



# European Advisory Committee meeting 26 June 2015

ESTIF

Place du Champ de Mars 2 1050 Brussels, Belgium

#### AGENDA

09:00	Welcome coffee
09:30	Overview of FROnT activities since previous meeting
10:00	Market facilitators: national surveys
	<ul> <li>Presentation of the results of the national surveys on key decision factors for consumers choices regarding their heating system</li> </ul>
10:30	Estimating RES Heating and Cooling costs
	- Estimating RHC costs: main parameters for online tool
	- Report on LCoHC: reference locations & consumer profiles
12:00	Integrated support schemes for RHC
	- Consultation on key success factors
12:30	Closing of the meeting
	- Review of recommendations & next steps
13:00	Lunch

Opening



Pedro Dias (PD) opened the meeting, welcomed the participants and asked to have a round of introduction before presented the agenda. Participants introduced themselves.

The FROnT project wants to discuss/validate/plan beyond its consortium and therefore organized national and European advisory committees that meet regularly. The EAC meet second time at this occasion.

# **Overview of FROnT activities since previous meeting**

PD provided a brief introduction on the FROnT project. One of the objectives of the project to develop an economic model to define the levelised costs of energy and based on it an online tool to calculate and make the comparison of costs visible. The tool will include the investment costs but will be energy costs based in order to provide fair comparison between different technologies and to make renewable heating and cooling technologies (RHC) attractive for consumers. Within the project key success factors that makes support scheme good are being identified as well.

Since the previous EAC meeting several milestones have been reached in the FROnT project, the results will be discussed during this meeting:

- A market survey in 5 EU countries assessing the awareness of different energy sources, was carried out;
- The trial version of the user-friendly electronic estimation tool for LCOHC (Levelized Costs of Heating and Cooling), comparing different technologies, was developed;
- The plan was developed for the consultation activities in order to validate the project's findings about the support schemes' success factors.

# Market facilitators: national surveys

# Presentation of the results of the national surveys on key decision factors for consumers choices regarding their heating system

Margarita Ortega (MO) on behalf of IDAE presented the objectives of the survey. Shared that renewable and also non-renewable energy sources were assessed in each of the 5 participating countries in 3 sectors (residential, commercial, industrial) from which the outcomes related to the residential sector will be explained in the presentation. MO summarised the sample characteristics and gave a presentation on the results in each country by comparing the outcomes of the national surveys.

The topics covered were related to:

- National data on heating systems / domestic hot water / cooling systems; comparison of these national data;
- Information resources used by the consumer in different countries; comparison;
- Key purchasing factors in the different countries;
- Knowledge and perception on RHC; geographical differences;
- Adequacy of RHC in different locations;
- "Willingness to pay" for RHC, factors in different countries;



General conclusions were drawn: consumers are generally highly satisfied with their current heating/cooling systems but would consider to change to RHC if the comfort is guaranteed and if savings can be realized. The awareness about renewable energy sources (RES) is high in Europe (between) 63-79%.

## Questions and answers on national surveys

MO shared the list of questions that were asked in the survey from the interviewees. The research methodology was elaborated by the meeting participants. It was suggested to compare the results with the already existing data sources, for instance the data of EAC members: the Buildings Performance Institute Europe (BPIE) and the Association of the European Heating Industry (EHI) can be used for comparison.

The participants highlighted that according to the survey consumers pay bigger attention to / appreciate more monthly savings than overall cost-benefit advantages and this outcome should be used to achieve the aims of the project, for example by using monthly savings instead of cost-comparison when illustrating RHC.

The role of support schemes was mentioned by giving as an example the UK where RES is more important, probably due to the wide range of supports available. MO shared that comparing the availability of support schemes and awareness on RES is one of the project aims reflected in different work packages of the project and it was also tested in the survey. However the fact that being aware of the existence of RES and having real knowledge is far from each other was highlighted by the Energy Saving Trust (EST), the project consortium member from UK.

EAC members suggested to compare the survey outcomes in each country with the current energy prices, because it can explain partially the results, e.g. in the case of Poland where the energy prices are generally high the consumers are more willing to change to RES. Project partners explained that not only the willingness but the price of the investment they would accept for changing the systems were asked as well and will be compared as the data analysis is still ongoing and more results will follow. PD shared the decision taken on the previous day during the FROnT project meeting in Utrecht, the Netherlands: the raw data will be made available for public use because it is one of the strengths of the project that it tackles the problem of lack of data on RHC. MO added that since the scope of the publication on the survey results is limited IDAE is also planning to make an user-friendly tool for the raw data.

