

**Institute for Decentralized Electrification,  
Entrepreneurship and Education**

**Replacement of dry cell batteries  
by  
pico PV systems**

Bengaluru 2015



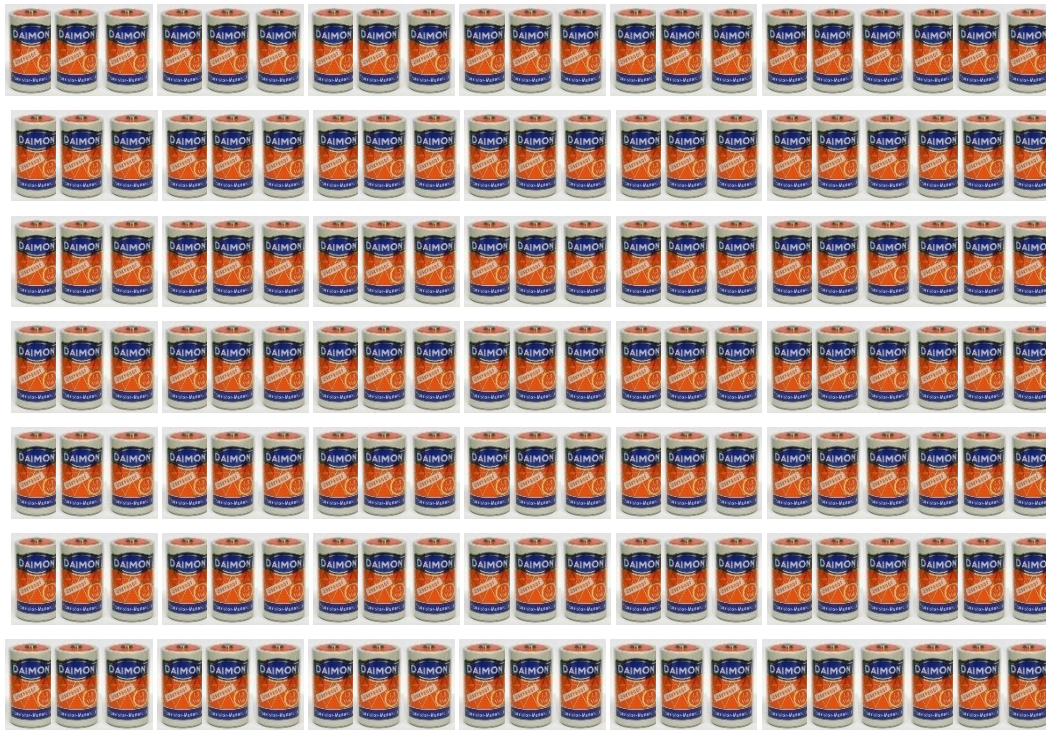
## Status quo:

- Dry cell batteries are more and more use to repace kerosene lamps
- LED lamps show medium efficiency and high degradation



## Status quo:

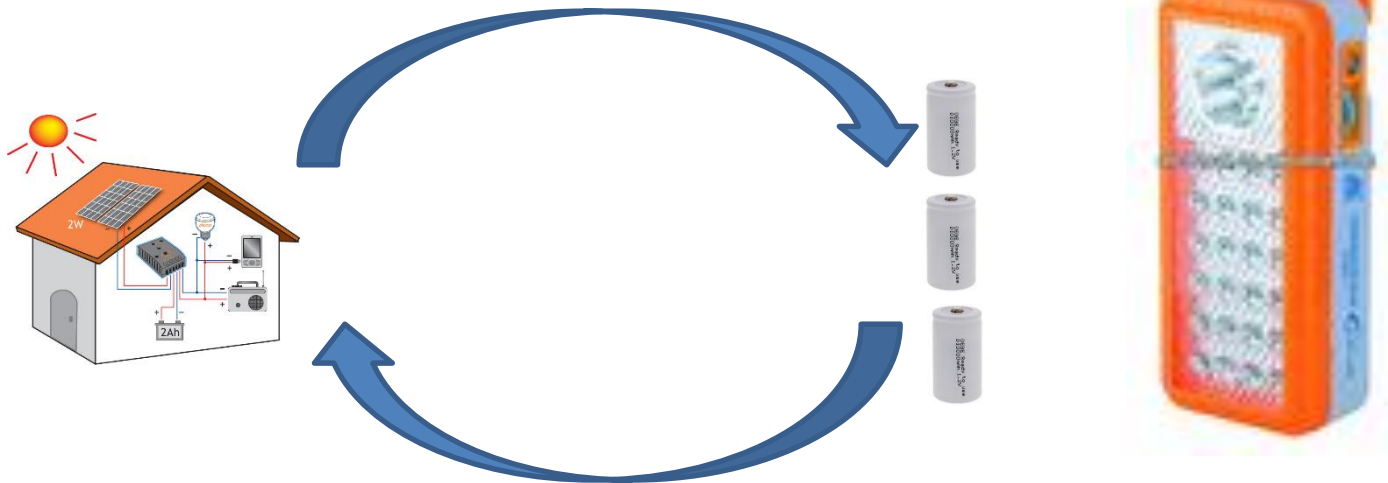
- About 150 cells are needed for each family per year
- Due to the lack of recycling all these cells end up in the soil
- Dry-cells in Africa still contain mercury!



