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FILE

BEFORE
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Consolidated Duke	:	Case Nos.	03-93-EL-ATA
Energy Ohio, Inc. Rate Stabilization	:		03-2079-EL-AAM
Plan Remand and Rider Adjustment	:		03-2080-EL-ATA
Cases.	:		03-2081-EL-AAM
	:		05-724-EL-UNC
	:		05-725-EL-UNC
	:		06-1068-EL-UNC
	:		06-1069-EL-UNC
	:		06-1085-EL-UNC

PREPARED TESTIMONY
OF
RICHARD C. CAHAAN

CAPITAL RECOVERY AND FINANCIAL ANALYSIS DIVISION

STAFF EX. _____

Date submitted: March 9, 2007

1. Q. Would you please state your name, position, and background?

A. My name is Richard C. Cahaan, and I am employed by the Public Utilities Commission of Ohio, 180 E. Broad Street, Columbus, Ohio 43215 as the Chief Economist in the Capital Recovery and Financial Analysis Division of the Utilities Department. I have been employed by the Staff of the Commission since 1983 and have testified in numerous rate cases and other proceedings before this Commission. A large proportion of my testimony before this Commission has been regarding the cost of capital and the rate of return to be granted to regulated utilities, although I have also presented economic analysis regarding other issues, including the rate stabilization plans of First Energy, CG&E, and AEP.

I have received a B.A. degree from Hamilton College and an M.A. degree in Economics from the University of Hawaii, and I have completed all course work and passed the written and oral general and field examinations at the Ph.D. level at Cornell University. I have been a faculty member, either fulltime or part time, at the State University of New York -- Cortland, Eisenhower College, Ithaca College, Cornell University, the Ohio State University, and the Graduate School of Business Administration of Capital University. Prior to joining the Staff, I taught economics at the Ohio State University.

2. Q. What is the purpose of your testimony?

A. The Ohio Supreme Court remanded the proceedings of this case to the Commission, requesting, *inter alia*, that the Commission support the modification of its opinion and order on rehearing. The testimony of Company witness Steffen filed on February 28th has addressed the matter of the evidence that is in the record. The purpose of this testimony is to provide an economic framework for the decision making in this case and, perhaps more importantly, for the communications regarding the decisions.

In this testimony, I first discuss the unique nature of the decisions to be made in Rate Stabilization Plans. I then turn to the conceptual nature of the variables of these plans and their relation to the goals of the plans. Lastly, I will apply this framework to the progression of positions and decisions advanced in this case, and show that the Entry on Rehearing provides for a reasonable balance among the competing goals and interests in a more efficient manner than did the Opinion and Order.

THE UNIQUE NATURE OF DECISIONS IN RATE STABILIZATION PLANS

3. Q. Why do you think that the nature of decisions is in RSP cases is different than in most other cases decided by the Commission?

A. To begin, it is important to bear in mind the reasons for rate stabilization plans in the first place. As has been discussed extensively on the record, rate stabilization plans are needed because well functioning markets had not sufficiently developed on either the retail or wholesale levels. Thus, the Commission called for the creation of rate stabilization plans with three goals. I will discuss these in more detail later, but, loosely speaking, these are protecting the consumer from the volatility and risks of the very imperfect market, assuring the EDU of financial stability, and encouraging the development of the (retail) market. These three goals are, to a large degree, in direct conflict with each other, and the nature of the Commission's decision process is to achieve an appropriate balance and sustainable solution between these competing interests.

4. Q. In what way is this different? For instance, in a rate case, is it not the Commission's task to achieve a balance between the interests of the ratepayer and the stockholder?

A. In a rate case, the Commission decides a large number of individual issues. Most of these issues can be decided on technical grounds, and many of these determinations are constrained by precedent or statute. What is the correct amount of working capital to include in rate base, how should depreciation rates be set, how should certain expenses be treated, etc. The important point to note is this: the "correct" determination of each of these individual items is *presumed* to generate a fair, reasonable, and sustainable solution and an appropriate balance of the competing interests. And, in general, this works.

5. Q. And how does the situation in an RSP case differ from this?

A. To begin with, an RSP is not about cost-based ratemaking. Let me repeat this – a market based standard service offer is not about cost-based ratemaking. The rate setting provisions of Ohio Revised Code 4909 do not apply. The logic and categories of cost-based ratemaking do not apply, unless we chose to allow them to apply. We may choose such concepts and mechanisms because of familiarity, which helps consensus and implementation, but the fit is not exact. For instance, the CGE RSP contains a mechanism to mitigate risk to the EDU by tracking fuel and purchased power costs. This FPP is similar to the EFC of cost-based ratemaking, but, although the concept is similar, it is not the same. Other means could have been chosen to mitigate this risk. Alternatively, it could have been determined that this risk should remain with the EDU, with no adjustment mechanism established. Other ratemaking concepts, such as CWIP, do not have the same legal basis, and possibly not even the same technical basis, as they do in cost-based regulation.

