 4 million customers, 3.8 million of them are residential, so you still have to---I'll give you one example. Within the last two weeks we've had some early cold weather in Southern California and so we had a lot of calls from our residential customers to come out and turn on their pilot lights. That's going to occur whether you have more or less gas going through your system, and it takes people and money to do that.

SENATOR RUSSELL: The 75/25, was that the same ratio when the system was first built that had this tremendous excess capacity?

MR. JOHN: It's varied and I want to go back to that point. It was not tremendous excess capacity. When you build a pipeline, you build some excess into it so that you're not having later on to go in and expand that on a non-cost effective basis.

SENATOR RUSSELL: I understand that.

MR. JOHN: But the reason for the excess is more recent, as Mr. Satrap point out, because of conservation and because of fuel switching because of oil prices. But 10 years ago, for example, it was about a 50/50 ratio between your cost of gas and your fixed costs. Three years ago it was about 85 percent cost of gas and 15 percent fixed costs, so the price of gas has gone down but not nearly to the point it was 10 years ago.

SENATOR RUSSELL: Forty years ago when the system was first built, would you care to hazard a guess as to what the ratio was?

MR. JOHN: I was just a thought in my parents mind at that time. I don't want to hazard a guess.

SENATOR RUSSELL: Somebody in the company would know, I suppose. Okay, thank you.

CHAIRMAN ROSENTHAL: Senator Keene.

SENATOR KEENE: Along the same lines, are fixed costs a function of volume or capacity in any way?

MR. JOHN: As I said earlier, you still have the fixed cost of operating your system no matter how much gas is going through it because the pipeline is still there, it's got to be operated and maintained, the customers still have to be served. Where the problem arises is if you have less customers on your system taking gas, it's how you spread those costs among those customers and that's the whole issue today in the world of rate design, is how do you allocate the remaining fixed costs of operating your system among your residential versus commercial versus industrial versus wholesale customers.

SENATOR KEENE: Without regard to that allocation, but with regard to the amount, volume, or capacity of gas that moves through a pipeline at a given time, there is virtually no effect on fixed costs?

MR. JOHN: I think if you get to a point where there is no gas running through a certain pipeline for an extended period of time, you have to make a decision as to whether you abandon that system, that pipeline system. If you do, obviously, you need less people to operate that portion.

SENATOR KEENE: What if it's reduced by half?

MR. JOHN: A lot depends on how long you will see that reduction. It doesn't make sense to abandon a portion of pipeline system if the loss of market is only temporary which is what we've faced in the last four years. It's been a temporary a loss of market.

SENATOR KEENE: Thank you.

SENATOR RUSSELL: May I ask another question? It seems to me that with the growth of California as you project in the future, at some point these pipelines that come through Arizona and maybe to some extent the one that comes down through Oregon, are going to reach a maximum capacity to serve the people of California. At that point you're going to have to expand, build another pipeline, or whatever, which is going to cost the ratepayers. It seems to me that if we do this, we're bringing in another supply of gas which really, other than this fixed cost, is outside the normal ratepaying consumer and would give us additional years before which we would have to build this additional supply and therefore, raise the rates to our consumers. So you have on one side, you're postponing that cost to the future further away, you may be increasing, as we're talking about now, some fixed costs to consumers today, but there's some, maybe some payoff or tradeoff, which I don't understand, but it seems to me it just provides a source of gas which doesn't impinge upon the other ratepayers except in this area of fixed costs, but it will delay the need to build another system. Can you comment on that?

MR. SATRAP: I'll attempt to do that, Senator. PG&E and Southern California Gas Company recently submitted to the Public Utilities Commission various work papers on that specific issue. PG&E's document, The Analysis of Facility Requirements and Cost of Service to Serve the Enhanced Oil Recovery and Enhanced Oil Recovery Cogeneration Market, completed by PG&E in it's engineering department, look at various scenarios of service: Cold winter; normal winter; summer; and other presumptions. And contrary to Mr. Carter's comment, PG&E can serve the entire enhanced oil recovery market with no facility expansion through the year 2000 under certain conditions. Taking a more conservative approach and attempting to determine what market could be served under conditions that were prescribed that only occur once in every 35 years--cold winter--PG&E in it's portion of its market share in the enhanced oil recovery could serve through 1996 without any facility expansion, so that if we look at the supplies, and I think everyone agrees that the supplies are available to serve this market, if you look at the facilities that are required, and I don't think that this is dissimilar to SoCalGas either in that we have shared our facility capabilities under the Commission's order, we both, as previously mentioned, can serve that market through the year 2000.

We are able to move around 900,000,000 cubic feet a day. The market expectations that we hear that exceed 1 billion a day take various market consideration into account and I think you have to discount some of those larger loads based on host fired crude or California fired gas. But the market to be served to bring gas from outside of California, both Pacific Gas and Electric Company and SoCalGas, are able through existing facilities to serve through the year 2000. Now if we take the scenarios of cold winter and the need for some expansion of our facilities, I think from an economic consideration it is easier and less costly to incrementally or add on to a system than it is to build a whole system and go from zero deliverability to 600 deliverability overnight.

SENATOR RUSSELL: But the size of the pipeline at Arizona in only so big. That's where you get your gas, right?

MR. SATRAP: We receive our gas in the state from the two pipelines in the Topoc area at the Arizona border and Canada and both systems have great capability of storing gas, so that although you may see either any of the pipelines having capacity constraint during the winter, it's the summer months when the utilities bring gas to California and hold that gas for peak deliverability during the winter. Last week when we were hit with a cold winter snap we were drawing more than 1 billion cubic feet a day out of the ground that we brought in during the summer, so that is not a constraint.

MR. JOHN: What he's saying is you've got to combine your storage operations with your pipeline capability.

SENATOR RUSSELL: But at the year 2000 you're going to have to expand that system. You're going to have to build a bigger pipeline to bring the gas in so you can do all these wonderful things that you're doing with it. All I'm saying is that if you defer that, that's a cost that the ratepayers don't have to bear because this pipeline, or one of the two pipelines, is going to be providing those customers with gas outside the system and so you have a greater flexibility for existing systems to serve into the year 2000 and beyond.

MR. SATRAP: Senator, if we separate the interstate pipelines, they are able to serve that gas we perceive beyond the year 2000. If you look within California, we are able to serve with nominal costs after the year 1996 all the load thatis projected, but more importantly, if the interstate pipelines did come in to serve that load between now and 1995 before any facility expansion is needed, the California ratepayers would not benefit from the serving of that market because the two utilities would not have the contribution margin or the money collected to cover the fixed costs, so it's inverse.

SENATOR RUSSELL: That I understand. That's a short-run, immediate problem. I was trying to get at the long-term cost of new facilities being paid for by the ratepayers and deferring that and somewhere along there's one way to relate that and maybe the PUC knows how to do that. Thank you, Mr. Chairman.

CHAIRMAN ROSENTHAL: I have two or three things that are bothering me about what I've heard so far. On one hand policy has to be made as to whether or not we need more oil, according to the Energy Commission. Kern River says right now we have no intention of serving any other customers other than the EOR, but there's no guarantee that they won't take somebody else off the line. Southern Cal and PG&E have a concern that ratepayers may be affected by the gas that they're now selling to the San Joaquin Valley in terms of bottom line dollars, and the possibility that in the future even more large customers may come off the line.

And then I, quite frankly, look at the history of PG&E and Southern Cal Gas--not really cooperating well--to serve the EOR in the San Joaquin Valley, and now you're concerned because the EOR decided they'll bring in their own. And so I have these mixed questions in my mind and I don't really know, I don't know how to answer them for myself. You haven't been cooperative, now you will be cooperative because they've figured out another way of doing it.

The question is do we in fact need more oil and then further, what's going to prevent that line from taking off many more of your customers, the large users, and how does that affect the ratepayers? So anybody want to touch that?

MR. JOHN: I'd like to make one point, Senator. You said the EORs have a preference for an interstate pipeline. I don't think that's been proven yet. We have various proposals by some pipeline companies for an interstate pipeline. I don't think the EOR producers have said yet formally which way they want to go. We do know for a fact, however, that Texaco has signed an agreement with Southern California Gas Company for transportion to the EOR market. We know that Shell has signed an agreement with Southern California Gas Company for transportation and exchange of gas within California. To my knowledge, those are the only contracts of that nature that have been signed. I think what those producers, however, are waiting for are some additional signals from the Commission, and I'm sure Commissioner Vial will expand on this, some additional signals from the Commission that the transportation proposal that it proposed on October 17 will come to fruition.

As far as cooperation between PG&E and SoCal, there have been differences of opinion but I think it relates to the same reasons as we talked about earlier. We're both trying to protect our ratepayers' interests to the best, as best as possible. Ultimately, the PUC may have to make the decision as to how to do that, but I think that's also in the Commission's crystal ball, let us say, that they want their transportation decision and a resolution of the interutility dispute to take place at the same time and I think that will happen. I think then, and only then will we really know where the EOR producers are coming from.

Sure, they've expressed concerns about the proposed order. Any good businessman will because he wants the best deal he can get, but let's see what the game in town is or whether they're going to play the game or not.

CHAIRMAN ROSENTHAL: Okay. Mr. Gerlach, you didn't have an opportunity to say anything. Do you have anything to add that hasn't already been said by those sitting at the table? [Laughter.]

MR. WALTER GERLACH: Senator, I'm not clairvoyant. [Laughs.] I really don't know what's been said. I do have a few comments if I could make them.

CHAIRMAN ROSENTHAL: All right. We've had an explanation of what EOR is, and we've had an explanation of the Kern River and Mohave as to what they are planning, what they would like to do. You've heard since you've been sitting here comments from the discussants. I'll give you a couple of minutes.

MR. GERLACH: All right. I have some prepared comments here that I will submit to the committee. What I would like to do, stepping away from these if I could, is just give you some comments that come from the very basis of our corporation. You have to understand that this whole thing was started in 1984 by our company and one of the oil companies, so the rest of the people have come in since that point.

What I'd like to do is go back to that January 1984, where Producer's Gas Company, the company that I'm out of as part of El Dorado, met with a very, very willing market. One that in fact appeared to be crying out for help. The market was industrial and it consumed heavy oil for fuel due to the fact that natural gas was priced at $4.80-plus per million btu, and crude oil was priced in the high-to-mid-$3 per million btu range and no help was in sight.

California was not like the other 48 contiguous states in that it did not have an interstate option to transport gas to industrial customers. Undaunted, we approached both the major California gas transmission and distribution utilities with a proposal to provide the required service, to determine if in fact they would transport excess inexpensive gas that we had already available in Oklahoma to these industrial customers to replace the heavy oil currently consumed. We were told in no uncertain terms where to go and to take the horse we rode in on with us. Thus, the statement that has been heard around the gas industry for years was restated, "You can't get gas into California."

The key word here is "can't." Senator, in our vocabulary that's a stimulant and not a depressant. PGC, my company, set about finding a way to satisfy this unserved natural gas market need under the criteria set by the EOR market itself and they are: Firm, noninterruptible gas supply; long-term, what I'm calling long-term would be a 15-year requirement; competitively priced with crude oil. The utility service available to the EOR market did not satisfy any of these criteria and as a consequence the EOR market continues for the most part to burn crude oil.

As recently as the 1984 California Gas Report, a report compiled by the utilities, not by us, both of the major gas utilities indicated that they were not or could not serve the EOR market as outlined in the criteria previously mentioned. They reflected major curtailments in the EOR or higher priority users in the early 1990s. Both of these gas utilities are structured to serve the high priority residential, commercial, and small industrial markets. The larger volume loads are extra and must be heavily curtailed over time due to the competitive objectives of the firms' service. The EOR market falls in this large volume industrial category or possibly beyond because of its uniqueness. We do not believe that the distribution utilities can offer the level of service required by the EOR market and not jeopardize their current priority customers.

PGC determined that the way to solve this situation was via an interstate pipeline fuel system designed to transport EOR market-owned gas, which in turn does not have any competing objectives. When our project, quote, "leaked out," the response was, "You can't do that." Our favorite word, "can't." The response then went to, "Over our dead body," followed by a panic which stated, "The interstates are coming, the interstates are coming."

SENATOR RUSSELL: Who's saying all this?

MR. GERLACH: This is what we're picking up in the trade.

SENATOR RUSSELL: From whom?

MR. GERLACH: Various and sundry people, Senator.

SENATOR RUSSELL: The PUC? The utilities?

MR. GERLACH: Not the PUC. We're picking this up from various people. I'm not recipient of all of these but I have heard these from people in the trade.

CHAIRMAN ROSENTHAL: Let me just shorten this up a little bit. What's unique about your pipeline?

MR. GERLACH: What's unique?

CHAIRMAN ROSENTHAL: Yes, you know? We have other suggestions for pipelines. Tell us about your line.

MR. GERLACH: Our line is a 42 inch pipeline that extends from the EOR market back to Topoc, Arizona which is very similar to one of the other proposals. Our's was designed and in the can before their's was even talked about, but that's another story. Outside of that it's the level of service that we're able to provide that we feel doesn't make us unique, there are other pipelines that could possibly do the same thing.

SENATOR RUSSELL: What's the capacity?

MR. GERLACH: 520,000,000 a day free flow up to a maximum of 1.2 billion with compression.

CHAIRMAN ROSENTHAL: All right, can you kind of sum up?

MR. GERLACH: Well, what I'm trying to get to, Senator, is at any time of the proposals that we have presented represented a threat and that, that I got with a guaranteed type conversation that has been presented before we would like to get into. We are not a threat to the existing utilities. We are not a threat to the CPUC, and we're not a threat to the State of California. We feel quite truly that the presentation that we have made, the format, and the pipeline that we're talking about would be beneficial in many, many ways to the State of California and specifically, to the market that desires this service. I think these people have to be heard from because it's these people that are in essence that small body of ratepayers that will be paying the bill for this service. Thank you.

CHAIRMAN ROSENTHAL: Thank you very much. I'd like to ask you gentlemen now to leave and I want to call up...[Laughs.]...the next panelist, Gary Simon, the California Representative of the El Paso Natural Gas Company, and Mr. Vial, why don't we have you up here. We've already announced that your plane was late. I'm sure you were as upset about that that we were.

MR. DONALD VIAL: I had a little deregulation experience. [Laughter.]

MR. GARY SIMON: Mr. Chairman and members, my name is Gary Simon. I'm the California Representative for the El Paso Natural Gas Company. I'm having distributed to you now a copy of my prepared remarks which I'll summarize and touch on some of the point that you've raised this morning.

First of all, let me give you the story on why El Paso's situation is unique. El Paso, one way or another, is involved in all the plans to bring gas to the EOR market. Our two biggest cutomers are sitting over there at the table across from me right now, PG&E and SoCalGas. We are a part of the existing gas delivery system to the State of California.

