MAJOR IMPACTS ON FINANCING WASTE-TO-ENERGY FACILITIES

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Discussion by

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The tax law changes over the past several years have had dramatic impacts on abilities to solve our waste management problems. The tax law activities in Congress had caused our elected officials into a decision making process—do we finance the project this year—can we wait a year, do we own the project? Our elected official objective is to solve our disposal problems and not to be esprits in tax laws and investment.

Simplifying assumptions are, of course, key to the analysis of any complex problem. As a corollary to that proposition, the sensitivity of the variables simplified must also be considered. The authors do a fine job of pointing out the elements of financing affected by the change in tax laws and some (but not all) of the options open to the municipalities. But, as the paper broadens its scope to discuss financial analysis and risk, it appropriately points out that energy contracts, construction costs, operations costs and risk structure are major factors in determining final project costs. The change in tax law has clearly reduced the vendors incentive towards private ownership, but this alone should not preclude the consideration of such an approach by the municipality.

The impact of change-in-law on financing is not the most important, nor should it be the first consideration in any project evaluation. The basic fact is that the municipality must first decide how best and how comfortably it can handle such an important infrastructure need as waste disposal and control. For some, public control and ownership may be as ill-advised as do-it-yourself surgery, in which case, any consideration of public ownership regardless of costs would be imprudent. Further, implying that risk transfer automatically occurs with privatization is similarly a broad and misleading simplification and may result in pursuing a project structure which, in its final negotiations, may not realize the expectations of the municipality. In this case, the "costs of risk" must in some way be quantified. Conversely, the municipality bent on public ownership but extraordinarily averse risk may find that overly aggressive demands on Vendor-assumed risk could bias the costs to far outweigh and financing benefits implied in a publically owned project.

On balance, there should be little impact from the new tax legislation for municipalities willing to contract for construction and operation services with a private firm, while maintaining financial responsibility for the facility. Such "turn-key" or similar hybrid approaches to project structure cannot and should not be ignored. It's obvious that creative financing and creative project structuring continue to be the requisites for a successful project. Change in tax law doesn't necessarily eliminate a viable option, it merely alters the analysis to require even greater creativity.

In summary, the authors do an excellent job of delineating the effects of the changes on various elements of financing and to point out the various factors involved including risk. However, we would think it presumptuous to imply that the "impact" of the changes have been truly evaluated without a more complex analysis of real and hypothetical projects with all of the "real" costs quantified. In a project structured around a win–win contract and risk structure, the municipality may find that such an analysis yields very little difference. As the authors correctly point out, the municipalities should examine their ownership options; but they must be aware of all the options and consider more than the initial financing costs—for as many have come to realize, the cheapest deal may not be the best deal.

Discussion by

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Phil Chen and his co-authors present a comprehensive discussion of the effects of certain provisions of the Tax Reform Act of 1986 on the financing of resource recovery projects. Much of the paper deals with factual information which this reviewer finds accurate. This reviewer is also in general agreement with the opinions expressed in the paper, particularly those regarding the future trends in the financing of resource recovery facilities.

The paper also includes a discussion of structuring considerations and risk allocation in the financing of resource recovery projects, a section on financial analysis of projects, and a generic discussion of "the ownership decision". These materials are general in nature, and do not address the effects of the tax law change. As such, these sections would have been better placed at the beginning of the paper, rather than the end. With this changed organization, the paper would have had a better structure, with the specifics of the topic flowing from the general introduction to the subject. The harsh and immediate exposure of the layman to the jargon of the finance profession could also have been avoided by presenting an introduction to the general concepts first.

These suggestions concerning the organization of the material are not intended to detract in any way from an otherwise very complete, precise and insightful discussion of a highly complex subject.

Discussion by

W. R. Elliott and A. G. Magyar

The authors have developed a concise and interesting analysis of the impacts of the 1986 Tax Act on the Waste-to-Energy business. Their review of industry trends and influences provides a most useful resource in the development of financing alternatives.

However, the death of the private ownership option has been greatly exaggerated by members of the Waste-to-Energy business. Our entire industry, like so many others, suffers from the disease called conventional wisdom.

While the 1986 Tax Act was evolving, we saw great harm to our industry from the insensitive and unknowledgeable gangs of Washington tax men chopping away our industry's absolutely necessary federal subsidies, incentives, and other enhancements of the private sector efficiencies. Since we predicted the demise, it is very difficult to accept the fact that the patient, though changed, is doing fine.

