NUCLEAR REGULATORY COMMISSION

IN THE MATTER OF:

TOLEDO EDISON COMPANY and CLEVELAND ELECTRIC ILLUMINATING CO.	Docket Nos.
(Davis-Besse Nuclear Power Station, Units 1, 2 and 3)	50-346A 50-500A 50-501A
and	
CLEVELAND ELECTRIC ILLUMINATING CO. et al.	50-440A 50 441A
(Perry Nuclear Power Plant, Units 1 & 2)	

Place - Silver Spring, Maryland

Date - Friday, May 7, 1976

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et al.	:	50-441A
	:	
(Perry Nuclear Power Plant	:	
Units 1 and 2)	:	
	:	

First Floor Hearing Room
7915 Eastern Avenue
Silver Spring, Maryland

The hearing in the above-entitled matter was reconvened, pursuant to adjournment, at 9:30 a. m.,

BEFORE:

MR. DOUGLAS RIGLER, Chairman

MR. JOHN FRYSIAK, Member

MR. IVAN SMITH, Member

APPEARANCES:

(As heretofore noted.)

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P R O C E E D I N G S

Whereupon,

WILBUR SLEMMER

resumed the stand and, having been previously duly sworn was examined and testified further as follows:

MR. REYNOLDS: Has the Board had a chance to look at the letter that the Department submitted last night from Mr. Lewis to Mr. Berger?

CHAIRMAN RIGLER: Briefly.

MR. REYNOLDS: I guess I would like to have that resolved today.

Ohio Edison's case is scheduled for next week and there is material I think if we could --- if the Board should determine that Ohio Edison is entitled to look at it under a protective order, they would like to get it prior to the time they commence their case.

Given the timing of communications and whatnot, it would be helpful to resolve that today.

CHAIRMAN RIGLER: There is no controversy as to search of the files. The conflict relates to the Orrville-Ohio Power file; is that correct.

MR. REYNOLDS: That is correct.

CHAIRMAN RIGLER: The Board would be perfectly willing to examine that file in camera and, irrespective of whether we think the documents are confidential, we

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also be receptive to entering an appropriate protective order.

I would think the thing to do is for the parties to see if they can agree on a protective order and to submit one to the Board.

MR. CHARNO: That procedure is acceptable to the Department.

CHAIRMAN RIGLER: I assume the people who would be examinign the file would be the outside counsel for Ohio Edison; is that correct, and also for all Applicants, Mr. Reynolds and his firm.

MR. REYNOLDS: That is correct.

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CHAIRMAN RIGLER: I would think, as long as a protective order provided that the information could not be transmitted by any of the outside counsel back to officials of Ohio Edison, that the purposes of Mr. Lewis's request for confidentiality would be served.

MR. CHARNO: That sounds reasonable. We have no reason to believe that won't be adequate.

CHAIRMAN RIGLER: Why don't the parties try to agree on a protective order.

If you want us to look at the documents in camera we will. Without seeing them, it seems to me theymay be sufficiently related to the general subject matter so that it would be fair and appropriate to let Ohio Edison counsel at least look at the file.

MR. REYNOLDS: Also, I would assume if there were matters that were deemed relevant to put into the proceeding, we could put them in on a sealed basis. We are amenable to keepint it as confidential as possible but for outside counsel from Ohio Edison.

CHAIRMAN RIGLER: All right.

MR. REYNOLDS: Thank you.

CROSS EXAMINATION (cont'd)

BY MR. LESSY:

Q Mr. Slemmer, with respect to your previous testimony as an expert witness, you indicated you had testified

before the Corporation Commission of Oklahoma in connection with a hearing to determine service area territorial boundaries.

Could you identify for us, please, with specificity that particular testimony and the hearing involved?

A I don't have a docket number or anything of that kind. This was, I think, the Oklahoma legislature required the Corporation Commission to assign service areas. The commission had issued an order to the companies and the electric coops giving a basis for them to allocate, set up their allocation of areas. Each were preparing maps for what they thought was their area, and the order was based on distance from distribution facilities.

The question that I was asked about was a distinction between the transmission function and distribution function of certain facilities as they affected that allocation of area.

Q What period of time was this?

A It was around five years ago.

Q Do you remember any of the coops involved?

A I think all of the coops in the State of Oklahoma were involved. The area that I was particularly interested in was in southeast Oklahoma and what used to be the Southwestern Light & Power Company. It is now the Public Service Company of Oklahoma. It was around Duncan and Lawton.

Q When you testified before the Corporation Commission,

on whose behalf were you testifying?

A Public Service Company of Oklahoma.

Q How do you go about determining, Mr. Sliemar, whether a practice is a general industry practice?

A Well, it is a matter of whether a number of people are using it. I don't know of any specific definition that says you have to have a certain number of people using it. If more than one or two or three people are using it, maybe that would make it a general industry practice. It depends on how many cases there are, as well as how many people are using the practice.

Q Have you made any surveys to determine how many people are engaging in a specific practice or how many or not?

A Not in any specific surveys, no.

Q What engineering expertise are you using in determination of whether or not a practice is a general industry practice?

A I don't think that is so much -- well, the engineering expertise, of course, is recognizing the engineering and operating practices and being able to define them. I think whether it is a general industry practice or not is more of a matter of experience in the field rather than a particular engineering application.

Q But if I understand your answer, if more than one entity is engaging in a practice, you would consider that a

ch 4

general industry practice.

A Not necessarily more than one. If a significant portion of the industry is; if there are ten people that are doing a certain job and three of them are doing it a certain way, that would indicate some generality of that practice. I wouldn't expect all ten of them to be doing it the same way.

Q How would you determine that three were engaging in it the same way and seven weren't?

A As I said, I have not made any specific survey to count the number of people doing it this way or that way. From my general experience in the industry, I have a pretty good feel of how people are doing in poolings and some idea of how they are doing it, the basic principles. I would not say I was familiar with all of the details of all of the contracts.

Q All of the details of all of the contracts of what?

A Of the power pools, different power pools.

Q Is it subjective or can you look at the proportion and say because it is 30 percent you would say it is a general industry practice? You said three out of ten.

A It is subjective.

Q If one out of ten did it, it still could be a general industry practice, as I understand one of your previous answers. Is that right?

A Under certain circumstances, yes.

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Q If nine out of ten did it another way, it wouldn't be a general industry practice?

A It might be a general industry practice at the moment, but it might be a practice that is going out of use or something of that type. I think a general industry practice includes the trend in the state of the art in the industry.

Q Now, on page 17, lines 13 through 18 of your testimony, you state, "Most pool arrangements with which I am familiar are premised" -- I'm sorry.

Let's go to page 17, line 22. You state, "In addition the pool usually includes some arrangement for utilizing the members' respective burdens of supplying operating capacity or spinning reserve."

Now, my question is, is the word "burdens" as you have used it synonymous with the word "cost"?

A I didn't have in mind exactly the same thing. They are very similar. To me, the burden is, I think -- perhaps a better word there would be the responsibility or the requirement that they do that. It would entail costs.

Q It would entail costs. Does "burden" mean more than "costs"?

A I think it means accepting your responsibility to perform a certain act, yes.

Q I am trying to understand your answer. Does "burden" mean more than "cost"?

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A Yes.

Q If "burden" means more than "cost," how would you go about measuring or determining the burdens so that you could equalize them?

A Well, the burden is the responsibility of providing reserve. You equalize it by equalizing the amount of reserve that they have to provide on some equitable basis.

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Q Well, would the --

A The burden is really the responsibility of providing reserves.

The cost is a resultant -- result of the way they provide it.

Q Would the burden be equalized with respect to reserves, with respect to absolute amounts or in proportion to something?

A In proportion to something.

Q What would they be made proportional to?

A I think I have testified in here that I think the amount supplied should be in proportion to the amount of use.

In other words, you should supply and use about the same proportion of the total reserve.

Q If equalizing the burdens is proper for operating capacity or reserves, as you have just said, why wouldn't it also be proper for allocating the cost of interconnection, so would it?

MR. REYNOLDS: Could I have that question back?

(Whereupon, the reporter read the pending question, as requested.)

THE WITNESS: You mean the cost of making the interconnection facility itself?

bw2

BY MR. LESSY:

Q Yes.

A Well, I think in the specific case of equalizing the burden of operating reserve, the fact that you have equalized the burden of operating reserve that specifies the net benefit or the benefit that is to be received from that, so that is no longer a consideration.

In the case of making an interconnection itself, you have to consider the net benefits for all of the parties concerned in making the interconnection.

MR. LESSY: I will ask you to read that back.

(Whereupon, the reporter read from the record, as requested.)

BY MR. LESSY:

Q I would like you to read the question back to him and ask if you can answer it again, this time in terms of burdens, as the question was posed, not benefits.

(Whereupon, the reporter read from the record as requested.

BY MR. LESSY:

Q If equalizing the burdens is proper for spinning reserve or operating capacity, why wouldn't it also be proper for allocating the cost of an interconnection?

A Because, in allocating the cost of an interconnection, you have to consider also the net benefits,

bw3

as well as the burdens, inorder to provide an incentive for the people to participate.

Q But it is not necessary to do that in the case of reserves; is that right?

A In reserves, the benefit is inherent in the fact you are providing the reserves you need to serve your load with a certain reliability.

The benefit is already explicit in the item.

CHAIRMAN RIGLER: Say that again.

THE WITNESS: In the operating reserve the benefit is that you are providing the reserve necessary for the reliability of your system, so that the benefit is not a matter to be considered.

That is already established. All that is left then is the burden part of it.

CHAIRMAN RIGLER: Let me hear his answer one more time.

Whereupon, the reporter read from the record as requested.)

CHAIRMAN RIGLER: The trouble I'm having is that your answer seems to talk suddenly in terms of an isolated system. You are talking about establishing reserves sufficient for your own system needs. The questions have dealt with pooling. It seems we keep sliding from one concept to another.

bw4

Mr. Lessy indicated he started talking about burden, and now we are talking about benefits. And then when he asked you about that, suddenly it seems your answer moved from a pool concept to a single system concept.

MR. ZAMLER: The question related to an interconnection, which is not a pooling, and that is the reason why he dealt with a specific system.

I'm confused by your reference to a pool, because Mr. Lessy's question dealt with an interconnection, and it was in that context that Mr. Slemmer responded.

CHAIRMAN RIGLER: That is because we started on line 22, which discusses pool concepts.

MR. ZAMLER: The question Mr. Lessy asked went from that pool concept to an interconnection, and it is in that sense he answered.

MR. LESSY: In the context of that question of page 17 of the testimony, the question really is the same to say if equalizing the burdens is proper for operating capacity or spinning reserve in a pool context, why wouldn't it also be proper for allocating installed capacity or installed reserves in a pool context?

THE WITNESS: My answer is simply that in the first case you mentioned where it is operating reserve, that the benefits have already been allocated, so that you don't have to consider that any more. All you have left

bw5

to indicate is the burden.

In the basis of interconnection you have also specified the benefits to be received by the parties, so you have to include the benefits in your determination of allocation.

BY MR. LESSY:

Q The question I just asked, though, limited to the pool context, if equalizing the burdens is proper for operating capacity or spinning reserve in the context of a power pool, why wouldn't it also be proper for installed capacity or installed reserve in the context of a power pool, which is what you have testified to?

A This is the first time I have gotten the installed capacity concept. Maybe I missed your question before.

MR. ZAHLER: May I ask for the reference to the testimony as to installed capacity and installed reserves?

MR. LESSY: The line started with page 17, line 17. In addition the pool usually includes some arrangement for equalizing the members' respective burdens for supplying operating capacity or spinning reserve.

MR. ZAHLER: I understand that. Your question you stated to Mr. Slemmer, he testified one way or another as to allocation of installed capacity and installed reserves. I'm asking you to refer Mr. Slemmer to that

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specific testimony, if it is in your question.

MR. LESSY: He testified to operating capacity and spinning reserves, and the question is, why isn't it also applicable to installed capacity and installed reserves? That is my question.

THE WITNESS: I am lost at this point.

May I have the question again?

(Whereupon, the reporter read the pending question, as requested.)

THE WITNESS: On the same basis that I have referred to in the operating reserves, this is not equal in megawatts or in percentages. It is equal in -- appropriate to some ratio of pervasion and use.

Then it is appropriate.

In the case of the installed capacity part of it.

BY MR. LESSY:

Q Do I interpret your answer that allocation of prospective burdens is appropriate in spinning reserves, but not appropriate in installed capacity or installed reserves?

A They are both appropriate on the basis of allocating it in proportion to the -- teh burden in proportion to the use.

Q Now, let's go back. Let's go one step further.

bw7

If it is appropriate for--as you have just said, why isn't it also appropriate for allocating the cost of interconnection?

A The interconnection is justified. The benefits include more than spinning reserve and installed reserve.

Inorder to come to some conclusion as to how the costs should be allocated, you have to consider all of the things that have to be accomplished by that interconnection, which includes a host of other things, besides the operating and installed reserve.

Q You testified yesterday that benefits should be in proportion to the complications a new member would add to a pool.

What proportion is necessary, one to one, two to one?

A I did not intend to indicate any fixed ration. What I had in mind was that the benefits should be enough to exceed the burdens that are put on the -- both the members in the pool and the new member. So that there is a net benefit of share sufficient to make some kind of incentive for the people to get together and do the job.

Q Net benefit from the point of view of both parties, not just from the point of view of one?

A From the point of view of all of the parties

bw8

concerned.

After all net benefit.

CHAIRMAN RIGLER: Would receipt of revenues from the new member be counted as a benefit?

THE WITNESS: Receipt of revenue is a benefit. I think if it is just a matter of receipt of revenues, then some other arrangement is more desirable than a pool arrangement. The pool arrangement is too complicated for that type of situation.

MR. LESSY: Could I ask you to read back his answer on my question as to proportions?

(Whereupon, the reporter read the record as requested.)

BY MR. LESSY:

Q If it is not proportional, isn't it really subjective, rather than an engineering matter, to assess the benefits, as you have stated?

MR. ZAHLER: What is not proportional?

May I also ask if you can give us a reference in the transcript to Mr. Slemmer's previous testimony?

MR. LESSY: 8969, lines 24 and 25.

MR. ZAHLER: What are we talking about, not proportional?

MR. LESSY: Proportion of benefits to complications, as stated two questions ago.

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Now, restate the question for the Witness.

(Whereupon, the reporter read the pending question, as requested.)

THE WITNESS: The determination of total benefits, total net benefits, including all of the cost and burden, and so forth, is, I think, very much an engineering matter.

My experience is,from there on it's a matter of negotiation.

So that each party feels they have gotten somethign out of it tha makes it worthwhile for them to get in.

They know what the total amount is, being divided,and they work out some kind of agreement that will divide it in a way to provide everybody an incentive to do it.

CHAIRMAN RIGLER: Let me hear the first part of his answer.

(Whereupon, the reporter read from the record as requested.)

CHAIRMAN RIGLER: From an engineering point of view, how do you determine these total benefits which includes costs and burdens?

THE WITNESS: Of course, the classical approach is to set up your alternatives, either with the

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interconnection or without the interconnection, with the pool or without the pool, whatever it is you are comparing.

CHAIRMAN RIGLER: What is it you are comparing? You say, set up the alternatives. What goes into the formula?

THE WITNESS: I have forgotten what kind of interconnection we are talking about. We are talking about making some kind of interconnection.

CHAIRMAN RIGLER: You say, as an engineering matters, these elements are fixed. You can readily determine what the benefits, costs are.

THE WITNESS: Whatever the interconnection is that we are trying to determine the burdens and costs on, you would set up the alternative system development for the parties involved, with and without the interconnection.

You would determine the cost of the interconnection, cost of the operation with the interconnection.

You determine their cost without the interconnection to get a net benefit.

CHAIRMAN RIGLER: Aren't there almost an infinite number of alternatives?

Maybe that is overstated, but aren't there always several alternatives?

THE WITNESS: There are always several alternatives, but usually in this type of operation you can get a

bwll

satisfactory answer by setting up your answer pretty much by judgment.

The refinement of the alternative itself wouldnot change the overall answer.

CHAIRMAN RIGLER: Doesn't that go to Mr. Lessy's question? It becomes subjective. There is no specific engineering formula.

THE WITNESS: That is not my interpretation of the word "subjective."

I think any engineering is an approximation. I don't thin any engineering problem is solved down to the final decimal point. There is always some approximation.

That same approximation is here. The amount of detail you go to in the calculation in the engineering problem depends on the additional work that you go to for a nigher degree of accuracy; it is justified by the result you get from it.

CHAIRMAN RIGLER: I'm having trouble with your answer. As I understand it now, you stated as an engineering matter the benefits, burden and costs can be calculates with some degree of precision.

I asked you how you measure one alternative againist another.

I don't understand what any of the engineering components are.

bw12

If you can adjust the components, that you don't have the degree of precision your answer suggested.

Are the components always the same or may they differ from one alternative to another?

THE WITNESS: The particular components may differ from one alternative to another.

We are talking about bulk power supply in the pool we are talking about.

That would be the generation and transmission systems.

It would include all the facilities in that system or in the alternative systems with or without the interconnection.

Now, if you want to do a real precise job, you could make a project out of it and make an optimization study for both systems, so you come out with the best way to do it one way, and the best way to do it the other way and compare those.

It would make it more accurate than taking a judment figure one way and judgment figure another way. However you go in the study, is a matter of judgment.

Whether you should put in a little more work to get a better answer.

bw13

BY MR. LESSY:

Q Have you made any optimization studies with respect to the CAPCO Pool?

A I have made no studies with respect to the CAPCO Pool.

Q Do you feel you have done a real precise job in connection with the CAPCO Pool?

A My assignment in connection with the CAPCO Pool was to discuss general principles and not specifics in regard to the CAPCO Pool itself.

Q Are you in a position to render an opinion as to whether or not the CAPCO Pool complies with general indsutry practice or standards with respect to pooling?

A The only basis I have for such a judgment would be the fact I have read some of the contracts and have read some of the written material and description of the pool -- and in the things I have read, I have seen nothing that indicates it is not.

I have not made an exhaustive study of it.

Q Have you studied any of the requests for access to the Pool by certain entities within the combine CAPCO company territories?

A No, I have not. I have seen the proposed license -- I don't know what you call them, the license provisions or something.

bw14

That is the only thing I have seen in that connection.

Q Policy commitments. Does that provide for access to the CAPCO Power Pool?

A I don't remember that it does.

I think it does not.

Q What -- you testified yesterday you reviewed the CAPCO memorandum of understanding.

You mentioned today that you reviewed, I believe the policy statements. What else have you reviewed in connection with your testimony, CAPCO documents?

A I read their transmission agreement. I read Lynn Firestone's paper on the reserve formula, reserve allocation, computer program and so forth.

Q Would you say that Lynn Firestone's paper on P over N reserve allocation is in accord with industry?

MR. ZAHLER: Did Mr. Slommer finish his answer?

THE WITNESS: I don't remember anything else I reviewed.

If I thought about it awhile, I might come up with more.