At its peak, to get back to Senator Keene's question, the system in California was able to move two customers 6.6 billion cubic feet of gas per day. This was back in the late '70s, early 1980s, and all of that capacity was used and El Paso was providing

4 billion cubic feet per day of capacity on its system, not only to California, but to its other customers. That system has slimmed down considerably. The peak now or the average delivery in California now is about 4.5 billion cubic feet per day. That's the 2 billion cubic feet per day of excess that everybody's talking about, but it was fully utilitized just a few years ago. It's excess now because the market has dropped off. To the extent that excess system can be used, that's how you regain the benefit to the ratepayers.

A parallel thing happens on the El Paso system. Our system, I said, can deliver 4 billion a day. It's now delivering less than three, so we have an interest in moving a lot more gas to California. We now supply just a little bit less than half of all the gas used by California. We're a major supplier to both PG&E and SoCal.

Now El Paso supports prompt and effective service to the market in Kern County for EOR production and we intend to participate in it in one way or another. But ultimately, how that market is served depends not on what El Paso wants, what the PUC wants, what PG&E and SoCal wants, but what the customer needs. The very basic fact is that those customers in the San Joaquin Valley represent a large enough demand for gas in a small confined geographic area that they can justify the construction of a new pipeline. That is not an opportunity open to many other industrial markets in the State of California and one of the reasons you haven't seen a lot of other pipelines coming in here trying to build their networks to serve individual markets is they're just too diffuse. This one is near the end of the interstate gas system already that ends at the Colorado River, and it's very large and very compact.

The fact that you can bring a private line, as you put it, in here says that that's the standard of service. That's the bogie that everybody else who wants to serve that market must meet. The unanswered question we have to date is has what the PUC proposed in it's draft order met that challenge? We don't know because the customers haven't said yet whether it's good enough. We have a draft order put out by the PUC, comments on that draft order which suggest, request other changes, but we don't have an answer yet as to whether it's good enough. It's probably going to be some time before we even know the answer to that question.

My guess would be that nobody's going to commit the state service permanently and nobody's going to commit to the interstate's permanently very early in the next year. It's probably going to be the end of next year before those commitments are made.

I'd like to point out one other thing that hasn't necessarily come across to you. None of the interstate up here have a commitment from anybody to ship gas for them. None of us have any customers. The only things that exist right now are what Fred John talked about, that is there are agreements pending to move gas over the intrastate system for Shell and Texaco, and parallel agreements with El Paso to move that gas for Shell and Texaco, I might add. El Paso also has an agreement with a third EOR party to bring gas in that doesn't currently have an agreement with SoCal and it's pending the outcome of the PUC decision. So that system and pieces of it are beginning to fall into place, but those components--the transportation on El Paso system--are consistent, either with a new interstate line or the existing intrastate line.

El Paso prefers to see the EOR market served by transportation to the existing California utilities and therefore we really support what the PUC is trying to do here. Why do we do that? We're part of the existing system. It's very simple. It's by that route that the benefits, in our view, of additional gas use in California are going to be most widely shared. However, if an interstate pipeline is necessary to meet the customer requirements, then we believe that it should be one that to the maximum extent utilizes the surplus capacity of the existing interstate system. By that option the benefits of added California gas use are still returned as cost savings to California customers. Why? Because it increases the through-put on the lines that are already serving you--El Paso's and Transwestern's--and those benefits flow back to the ratepayers here.

To this end, El Paso is in partnership with H.N.G. Internorth and Pacific Lighting to build the Mohave Pipeline if it's necessary. I might also that the El Dorado Pipeline that was just described to you also connects to the end of the El Paso system and the Transwestern system. It's nearly a clone. And so it would utilize those existing interstate facilities. The Kern River gas transmission proposal does not. It's an all new line.

Now not only has El Paso already signed agreements to move gas for EOR producers, we have also filed to do what we call "debottlenecking" our system to increase its capacity to deliver gas. You have raised questions about how much can the existing lines move to California. There really isn't a whole lot of problem moving gas on El Paso's main line to the Colorado River where it's facilities end. There is a problem getting gas into it's main line, it's coming in through the connections from systems outside. So we have filed an application to increase our capacity to accept third party gas by 400,000,000 cubic feet per day. You remember the market is about 1.2 billion. The 400,000,000 up-rate is going to cost us about $12 million. In terms of our total cost of service, that's a very low number. It will be very easy to expand the system.

Now another question has been raised. Well, how do you get more gas from Canada and the Rocky Mountains into your system? In this application we've also indicated how that could be done if shippers want to do it. That particular option would increase our capability to deliver by 600,000,000 cubic feet per day, the full capacity of Mohave and El Dorado. That costs $63 million.

SENATOR KEENE: Question.

CHAIRMAN ROSENTHAL: Senator.

SENATOR KEENE: Capacity is one issue and the ability to deliver the required amounts. Another issue I suppose is that of control and who controls the capacity and what the cost of that control is to the consumer. I don't mean to reopen old wounds, but rather to refresh my recollection concerning the ability of the California Public Utilities Commission to control transmission costs to the customers and the ultimate customers, the consumer. What is that capacity and if it isn't adequate to protect the consumer, wouldn't competition in the transmission be desirable? And although you have the ability to produce that capacity, wouldn't the consumer be gaining through competition that you would then have to contend with in meeting prices?

MR. SIMON: It's a close question where the greater benefit lies, Senator. El Paso, institutionally, is on both sides of the fence. It would love to see the existing system, including that within the state, used to the maximum extent under the supervision of the PUC, but it also recognizes that the customer may be king here and he may not accept that in which case Mohave, or an alternative, may be what's eventually built. And in that case you have lost potentially some control, but it may not be, as Commissioner Gandara has raised, bad. It may be that a redistribution of where burdens fall now may result in a more fair system. This is the argument that's always raised in favor of deregulation and greater competition in industry.

I don't know how good the analogies are that telephones and airlines, but there is already a tremendous amount of gas-to-gas and utility-to-utility competition going on within the country and it seems to be lowering prices to everybody.

SENATOR KEENE: Well, but you have a virtual monopoly over the transmission of natural gas into California as far as the EOR consumers are concerned.

MR. SIMON: Well, no, we don't have a monopoly because currently we share that market with Transwestern, Pacific Gas Transmission, and other intrastate and offshore producers. But let me just go beyond that. Recently the Federal Engergy Regulatory Commission in its attempt to deregulate the natural gas industry has created a structure whereby pipelines like El Paso simply become railroads. We don't own the goods. We move them for anybody who comes up and meets the conditions of the tariff. It's called open access transport. El Paso, in recent letter to Commissioner Vial and its customers, has committed that by July 1, 1986, once we've negotiated a number of arrangements to just make sure we know where we are with our existing customers, will carry gas for anybody. So in other words, we're surrendering control over who's gas gets on the system and we're just publishing a price. As long as you pony up with the gas at one of our inlet facilities, we'll carry it for a flat rate.

SENATOR KEENE: But who's to say that the price is right without competition in the marketplace?

MR. SIMON: Well, because other pipelines will be offering similar services and because the FERC has said that the prices you can charge can't essentially go beyond what's called fully allocated costs, and those right now are going to be fairly low for El Paso. It's 19 cents per million btu to move gas 2,000 miles from Texas to California.

SENATOR KEENE: Would the same be true then for other interstate pipelines seeking to get into competition in this business?

MR. SIMON: Yes. Other pipelines will probably follow suit but the problem is you're in a transition period now and the crystal ball is a little murky. You can't tell exactly who will be choosing to go that open access route and when, but our guess would be that most of the industry will go that route eventually.

SENATOR KEENE: Then if those people choose to make that investment and that investment doesn't create an additional burden on the consumer, why shouldn't they be allowed to do so?

MR. SIMON: You mean the additional investment of a Mohave-type pipeline?

SENATOR KEENE: Yes.

MR. SIMON: I think you hit the nail on the head. I don't know that there's any way you can prevent them from doing it legally. The way that you prevent them from doing it is offering them competing service which is as good as or better from the existing utilities. That's what the whole issue is about, is whether or not you can match what you call a private pipeline can do with the existing system. The benefit of going with the existing system is then you're making some additional money off of it that spreads the fixed costs farther or reduces the rates, depending on how you want to look at this. But that's the issue that I think you've confronted squarely and our point is the customer is going to know it for probably several months.

SENATOR KEENE: Okay. I'll stop asking questions. I'm still trying to sort out the economics of all of that. Thank you.

CHAIRMAN ROSENTHAL: This may be a good point to introduce Don Vial, President of the PUC, who while he did not hear all that took place before, probably can guess. [Laughs.] And so, welcome.

MR. DON VIAL: Thank you. I do apologize for being late. I have picked up enough since I've been here to realize that we probably have heard it all before. In fact, that's what we're wrestling with in the Public Utilities Commission. There are vast changes taking place, just in the structure of the gas industry on the production and distribution side. The same kind of changes basically that are taking place in telecommunications and electricity. And the policy control is not just in California because what is involved here is national policy as well. National policy, in fact, preempts in many ways the policy options that we have at the state level.

So what we are looking at today is the changes that are coming down the track in this industry and trying to deal with it in the most economic way, constructive way, so that all of the ratepayers benefit from what is perceived to be out there--a lot of opportunities for the reduction of gas costs. So our objective in the PUC has been to understand fully what the national policy is of deregulation and the introduction of competition to carry out the deregulatory thrust, and what it means for us and the options that we have in California in providing for the distribution of whatever benefits that may exist in this evolving system.

One of the benefits of this evolving system thus far is an apparent abundance of gas and a reduction of prices at this point, but we're not sure just how long this gas bubble is going to last. The distributing utilities have responsibilities not only for participating in the short-term spot market and bringing the benefits of this gas bubble to all ratepayers in accordance with our policy, but they also have the responsibility of looking to the long-term and the reliability of supply in the future. Our policies have to deal with those complex issues.

I think what is really apparent is whenever you move toward a deregulated environment with transportation involved in it on a common carrier basis, a contract carriage basis, that there are certain groups of consumers that have more market power than others. And it's clear from what's been said here today that the EOR market is in an extremely powerful position and, in fact, if we don't provide for transportation or provide for sales gas to meet the needs of the EOR market, there will be what we have all recognized to be uneconomic bypass of the existing distribution system. And there is consensus, I believe, in California that the cheapest and most effective way to reach the EOR market is through the existing distribution system. Therefore, it challenges us in the PUC to look at our policies to make sure that the most economic way of reaching that EOR market is provided for. And that is why in a basic way that we have opted at this time for moving toward a transportation proposal for California. That's why we floated it for consideration of all the parties.

Now we are looking at transportation in the context of long-term commitments. There are many large users outside of the EOR market that see the gas bubble and would like to participate in the spot market and enjoy the benefits of transportation on a cost of transportation basis. If we were to just accede to that interest of going to short-term spot market advantages, we could undermine the ability of the distributing utilities to participate in that spot market and bring the benefits of that spot market to everybody. So we're not particularly interested in reaching those who want shot-term advantages of participating in a spot market because those that want to participate on that basis, as soon as the spot market turns sour they want to rely on the distributing utility to be there to meet their needs. It seems to me that that's not quite fair unless you have some penalty in there for getting back into the system.

So what we have focused on in our proposal is the long-term transportation of gas and in order to do that effectively we have to have some symmetry between the transportation tariff that we establish and the existing sales rate design that exists, because there is what you've been calling the contribution to the margin involved in this. We don't want to be encouraging decisions to be going to transportation tariffs for uneconomic reasons and to leave the existing sales tariff. Therefore, we have proposed that the long-term, that those who want to make a long-term commitment to securing their own gas and, by the same token, relieving the utilities, the distributing utilities of the commitment to serve that, to get that supply for them to a large measure, that they should have the opportunity to do so so long as the contribution to the margin is the same as they would otherwise be making.

Se we have linked in our proposal the transportation tariff to the sales price for the classification of the class involved, and the incremental cost of long-term supply to the distributing utilities. And we have floated that on the basis of whether it should be a firm rate or rate that fluctuates on a six-month basis, and we have also raised the question of whether we should include demand charges in that calculation, or whether or not to include it. That would involve the cost of transportation.

Now we did that because we realize in the long-run if we are going to provide for the advantages of transportation to all, that we have to have it compatible with the rate design for sales gas which, in turn, our transportation order then suggests that we need to look at whether that rate design that we have today is an adequate rate design and a fair rate design given the fact that there is a change in structure in this industry and the greater reliance on market forces gives a lot more market power to those who have greatest elasticity of demand, in economic terms, either in their ability to fuel switch or in their ability to bring gas into California through a FERC-approved line that would bypass our jurisdiction. That possibility of a FERC-approved line in fact becomes the maximum value of gas transportation for the EOR market for us and we recognize that fact of life in our order and that is why we set a transportaion tariff of 3.5 cents per therm for the EOR market, because we feel that that is the rate that would make it possible for our California utilities to provide for transportation of customer-owned gas to the EOR market competitively with an industrial line approved by FERC, and thereby avoid what we believe would be uneconomic bypass of the present system.

So to sum up, and I've given you a prepared statement that goes into, I think, consistently into all the things that we took into consideration in arriving at our transportation proposal, we are in fact trying to adjust to the changes in national policy in a way that will be most beneficial to California ratepayers taking into consideration the market power of those who have the options to bring in the gas directly through a FERC line, and running the risk of redistributing fixed costs on that basis for the rest of us, or developing a system that would take advantage as much as possible of the supposed gas glut as this time, provide for transportation on a long-term basis, and protect the margin contribution of the network, and at the same time leave the door open for long-term changes in rate design which may be indicated by the changes that are taking place. Basically, that is what we have done in our proposal.

CHAIRMAN ROSENTHAL: Let me ask a question. How does your proposal meet the oil companies' concern about a guaranteed supply? Their uninterrupted service?

MR. VIAL: Well, we have a section of the order on Page 33 and 34 that deals with curtailment, diversion, and priority system and we point out that in the event of supply shortages the transportation customer still receives its entire volume except during emergency situation. It's in the event of capacity shortages that firm transportation customers are served to the same extent as retail customers of the same priority, and that I think is where the problem lies. There is a clear advantage in that respect to an interstate pipeline and we recognize that at the top of Page 34 of our order, if you want to look at it.

