

[RAISING ENERGY AWARENESS AMONGST TURKISH HOMEMAKERS]

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Overview

In the last decade, the total energy demand in Turkey increased by more than 40%. However, Turkey can meet only 26% of its energy need through local resources. More than 95% of the oil and more than 98% of the natural gas Turkey consumes is imported. The only locally extracted fossil fuel with major reserves is lignite and it has very low quality. Therefore, increasing the energy efficiency and energy conservation in Turkey is of utmost importance to the country from both economic and environmental points of view. Domestic consumption accounts for more than 30% of the nation-wide electricity consumption and offers a huge potential for energy conservation. Traditionally, many Turkish women are homemakers and spend most of their time at home. Generally less educated compared to their working counterparts, these women however are responsible for consuming bulk of the domestically consumed energy, without proper knowledge on energy efficiency. In order to address this issue, a long term project which was funded by Profilo™, a local appliance manufacturing company, was carried out so that energy awareness amongst the Turkish homemakers can be raised.

Methods

Informatory documents (leaflets and presentations) were prepared and educational sessions were organized in 14 different cities across the country (Ankara, Eskişehir, Gaziantep, İstanbul, İzmir, Kayseri, Konya, Malatya, Ordu, Samsun, Sivas, Trabzon, Osmaniye, Düzce). Educators were trained by the content preparers. Collaborations were made with local municipalities or Ministry of Education offices to book venues and reach out to a large audience. Prior to the each session, questionnaires were filled by the participants in order to determine the initial level of energy awareness amongst the homemakers. Participants were asked a total of 20 questions out of a master list of 60, a different question set was prepared for each session. The content of the documents and the questionnaires focused mainly on the use of energy in domestic appliances as well as general energy conservation at home. The distribution of the questions in the master list with the respect to the topics (in descending order) was as follows:

- Domestic heating: 12 questions
- General domestic energy use: 12 questions
- Refrigerators: 8 questions
- Washing machines: 7 questions
- Water consumption: 5 questions
- Lighting: 4 questions
- Cooking: 4 questions
- Other issues: 8 questions

Small gifts (mostly gift checks) were handed out to randomly selected participants in order to promote participation. After the delivery of the educational content was complete, the participants were asked to take a test to see how their awareness levels changed. A total of 27,127 people participated in the project, and almost all of them were women (more than 99%).

Results

Initially, 31.3% of the participants were found to have minimal or inadequate knowledge on domestic energy conservation, 55% had an acceptable level of knowledge whereas the remaining 13.7% were found to be highly aware on the topic. Following the educational sessions, the level of awareness was recorded to increase by 13% on average. Kayseri emerged as the city in which the level of awareness was the highest whereas Osmaniye had the lowest level of awareness. Interestingly, no correlation was found between the level of energy awareness and degree of formal education received. Refrigerator was the appliance about which the participants knew the least whereas questions regarding cooking and lighting were answered corrected by a vast majority of the participants even before the sessions. Considering that refrigerators are the biggest consumers of domestic electricity, the project was a success in the sense that it helped homemakers use their refrigerators more efficiently. The change in the level of awareness approximately corresponds to an annual energy savings worth \$2,700,000 considering the participants only, a sum of \$2.16 billion if the results were to be projected to the entire county.

Conclusions

The project on increasing the energy awareness amongst Turkish homemakers is considered to be a success. It managed to reach out to an audience of more than 27,000 people, and directly or indirectly improved the lives of more than a 100,000 individuals. The outcome of the project is not only a reduction in the annual energy expenditure of the households, but also a reduction in the nation-wide electricity consumption (and thus, energy imports). Similar projects can be realized in the future by making use of digital resources to reach out to an even greater audience.

References

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