## Replacement strategy:

### 1<sup>st</sup> Step

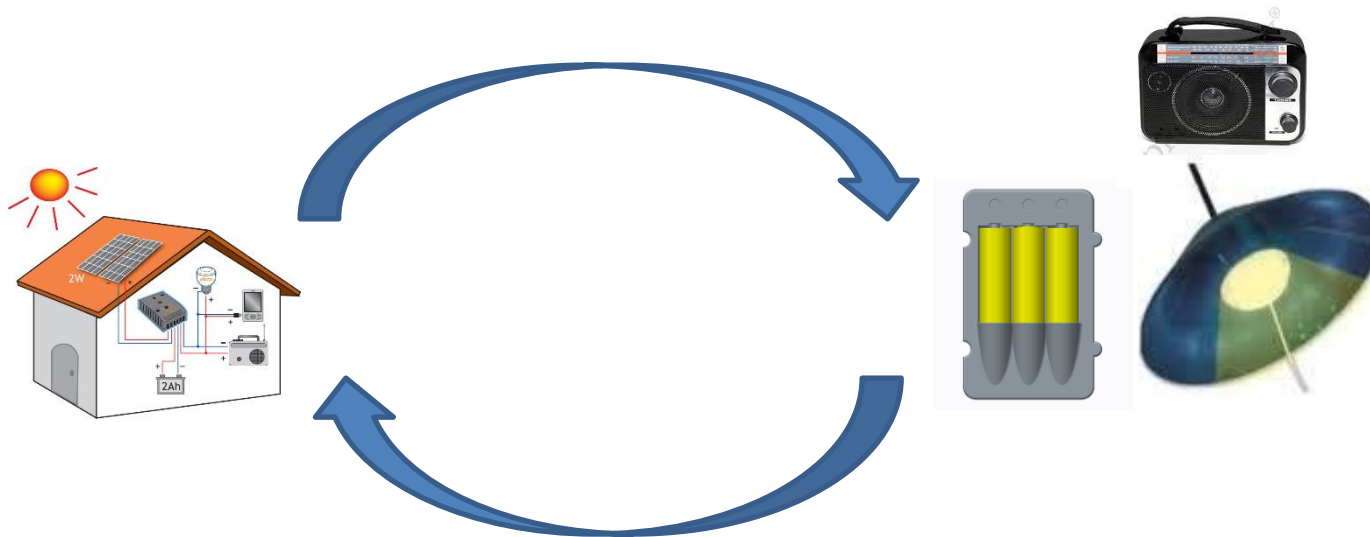
- Dry cell battery is replaced by rechargeable battery.
- Rechargeable battery is recharged in solar charging station
- Owner of charging station has 100% margin
- User pay 50% cost of dry cell battery



## Replacement strategy:

### 2<sup>nd</sup> Step

- Battery holder allow to connect improved lamp and radio



## Replacement strategy:

### 3<sup>rd</sup> Step

- **Module is added**
- **User has completely independent system**



# Thank you very much for your attention!

For additional information, please visit our homepage:

[www.id-eee.net](http://www.id-eee.net)



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