MR. LESSY: Go ahead. I thought you were done.

THE WITNESS: No, I don't remember anything at the moment.

bw15

BY MR. LESSY:

Q Do you feel that Lynn Fireston's paper on P over N allocation of reserves is in accord with general industry practice?

A I think it is, in this respect. When this formula was developed, it was an advancement of the art. It was the first time this had been applied.

People recognized it as that, and it has been applied in other instances.

So the general principle is accepted. I would say that perhaps that that specific formula in itself is is -- well, it is not contrary to general industry practices.

The general concept is a general industry practice.

Q It is a general industry practice, because two reasons, as I hear you.

One, it is an advancement of the art and, perhaps separately, it has been adopted by others.

A That is right.

Q Who else adopted it?

A The one I speak of specifically is the ILMO Pool.

Q Isn't that the only one?

A I think that is the only one that, as far as I know, the only one that has adopted it in this particular form, the principle of equalizing on the basis

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of use and participation, I think, is generally adopted.

Q Did the pool you mentioned adopt it precisely or did they adopt a variation?

A I would guess it is a variation. I could not be --

Q If the Firestone method were an advancement of the art, would you consider that to qualify for a general industry practice?

A We might define advancement of the art in different ways.

Q How do you define it?

A In this concept, I would, because when he came out with his method and had developed this program, the people in the industry recognized it as a useful tool for use in allocation of reserves.

It was recognized.

While it takes time to get it into actual practice, it was recognized as a better way to do it than we are doing it now.

Q How long has it been since the paper came out?

A I think it is about seven or eight years.

Q I'm not sure.

Q Eight to ten years; would you accept that?

Something on that order.

bw17

Q Would you think eight to ten years would give the rest of the industry a reasonable opportunity to adopt it?

A I wouldn't think eight to ten years, that everybody would adopt it.

There are other pools here adopting similar procedures, similar approaches.

Q Which ones are they?

A PJM. The Northwest Power Pool has a kind of -- basically Lynn's program is an application of a probability computation to determine use and probable use, as a basis for allocating the responsibility to supply it.

That general practice is pretty well recognized, I think.

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Q Do any of these other power pools use the P portion of the P over N in Firestone's method as he uses it?

A I have a little trouble with that question in this respect. I don't know what you mean by the P portion.

Any place that that is applied, the idea is to compare the amount that you supply to the amount that you receive. In Lynn Firestone's formula, the P is the amount you supply and N is the amount you receive. If you accept that definition of P and N, they accept that P portion, yes.

Q Your testimony is three other power pools adopt that/

A Not specifically. They have no P over N, but they adopt the general formula.

Q His formula is P over N. How can they have it and not adopt it?

A The principle is application of probability computation to determine the probable need for the probable use that a member will make of a pool reserve. Using that as a basis for allocating his contribution to that reserve.

Q Three or more pools use the probability method, isn't that right?

A I think there are more than that but, again, I have not made a survey. I think there are more than that that use it.

Q On page 10, line 17, of your testimony, you explain

the words "leaning or riding."

Is this your concept, or where did you first come across these words?

A I think I first came across these words in working with utilities where one utility in an interconnected system felt another utility was not holding up its end of the burden. They complained about the guy leaning on him. Maybe 15 or 20 years ago.

Q Can you point us to any articles or texts or discussions where the concept of leaning or riding is used, other than the colloquial context of somebody saying, "He's riding on me"?

A I don't think it is a defined term in any -- as far as I know, there is no classical definition of the term, no.

Q Are you aware of any engineering texts that discuss this concept of leaning or riding?

A No. It is not a defined term.

Q Are you aware of any articles, professional engineering articles, that discuss this concept?

A No.

Q Now, if one party is able to provide more support than the others in a pool, does this necessarily mean that the others are leaning on him or riding him?

A I'm not sure I understand the question. If one --

let me repeat it to be sure I understand it.

If one member of a pool is able to supply a larger proportion of the reserve than the other members in proportion to his use of the reserves, that does not necessarily mean that the others are riding him if he is adequately compensated for that.

Q Okay.

Now, my question is, if one party has the ability to provide more support than the others, does this necessarily mean in fact the others are leaning on -- riding on him?

A Not if the others are supplying their required portion.

CHAIRMAN RIGLER: They can do that either through self-generation or through purchasing?

THE WITNESS: That is right.

CHAIRMAN RIGLER: Do the purchases have to be from other members of the pool?

THE WITNESS: Not necessarily. This varies with pool arrangements.

CHAIRMAN RIGLER: Refer back to page 17, line 19 through 21 or 22. You indicate there that if the member does not meet its obligation, it will purchase its capacity from other pool members to cover its deficiency.

From what you just said, do I take it that that purchase does not necessarily have to be from other pool

ch 4

members? It can be from anywhere else?

THE WITNESS: The final purchase -- if they have not done it some place else, the final settlement would be from other pool members. If they have a deficiency, they can go out and provide it anyway they can. If it comes in after settlement, it would be from other pool members.

CHAIRMAN RIGLER: There is no necessity that deficits be satisfied from transactions within the pool?

THE WITNESS: Not unless that is a particular portion of a particular agreement.

BY MR. LESSY:

Q I would like an answer to my question.

A My interpretation of your question, so I can answer it, is, if the pool as a whole has a surplus and one member has a capability to supply reserves that is not required by the other members, he just has it. They are not leaning on him because of the fact he has more than he needs; no.

Q What I am trying to get to is, when does the leaning become a fact?

My point is, the fact one has excess doesn't necessarily mean that leaning occurs, does it?

A No.

Q If a party is providing more support than he receives, but he is paid in money for the difference, is this leaning or riding?

MR. ZAHLER: Are we talking about pool arrangement or interconnection now?

MR. LESSY: This is all in the context of pools.

THE WITNESS: In a pool arrangement, if the parties are living up to the agreements in the pool arrangements, there is no leaning or riding in the pool. That is the whole basis of the pool arrangement that prevents that sort of thing.

MR. CHARNO: Could I have the question and answer back please?

(The Reporter read the record as requested.)

BY MR. LESSY;

Q If you answered the question, I didn't get it. I don't think you answered the question. Could you answer that again?

A You said it was in the concept of a pool. In the concept of a pool, there is no leaning or riding, no. The answer is no.

Q With respect to an interconnection, then, let's turn to that. If a party is providing more support than he receives but is paid in money for the differences, would you call this leaning or riding as it occurred?

A This would depend on the adequacy of the payment. If one party is purely a purchasing party in an interconnection where he is purely purchasing reserve, it becomes a one-way street, and the costs have to be allocated the same

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as it would to any wholesale customer. Your basis of pricing would have to be different than if there was a give and take on interconnection.

Q In a pool, isn't a common method to prevent leaning or riding to provide by contract that emergency support rendered by one pool member above and beyond the amount he provides may be billed at a higher cost?

A I don't think that is a true description of the arrangement in a pool. As I testified earlier, I think in all of the pools I am familiar with they start out on the basis that each member is going to supply the proportionate share of the spinning reserve. There is obligation there to do that.

MR. SMITH: Is that by owning the spinning reserve?

THE WITNESS: The pool, the total capability, both spinning and installed, yes.

BY MR. LESSY:

Q Let's go down that road, then. I think that is consistent with what you say at line 25, page 10, where you state, "The proportionate use of combined reserves by a single member system of a pool requires that the member systems have available generating capability and transmission facilities commensurate with the size and types of their respective generating units and loads."

Is it your testimony that a nongenerating electric

utility with transmission could not be a contributing member of a power pool?

A I would not say they could not. It would be a very special case.

Q When you use the word "the generation and transmission is required," you meant except in a special case?

A I meant generally required. Incidentally, I might mention that last night I had occasion to look at the FPC decision on this NEPOOL arrangement.

MR. LESSY: I will interrupt the witness here. I haven't asked him that.

MR. ZAHLER: Could we at least hear what it is to determine whether it is relevant, and then a motion to strike would be in order.

CHAIRMAN RIGLER: I don't think the witness can just volunteer information relating back to yesterday's testimony.

MR. ZAHLER: It may be relevant.

MR. LESSY: Then pick it up on redirect.

MR. ZAHLER: To the question. I don't know, but I don't see how we can rule unless we have heard it.

CHAIRMAN RIGLER: What was the question.

(The Reporter read the pending question.)

CHAIRMAN RIGLER: Overruled.

ch 8

BY MR. LESSY:

Q Could an electric utility with generation but no transmission beyond its own distribution be a contributing member of a power pool?

A Would you repeat the question.

(The Reporter read the pending question.)

BY MR. LESSY:

Q Could an electric utility with generation but no transmission beyond its own distribution be a contributing member of a power pool?

A It is conceivable, yes.

Q Assume a power pool the size of CAPCO composed of four integrated electric utilities.

Now, two smaller electric systems, say municipal electric systems, one with a 150-megawatts, 200 megawatts of self-generation, and one with no self-generation but with transmission, requests pool membership.

Using your standard of net benefits, would you say that there could be -- could never be a net benefit to the pool by bringing these two municipal systems into the pool?

A I would not say they could never be. It would have to be sutdied. You have a set of conditions here that would be subject to study. I think this would not be a general case. Again, it is a special situation.

Q Could you conceive of some net benefit based on your

general industry knowledge of the pool of bringing these two systems into the pool?

A. I could conceive of some situation where it might, yes.

Q. If there would be some net benefit, would you recommend excluding them from coming into the pool?

A. No, if they provide a net benefit and are willing to accept the responsibility and meet the requirement, then I think they should be a member of the pool.

Q. That is irrespective of whether they are private or municipal systems or cooperatives?

A. That is irrespective of that, yes. That is irrespective of the type of ownership.

Q. Is it possible that an electric utility could offer net benefits to a pool even if that entity had both no generation and no transmission?

A. I hate to say anything is impossible. You you have got it limited to where it is hard to see where there would be any benefit.

Q. Suppose an electric utility had no generation or transmission but had interruptable industrial loads. Couldn't there be benefit to the pool by bringing the system into the pool?

MR. ZAHLER: Could I have clarification on what Mr. Lessy means by "interruptable load" if there is no

ch 10

generation?

MR. LESSY: The witness already answered the question.

CHAIRMAN RIGLER: I ruled in your favor.

BY MR. LESSY:

Q How did you understand it in your answer?

MR. ZAHLER: I haven't heard an answer. If you would rephrase it, I would like to know what it is referring to.

MR. LESSY: Do you understand the question?

THE WITNESS: I don't know where we are.

CHAIRMAN RIGLER: Start over.

BY MR. LESSY:

Q Suppose the electric utility had no generation and transmission but had interruptible industrial loads. Couldn't there be some net benefit to the pool by bringing that system into the pool?

MR. ZAHLER: I object.

MR. LESSY: The question will be how can it have interruptable industrial loads? It purchases its power at the distribution level, and its customers are all industrial and they are interruptable, and they have interruptable loads, as many industries do.

MR. ZAHLER: Mr. Lessy is saying the clarification is that it is a wholesale customer and it purchases power and distributes it.

ch 11

MR. LESSY: It is a wholesale customer of somebody. It is a power purchaser, not necessarily of the people -- of the pool members with whom it is seeking membership. It is a power purchaser.

Do you understand the question?

CHAIRMAN RIGLER: All right.

THE WITNESS: I understand the question.

It seems a little -- to me, membership in a pool would be a tedious way to handle that kind of situation. There are much simpler forms of arrangements that can be made than pool membership.

An interruptable customer is a possibility of benefit, yes.

end 4

S5
bwl

CHAIRMAN RIGLER: I have some trouble with your example, Mr. Lessy?

Why would the distribution system be granting membership to the pool?

MR. LESSY: Buy power at cheaper cost from its present wholesale supplier and to get the benefits of that purchase through staggering court action.

MR. CHARNO: Could I ask if the Pool under consideration is coordinated development, as well as coordinated operation?

MR. LESSY: Yes, such as CAPCO, was the example.

I don't want to dwell on this too long. The point is it is a potential --

CHAIRMAN RIGLER: I don't either.

BY MR. LESSY:

Q Would it be possible to have a power pool between two groups in which one group did not contribute any reserves at all?

A It is kind of hard for me to imagine such a situation.

I hate to say anything is impossible. I don't know all of the possibilities that could be imagined.

The very concept of pooling is that everybody puts something in the pot.

Q You could imagine an interconnection where there are no reserves provided by one party, can't you?

bw2

A How do you define an "interconnection"? If it is just a tie on to his facility to sell him power, is that an interconnection?

Q What about the interconnection between CWR and the South Central System? Do you have knowledge of that?

A I have a general knowlege of it.

Q Wasn't that interconnection made for economy interchange in seasonal peak and reserves were not of particular concern to the parties?

A It was made primarily for seasonal interchange. There was an existing interconnection between theparties before that one was made.

MR. SMITH: Mr. Slemmer, it would occur to me that almost any pool of -- almost any pool,that the members or potentials members are quite disparate in their systems, what they have by way of generation, transmission, reserves, and that for any pool to be effective, these differences have to be made up by money; isn't that true? Otherwise, wouldn't you need absulutely identical participants

THE WITNESS: That is right. Your final equaliziation is by payment,in any pool.

MR. SMITH: It is a working part of any pool?

THE WITNESS: Yes.

MR. SMITH: Whatever one member doesn't have, it has to buy?

bw3

THE WITNESS: That is right.

BY MR. LESSY:

Q Now, with reference to the Smith and Sleeper paper attached to your testimony, dealing with inter-system contracts, page 622 provides "While the contract cannot specify --

MR. ZAHLER: Would you point out where on the page?

MR. LESSY: Okay.

BY MR. LESSY:

Q Bottom paragraph of the first column of 622.

It provides "while the contract cannot specify the attitudes of future management of the contracting parties, every effort should be made to discourage horse trading among the parties. A willingness to share the benefits with the other contracted parties is essential to the successful operation of an interconnection."

Does that quote mean that an electric utility should be willing to share benefits with an interconnection partner?

A Yes.

Q What happens if one party is not willing to share the benefits?

A Well, in my experience it has been that the pool finally collapses.

bw4

Q Isn't it a fact that during your career you have only been associated with the apportionment of benefits in voluntary type interconnections, that is where each individual desires and willingly agrees to the interconnection?

A I have not sat in judgment on any interconnection, if that is what you mean.

I have not imposed any division on to any pool parties.

Q The instances where you have worked with respect to making studies and apportioning the benefits of an interconnection as you have testified, aren't those instances ances in which both sides desired and willingly agreed to the interconnection?

A I would have to talk to my lawyer.

I testified in the Consumers' case.

Now, in that case I'm not sure whether that was imposed or what it was.

So far as my actual experience in the negotiation of contracts, I think it has been either they negotiated a contract or the thing fell through.

EAK 6
ch 1

MR. LESSY: I am going to read you a portion of your cross examination in Consumers.

MR. ZABLER: Could you please give me a page reference?

MR. LESSY: If you wait, it is what I was about to do. It is page 3873, the question beginning at line 17, and continues to 3874, line 2.

BY MR. LESSY:

Q "Question: Is it correct that in previous instances, you have only been associated with the apportionment of benefits in voluntary interconnections. Isn't that so?"

Then the questioner was asked to explain "voluntary." And he explained it as one in which each side willingly agrees.

"Answer: I cannot remember any case where that would not be right."

My question is, isn't it a fact that during your career you have only been associated with apportionment of benefits in voluntary type interconnections, that is, where each side both desires and willingly agrees to the interconnection?

A At that time, I was working on a case where I am not sure it was voluntary. I have to qualify my answer because of that additional Consumers case. I am not sure how you would classify that. I am not sure of the details.

Q Was that case the Consumers case?

A. Yes.

Q. Interconnection wasn't reached there, was it?

A. I don't really know.

Q. With the exception of that one instance where an interconnection wasn't reached, isn't it a fact that in your career you have only been associated with voluntary-type interconnections?

MR. ZAHLER: Asked and answered. That is the witness' testimony.

Why are we going over this again?

CHAIRMAN RIGLER: Sustained.

BY MR. LESSY:

Q. Isn't it possible your net benefits approach is only appropriate where parties have equal bargaining strength and both desire the interconnection?

A. No, I think the fact they both desire the interconnection is a result of the apportionment of benefits to provide an incentive. I have had experience where the utilities were not of equal size or equal -- really not equal in much of any way. Still, they managed to come up with an arrangement that would provide the benefits for both parties, enough to provide an incentive to make the interconnection.

CHAIRMAN RIGLER: Mr. Slemmer, talking a little more about this paragraph from your article, page 823, which Mr. Lessy called to your attention, do the benefits of a

ch 3

pooling arrangement have to be proportionally the same for all of the parties to the pool?

THE WITNESS: I don't think, again, I can't say that there is a definite proportion. The only qualification I put on that is that they have to be sufficient in each case, for each party in the pool to provide him the incentive to make the pool work.

CHAIRMAN RIGLER: You talk in terms of economic equity. You talk then about resulting in benefits for all concerned in that paragraph.

THE WITNESS: Yes.

CHAIRMAN RIGLER: Does the phrase "economic equity" suggest that the benefits have to be reasonably distributed among the members, or can one member benefit far more than another member?

THE WITNESS: I think if there is too much difference in the proportional -- the way it is divided among the members, one member is going to lose his incentive.

CHAIRMAN RIGLER: If one member benefits to a degree of 2 percent and the other members are benefiting to a degree of 50 percent, that pool operation would not meet your criterion?

THE WITNESS: Well --

CHAIRMAN RIGLER: Expressed in this paragraph.

THE WITNESS: I hate to take it down to a particular percentage in mind. Your 2 percent and 50 percent, I would think

the man with 2 percent there would be doubt as to his incentive to make the pool work. If it is sufficient in his mind that he is willing to get in and do it, then it is satisfactory.

CHAIRMAN RIGLER: It is satisfactory?

THE WITNESS: If it is sufficient to give him the incentive to get in and make the pool work.

CHAIRMAN RIGLER: So that there may be disparity of benefits among pool members as long as each member receives a benefit?

THE WITNESS: Receives a significant net benefit.

CHAIRMAN RIGLER: Now, you say "significant."

THE WITNESS: I am still trying to stay with the idea that the benefit to each member individually has to be sufficient to give him the incentive to do his part of the job of making the thing work.

CHAIRMAN RIGLER: Are you saying that has to be a significant benefit?

THE WITNESS: Well, significant in terms that it is something that will motivate him to do it, yes. Again, "significant" is not a very precise term.

CHAIRMAN RIGLER: Well, the problem I am having is that you told me when one tried to analyze the distribution of benefits, one did it on an alternative comparison basis. That is, one looked at one's set-up without the pool and measured that against one's set-up within the pool.

ch 5

And it seems to me that one could conclude that there was enormous disparity of benefits and that one party might get only the little 2 percent benefit range that I have suggested and, still using your alternative theory, he would be getting a benefit.

So I don't see that the significant benefit squares with your alternative theory.

THE WITNESS: My alternative theory, we were talking about determining the total net benefits to all people. That was what I was doing on the basis of alterna-

end 6 tives.

bwl
S7

CHAIRMAN RIGLER: But individual members don't receive by using the same alternative analysis you have described?

