



SMUD

SACRAMENTO MUNICIPAL UTILITY DISTRICT □ 6201 S Street, P.O. Box 15830, Sacramento CA 95852-1830, (916) 452-3211
AN ELECTRIC SYSTEM SERVING THE HEART OF CALIFORNIA

February 8, 1985

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LETTER OF INTENT TO PARTICIPATE IN A WASTE-TO-ENERGY PROJECT

Pursuant to our recent conversation, enclosed is a written discussion of potential constraints relating to the proposed SMUD/City/County Waste-to-Energy project and a proposal for negotiation between the parties on project ownership options.

We look forward to working with the City of Sacramento on this project which will benefit all of Sacramento's citizens.

We are prepared to meet with you as soon as possible to resolve the project financing question. We recognize that prompt resolution is needed to avoid delays in the licensing of this project, which could delay the operational date beyond July, 1989.

Cliff Wilcox
President, SMUD Board of Directors

cc: Solon Wisham, Jr.

Attachments

Attachment I

Waste-To-Energy Project

Discussion of Constraints

Background:

In November, 1982, the City and County of Sacramento and SMUD agreed to jointly fund a feasibility study of a Waste-to-Energy (WTE) project to be built and operated by SMUD in the Sacramento area. In April, 1983, Bechtel Corporation was awarded a contract to perform the study. This study was completed in November, 1983. During 1984, City, County, and SMUD staff conducted further, detailed studies of the proposed project. During this time, progress was delayed somewhat by the proposed "Jarvis" initiative, which was voted down in the November, 1984, general election.

On November 16, 1984, the City Council, which is operating under a very tight deadline to resolve their waste management problem, requested that the SMUD Board of Directors provide them with a Letter of Intent indicating whether or not SMUD is interested in participating in the WTE Project.

On December 20, 1984, the SMUD Board directed staff to send Letters of Intent to the City and County. On that date, the Board also awarded an engineering services contract to Black and Veatch Engineers (B&V) to support licensing, design, and construction management of the WTE Project. On December 21, 1984, SMUD staff and B&V began work on the project.

Purpose of this Paper

The purpose of this paper is to inform the City Council and the Board of Supervisors of the constraints on the WTE Project which SMUD views as potential obstacles to successful completion of the project. To successfully implement the project in a manner which is responsive to the needs of the three participants will require the full and active cooperation of all three, as described below.

Project Description

The Waste-To-Energy Project consists of an electrical generating facility which is to be fueled by municipal solid waste and such supplementary fuels* as are deemed necessary for economic operation of the facility. This facility is to be located on City-owned property at the Granite Construction Company gravel quarry, located at the intersection of Power Inn Road and 14th Avenue in Sacramento. The project will have an electrical generating capacity of approximately 49,000 kilowatts. The project will also be capable of producing approximately 300,000 pounds per hour of cogeneration steam. This steam will be delivered to purchasers via a steam distribution pipeline approximately 6.5 miles in length.

*Although the project was originally evaluated using lignite as a supplementary fuel, that option has been discarded in favor of other fuels.

Project Schedule:

The anticipated project schedule is as follows:

Begin Licensing/Preliminary Engineering:	December 21, 1984
Complete Licensing Process:	June, 1986
Begin Construction:	January, 1987
Begin Plant Start-up:	January, 1989
Commercial Operation Date:	July, 1989

Constraint No. 1: Project Financing

The high capital cost of this project makes funding a critical issue. Based on the constraints discussed below, the SMUD Board of Directors has indicated its desire to have the City and County participate in the initial capital cost of the project.

The economic feasibility of the WTE Project has been evaluated using a variety of financing options. These range from SMUD Bonds to private financing, and include combinations of both. Generally, the cost of money is highest when SMUD Bonds are used, and lowest when private financing is used. This is due primarily to the fact that a privately-financed project is able to take advantage of tax credits, depreciation, and interest deductions, resulting in a lower net interest rate.

There are several uncertainties affecting SMUD's decision on choice of financing option to be used for the WTE Project. The first of these is the availability of SMUD bond-backed capital in the next five years (1985-1989). During this period, SMUD is faced with the need to finance a number of capital-intensive projects. In addition, we have been, and will continue to be, offered some attractive opportunities to purchase power from other utilities. All of these projects and opportunities require SMUD investment of capital. In order to retain our AA bond rating, SMUD must limit its debt service coverage ratio to a value of 1.6. Thus, we have a definite limit on the amount of capital we can raise, and difficult choices to make from among the options available.

Of course, each option is examined in light of the potential costs and benefits to SMUD customers. SMUD's participation in this project will necessarily involve a rate increase, which could be significant. It is the Board's goal to minimize that rate increase.

SMUD is renegotiating its long-term integration agreement with Pacific Gas and Electric Company (PG&E). This agreement is due to end in 1988. Whether or not SMUD and PG&E will have an integration agreement in 1988, and what the terms of that agreement will be, are still open questions, and will be for some time. Answers to these questions will have a distinct impact on the attractiveness and financial implications of each new project. Thus, at a time when SMUD is faced with several investment choices and many demands on its own capital resources, SMUD is also faced with a situation which makes assessing the merits of each investment choice extremely difficult.

