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How to Capitalize on BioCNG at a Wastewater Plant

Authors : William G. "Gus" Simmons

Abstract : Municipal and industrial wastewater plants across our country utilize anaerobic digestion as either primary treatment or as a means of waste sludge treatment and reduction. The emphasis on renewable energy and clean energy over the past several years, coupled with increasing electricity costs and increasing consumer demands for efficient utility operations has led to closer examination of the potential for harvesting the energy value of the biogas produced by anaerobic digestion. Although some facilities may have already come to the belief that harvesting this energy value is not practical or a top priority as compared to other capital needs and initiatives at the wastewater plant, we see that many are seeing biogas, and an opportunity for additional revenues, go up in flames as they continue to flare. Conversely, few wastewater plants under progressive and visionary leadership have demonstrated that harvesting the energy value from anaerobic digestion is more than “smoke and hot air”. From providing thermal energy to adjacent or on-campus operations to generating electricity and/or transportation fuels, these facilities are proving that energy harvesting can not only be profitable, but sustainable. This paper explores ways in which wastewater treatment plants can increase their value and import to the communities they serve through the generation of clean, renewable energy; also presented the processes in which these facilities moved from energy and cost sinks to sparks of innovation and pride in the communities in which they operate.

Keywords : anaerobic digestion, harvesting energy, biogas, renewable energy, sustainability
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