THE WITNESS: After you determine the benefits for everybody, the distribution of these benefits among the members is normally a matter of negotiation.

Each member will make his own determination of what his benefits are, and whether it is enough to justify his participation.

CHAIRMAN RIGLER: But suppose one of these members determined that he would benefit less than the others to a noticeable degree, but he would still benefit as opposed to not being in the pool, at all?

THE WITNESS: If it is enough to give him the incentive to get in, that is sufficient.

I don't think it has to be absolutely an "even Stephen" deal.

CHAIRMAN RIGLER: It could be much worse than not absolutely "even Stephen."

There could be enormous disparity in this.

THE WITNESS: This gets to be a bargaining position, yes.

CHAIRMAN RIGLER: All right.

BY MR. LESSY;

Q So the ultimate decision as to whether or not

bw2

there was enough incentive to go forward might depend on the relative bargaining strength of the parties; wouldn't it?

A Not -- I don't think that was what I intended to imply.

The ultimate decision is whether each party thinks that the bargain that is arrived at gives him enough benefit that it is to his advantage to go ahead and do it.

Q If he can extract a greater benefit not doing it, then he is not going to do it, is he?

A If there is a greater benefit by not doing the pool in the first place, the pool shouldn't be there.

Q If one member could obtain a benefit by joining the pool, but by not joining this particular pool he might feel that his options were greater, then he wouldn't join the pool, would he, notwithstanding the whole analysis might yield net benefits?

A I have trouble with your question in this respect. If his benefit, not joining the pool is greater than his benefit in joining the pool, he has a negative net benefit.

In order to have a benefit, the pool has to be better for him than his other alternatives.

Q Now, on page 21, line 7 through 10. You state that the tendency was, and that time frame was 1963, '65, to look askance at a major utility that was not participating

bw3

in some pooling arrangement in the belief that it was passing up an opportunity to serve its customers better at a lower cost.

Was that your view in 1964-65?

A. I think I shared that view, to some extent, yes.

Q. Do you have that same view now?

MR. ZAHLER: Is that his view now, as to what the situation was in '64 or his view now today?

BY MR. LESSY:

Q. In 1976, do you have the same view?

MR. ZAHLER: As to what it was before or today?

MR. LESSY: As of today, you would look askance at a major utility not participating in some pooling arrangement et cetera.

THE WITNESS: I would think a major utility that was not participating in some way in a coordinated agreement would have to have a pretty good reason why he wasn't, yes.

BY MR. LESSY:

Q. Do you believe such opportunities to serve customers better at a lower cost, quoting from your language, should be denied to smaller or publicly-owned electric systems ?

A. No, I do not.

bw4

Q Would you agree that a substantial benefit of an interconnection is the ability for either or both systems to reduce their respective reserve margins?

A I think this is a generalization that I would have to have particulars on. It may be that the overall benefit would be to increase unit size and maybe actually increase their reserves' margins. You would have to get into the particulars of the planning for that particular pool.

Q Based on general industry practice, don't two parties go forward on an interconnection agreement many times to achieve lower reserves?

A I think a fair description of general industry practice, is that they do a little bit of both. They go to larger unit size and they don't take all of their benefit that way.

They also take some in reduces reserve.

Q Is reduction of reserve a substantial net benefit of an interconnection in many instances?

ES7

EAK 8
ch 1

A. Just at the moment, I don't have any figures in front of me that I could say it is or is not substantial. It is one of the things that has to be considered, definitely.

Q. If one of the parties to an interconnection imposed a reserve formula on the other party so that the second party was not able to reduce its reserve margins, then a potential substantial benefit tothe second party would have been negated, wouldn't it?

A. Is this in the content of a pool, now?

I am not sure where we are in the industry.

Q. Interconnection was the question.

A. Interconnection between two people?

Q. Yes.

A. One party is insisting if they are going to have an interconnection the other party is going to have to carry a specific reserve?

Q. Right. Basing that on certain calculation or formula.

A. Your question is, does this deprive one party of --

Q. Wouldn't that deprive one party of a potential substantial benefit?

A. It may impose on him a potential benefit because it might increase his reliability. The only reason one party would impose a higher reserve requirement on another party would be to get his reliability up where it would be acceptable to the

ch 2

pool, to the two together. So it might cost him money.

On the other hand, it might be a benefit in that his service reliability would be increased. You have to look at the thing as a whole.

Q Maybe you didn't understand the question.

Let's talk about a pool.

One of the parties wants to join a pool. A party, let's say, wants to join CAPCO. And one of the reasons it would like to join the pool is to reduce reserves, which, you have testified, in many instances occurs.

Now, if in so doing, the party was not able to reduce its reserves, the new joining party, because of something imposed by CAPCO, wouldn't that deprive that party of a potential substantial benefit?

A Not necessarily. Because the only reason that joining the pool would make him increase the reserves is if the reserves were not adequate to start with for some reason. You have to look at the thing as a whole, including reliability of service.

Q Assume the reserve is adequate. He would just like to reduce it.

A This is a contradictory assumption. If his reserve is adequate, the pool would not result in his increasing his reserve.

Q You don't think the CAPCO P over U formula could

ch 3

result in a party having sufficient reserve margins, by joining the pool, to increase the reserve?

A Not if there is no other change in the make-up of the parties' system.

Q On page 23, starting with lines 6 through 10, you indicate, "You must take into account, among other things, transmission facilities to make an accurate assessment of reliability."

A That is right.

Q Does the CAPCO P over N method take into account transmission facilities?

A The P over N is just one portion of the total CAPCO agreement. The total CAPCO really takes into account the transmission facilities.

end 3

S9
bwl

Q Your answer is P over N does not?

A That was not my answer, no. The P over N formula, the way the CAPCO uses it, is based on the assumption that transmission facilities are adequate per se in that P over N formula.

They go ahead with the transmission agreement and they assure themselves that the transmission is adequate.

I would say it does recognize transmission because that is one of the inputs to the program.

Q It does take into account, because it assumes adequate transmission?

A And further, the fact that the rest of the deal provides that that adequate transmission will be provided.

You can't put everything in one tool. You have to have two or three tools to do the job.

P over N formula is just one of the tools.

CHAIRMAN RIGLER: Now, page 24, line 17, the question is, does not such a formula which requires a system install a larger unit to provide more reserve, burden the small system? That is a shortening of the question.

Now, your answer is that such a formula reflects the engineering facts of life.

bw2

Are you suggesting that smaller systems usually install larger units than larger systems?

A My experience has been that a small system, just the economics of size and so forth, a small system would use units of a higher proportion, higher percentage of their total load than a large system.

In that respect, yes, they install larger units.

Q Larger proportional units?

A Larger proportional units.

Q What you mean, is larger proportional units, rather than larger units; isn't that right?

A What was that reference again?

Q The answer to the question beginning on line 17, page 24.

A I think the larger unit in that question referred to larger units than that system had been using before, in megawatt rating.

Q If the large units can be divided among several small systems who are directly interconnect or who have transmission service, doesn't that eliminate the burden on the small system?

A This is a, shall I say, a debatable question at the moment in the industry.

How to treat a jointly-owned unit in reserve determination. In my opinion the right way to

bw3

do is to take that burden that the larger unit places on the total pool and divided that burden in proportion to ownership, rather than take a particular piece and say, there is a unit of a particular size.

Q How does CAPCO do it?

A CAPCO does it the latter way. If I were the expert from CAPCO, I would tell them maybe they should do that a little differently.

It is done both ways.

Q So CAPCO does divide the large unit into portions; is that right?

MR. ZAHLER: That is to the Witness' knowledge?

MR. LESSY: Any question as to the Witness' knowledge.

THE WTINESS: That is my opinion. As I have said before, I'm not an expert on be CAPCO agreement.

There will be another witness, I think, who can tell you all about CAPCO.

BY MR.LESSY:

Q That is your understanding?

A My understanding is that they do it on proportionate basis.

Q Why is it an engineering fact of life that CAPCO can divide units among small systems that small systems shouldn't be able to?

A Would you refer me to the testimony you are

speaking of?

Q The answer, beginning on line 21 onpage 3-.

A May I have the question again?

(Whereupon, the reporter read the pending question, as requested.)

MR. LESSY: I misspoke mureIf.

THE WITNESS: I think you misspoke.

CHAIRMAN RIGLER: Let's not both talk at once.

BY MR. LESSY:

Q Why isn't it also an engineering fact of life, if CAPCO can divive units among themselves, among the members of CAPCO, it is controversial in the industry as to whether small systems should be able to ?

A I don't think that is what I said. I said it is controversial in the industry as to whether the best way to handle it is to divide it among reserves, as a piece of the unit and set it up as a separate unit of that size or take the total burden imposed on the system, as a whole, by that unit and divide that.

I don't think there is any difference in the way it would apply to CAPCO or small systems.

It would be applied in the same manner.

MR. ZAHLER: Would this be an appropriate time to take a break?

bw5

CHAIRMAN RIGLER: I think so.

(Recess.)

EAK 10
ch 1

BY MR. LESSY:

Q Mr. Slemmer, could you briefly explain to us the use of the split savings method in the context of economy energy?

A The split to savings method on an economy interchange, you determine the actual cost, incremental cost to the party that supplied the energy, and that is one element. Then you determine the value to the company who received it. That is, what it would have cost him if he had to make it himself.

The difference of those is the saving, and the pricing, then, would be half way between those two.

Q Now, if economy energy is compensated for within a pool on a split to savings basis, doesn't the supplier of the energy receive even a greater profit if the other party has higher generating costs?

A Yes. Yes.

I would like to back up a little bit there. I am not sure what you mean by profit. We are getting into a new term, again. The difference between his incremental cost and his price is higher, yes.

Q I will accept that.

So it would be an advantage to the seller within a pool if the supplier, as the term I used, in the pool, the person to whom the economy energy is exchanged or sold to had

ch 2

higher generating cost.

A. I would not generalize it to that extent, because the next hour he may be buying from that, and then he would want it to be lower. This is back and forth from hour to hour.

I don't think you can say there is advantage for the other fellow to have a higher cost. The overall advantage would be for everybody to have lower costs.

Q. You have testified on page 28, lines 19 through 21, that in your view, participation in a staggered construction program requires mutual benefits. And the two requisites --

MR. ZAHLER: Could you tell me where it says there has to be mutual benefits from staggered construction?

MR. LESSY: Line 21, "If staggered construction is to be mutually beneficial, each system must have" --

MR. ZAHLER: That is different than it is to be mutually beneficial. He then gives the conditions under which it would be mutually beneficial. That is different from the question you asked him or your characterization of his testimony.

MR. LESSY: I accept that.

I would like opportunity to finish the question before you object to it.

BY MR. LESSY:

Q. In the content of the correction as Mr. Zahler pointed out, that two requisites would be one--for mutual

benefits would be, one, sufficient contemplated load growth by each system participating, and, two, ability of the system to construct units of sufficient size to provide the increase in generating capacity over a significant period of time.

Now, specifically as to the load growth requisite, suppose a system desiring to participate in a staggered construction program had its load growth restricted by the other party by either or both of unreasonable long-term capacity restrictions in wholesale contracts for the sale of power and eliminating access to alternative wholesale sources of bulk power supply.

In that instance, would you still be of the opinion that the smaller entity should be precluded from participating in staggered construction because it didn't have sufficient load growth?

A I think this is getting a little bit out of the field of engineering economics. I don't know that to consider particularly why a system doesn't have a load growth or doesn't have a load growth.

Q Have you finished your answer?

A Yes.

Q You testified that if staggered construction is to be mutually beneficial, there are two requisites. One, each system must have sufficient contemplated load growth, and, two, each system must have the ability to construct units of

ch 4

sufficient size, et cetera.

My question to you is suppose a system desiring to participate in staggered construction program had its load growth artificially restricted by the other party. And I gave you two methods.

If that were the case, would you still be of the opinion that the smaller entity should be precluded from participating in the staggered construction because it didn't have sufficient load growth?

A. This, again, the particular reason that a system does not have load growth does not enter into its ability to receive or deliver benefits from staggered construction. The reason for it not having load growth is entirely a separate problem.

In order for the staggered construction to be beneficial, the system has to be able to use the capacity it puts in or a period of time, or it is stuck with a big unit it doesn't use. I can't see the connection between cause and effect here.

Q. Are you of the view that a system must have sufficient contemplated load growth to participate in staggered construction, and that requisite would apply in the instance when the system's load growth was not sufficient because it had artificially been restricted by the other party?

A. I think you left out part of my testimony. In

ch 5

order for it to receive benefits, it has to have sufficient load growth. That is regardless of the reasons it doesn't have load growth, it would not receive benefits.

I don't think the reason that the load isn't growing has anything to do with the benefits it receives. That is all.

Q Let me put it this way. With respect to your analysis of mutual benefits in terms of staggered construction and the requisites for participation, are you assuming there are no artificial restrictions on load growth?

A Well, this particular determination per se would probably be based on the system's own estimate of its load growth. I would not necessarily have any knowledge of what the basis of that was. To determine the load growth would be a different study.

Q If someone came to you and said -- a small system -- and said, "We want to participate in staggered construction," and you looked at their system and you found their load growth was not sufficient, and you looked further and you looked at their wholesale contracts and found out that was the reason why, would you still deny them staggered construction on the basis that benefits would not be mutually beneficial?

A I would have to. I would tell them to get their contract straightened out before they were involved in the staggered construction, so that they could make money with staggered construction.

Q One benefit of denying the benefits of staggered construction would be to artificially restrict their load growth?

A I suppose that is right. I don't know. If they don't have the load growth, they can't get benefits from staggered construction. Any way you can restrict the load growth would deprive them that benefit.

Q Now, as to the ability to construct, as you have set forth on page 28, as a requisite for mutual benefits and participation in staggered construction, the phrase is "ability of the system to construct units of sufficient size to provide the increase in generating capacity over a significant period of time."

Now, what is your idea in the use of that phrase of "a significant period of time"?

A I had nothing definite in mind. The usual concept, I would say, would be from one peak period to the next. Maybe six months, or whatever your next planning period is.

Q Now, approximately what size unit would this require, say, for CAPCO?

A I am not really familiar with CAPCO's growth pattern.

Q Are you familiar with the letters SLTC, capital SLTC, as used by the CAPCO companies?

A Right at the moment, it doesn't mean anything to me, no, sir.

ch7

Q Would you accept the fact as CAPCO uses those letters, it means "short lead-time capacity."

A It sounds like a reasonable thing. Yes.

Q Do you know the installation plans of some of the SLTC units that come of the CAPCO companies are installing?

end 10

A I am not familiar with the details of CAPCO.

S11 bwl

Q Would you be surprised to know they are as low as seven megawatts of electromode of diesel units.

A I would not be particularly surprised, no.

Q Must all units in a staggered construction program be large units?

A Well, if the unit is not as large -- large enough to provide a reasonable length of load growth, it not staggered construction. You would be putting them in at the same time. They have to be large in proportion to the system doing it to get the benefits of the partition unit size.

MR.LESSY: Would you read back my question?

(Thereupon, the reporter read from the record, as requested.)

BY MR. LESSY:

Q Now, I don't think you answered my question. The question was, must all units in a staggered construction program, a whole program of staggered construction be large units?

A I'm having trouble with your definition of large units and program.

To me a program of staggered construction only includes the units involved in staggered construction.

It doesn't involve necessarily all of the other units going in on the system. To a large --

bw21 my definition of a large unit for that
2 question would be one that would supply a reasonable
3 length of load growth for the systems of staggered
4 construction.
5 With those definitions, they have to be large
6 units, yes.
7 CHAIRMAN RIGLER: Wait a minute. In planning
8 a staggered construction program, you mean that the pool
9 members do not take into account all of the generating
10 units available to each of the individual companies?
11 THE WITNESS: The other generating units may not
12 be a part of the particular staggered construction
13 program.
14 CHAIRMAN RIGLER: Don't they have to be
15 accounted for and analyzed?
16 THE WITNESS: In the overall planning for the
17 development of the system, it has to be done as a whole.
18 But you can take out two pieces of that and set up a
19 staggered construction program between two companies that
20 does not involve the whole thing. The overall planning
21 has to involve everything.
22 Staggered construction is one way of dividing
23 investment in a couple of units or more units that become
24 a part of the total.
25 CHAIRMAN RIGLER: Even for staggered construction

bw3

don't you have to look at the system as a whole total generating capacity, available to each of the members?

THE WITNESS: You have to start with that, yes.

BY MR. LESSY:

Q Beginning on line 24, of page 19, you discuss the concept of -- scratch that.

On page 20 you testified that electric systems frequently engage in joint ownership or unit power purchase arrangements at line 13, "outside of pooling or interconnection agreements."

Is that true today of the CAPCO member companies?

A Again, my understanding of the CAPCO agreement is that the agreement itself provides for joint ownership.

Q Again, I didn't hear the answer.

Let me repeat it.

You testified that electric systems, frequently engage in joint ownership or purchase power arrangement outside of pool or interconnection agreements.

Is that true today of CAPCO member companies, outside of the CAPCO pooling arrangements?

A My understanding is that in the CAPCO arrangement it is a part of the pooling agreement.

Q What is?

A The joint ownership or participation -- joint

bw4

participation in units.

CHAIRMAN RIGLER: I don't think the record is clear on that. You better break it down and ask if CAPCO companies are engaged in any joint ownership with companies outside of CAPCO, and then you better ask him a second question relating to whether they have any unit power purchase arrangement with companies outside of CAPCO.

BY MR. LESSY:

Q To your knowledge, does CAPCO companies engage in unit joint ownership with companies outside of CAPCO?

A I am not that familiar with the CAPCO arrangement. I don't know whether they do or no.

Q Do you know whether or not CAPCO engages in unit power purchase arrangements outside of the CAPCO pooling or interconnection agreements?

A Again, I don't know. I just don't know. I think, however, we are misinterpreting my intention in this testimony I gave before. When I said this was out of the agreement, I didn't mean it was necessarily out of the pool.

For example, in teh PJM pool, the Keystone Plant is owned by a number of companies that are all members of the PJM pool, but it is not part of the PJM Pool. It is a separate agreement for joint ownership of that plant. That is what I had in mind as being out of the

bw5

agreement.

Does that clear it up or make it worse?

Q If, as you have testified, the owning system of a large power plant, say, nuclear power plant, has -- that is page 30, line 7 -- "complete control over the construction and operation of a unit according to general industry practice," as you understand it, what is there to prevent that owner with complete control, from denying access to the plant or only offering access on unattractive terms?

MR. ZAHLER: Could I have the question repeated?

(Whereupon, the reporter read the pending question, as requested.)

ES11

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MR. ZAHLER: I would object. I don't think that that is what the testimony says.

It has been mischaracterized.

MR. LESSY: The testimony is that the owning system has complete control over not only the construction --

MR. ZAHLER: It says in case of a unit power purchase --

CHAIRMAN RIGLER: One at a time.

Let Mr. Zahler go.