So what we conclude at this point, and let me just read this to you because I think it's important to recognize that we in the Commission want to provide as much predictability and assurance to the EOR market as possible, but we want to do it in a way that's consistent with some of the principles that I was outlining before. This is what we say, "We recall that the priority system was originally intended to classify gas customers based upon their ability to switch alternate fuels. The EOR producers in the Kern River area are constrained in their ability to switch from natural gas to crude oil to a far greater degree than the electric generating steam plants of the utilities, for example. Thus it would see that adjustment of the priority system to correct this situation may be appropriate. We'll also consider alternative means of insuring that transportaion customers who are not easily able to switch from gas to alternative fuels are protected during curtailment situations. One such proposal which is under consideration would permit low priority customers who are transporting their own gas, such as EOR customers, to have a right to purchase gas during curtailment situations at the sales normally charged that class of customers which is still receiving service under the curtailment."

In other words, during a capacity curtailment situation which resulted in the curtailment of load to priorities, P-7, P-6, P-5, and P-4, the EOR producers could continue to receive gas service by purchasing gas to meet their needs at the regular P-3 price. Now I know that isn't a complete answer to them and they'd like something better, but what we do say is that we recognize that there are some issues here and some problems and we've asked for comments on this specific issue, and in our final order we will be addressing that issue. We are very serious about providing a realistic alternative to a FERC line, not because we're just against a FERC line, but because it would be uneconomic bypass of the existing distribution system and we have an obligation as a PUC to do everything possible to reach that market in a manner consistent with the interest of other ratepayers. And that's exactly what we will do and we will do it to the extent necessary under the evolving policies of the United States if we cannot turn those policies around to make them more beneficial to California and this is where we think they can be improved.

CHAIRMAN ROSENTHAL: Yes, Senator Keene.

SENATOR KEENE: How can you be certain that a bypass of the existing facilities will be uneconomic and how could it continue to be uneconomic if in being uneconomic it couldn't compete with the existing distribution system?

MR. VIAL: I'm not sure--you want to repeat it?

SENATOR KEENE: Yes. How can you be certain that bypassing the existing distribution system would be uneconomical? And if it were uneconomic, how can it continue to compete with existing distribution systems?

MR. VIAL: Well, if it were uneconomic bypass it would be promoted by our failure to recognize market forces and this is really what we're involved in. When the policy nationally is to defer to market forces and to implement a transportation system that recognizes the elasticities of demand in the real marketplace, if we don't recognize those forces in our own rate design then there is going to be bypass because it's going to be more economic to do it the other way. So we are constrained. All I'm really saying here is we are constrained whether we like it or not to meet the alternatives that are available and being made available by national policy. To that extent it's uneconomic for us not to do so because there'll be a more economic way.

If we have an artificial rate design that doesn't recognize market forces, they're going to bypass it and we have to recongize market forces here whether we like it or not. And I kick and scream all the way sometimes when I see the impact of the potential for shifting fixed costs in a manner adverse to a lot of customers as a result of these market forces that are now given full play. Because remember, whenever you rely increasingly on market forces you are in fact deferring to those who have the most market power and those in turn are going--the way they exercise that power or that elasticity of demand is going to have a large impact on how the existing fixed costs of the distribution system are going to be spread. What's going on in telephone, what's going on in gas is a potential for redistributing fixed costs away from the large users, from those who have more market power, greater elasticity demand to those who have less. That's the name of the game and we have to deal with that fact.

SENATOR KEENE: Okay. I think I understand that concept. I listened closely to what you just said and I've been listening to this problem all morning and I can't hook the two up.

MR. VIAL: Well, I'm not sure. The problem is that we have to make an adjustment in existing pricing policies in order to accommodate an evolving market that has a lot of bucks in it and everybody want to get into, including our own distributing utilities. And our own distributing utilities are urging us in the PUC to develop compatible policies so that they can serve that market effectively, either by transportation or by sales gas. PG&E's been interested more in sales gas and SoCal's been putting more of an emphasis on transportation. We have come down on the side of transportation because we believe that's reality but we are also keeping the door open for sales gas alternatives that would be compatible with the policy that's evolving. We must adjust our pricing policies to deal with the reality that there is now under national policy a group of potential customers who have an awful lot of market power. They have their own gas to bring in. They can bring it in under federal policies, or we are going to accommodate them to bring it in. All we're trying to do is the least cost analysis to make sure that our utilities have an opportunity to provide that service and that we do it in a way that maximizes as much as possible a fair contributionto the margin to maintain the existing distribution system. I keep going around the same answer. I'm not sure...

SENATOR KEENE: Because you would like to see the existing system be sufficiently competitive that new systems will not come onto the scene.

MR. VIAL: Yes. And the reason is that if we appear to be resisting a FERC industrial line coming into California, it's because we know that that's the beginning of the segmentation of demand in the industry in a way that inevitably means as the forces play out that we must redistribute increasingly some of the fixed costs of the system to those with less economic market power. And we have a resistance toward doing that because it decreases the options of the Commission in dealing with the social policy that also frequently accompanies regulation of a utility, of a service that is important to all of us.

SENATOR KEENE: So whether the California utilities as a segment along the way, it give the PUC an ability to regulate for what's regarded as beneficial social purposes from your standpoint, but you don't have the opportunity to do so with the FERC pipelines?

MR. VIAL: Well, it would reduce our ability to be in control of rate design and to deal with the margins that are necessary to maintain a distribution system are diminished to the extent that the demand is segmented and we have less control over a lot of the margin that would otherwise go to support the network. Remember that when you talk about transportation to the EOR market that while a number of the pipelines says they're only and exclusively interested in the EOR market, it doesn't take much economic imagination to understand that there isn't a heck of a lot of difference between a lot of the incremental customers in the EOR market and a lot of the big industrial users who are chafing at the bit to get at cost-based transportation. In fact, one of the largest criticism of our order at the present time is by non-EOR market industrial users who feel that they have been supporting the network for a long time and are not getting the advantage of the cheap transportation that is being made available to the incremental users in the EOR market and they're pretty upset about it.

They, in fact, are saying, "We want cost-based transportation," and our response to them is "We hear you loud and clear, but we have an existing rate design that is built on value of gas, not on cost-based pricing, and that if we have to make some adjustments we have to do this in a consistent fashion," and therefore, we've attached to this order a long dissertation of the issues that we think are important to confront in rate design now that we are moving into transportation and must confront a lot of the aspects of the sales gas tariff that may not be compatible with the changes that are taking place in the environment.

SENATOR KEENE: Thank you.

CHAIRMAN ROSENTHAL: All right, thank you very much. In closing, before the lunch break, I'd like to get somebody back up here from the oil companies because I have two quick questions that could take about two minutes if you give me a direct answer... [Laugher.]...and could take two hours if you didn't.

MR. REISNER: Mr. Chairman, Don Reisner again.

CHAIRMAN ROSENTHAL: Fine.

MR. REISNER: I have another witness here who can answer some of the questions that have been raised, possibly the question you were thinking of. Mr. Randy McCrae from Shell.

CHAIRMAN ROSENTHAL: Well, we're going to have my two questions and then we're going to break for lunch. Okay? We heard from the Energy Commission a concept of why produce the oil now? Why do we need more oil? Can you give me a quick answer?

MR. RANDY McCRAE: I think even though my expertise is in the area of natural gas I can comment briefly on that. My name for the record is Randy McCrae, I'm a staff natural gas representative with Shell Oil Company in Houston.

Certainly Mr. Gandara indicated that there was some benefit to the national security and a reduction of reliance on imports by the increased production of oil here in the United States, and even though there are broad policy implications for the nation in his question, I think there is certainly a benefit to the nation by whatever incremental production of oil that can be achieved.

Certainly, the other answer to this question I believe, or your question, is that there's certainly a benefit to California in producing that oil as it contributes to the national energy security in creating jobs and tax base and everything else that it brings to the state.

CHAIRMAN ROSENTHAL: You haven't convinced me. Now I don't know whether somebody else has a different answer, but the other question is one is very significant in terms of air pollution. The Kern County Air Pollution Control District has asked you to cut your NOx emissions by 50 percent. Are you prepared to do that?

MR. McCRAE: As far as Shell is concerned, Senator, we're continuing and we have met all the guidelines that are on us. We are burning right now, Shell is burning a large amount of gas at all facilities where we have connections and where it is economically available we are burning gas right now to contribute to that effort and to reduce those emissions. I cannot speak for any of the other companies but Shell has certainly made a large effort to do that and meet those requirements.

CHAIRMAN ROSENTHAL: Any other oil company want to give me a quick answer? Are you prepared to reduce your NOx emissions by 50 percent?

MR. REICHARDT: Terry Reichardt with Chevron. I can't give you a yes or a no answer to that. I believe that our emissions are consistent with the current requirements. I believe we're in conformance. I would like to state that in terms of whatever amount of heavy oil it is economic to produce, there will be less emissions if it's done with the natural gas rather than with crude oil.

CHAIRMAN ROSENTHAL: What if part of the arrangement was that if you had this pipeline, you'd have to cut emissions from your other operations? What would be the answer?

MR. REICHARDT: From our other operations other than heavy oil?

CHAIRMAN ROSENTHAL: Yes. You know, in the area. You've got to, you know, they say you've got to cut NOx 50 percent. They don't tell you which plant has to do that.

MR. REICHARDT: We would like to convert to natural gas. If we had a pipeline, we'd like to convert our steam generators from crude oil to natural gas.

CHAIRMAN ROSENTHAL: But you haven't indicated whether you would cut NOx 50 percent.

MR. REICHARDT: I don't know the answer to that.

CHAIRMAN ROSENTHAL: All right.

SENATOR KEENE: I just wondered if because of the order of presentations being reversed--I still have some issues interested in where I would like to hear a rebuttal, if possible, from some of the FERC pipeline people to Mr. Vial's testimony. I don't know whether they should be requested to submit papers, or what. I know we're out of time for the presentation.

CHAIRMAN ROSENTHAL: Well, if we could get some quick answers, I wouldn't mind doing it right now, or else they can present papers.

MR. CARTER: I would suggest that the questions be specified and some written responses be made, if that's possible. It might be more efficient time wise and might get you some better answers and then if you have further questions, we could convene again.

SENATOR KEENE: Okay, because I was listening to your position within the context of not having President Vial, then I heard him and I'm kind of interested in hearing what your response is to that.

MR. CARTER: And I would love to give you that but my concern is that the time would not be efficiently utilized. You've got another hearing and a lunch break. I think we're going to run into a real time problem.

SENATOR KEENE: Maybe some written submissions would be useful. Thank you.

CHAIRMAN ROSENTHAL: Thank you very much. We will break until two o'clock.

[Break.]

CHAIRMAN ROSENTHAL: Very good. Good timing. Mr. Imbrecht, Chairman of the California Energy Commission, and Mr. Pugh, Chairman of Management, California/Oregon Transmission Project. Why don't you join us. The discussants on this side, Don Vial, Commissioner of Public Utilities, Douglas Oglesby, Attorney for PG&E, and I guess we have no representative from SoCal Edison at this point.

This afternoon our focus shift to electricity. California's electricity future seems to be moving us away from being electricity producers to becoming energy consumers, purchasing power from our neighboring states. Evidence for this is the proposal before us for discussion today.

A consortium of private and public utilities is planning to build another major transmission line to the Northwestern United States in order to enable more imports from this region and greater competition among electricity producers. But the history of power from the Northwest suggests to me that this new transmission may be a direct line to extortion. [Laughs.] Power from the Northwest has escalated in price about 800 percent in the last six years. Another line will make us even more captive to this unpredictable market.

Our speakers today are directly involved in planning this new line. I ask them to tell us of the guarantees we can get that power from this line will be reasonably priced, and advise us of what we need to do to protect ratepayers in California from the whimsy of our northern neighbors.

Energy Commission Chairman Imbrecht will open our discussion with a status report. I also invite our panel of discussants to the front of the room, which I've already done, to comment and to raise questions. With that, Mr. Imbrecht.

MR. CHARLES IMBRECHT: Thank you, Mr. Chairman and members. Again, I appreciate the opportunity to be with you this afternoon.

I think that probably it would be useful if we went directly to one of the premises behind the statement that was included in your opening remarks, Mr. Chairman, which really lies at the heart of the confusion, if you will, about the efficacy of the third Northwest intertie on the AC side, as well the upgrades to the DC line. Because while I appreciate on the surface how you might reach the conclusion that you suggested, I'd like to suggest to you instead that actually it is the current situation that in fact puts California in a sellers marketplace, if you will, from the perspective of the Northwest, and it is the current situation that has made it possible for the Bonneville Power Administration and the other utilities in the Pacific Northwest to increase rates to California over the last few years.

The reason for that is as a practical matter the best way to try to imagine this is we have an inadequate extension cord that exists between California and the Pacific Northwest. Today the current extension cords, the two AC Northwest intertie lines, which were constructed in the early and mid-1960s, are filled to capacity virtually the entire year. As a consequence, despite the fact that there is an abundant surplus of economy energy available both from the states in the Pacific Northwest--I'll get to the reasons for that in a few moments--as well as from our neighbors in British Columbia and to a lesser extent in the Province of Alberta as well, that because of limited transmission capacity there is no actual market competition for the prices of power that are sold to California, because of the fact that there are more parties with power to sell, trying to squeeze onto a line that has an inability to carry the totality of the surplus energy from the Pacific Northwest. That as a practical matter eliminates competition.

That has also as a practical matter made it possible for the Bonneville Power Administration to enunciate something we and the Public Utilities Commission have consistently opposed in both regulatory and judicial forums, and that is something known as the intertie axis policy which seeks to further limits and allocate shares of existing line between the parties in the Northwest, in essence market shares. From our perspective, almost a classic antitrust violation where we're talking about a free enterprise system, allocate those market shares in terms of sales to California. That has made it possible further for the Bonneville Power Administration to in essence dictate a for-price, for-sales to California by virtue of them enunciating a price and then allocating the remaining shares on the line, there is obviuosly no incentive for other utilities in the

Northwest to compete in the marketplace for sales to California. The Bonneville enunciated price becomes the de facto regionwide price.

What we seek to do by virtue of construction of a third Northwest intertie on the AC side in conjunction with the DC upgrade that runs down from Nevada that has been announced in a cooperative project between Southern California Edison and Los Angeles Department of Water and Power, is several fold.

First and foremost is to expand the access of all utilities and in turn, therefore, the ratepaying public of the state, the entirety of the ratepaying public, not just those who participate because their servicing utilities have a current share of the highway, if you will, that access to the energy markets in the Northwest and British Columbia.

Secondly, we anticipate that that will enhance rather than diminish the competition for sales to the state.

Third, the physical changes in the system have been demonstrated in many technical forums to substantially, if not dramatically, increase the realiability of the entire Western transmission grid. We here in California have our own loop, if you will, and that is a rough oval of transmission capacity that runs from the northern portion of the state down to the southern portion of the state. There are two other loops that exist west of the Rockies, all of which are tied into our system and without getting into a complex discussion like we did a week ago, suffice it to say that if there is a physical breakage anywhere in the system, it can have profound impacts; not just in that same geographical locale, but literally throughout the entire Western United State.

