

Project REACH (Reduce Energy use and Change Habits)

Introduction to the household visits for saving energy and water

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- Project REACH – IEE project (March 2014 – March 2017)
- 4 partners: DOOR (Croatia), EAP (Bulgaria), Focus (Slovenia), MACEF (Macedonia)
- Project REACH is based on projet ACHIEVE
- ACHIEVE was implemented in 5 countries (France, Germany, UK, Bulgaria and Slovenia)
- **Video** about energy advising in low-income households (authors: GERES, Marseille)



- To reduce energy use in households by averagely 10 % and cutting their CO2 emissions by 200 kg/year on average – through visits of energy advisers
- Results from ACHIEVE for Slovenia:

| | | mean score | total |
|-------------|-------------------------|-----------------------------|----------------------|
| electricity | electricity (kWh) | 274.0 kWh (11,7%) | 50,967 kWh |
| | electricity savings | 39.28 € | 7,306 € |
| | electricity CO2 | 152.6 CO2 kg | 28,389 CO2 kg |
| water | water (m ³) | 17.5 m ³ (12,1%) | 3,256 m ³ |
| | water savings | 35,98 € | 6,692 € |
| heat energy | heat energy (kWh) | 554.9 kWh (5,9%) | 103,214 kWh |
| | heat energy savings | 33.61 € | 6,251 € |
| | heat energy (CO2) | 168.1 CO2 kg | 31,268 CO2 kg |
| total | savings | 108.87 € | 20,249 € |
| | CO2 (kg) | 320.7 CO2 kg | 59,657 CO2 kg |

- Good communication skills
- Joy for working with people
- Good organizing skills
- Motivation for working with people and visiting them
- Interested in energy efficiency measures and in helping people who need it
- Some technical background about electricity and heating
- Manual technical skills
- Basic mathematical knowledge
- Basic computer knowledge (Excel)



- Energy context and stakes
- Detecting fuel poverty situations
- The concept of thermal and heat loss
- Introduction to Electric Energy
- Introduction to Water and Heat Energy
- Procedure and Data Documentation
- Evaluation of savings and Installation of Saving Devices
- Lighting
- Stand-by Losses
- Household Appliances
- Water
- Heating and Ventilation
- Climate Protection and Final Examination
- Return of Examinations, Feedback and Conclusion
- Communication training
- Safety instructions
- Excel tool training

Based on: Caritas Frankfurt (2012): *Curriculum for Specialised Training – Saving Energy and Water*



| | Monday | Tuesday | Wednesday | Thursday | Friday |
|---------------|--|---|---|---------------|---|
| 9.00 – 11.00 | Introduction Climate Energy needs | Electricity Introduction Appliances I | Concept of fuel poverty | Communication | Exam/test |
| 11.00 – 11.20 | Break | Break | Break | Break | Break |
| 11.20 – 13.00 | Basic concepts Thermal comfort Heat losses Room heating Ventilation | Appliances II Lighting Lights Measures | Arrangement of the visit First visit | Communication | Discussion of the results |
| 13.00 – 14.00 | Lunch | Lunch | Lunch | Lunch | Lunch |
| 14.00 – 15.30 | Measures and costs Hot water heating Water consumption Measures and costs | Standby losses Measures and costs | Analysis of data Report Second visit Evaluation | Communication | Visit of household: group I Work on computer: group II |
| 15.30 – 16.00 | Break | Break | Break | Break | Break |
| 16.00 – 17.30 | Exercises: Heating and Water | Exercises: Electricity | Exercises: Visits of households | Communication | Visit of household: group II Work on computer: group I |



- Focus on simple and efficient ways of reducing energy and water consumption
- Understanding effects of saving measures
- Understanding invoices and bills for electricity, heating and water
- How to implement a visit in a household
- Identifying improper energy use and giving specific individual advices
- It is desirable that advisers implement a training visit in their home
- First visits should be implemented under the supervision of a mentor, until advisers are capable of doing it themselves



REACH Steps for implementation of the visits

- 1. Addressing the households
- 2. Telephone call to set the appointment with the household
- 3. First visit to the household
- 4. Data entry into the excel tool
- 5. Second visit to the household
- (6. Evaluation)



- Various ways of addressing the households
- Cooperation with organizations and institutions that work with low income households (Caritas, Red cross, Social Work Centres,...) - they can promote the service or collect applications from households
- Households can apply for the service by themselves: via telephone, mail, e-mail
- Addressing the households through media, leaflets
- Energy advisers actively promoting the service
- 'Word of mouth'



REACH Telephone call to set the appointment

- Appointment for the visit is set over the telephone. Call includes questions on few relevant data:
 - Name
 - Address (with instruction on how to get there)
 - Number of persons in household
 - Size of the dwelling and number of rooms
 - Is it a house or a flat
- From this data the adviser can approximately calculate time needed for the first visit
- Household is asked to have invoices and bills for energy and water at the first visit of adviser
- They are told to assess their time of use of various electrical equipment, light bulbs, water flowing from taps,...



- Explaining the entire procedure of the visit in the beginning
- All data must be written in the data collection sheet
- Member of household and adviser both sign a Clause on the protection of personal data
- Adviser follows the procedure as is written in the data collection sheet and starts with basic questions
- Checking invoices and bills for electricity, heating and water
- Analysing consumption of electricity and water (electric appliances measured with single appliance electricity monitor, water flow metered; households has to assess time of use for it)
- Checking windows, doors and radiators, if there are any problems (draft,..)
- Date and hour for second visit is set



- Software tool was created in Excel program by Caritas Frankfurt
- All data from the data collection sheet has to be carefully entered into the excel tool
- Apart from that, adviser has to enter saving devices (CFLs, tap aerators,...) he has selected for the household and additional notes and advices, if there are any
- The excel tool automatically calculates savings and generates report for the household and for evaluation



- Ideally, second visit should be carried out as soon as possible after the first visit
- Adviser brings a printed report and the results of the analysis of consumption for electricity and water, printed saving advices and other leaflets, and saving devices
- Adviser has to present and explain the results, give specific saving advices and install saving devices
- Household is presented with additional advices on how to further reduce their consumption, where they can get co-financing for energy efficiency measures and additional informations
- Household is informed about possible evaluation of the visit (via telephone survey)
- In the end of the visit household confirms devices were installed (or handed over) with a sign on a confirmation note