MR. ZAHLER: The description relates to unit power purchase. The previous paragraph refers to jointly-owned units. Mr. Lessy's question doesn't distinguish between the two.

In general terms it mischaracterizes the testimony to that extent.

CHAIRMAN RIGLER: Do you want to rephrase it?

MR. LESSY: I don't think it is necessary to distinguish between unit power, as beginning on line 6, and the previous discussion with respect to control.

I think it would apply to both.

The question is whether or not that complete control over operation gives the -- complete control at lines 3 through 5 over design and operation and with respect to unit power, the complete control over construction and operation whether or not that control goes to the power that

bw2

comes out of the plant.

I am trying to make clear what we mean by complete control.

The fact that there is a distinction -- the same phrases are used.

CHAIRMAN RIGLER: Well, there is a distinction, I see, between much control, which is what he testified to on lines 4 and 5, and complete control, which he testifies to on line 7.

Also it seems to me there is a limitation on line 6, because he clearly states he is talking about unit power purchases.

So I think you better rephrase it.

MR. LESSY: Okay.

BY MR. LESSY:

Q If, as you have testified, the owning system of a large power plant, say, nuclear plant, has with respect to the control over the design or operating decisions of a unit, not a unit power purchase, has much control, what is there to prevent that owner with that control from denying access to the plant or only offering access on unattractive terms, according to general industry practice?

A May I set up the basis, as to what I understand you are saying?

This is a company who is building a plant for

bw3

himself. He is doing the whole job himself, and you want to know what is to keep, to prevent him from not letting somebody else in?

Q No, because page 20, line 3, you are using the word "system."

It is plural. I assume it is more than one company.

MR. ZAHLER: Could we make it clear on the record?

Mr. Lessy has left the original question and gone to a different question.

Could we make it clear what type of ownership he is talking about?

MR. LESSY: Would you like me to restate the question?

CHAIRMAN RIGLER: Just say what type of ownership you have in mind.

MR. LESSY: Joint, more than one, one system.

THE WITNESS: In joint ownership they have access.

BY MR. LESSY:

Q If in a joint ownership -- if two utilities build a large plant and they have "much control over not only the design, but the operating decisions of that plant," with respect to others, what is there to prevent them from

bw4

denying access to others or only offering access on unattractive terms?

MR. ZAHLER: Could I ask who the others are?

MR. LESSY: I think that is clear from the question.

CHAIRMAN RIGLER: I think it is clear.

THE WITNESS: This gets back to the basic concept of taking another party into a deal. The basis for that decision would be whether or not the other party would provide benefits.

I think if it is to the benefit of all three parties for the other party to come in, he would have access. If it is not, he would not have access.

CHAIRMAN RIGLER: That is not his question. He is asking what prevents the dominant system that is building its plant from being able to deny access to smaller systems.

THE WITNESS: Well, from the engineering, economic point of view, the only thing that would prevent it would be a cost-benefit situation that would make it attractive to him to do it.

I'm not qualified to answer legal questions.

I suppose there are legal remedies, but that is out of my field.

CHAIRMAN RIGLER: This gets back to a discussion that you and I had yesterday about whether the benefits had

bw5

to be mutually perceived. Suppose the little systems that are seeking access claim that they can see benefits and the big dominant company that has charge of the construction disagrees with respect to the extent of the benefits, I thinkthe questionis what prevents that big system from excluding the others from access.

MR. LESSY: That is the question. I apologize for my statement of it.

THE WITNESS: Excluding any legal resources which I would not want to testify on, there is nothing in the engineering, economic field thatwould require him to -- that would prevent him from excluding a company that did not add benefits to the total -- that did not, in his concept, add benefits to the total.

CHAIRMAN RIGLER: That is begging the question, I think.

THE WITNESS: I think I have to go back to the same Cadillac we talked about the other day. I might have a Cadillac [illegible] and have all kinds of reasons in my mind why you should buy it, and the benefits you can get from it.

Unless you see the benefits you will not buy the Cadillac. This is the same thing from the standpoint of the parties concerned. Unless they both see that there are benefits in it, the deal will not fly.

bw6

Again, there may be legal reasons that I would not want to get into.

CHAIRMAN RIGLER: Let me ask you if reduction or exclusion of competition would be considered an economic engineering benefit?

THE WITNESS: I would not consider it as a portion of engineering economics.

It might be a benefit that a man would consider in making the decision.

BY MR. LESSY:

Q If participation by the, say, small systems in this example permitted the scaling of a larger size unit, then there would be a benefit there, to the participating systems, the original two systems.

A I would tend to say there probably would. I wouldn't like to say they would without knowing the actual figures. It probably would, yes.

Q Suppose it wouldn't? Suppose those systems would add to the unit, maybe, 150 megawatts, but based on categories and classes of units, it wouldn't? Then there may not be any motivation, as you have used the term or incentive onthe part of the original two systems, would there?

MR. ZAHLER: Could I have the question reread, please?

(Whereupon, the reporter read the pending

bw7

question, as requested.)

MR. ZAHLER: I'm confused what "it wouldn't" refers to.

CHAIRMAN RIGLER: I'm confused by the question, too, Mr. Lessy.

BY MR. LESSY:

Q If the additional load that the systems requesting access would not -- would add to the load, say, 100, 150 megawatts, but would not permit the purchase of a more economic unit, according to economies of scale, then there may not be any incentive to the original two systems to go forward and permit access to the plant; isn't that correct?

A I have to be back to the original concept.

At first, you look at the deal as a whole. Is there a net benefit to all three parties, if the . party is included in the ownership?

If there is a net benefit to all three parties, there should be a way of dividing it between the three of them, so that there would be incentive for all three of them to participate.

If there is not net benefit, there is not reason to do the job, to form the pool, to let them in, shall we say.

ES11

EAK 13
ch 1

CHAIRMAN RIGLER: The situation posed is, there are two large systems that are buying a large unit, and the third system comes along and asks them to build a slightly larger unit so that the smaller system can pick up 100 mw.

From your viewpoint of engineering economics, do you take into account any policy of the Congress that once the benefits of nuclear energy associated with the grant of license to be available broadly to electrical systems throughout the country?

THE WITNESS: I am a little at a loss as to how to answer. What do you take into account?

I am aware of that policy. It is a consideration. It is not given a dollar value in economic comparison.

CHAIRMAN RIGLER: So it is excluded from your consideration, based on engineering economics, which, I believe, is the term you have used to describe your testimony?

THE WITNESS: So far as the dollar evaluation of it is concerned. It would be one of the fringe benefits that would be considered.

CHAIRMAN RIGLER: I get confused now.

Now we have a new term, "fringe benefits."

THE WITNESS: In any, I think, economic comparison, if you are going to make an economic comparison for even comparing two sites for a power plant, you start out by getting a load forecast for the area you are going to serve

ch 2

with the plants, and you put a program in of building the -- of developing the system with one site or developing the system with the other site.

You compare those. You set up your program so the operation and reliability will be as nearly equal as you can. You can compare them. You come out with a dollar cost. In addition to that, you have other intangibles that you do not have a dollar cost affixed to. That may be one of them.

The other may be availability of labor, its effect on your service area. There are a lot of other considerations that you don't put into a dollar cost of making a decision.

CHAIRMAN ZIGLER: Now, one of the open questions I have with respect to your testimony is, that makes up these intangibles and whether you include them in your benefits or you exclude them.

At one time, I seemed to be hearing you say that you are looking only to the engineering economics when you describe the benefits. You are excluding intangibles such as Congressional policy. At other times, you seem to be talking in terms of all benefits which would be benefits above and beyond engineering, economic type benefits.

THE WITNESS: I am sorry I am confusing. Actually, you have to make a comparison in two parts, so to speak.

You assign dollar values to everything you can reasonably assign dollar values to. This gives you a dollar

ch 3

comparison.

Beyond that, you have other things such as the ease of operation, whether you are going to have problems with maintenance, whether it will follow your load curve properly, the public policy, whether it fits into your public image properly, and all of the things that you can't assign a dollar value to that have some influence on your decision.

CHAIRMAN RIGLER: Earlier, we discussed whether some benefits were subjective. Do you recall that?

THE WITNESS: I am sorry, I don't. There, I think could be said to be subjective benefits.

CHAIRMAN RIGLER: The intangible benefits are subjective?

THE WITNESS: Yes.

MR. REYNOLDS: I wanted to maybe ask a clarifying question, because I think everybody is passing, and it would clear it up if I can do it.

CHAIRMAN RIGLER: I will permit it.

MR. REYNOLDS: I was wondering if your question was addressed to the witness with respect to the intangible, for example, of Congressional policy, in terms of whether you are speaking of access to a nuclear unit as opposed to access to pool membership. That may be a way to clear it up, to explain the analysis.

There may be some crossing as to the intangibles

ch 4

you consider when and the engineering analysis you consider and when.

CHAIRMAN RIGLER: I don't think there is confusion there. It seems what goes into the bundle of intangible benefits may vary. Obviously, if you have Congressional policy that applies only to nuclear unit and not to pooling as a whole, that Congressional policy would go -- would be weighted only in favor of considering the benefits of the nuclear unit.

He has described several intangible benefits; ease of operation, for example. I don't think we are confused on that point.

MR. REYNOLDS: Referring back to earlier testimony where you were having confusion as to when he included which intangibles, I think that confusion resulted from the nature of the request of access that we were talking about at the time. That is all I was trying to suggest.

CHAIRMAN RIGLER: Okay.

BY MR. LESSY:

Q I am going to turn to page 31, lines 23 to 25. Mr. Slemmer, when you testify that the flow of power and energy over the transmission system pursuant to a wheeling arrangement will "affect the capability of the system to meet its own requirements," that effect could be either a positive or negative effect, couldn't it?

A Yes.

Q When you testified at page 32, line 22 to 26, that the addition of a wheeling arrangement requires the review of the capability of the entire system, is this true when the amount of power to be wheeled is small in proportion to the relative capability of the system doing the wheeling?

A I think we are getting to the straw that broke the camel's back. I don't know that there is a line where you say one more megawatt will break the system down. But there is a limit.

Q Well, I gave you a specific case. What case that I gave you in the question is, is this true when the amount of power to be wheeled is small in proportion to the relative capability of the system doing the wheeling?

MR. ZAHLER: If Mr. Lessy says this is a specific case, can we have a quantification of what "small" means?

MR. LESSY: I don't think quantification in this context is necessary.

CHAIRMAN RIGLER: If it is, the witness can describe his difficulties with the question. I will let the witness try to answer the question as posed.

THE WITNESS: I think any change in the flow of power, no matter how small, may affect the operation. It is a matter of engineering judgment whether a particular change is something that you have to study. I think it depends entirely

on your definition of "small."

If "small" is so insignificant that you can't find it in a technical study, it would be insignificant. That is right.

BY MR. LESSY:

Q. Do you know the transfer capacity of the CRPCO system?

A. I am not familiar with the CRPCO system.

Q If the transfer capacity of the CRPCO transmission system were 2,000 megawatts, and we are talking about an addition of 30 megawatts, would you have to study that?

MR. ZAHLER: For my clarification, I don't know what a transfer capacity is. Could Mr. Lessy ask the witness or could he tell us, so the question has meaning.

BY MR. LESSY:

Q Could you tell us what transfer capacity of transmission is, sir?

A Usually, when you talk about the transfer capacity of a transmission system, you are going from one point to another point. It is ability to transfer power from one point to another point. Transfer of capability may be different between different points.

The fact it has 2000 transfer capability, I would have to know whether that 2,000 applies to the particular area where you are going to pass the 30 megawatts.

ch 7

Q Yes, it would.

A If the 2,000 is not in use so that there is margin there for the 30 megawatts -- in other words, if you have 2,000 and the maximum use you want to make of it is 30 megawatts less than 2,000, you don't have to study it.

If you are using 2,000 and you are going to add

end 12

30 megawatts, you have to find out what your bottleneck is, yes

S14
bwl

Q Would you anticipate that a system with 2000 megawatts of transfer capacity might be able to an almost -- might be able to accommodate an addition of, say, an amount in the range of 30 megawatts?

A Not without knowing what the particular condition was that established that limit of 2,000 megawatts.

Q How about CAPCO today?

A Again, I'm not familiar with the CAPCO system.

Q Are you familiar with the Davidson affidivat, in which the affiant made certain statements?

A I'm not familiar with it in that term, no. That does not bring any document to my mind.

Q This is a roughly ten-page affidavit which has been received in evidence ad DJ-358. And I was going to take a minute or two to indicate some portions which we want you to look at.

When I had it to you, I want you to read anything you think may be helpful and relevant.

MR. ZAHLER: Could I ask where Mr. Lessy's line of questioning is going, and what the purpose is of handing the document to the Witness?

CHAIRMAN RIGLER: Excuse me a minute, Mr. Zahler.

MR. ZAHLER: I asked if I could know where Mr. Lessy's line of questioning is going.

bw2

The reason I'm curious is Applicants have stipulated that this 30 megawatts --

MR. LESSY: State the stipulation again.

CHAIRMAN RIGLER: You said it is already a matter of record or Applicants have stipulated that --

MR. ZAHLER: Applicants have stipulated that the transmission system has capacity to carry 30 megawatts of PASNY power.

MR. LESSY: All right.

Now, if you want me to state exactly what I'm lookin at, I will ask the Witness to be excused and it will take a second.

If not, there are two or three more questions I want to pursue in this line.

Now that I don't have to show him the affidavit, it limits the scope.

CHAIRMAN RIGLER: Ask the question.

MR. LESSY: Are you clear as to the stipulation, sir?

THE WITNESS: Yes, I think so.

BY MR. LESSY:

Q Do you know whether the wheeling of 30 megawatts of PASNY power was included in the plan of CEI system prior to April 1974, which is the date of the affidavit?

bw3

A. I do not know.

Q. Isn't this -- do you think it should have been included in the planning of CEI system?

MR. ZAHLER: Objection. The Witness says he doesn't ahve any knowladge as to it.

CHAIRMAN RIGLER: Sustained.

MR. LESSY: If it were not, isn't this an illustration of a wheeling arrangement that can be accommodated, even though it wasn't included in the planning of the system.

THE WITNESS: You are -- as I understand the question, it is based on the assumption that the inclusion of this 30 megawatts was not contemplated in the planning of the system.

MR. LESSY: Right.

THE WITNESS: It is something --

BY MR. LESSY:

Q. Isn't this illustration of a wheeling arrangement that can be accommodated, even though it wasn't included in the transmission system?

A. Again, I am not sure of the context of this from the stipulation, as I heard it, it says that the system has the capacity to do it, so it can be.

Whether this is a situation now or whether it is a long-term situation, I don't know.

bw4

The planning of a system is a continuous operation. That 30 megawatts every time they plan the system will have to be taken into consideration,

It might be right at the moment, they have 30 megawatts surplus capacity that they can devote to that.

I don't know the particulars.

Q What I am trying to find out is page 32, beginning at line 21, is it always true that the addition you have a wheeling arrangement, therefore, requires the review of the capability of the entire system and must be included in planning the expansion of that system to meet transmission requirements.

A It is always true with the possible exception that if a particular party at the moment knows he has a certain amount of surplus capacity to assist him, he doesn't have to review it again to determine he has that surplus capacity.

But certainly he has to include that 30 megawatts in the future planning of the system.

That is one of the things the system will consider in performing, and he has to include it in his system, yes.

Q Would you like to add the word "usually" or "sometimes" requires on line 23, page 32, based on your knowledge of the stipulation?

bw5

A Not particularly, no.

The factthat they have stipulated that the fact it is there, tells me they have reviewed it.

The review has already been made for this situation. Certainly, any engineering that started planning the system in the future would want to see what that transfer did to the system operation.

It would be partof the input to the system's planning process, just the same as any other load or generation or anything else on the system.

ES14

EAK 15
ch 1

Q An engineer who had 2,000, as we said before, who had lines with 2,000 megawatts of capacity, couldn't tell without study or advance planning whether or not a small amount, such as 30 megawatts, could be added without reviewing the entire system.

A We are getting to a different angle now. We were talking about the future planning of the system. If an engineer who knows there is surplus capacity in a 2,000 megawatt system as of now would not have to make another review for this particular 30 megawatts; no. But the fact he knows that capacity is there indicates he has reviewed it. Otherwise, he wouldn't know it.

Q Suppose the amount, 30 megawatts, is small in proportion to the total capability of the transmission system. Need the total capability be reviewed on allocations when you are dealing with a relatively small amount?

A I don't know how you review the capability of a system without reviewing the total capability. That is what it is.

Q You would review the capability of a transmission line which would be used?

A If you are sure that that is the transmission line that is going to carry the power. You are not sure of that unless you know the operation of the whole system.

That 30 megawatts may not go over a single line.

ch 2

I don't know the actual situation. That 30 megawatts may go over a dozen lines in parallel.

Q Are you familiar with any arrangement that Toledo Edison would classify as wheeling?

A I am sorry, I am not familiar with Toledo Edison's arrangements.

Q I am going to show you what I will represent to be an excerpt from the 1974 annual report of the Toledo Edison Company to the Federal Power Commission.

You are familiar with revieving annual reports to the Federal Power Commission, is that right?

A I am familiar with the Federal Power Commission reports, yes, sir.

Q I am going to show you --

MR. ZAHLER: Mr. Chairman, I would like to see that.

CHAIRMAN RIGLER: Give it to Mr. Reynolds before the witness.

MR. LESSY: Should I show it to the witness while he is examining the particular document?

One page would satisfy. We could do it for '73, but '74 is more recent, and I think more accurate of the situation today. It is a standard report by all electric utilities.

Should I distribute it to the witness?

CHAIRMAN RIGLER: No. Not yet.

BY MR. LESSY:

Q Going to ask you to direct your attention to line 13 and 14 of the page entitled Electric Energy Account -- I mean 14 and 15 of the page entitled Electric Energy Account of Toledo Edison, 1974 annual report.

There are also some associated pages in there that you may review, but I am not going to ask you about anything other than those lines on that page.

MR. ZAHLER: Could you ask the witness a question so he knows why he is reviewing the document.

BY MR. LESSY:

Q Lines 14 and 15 of that page provide transmission for and by others, in parentheses "wheeling," received 49,192 kwh in thousands and delivered 49,192 kwh in thousands.

A That is mkwh. There are no "thous" in there.

Q Right.

The question is, what would you call the receipt and delivery by Toledo Edison of equal amounts of kilowatt hours by transmission for and by others as reflected in the 1974 annual report?

MR. ZAHLER: Objection.

The witness testified he had no knowledge as to the practices of Toledo Edison. The witness has no knowledge

where the power came from or where it went to. I don't understand how he is in a position to answer a question such as that.

MR. LESSY: The witness has given definition of certain terms, including "wheeling." I would like to know exactly, not with respect to Toledo Edison but as a matter of fact, what he would term as a transfer as lived on that page.

MR. ZAHLER: If he wants to ask a general question, okay, not a question related to Toledo Edison.

MR. LESSY: What would he call the receipt and delivery by Toledo Edison of equal amounts of kilowatt hours by transmission for and by others, as reflected in the report.

