



Valorization of the eastern waste biogas. Biogas converted in electricity: clean industrial proceeding and energy solution of the city of oujda from a pilot experience of controlled discharge.

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The city of Oujda is located in the eastern region of Morocco.

As a result of population and industrial growth, the town of Oujda produces annually 140,000 tons of very humid waste, rich in organic matter, about 73%. These wastes were stored in the uncontrolled Sidi Yahya landfill and contaminated by the leachate Surface and subterranean waters of the city, this leachate formed into son-in-law 12 million Nm³ of biogas annually.

This large volume of biogas is transformed into an energy source that is part of the sustainable development agenda while transferring the landfill from Sidi Yahya to a controlled landfill in international standards, the latter is located to the south of the city.

This landfill is the first in Morocco to treat and recycle all waste and is used to produce electricity, it is the second in Africa. Thus, electricity production in the eastern region will increase from 700 KWh to 3 Mwh.

In this work we will show the problems that the city of Oujda was experiencing in the presence of the uncontrolled dump of Sidi Yahya and then we will show the process of harvesting biogas and its transformation into electricity.

Keywords: Biogas, Landfill, Oujda, Sustainable Development, Energy