

ENERGY AND WATER

WILLIAM F. LORANG, P.E.
Environmental Affairs Department
El Paso Natural Gas Company
El Paso, Texas

Dr. Bahr told us that we were going to have a workshop, and he meant a workshop, and work we did. We had 31 participants and we stayed until 5:00 p.m.

Before going over the report, I would like to thank Lynn Brandvold, for her efforts in recording and reporting; and the rest of the workshop participants for their interest.

We debated and hasseled about these subjects:

- * The water demands for New Mexico,
- * Conservation practices,
- * Research objectives,
- * Water quality requirements,
- * Augmentation of water supply, and
- * The use of non water-intensive energy sources.

From the discussion, it is rather apparent that there are problems concerning water for energy use. The supply of water available for use in New Mexico is limited, and will be of primary concern. If industry is to plan large energy related projects, and expenditures in the multi-millions of dollars, they must have a dependable and certain supply of both raw materials and water. Water and energy are inseparable. The limited supply of water in New Mexico may be the basis, the measure and the bottom limit to problems associated with water use for energy production.

In this water-short west, industry is now using methods of water conservation, recycling reuse, and treatment to save the amount available for use.

Industry can use almost any kind of water; however, the price of the end product will generally reflect the cost of the necessary water treatment. That price may or may not be acceptable depending upon how badly you need the end product or how thirsty you may be.

Our discussion group looked at the how, the why, the when and the where questions to water for energy development. We prepared quite a list of questions for discussion which are all addressed to the panel. Of course, some of the questions may overlap what has already been reported by other workshops, but the following questions were raised by workshop attendees which were felt to be of importance.

- * What are your feelings toward the priority of energy alternatives? Has any thought been given to prioritizing energy production with respect to the amount of water used per energy unit produced?
- * Along the same line, is there a place in the state government for planning for energy production, for planning water use, and project implementation? Should there be a clearinghouse in the state that coordinates plans for water/energy projects? Is there ongoing anticipatory water planning program in the state?
- * What could be done to identify and alleviate certain impediments to water use such as litigation, ownership problems, and legislative and procedural problems?
- * What research efforts could be made to identify new energy alternatives, such as hydrogen generation and pump storage possibilities? Should there be research efforts made along the line of gray water use, the recovery of evaporation losses, the use of brackish water for cooling, weather modification and water harvest methods.
- * Will the state legislature consider severance taxes for energy exported which could be earmarked for water use research?
- * How can we provide a better interface between research efforts and the implementation of research results?
- * What are the state and federal governments doing to solve the Indian water rights problem? Do you see a solution to the problem in the near future?
- * What is the state's position regarding exportation of water in the form of coal slurry? Are there possibilities for interbasin or interstate imports for water used in coal slurry?

There were many more questions raised and discussed some of which were answered during our workshop session. But, in the interest of time, perhaps we should stop here and listen to the panel's response.

It has been a pleasure for me to participate in this water for energy workshop and I thank you very much.