MR. ZAHLER: I object to the question as it is phrased. It relates to this document. The witness has no knowledge of how Toledo Edison prepares these documents.

CHAIRMAN RIGLER: Sustained.

BY MR. LESSY:

Q What would you call the simultaneous receipt and delivery by Toledo Edison of equal amounts of kilowatt hours for and by others, as reflected in the page entitled Electric Energy Accounts for their 1974 annual report.

MR. ZAHLER: Objection. The document on its face says nothing about simultaneity of the transfer. He is adding that.

I don't understand the reference to the document in his question. If he wants to ask a general question, okay.

CHAIRMAN RIGLER: Sustained.

MR. LESSY: What would you term the receipt and delivery of 49,192 mwh under the account transmission for and by others as reflected in the document in front of you?

MR. ZAHLER: Objection.

CHAIRMAN RIGLER: Sustained.

MR. LESSY: I don't understand the nature of the objection. I have asked for him to put a label on this if he can.

Maybe the basic hasn't been understood by me and I am at fault, but I don't understand the nature of the objection.

MR. ZAHLER: The witness testified he has no knowledge as to the practices of Toledo Edison. Toledo Edison filled out a document here. He has no knowledge of how they filled out the document, and he is asking him to characterize the manner in which Toledo Edison filled out the document.

If he wants to talk about a particular power pool irrespective of the document, he can answer that question.

MR. LESSY: This document is prepared by all electric utilities subject to FPC jurisdiction and others. It is one that an expert should be familiar with. I am asking if he can understand what a particular account reflects.

CHAIRMAN RIGLER: You can ask him that and still avoid Mr. Zahler's objection.

ch 6

MR. LESSY: I don't see the difference between asking him what it reflects and how he can characterize it. That is my problem.

I am not trying to be argumentative. I am trying to understand why the objection was sustained.

end 15

S16
bwl

BY MR. LESSY:

Q I will ask him that. The question is what the 49192 MKWH received and delivered, reflects to you, as on line 14 and 15 of the document I showed you.

A The fact that it is labeled "transmission for and by others," with the parenthesis (wheeling), I look back to the former sheet detailing transmission of electricity for and by others and it appears to be the receipt of power from Buckeye Power Company to deliver -- Buckeye Power, Incoporated, to deliver to its member points.

I can not tell from this whether or not Toledo Edison had any other interest in that transaction. The fact they called it wheeling would tell me they had no other interest, and that they delivered it.

If that is the case, I would call it wheeling. If that is the only transaction they had in regard to that power and energy.

MR. LESSY: That concludes cross-examination by Staff.

CHAIRMAN RIGLER: Who is going next?

MR. HJELMFELT: The City will proceed with cross-examination.

BY MR. HJELMFELT:

Q Mr. Slemmer, my name is David Hjelmfelt, and

I'm appearing for the City of Cleveland.

I believe you stated that the only reason one party would impose a high reserve burden on another would be to bring that other party's reliability up to a higher level; is that correct?

bw2

A I think that is right, yes.

Q Might another reason be that the first party did not believe there was sufficient incentive for him to pool unless the other party carried a greater percent of the reserves?

A Yes, it would be possible to divide benefits in that way, although I think that would be very unusual.

Q Do you know if there is more than oneway to perform the calculations under the CAPCO method for allocating capacity, and thus determining a reserve level?

A It is my understanding of the CAPCO method that it is a way of determining that. It is based on a probability procedure. There is a number of ways of making a probability calculation.

I think the -- I'm not sure whether the CAPCO -- I guess the CAPCO method does not specify the particular computer program they are going to use for it. There would be other ways.

Q So, within the CAPCO formula, by changing the method of representing units, for example, you could

shift the reserves allocated from one party to another party?

A I don't understand what you mean by changing the way you represent units.

Q Well, for example, if you -- do you know in the CAPCO formula, does the size of the unit owned by a particular utility affect the level of reserves that it would carry?

A Yes, it does affect it. The size and forced outage rate.

Q Now, if you treated the size of the unit, instead of assigning the actual size, you treated it as a prorata share over a group of units, so that even if Utility A took 400 megawatts from one of four units, you would assign him 100 meg watts from each unit, rather than treating it as a 400 unit block, that would change the reserves he would be assigned; is that correct?

A I think I testified this morning that I felt the latter method would be better, that you determine the total reserve requirement, because of the unit, and then divide that requirement, rather than splitting the unit up.

Q Yes, but if you did spread it out, could that be done under the CAPCO formula?

A Yes, it could be -- well, so far as making the

bw3

computations concerned, you can represent it either way.

As far as I know, the CAPCO formula is based on splitting the unit.

I'm not really familiar with the CAPCO formula. I can't testify what the current contract is.

Q So the CAPCO formula by itself than does not provide a result which you can say would satisfy the apportionment of the net benefits?

A The CAPCO formula is a tool by which you can determine certain results.

Those results are the use of pool reserves, the probably use of pool reserves. To use that tool, you have to put the data into it. I am not -- as far as I know, the formula itself does not specify how the data goes in.

The contract probably does.

Q So that if the parties were applying that -- using that tool to apportion the benefits and decided that that wasn't providing the proper incentive, they could change the way they put the data in, and thus change the resultant incentive; is that correct?

A Well, I would assume this would require some kind of agreement among the party that this is the way we are going to do it now.

Q Assuming that agreement, that could be done?

A Yes, yes.

Q I believe you stated in a pool arrangement, if the parties live up to the agreement there is no leaning or riding.

Was that a statement that you believe is applicable, generally, to all pools?

A Let me say it this way. There is something wrong with the pool contract, if it is not true. In an equitable pool contract there would be no leaning or riding, if they are living up to the agreement.

Q Would that be true for a pool that apportioned reserves on an equalized reserve sharing basis?

MR. ZAHLER: Can I ask Mr. Hjelmfelt what you mean by equalized reserve sharing basis?

BY MR. HJELMFELT:

Q Equal percent of peak load.

A I would assume that at the time the equal load was agreed on, this was equitable. The systems were enough alike that nobody felt this was a burden. As the systems grow, as the pools grow, as the unit sizes grow, and so forth, these formulas are changed. There is a time there before it is changed that some guy feels like he is getting hurt, and he wants to change the formula.

This requires a renegotiation of the contract

bw5

arrangement.

Q That there could be leaning on or riding, even though the parties are living up to the terms of the agreement?

It wouldn't be leaning or riding, if he brings it to the attention of the parties, and they go ahead and negotiate something that is suitable.

Q It only becomes leaning on or riding if the other parties refuse to make any change; is that correct?

A That is right.

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ch 1

Q Do you have any idea how many pools use equal percent reserve?

A I have not made a survey, no. I know of three that I mentioned this morning that do. I think there are others, but I would have to make a survey to find out.

Q You named three this morning that used equal percent reserves. Did you misstate that?

A I mentioned three this morning that used probability I don't know of any pool that uses an equal percentage without some kind of qualification on it.

Q What use of the probability do those pools make that you referred to?

A Well, they handle it in different ways. I don't think I need to talk about the CAPCO.

It is my understanding that the ILMO Pool is similar to CAPCO. It may be identical. I am not sure. If there are differences, they are very small.

The PJM Pool uses a probability computation to determine what they call -- they determin power factors. One they call a unit size factor, and the other they call a load drop factor. I have forgotten what the other one is now. By using the probability computations, they determine constants to use in those factors to account for the probability.

Q And probability method is used to determine the total amount of reserves that are needed. Is that correct?

A Yes.

Q Now, is probability method used to determine how the reserves are to be divided up?

A Yes.

Q In what way?

A To develop these factors that I mentioned. Actually, there final formula is that they carry the average amount of reserve plus a factor for the -- well, they carry their peak times one plus the average amount of reserve plus a factor for the unit sizes, plus a factor fo the load drop. I think the other factor has something to do with winter and summer peak. I would have to check that.

Q Do pools that use equal percent reserves, do they use a probability method to determine the total amount of reserves needed?

A All the equal percent reserves started back before the probability method had been developed to where it could be used for pool operation. As the probability method has been developed and become more useful, the equal percentage has gradually disappeared.

MR. CHARNO: Could I get the last question and answer back, please?

(The reporter read the record as requested.)

BY MR. HJELMFELT:

Q Is it your testimony that there are no pools that

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use equal percent reserves?

A I didn't mean to say that. The tendency is to replace that.

Q Is it your testimony that those that do use equal percent reserves do not use the probability method to determine the total amount of reserves that are required?

A No, not necessarily. They may or may not.

Q Is it your testimony that operating reserves ought to be apportioned on the same basis as installed reserves?

A I am not sure what you mean by "the same basis." If you mean that they should be apportioned on the basis of supplying in proportion to your probable use, yes.

Q Do you know whether ECAR has adopted rules relating to the level of operating reserves?

A My understanding is that ECAR has adopted rules relating to the total reserve, not to the allocation of reserve between members.

Q Do you know how the CAPCO Pool determines or assigns the level of operating reserves to be carried?

A I am sorry, I do not know. No. I am not familiar with that, as perhaps I missed that in reading it.

Q Would you agree that coordination permits utilities of almost any sizes to obtain the benefits of economies of scale?

A That is a pretty general question for a definite

ch 4

answer. I think there is a possibility there, but I would have to have particulars to say that a particular ensa provides --

Q You would say that is a general rule which might have exceptions?

A Yes. I think that would be it.

Q Now, are you familiar with any pools in which the members have different financing costs?

A Yes.

Q Are those viable pools?

A They are, I think, viable pools. They have had their problems.

Q Have they been able to surmount those problems?

A They have been able to surmount those problems.

Q With respect to the incentive to continue in a pool, must the incentive flow from each member of the pool to each member of the pool or might the incentive occur from the net benefits of the pool?

A It must occur from the net benefits.

Q So that if one -- if one member of the pool made no contribution to net benefits and yet the total net benefits could there be a situation where one member of a pool did not contribute to net benefits in a measurable amount and yet the total net benefits were sufficient to provide incentive for the other members of the pool?

A There could be. I would question why that

ch 5

member that did not contribute to the net benefits was in the pool.

Q Do you consider it a poor practice for a pool to require unanimous approval for the admittance of new members?

A What do you mean by "poor practice"?

Q Do you consider that to be an appropriate term in a pool arrangement?

A I think it is appropriate, yes. It depends entirely on the structure of the pool.

If you have a group of members like the MEPCOM, I don't think it would be practical in MEPCOM to require unanimous agreement on anything. I don't think they would ever get unanimous agreement.

Q Would the factor then be a question of the number of members in the pool?

end 17

A That would certainly have an influence on it, yes.

S18
bwl

Q Is there any objective test by which you could measure whether there is an incentive for pooling?

A I am not clear what you mean by an objective test?

Q Is there any way by which you can measure -- a third party could measure whether or not an incentive existed for a party to pool, to enter a pool or continue in a pool?

A Well, the way I have been using the word "incentive," it is something that produces an action.

And the only way I can determine that is whether or not it produces the action. There are ways where a third party can, if they know enough about all of the parties' systems, they can determine what the benefits would be which would tend to provide that incentive.

In the context that the incentive produces an action, the only proof of the incentive there is that the action is produced.

Q Is you incentive test or thought, urely pragmatic?

A Pragmatic in the term that it is a way of getting something done, yes.

Q If the parties pool, then there is incentive and if they don't ocol, there wasn't incentive?

A I think that is right, yes.

Q Now, would it be possible that within the net

that could be derived from a pool there might be --- that most benefits could be divided within a range which might provide incentives?

A It would be possible, yes.

Q In other words, everyone could be provided enough benefits to have an incentive to join the pool and there still be net benefits left over that haven't been divided yet?

A When you divide benefits, I would think you divide all of them.

but there could be differences in the amount of benefits that different parties got.

If there was some reason to take some of them out, I would assume that would be one of the costs of running a pool, before you start dividing benefits.

Q Can the result in the division of benefits reflect negotiating strength of the parties?

A The results --

Q Canthe results of -- do I understand that you can make an objective or engineering calculation of the net benefits from a proposed pool, and then the parties would negotiate the division of those benefits?

A Yes.

Q And the result then would reflect the negotiating positions of the parties?

bw3

A I'm not sure what you mean by the negotiating positions of the parties.

Q The negotiating strength of the parties.

A I think you are getting into economic terms, I will have to have defined for me.

Q In determining --

A The ability of the parties to reach agreement, yes,

Q In determining whether or not there were sufficient incentives for him to enter into the transaction, would a party consider what alternatives he had?

A He should, yes.

Q And if he had good alternatives, it would take more of an incentive for him to join, to undertake that transaction than it would, if he had no reasonable alternatives?

A No. The consideration of those alternatives is what determines the net benefits for the pool. If he had better alternatives than thepool, then the net benefits are zero or negative, again.

Q That is the net benefits for him or the pool as a whole?

A Either one. It could be for him or it could be for a pool as a whole. It is hard for me to see where

bw4

a fellow would have a better alternative than joining the pool, where he would actually add anything to the pool in net benefits. It would be the best thing for the pool for him to take that alternative.

Q You are saying if A, B, C have a pool and there is consideration of whether D should be a part of that pool and D has some alternatives -- D can remain, say, as an isolated system, D could interconnect with onesther party and gain some benefits or D can join the pool and get more benefits.

Would the fact that D can join with E and get some benefits, cause him to require more of an incentive to join with the pool?

A I don't think it would cause him to require more incentive. It would reduce the amount of benefits that he would receive, because his benefits are determined by what he can do with his best alternative.

Q But if the pool said, we will give you enough benefits to get a certain amount of inventive, but it turns out that that incentive is smaller than the benefits he would get from joining with E, then he would joing with E, right?

A We are confused in terms.

If his deal with E is better than his deal with the pool, he has no incentive to join the pool.

His incentive is to join with B.

Q If A, B, C want him in the pool, they are going to have to give him more net benefits to provide him an incentive to joining the pool?

A There are net benefits for him in joining the pool, yes.

CHAIRMAN RIGLER: Did you get an answer to your question about whether a prospective pool member obtains benefits in relative proportion to his bargaining strength?

You started on that then, and you never got an answer, and you have been in that general area now, but I don't know if there is a direct answer.

MR. HJELMFELT: Can you give an answer to that?

THE WITNESS: I think I would have to have a definition of bargaining strength. To me this is an economic term, I am not qualified to define. If you give definition of bargaining strength, I can.

BY MR. HJELMFELT:

Q Have you engaged in negotiations with pools?

A Yes.

Q For a party to a pool or increating a pool?

A I have engaged in negotiations for interconnection contracts.

I am trying to remember the things I did. Yes, I have engaged in that.

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ch 1

CHAIRMAN RIGLER: In your article, you spoke in terms of horse-trading. Do you recall that reference.

THE WITNESS: Yes.

CHAIRMAN RIGLER: What factors go into horse-trading? Isn't that a way of saying bargaining strengths?

THE WITNESS: No. My concept of horse trading is that one party would try to find ways, find the loopholes in the agreement and get something out of it that was not intended or, in other words, not look in the horse's mouth before he traded. It is maybe another concept of bargaining strength, but I don't know.

CHAIRMAN RIGLER: Where you used the phrase in the bottom paragraph on the lefthand column on 622.

THE WITNESS: Yes. My horse trading there was in contrast to being willing to give the other parties a reasonable share.

CHAIRMAN RIGLER: Is that related to the bargaining strength of the parties?

THE WITNESS: Again, I am not sure in the economic sense how bargaining strength is defined. I assume it is related to bargaining strength.

CHAIRMAN RIGLER: All right.

BY MR. BJELMFELT:

Q When you participated in negotiations, did you consider the strengths and weaknesses of your position?

ch 2

A Well, if you mean did I try to get the best deal I could, yes.

Q And in deciding what was the best deal you could get, what factors did you consider?

A Well, the procedure that we went through was we would come to some proposed arrangement, usually two proposed arrangements, one for each party concerned and then we would go back to evaluate the effects of those arrangements on both parties. Then we would come back together again and try to reach an agreement between them.

Q Did you always reach an agreement right at the mid-point between the two parties?

A No.

Q Why not?

A Because finally it came to where one party did not feel that they could go that far and still have an incentive to do the job.

Q Did that give them more bargaining strength?

A Again, I am not sure what you mean by "bargaining strength."

That established the point. However, they would go to either do it or don't do it.

MR. ZAHLER: Mr. Chairman, I am not sure that Mr. Slemmer has answered the question about bargaining strength, and the problem is, he has asked for a definition and no one

ch 3

supplied it to him.

CHAIRMAN RIGLER: It doesn't strike me as that difficult a term. It doesn't strike me as a term that would be unfamiliar or beyond the capacity of a witness who has assisted to negotiate interconnection agreements. Given his expertise, it is almost elementary, and his fencing on the subject is a little disturbing.

MR. ZAHLER: If it is that easy a term, I don't understand why Mr. Hjelmfelt is not giving him a definition to work with. The witness indicated he has difficulty with the term.

If that is easily defined, Mr. Hjelmfelt can give him a definition, and the witness can answer it.

CHAIRMAN RIGLER: I will not require Mr. Hjelmfelt to do that.

BY MR. HJELMFELT:

Q Would that fact that members of a pool compete for customers present a requisite mutuality of interest to form the pool?

A No.

MR. LESSY: Read that, please.

end 19

(The reporter read the pending question.)

begin 20

BY MR. HJELMFELT:

Q Suppose you have a pool composed of A, B and C, and you have nother isolated utility adjoining them, D,

utility C and D engaging in retail competition.

If D applies for membership in the pool, does the fact that there is competition between C and D affect C's assessment of the incentive to permit D to pool?

MR. ZAHLER: Could I have that reread?

(The reporter read the pending question.)

THE WITNESS: I suppose, as a practical matter, the personality would become involved to some extent, yes. There is no fundamental reason why that should, except just for the matter of personality.

BY MR. MJELMFELT:

Q If you assume that entering into the pool would strengthen D's ability to compete with C, would that change your answer any?

A I am a little bit at a loss on the question. You mean that the pool benefits are going exclusively to D and not C?

Theoretically, if the pool benefits are distributed, it would increase -- it would decrease the cost for both companies or both C and D and, therefore, increase the ability of both of them to compete.

Q Would the cost necessarily be decreased proportionately?

A This might be a factor that C would want to be sure of, that they were not losing a competitive position.

ch 5

Q In other words, in agreeing to pool, C would say, "I am going to accrue enough net benefits so that your increased ability to compete will not be any greater than my increased ability to compete"?

A I think that would be perhaps one basis for it, yes.

Q Do you know what the impetus for the formation of the CAPCO pool was?

A All I know is what I have read in their publications. They say it is to reduce costs and better reliability.

Q Do you know whether the National Power Survey was the impetus for the formation of the CAPCO Pool?

A I am pretty sure the CAPCO Pool preceded the power survey.

Q Assume it did not.

MR. ZAHLER: Could I ask which survey? There were two of them.

MR. HJELMFELT: The first.