A second constraint on the choice of financing options for the WTE project is the fact that the most attractive financing mechanisms will require the use of Industrial Development Boards (IDB's) in conjunction with private investors. SMUD has no IDB bonding authority. This authority is held by the state, and is delegated to cities and counties. Thus, use of IDB's on this project, while feasible, will require an active role by the City and County to acquire the necessary authorization from the state to issue IDB's for this project. The amount needed could be as high as \$200 million.

A third constraint is that reforms currently proposed to federal tax laws could eliminate many of the tax advantages for private investors in WTE Projects. The result could be a significant increase in the interest rate a private investor will require, thus eliminating one of the most attractive financial options.

In summary, the WTE Project, while economically viable and capable of providing substantial benefits to all three parties, is sufficiently expensive to require SMUD to request that the City and County consider a joint ownership arrangement. The choice of financing option has a marked effect on the cost of the project. SMUD's changing needs make it difficult to determine whether capital backed by SMUD bonds will be available for the WTE Project. Proposed changes to the federal tax laws will drastically affect all other financial options currently being considered. It is too soon to predict just what changes will occur. These factors combine to make the choice of financing options for the WTE Project particularly difficult at this time.

Constraint No. 2: Air Quality

The most difficult licensing hurdle to overcome will be obtaining the air quality-related permits. These permits will be issued by the Sacramento Air Pollution Control District (APCD). In order to be able to issue a permit for this project, the APCD will have to establish that an adequate "growth increment" is available in the local plan for attainment of the state and federal air quality standards to allow for the additional air pollutant emissions from the WTE Project. The APCD has already been notified by the federal Environmental Protection Agency (EPA) that the "Attainment Plan" for Sacramento County will have to be updated in the near future. This Attainment Plan update will be performed by the Sacramento Area Council of Governments (SACOG). Any license granted by the APCD for construction or operation of the WTE Project will be contingent upon adoption of an EPA approved Attainment Plan, which includes a growth increment for the WTE Project.

The City and County, who are voting members on the SACOG Board, must actively pursue the timely accomplishment of the needed Attainment Plan Revision.

Constraint No. 3: Public Response

SMUD views the public involvement process required to site the WTE Project and the City landfill which must accompany it as potentially quite controversial. While both projects offer substantial benefits to the people served by each of the three project participants, these benefits may not be readily apparent to the public. The public must be adequately informed as to the benefits they

will receive, versus the costs they will incur. To do otherwise will virtually assure delay and possible abandonment of the WTE Project.

It will require the full support of the SMUD Board, the City Council, and the County Board of Supervisors to achieve the broad base of public support needed to license and operate the WTE Project. Thus, each member must keep informed as to the status of the project, and must commit to actively support the project. Erosion of this support by policymakers will virtually insure a like erosion of public support.

Constraint No. 4: Regulation of Toxic and Hazardous Wastes

Obtaining the necessary licenses to construct and operate a WTE project in Sacramento that can be economically viable is possible under the present statutes and regulations affecting such projects. However, in recent years, public concern over the management and disposal of toxic and hazardous wastes has grown appreciably. Over the next few years, this concern could lead to substantial changes in the regulations affecting WTE projects. These changes could well affect the continued economic viability of the WTE Project. Even though the WTE Project is intended for the disposal of municipal wastes, neither SMUD nor the City or County can guarantee that small amounts of these substances will not be present in the waste stream. The extent to which the WTE Project must "guarantee" against the presence of trace amounts of toxic and hazardous substances in the waste stream will have a significant effect on the cost of building and operating this project. Unfortunately, it is too soon to tell what direction the regulatory changes affecting this issue will take.

Constraint No. 5: Cogeneration

An important factor in lowering the operating cost of the WTE Project for all participants is the sale of "cogenerated" steam (i.e. low-pressure steam which is a by-product of the power plant cycle) to industrial steam users near the WTE plant. In order to take advantage of this cost savings, the WTE Project will have to negotiate steam sales agreements with one or more purchasers. Further, all participants in the project will have to commit to support licensing and construction, by SMUD, of a steam distribution pipeline which will carry the steam to the industrial customers.

Constraint No. 6: Landfill Requirement

Economical operation of this project will require the operation of a City-owned, or joint City/County-owned, landfill adjacent to the power plant site. This landfill will be used for the disposal of non-combustible solid wastes. Also, in the event of a temporary shutdown of the WTE Project, the City and County must have alternative means of disposing wastes until the plant can be restarted. This means that some type of a landfill will be needed, although not necessarily at the power plant site.

Conclusion

This concludes the discussion of the major constraints which the project participants must deal with in order to make a final commitment to this

project. It should be noted that these same constraints will impact any WTE project in the Sacramento area. It will require the full cooperation of the City, the County, and SMUD to deal with these constraints and achieve successful completion of this project.

Attachment II

Project Options

The City, County and SMUD shall evaluate the following alternative Project Ownership proposals:

- a) SMUD owns and operates the electrical generating plant only. City and County construct, own and operate the waste disposal and steam generation facility. SMUD purchases steam from the City and County at the turbine-generator inlet.
- b) City and County own and operate the Project. SMUD purchases electrical energy and capacity.
- c) Such other options as the parties may wish to evaluate.