An incident that's in utility circles that's reflected upon most regularly is the so-called Leap Year Blackout on February 29 of '84, where a break in the system at the Oregon/California border produced blackouts as far away I believe as Phoenix, Arizona and Colorado and throughout the entire Western grid.

The upgrade of the DC line and the construction of a third AC line will appreciably enhance the system reliability and that means the physical guarantee that ratepayers throughout the Western United States will enjoy the certainty of supply that makes our entire industrial manufacturing base, our style of life, not to mention impact upon our low income communities palpable, or I should say reasonable within the current context.

In addition, we believe that the seasonal exchange opportunities because the Pacific Northwest is a winter peaking electric system, that is they use the bulk of their energy, the high peak periods, the days of the year when they need the most energy, that occurs in the winter for them and for us it occurs during the summer, at least that's the case for the vast preponderance of the population in California. And so this enhancement of our transmission capacity, in essence the extension cord between the two regions also opens up the opportunity in a much greater way than has been the case in the past, for seasonal exchanges between the two regions.

What that means is they can sell us their surplus during the summer, which is basically hydroelectric generated surplus. In wet years their dams are brimming to capacity and spill a tremendous amount of hydroelectric capacity over the spillways of projects which were constructed with Federal dollars which we in California contributed to as did the citizens of the Pacific Northwest. Today that energy is literally wasted in facilities where rivers have already been dammed and the environmental consequences have been accepted or acclimated or in one fashion or another, and that energy literally pours out to the sea despite the fact that it could instead be directed through turbines and sold to California.

Now another I think very important benefit of this project, aside from the prospect of producing literally a regional electrical system for the entire Pacific Coast with all attendant system reliabilities, strategic considerations, as well as the prospect for substantial economic benefits for both regions, and that's obviously the crux of the problem which I want to speak to last.

This also has a very positive impact within the utility community in our own state. I think one of the things that's frequently overlooked generally when we discuss the electric generation system is somehow a perspective that the investor-owned utilities of California service all of our population. Frankly, nothing could be further from the case. When it comes to electricity only about 70 percent of the citizens in our state are serviced by investor-owned utilities, and fully 30 percent of our people are serviced by publicly-owned utilities, including the constituents, well many of the constituents which each of you represent. That's an aspect of our utility system that doesn't engender the same degree of attention frequently, other than the case with respect to investor-owned utility issues.

There has been, suffice it to say, historic disagreement between the public and private utilities in the state over access to Pacific Northwest power and the attendant benefits to the ratepayers of the state, to the system reliability issues, etc., and by the historic agreement that was signed by virtually every utility in our state, both public and private, in the Spring of this year, approved by Congress in August and signed by the President shortly thereafter as a rider to the Department of Energy appropriation's bill this year. This historic agreement not only provides access to that 30 percent of the state's population that has largely been deprived of access to the Northwest marketplace in the past through their servicing utilities, but it also, assuming we're able to move forward to construction of the line, sets to rest historic and long-standing regulatory and judicial agreements between the public and private utility sectors in our state.

There is a case known as the "Quad Seven" which has extended well over a decade which deals with these issues, and if the project goes forward to completion as the terms of the agreement on the allocation of shares the line, that litigation and that disagement will be set aside.

Finally, the obvious question is will this make sense from a cost effective standpoint to the people of this state? Let me simply say in very clear terms that I don't believe there is a single party to the agreement, nor is there a single regulator who has any responsibility or jurisdiction with respect to this who has not consistently been saying to Pacific Northwest, "This line will not happen unless there is adequate assurance with respect to the predictability of price and the assurance of supply over a period sufficient to justify the economic investment in the line."

We think as a practical matter that we have accomplished the bulk of our responsibilities in California and the ball to a certain extent is in the court of the Pacific Northwest and largely in the court of the Bonneville Power Administration. Our utilities have struck a historic agreement known as the Memorandum of Understanding. Our utilities are currently engaged in interconnection agreements that will decide where the actual physical transmission connection points actually occur, and there are already bilateral negotiations with respect to long-term and medium-term contracts over price and supply. Nonetheless, there remains the question of how the Bonneville Power Administration will effectively utilize its near dominant position, or I should say dominant position in the Northwest in terms of rate setting structure.

We've tried to say to them very clearly, both in the electricity report which was the point of some discussion at the last hearing, and obviously there are many other aspects besides cogeneration in that report. We've said to them in that forum, we said to them in regulatory and judicial proceedings, etc., that now is the time to fish or cut bait. That we have gone the extra mile, that we have put our parties together in California in a way that's unprecedented, and if you don't come to terms on the price/supply issues in the next six months, or thereabouts, as a practical matter what you will force California to do is to build other generation capacity. For example, the cogeneration projects that we discussed at the last meeting, along with a wide range of projects that we've also mentioned to you are currently in the planning horizon, much of which is well beyond the planning stage and has signed contracts and is at the point where it's either about to file for certification for construction, or we'll go through other regulatory processes beyond the Energy Commission or the PUC's jurisdiction. That that capacity will be built and as a consequence the marketplace here in Caifornia will be lost to you, not just the new marketplace, that is the potential, but also in a very real sense much of the existing marketplace because of the types of new energy generation which we are adding to our own system within our state.

Finally, where does this leave us? The ball is to some extent in their court. There have been a number of ongoing discussions involving the highest level of our regulatory and our utility community, both private and public. More of those meetingsare frankly scheduled in the next few weeks, and I would have to put it to you in this context--we are cautiously optimistic that they are going to understand the realities. And assuming they do, then in fact this represents one of the great energy opportunities for the people of our state, as well as for the people of the Pacific Northwest. It literally is a situation from an economic standpoint which clearly can pencil out to be a win, win for both regions.

What we've said to the people in the Pacific Northwest and the great diffusion they have there, and if you think we have a lot of utility interests in California, let me invite you to join me on a trip to the Northwest and you'll find that the 90 to 100 interests that produced "WHOOPS" (Washington Public Power Supply System--WPPSS) are still very much on the scene today; that, in fact, they have an opportunity to serve their own citizens like we, that we are looking for a deal that roughly divides the benefits between the two regions. We're confident that that can be the case.

And finally, I'd just like to tie this afternoon's conversation into this morning's discussion because I think it is important to realize that each of these energy sectors do not operate in a vacuum from one another. They are very much related. And in fact what has occurred on the natural gas side, the deregulation of domestic natural gas, the reduced prices, etc., acts as a practical matter as an economic cap on what, on the price that Pacific Northwest can sell electricity to California for. Obviously, our utilities that have generation capacity are not going to buy surplus from the Northwest if they can generate it within their own systems, even with natural gas for example, at a lower cost. It is that threshold Northwest has to compete with. I think there are enough players in the Northwest that understand that and I also believe that there is enough diversity within the utility systemsin California. Rate differences between our private and public utilities who has generation capacity, who does not, who has access to the Northwest, who does not, who has peak or baseload generation capacity, etc., that with a line in place there will be ample opportunities for a broad range of our utility interests to demonstrate economic justification.

I applaud and I might say also very much accept, and it's probably not the right term--I not only accept, but expect, as the PUC has rightfully enunciated their responsibility to ensure that our investor-owned utilities strike a deal that's prudent for the interest of their ratepayers, and we're trying to do that with them with the investor-owned utilities and also trying to assist our publicly-owned utilties in that same regard. I'd be happy to give you any genral background about the role of the Administration or the Governor in this entire discussion. It has been ongoing for slightly in excess of two years presently.

CHAIRMAN ROSENTHAL: Let me just say, Mr. Imbrecht, I'm concerned about the bottom line. I'm concerned about the prospect of increased competition lowering the sales rate by Bonneville to California. I'm also concerned about long-term contracts and so in light of those two concerns and what came out of our last hearing in which we're now facing a surplus of electricity in California, few new power projects are being planned because of sufficient resources to meet the in-state demands. What are really the opportunities for us to sell surplus electricity produced in California to the Northwest as part of this exchange in this regional concept? I don't really see it.

MR. IMBRECHT: Well, the opportunities have to do with the fact that they are a hydroelectric dominant system and as we well know, hydro power varies tremendously from year to year depending upon level of rainfall. And the last year actually their hydro system has been deplenished in a very large sense. They have actually had to rely upon British Columbia to supply some of the imported power purchase needs of utilities in California. When you talk about seasonal changes we're talking about California being able to use some of its baseload capacity in the winter when it doesn't need that generation capacity to sell to the Northwest and back their system up. It provides in essence a guarantee for them just as they can provide a guarantee to us during the summer months because that's when the Spring runoff occurs, when their dams are filled, and when they're in a position to sell us hydroelectric power almost irrespective of what the level of rainfall might be. Now obviously, that's not the case if it's a drought-type year, but in terms of average conditions that is the situation.

At issue for them--if they have a very wet year, that means they can sell surplus to us for much longer periods. If they have a medium year, that cuts off earlier in the Spring.

In terms of what it means for our ratepayers in terms of price and whether that makes sense versus building genration capacity within our own states, let's put this in a little bit of perspective.

CHAIRMAN ROSENTHAL: Yes, but it was indicated at the last hearing that we don't need any more facilities, we don't any more electricity in California.

MR. IMBRECHT: No, what we said the last time--no, that's not quite true. What we said at the last hearing is we need 6,350 megawatts of additional capacity in the next 12-year period, and we have identified on the drawing boards substantially more than that, both in terms of capacity and energy, projects that are under contemplation for construction.

CHAIRMAN ROSENTHAL: Right.

MR. IMBRECHT: The question is should we allow a very expensive project to be built in California if we can meet those energy needs by long-term purchases of inexpensive energy from neighboring regions. And if you want to look at it from the perspective of environmental consequences, don't we really have some obligation to look at regional interests as well? Do we build in California to generate when there is already developed capacity right at our border?

Interestingly, when the Northwest intertie was built, three lines were brought down to the Oregon/California border. Only two were constructed from there into the San Francisco region. We're really just talking about completing the system, if you will, that was begun in the 1960s. I guess the point I want to make to is no deal is going to work unless they can meet what in essence is the marginal costs of gas generation, which I guarantee you is less than the cost of building new generation and it's certainly in the neighborhood of 60 to 70 percent maximum cost of new generation, that's assuming the most cost effective new projects only being approved.

Under almost any scenario if the deal is going to work you're talking about sales to California of energy that is substantially less expensive than anything that we can bring on-line in California, with the possible exception of geothermal. And that's what it really comes down to. Do we want to give our ratepayers the benefit of what is roughly the equivalent of two nuclear plants in terms of generation over a 15 to 20-year period? In terms of rate savings I think that the answer if you look at it from an economic standpoint is obvious, assuming, and that's the one assumption that's left, that Bonneville Power Administration understands and recognizes these realities and comes to terms with them in their rate structure.

CHAIRMAN ROSENTHAL: Senator Keene.

SENATOR KEENE: I understand the carrot part of the equation that says its a win/win for both sides if it gets put together. You also had a stick part that we had some leverage with them and what kind of leverage is it to say that if you don't enter into a partnership or a contract arrangement with us on this, why we're going to go ahead and build domestically. Is that real leverage?

MR. IMBRECHT: Yes, indeed, it is real leverage because today the Pacific Northwest, and one of the reasons that there is some caution about going forward is because they're a region that has suffered very immense economic problems--the timber industry and you're certainly familiar with the problems that they've experienced.

SENATOR KEENE: ...bring my district into this. You must be a former legislator or something. [Laughs.]

MR. IMBRECHT: I always try to move this around to self-interest. Their timber industry has suffered as had Northern California in a very similar fashion because of interestingly, Canadian imports I think is a large part of that. Their aluminum industry, their mining industry, etc., is also in a very difficult position. Of the five major industries up there, basically the aerospace industry appears to be the only one currently that is in a reasonably healthy situation. And because of the critical role we play in terms of the total economics--and again I'm going off in some detail and stop me when you like--but the Bonneville Power Administration is a TVA or Tennessee Valley Authority-type institution. The Columbia River system projects were constructed with Federal tax dollars. They have had an outstanding debt to the Federal treasury. I don't frankly know how long it's going to go but certainly a very long period of time. They went through a long period where they did not repay their debt to the Federal treasury. There's enormous pressure on them to do that. The reason you've seen some fluctuation in the rates to California is largely a perspective of them trying to enhance their ability to repay that debt up to the maximum extent possible.

I think all parties feel that they've largely reached the ceiling. I just want to put this in a little perspective. Though the prices have gone up dramatically, they are still below 30 mills for kilowatt hour and if you can find a utility in California that can generate power for that, I'd like to see it. The fact of the matter is, there is none, so even with the increases it still is less expensive current generation. What we're saying to you is we believe a deal can be put together, and I think frankly most of the parties in the Northwest do that recognizes the economic realities. Certainly many of the investor-owned utilities have already said that clearly.

What we come down to in terms of stick, if you will, is that the types of additions we've made to our system that impact new cogenerators also impact sales from the Northwest, baseload generation. As a consequence, it's not just future sales but also existing market that is jeopardized. We're doing our best to make that case in a technical and in an economic discussion environment in a regulatory body. The semantics are not dissimilar from those which occur in front of the Public Utilities Commission and I think we made that case as strongly as we can from an intellectual and technical standpoint, and it's really a question of them to chew on it for the time being. We're trying to move this forward to both public and private discussions. I'm confident that there are enough political interests in the Northwest as well as understand these realities that in fact we're going to produce a deal.

And I would just note for you that this is one of those strange issues. When I first arrived in my current position, one of the things I was struck by was the amount of disagreement within the utility and energy community within our own state. Here's an issue where we have largely put together those interests and you have people that have been historical enemies all marching in the same direction and all understanding the clear benefits to their respective ratepayers. I think it would be a pity and frankly, I'll offer a judgment in advance, a slippage of our public responsibility if we're not able to put this together. The only thing that is going to hold it up, quite frankly, is the same problem that I made reference to that seems to produce intransigence in the Northwest and other issues, and that is they have so many more parties than we've got in a much smaller region. You figure basically in California we've got 40 utilities in round numbers. They've got 90-plus and a population in the four states that is less than half of our total state population. That's the biggest problem. When you sit down with these people it's a little bit like negotiating the State Assembly.

SENATOR KEENE: They haven't yet discovered the advantages of concentration of political power, have they?

MR. IMBRECHT: That's right.

CHAIRMAN ROSENTHAL: Yes, Senator Russell.

SENATOR RUSSELL: To what extent is the fact that this energy could displace, what 14, 18 megawatts of...