One problem that remains in any discussion of private versus public ownership of Waste-to-Energy plants is that the participation of the public sector in private projects, in most cases, remains significant. There are a few examples of private facilities in which the involvement of the public section is limited to only the contractual supply of MSW. More common is the situation where the "private" project is the result of a financing structure alternative evolving from within a municipality's implementation of a public project. It is obvious that for projects in which private ownership is actually a tax based financing alternative, the private ownership option is quite sensitive to any changes in tax code.

If the discussion of private versus public ownership is examined in a broader context of overall cost and risk allocation, the choice becomes very project specific. This is demonstrated by the many public ownership projects that began prior to the Tax Reform Act of 1986. Obviously the jurisdictions that implemented public projects during the period when the tax benefits were so generous to the private alternative had sound reasons for their decisions.

Many factors other than the tax codes are changing the Waste-to-Energy field. Many of these will impact upon decisions that communities make on an approach to project implementation and the real disposal costs associated with each alternative ownership structure.

Included in these changes are: the evolution of the financial markets' perception of technological risk; the emergence of the triple A rating of private debt instruments through relatively low cost LOC's from major off-shore banks; off-shore placement of taxable debt resulting in essentially equivalent rates as tax exempt debt; and real off balance sheet "project financing" of private projects.

The ability of private owners to develop cost effective Waste-to-Energy projects may hinge on all of these developments.

The authors address the question of risk assumption by the public jurisdictions in the context of whether to "own or not to own". A more fundamental decision actually faces the jurisdiction: to control or not. The jurisdiction may wish to move forward quickly with a private project and minimize their involvement by using an approach akin to that which many have selected for collection of their MSW. Conversely, the jurisdiction may determine that it wishes to exert greater control and undertake a publicly controlled project. The retention of consultants, advisors, and counsels in the technical, financial, and legal areas then begins. Based on the advice of these parties regarding the specific energy market and bond allocation limits, the jurisdiction can determine whether to hold ownership in the project or shift tax ownership to a private party (either a supplier or a third party).

The authors correctly point out the significant impact of the 1986 Tax Act on the cost of financing Waste-to-Energy plants under a specific popular approach, i.e., public jurisdictions shifting tax ownership of their projects to private parties. The authors have, as have almost every other industry source heard from both prior to and since passage of the 1986 Tax Act, predicted a major shift away from private ownership. The movement away from the "flag of convenience" type shift of tax ownership for projects that are in the real sense public may well have been so dramatically affected. However, the private option that includes a truly arms length service contract between the public jurisdiction and the privately financed project (off balance sheet) appears well and growing. This growth appears due primarily to the improved sources and terms for debt available to such private projects. The Waste-to-Energy industry continues to defy generalization.

The municipality's decision process regarding development of a Waste-to-Energy project is not an easy one. The private owner's interest in selling its disposal approach, i.e., service, is fairly obvious. On the other hand, the interest of consultants, advisors, counsels, and even municipal staffs in seeing the jurisdiction take a more active role in a project's development and execution may be less obvious, but many times be just as real. A thorough analysis of the specific circumstances by a party with no follow on role may be a necessary step if an objective decision is to be made.

Discussion by

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Mr. Chen's papers on financing waste-to-energy projects are a regular feature of the National Waste Processing Conferences. They provide valuable updates on current tax laws as they affect financing and ownership decisions for waste-to-energy facilities.

I would like to discuss the impact of the new tax laws on municipalities as they attempt to deal with municipal solid waste (MSW) disposal issues. The new laws were opposed by the Conference of Mayors and other local officials for good reasons. The typical local government is faced with many needs, all of them costly. In addition to MSW disposal, local governments must provide streets, parks, police protection (including jails and courts), wastewater treatment, fire protection, health services, water supplies, and the many other facilities and services we expect in this country. Financing a municipally-owned waste-to-energy facility thus uses debt capacity that is probably needed for other projects.

The typical local government is not well prepared to deal with the technical, legal, and financial issues that go with public ownership of a facility. Additional staff and consultants will almost certainly be needed, adding to the universal budget problems. While private ownership does not relieve the municipality of risk and responsibility, public ownership will add to it.

The new tax law is a fact and we all must live with it. However, municipal officials should be aware that public ownership and financing, while usually the lowest-cost option, bring some additional considerations along with them.