

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

DOCKET NO. 08I-113EG

IN THE MATTER OF THE INVESTIGATION OF REGULATORY AND RATE INCENTIVES
FOR GAS AND ELECTRIC UTILITIES.

**RESPONSE OF TOM KONRAD, PH.D. TO COMMISSION DECISION
NO. C08-0448 REQUESTING COMMENTS**

I. Introduction

- a. I commend the Commission for its decision to open this investigatory docket, the importance of which would be possible to understate. I am also grateful for the opportunity to comment on the scope of the docket and hope that my comments can aid the Commission and Staff in their investigation of the relevant issues. Through my experience as an investment manager and my training as a Chartered Financial Analyst® candidate, I hope to provide some perspective on the role of risk and incentives in the complex governance issues involved in the regulation of public utilities.

II. Risk perspectives.

- a. From the perspective of utility shareholders: The goal of utility shareholders is to earn a return on their equity investment while taking as little systematic (market) risk as possible. Systematic risk is that risk which cannot be diversified away with a broad portfolio of other investments. This risk arises due to macroeconomic factors in the overall economy and financial markets. In contrast, idiosyncratic, operational, or company-specific risk related to the specific

operations of the utility and local conditions in the utilities territory which are not felt by other companies (not just utilities) can be diversified away in a broad portfolio, and therefore investors do not need to be compensated for taking on these risks, since they need not be felt in the investor's overall portfolio. An example of company specific risk would be the risk of having to shut down the operation of generation due to factors specific to that facility: damage due to a natural disaster or violation of local environmental standards. On the other hand, the cost of fuel is a systematic risk (to the extent that fuel prices are set nationally or internationally), and shareholders should be compensated with an additional return on equity for taking on fuel price risk. Similarly, while local environmental regulation brings with it company specific or idiosyncratic risks for shareholders, national or international environmental regulation brings on systematic risks, so shareholders should be compensated to the extent that they bear the risk of future national and international environmental regulations, but not to the extent that they bear the risk of local regulation.

- b. From the perspective of ratepayers: Ratepayers currently bear a number of risks for the utility. In large part, ratepayers bear the risk of rising fuel prices and it is unclear to me the extent which they bear the risks of future regulation (because the decision as to who bears those risks will depend on the form of future regulations, and future regulatory and judicial decisions. From the ratepayer perspective, utility shareholders need only be compensated for risks which are (1) Systematic (company specific or idiosyncratic risks being diversifiable), and (2) Not borne by ratepayers.

III. Implications for Resource planning and Rate setting

- a. Resource Planning: In the private sector, the capital budgeting process assigns a unique discount rate for each proposed project, depending on that project's overall riskiness, with higher discount rates assigned to riskier projects. I recommend that Staff and the Commission investigate the inputs to the models to investigate the riskiness of specific projects. This higher discount rate would reduce the likelihood that high-risk projects would be accepted as part of the Resource planning process.
- b. Rate setting: To the extent that the risks identified in setting the discount rate for a project are borne by the utility, the utility should be awarded that portion of the discount rate associated with the risk actually borne. To the extent that the risks associated by the discount rate identified above are borne by ratepayers, that portion of the discount rate should be reserved for ratepayers, as compensation for the risk they bear. This apportioning of the risk-based discount rate should better align the incentives of the utility and ratepayers, in that the utility will be compensated for those risks it bears, but it will not be compensated for risks borne by ratepayers, even though risks borne by ratepayers will still be taken into account in the resource planning process.

IV. Other resources

- a. Shimon Awerbuch, a financial economist specializing in energy regulatory policy, has applied modern portfolio theory to utility planning and reached some conclusions similar to my recommendations above. Although I understand he is

unfortunately deceased, links to much of his work on this subject are available at www.awerbuch.com, and I recommend them to Staff and the Commission.

Thank you,

Tom Konrad, Ph.D.

5/22/08