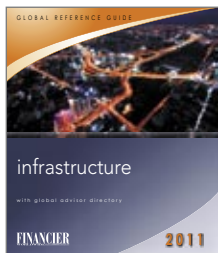


## INFRASTRUCTURE 2011

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# MARKETING AND IMPLEMENTING EMERGING WASTE CONVERSION TECHNOLOGIES IN THE US



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## NORTH AMERICA

**Marketing and implementing emerging waste conversion technologies in the US**

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by [Teno A. West](#) | *Pannone Lopes Devereaux & West LLC*

IN RECENT YEARS, there has been a burgeoning demand throughout the world for clean, affordable alternatives to landfilling and other traditional forms of waste disposal. This need has spawned a growing private industry focused on the development of waste conversion technologies such as gasification, anaerobic digestion, pyrolysis, and bio-mechanical treatment. Although companies proficient in these technologies have found success in marketing their products and services to certain local governments – mostly throughout Europe and Japan – the marketing and implementation of these technologies in the US has presented unique challenges.

In the US, the laws governing the implementation of waste conversion technologies vary greatly from state to state and even from municipality to municipality. These laws – which range from state procurement laws to local land use laws – can be difficult to navigate and tend to be slow in catching up with emerging technologies. In addition, other factors such as local acceptance, waste aggregation problems, and environmental group opposition, can stop a project in its infancy if not properly accounted for and addressed. Without a practical, working knowledge of how to deal with the unique issues facing the particular community involved, companies promoting conversion technologies will find difficulty in marketing their products and services to even the most well-intentioned local governments. This article highlights several considerations that are often overlooked when marketing and implementing emerging waste conversion technologies in the US.

First, with the array of emerging conversion technologies available in today's market it is imperative to thoroughly understand the various technologies that may be suitable for the needs of the subject community. Certain types of projects and locations may be better suited for one technology based on various factors, including the composition of the available feedstock, regulatory requirements restricting certain types of conversion processes, and the associated implementation costs.

In Massachusetts, for example, there has been a moratorium on new waste combustion facilities for over 20 years. The moratorium may prohibit the use of both gasification and pyrolysis technologies because they too closely resemble combustion. However, other types of conversion

technologies, such as bio-mechanical treatment and anaerobic digestion may be more suitable for implementation under Massachusetts' conditions. A comprehensive understanding of the conversion technologies available, therefore, maximises the potential for success and ensures a company promotes their products to a viable market.

Second, the success of a waste conversion project is contingent on both the quality and quantity of the waste stream. Even the most advanced conversion technology will not succeed without a suitable and constant supply of feedstock. However, there are various challenges involved with developing a sufficient and appropriate feedstock for these emerging technologies.

A desirable and effective option for maximising feedstock is to partner directly with a local government that can guarantee a certain tonnage of waste. Such a partnership can benefit both parties – the company can secure the necessary waste to ensure profitability and the local government can contract for competitive rates and discounts. In addition, the use of waste aggregation techniques such as the implementation of what is commonly referred to as 'flow control' can produce a consistent supply of feedstock. Under flow control, a local government mandates that all locally generated solid waste and recycling must be directed to a designated disposal facility, resulting in a dependable and constant waste stream.

Third, there are many legal and technical nuances and challenges presented by the permitting and procurement processes regarding conversion technology projects. With the multitude of local governments in the US, the path to approval for any type of infrastructure project can be chaotic. Companies proposing conversion technologies must navigate the requirements of local, state, and federal law. Procurement requirements differ significantly from state to state, and local zoning laws may substantially differ between municipalities, even within the same state.

Finally, permitting and land use considerations are often shaped by local environmental concerns – well-founded or not – and community attitudes and influences that may be difficult to grasp for outsiders. Accordingly, it is important to cultivate local networks of supporters who understand the culture, political structure, and concerns of the public. Local support and an understanding of the permitting and procurement requirements are essential to success.

There are many overlooked factors that must be considered when marketing waste conversion technologies. A comprehensive effort to account for the few issues raised in this article will drastically increase the likelihood of successfully implementing emerging waste conversion technologies in the US. ■

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