

Domestic Lighting and Inequity

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Introduction

In Argentina, the effort of the government to reduce energy consumption in residential lighting included since late 2008 the exchange of incandescent lamps (IL) by compact fluorescent lamps (CFL), Daylighting Saving Time (DST), Energy efficiency labeling lamps, and IL banning since May 2011. This descriptive study consists on a follow up of user's opinions about the impact of such measures on urban households of low and middle income and poor rural families. The aim was to identify barriers about the use of CFL and energy savings measures.

Household Survey

200 persons were approached at several zones of northwestern Argentina from 2007 to 2009 (Kirschbaum, *et al.*, 2009; Kirschbaum C., Tonello G., 2010). The questionnaires administered by interviewers at people's homes cover issues of residential lighting as: Use of premises and activities, Use and perceived benefits of daylighting, Impacts of DST, Assessment of Intrusive lighting from Outdoor lighting, Types of lamps installed, Spending on energy, Consumption of electric energy and other fuels, Opinions about CFL illumination.

Results

DST: 77% of the sample rejects the time shift due to negative impacts on mood and daily activities. Due to similar reactions all over the country, the measure was suspended in 2010. This experience indicates that DST measures could be less effective as another studies had already demonstrated (Kotchen, Grant, 2008).

IL use: 53 - 69% in urban areas and 93% in rural areas. CFL use: 30-40%. in urban households. In rural areas is irrelevant.

Non-electric lighting use: 5% in cities and 30% in rural areas (candles, kerosen lanterns)

due to frequent power outages and economic shortcomings. Intrusive light is appreciated by causing a feeling of security as well as a energy saving contribution in urban houses.

CFL lighting: assessed by 38% of the people as brighter, whiter and electrical energy saver than the IL illumination while 20% do not records improvements. 39% of a sample of 84 neighbours based the choice of CFL on energy saving.

Discussion

This survey shows explicit and implicit barriers for energy saving measures felt by the respondents as a conflict between a compulsory imposition of measures, including expensive technologies, and others more affordable and deep-rooted. Explicit are the negative impacts of DST on mood and daily life. An implicit barrier is the high initial CFL cost for low income users as previous studies pointed out (Kumara A., 2003, Reddy A., 1991). In order to include such people in the program, grants and funding policies are needed.

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