In short, the various bases for determination of the individual components which exist in a cost-based environment do not exist. The precedents, the legal definitions, the accounting and technical categories – all these do not exist in the RSP environment and are therefore unable to determine or condition decisions regarding individual pieces of the plan, at least not in the same way that they do in cost-based regulation. What is more, there is no guarantee or even presumption that independent determination of individual issues will produce an acceptable result in terms of the goals, the fairness, and the sustainability of the Plan. Everything works as a part of the whole and must be considered in that framework. Conversely, the logic of justifying the determination of any individual item in the RSP cannot be made in terms of that item alone, but can only be made in terms of how it works with all other aspects of the Plan to achieve the goals.

THE BASIC PARTS OF AN RSP

6. Q. You stated that you would describe the conceptual nature of rate stabilization plans and their objectives. What do you mean by this?

A. Most rate stabilization plans are somewhat complicated. The Duke Ohio plan, in particular, has many moving parts. At an abstract level, however, the plan is simple. There are two outputs, three goals, and three major control variables.

7. Q. What do you mean by "outputs?"

A. Basically, an RSP produces (1) money -- cash flow, actually -- and (2) risk and allocates the two of them. The big questions are who gets/pays how much money and who bears how much risk?

8. Q. The three goals – are these the same as those discussed earlier as the goals set forth by the Commission?

A. Yes, but for the purpose of this analysis, I would prefer to reformulate them slightly as (1) the goal of consumer well-being, which is furthered by lower prices and lower risk, (2) the goal of EDU well-being, which is furthered by higher incomes and lower risk, and (3) the goal of furthering a competitive market.

9. Q. And what are the three major control variables?

A. The three major controls of an RSP are (1) the level of the (total) price of electricity under the standard service offer, (2) how much of the total price is avoidable if customers shop and how much is unavoidable, and (3) the mechanism, if any, for adjusting the price for changes in conditions. There are probably other ways of formulating this system, but I think that these categories lend themselves to ease of discussion – the price, the degree of avoidability, and the adjustment mechanism. It is like flying a plane with three controls: the throttle, the rudder for right/left, and the flaps which drive up/down. The cockpit may contain thousands of other switches, dials, and lights, but, basically, there are three important controls in operation, that's all.

10. Q. How do these three control variables work to generate outputs among goals?

A. The higher the SSO price, the less money there is for the customer and the more there is for the EDU. However, the greater the degree of avoidability, the more market risk there is for the EDU and the better it is for the goal of market development. Lastly, to the extent that there are mechanisms that track costs (such as fuel adjustment clauses), the less operational risk there is to the EDU and the greater the price risk to the customer. (As a fine point, I would add that automatic escalators which increase the price by a set amount are price variables, not cost trackers, and do not change risk.) However, one should note that these three control variables do not necessarily affect the outputs in symmetric or simple ways.

11. Q. What do you mean?

A. Consider a system with a high price for the SSO which is all or largely unavoidable, together with no cost tracking mechanism. The result is:

Consumer – bad cash flow (money) and low price risk
EDU – great cash flow, no market risk, and some cost risk
Market development – None

If we reverse the avoidability instrument, so that we continue with high price and no tracking mechanism, but have the price largely avoidable, then we find:

Consumer – bad cash flow (money), price risk uncertain
EDU – great cash flow but high market risk, with some cost risk
Market development – Great headroom, very encouraged.

However, things change the same way if the price is already low. Consider low price, largely unavoidable, again with no cost tracking mechanism. This provides:

Consumer – good cash flow (money) and low price risk
EDU – bad cash flow, no market risk, and some cost risk
Market development – None

Making the price largely avoidable has no real impact:

Consumer – good cash flow (money) and low price risk
EDU – bad cash flow, no market risk, and some cost risk
Market development – None.

In this case, avoidability does not matter if competitors cannot undercut the SSO. However, the consumer might not care about the lack of choice if the prices are low.

I could construct more examples, but the point is simply that the goals of the RSP and the allocations of money and risk are controlled by the level of the SSO, the degree of avoidability, and the nature of cost tracking mechanisms in place. The dynamic system is a bit more complicated and difficult to describe, but the principles are the same. Three basis instrumental variables. It does not matter if there is an FPP, SRT ACC, ABC, XYZ, or LSMFT. What matters is how much, how much is avoidable, and how it changes. Nor does the causation, in terms of cost-based justification, really matter. As I said before, this is not a cost-based regulatory world. All that matters are the results in terms of achieving an appropriate and sustainable balance of outcomes (money and risk) among the conflicting policy goals.