MR. IMBRECHT: Sixteen hundred AC. We're looking at roughly 1,600 megawatts and the DC upgrade, which is a separate project, but frankly the two fit together from an operating standpoint. Actually the system reliability with the AC/DC combination--I'm not sure I want to use that phrase--is enhanced.

SENATOR RUSSELL: Okay, but to what extent are the environmental concerns really demonstrated in terms of reducing pollutants that would otherwise be produced by cogeneration, by other types?

MR. IMBRECHT: As we discussed, as I think I made reference to at the last meeting, I have yet to discover any energy generation technology that is environmentally benign. They each have their negatives whether it be air quality or land intensiveness or aesthetics, or what have you. There are factors with respect to all technologies that are problems and I don't want to suggest to you that a transmission line doesn't have its own set of problems, but I will also tell you that the project's that contemplated here, Mr. Pugh, who's the President of the NCPA and also an elected official, has really been one of the key individuals in assisting us and actually taking the lead in putting this whole matter together and will talk about the specifics of the project. Actually, I think without prejudging the CEQA process, etc., contemplates the upgrade, the predominant portion of the project will contemplate the upgrade of an existing Western area power administration line which means minimal new rightaway acquisition, and all the other attendant environmental issues...

SENATOR RUSSELL: I was thinking primarily of air pollution.

MR. IMBRECHT: The major environmental groups in the state have endorsed this project, I might add. And another perspective in terms of enhancing the system reliability is if we were to build a third AC line parallel to the existing two, the same natural disaster takes the whole system out, or the same physical disaster of an airplane crash, for example. By moving the third line to a different physical location, we enhance the reliability of the system and what does that mean to the people? Well, that's not simply an intangible quality. We all take the granted the fact that our lights stay on on a regular basis, and so forth, and we take for granted that our industrial base has energy on a regular basis. In many countries that's not the case and it's certainly something that I've also learned in this position. And there clearly is an economic benefit, as well as price that ought to be attributed to that certainty of supply. Because of how we're overloading the system, I wouldn't say overloading the system, but we're certainly loading the system currently up to its theoretical limits and by doing so we jeopardize supply for everyone.

SENATOR RUSSELL: Can you or have you related this completion of all that you proposed to reduce air pollution in any particular part of the state?

MR. IMBRECHT: No, sir, we have not.

SENATOR RUSSELL: Could that be done at some time in the process?

MR. IMBRECHT: I think it could be done. Let's just put it in round terms. This project alone would account for 25 to 30 percent of the new capacity needs for the state over the next 12-year period and whether that be cogeneration--we don't really know what the system is going to be. If, as we discussed last week, we were to change our siting policies back to the status quo of last Spring, virtually everything that would be built in the next few years would be gas fired generation. And I would just also put that in the context of this morning's discussion where there was some discussion about concern about the length of time that the gas bubble will exist. That goes back to the point that I was trying to make a week and-a-half ago about building into the system reliance upon natural gas. I think President Vial referenced some concern of their's about how long that bubble's going to last and it affects the cogeneration issue very much.

SENATOR RUSSELL: Is most of the need for this extra generating capacity in Southern California? The majority of it?

MR. IMBRECHT: Well, I don't think it's easy to generalize and I wouldn't say that, but baseload--there's more base needed in Southern California than there is in Northern California large due to the addition of Diablo and Helms, but the difference in the interest, Senator Russell, between the variety of our utility interests in the state are really A to Z. I think Mr. Pugh can probably also better talk about what it means to a publicly-owned utility who has had neither access to firm or nonfirm surplus sales from the Northwest, how they can economically justify the line simply on the basis of nonfirm, much less firm. It can be...

SENATOR RUSSELL: Well, what I'm getting at, Mr. Pugh, if you're going to come on next, as Mr. Imbrecht said, this would take care of one-third of the potential generating capacity needed in the future. My concern, coming from Southern California, where would that one-third primarily be? Heavily in Southern California where we have a pollution problem? And if that is the case, I would assume then this additional electrical generating capacity would address in a favorable way the reduction of pollution or the minimizing of pollution by that amount of capacity rather than building new facilities, be they cogeneration or whatever?

MR. IMBRECHT: I think that you've just given Mr. Pugh another issue to add to his negative declaration for the--I don't think it'll be a negative declaration--but for his EIR. Mr. Pugh, in addition to being the President of MCPA, a former mayor and member of MCPA and currently a member of their council, but is also the head of TANC, which is the consortium of interests that has been formed as the transmission agency of Northern California.

CHAIRMAN ROSENTHAL: Mr. Pugh.

MR. IMBRECHT: Maybe he can address some of those. I'll be happy to answer any other questions you may have.

MR. ARCHER PUGH: Thank you, Mr. Imbrecht, Senators. I appreciate the opportunity to come talk to you on behalf of both the Transmission Agency of Northern California, which I'm Chairman, and the California/Oregon Transmission Project, which I am Chairman of the Management Committee. As Mr. Imbrecht has told you, I'm a councilman from the City of Redding. I was formerly a mayor there and have in the past been the Chairman of the Northern California Power Agency and I'm currently the Chairman of the Transmission Agency of Northern California; was President of MSR, which is another power agency of Modesto, Santa Clara and Redding.

A little of the background, I think that Mr. Imbrecht has expressed the fact that the publics started this program some time ago in an attempt to gain access to the Northwest which we have never had. Most of the public power agencies in Northern California which are involved, there were 15 agencies, were not in the process of generating. They were wholesale customers of either the Western Area Power Administration or Pacific Gas and Electric. Over the years there has been a tendency to attempt to become an independent generator, an independent utility in having the availability of different resources and different sources of power. The transmission looked like a vehicle that that could be used to attempt to do that and to create that situation.

In early 1984 we had put together with Western Power Administration a plan which would allow us to develop this line and upgrade the Western lines to bring that power in. In 1984 we also met with the private utilities in the process of trying to put together an agreed program as per direction from Congress, to work together to develop a memorandum on how we would participate in the line, what shares would go to the different member agencies in the state, and how the line would be basically structured and the function. So over a long period of time we met and discussed and negotiated postures within all of the agencies in California to come up with a memorandum of understanding which set up the methodology of developing this line and how it would be used and function.

One of the things that the Transmission Agency of Northern California did as a joint powers agency when it formed was discuss very definitely what its function was to be, and that function was to be only of developing the transmission line. The diversity among the members as to what needs they had were the types of energy that they wanted to buy from Northwest led us to the posture that we were not an agency that could go up and buy blocks of power and use them within the agency. We have many agency members who over the years now have developed their own baseload generation. Northern California Power Agency has a geothermal power plant going, has another under construction right now. There's a hydro-electric project under construction. We have, some of the group have purchased coal fired generation by buying part of a plant in New Mexico, and we have a number of those vehicles available.

So the needs of the different agencies were such that no one felt it was necessary or available to have bulk purchases by an agency itself, so we have gone under the basis that we looked at the Northwest as the ability to supply our individual needs. Each of us have done our own studies and our own concepts of how we can economically portray this program. The economics were there for most of the public utilities strictly to buy summer peak capacity. Summer peak capacity is a very available and valuable resource and is available in Northwest.

Exchange programs, such as those that have been entered into in the past by L.A.D.W.P. and Southern Cal Edison with the Northwest, were also vehicles that we could look to with our baseload generation which is excess in the wintertime, be able to use an exchange program.

Again, one of the things I think that's been very valuable in this process, as Mr. Imbrecht expressed, was the ability for the first time and since I've been involved in public power and I got involved in 1974 when I was first appointed as the commissioner from the City of Redding, to be able to sit down, not only with all the publics at the same table in California, but to sit down with the publics and the privates and work together to develop a project which all of us felt independently in our own studies was a project that would benefit the citizens and the ratepayers in California.

I think Mr. Imbrecht has expressed to some degree the impacts which we are discussing with the Northwest on the price of power. We firmly believe that an interconnection with the Northwest that is tied to a location and a place that give us access to all of the different utilities in the Northwest is going to create a competition up there as well. What you have currently with the connection at Malin is a connection with Bonneville Power Authority, and as long as you're only connected to Bonneville everything else, as Mr. Imbrecht said, funnels through them. We feel that the third AC line is going to be structured in such a manner that we will have access to other entities in the Northwest who we can then buy from independetly. And those kinds of things create competition, not only for the types of power whether you want surplus energy, whether you want firm, whether you want summer peak capacity, whether you're exchanging for energy, those kind of things can be worked out down the contracts with the agencies and you can take and pick which of those has the best deal, which of those have the kinds of surpluses and needs that you have, which have the energy you want, who has the capacity you want, how you can use it for reserves. Those are the kinds of things that we're looking for.

So the agency developed with the IOU's the memorandum of understanding which split this process into being. We have since gone through that process to the environmental contracts. We're in the process now of doing environmental studies for the whole line commencing from Southern Oregon on down into the Tracy/Tesla area. We are through the second phase of that. We have done corridor studies and we are now into routing studies. We've held public workshops throughout the whole north state to try to get as much public input as we can into the process, and we'll be continuing on through the rest of this year and into late '86 just doing the environmental reports. TANC is the lead agency for the CEQA process. Western Power Administration is the lead agency for the EIS process on the Federal side. We are coordinating those two processes together to make sure they fit.

Once we have gone through this process we then submit those documents to the investor-owned utilities who submit those to the Public Utilities Commission for their certification process. So we're not talking about a short process. We're talking about a long time in the study, both from the environmental, the economic, the feasibility of it, the engineering of it. These processes will take a long time and have a lot of input. The investor-owned utilities require the certification by the Public Utilities Commission. We in the public sector require that we go back to our communities and be able to convince our communities that the financing of this line is in their best interest. The city councils or district boards have the authority to go through that process with an ordinance and referendum. There are referendum available to the people of the community if they feel it is not economic or not beneficial for that entity not to participate. So we have a great deal of regulatory oversight, both in the public side and in the private side to get through with this project.

In going through the questions, we've attempted in the paper I presented to you, to address all these questions. I don't know what degree you wish me to review them, but I can because we do not feel, as I've indicated, that we're talking about energy blackmail. We feel we're talking about a competition program, the availability to open up the total Western system. This opens up the marketplace throughout the system because of the increased transmission capacity. I might indicate with surpluses you're looking at the year 1991 for this line to come into being. Many of the studies in existence show that surpluses will be less here in 1991. There is a potential of surpluses not existing in the Northwest other than the fact that you have BC hydro. BC hydro, when certain Northwest surpluses still expect surplus, and that can be used to bring in our area.

But we're talking about a great deal of variety in the numbers of entities we can deal with in the long-term future and we're looking at a transmission line that we're looking at 40 years or better of use, and so we're not looking at something that's just within the next 5, 10 or 15 years, but something that gives us a great deal of availability in resources that are both planned and under construction in the Northwest to date, and the BC hydro program of Site C, which they are very definitely talking about building. We're looking to the interconnection with Southern California with the diversity among our own state. We're looking at the ability, because of this function of cooperation among the utilities to work longer and harder at cooperation of utilities in the future, both as to sharing power supplies and power need. So we think those areas are fairly well identified in our project and we feel the project is well worth going forward with under those concepts.

CHAIRMAN ROSENTHAL: Mr. Pugh, how will the municipal utilities transmit that power to the areas of need? Will wheeling be involved?

MR. PUGH: Most of all of the publics today have wheeling contracts with either Pacific Gas and Electric, Southern Cal Edison, or other areas who own the transmission within the particular geographic sections. The power will be wheeled to the central substations and from those central substantions the, pursuant to existing contracts, be wheeled into the other areas. Part of the memorandum of understanding was that there would be wheeling provided from Tesla to Midway on the Pacific Gas and Electric system, and then wheeling would be provided by Southern Cal Edison from their location at Midway to the southern cities for their share of this project power that comes down. So the wheeling contracts among the agencies here will be handled under current contractual rights which exist with the private-owned utilities who own the current transmission grid within the system in California.

CHAIRMAN ROSENTHAL: The $64,000 question--SB 1430 that I've introduced calls upon the PUC to determine guaranteed minimal levels of power supply sufficient to justify the new construction, contractual limitations on the power adequate to ensure the cost effectiveness of the project, and to demonstrate the availability of surplus power over the life of the project, and I note in your conclusion you recommend that that not be enacted. Now it seems to me that if everything has gone along the way you say it should go along, you'd have no problem with the legislation. What's the problem?

MR. PUGH: Basically I think, Senator, the problem with the legislation is I see no way that we can today crystal ball the guarantee for 40 years that we're going to have all of those things that you're talking about on an open book. I think we're...

CHAIRMAN ROSENTHAL: Then why do it?

MR. PUGH: Because I think you have to take a look at what is likely to occur, but I'm not going to give you a guarantee that it's going to occur. I think the likelihood is there and the likelihood is different than a guarantee that is there. I think that your bill is asking us as publics and privates together to enter into some kind of a contract where BPA guarantees or somebody there is going to guarantee that for 40 years they're going to supply you with "x" amounts of megawatts of power at such-and-such a rate, and I don't think we can do that in California. I couldn't get that out of PG&E today and I don't anybody else, nor would they want to give one. And I don't think that anybody would want to enter into that type of a guaranteed program.

We feel, based upon historical data, based upon projections and loads and on needs of all of the entities involved, that this matter is an economic and long-term benefit for the areas, but I can't give you a sure fire guarantee that that's going to be and I think this is the problem we have with that kind of legislation.

CHAIRMAN ROSENTHAL: Could you guarantee it for 15 years, not 40?

MR. PUGH: Currently, under Federal law, no. Bonneville Power Administration cannot enter into a contract with term of a guarantee under Federal statutes. They're forbidden to do so.

CHAIRMAN ROSENTHAL: Okay, I have a problem trying to deal with somebody who created problems for themselves and can't get out of it, and so now you want me to deal with those people who built five plants which are never going to be in operation, only one of which is there, and now I'm supposed to deal with those people on some sort of a future relationship to provide at a reasonable cost on a guaranteed period of time for access. It's very difficult to deal with somebody who goes broke and now he wants me to say, "Hey, you know, I'm willing to spend $500 million from the ratebase to purchase some power from a source that I don't have confidence in."

MR. IMBRECHT: Well, Senator, may I try that for a moment? Just a couple of things I'd point out to you. First, there is no way that Northwest is going to be able to bail out "WHOOPS" on the basis of any kind of deal that would go forward in California. It is simply economically impossible and I think that boogie man ought to be laid to rest at the outset of any discussion. It's not in the cards. It's not the system, circumstances that will make it possible, etc., and there's not an entity in California that wouldn't turn their backs on such a deal and walk away, even with the investment that's been made to date.

As a practical matter, it does have the prospect of increasing their revenue stream, but in no way in a volume necessary to solve Whoops. It may affect their ability to meet some of their Federal repayment issues and that's obviously one of the carrots that we were discussing with Senator Keene, but we're not talking about something in the magnitude that "WHOOPS" is, which $5 billion, give or take.

