# Smart Tasca

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A project to decrease electricity consumption in Tascas



Center for Innovation, Technology and Policy Research

Centro de Estudos em Inovação, Tecnologia e Políticas de Desenvolvimento

Manuel Heitor, Carlos A. Santos Silva, Bo Wellhausen, Linda Rehnen

## Goals of the project

- Help owners of Tascas to decrease their electricity consumption
- Make the results public in the Tasca to inspire costumers to copy electricity saving measures at home
- Attract more customers

## How do we work?

- ✓ Measure electricity consumption with 2 different devices → construct an electricity profile of the Tasca
- Find out typical behavior patterns
- Interpret data and detect electricity saving potential

Frequent visits of the tascas to talk with the owners about their consumption and behavior





# Cooperating Tascas

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## Taverna do Poço

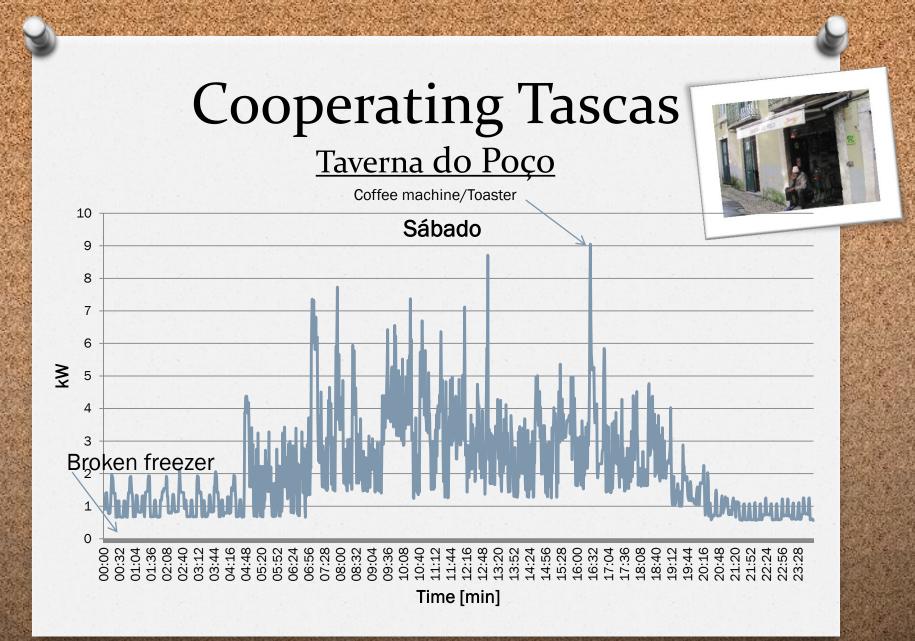
Owner: Sr. Paulo



## Cooperating Tascas <u>Taverna do Poço</u>







# **Cooperating Tascas**

## A Parreirinha

### Owner: Sr. Fernando

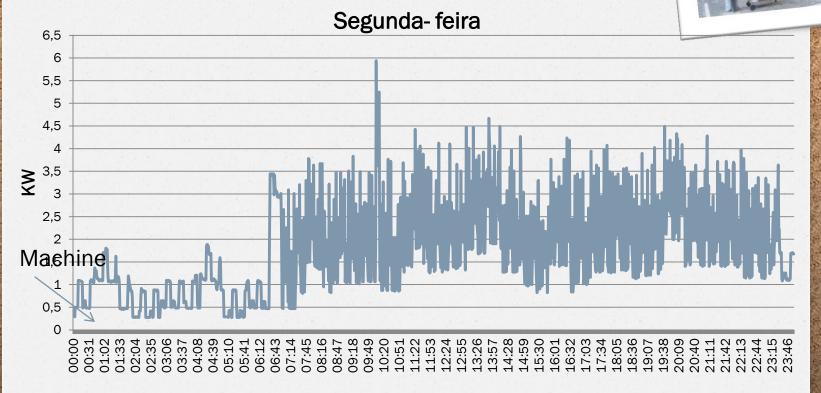




## Cooperating Tascas A Parreirinha



## Cooperating Tascas A Parreirinha



Time [min]

#### How to save energy Already implemented measures from the Owners

#### Interview cutout with the owner of "A Parreirinha"



- ✓ Cleaning and defrosting fridges and freezer
- ✓ Motion detector

Interview cutout with the owner of the "Taverna do Poço"



- Switching off beverage fridges at night
- ✓ Reduce light bulbs
- Boiler works at night (dual tariff)

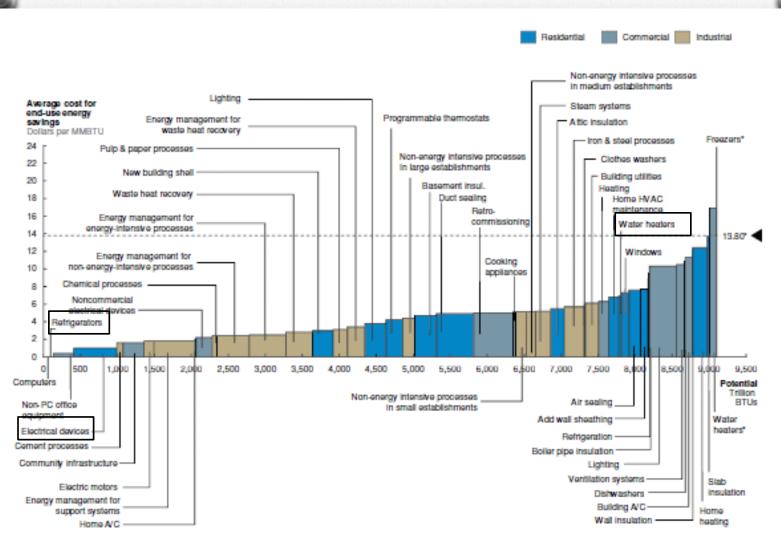
## How to save energy -Measures-

Behavior opportunities:

- Cleaning and defrosting fridges and freezer frequently
- Use special tariffs properly
- Is the device really needed at a certain time?
- Switch off stand-by devices

Technical opportunities:

- Change device
- Change electricity contract
  (contracted power, Tariff)



\* Average price of avoided energy consumption at the industrial price; \$35.60/MMBTU represents the highest regional electricity price used; new build cost based on AEO 2008 future construction costs

Source: EIA AEO 2008, McKinsey analysis



# **Raw Results**

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### Taverna do Poço

- Changing freezer can save probably 9€/month
- Switch on the boiler 3 hours later in the night can save 4€/month
- Reduce the contracted power can save 12€/month
- Around 10% savings/month

#### A Parreirinha

- Switch off not needed devices at night can save 8€/month
- More energy savings are only possible by replacing fridges/freezer
- Around 5% savings/month



Interview cutout about a detected energy saving potential with his freezer



# Special Thanks To:

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For translating and helping us during the project

# Questions/Feedback

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- Ø Would you be interested as a customer when the Tasca saves electricity?
- If there are some information about working electricity savings displayed in the Tasca, would you try them at home?
- Will you try to save some electricity at home now with this brief measures?
  - When did you defrost the freezer the last time?
  - What kind of Tariff are you using, is it the best one for you?