

THE REPLACEMENT OF INCANDESCENT BULBS



THE CUBAN EXPERIENCE



COMPACT FLUORESCENT LAMPS.

There isn't a new technology

Consume is between 4 and 5 times less

Life hours are 5 times more.

Cost is recovered in 2 months.

Each million bulbs replaced, reduced no less than 25 MW at peak demand.

However.....

The use of incandescent bulbs remains majority

WHY?



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BARRIERS THAT LIMIT THE CHANGE.

- 1. Most of the world population live in an economy of very short term.**
- 2. The advantage of CFL are not easily of understood by the population.**
- 3. Most of Electricity Companies were not interested in saving.**
- 4. The population has very little time to prioritize the replacement of light bulbs**



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FUNDAMENTALS OF THE CUBANS METHODOLOGY

- 1. Saving energy is equal to discover a large deposit of oil.**
- 2. The change bulbs programs have to be undertaken by the Goberment.**
- 3. Change all the bulbs in each consumer visited.**
- 4. To make the changes, the population haven't to employ time neither money**
- 5. Forming a culture of saving and issue regulations that prevent the retreat.**



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- 1. Diagnostics potencial of changes.**
- 2. The Social Worker make the changes in each of consumer**
- 3. The Social Worker must be well trained and committed to the task.**
- 4. Developing a Strategic of Communication.**
- 5. To stablish a quality system to buy CFLs.**



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SCOPE OF THE CUBAN METHODOLOGY.

6. To achieve maximum savings in each bulb changed.
7. Control System which ensures that for every CFL delivered is collected an incandescent bulb and later break
8. To establish a supervision system to know how the program develops and make the necessary adjustment.
9. Develop measures that guarantee don't return to use incandescents



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APPLICATION OF THE CUBAN METHODOLOGY

1. We have applied the methodology in 16 countries including Cuba.
2. We have changed until today more than 116 million of incandescent bulbs.



COMPACT FLUORESCENT LAMPS. APPLICATION OF THE CUBAN METHODOLOGY

3. We have saved 4.5 million tons annually of fuel.
4. We have reduced CO₂ emissions by more than 8 million tons annually.
5. It has reduced the maximum demand of electricity in peak hours in more than 3980 MW.









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"We found, fortunately, something most importantly, energy saving, which is like finding a great reservoir"

Fidel, May 5, 2006