THE WITNESS: I would again -- again, I was not a party to the forming of the CAPCO Pool. Anything I would do would be a judgment. Certainly, when the power survey came out with the emphasis on pooling, it was an incentive for all utilities to look at their pooling opportunities. I don't know what influence that had on CAPCO.

ch 6

BY MR. HJELMFELT:

Q What it did was made them aware or brought to light some of the benefits they may not have been aware of?

A No. It would put more emphasis on them.

CHAIRMAN RIGLER: He said he didn't know, Mr. Hjelmfelt.

BY MR. HJELMFELT:

Q Should economy transactions in a pool be required, or should they be on a willing buyer, willing seller basis?

A My concept is that the person who has the economy energy for sale should be required to sell it. The person who is buying should be optional.

I might say that there are extenuating circumstances that would change that general rule, too. Being general always gets you into trouble.

Q On page 34, beginning with the answer at line 16 and continuing over to page 35 through line 12, you talke about a study which should be performed before deciding whether equal percent reserve sharing should be applied between CAPCO and others.

You haven't made such a study, have you?

A I don't remember referring to CAPCO in this.

Q Well, the question refers to CAPCO. The answer I don't think does. I assume you are answering the question.

A I have made no study with regard to CAPCO on

reserve sharing, no.

Q Would you answer be any different if there was no reference to CAPCO in the question?

A No. I don't think CAPCO per se is an element in thatquestion.

Q On pages 35, line 6 through 9, you advise that an arrangement could be made, or you advise that an arrangement be made to provid e each party with significant net benefits.

Is it your testimony that such a division could be made?

A I think it probably could. I can't say that anything particular can be done, but I think it probably could be made.

Q If the Board were to make such an arrangement as part of license conditions, how would it know when such a division had been made?

A When the parties got together on an agreement.

Q Suppose that the CAPCO members had already stated that admitting other small utilities to the pool had nothing to offer them. Would that mean that the Board could not provide an incentive for pooling?

CHAIRMAN RIGLER: Say that again.

MR. HJELMFELT: I will start all over.

BY MR. HJELMFELT:

Q In your answer to that question, the answer that

began on page 34, you are taking about licensing conditions that might be imposed by a hearing board. And you state that first you advise that an arrangement be made that would provide each party with significant net benefits.

Then I asked you how the Board would know when such an arrangement -- when a license condition would provide such an arrangement. You said you would know when the parties reached agreement.

Suppose that the CAPCO members had already said that there wasn't any such arrangement which would provide them with an incentive.

Does that mean the Board cannot impose any effective license conditions?

A I have trouble with your assumption that the CAPCO companies said there is no such arrangement. I cannot imagine a company saying there is no way of making a deal without first studying the deal.

MR. HJELMFELT: Thank you.

That is all the questions I have.

CHAIRMAN RIGLER: We will break for lunch.

(Whereupon, at 1:00 o'clock p.m., the hearing was recessed to reconvene at 2:00 o'clock p.m. the same day.)

AFTERNOON SESSION

(1:55 p.m.)

Whereupon,

WILBUR SLEMMER

resumed the stand and, having been previously duly sworn, was examined and testified further as follows:

CROSS EXAMINATION (Continued)

BY MR. CHARNO:

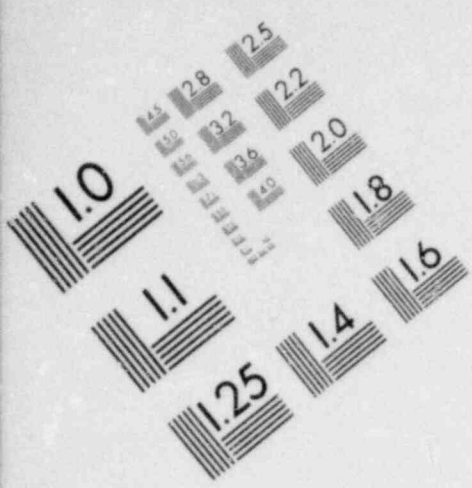
Q Mr. Slemmer, if a utility had unused transmission capacity that was already available and that capacity would remain available for the length of a contemplated wheeling transaction, that utility wouldn't be required to include the amount of capacity for that transaction in its future planning, would it?

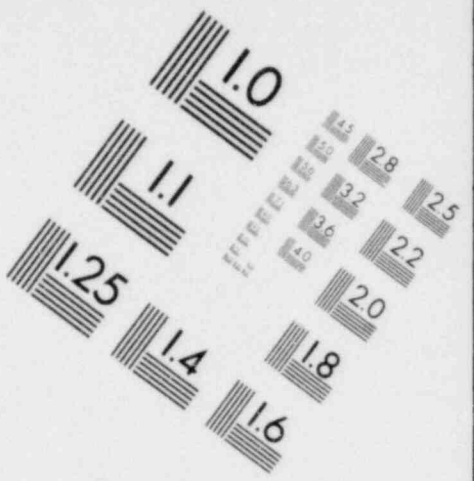
A If the transaction was over before the future planning took effect, no it would not.

Q If the capacity was expected to remain available prior to the time the future planning took affect?

A I think there is a little misunderstanding of what planning consists of here. If you are planning a transmission system in order to get results for a future condition, you have to include all of the loads and generation and power flows that you would expect that system to carry at that time.

You may know you have capacity for that particular thing but you have to have that in your overall picture to





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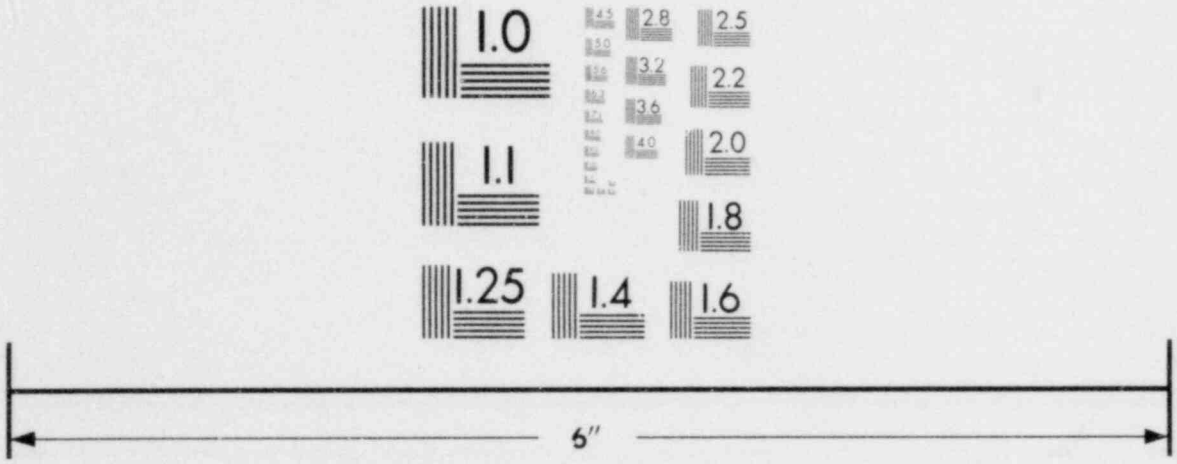

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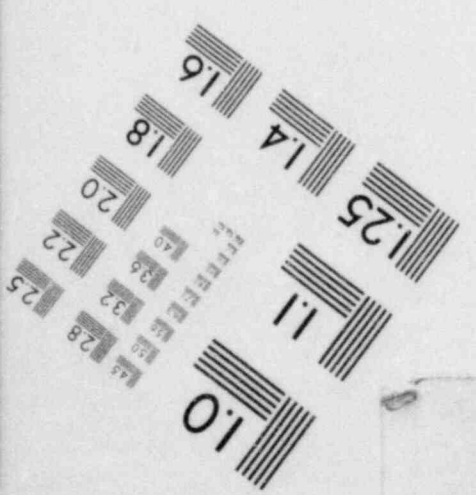
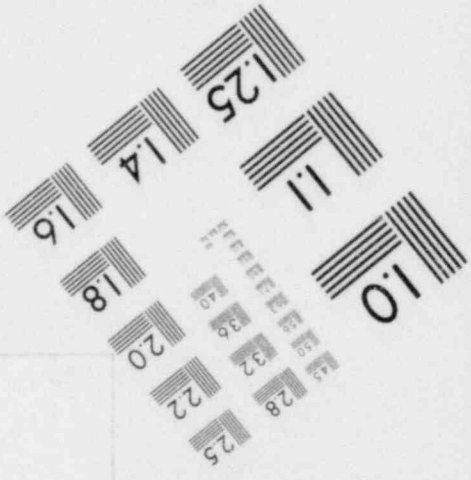
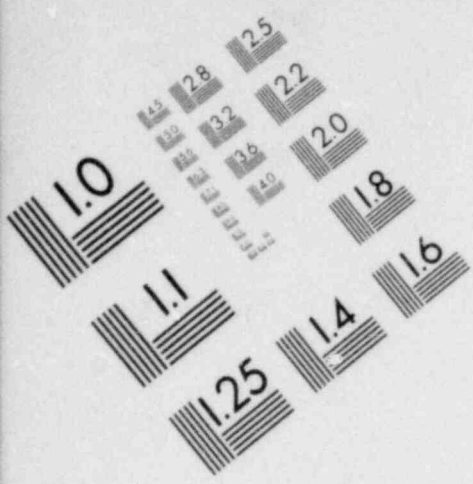






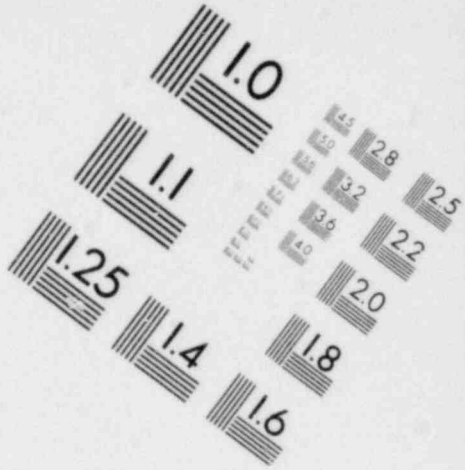
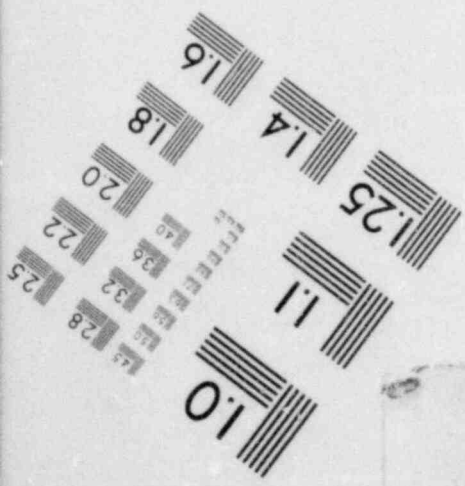
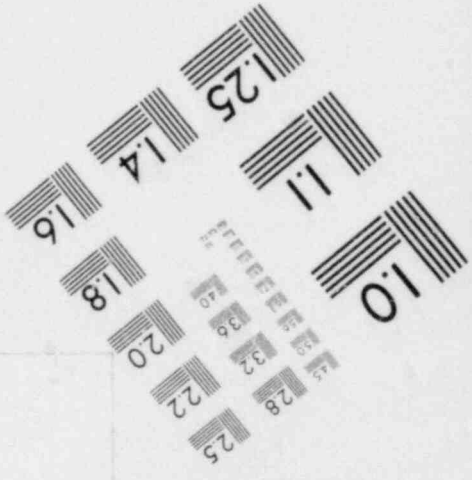


IMAGE EVALUATION
TEST TARGET (MT-3)

MICROCOPY RESOLUTION TEST CHART





eak21 get the performance of your system.

Q If your overall planning shows that for hypothetically a five-year period you will have excess capacity available of say 50 megawatts and you are talking about wheeling ten megawatts, are you going to have to include that ten megawatts in your planning? When you already know you are going to have 50 megawatts available throughout the period?

A Let's tie this down,a little further definition of what we are doing. Let's say our planning involved the alternative location of power plants so that in the future period, we are thinking of a power plant here and power plant over there. Then, in both of those transmission studies for those two locations, this wheeling load on the system would be included in the total representation of the system for that study.

It is the same as any other load or generation involved on that system. Otherwise, you don't get true performance of the system for your plan.

Q Would that be necessary even if under both alternatives you would have 50 megawatts of capacity and you knew that?

A Yes, it would be regardless of the capacity. If you leave it out of the system, you don't get a true performance pattern. You don't get a true pattern of the

eak3

performance of your system.

Q Am I correct in assuming you are telling me it is preferable rather than absolutely necessary?

A Well, absolutely necessary. I suppose you would get -- it would introduce some degree of inaccuracy. That degree of inaccuracy might be negligible, yes.

Q Let me ask you, is it your testimony that the transmission of any amount of power, no matter how small, requires a complete revision -- requires a complete review of the transmission capability of an entire system.

A Unless you know the system well enough to know what its performance would be without that review, which to me implies you have made the review already, that you know what the system will do.

Q So that is it your testimony there are amounts of power that a system planner could on the basis of his present knowledge of his system determine there was sufficient capacity available to transmit. Let me withdraw that question and try to ask it in a more coherent form.

Is it possible for a system planner or system designer who knows his system to be able to determine without making a review that the system is capable of carrying a certain additional increment of power?

A If he knows his system, yes.

Q When you used the phrase "reviewing the transmissio

eak4

capability of the entire system," do you mean the entire interconnected system or the system of one utility.

What are you indicating is required there?

A Well, this again, it is a matter of engineering judgment how far you have to go into a system to do it. I don't think anybody takes the whole interconnected system in eastern United States into account in a planning study. They go far enough that the changes they are making in their study do not affect the outside -- beyond where they are going to a sufficient or significant degree.

Q What are the engineering factors which can be relied upon in exercising that engineering judgment?

A I think it is more experience than engineering factors. You are relying, from repeated tests, you find out whether something is going to affect you or not.

Q Would one of the elements be the size of the load, the amount of capacity that is to be -- would one of the factors be the amount of power that is to be transmitted?

A Yes.

Q Would there be a direct relationship between the amount of power that is being transmitted and the extent of the studies that would have to be performed?

A I don't think it would be a direct relationship. There would be a relationship.

Q What kind of relationship would exist there?

eak5

A I think it is nebulous depending on the particular system and particular location on the system and so forth. You can say in general relationship to the amount of power, the more effect it would have. That is all I would be willing to say.

Q Mr. Slemmer, with respect to your requisites for staggered construction, can you explain to me why each utility which is a party to a staggered construction agreement has to have the ability to construct large-scale units?

A Well, the staggered construction agreement requires them to construct a unit. Now, is it large-scale in terms of the fact of the staggered construction advantages to use larger units than they would use by themselves. That is the term I was using with respect to large units.

They have to have the ability to construct the unit that they are agreeing in their agreement to construct.

Q Why does each of them have to have that ability. Why isn't it ample for one to have that ability and to construct units on both of their behalfs?

A It no longer becomes staggered construction. One company is doing the construction then. If one company is doing the construction for both units, that is not staggered construction.

Q Wouldn't that depend on the ownership rather than who did the constructing?

eak6

A I assume you could have a staggered construction where one company would in the agreement be the constructing agent for all of it. ACain, I think when a utility enters into a contract where somebody is going to do something for them, they have to have the ability to supervise and evaluate that contract.

Q Wouldn't such a contract result in a smaller, overall number of personnel being required?

A It just depends on the circumstances.

Q Isn't that a possible result?

A It could be.

Q Are you familiar with any groups of utilities that have gotten together to build large-scale generation and by large-scale I mean something larger than any of them could build separately, where none of them had the capability alone to build that generation and they had a single agent that would build it for them.

A I got lost a bit on that. This covers a joint ownership arrangement?

Q Yes, sir.

A Yes. I hate to say that none of the companies had the ability to do it. For example, Keystone, it was a larger unit than had been built on the PJM system. It was a larger unit than any of the companies could economically use for their own purposes. Whether one of the companies

eak7

could actually have, as far as the actual construction of the job, been able to handle it themselves, they might have. I don't know. It was not a good deal except on a joint ownership basis.

Q Sir, if one of the present members of CAPCO was required by the CAPCO agreement to increase the level of reserves it maintained upon joining CAPCO, would it be your testimony that that member had inadequate reserves prior to joining CAPCO?

MR. ZAHLER: Could I have the question repeated, please?

(Whereupon, the reporter read the record as requested.)

THE WITNESS: I think the previous attorney pointed out the thing that I overlooked in that. That could be used as a device for distributing benefits;except for that it would indicate their reserve was inadequate before.

BY MR. CHARNO:

Q Is it correct then that you would not view an initially inadequate level of reserves as a bar to pool membership if the new entrant was capable of bringing its own reserves up to whatever the pool level was?

A That is right.

Q Sir, would you agree with the statement that the

eak8

major benefits flowing from an interconnection between a large and small utility are the benefits resulting from the changes made in the small system. Pardon me, the method of operation of the small system?

A Well, I think it is more than just method of operation. It is the development program and the whole concept of coordination. I think as a general rule that the major benefits come from the changes in the small system This may have exceptions.

Q Could you illustrate what some of those changes might be, the principal changes?

A Installation of larger units, reduction in reserve requirements for larger units, economy interchange

e21

EAK 22
ch 1

Q What is the basis for your statement that economy interchange would be one of those benefits to the small system or from the small system's operations?

A One of the, shall I say, disadvantages of small units is the high cost of energy from the unit. The larger unit has a lower cost of energy. So the difference in the cost of energy between the large system and the small system might tend to benefit the small system.

Q With respect to the benefits for purposes of this question of economy energy at what point would those benefits be allocated? At the time the energy was bought and sold through the price paid, or would they be allocated at the time the interconnection agreement was established through some other medium?

A Usually the procedure is that the principle, the method of allocation is established as part of the contract. The actual allocation is made on hour to hour basis from the allocation on what actually happened. The contract may provide that the benefits are going to be -- the savings are going to be divided equally. That sets up the method of doing it.

Each hour you have to determine what the costs were and the payment for that hour and divide it on the basis of that hour's operation.

Q Are you saying, then, that the benefits in economy

ch 2

energy transactions are distributed at the time the sale is made?

A. The actual -- well, again, the distribution is determined at the time the sale is made. The actual exchange of check or settlement, whatever it is, is on a monthly basis. You don't make out a bill every hour.

Q. Is the allocation of those benefits determined at that time or at the time the interconnection agreement is initially negotiated.

A. The basis for the allocation is determined at the time the interconnection agreement is negotiated. The actual allocation in dollars is made on an hourly basis.

In time, this may be done thenext day, as a matter of record, but it is done on an hourly basis for the particular hour.

Q. Can you tell us what methods of allocating the benefits flowing from economy energy transactions you are personally familiar with?

A. The most common method is the split savings on equal basis. I have seen one arrangement where the savings was not split equally.

Q. What was the basis for allocation there?

A. As I remember, it was 60-40. I would have to check the figures. I remember it was not a 50-50 split.

Q. Do you recall what entities the agreement was

between?

