VENDOR PROCUREMENT:
ESSEX COUNTY ENERGY RECOVERY FACILITY

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Discussion by

Thomas G. Waffen

This paper presents useful information on the development of a proposal process that can be utilized in determining a contractor-operator for a Solid Waste Energy Recovery Facility.

The authors pointed out the necessity of obtaining a site for the facility prior to the R.F.P.'s. It would seem feasible that a guaranteed flow of refuse to the proposed facility also be determined and fixed for the R.F.P.

The question of risk allocation between the Port Authority and the County suggests that all of the revenues are not fixed. The sale of energy, being a large revenue consideration, would dictate that negotiations be carried out with the receiving utility. Was this done prior to the R.F.P. request?

It would be of interest to know what risk factors are being considered.

The decision to rely on technical specifications for the selection of a system vendor is noble; however, performance, reliability and satisfying environmental dictates is the rule. These considerations translate into performance guarantees and ultimately costs.

It is difficult for me to isolate these considerations from the selection process, because they will have to be in place for the final contract.

Discussion by

Edwin T. Hoover
City Management Corporation

The historical experience of solid waste processing systems that are capable of providing energy as a by-product is extremely shallow in the United States, both in terms of the number of successful plants that are operating, and the ability of these plants to operate throughout their anticipated lifespan that is equal to the life of the bond issues that were developed for the construction costs of the respective facility.

The level of funding that is required for a modern day, state of the art, type facility in each and every case is considerable and will usually range between $50,000 and $100,000 per ton for each ton of the rated capacity of the system.

The ability of the vendor to provide sufficient guarantees and assurances for the owner of a proposed facility is restricted by the lack of available data, on which the guarantee would be based, because of the wide variation in the systems that are offered, and the rapid changes and improvements that are constantly being made.

As stated above, uncertain levels of plant reliability, high levels of construction cost and restricted performance guarantees that are given by the vendor to the owner of a resource recovery system, are three important considerations that must be addressed during the development of a new project. Each of these problems are new to the refuse disposal field, and in most cases there is a lack of previous experience that can be drawn from to provide solutions. As a result, it becomes necessary to develop new procedures and techniques for their management. The Essex County Experience bears this point out, as there was an obvious amount of thought and study that was incorporated into the process of prequalification, proposal, and finally, negotiation with a single vendor.

Given the obvious complexities of the planning, financing, engineering, siting, construction, start-up, and operation of a resource recovery facility, it is very reasonable to justify the negotiation process; however, there is a tremendous trade-off, and that is the strength of the
competitive bidding process. Without including the competitive bidding process there are distinct disadvantages to the vendor and the owner. The vendors are deprived of the opportunity to bid on the plant hardware, etc., without political influence, or the expression of favoritism. The owner is deprived of the undeniable power of the competitive bidding process.

The defense for the suggestion to include the competitive bidding procedure lies in the likelihood of the owners increased ability to obtain realistic unit costs, and a strong guarantee for the reliability of the system on a daily basis and throughout its lifespan of 20 operating years. There can be no doubt of the difficulties in project management that would result from competitive bidding arrangements, but likewise, there would be great advantages in the inclusion of same.

A review of all the factors leads to the conclusion that additional work is necessary to restore the waste disposal field to a position where bidding can be practiced on projects that carry the magnitude of that of a resource recovery system.

Discussion by

Franklin B. Flower
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The paper by Mr. Passage and Mr. Presti presents a very interesting way for a New Jersey solid waste management district to obtain a resource recovery vendor.

Before soliciting a vendor, three governmental agencies, (municipal, county, and interstate) had to agree on the location for the facility, the benefits and responsibilities of each governmental agency regarding the energy recovery facility, and a procedure for obtaining the vendor. That three New Jersey governmental agencies could reach an agreement on such matters is almost a miracle. Those who caused this to come about deserve a supreme compliment.

Selecting private ownership and operation of the facility results in a substantial reduction in the amount of debt service paid on the project. Since the construction and operations are to be given to the same party, a better, more reliable refuse processing plant should result. This is all to the advantage of the citizens of Essex County.

Essex County must cease dumping its waste in the Meadowlands District after mid-1987. Will the projected energy recovery facility be operating at that time? (1) Will the facility be able to accept all processible Essex County solid waste? (2) What is to happen to the unprocessable fraction of this waste stream and the ash from the resource recovery plant? Nothing was said about the procurement of a landfill for these materials. (3) What guarantees did Essex/NY-NJPA give the proposed vendor concerning the quantity and quality of the refuse stream? This was not mentioned, but the vendor would need to know this in order to design his plant to comply with the environmental pollution standards and to construct the most economical plant.

If the contract to construct the plant cannot be consummated soon there may not be time to complete the plant before the County’s waste can no longer go to the Meadowlands. If a contract is not completed with Browning-Ferris Industries and they must begin negotiations with the “second best” proposer it appears that the operation schedule will not be met. The only way to dispose of the refuse until the energy recovery facility is operational will be by landfilling. Because of this and the fact that a landfill will be needed to accommodate the ash from the facility and the refuse it cannot accept, it is suggested that the landfill procurement procedure begin as soon as possible.

I found the paper informative and I think that other solid waste management districts should consider this method of obtaining a resource recovery vendor. Whatever method is used it will be necessary to find an acceptable site for the facility, the facility should be able to accept a majority of the waste generated within its solid waste shed, the polluting emissions of the facility must meet the requirements of the environmental control agency, and a landfill will be needed for the nonprocessable refuse. In the case of Essex County, New Jersey, they should begin the process of procurement of a landfill as soon as possible. This landfill will accommodate not only the ash from the energy recovery facility and the refuse the facility cannot accept, but it can also be used as the disposal area for all of Essex County’s refuse if the energy recovery facility is not in operation by mid-1987.

AUTHORS’ REPLY

To Franklin B. Flower

(1) Design of 3x750 tpd + provisions for a fourth unit can accommodate all of Essex County waste – 15% for recycling. If recycling fails the fourth unit can be sized and built.

(2) Essex County is responsible for obtaining the use of a backup landfill for residue and bypassed waste. It is trying to reach agreement in Bergen, Hudson, and Passaic Counties to site a landfill in Hudson County for all four counties with DEP assistance.

(3) Vendor was provided with waste composition and energy survey results of two tests. The design point was 5300 Btu’s/pound but the range was 3500–5000 Btu’s.