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OPTIONS AND STRATEGIES FOR WASTE TO ENERGY FACILITY ENERGY SALES IN DEREGULATED MARKETS

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ABSTRACT

Many US Municipal Waste to Energy (WTE) plants entered into long term electric sales contracts with their local utilities for the electricity generated. These legacy contracts will be expiring over the next few years. With the advent of electric deregulation, the energy markets are vastly different and WTEs now have many more options to optimize the value of the energy generated from their facilities. There are even some options available for WTE's located in regulated markets. A well developed energy sales strategy and execution can make a significant difference in the value realized from the WTE energy generated.

To understand the options available to WTE's it is first helpful to have a basic understanding of the power markets. In markets that are deregulated, there exists two primary markets, the hourly market were prices are set by the regional independent system operator (ISO) such as PJM or NYISO and the forward markets which offer fix rates for energy delivered some time in the future. The hourly market prices are highly transparent (posted on ISO's web site) and are based on the marginal cost of fuel used to meet the last increment of demand during that hour. In the Mid-Atlantic, New York and New England prices are typically driven by the price of natural gas and to a lesser extent fuel oil and coal. The forward markets are driven by counterparties who are willing to offer fixed prices in return for risk premiums added to the price to cover their price risk. Forward market pricing is not as transparent and requires knowledge of the market, knowledge and experience with the major buyers and sellers and multiple price bids.

Options for WTEs facilities now include sales directly to the ISO, sales to wholesale buyers (generally 1-5 years), sales to local utilities and power authorities, sales directly to the local municipality and sales to large local commercial/industrial users of energy. The option selected should be consistent with a well defined energy sales strategy. The strategy should incorporate a price risk profile, budget and funding requirements/objectives, facility operating risk profile, credit risk, local considerations, and risk management timeframe. The mechanisms required to execute the above options vary and involve different approaches, contract structures, licenses, memberships, risks and rewards.

There are qualified independent energy consultants that can assist WTEs in understanding the markets, developing energy sales strategies and execution thereof to help ensure the value of the energy generated is optimized.

HISTORY

WTE's were constructed and began operations under regulated electricity markets. Under the Public Utility Regulatory Polices Act (PURPA) passed by the United States Congress in 1978, electric utilities were forced to purchase electricity from non utility power producers at their "avoided cost". As such WTE's negotiated long-term power sale agreements with the local electric utility.

During the 1990's the federal government began encouraging states to deregulate their electric markets just as they had for the airline and telecommunications industries. States in the Mid-Atlantic, Northeast, Mid west, Texas and California began implementing deregulated markets on a staggered basis.

Many of the long term contracts that WTE's entered into under regulation are expiring