A. I would have to go back and check. The only thing that impressed me was that it was not 50-50.

Q. Sir, are you aware of any agreement for coordinated operation and development where one of the parties to the agreement does not provide any reserves?

A. I don't think of any right now, no.

Q. Do you recall previously mentioning the agreement between Ohio Power and Buckeye in that context?

MR. ZAHLER: Objection.

I don't think the witness testified to any agreement between Ohio Power and Buckeye.

MR. CHARNO: I asked if he recalled previously mentioning it. I didn't ask him if he testified to it today.

MR. ZAHLER: Previously when? Outside of this hearing room.

MR. CHARNO: Definitely outside of this hearing room.

MR. ZAHLER: Then I don't understand the scope of the question Mr. Charno is asking.

MR. CHARNO: I am trying to refresh his recollection.

MR. ZAHLER: What is it related to in his testimony?

MR. CHARNO: The relevance of coordinated operation and development agreement where one side isn't providing

ch 4

reserves. It is related to a number of aspects; if nothing else, the mutuality of benefit principle.

THE WITNESS: Should I answer the question?

CHAIRMAN RIGLER: Yes.

THE WITNESS: The only memory I have of referring to the Buckeye was this morning on this wheeling thing. I don't recall any other --

BY MR. CHARNO:

Q You don't recall mentioning that in your testimony in Consumers?

A I am sorry. I don't remember. I might have done it. I don't know.

Q Sir, I believe this morning in answer to one of the Chairman's questions, you indicated that the receipt of revenues in and of itself would not constitute a sufficient benefit for certain types of transactions. Is that correct?

A This perhaps requires a little explanation. A lot of pool transactions -- I should say in a lot of pool transactions, a part of the payment is a return of similar services. So that pricing is not based on a price that will necessarily cover the entire cost of furnishing the service.

Now, if the service is always going in one direction so that there is no return of similar services, then the pricing has to be looked at to be sure it does cover all

ch 5

of the costs of furnishing the service.

MR. CHARNO: Could I have that answer back, please?

(The reporter read the record as requested.)

BY MR. CHARNO:

Q. Does the fact that a price doesn't necessarily cover the cost of transaction result from inadvertent error, or is that intentional?

A. That is intentional.

Q. Sir, I would like to read you a statement which is a definition of net benefit and ask you if you can agree with it.

CHAIRMAN RIGLER: Can agree with it or do agree with it?

MR. CHARNO: Do agree with it.

This is a statement that you previously made when you testified in Consumers.

MR. REYNOLDS: Could we have a page reference?

MR. CHARNO: 8862-3.

"So long as the deal they make is beneficial to their costs so they can reduce the rate to their customers or prevent increasing rates to their customers, they can consider that a net benefit."

THE WITNESS: Could I see the content of that statement? I am not sure what it is referring to.

MR. CHARNO: Certainly.

ch 6

MR. ZAHLER: Could I have a moment to review the transcript before the witness answers, also.

THE WITNESS: This particular question was in terms of sale by a utility to a customer. And it had to do with regulation. If the regulation provided a full return for the cost of the utility -- I think I can agree with it on that concept, yes.

CHAIRMAN RIGLER: Read the statement to me again, please.

MR. CHARNO: The part originally stated was, "So long as the deal they make is beneficial to their customers so they can reduce their rates to their customers or prevent increasing rates to their customers, they can consider that a net benefit."

end 22

S23 bwl

CHAIRMAN RIGLER: Mr. Slemmer, is that statement true only in the circumstances you just mentioned, which I understood to be a customer transaction.

THE WITNESS: Yes. If it is not a customer transaction, in other words, if it is a transaction between the two utilities on a pool basis, I don't think not increasing the cost would be a net benefit.

That would be zero. In this case I think it would have to have a positive benefit.

This content was in taking on a new customer, and its effect on other customers.

Certainly I don'tthink in taking on a new customer, they would have to reduce their costs to the other customers.

They should not increase the cost to the other customers.

They are two entirely different situations.

BY MR. CHARNO:

Q Sir, let me direct you to page 31 of your direct testimony and specifically the answer that begins on line 4 and ends on line 10.

Can you tell us what you meant by the last sentance of that answer?

A Well, that is based on an assumption that the singly, jointly owned unit would be a baseload unit,

bw2

large size baseload unit and a large size baseload unit, if you are using it for a peaking service, is not economical.

To get an economical mix of generation you have to have units for baseload, units for peaking load.

Most people also put in an intermediate class of cycling or intermediate unit between the base and the peak.

Those zones zones are entirely arbitrary. There is no fixed definition of them. Whether it is a base-load unit or peaking load unit, it would not cover the entire range in an economic manner.

Q Would it be true you couldn't effectively use that baseload unit without access to types of, some other types of power supply, other than that baseload unit?

A Inorder to have an economical mix of generation, you would have to provide the other types, yes.

I'm not sure that that answer is complete in this respect.

If you own the baseload unit, so that your fixed costs of that unit are already there, then it might pay you to go ahead and use it.

In this cost, I am thinking of ownership costs, as well as operating costs.

Q Is it your testimony, however, that the overall economies could be maximized by having a mix of generation?

bw3

A. Yes, that is right.

Q. Sir, when you use the phrase in your testimony, in a number of places, significant benefits, what do you mean by the phrase "significant"?

A. My definition of that is that it is of a sufficient quantity to provide incentive to make the arrangement work.

Whatever it is you are deriving the benefits from.

Q. Would you be able to set forward a standard that this Board could utilize to determine in every case what constituted a significant benefit for another party?

A. Not a fixed standard. I think anything of that kind would have to be arranged. It would fall within certain -- I don't think I could -- I doubt I can do that without the specifics of the particular arrangement. There are too many things that enter the determination.

Q. What would be the things that would enter into that determination?

A. Well, thing that came to my mind right at the moment would be the amount of risk involved. If someone is making a large investment and there is risk involved to it, he has to have a little more assurance of net benefit than if he is justing going in on a no investment basic and taking it as it comes.

bw4

Q Can that be quantified?

A To some extent, but not entirely.

Q Are there any other factors that come to mind?

A Well, one of the problems that often comes up is whether you are economically using your energy source, whether you are using your supply of coal where you should not be.

I think there are others. There might be -- I think I mentioned this morning the effect on the economy of the area you served, your public impact, the acceptance by the public.

I think there are a lot of things that have to be considered.

Q Are any of those factors you just named subject to quantification in any precise manner?

A Not in any precise manner. Of course, your environmental hearings and so forth are quantified in terms ofcost. You still have an intangible there, even after you get your license or permit or whatever it is, you still have the effect of the public's opinion of you.

Q I think I would like to go back to that quotation concerning a net benefit, and put the question and answer in, and then pose a question to you concerning it. The question was: "Well, let's assume that

bw5

you have an electric utility, Mr. Slemmer. We will get a little closer to the matter at hand. The electric utility can sell its product for five cents a kilowatt, but a regulatory agency directs it to sell its product for only one cent a kilowatt, because its cost, including reasonable return, is one cent a kilowatt.

"Under those circumstances, would you say that an electric utility would not do a good job, because it has no incentive to produce and sell electricity?'

You entered a question as to the price of the power, and it was repeated.

Then you answered on 8363 at line 7:

"I would not say that,no. Actually, the utilities that I am accustomed to working with consider these things in terms of benefits to their customers.

"The fact that they are regulated is part of the engineering economics of the industry. So long as the deal they make is beneficial to their costs, so they can reduce their rates to their customers or prevent increasing rates to their customers, they consider that a net benafit."

Now, is it your testimony that the relationship of incentives and net benefits changes when it is in the context of a pooling transaction as opposed to the context of a sale transaction?

bw6

A To this extent. Tht part of the utility's objection is to render service to the customers in its area.

If it can take on an incremental customer at a rate that will produce equal to its cost, then the fact it is serving its customer provides the positive net benefit.

It would, I think, on a particular customer like that, it would like to have a little bit to give the rest of its customers some benefit from it.

But it does have to meet that obligation of serving its area.

Q So that this obligation constitutes some additional net benefit; is that right?

A Yes, that is right.

That is his lifeline, serving this area.

Es23

S24
bwl

CHAIRMAN RIGLER: Would it be what you have called one of the engineering benefits or would it fall into the category of what you called intangible benefits?

THE WITNESS: It would fall in the intangible benefits category.

BY MR. CHARNO:

Q Now, briefly recapping some of your prior testimony, I believe you have testified that the determination of the overall amount of net benefit flowing from a pool or interconnection can be determined and is determined by engineering economic methods.

A Yes.

Q Is that net benefit derived by taking the cost of transaction and deducting those costs from the potential savings of the transaction?

The benefits are determined by comparing the overall results with the transaction as compared to the overall results without the transaction.

In both cases, you are computing costs. The benefit is the difference between two costs.

Q Okay. Is it also your testimony that the allocation of those net benefits is purely a matter of bargaining or negotiating?

A No, I think my testimony is that there are limits and within certain limits, it is a function of

bw2

bargaining or negotiating. But there are certain limits beyond which a company cannot afford to go.

In other words, that limit is the point where it has a significant benefit to provide its incentive.

This gives a line on each side. The rest of it is a negotiating area.

Q So, basically, the negotiating area is between the cost of the transaction, and the value of the transaction to each individual?

A The cost of the transaction, plus some benefit to give him an incentive to do it, and the value less some benefit to give him the incentive to do it.

Q I'm trying to get the outer parameters within which negotiations will take place.

A I don't think the negotiations can take place at a zero net benefit level.

CHAIRMAN RIGLER: You have said there have to be significant benefits. And the place that I keep coming to in misunderstanding of your testimony, is that this doesn't square with your empirical approach of weighing the two alternatives.

It seems to me, as long as one's alternative is superio to the other to any degree, that would afford a benefit.

I don't understand why you keep imposing

bw3

the additional qualification that the benefit be significant.

THE WITNESS: I think we are --- I think I have confused two operations here.

The first operation is the determination of the overal evaluation of the transaction, for everybody concerned where there are net benefits available. That is number one. After you have determined that there are overall net benefits available, then you apportion those benefits between the parties on the basis of a cost allocation. There is where, in that allocation you have to provide each party with enough incentive to go ahead and make it work.

CHAIRMAN RIGLER: But, as I look at your, let's say, alternate analysis method, which the only method you have described to compute these benefits, it seems to me, any benefit resulting from this alternate analysis basis would provide an incentive to join the pool or to function as a member of the pool.

THE WITNESS: Well, I think we are talking about how much is a little bit.

CHAIRMAN RIGLER: How much is significant. I don't understand the necessity for the incentives that the benefits be significant.

THE WITNESS: I think probably the area of misunderstanding is that these determinations of benefits are estimates.

Certainly, there should be enough margin in

bw4

there to be sure that you are going to have a benefit.

Actually, as opposed to the estimate.

CHAIRMAN RIGLER: That I don't think answers my question either, because the benefits would be read by the party who is making the alternate assessment.

THE WITNESS: Yes.

CHAIRMAN RIGLER: He doesn't need any margin. Once he determines that there is a benefit of any nature by one course of action as opposed to the alternate course of action, he will have seen the benefit.

THE WITNESS: This is in allocating the benefits for the -- allocating the overall benefits to the individual partners.

I am back to the two steps. Are we evaluating whether the overall transaction is good or are we taking second step an allocating the benefits?

CHAIRMAN RIGLER: Well, from the point of view of the individual company seeking membership or participation, that company is going to look at it in terms of whether it achieves any benefits; isn't it?

THE WITNESS: I think it should look at both. I think it should assure itself that there is overall benefit.

If there is overall benefit, it should assure itself in its bargaining that it has a position where it

could get a share of it.

bw5

CHAIRMAN RIGLER: Suppose there is no overall benefit, but it would have a benefit?

THE WITNESS: Then it shouldn't be in the pool.

CHAIRMAN RIGLER: As long as the company itself achieves a benefit, why wouldn't they favor the transaction?

THE WITNESS: If it achieves a benefit, where there is no overall benefit, then it is talking something away from somebody else, which, in my opinion, is not a good business practice.

Over the long run, the way to get along with people you are dealing with, is to share benefits with them, have a deal that has an overall benefit and share it, not trying to get something at his expense.

MR. SMITH: The benefit that provides the incentive is not necessarily the benefit allocated among the participatns; could that be correct?

THE WITNESS: The overall benefits that provides to the total that this is a good deal, this is a good thing to do --

MR. SMITH: Don't you have some time benefits which exceed the -- never mind that.

Let's assume a potential participant in a pool is faced with the alternative -- three alternatives, one, go out of business, two, build its own system up to a more

efficient level or, three, join a pool.

bw6

It can join the pool and provide benefits for the other participatns in doing that.

But isn't its decision going to be based upon the benefits it gains vis-a-vis its alternatives?

THE WITNESS: This is right. There can be benefits that accrue to one participatn that have no direct relationship to the benefits of the total transaction.

MR. SMITH: Aren't they the incentive benefits?

THE WITNESS: They could very well be the incentive benefits, yes.

BY MR. CHARNO:

Q Is the allocation of benefits as opposed to the determination of the overall amount a business decision that is made by each utility, as opposed to an engineering or economic decision?

A It is a business decision, based on engineering economic determinations of the basis for that decision.

Q Let me backtrack for a moment.

When you, in your answer, say that it is based upon engineering economics, you meanthe total amount of benefits to be allocated is based on engineering economic methods; is that correct?

A No, it goes further than that. In making your deal, you will come up with some kind of a proposed

bw7

arrangement and it would be an economic, engineering economi analysis to determine what the effect of that arrangement is to be on each of the parties.

That engineering economic analysis will then be the basis for those parties to make their business decision.

Am I making myself clear or not?

Q No, you are not.

A I don't think this is a case where you can come up with an overall benefit and say, we have a million dollars to split, and we will split it 50-50.

You have to come out with some kind of working arrangement that the details, the way the operation is going to be carried out and that working arrangement will result in some benefits or some type of benefits to each party.

Q Don't you decide the allocation of the benefits before you decide the working arrangement which is going to result in the distribution of thatallocation?

A No, you do not.

The decision of the working arrangement is what provides the allocation of benefits.

This is the way you determine whether you want to go along with that working arrangement or not. Under all of the possible conditions, am I in a satisfactory

bw8

position.

Q Can you give me an example of that, etc.

A Yes. For instance, one of the things that would be set up in the arrangement might be a formula for developing reserve. Does this formula for developing reserve, as I apply it to my system, permit me flexibility to build it to my system in an economical manner and still provide me a benefit with that transaction?

Or should I forget that benefit and build my system another way?

Each particular item that is spelled out in the contract has a principle for the way the thing is going to operate. It has to be evaluated to its effect on the party participant.

Q Isn't the decision made when you are faced with benefits and detriments and striking a balance and determining whether benefit is significant or not, a business decision that is made by the parties?

A That final decision is a business decision, yes.

Q The data that is used to make that decision is arrived at through engineering?

A That is right.

bw9

BY MR. CHARNO:

Q Sir, let me direct your attention to your testimony on page 9, beginning at line 13, running through line 20.

It states, "It is only when each member of the pool can determine that its participation in the arrangement promises to produce significant net benefits to its own system -- that is, a benefit as compared to what it could achieve by operating outside the pool -- that there exists a sufficient common incentive to see to it that the pool remains viable and continues to operate successfully."

Would you say that test had been met in the context of the CAPCO Pool?

Es24

EAK 25
ch 1

CHAIRMAN RIGLER: He said he hasn't studied the CAPCO Pool. How would he know?

I will permit him to answer if he can.

THE WITNESS: What I was going to say is the only way I can answer that is the CAPCO Pool is still operating and shows signs of life. It must be viable.

BY MR. CHARNO:

Q Now, sir, if a utility with, say, 3 megawatts of load and a megawatt and a half of capacity -- pardon me. The other way around. Three megawatts of capacity and a megawatt and a half of load wished to join that pool, let's say it did join CAPCO, would that diminish the benefits to the existing CAPCO members?

A Without making a specific study I cannot say it would or wouldn't. Just as a rule of thumb or as a matter of experience, putting in a system of that size would probably increase the administration costs and this more than it would decrease the actual power production costs. It would probably be a detriment to the pool. I would have to study it to determine that.

Q Let's leave that question aside and not worry about any additional transaction costs brought about by the addition of the one member to the pool.

Would you believe that that addition of the one and a half megawatt load or the 3 megawatt capacity system to

CAPCO would significantly diminish the benefits which exist for any of the members?

A We are leaving out all of the costs except the pure power production?

Q We are leaving out the transaction costs.

A Everything but the power production costs?

Q Right.

A I don't see where that would significantly reduce the power production costs for the pool.

Q Do you believe they would still have the incentive to stay in the CAPCO Pool?

A I would think each CAPCO member would, yes.

MR. ZAHLER: With the assumptions you made before.

CHAIRMAN RIGLER: Mr. Zahler.

MR. ZAHLER: I want to know if Mr. Charno was asking the question with the assumption he made before.

MR. CHARNO: The assumption continues right along.

BY MR. CHARNO:

Q Would you expect, in accord with the general principle you stated earlier, that a small system, changes in a small system provide most of the benefits of an interconnection, that most of the benefits generated by this would be provided in the small systems --

A If there are any benefits provided, I think they

would be in the small system, yes. Again, we don't have any definition, but you would expect that.

Q So, again, leaving aside the cost of administering the pool as a factor, would you see a reason that the small system shouldn't be allowed to join the pool under these circumstances?

A Let me be sure we are in agreement on what we say when we say leave aside the cost of administering the pool. These costs are not cost to the pool office or anything of this kind. These are costs to the company themselves in their pool activities.

Q Just a moment.

I think we are probably having a bit of a problem.

Are we talking about the overall costs of pool operations?

A Including the cost of the individual companies for their representatives on pool committees, their activities in connection with the pool and so forth.

Q Okay.

A A big part of these costs never show up in the pool office costs that are allocated to the companies.

Q Okay.

Those are the basic two categories of costs we are leaving aside for purposes of answering the question.

On that basis, would the reporter -- forget my

ch 4

categorization. Those are the costs we are leaving aside, the costs you have outlined. Will the reporter read back my question?

(The reporter read the pending question.)

BY MR. CHARNO:

Q I will rephrase the question.

Leaving aside the joint pool costs which may or may not be affected and the costs of participation by individual pool members, either the new or existing, is there any reason why the small system should not be allowed to join the pool?

A I have no ingrained objection for small systems joining a pool. There are a lot of things that have to be considered.

For instance, if you have 100 of those small systems, you would have to draw the line some place, which one would you draw?

Q If one small system in the context --

MR. ZAHLER: Could the witness finish the answer.

MR. CHARNO: We could do it by having the witness answer the question.

BY MR. CHARNO:

Q One small system in the context you set forth on page 9 of your testimony.

A If they provide an overall benefit, and I am not

sure how you will provide an overall benefit when you get to these costs, but if they do, then they could join the pool.

