The Search for Alternative Energy Part 4 – Municipal Waste

So far, we've seen that the search for alternative energy to feed into the national electricity grid includes wind, solar, and geothermal sources. Thus far, this search for alternative energy sources in St. Lucia has also included waste-to-energy explorations, albeit more recently.

Essentially, a waste-to-energy plant will convert municipal waste through technological means to a fuel that can power a generator. There are several different technologies for converting waste to energy. A common but very old method is incineration (burning the waste). There are a number of other new and emerging technologies that are able to produce energy from waste and other fuels without direct combustion. The choice of technology for a waste to energy plant for St. Lucia should be consistent with the objectives of the National Energy Policy and other sustainable developments goals.

St. Lucia's efforts towards exploring waste to energy as an additional alternative energy solution took centre stage in October 2010 when the Government of Saint Lucia (GOSL) signed a Memorandum of Understanding (MOU) with a Canadian company, Island Green Energy, to explore the possibilities of converting waste into energy. The plan is to construct a plant in Deglos near the land fill.

In August 2011 the Government of Saint Lucia notified LUCELEC that it was entering a formal agreement with this Canadian firm for the development of a waste to energy plant. The company has promised to develop enough electricity from local municipal waste to be able to sell to LUCELEC to add to the national grid.

LUCELEC has been in discussions with stakeholder ministries with responsibility for public utilities, energy and waste management regarding this waste-to-energy project to ascertain, among other things, reliability of supply, which is an essential factor in consideration of power purchase agreements.

As with the on-going exploration of the geothermal energy potential of the Sulphur Springs in Soufriere, LUCELEC's role is to purchase any power that may be produced from the proposed waste to energy project, since under the law, LUCELEC is the sole entity empowered to sell electricity in St. Lucia and any other entity engaging in exploration and development of energy can only sell to LUCELEC.

Again, as with the geothermal energy project, LUCELEC will engage the developers of the waste to energy project in discussions on a term sheet and power purchase agreement, which will identify the conditions under which LUCELEC will buy any power produced.

As the national electricity company, LUCELEC has a duty to ensure that any and all power purchase agreements are based on reliable supply over the long term, otherwise there can be inestimable consequences for reliability of electricity supply nationally. It is also of importance to LUCELEC that such projects are undertaken and managed in a manner that ensures proper governance and due diligence.

LUCELEC expects that if all the alternative energy projects currently being pursued – LUCELEC's 12 megawatt wind farm, grid-tied photovoltaic systems, the geothermal and the waste to energy projects spearheaded by independent power producers – bear the anticipated fruits soon, the country will be well on its way to meeting its renewable energy targets set in the National Energy Policy. St. Lucia would also have gone

some way in reducing some of its dependence on fossil fuels and associated carbon emissions.