Let's put some things in another perspective. $500 million for the transmission line, that's an upper scale limit. We're tried in all these discussions to air on the liberal side, if you will, based on some of the mistakes that are made in terms of other power projects in the past who underestimating what the cost is and then having to come back at a later point and swallow hard with egg on your face and say (Inaudible) cost overruns. As a practical matter though, we think the project will be substantially less costly than that.

What does that mean in terms of comparisons? Well, if you want to talk Diablo, $5 billion for 2,200 megawatts, and even if we took the worst case scenario we're talking one-tenth of that for a capacity that's at least two-thirds, frankly, a little bit in excess of that. That's not to browbeat any project. It's simply to put things in a little bit of perspective.

Finally, I do think it's likely that we're going to see some rate assurances that I believe will be sufficient to allow the PUC to make the kind of prudent judgement which they need to make with respect to investor-owned utilities. Whether it will be 15 years or not I doubt it will be that long because there are some exigencies in Federal law, but as the same time, I think that the PUC will and as they should look at the physical circumstances of the marketplace in the Northwest and I think they will understand as we do from those analyses, that the surpluses and the demand up there simply don't mesh. The surpluses are much greater than what the demand is and even if you prognosticate that all of their industries completely recover and all of the historic growth patterns and the rest of it, it's only under those circumstances that you see the surplus dissipating in the early '90s. We're talking worst case scenario here when we're talking about the early '91 situation.

Finally, the BC option, as we call it, is a very important one. British Columbia government has reversed a decades old policy of constructing generation capacity only for domestic consumption and then sale of any surplus they might have. Premier Bennett, after several meetings here in California with the Governor and myself and all of the senior executives of our major utilities announced about a year ago now that they would construct for the purposes of export alone, and they already have two, and perhaps as many as three projects fully environmentally permitted and ready to go, assuming they have access to the California marketplace. This is an issue of great importance to Canada. It's one which has been raised to the bilateral trade negotiations that were negotiated by their prime minister and President Reagan in the Spring of this year. It ranks from their perspective in terms of importance equal to the natural gas issues that you discussed this morning. I think that the economic necessities mean that BC will have access to the California marketplace. It's been important to the Los Angeles Department of Water and Power and other utilities in the past, and it will be important continuing into the future.

One of the participants in our discussion is the most recently retired president of Pacific Gas and Electric Company, and I don't want to parrot any utility's viewpoint and I don't want in any sense to suggest that that's the case here, but he made a very telling comment at one of our most recent negotiating sessions. When he was talking largely to his own peers who were the senior executives in the Northwest and said, "Gentlemen, let's get down to the bottom line. If we're statesmen we can produce a deal that is beneficial to all the people in the Pacific Coast." Ultimately, I think any energy expert, whether you want to talk about Hunter and Amory Lovins, who represent one perspective in the community, or the utility community itself, I don't believe it makes sense fundamentally for us to move towards a regional energy distribution system where we take advantage of the climactic differences between the regions rather than building and building and building and operating like a small boat in an ocean all by ourselves. It doesn't make logical sense. The only impediment are human structures that we have created and it's frankly a challenge for all of us in public service to try to be statesmen and produce a system that we know will benefit the people from British Columbia to the Mexican border, and perhaps ultimately Mexico as well.

CHAIRMAN ROSENTHAL: Senator Keene.

SENATOR KEENE: I'm a bit confused by the response to Senator Rosenthal's question about SB 1430 because it seems to me that your answer was in the nature of the fact that the Northwest power producers are in such a sorry condition that they're not likely to provide a guarantee of a minimum level of power supply sufficient to justify the new construction, that they're not liable to want to ensure the cost effectiveness of our project. They're not likely to be in a position to demonstrate the availability of surplus power over the life of the project. If that wasn't the position, maybe you could re-explain the position because I didn't understand it. It seems to me that if they are in such a desperate situation to develop the California marketplace and the purchasing power and the needs of the California marketplace, that they're going to want to do exactly all of those things. That we can get them to do exactly the things that SB 1430 requires. Why is that not the case?

MR. PUGH: Well, Senator Keene, I think the problem is I guess in perception as to what we say to guarantee. I say they will not and would not prudently enter into a fixed price, long-term contract if they could, and now we'll have to talk about the investor-owned utilities or separate utilities other than Bonneville Power because they have impediments to those, Federal statute impediments to long-term contracts of that nature.

SENATOR KEENE: Federal statute?

MR. PUGH: They're impediments, they are required to have withdrawal provisions in their contracts, they're required to have limited time constraints on their contracts, all set by Federal statute. They cannot enter into a long-term fixed contract for a number of years.

SENATOR KEENE: Well, why then wouldn't you support SB 1430 to the extent that it's possible consistent with Federal law to do so, or why wouldn't you try to have Federal law changed to make it better for us to have a secure investment?

MR. PUGH: Well, Senator, I'd like to get the line built by 1991 and what you're saying means we're being very realistic having dealt with just the process of going through, this line through Congress by itself.

SENATOR KEENE: Well, we can't pass a law. The Federal law is supreme. We can't pass a law that conflicts with Federal law which you're telling me now that SB 1430 has limitations on it. Well, why can't we pass a bill up to the point of those limitations is effective in providing us what guarantees we can get?

MR. PUGH: Well, Senator, I guess the basic problem I have is is it really necessary? Don't we already have enough regulatory proections with the Public Utilities Commission?

SENATOR KEENE: You say so in your report. You say we already have extensive California regulatory agency involvement. You don't cite what it is and then you say, "...and in fact regulatory approval was a critical path constraint to early development of the project." I don't really understand that and the Energy Commission has no siting authority, the PUC has no authority over municipal utilities. Where is all this regulatory authority that's being exercised on this project?

MR. PUGH: Well, because this is not a municipal utility program by itself. This is a joint program in which the investor-owned utilities, as I indicated earlier, have an obligation and are required to go through the CPUC for their CPUC certification for their participation in this project.

SENATOR KEENE: Only for their participation in the project.

MR. PUGH: And as I went through the process we go through the environmental phases. We then present it for certification. We do not go to begin construction until after they have PUC approval.

SENATOR KEENE: But the considerations there are environmental, they're not economic.

MR. PUGH: No, they're consideration for certification are economic, environmental, everything. They have to certify that Pacific Gas and Electric and...

SENATOR KEENE: So you're talking about CPUC?

MR. PUGH: That's right.

SENATOR KEENE: I was going to your environmental impact report requirements.

MR. PUGH: They have to go to CPUC. In other words, TANC makes an environmental determination. Once we've made the environmental determination we then submit that with the investor-owned utilities who make application to the Public Utilities Commission for certification of the project so that they may participate in the project and participate in construction of the porject. We then have the process of CPUC certification which certifies their participation which includes the environmental, the financial, the ability for ratebase and everthing else with regard to the participation by Southern Cal Edison, San Diego Gas and Electric, and Pacific Gas and Electric.

SENATOR KEENE: I don't know if what you're saying means that CPUC can reject this project for precisely the same reasons that fails to satisfy the requirements, the guarantees that are required by SB 1430. Is that what you're saying?

MR. PUGH: They would have that right without 1430 if they did not determine that, as I understand the rules, maybe Doug can help me here, but as I understand the rules with the Public Utilities Commission, they have the right to deny the certification of this project within their own existing guidelines on the process of feasibility, economics, need, use, whatever else you want.

CHAIRMAN ROSENTHAL: Why don't we then--let's move now to Don Vial, the President of the PUC, for his presentation, and then in answer to the questions we've raised in terms of my bill, SB 1430.

MR. VIAL: Yes, I do have a prepared statement that goes into the details of how we confront the cost effectiveness of the expanded intertie. I think what has been said thus far is a clear indication of the complexity of this issue. That it's not something that we can just deal with in isolation. I think Chairman Imbrecht has done a very good job in laying out the parameters of this and trying to bring it together. We in the PUC have a very strong interest in working very closely with the Energy Commission and putting our best foot forward in Caifornia to get the expanded tieline to accomplish all of the objectives that Chairman Imbrecht laid out.

The problem that we have in the PUC is that we have to deal with a lot of reality in terms of the actual prices that we're assuming in dealing with the economic feasibility of these tielines. That's a pretty complex situation. It's quite obvious if you look at, if we had our druthers, as Chairman Imbrecht pointed out, that with all that capacity up there and our needs down here, it's to the advantage of both regions to have an expanded intertie so that we can interface with each other; and in fact if there were no barriers to competitive relationship, we'd be all home free and we'd be all very happy, but as Chairman Imbrecht pointed out, there are a lot of institutional barriers in between. And those institutional barriers have a lot to do with the price that is paid, both for firm and for nonfirm energy and whether or not those lines in fact are going to be feasible.

The truth of the matter is that we have to reach some accommodation with the Northwest and with Bonneville, particularly, to break down some of the institutional barriers that have cast a real shadow on the feasibility of this line. And in no sense can it be considered not feasible in the long-term, but on the other hand, if the barriers are not broken down, it could very well be a serious problem. And here again, this morning we were discussing gas. Gas prices are coming down. We don't know how long the bubble's going to last, but in fact, you know, the cost of generation with gas is coming down.

I think that it's been alluded to there's the possibility for a win/win situation here in working out the problem is the fact that there's a big gap between the incremental cost of energy produced up North and our so-called avoided or incremental cost. There's a wide margin there and there's a lot of room for negotiation and settlement and in that context it's possible to determine whether or not these lines are going to be truly feasible. This is what my statement attempts to point out, just exactly how we are looking at these issues.

Now it's important I think for everyone that is involved in the negotiations and certainly Chairman Imbrecht has been very much involved in this, along with Pacific Northwest and our own utilities, that they understand that we really have a public responsibility to get a some pretty hard figures. And if you can't tie it down with contracts, and you've heard what's been said about the contracts, there are problems there, that at least we should know what the ground rules are going to be in the future for dealing with price relationships. I think this is what we're talking about when we talk about the need for predictibility in rates for the future. If we can't tie down the specific contracts, at least to know what the ground rules are going to be and how we're going to adjust these.

CHAIRMAN ROSENTHAL: That, and I understand what you're saying, but if in fact the rates in Washington had been reduced to their ratepayers in that area and increased to California...

MR. VIAL: Well, we've got a serious problem and all of us are involved right now before the FERC in trying to get a handle on the nonfirm rates. We're still discussing, believe it or not, before FERC, 1981 rates and we know what's happened to the nonfirm rates, you know, from 2 to 3 mills they've gone up to 23, 24 and they're going up. And what is important to recognize here is that this third line is going to have a lot of capacity available for nonfirm energy. When you work out the exchange relationships and work out the possibilities for firm energy on that line, there's still going to be a lot of capacity for nonfirm and it's really important to tie down that nonfirm rate if we can. In fact, I say that the time is right and I think everyone agree that we've put up with enough nonsense between--and this applies across the board. We really should be settling that nonfirm rate that's dangling before the FERC, come to some conclusions on it, lay out some ground rules on how we're going to deal with it in the future because we have approached our incremental cost of energy and as it stands now, some of the prices that are being advanced just don't look very good in terms of the feasibility of this project. So if we're going to really have a win/win situation and we're approaching our avoided cost prices, it means that the accommodation's going to have to mean some downward adjustment in that nonfirm rate.

There is a lot of room for negotiations here, as Chuck Imbrecht has pointed out. We've got to get on with it and we have to be together in this state on what's really important to us. We want in the PUC to give reliable indicators of how we're looking at the feasibility so that no one is mislead, so that the Northwest reads us, hears us loudly and clearly that those nonfirm rates are important just as the firm rates are going to be important. And that even if we had the additional capacity, if Bonneville is going to pursue the kind of access policy on the intertie, that all of that excess capacity is not going to give us Canadian energy without a surcharge by the Northwest. And that's exactly what the PG&E and others are very concerned about. That we don't get surcharged in these relationships that get developed and this is again a question of how we start breaking down the institutional barriers one by one to make sure that we get some handle on what the ground rules are going to be for both firm and nonfirm energy in the future. And remember, we do have a lot of opportunities for exchange arrangements, but it's unlikely that we'll have the capacity for the exchange in their direction that there is the potential for buying energy from them. And the Canadians have clearly indicated that they want to invest in projects and sell us energy. We want that energy. It's important to the PG&E, for example, in terms of their long-run goals.

But let me just add one thing. That the Northwest really has to understand that there are really a lot of options for California here. That price is coming down on gas fired energy and also we have a lot of options in dealing with third party development. In the PUC we're going to be looking at what the long-term avoided costs is going to be for future energy development. It's really importnat for us to know what the arrangements can be with the Northwest and how much we can depend upon purchase power from the Northwest with some reliability, and it's also important for the Northwest to know that we have options and we're not dependent upon them. I think that's what's going to make this arrangement work, if we can really settle down and they hear us loudly and clearly.

CHAIRMAN ROSENTHAL: Yes, Senator Russell.

SENATOR RUSSELL: Well, since we've been told that you can't have a guaranteed contract, what kind of assurances can we get that would signal to us that we're ready to put in $500 million and you as the regulators say, " Yes, that's a good deal and it's a cost benefit type of a project." What are we looking for? Word of honor, or what?

MR. VIAL: No, I think that in terms of specific settlements, for example, I think that we should be able to settle right now the controversy over the nonfirm rate. We have a forum going in FERC and that would be an indication that if we can start chipping away at this essential problem of the nonfirm rate, we can then be looking at how we ought to be dealing with nonfirm rates in the future, having some understanding and agreement on how we're going to be dealing with incremental costs of the system up North, and our avoided costs, and how we're going to approach some kind of a win/win situation. That's the basis on which we need to proceed and I think that if we start chipping away at the nonfirm problem that has been blowing up in our face, we'll also start chipping away at much of the basis for the intertie access policy that has restricted flow of energy to California on favorable terms. I think it's the kind of negotiating process where you need to have kind of a breakthrough.

SENATOR RUSSELL: Is it a process whereby you get a formula based upon avoided costs or some other kind of things and so this relates to that, and if this goes up, that can go up, but if this stays down, then that will stay down? The final result is while it's not a guarantee, the result that you agree to in the formula produces a certain price that you can hang your hat on? Is that we're talking about?

MR. VIAL: I'm no expert in this in details, and yes, that's the way I'm looking at it. I think Chairman Imbrecht looks at it in much the same way. We have expertise on our staffs, both the Energy Commission and the PUC, and of course the utilities have it also. We can get an understanding on how those formulas might work for the future.

SENATOR RUSSELL: So if you have a bill like Senator Rosenthal's which maybe relates to formulas or concepts which are real world concepts, and something happens to this, it has another effect here which is somewhat predictable, you can nail those down.