Q That is not the assumption we reached. I am asking within the context of your tests where the only benefit that we have discussed is the benefit to the small system, and the absence of detriment to the large systems in the pool.

A My difficulty is with the forgetting of these costs.

Q I am asking you as an expert.

A If you make the assumption so that the benefits to the small system are sufficient to cover all of the costs and still have a benefit, then I say there is no reason why the system should not join the pool.

Q I am asking you as an expert to answer the hypothetical question without consideration of those costs.

Are there any other reasons other than those costs?

A When you say "without consideration of those costs" am I to assume they will be paid from some other source? What is the assumption?

Q Assume that the costs, any increase in cost doesn't exist, that the addition of that one small member will not increase costs.

A If we take that as a working assumption, then I see

no reason why that small company should not be a member of the pool.

Q Let me make sure we have all of our assumptions together.

A This gets complicated.

Q It does, indeed.

With the exception -- strike that. We have a situation where a small system is joining a pool. There are not benefits to the small system. No detriment to the large system. And we are forgetting the question of whether that small system's participation in the pool would increase either (a), the overall pool administrative expenses or, (b), the individual members' costs of operating within CAPCO.

And it is your testimony in that context that you see no reason the small system should not become a member of the pool?

A In that context, I see no reason why it should not, this one small system.

Q Mr. Slemmer, if we are going to break soon, I would prefer to do it now before starting the next line.

CHAIRMAN RIGLER: I have a question that is in this area, I think.

If I told you a minute ago about a problem I had relating to significant net benefit and alternative analysis --

ch 7

THE WITNESS: Yes.

CHAIRMAN RIGLER: I told you I didn't see the reason why you include the word "significant" in the benefit if you were using alternative analysis, and you responded, as I understood you, that there were two considerations.

First, a signficant net benefit to the pool as a whole. It was only after you determined a significant net benefit to the pool that you went into the method of alternative analysis to see if there was an incentive for the individual company.

Did I understand you correctly?

THE WITNESS: I am afraid I misled you again.

The determination of the net benefit, whether it is for the entire group, the old pool plus the new members, or one ofthe parties, would normally be done on the basis of alternative analysis. This is the basic procedure for determining the net benefit.

You would determine the costs, all the costs you can assign dollar values to. Production costs, transmission costs, administrative costs, operation, maintenance and the whole list on the two alternative bases and come out with a dollar evaluation of net benefits.

Now, either time you determine the net benefits, this is the way it is. This is the way it was done.

CHAIRMAN RIGLER: Let's think about the time it is

being done by the individual company to determine if it wants to join the pool because it achieves any net benefit as opposed to its alternative.

THE WITNESS: Yes.

CHAIRMAN RIGLER: Why does that benefit have to be significant?

THE WITNESS: Why would they do it on an insignificant benefit? The term "significant" to me means it is enough they are sure they will get something out of it, and they will go ahead and do it.

end 24

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CHAIRMAN RIGLER: Aren't they sure they will get something out of it as a result of the alternative analysis? Isn't the purpose of the alternative analysis exercise --

THE WITNESS: Yes. But the alternative analysis is looking into the future and things that are unknown. There are certain risks involved, and this sort of thing. You try to evaluate those the best you can.

There are still some unknowns in the future. You are not sure what will happen in the future.

CHAIRMAN RIGLER: In relation to the hypothetical you were just discussing with Mr. Chamo, talking about the possible benefits a small system could bring to a pool --

THE WITNESS: Yes.

CHAIRMAN RIGLER: Suppose a municipality could

obtain cheap public preference power and use this cheap power as a part of its generating allowance or quota.

Would this be a benefit to the pool as a whole?

THE WITNESS: This is available to it because of its joining the pool?

CHAIRMAN RIGLER: No. This is available to the small system. We are addressing the question of what contributions, what benefits can a small system bring to the pool.

Suppose it had self generation but that its costs were no less than anybody else's, its reserves would not add significantly to the pool, but it could bring in cheap public preference power as part of its power production quota or capability.

THE WITNESS: As a part of tis alternative with the pool. It would be different from its alternative without the pool. Then it would provide an overall net benefit.

CHAIRMAN RIGLER: No. At the time it applies for membership as part of its power generation it can bring to the pool low-cost power.

THE WITNESS: Then in determining the net benefit that low-cost power is in both alternatives, so it does not come into the net benefit.

CHAIRMAN RIGLER: To the pool.

THE WITNESS: It is there regardless -- to the whole partnership?

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CHAIRMAN RIGLER: From the point of view of the pool.

THE WITNESS: From the point of view of the pool, again, distributing benefits. From the poiner of view of the pool, if that were available to the pool through the pool arrangement, it might provide a net benefit. If the other companies could use it.

MR. REYNOLDS: Mr. Rigler, could I ask, did you mean that that small entity could not make available the preference power to any member of the pool without being a member of the pool, but could only do it if it became a member of the pool?

Is that what you are asking?

CHAIRMAN RIGLER: No.

MR. REYNOLDS: It could be made available as a member of the pool or that the small entity could make it available to any member of the pool without membership?

CHAIRMAN RIGLER: I meant this is something it wanted to bring to the pool when it discussed benefits it could provide to the pool.

MR. REYNOLDS: Could it provide it otherwise?

CHAIRMAN RIGLER: That is irrelevant to the question.

MR. REYNOLDS: If you are assessing alternatives, it would not be irrelevant.

CHAIRMAN RIGLER: Assume it wouldn't be made

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available unless the small system had membership.

THE WITNESS: That was the assumption I made.

CHAIRMAN RIGLER: We can take five minutes.

(Recess.)

BY MR. CFARNO:

Q Mr. Siemmer, are you aware of different methods in which a party can participate in a pool?

A Of different methods: yes.

Q I believe you testified about some kind of satellite or associate membership that was available in PJM.

A In PJM; yes.

Q Also a method by which a number of small systems could be represented by a single agent in a pool.

A In the NEPOOL, right.

Q To the best of your knowledge, does this reduce the viability of the pools in which it is practiced?

A Reduce it in terms of what? Reduce from what?

It increases it as compared to those that are satellite members being full members.

Q These methods would be a way of reducing the cost of having small members as participants in a pool?

A That is right. That is the advantage of it.

Q In that case, is the number of parties participating in a pool, as opposed to being members of a pool, not as significant to the pool's costs or viability as the manner

in which those utilities participate in the pool's benefits?

A The element that has the largest effect on the cost and viability is the number of full members that have to be represented in all of the pool transactions.

Did that answer the question? I am not sure whether it did.

Q I think it did.

MR. CHARNO: I have no further questions.

CHAIRMAN RIGLER: Mr. Zahler.

REDIRECT EXAMINATION

BY MR. ZAHLER:

Q Mr. Slemmer, earlier this morning, you started to give some testimony concerning a correction that you wanted to make as to your earlier testimony regarding NEPOOL.

Would you please indicate in what manner you would like to correct your testimony?

A Yes. I think yesterday I said that I did not believe -- that I thought the NEPOOL membership required a minimum of 25 megawatts generation. Since then, I have had a chance to look at the FPC decision on the NEPOOL, which describes the arrangement in some detail, and I find that that 25 megawatts was in terms of its qualifying for a certain transmission participation, that the membership per se in NEPOOL is not based on the 25 megawatt generation.

Q Would that fact affect your testimony that it is

imperative that each member of a pool provide significant benefits to the total pool operation?

A No, it would not.

Q Why is that?

A In order to make the pool viable, there have to be benefits, overall benefits.

Q How is it that the fact that NEPOOL has members that don't have installed generating capacity as satellite members impact on whether or not they contribute a total net benefit to the pool?

MR. CHARNO: I object. I don't believe this is the context to which the witness has referred to satellite membership.

CHAIRMAN RIGLER: Let me hear the question.

(The reporter read the pending question.)

CHAIRMAN RIGLER: Overruled.

THE WITNESS: I am not sure that I understood the question.

You want to know how it is that the fact that members can be members of NEPOOL without having generation does not impact on the requirement for net benefit?

BY MR. ZAHLER:

Q That is correct.

A Their benefit that they bring to the pool would have to be something other than generation. It could be in

some other area than providing necessary generation.

Q Mr. Slemmer, if an entity seeking membership to a pool could bring only money to the pool to pay for all of its transactions in that pool, would you recommend that that entity be admitted to a pool?

A Not really. If they bring only money, this indicates that the transactions will always be in one direction. I think I have said before that the pricing in a pool is based on an expectation of reciprocal service, service going in both directions.

The pricing does not necessarily represent the entire cost of rendering a service. If the service is always going in one direction, then the pricing has to reflect the total cost. So the pool pricing would not necessarily be appropriate.

Q What would be an appropriate form of pricing in such a situation?

A This gets more into the area of a wholesale power contract or something of this kind.

Q You also indicated in your testimony that there were some pools that have members that had different financing costs.

Do you know if any of those pools have joint construction programs wherein all generating facilities to be committed by the parties to the pool are required to be

done on a joint basis?

A. I know of no such pool with different financing costs, no.

MR. SMITH: Excuse me.

Are the pools you are familiar with all have identical financing costs?

THE WITNESS: No. But there are not very many pools who require all units to be done on a joing basis. In fact, I think CAPCO is the only one that has that requirement, as far as I know.

MR. SMITH: Don't financing costs differ even among investor-owned utilities?

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THE WITNESS: Yes, to some extent.

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CHAIRMAN RIGLER: Even within CAPCO one might expect financing costs to vary member by member.

THE WITNESS: To some extent, yes.

BY MR. ZAHLER:

Q Mr. Slemmer, going back to your testimony earlier this morning, when you were asked about different financing costs, how did you interpret that question?

A I was thinking in terms of a publicly-financed as against a privately-financed.

Q Have you finished your answer?

A Yes.

Q Do you know what the average variation in financing costs would be between the CAPCO members? Would it be as great as the costs between a public system and an investor-owned system?

MR. LESSY: Objection. Two grounds.

One, he indicated he doesn't have specific familiarity with CAPCO. Two, I submit this area of financing costs and their average is beyond his expertise, as an engineer, even in engineering economics.

Absolutely, financing costs has no relation, as I see it, to engineering.

MR. ZAHLER: Can I ask that question?

CHAIRMAN RIGLER: I wondered if you had a

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response? I agree with both of Mr. Lessy's points, but if the Witness knows the answer, I see no reason why he can't give it.

THE WITNESS: How specific was the question?

CHAIRMAN RIGLER: If you don't know, if you are spe ulating, you are advised not to answer.

If you know, it seems a basis for answering the question would be a knowledge of CAPCO financing costs.

THE WITNESS: I have no specific knowledge.

MR. ZAHLER: Let me withdraw the question and rephrase it.

BY MR.ZAHLER:

Q In your experience, Mr. Slemmer, are the financing differences between investor-woned utilities, such as the financing costs between investor-owned utilities and public-owned utilites?

A No, they are not.

MR. SMITH: Did you know difference in the financing costs in teh Michigan Pool?

THE WITNESS: As I remember, we had from the companies in the work we were doing in MIchigan the specific costs at that time.

MR. SMITH: Could you give us an answer based upon that?

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THE WITNESS: I don't remember what they were now.

Numbers get away from me.

BY MR. ZAHLER:

Q Mr. Slemmer, can you give us an order of magnitude with respect to the Michigan pool?

MR. LESSY: I objec' to that in light of his last interchange with Mr. Smith. He said numbers got away from him.

MR. ZAHLER: The question is whether he could give us an order of magnitude as to Mr. Smith's question.

CHAIRMAN RIGLER: If he can, he can.

THE WITNESS: In the Michigan Pool, the overall, including return on equity and the whole ball of wax, as I read was somewhere around 11 percent.

In a public-finance pool that would ge more in the order of maybe eight percent.

I wouldn't want to stick definitely to the figures.

BY MR. ZAHLER:

Q Mr. Slemmer, based on your experience in the Consumers proceeding, can you give me an order of magnitude of the difference in financing costs between the companies who participate in the Michigan Pool, that is an order of magnitude of the difference of financing costs between

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Detroit Edison and Consumers Power?

A As I remember it was less than one percent.

Q Mr. Slemmer, as I understand the thrust of your testimony, it is that, and correct me if I am wrong, that the engineering and system operating constraints that you study provide the outer boundaries within which decisions as to the allocations -- first of all, as to whether there is a total net benefit to taking any action, and then how that is allocated among the parties; is that correct?

MR. CHARNO: Could I have the question back?

(Whereupon, the reporter read the pending question, as requested.)

THE WITNESS: Can I state it, the first step in determining the, whether there are overall net benefits, is a determination that there is or there isn't or it's a wash.

Then the second step where you have a -- if you have a -- if you have determined thatit is something to go ahead with, then the second steip, where you are allocating the benefits or allocating the costs to provide an allocation of the benefits, then it becomes a place where you have to have a net benefit for each person.

Dues that answer your question.

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BY MR. ZAHLER:

Q I think the question was awkwardly worded, but I will proceed from there.

CHAIRMAN RIGLER: The question you posed was at odds with his testimony.

Your question was whether the outer boundaries were determined by the engineering economic analysis.

My recollection of his testimony is that that was one component and the other component was what he called intangible benefits.

It was the sum of those components that afforded the total net benefits.

BY MR. ZAHLER:

Q Is the Chairman correct in that statement?

A He is correct, yes.

I would like to elaborate to this extent. That is that ordinarily when you determine the dollar benefits, you will come out with a cost plus a significant, and value less a significant, and there will be some kind of range in there open for negotiation. It does, in effect, provide a range for negotiation. But you find an evaluation has to include the intangible benefits.

BY MR. ZAHLER:

Q Now that range within which the party would negotiate, would different results be reached within

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that range, depending on the negotiating capabilities of the parties?

A Yes.

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Q And, in fact, they might reach a result that was outside of the range that you had set, depending on the negotiating capabilities of the parties?

A This is possible, yes.

Q Would you have any difficulty with the definition of "bargaining strength" as being synonymous with respect to "negotiating capabilities" of the parties as we have just used that term?

A No, on the basis that the term "bargaining strength" does not have a specific meaning in the art, which I kind of gathered from our earlier question that it did. With that assumption, it is a good definition.

Q With that understanding of "bargaining strength," would the results that would be reached be different depending on the bargaining strengths of the parties?

A Yes.

CHAIRMAN RIGLER: What was your definition of "bargaining strength"?

THE WITNESS: The ability, different abilities of the parties to reach a bargain, to obtain a bargain

MR. SMITH: You used the word "capability," which is different.

MR. ZAHLER: The term used was "negotiating capabilities."

What factors would influence the negotiating

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capabilities of the parties?

THE WITNESS: One of the biggest factors would be the ability of the bargaining team they had doing the bargaining. There may be extraneous factors that would influence that that would not necessarily be a part of the particular thing that we are studying.

BY MR. ZAHLER:

Q What would the factors that you have just referred to be, for example?

A I think the Chairman this morning mentioned one when he said do I stay in business or do I go out of business.

CHAIRMAN RIGLER: I don't recall saying that, so are you saying that is or is not a constraint?

THE WITNESS: That would be one. If it has an unusual effect on his future.

CHAIRMAN RIGLER: How about the relative sizes of the two parties?

THE WITNESS: I don't think the relative sizes in itself would necessarily add a factor one way or the other.

CHAIRMAN RIGLER: How about the degree of access each party already had to different transmission systems?

THE WITNESS: Well, this -- it might or might not. I don't know.

CHAIRMAN RIGLER: Suppose one system is completely

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isolated and surrounded by the party with whom it is in negotiations and the other party, the surrounding party, has possible access, transmission access, to two or three other systems.

THE WITNESS: The one that is surrounding cannot build through the other party's territory?

CHAIRMAN RIGLER: Right.

THE WITNESS: That might be a factor that would change the bargaining position, yes.

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BY MR. ZAHLER:

Q With respect to determination of your first step, that is whether there are total net benefits from any action that the parties would choose to take, how do you go about determining that?

A This is done by a comparison of alternatives, whereby you st up the alternative development programs, first, on an individual basis for te parties concerned, and then on a combined basis.

You price out all of the cost factors that you can assign dollar costs to in both cases.

And then the difference between these two costs are the benefits.

Q What would be the result of that study.

What type of recommendations would come out of that study?

A That would indicated that the proposal was one that should be pursued further or should be dropped.

Q Would the recommendation to pursue the matter further be based on whether there were any siginificant net benefits or whether therre were any benefits?

A Whether there were benefits.

Q Assuming there were benefits and you pursued it, what would the second step be?

MR. LESSY: Who is "you" in that question?

MR. ZAHLER: "You" is Mr. Slemmer.

THE WITNESS: The second step then is to come up with an allocation of benefits or perhaps a more definitive description would be to come up with an operating arrangement that would provide for the operations that you are contemplating in your interconnection that would distribute the benefits, so that each party would receive a significant benefit to himself to go ahead and get into arrangement.

BY MR. ZAHLER:

Q I noticed you used the word "significant benefit." Why is it essential that the calculation at this stage mean significant benefit?

A To me, significant means something he will base an action on.

He is now going into a pool. He has to have something that to him is sufficient to make a decision to go ahead.

Q Is that based on the incentive he gets from the significant net benefits?

A Or there may be other benefits that are not particularly in the context of that particular arrangement.

MR. ZAHLER: I have no further questions.

MR. LESSY: No recross.

MR. HJELMFELT: I have no questions.

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RECROSS EXAMINATION

BY MR. CHARNO:

Q Mr. Slemmer, would a benefit which a non-generating electric utility might bring to a pool be the addition of load growth which would allow the staggered construction of larger units and the enjoyment of the economies of scale that were attendent to that?

A That could be one of the benefits, yes.

MR. CHARNO: Thank you. I have no further questions.

MR. ZAHLER: I have a further question for Mr. Slemmer.

FURTHER REDIRECT EXAMINATION

BY MR. ZAHLER:

Q Mr. Slememr, fi we had a nongenerating entity, how would that entity be receiving power to supply its customers?

A Nongenerating, it must be buyingit.

It would have no other choice.

Q If it was buying it from entities which it was going to pool with, would it contribute load growth to that pool?

A Not if it was already buying it from a member of the pool.

Q If an entity were a wholesale customer of

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a pool member and sought admission to the pool, it would contribute no load growth to the pool, would it?

MR. LESSY: Asked and answered by the last question.

I object.

CHAIRMAN RIGLER: Sustained.

MR. ZAHLER: I w' draw the question.

No further questions.

CHAIRMAN RIGLER: Thank you very much, Mr. Slemmer.

(Witness excused.)

CHAIRMAN RIGLER: We will get together again at 9:30 Tuesday.

Will that be Mr. Firestone?

MR. ZAHLER: Yes.

CHAIRMAN RIGLER: We have one exhibit moved and not received.

That would be Applicants 120.

Is there objection?

MR. CHARNO: There is objection. It was agreed we would hold it over until Tuesday and argue it at that point between Applicants and the Department.

CHAIRMAN RIGLER: Fine.

(Whereupon at 3:45 p. m., the hearing was adjourned, to be convened at 9:30 a. m., on Tuesday, May 11, 1976.)

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