PROGRESSION OF POSITIONS IN TERMS OF THIS FRAMEWORK

12. Q. How does this conceptual framework shed light on the developments in these proceedings?

A. In economic theory, there is a body of work which has been termed "Revealed Preference." Although we do not know what the consumer actually was thinking, we infer certain principles, logically, from the consumer behavior. I am not using this theoretical technique except as a metaphor. I do not know the actual thoughts of the Commission, but I can infer some principles based upon observation of the choices available and the choices made.

Company witness Steffen has provided a descriptive history of many of the positions which have evolved in this case. In his testimony, he described the MBSSO price contained in the Stipulation as higher than that of the Opinion and Order. He also stated that the price in the Order on Rehearing was higher than that of the Opinion and Order, but lower than that of the Stipulation. He also showed that the IMF and SRT were essentially a repackaging of the items contained in the previous AAC, which is certainly true, but does not concern us here. What are of more interest are the changes made to the avoidability.

13. Q. Please explain.

A. In the Stipulation, the AAC was an unavoidable charge. This would result in a low market risk to the EDU and little competitive market development. The Opinion and Order made the AAC avoidable in 2005 but left the matter open for future determination in 2006-08. Frankly, this uncertainty can be considered as creating risk to both the EDU and potential suppliers, reducing the encouragement of the market. Fuel and purchased power were tracked, but emissions allowances were outside of this tracking mechanism.

Thus, as compared to the Stipulation, the Opinion and Order shifted the balance between the goals. It was more favorable to the consumer in the form of a lower price. On the other hand, the open issue of avoidability of the AAC indirectly increased risks to the consumer. The EDU position was clearly negatively impacted, with less "money" and higher risk in general.

And the goal of market development was uncertain. In an economic view, the Opinion and Order created an "inefficient" solution set because it created unnecessarily high risks.

14a Q. The Staff signed the Stipulation, did it not?

A. Yes, it did.

14b. Q. Does the Staff view the Opinion and Order as having effectively adopted the Stipulation?

A. No. Although the Opinion and Order indicates adoption of the Stipulation, it also made a number of material changes to the Stipulation which, as I have shown above, significantly alter the balance and the economic properties of the Stipulation. Apparently the Commission did not believe that its changes to the Stipulation were significant enough to be considered a material alteration of that proposal. In Staff's view, these changes were substantial enough to represent a different practical outcome from that contemplated in the Stipulation. The changes made by the Commission in the Opinion and Order fundamentally altered the nature of the deal that had been proposed through the Stipulation.

15. Q. How does the Application for Rehearing fit into this framework?

A. In response to the significant material changes made by the Opinion and Order, the Company filed an Application for Rehearing, in which three alternatives were proposed. One was that the Stipulation be accepted without material modification. The properties of the Stipulation have already been described. The second choice put forward was to accept the Competitive Service Offer originally proposed by the Company. In this scenario, the EDU would be out of the rate stabilization activity and its risks would be zero. The last option put forward was one which suggested a number of modifications to the Opinion and Order. In the Entry on Rehearing, the Commission accepted many, but not all, of these suggestions. In terms of the economic analysis I have been describing, the entry on Rehearing increased the "money" but also reduced risks and improved the efficiency of the risk function. By this, I mean that the avoidability was "shaped" to allow for avoidability to be staged according to the degree of market growth. Although it reduced the market risk to the EDU, it also served the goal of market development. In addition, the risk to the EDU was also reduced by having the reserve capacity (SRT) be tracked on an actual cost basis and having the emissions allowances moved into the FPP, where they would also be tracked on an actual cost basis.

16. Q. Do you consider the characteristics of the RSP as ordered by the Entry on Rehearing to be superior to that ordered by the Opinion and Order?

A. Yes, I do. As shown above, the Entry on Rehearing provides for a reasonable balance among the competing goals and interests, and it does so in a more efficient manner than did the Opinion and Order.

17. Q. Does this conclude your testimony?

A. Yes, it does.

PROOF OF SERVICE

The undersigned hereby certifies that a copy of the foregoing **Prepared Testimony of Richard C. Cahaan** on behalf of the Staff of the Public Utilities Commission of Ohio was served upon the parties of record indicated on the attached service list this 9th day of March, 2007 via U.S. mail, postage prepaid and/or electronic service.

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