MR. IMBRECHT: You just used the word that we've used in all of the discussions and that's predictability. That's not certainty because this is an uncertain world we live in in terms of energy costs and it's all tied together; and what the Arabs do affects the price of natural gas, which in turn affects our natural costs, which in turn affects the market, etc. I mean it's all a long, long string, but predictability is in fact the thing we're looking at.

A little historic note, Senator Rosenthal, it's not so much what's happened per se since '81 and the variety of rate changes from Bonneville that we've called out in our electricity report and the PUC has talked about as well, it's the utter unpredictability in the manner in which they have treated California. The price increases have affected us. Basically we've gone from a cost-of-service philosophy in terms of what they've charged us, what it took them to generate it--obviously that's not a lot when the capital costs of a hydro project have already been amortized--to a what-the-market-will-bear formula, and the prices in the Northwest have also escalated. The prices to their consumers have gone up but not as quickly as they've gone up to the ratepayers in California. Does that mean that today our utilities are paying more for Northwest Power than they are for other generation? No, to the contrary. That's not the case. They're still paying less and that's the important thing to always keep focused. Yes, the price has gone way up but it's still less than anything else we've got in the system.

What we're trying to do is ensure that there is predictability as to what those rate structures are going to be and to ensure that under no circumstances can we be placed in a position where those prices would go up beyond what domestic generation would cost us in California. That's the manner in which we protect the ratepayer. I think the issue in terms of your bill is not so much anybody disagreeing with the necessity for these issues to be considered. In fact what I think what we're trying to say is the PUC in fact already is doing that and doing it within their own jurisdiction. And I think probably what it really would come down to is the question of semantics by which you define the types of issues that they ought to be satisfied with respect to before allowing investor-owned participation, rather than the concept whether in fact the PUC ought to ensure that they are making a prudent decision.

In terms of the publicly-owned utilities, I think the important thing to remember is that we're talking about elected officials with a constituency of their own and that's largely the regulatory check on decisions that are undertaken by the publics. You can draw your own conclusions whether you think that's adequate or inadequate or not, but that's in essence the circumstance we find ourselves in.

MR. VIAL: Well, we don't need the authority of the legislation. It's clear that we have the authority. We have suggested some amendments that would from our point of view make it more compatible with the kinds of problems that we're talking about here, and at the same time make it possible for the Legislature to indicate the kinds of things that you want us to take into account. Basically, we are trying to do all the things that you are suggesting in your bill.

SENATOR KEENE: Well, on that point, Mr. Chairman.

CHAIRMAN ROSENTHAL: Yes.

SENATOR KEENE: Then obviously the legislation doesn't impower you, it restrains you. It causes the PUC to adhere to certain findings before going ahead with the certificate of--what do they call it, convenience of necessity, or whatever it's called--it requires that you do certain things first.

MR. VIAL: That's true.

SENATOR KEENE: Okay, now you say, "Well, we're going to do those things anyway," and I trust my fellow commissioners, I understand all of that concept. My question, though, goes back, my question, though, Don, goes back to what was said by Mr. Pugh and that was that you can't get these things out of the Northwest Power people, out of Bonneville and the others. So if you can't get them, they can't get them, and we can't get them legislatively, how are you going to be able to get them? With all the good faith in the world that the commission might have.

MR. IMBRECHT: You can't get what's defined in the bill, but what we're saying is you can get adequate assuances to justify the line and that's what I was talking about in terms of semantics. Let me offer a couple of things that I believe we can get, and frankly, in my own judgment have to get in order for anyone to be confident about going forward, whether it be public or private utilities in the state. We need predictability in the rate structure from Bonneville Power Administration. That's a statement that's been delivered to them with such consistency that they must be mind numb...

SENATOR KEENE: Okay, but how are you going to get it? The Rosenthal bill suggests a way to get it. How are you going to get it? That's not semantics.

MR. IMBRECHT: Frankly, they have a lot of flexibility about how they structure their rates. They are both a utility and a PUC all rolled into one. They announce a rate structure, then the administrator goes and sits as a member of the PUC and decides whether his own judgment was prudent or not. That's literally the way it works. And then it goes before FERC and that's sort of an independent check, but of course, they've got too many TVA's and BPA's to worry about and so it's largely--unless there's an agrievous violation of the process--it's upheld.

But there are also political levers in the Northwest and that has to do with the economics of them being able to continue to sell to California. There are investor-owned and public utilities up there...

SENATOR KEENE: But once the pipeline is built, once the pipleine is built that leverage is lost because we're not going to make a white elephant out of the pipeline, so ...

MR. IMBRECHT: It isn't going to be built without those kinds of predictability checks built in...

SENATOR KEENE: But it's those kinds, it's those kinds that worry me.

MR. IMBRECHT: Some of the kinds of things we're talking about frankly, if you want to get down to the nitty-gritty, there are ways of doing it. Bonneville is tied to the Preference Act on the Federal level in terms of their ability to cut off agreements and so forth, recall power, etc. That doesn't mean that their investor-owned utilities or their other publics are tied to that same set of restrictions and there is some discussion underway, for example, for them to in essence market the power to the Northwest, in essence have Bonneville sell their share to the IOU's and they in turn sell to California. And suffice it to say, there are mechanisms, some of which are being spawned right now by utility attorneys, etc. We're pretty confident that such approaches can creatively be embraced that will allow the PUC to make the kinds of findings that do justify the line.

I'd also encourage you to take a look at the history of the first two Northwest Interties where similar questions were raised and there's a very sense of public record on this issue, and also take a look at the history of what the benefits to the two regions have been. The problem from the Northwest's perspective has been, part of it in the last couple of years has been we're getting even for a perception that somehow California took advantage of the situation too long. We negotiated prices on the spot market. We were three and four mills kilowatt hour for energy while their own ratepayers were paying 18 and 19. You can obviously understand the political problems and certainly within that reason.

SENATOR KEENE: And now we're paying 26 to 30 mills?

MR. IMBRECHT: A lot of that has been dissipated today and I think that it's important to look at it in terms of the entire historical context. This is really not a good forum to explain all that...

CHAIRMAN ROSENTHAL: No.

MR. IMBRECHT: but I'll make myself available to explain in detail to respond to those questions.

MR. VIAL: May I make a point? Senator, you are obviously on the crucial issue and you're really--we in the PUC must deal with that issue and deal with it effectively. Now first of all, it is possible for the utilities, the private utilities to enter into agreements with the other IOUs up there. The problem is to get access to that line. All the intertie capacity in the world isn't going to break down the access policy of Bonneville unless we work out an arrangement to break that down. That's an integral part of making this line feasible and in the process we feel we'll get some price adjustment.

What I want to point out to you that when you talk about feasibility and what we're looking at as I point out in my statement--the Northwest's analysts talk in terms of options of 50 mills per killowatt hour. Now if you look at that just for a moment, the cost of the line is going to be just 25 mills. Now between that and 50 mills you can see what the maximum amount might be for this thing to have feasibility is that there isn't much room. You can get gas-generated energy today at 30 mills or close to it. So it's this kind of a process that we're going to go through. It's really important for us in working with the Energy Commission that the PUC gives good signals on how we look at cost effectiveness. That's why I took the pains in laying it out in this statement before you today. Those are the kinds of things that we'll be looking at. But the problems are not insurmountable. I really feel that the big problem in large part is being able to break down that access policy because if we can break that down, with the additional capacity there'll be a lot of room for the private utilities to negotiate and the feasibility of these lines greatly depends upon those negotiations with the private utilities and the price that they can get firm and nonfirm energy at.

SENATOR KEENE: But your whole statement is replete with arbitrariness and bias on the part of Bonneville and a failure to protect on the part of FERC.

MR. VIAL: That's right.

SENATOR KEENE: That's all over the place here and you're telling us not to worry. [Laughs.]

MR. VIAL. No, I'm not telling you not to worry. I'm saying that we have to be together on this in our negotiations and I can assure you that we're working very closely with the Energy Commission and the others to make sure that we get our interests forward because we could be taken to the cleaners on this thing.

MR. IMBRECHT: Both the PUC and we and our utilities have been taking utterly consistent positions in regulatory and judicial proceedings relative to these isses. Now admittedly, it's been a frustrating circumstance because as I explained to you the BPA is an entity largely unto itself. That's why I'm convinced this is only going to happen as a result of hard ball and to put it to you bluntly, political negotiations. And if they're left to act in an environment that is somehow a vacuum is not going to happen. We are doing our best, I assure you, and I'll be happy to detail to you privately what the steps are that are underway to ensure that the realities of this situation are clearly understood by the parties in the Northwest, as well as by our own. But we're not going to go forward, period, unless this is a cost effective investment for our people.

CHAIRMAN ROSENTHAL: Well, I think we could make some recommended changes in the legislation because really what I'd like to do is send a message.

MR. PUGH: I think that's very true, Senator. One thing I'd like to comment on also is that one of the problems historically you've gotten is again the access is limited to one location, to one set of tielines. The concept of the new line was to give multiple ties to that line outside of the jurisdiction of Bonneville totally and if we can get multiple ties so we have direct access to other utilities, that again developes the potential for competition, develops the potential to access other utilities as opposed to Bonneville and gives us some ability to work on the price on that basis. And that's one of the concepts of this line as to the connection point being shown and the negotiations on that connection point.

SENATOR RUSSELL: To what extent does Bonneville really need us?

MR. PUGH: I think if you look at their rate repayment structure and their rate repayment program, with the power--if they don't sell us power that's being developed up there and spill that power or dump it, they still have to make the same amount of money to make the repayment program. And to make that repayment program, then it means they have to up the rates to their ratepayers or to their industrial users or the DSIs or whatever else you wnat up there. So they need to maximize their sales to be able to quantify and generate the revenues they need to make their repayment program and with the (Inaudible) rearing it's head again back in Washington, D.C., I think they're going to be looking even harder at that. And that's an area that we have to be careful about too because if the repayment programs come back into effect then we have another area we have to look at very carefully.

SENATOR RUSSELL: Is there a lot of pressure for the Federal Government on them to repay?

MR. PUGH: Yes, there is.

CHAIRMAN ROSENTHAL: All right. I'd like to call upon Mr. Oglesby, PG&E, to get your input.

MR. DOUGLAS OGLESBY: Thank you very much. One of the advantages of being last on the panel is that my colleagues have so thoroughly ventilated many of the critical issues, but I think I can provide a bit of a perspective from the standpoint of at least one investor-owned utility.

Very simply, in our opinion the third line is seriously threatened by the anti-competitive behavior of PPA. PPA controls most of the intertie access in the Northwest and therefore controls the flow of power into California. Through it's access policy it's eliminated price competition among the Northwest sellers of energy, and has prevented the ability of all utilities in California to be able to shop around for the cheapest source of energy.

As important, if not more important, it has cut off access to, as Chairman Imbrecht pointed out, BC Hydro which wants to build new facilities solely for export and that really is not going to happen unless we can get access to BC Hydro. Quite simply, BPAs policies could increase electric costs to California consumers as much as $100 million annually. In the face of these unwarranted price increases which further subsidize the consumers of Northwest energy, which if I'm not mistaken already enjoy the lowest energy prices in the country, I think it's safe to say that there is a serious question about the economic justification for the third line.

To give you an example, assuming only nonfirm energy is available to the California/Oregon Transmission Project and no capacity of benefits, Northwest energy would have to be priced at no more than 12 mills per killowatt hours in today's costs in order for the project to break even. We've provided some information to President Vial and his people and has a lot of discussions with everyone here on these issues.

BPAs access policy has precluded the existence of power at that cost. In fact, the cheapest nonfirm energy in the Northwest is now above...

SENATOR KEENE: I'm sorry, Mr. Chairman. A clarifying question?

CHAIRMAN ROSENTHAL: Yes.

SENATOR KEENE: In order for the project to break even nonfirm energy would have to be priced at 12 mills?

MR. OGLESBY: No more than 12 mills. I'm sorry, yes. No more than 12 mills.

MR. ____________: In addition to the fixed cost of 25?

MR. OGLESBY: That's correct. Those are embedded costs. I'm talking about just nonfirm energy.

SENATOR KEENE: And the current rate is what?

MR. OGLESBY: It exceeds 20 mills.

SENATOR KEENE: So they would have to reduce the rate?

MR. OGLESBY: That's right. That's assuming no capacity benefits. You're trying to justify the line solely on energy. Each participant in the project has to justify the line on its own particular needs. One entity may need peaking capacity, some other entity may need long-term firm power, other entities may try to justify it on the basis of taking advantage of seasonal diversity exchanges. We've talked about our exchanging capacity during our low period which would be in the winter for their capacity during their low period which would be in the summer, and there seems to be the possibility of a mesh there. Others are looking at things like capacity reserves. Frankly, that's how PG&E is trying to justify the third line is something that we've called capacity reserves.

SENATOR KEENE: I'm somewhat confused because what is the likelihood, first of all, of BPA cutting in half its current charge for nonfirm energy and keeping it there?

MR. OGLESBY: I would say not great.

SENATOR KEENE: Okay. Then these other benefits, these offsetting benefits. How do they relate to the requirement of 12 in order to make the project pay?

MR. IMBRECHT: Because each entity may not need to justify the project solely on the basis of nonfirm energy. PG&E has a surplus of capacity. That's the same issue with respect to cogeneration construction in their service territory. They've got Diablo, they've got Helms in their system currently. They don't need capacity so they're looking at this line from an energy standpoint. Other utilities, however, need capacity. Then there is a value associated with purchasing capacity, as well as energy from the Northwest. We're really talking about two different commodities as a practical matter and he's referencing now what would make this line from a nonfirm energy standpoint attractive to Pacific Gas and Electric.

MR. OGLESBY: If all we were looking for to justify the line was nonfirm energy, then you're right, Senator. They'd have to cut their costs by roughly half in order for us to be able to justify the line. We would like to take advantage of nonfirm energy at times when we need it, but there are other things that we're looking for in the line as well. I mention a reserve capacity. That's something in the longer term that we think we can benefit from. We don't know if that's available at an economic price in the Northwest. We've been in discussions with BPA concerning that. In fact, as recently as last week ago today I was in Portland talking with BPA trying to outline some kind of contract, establish some sort of principles that would enable us to look like we're going to have something economic. But I'm not really optimistic as I sit here talking to you that we're going to be able to come up with something that's economic, but the one thing I can assure you is that I have absolute confidence that President Vial and his colleagues on the Public Utilities Commission are not about to certify Pacific Gas and Electric Company's participation in this project unless we can make that kind of showing and I think that's really the important point. In fact, that in my judgment is one of the flaws in SB 1430.

