MEASURING THE SUSTAINABLE RETURN ON INVESTMENT (SROI) OF WASTE TO ENERGY

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ABSTRACT

Waste to Energy facilities serve their communities in a number of important ways. Our industry does a terrific job reducing volumes that would have otherwise been destined for landfills. Energy recovery is an important and positive byproduct of that process but not the only one. Beyond these two obvious attributes you seldom hear of anything else. This is unfortunate because there are significant social, environmental, and economic benefits associated with the technology. Industry “silence” can be attributed to an inability to describe those benefits in ways people understand or see a dollar value in. In other words, we have a tough time measuring the value of “Green.”

This paper describes a framework through which we can make the case for sustainable benefits associated with Waste to Energy. It begins with discussion of why it is important to seek a connection with the “triple bottom line” including the social, environmental, and economic attributes of a given program/project/facility. It sheds light on the need to think beyond traditional life cycle cost analysis techniques that focus on direct cash benefits. It describes a process through which noncash and external costs and benefits can be calculated and presented in monetary terms, referred to as the Sustainable Return on Investment or SROI (direct cash + noncash + external costs and benefits = SROI). This paper should help readers make an aggressive case to reveal the FULL VALUE of Waste to Energy across the sustainability triple bottom line.

INTRODUCTION

We are living in a transformational period. Economic growth and consumption are down. Jobs are rapidly moving offshore. Consumer and government debt are at record levels. There is growing concern with regard to climate change. The long-term ramifications of this “perfect storm” of circumstances are staggering. They are also exciting, since together they open the door to action that could bring about change leading to a promising future. We are already seeing action. Congress passed ARRA 2009 in February of last year. Commonly known as Stimulus II, there is significant funding for programs that closely align with the waste management and Waste to Energy industry. In addition, funding for energy-related programs has been made available through the 2009 Omnibus Spending Bill and proposed in the President’s budget for 2010. Looking further out, there are provisions in cap and trade legislation that could also support investments in waste management and Waste to Energy. Most political observers would agree that to a great degree, President Obama has