

Prepaid Energy Meter



Molder: Industrias Estra S.A.

Moldmaker: Weimo International Company

Material Supplier: Enka De Colombia S.A.

Designer: ICIPC - Research Institute for Plastics and Rubber/ EAFIT University

OEM: Excelec & CIA. LTDA.

Supporting Documentation:



international plastics design competition



[Supporting Images for item 2381](#)

Product Description

The prepaid energy meter is a device to be used by the poor people in Colombia, South America, who are not able to pay for a constant energy supply at home. Once a code number is entered by the consumer or end user, the prepaid energy meter reads it and connects the energy for a determined period of time according to the prepayment. It is even possible to buy just U.S.\$ 1 dollar of prepaid energy equivalent to approximately 24 kWh of energy supply or approximately 2 hours of light. The prepaid energy meter allows a scheme of electricity billing that can reduce problems associate with billing consumer living in poor areas or in isolated areas. This device contributes to a social and cultural development in Colombia, South America.

The prepaid energy meter is manufactured mainly in post-consumer recycled PET (polyester) from soda and water bottles designing for sustainability with plastics. This product made of recycled PET promotes also environmental sustainability and public health in a developing country like Colombia.

Why is the product innovative?

The product innovation is described as follows:

- Prepaid energy meter is an organic, streamlined and compact design allowing different colors, textures and finishes. This product emulates nature, specifically showing leaf shape.
- Prepaid energy meter has an electric field proximity keyboard and it contains lead-free electronics. This keyboard and the display are inserted in the leaf shape area
- Prepaid energy meter is manufactured mainly in post-consumer recycled PET from soda and water bottles designing for sustainability with plastics.
- Prepaid energy meter operation contributes to important energy savings since the consumers of this prepaid energy buy just the energy they need. It is even possible to buy just U.S.\$ 1 dollar of prepaid energy equivalent to approximately 24 kWh of energy supply.
- Prepaid energy meter is also a social and cultural development in Colombia, South America, since the poor people or people living in isolated areas, who are not able to pay for a constant energy supply, can buy prepaid energy by entering a code number.