Earth Salut's You

Introduction

Early in the year 2012 the Electricity and water Authority of Abu Dhabi has launched a campaign aimed at reducing the use of water and electricity at a household level which is a crucial step towards the reduction of the total usage of electricity and water which would ultimately reduce the use of non renewable fuels . the step taken was through using green and red flagging on the utility bills which would tell the residents if they were using the utilities within sense or if they were over using them and this was sent monthly in the bills.

Hence the initiative called Earth Salut's You came on mind which is aimed at the reduction of electricity, water and gas usage at the household level but with monitoring and feedback at daily intervals to help guide the residents day by day to improve their life style and reduce their utility consumption.

The Mechanism

People get bills monthly about their utility usage, but with this initiative, daily information would be given to the residents about their usage through a display unit that could be mounted anywhere in the house preferably in the kitchen or by the main entrance of the house.

This display unit gets feedback from sensors that are implanted in the supply area of the utilities:

- Electricity: where the Electricity meter is located, a sensor is placed which is used to send information to the microprocessor in the display unit with information of the daily consumption of power
- Water and Gas, where the pipes reach the meter, sensors are implanted which also send daily feed to the microprocessor in the display unit

The display unit which is a small plasma monitor mounted anywhere in the house which receives information from the sensors through Bluetooth will display daily consumption rates of the utilities.

Average Usage

To build a baseline, the sensors first would collect data over a whole week because trends of utility consumption vary from day to day, weather, weekends and holidays therefore a whole week of data must be collected where the average would be used.

Functions of the monitor

The monitor as mentioned earlier would have a microprocessor which simply does calculations on daily basis of the consumption and compares it with the average usage and display to the residents whether they exceeded the average or they were using below average.

The reason behind using the name Earth Salut's You is because the monitor is interactive with the residents. It doesn't only display the facts, but it will also work as a motivator for them by giving them daily motivation, Ideas on how to reduce their usage, and when they have constantly been over using it would give them some sad facts related to their usage rate.

Examples:

When the usage has been below average:

- Congratulations, yesterday you have reduced carbon emissions by x percent
- You have saved 10 trees
- The ozone layer feels fresher today
- You contributed in the reduction of green house gases by x percent
- Penguins in the north pole thank you for the reduction of the meltdown

Advices could appear to help residents find ways to reduce their utility usage:

- Why don't you turn of all power outlets at your home and take the family for a day to the park
- Instead of watching TV tonight, read a book in bed with a bed lamp
- How about a barbeque today in the garden
- A candle lit dinner would be exciting

When the usage is above average:

- Your use of energy yesterday was equal to the usage of 70 houses in a village south of India
- Your water use is X times more than what a family in Africa can get for drinking only
- Your gas use is equal to burning X number of trees

Solving the problem

By trying to make an approach at the micro level which is the normal household, effective reduction of utilities consumption would certainly lead to reduction in non renewable fuel usage, this has not been proven but this could lead to at least 20% reduction because of constant monitoring and advising. At the macro level if we implement this initiative to all house holds this will definitely make a greater impact on the total consumption of utilities.

The whole mechanism, the programming and the interactive display monitor here is just a way of mimicking the Earth's responses to our actions whether it was positively or negatively affecting it but in this approach, we gave Earth the chance to respond to people on a daily basis and help guide people on how to become more responsible.