It seems to me, and you identified it, Senator, that rather than authorizing the Public Utilities Commission to consider other things than it does not now consider, it constrains the PUC. It does that, but it also constrains the ability of the utilities here to negotiate cost effective arrangements. The investor-owned utilities, as we talked about, are subject to the review of the PUC and we can't commit construction funds to projects without first obtaining a certificate. The PUC will evaluate all of the concerns that you've listed in your bill, plus many more. The problem as I see it though is it restricts our ability to negotiate contracts. It would preclude certain economical energy purchases, such as non firm energy purchases, because those can't be arranged years in advance. I can't sit here and negotiate a contract with BPA, or indeed any Northwest utility, BPA or not, for nonfirm prices in 1995. I probably can't even do it for next year. That's something that available in effect on the spot market.

In fact, if I can refer back and Chairman Imbrecht was absolutely correct when he mentioned the benefits on the existing Pacific intertie. One reason the existing Pacific intertie was such great benefit to the consumers to California was we were able to take advantage of nonfirm energy prices, that is to say hydroelectric-generated energy, in the 1970s during period of rapidly escalating oil and gas prices, and we didn't have to use our fossil fuel power plants in order to generate that power. We could get it from the Northwest. Now if SB 1430 had been the law at the time the Pacific intertie was constructed and we had to make the kind of showing required under SB 1430 in order to obtain a certificate from the Public Utilities Commission, then the chances are we would not have been able to avail ourselves of those great benefits during the 1907s. In fact, there's a possibility the line wouldn't have been built at all.

There's been a lot of discussion here with reference to Mr. Pugh about the, how the municipalities fit into SB 1430, but unless I misread the bill, I don't think SB 1430 applies to municipal-owned utilities. It applies only to investor-owned utilities because it's triggered on the certification of the Public Utilities Commission who's jurisdiction does not extend to municipal utilities. I think that's problem for a couple of reasons. The first is it may well restrict unduly investor-owned utilities from taking advantage of some of these nonfirm energy benefits and other flexibilities to adapt to changing economic conditions, but it doesn't restrict the muncipal utilities from doing that. That can result in the municipal utilities, and I certainly don't begrudge them getting as many benefits as they can for their own ratepayers, but the fact is the investor-owned utilities do represent over 70 percent of the citizens of California. We would not be able to take advantage of those benefits.

I think, and I think this is a very important point, that any state policy or any state legislation should include all utilities because the important point as I see it is to strengthen the bargaining position of the utilities in California. I'm not sure SB 1430 is the right vehicle to achieve a result that we all want to achieve, and that's to ensure that the line isn't built if it's not economic. Conversely, that it is built if it is economic and one doesn't follow from the other, believe me. And secondly, that we're in some fashion able to influence the energy policies in the Northwest.

There may well be a role for the Legislature to play. We've done a lot of thinking in our house and talked with some of President Vial's staff about the possibility of some sort of state supervised negotiation by utilities as a group. We really haven't developed it. This is a thorny problem trying to infuence Northwest policies, but if there was some fashion that all of the utilities could join together, fight a cartel with a strong negotiating position, then maybe we could have some kind of influence on the Northwest. I would think that the thing we would want to do here is to find some mechanism for increasing the bargaining position of all of the utilities in the south. If you don't include all of the utilities then you have a risk of BPA being able to play off one group against another and that's not going to help anybody. It would be to the ultimate detriment of all of our citizens.

I think one point that President Vial made is the congruent interests of everybody in California. I really want to underscore that because the interests in this area of the investor-owned utilities or the municipal utilities, of the Energy Commission or the Public Utilities Commission, clearly the Legislature as reflected in your bill, Senator Rosenthal. Everybody in California is the same, is absolutely identical here and that's to try to get the cheapest possible power and much fairer allocation of benefits between the North and the South and get those benefits down to California. We're trying to reduce energy prices to 20-some-odd-million people in California and we all need to work together on that.

One final note and I'll shut up. There's been some talk about the efforts we need to take at the FERC in an effort to try to infuence the nonfirm energy price. I certainly wholeheartedly support those efforts and some of our lawyers have been litigating with attorneys for the Energy Commission and the Public Utilities Commission at the rate proceedings in the FERC, but unfortunately, whether it's a standard of review or politics or whatever, we haven't been all that successful at the FERC. To give you one example that I think sticks out. President Vial mentioned the 1981-1982 nonfirm hearings. Unless I'm mistaken, I believe the initial decision of the administrative law judge in that case in fact reversed BBA's decision on the nonfirm rate but reversed it because it was not too high, but because it was too low; and recommended a higher rate and that's now on exception to the commission and we don't know yet know whether the commission is going to buy that. The problem is that the standard of review of the FERC in reviewing nonregional rate proceedings of BPA is not what we would likeit to be. But still that's the one forum we have and we just finished litigating a 1983 nonregional rate case. We don't yet have a decision and in fact I think the briefs are just being submitted this week, but we hope for a better result. I'm not optimistic though. I'll be happy to answer any questions.

MR. PUGH: Excuse me, one factual issue, Senator, before you leave if I might? I think the number was bandied around about the cost of the line and it actually comes out somewhere between the 5 and 10 mill range is the cost rather than the 25; 5 to 10 mills is the cost of the line.

MR. IMBRECHT: What that does to the arithemetic does not require a halving of existing nonfirm rate but basically suggests that existing nonfirm rate is roughly in the ballpark, and I don't want to use that as a negotiating position going into the discussions with the Northwest, but I think you ought to know the true cost (Inaudible) and that's based on an assumption of $400 million cost to the line which is neither high nor low. The low is about a quarter of a million, the high is about $500 million. In either case, we're not talking 25 mills by any stretch.

And I would say finally that the point that has been of use to California to date in these discussion is we have had a pretty historic sense of unanimity between the interests in California in terms of dealing with the Northwest and that's why we've gotten at least as far as we have in the last two years. Two years ago I can tell you that there were a lot more people on the horizon that were naysayers and frankly didn't think we'd ever get a memorandum of understanding.

CHAIRMAN ROSENTHAL: Senator Keene.

SENATOR KEENE: Yes, I have a question of Mr. Oglesby and Mr. Vial as soon as he's available.

MR. VIAL: Excuse me, I was just--I don't think we should be quarreling over the cost of this line. My reference to the 25 mills is on the top of page, aboutthe fifth page. I do refer to the basis for the calculation so that if there's disagreement on that, I think we ought to get to it. I don't think that should hang us up.

SENATOR RUSSELL: We didn't get a copy of that.

MR. VIAL: I can tell you what we said and if this is incorrect, talk to our staff about it. I say at the bottom of the page: "If present BPA policies continue adding the high BPA rate for nonfirm energy to the cost of the line might well make the third line a very high benefit for the Northwest and a net added cost for California. The cost to California utilities for California's portion of the line would be over $500 million. If the third line carries 3.1 billion kilowatt hours of power annually, costs of the line can be translated to 25 mills per kilowatt hour. Adding the BPA rate for nonfirm energy of 23 mills to that 25 mills, cost of the line gives a total of nearly 50 mills." Now that's what's in there now. If it's incorrect, I think we ought to correct it.

MR. OGLESBY: I think an important point--I don't have the data with which to calculate the cost of the line in mills per kilowatt hour--but one point, and I meant to make this earlier in response to your question, I think it was yours, Senator Rosenthal, about the wheeling obligation for the municipal utilities. The MOU for the third line obligates Pacific Gas and Electric Company to provide 1,000 megawatts of bidirectional transmission from Tesla to Midway substations, as well as obligating PG&E to provide wheeling services to all of the participants so they can receive the benefit of their allocation. But in order to meet our obligation south of Tesla, our initial studies--admittedly preliminary, buty they're certainly pointing this direction--will require us to meet that obligation in the MOU and to meet other obligations that we already have by a number of upgrades in our system south of Tesla. And these upgrades include what appears to be about an 85-mile additional stretch of 500 KV line between Los Banos and Gates, which in effect completes a three lines all the way from Tesla to Midway. That additional line segment we estimate to cost about $130 million. That may help account for what some of that disparity between 10 and 25 mils, if that's being rolled in, and it also may account for the overall costs we've heard today in excess of $500 million when the feeling of the participants in the California/Oregon Transmission Project is that the project from Tesla north would be much closer to $400 million than the $500 million. I add that only to...

MR. IMBRECHT: Even if that were the case that would not account for the disparity.

MR. OGLESBY: Certainly not.

MR. IMBRECHT: And I think that what we're talking about is a difference in terms of assumptions about the operating characteristics of the line, whether in fact it would be loaded a quarter, half, or most of the time, and I think that what we're being told right now the basic difference in assumption is that out of better than 8,000 hours in a year, the assumption in the testimony offered by President Vial assumes loading of the line only about 20 percent of the time. And I guess I would say that that is the most possible conservative approach to considering the cost of the capital in the line to be rolled into the operating cost. That certainly would not be the case if you were to look at existing lines by any stretch of the imagination since they're used in excess of 90 percent of the time.

MR. VIAL: We haven't been...hearings on this thing.

CHAIRMAN ROSENTHAL: I understand, yes.

MR. VIAL: What we are attributing I think is the cost of, allocating the cost of the Northwest cost to the line. That's the reason why...

CHAIRMAN ROSENTHAL: Okay. Now I have just one question. Is the 3.1 billion kilowatt hours off power annually, is that low?

MR. IMBRECHT: Very. Very low.

MR. OGLESBY: It appears to be 20 percent.

CHAIRMAN ROSENTHAL: That's about 20 percent of what the line could carry?

MR. IMBRECHT: That's right and that's where the difference in cost--that's what it all boils down to.

CHAIRMAN ROSENTHAL: Okay. Are there are indications that we will take more from the Northwest than that?

MR. IMBRECHT: Oh, much more.

MR. PUGH: Well again, that would depend upon the individual needs of each participant. It's hard to say.

MR. IMBRECHT: I think we could safely say that it's unlikely that it's going to ever be utilized 20 percent of the time.

MR. PUGH: Overall, I think that's certainly true. There was an early late 1983, early '84 study by the publics alone in Northern California with Western Area Power Administration, and the assumption on their program was that we would use that 1,600 full time within the publics and it was cost beneficial to the publics under our then economic scenario just to use it on the basis of summer peak capacity without bringing in surplus energies or nonfirm sales. And so on thatcriteria the publics had made a decision to go forward even if the investor-owned decided at that time in the negotiations not to participate with us. As it came out, the participation was agreed to among all the parties. Everyone felt they had access and need for it and that created the memorandum of understanding went forward there, but the publics had reviewed that as a full use line for themselves at those kinds of prices and costs and was economic.

MR. IMBRECHT: One final point, the point was made by PG&E and I think it's important to emphasize in terms of the role the Energy Commission's played in this, along with the Governor's Administration and that is from the outset of these discussions, which basically began in the Spring of 1983 and really got underway in the summer of '83, is that a basic principle was enunciated at the beginning that every utility in California would be invited to participate and the net result is that every utility, with the exception of a couple of very small municipals and L.A.W.P. which was already in the BC upgrade project with Edison, did ultimately become signators to the project.

CHAIRMAN ROSENTHAL: Senator Keene.

SENATOR KEENE: Is there the slightest possibility that if the Public Utilities Commission rejected the certificate of public convenience and necessity, that the municipal utilities would be able to go it alone and that the project would be economically feasible under those circumstances?

MR. PUGH: I would say that as a result of our reports in late '83, early '84, that's a possibility. What it is today? We have not done the economic studies today. There is in the documentation a program that if the certification is not allowed to anyone of or all of the investor-owned utilities, that under the MOU and documents currently the existing participants may then sit down and determine whether or not to proceed on the program or not. And again, the economic studies are being conducted, commencing now both as to Phase 1 and Phase 2 studies and those economic studies will show a lot more as to whether or not that would be a viable alternative at the time if that was the occurrence.

SENATOR KEENE: So the statement of yours in your report, your statement here that regulatory approval is a critical path constraint to early development of the project is not totally air tight?

MR. PUGH: That is with regard to early approval of the project. There is a timeframe...

SENATOR KEENE: So the word "early" is key?

MR. PUGH: The word "early" is very key. There is a timeframe and, Doug, I forget what the timeline is. If you don't get certification within--what was the final period?

MR. OGLESBY: Twenty months after receipt of the...

MR. PUGH: Twenty months after application...

MR. OGLESBY: ...after the final record of decision on the EIR, then the parties would sit down and see if they could renegotiate a new project development agreement.

SENATOR KEENE: What in your judgment is the practical possibility of the municipal utilities doing it on their own if the PUC denies the certificate of convenience and necessity?

MR. OGLESBY: We have not made an analysis of that. To very candid and I'm sure it doesn't come as a surprise to Arch, it's something that we need to consider. But I don't think we've come to any judgment now as to whether the project would be viable if the investor-owned utilties did not receive the certificate.

SENATOR KEENE: Is it going to cause you to urge rash judgments on the part of the Public Utilities Commission to approve your involvement? [Laughs.]

MR. OGLESBY: I like to think we would urge rash judgments from the Public Utilities Commission. [Laughter.]

SENATOR KEENE: Well, I would like to think so too, but I can't.

MR. VIAL: I should point out that that is a consideration that we would bear in mind. I mean, after all. Whether it's 70 or 80 percent of the ratepayers in California are ratepayers to the IOU, IOU's, and the balance to the muni's. If in fact there are mutual benefits to be obtained by an interregional relationship, it's really important for us in the PUC to bear that in mind so that teh IOU ratepayers will also be able to participate. Therefore, it might modify to some extent excatly how we apply the numbers to the situation.

SENATOR KEENE: Well, there might be some very serious legislative concerns at that point since we're already bailing out the muni's, having to bail them out more might create a problem.

MR. OGLESBY: Well, one thing we have to go through a very comprehensive and complex economic analysis both in order to make our own decision in the company about the economic justification of the line, and then to present that to the Public Utilities Commission as part of our application for certification. One of the things we're considering are the implications to our ratepayers, almost 4 million electric customers, 10 million people in the northern two-thirds of California. What are the implications to all of those people if we are not a participant in the line and the line nevertheless goes forward?

CHAIRMAN ROSENTHAL: Okay, before we wind up I'd like to suggest that we haven't heard from the other major investor-owned utility and I'd like them to send the committee answers to the questions that we've asked both PG&E and others so that we can have the input of Southern Cal Edison as well.

In closing, for those of you involved in our hearing tomorrow, please note that we will be meeting in this room, not the Morgan Center as previously scheduled. We'll probably have to have somebody over at the Morgan Center sending people here for those who didn't get that word.

I want to thank participants. I think it was a good hearing and I think we had, both the morning and afternoon session, plenty for the committee to digest. Thank you very much.

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