Discussion started on the usage of the expression "district heating" because it can be misleading since the majority is not using RES but on the other hand the names of specific technologies are not known by the consumers therefore including them in the survey would be also misleading.

The purchasing criteria was further elaborated by acknowledging that consumers do not buy heating systems but they buy hot water which fact was reflected in the surveys as well: reliability was a really important factor. However it was also noted that reliability and comfort is not only dependent on the source and heating system itself but on the delivery system as well therefore comfort as a factor is not reliable.

## **Estimating RES Heating and Cooling costs**



# Estimating RHC costs: main parameters for online tool Report on LCoHC: reference locations & consumer profiles

Tomas Larriba (TL) on behalf of CREARA presented the user-friendly electronic estimation tool for LCoHC (Levelized Costs of Heating and Cooling), comparing different technologies. The tool will have an interface with separate sheets for each technology with similar template and parameters. The main focus will be given to the residential sector. The tool will provide user guidance when needed, and also assumptions when exact number is not known. The calculation of LCoHC will take into account the initial investment, the operating and maintenance costs, taxes, costs of electricity, etc. Subsidies will be included in the tool as well. Comparison with reference technology will be provided in the tool. The three main outputs of the tool are:

- LCoHC (2 values form which 1 considering the residual value; data on reference system, charts visualizing the results);
- Financial ouputs (payback time, net time value, rate of return, cumulative cash flow showed on chart as well);
- Environmental outputs (showing consumption, reduction in CO2 emissions).

TL provided a quick simulation of the tool for the EAC members and asked them to share their opinions on it.

# Questions and answers on tool

It was noted that the tool now is difficult to use and EAC members doubted that consumers will be able to fill the answers in. According to the plan the tool will be user-friendly, this version will be improved and easier to use. Guidance will be provided in the tool explaining the different data. It was also clarified that the project is focusing on awareness among consumers, tools for experts are available, this is primarily addressing end-users. The final tool will be easy to use, the excel version shown today is for validation only. The goal is not to be the most accurate tool but to help consumers to think about questions to ask from installers. A disclaimer will inform the users about this.

As it was said before comparison will be made between RHC and traditional technologies both while including/excluding subsidies. It was noted that this tool can be really powerful in advocacy since it will show to policy makers the types and amounts of subsidies that should be used in order to promote RHC successfully.

EAC members suggested to give flexibility in the part with constant data because there are national differences there as well. It would complicate the tool therefore only suggested in the case of high expert users, not in the case of consumers for instance.

The climate effect calculation was elaborated.

It was suggested to include hybrid heat pumps, gas heat pumps for industrial use.



The possibility to extend the tool's scope from residential to commercial/industrial was assessed but refused due to its complexity. As a next step after the project its development can be considered. It was also noted that the tool is not suitable for cogeneration measurement.

It was discussed whether to change the system or to make a deep renovation should be supported by this tool. It was agreed that the goal is to make information accessible, including energy efficiency issues can be a next step.

The tool will be available on the project website and also on the national website of the project partners.

It was suggested to make the calculation on the number of inhabitants, when consumer is unable to provide the breakdown of different energy uses or to use for the estimation the size of the house, asking how old is the house, when and what was renovated, etc.

# Integrated support schemes for RHC

## Consultation on key success factors

PD provided a short introduction on the report on integrated support schemes, including the key success factors (KSF) and the outcome of online and national consultations.

- KSF are features of a scheme that help reduce barriers to the deployment of RES-HC technologies
- Key success factors (KSF) are factors that characterize a scheme, making it accountable, ensuring its cost effectiveness and helping boost confidence on the RES technology supported.

The aim is to define clear goals for support schemes with clear measurable indicators.

The plans on consultation, validation activities were shared: in addition to the national level a second round of consultation will be held on the EU level with the participation of different stakeholders. An online consultation will run as well to extend the scope of the validation process.

## Questions and answers on report

Different topics were addressed including: the running costs of the schemes, the criteria of "smart" public spending, the value for money cap, etc. It was suggested to go beyond the support schemes, be holistic and ask policy makers to concentrate on the big picture when defining support schemes, promote flanking measures. It was agreed that a support scheme has to be reliable on the long-term in order to let people to plan their investments ahead and safe.

## **Closing of the meeting**

Review of recommendations & next steps



It was agreed to send the notes of the meeting after approved by the project consortium to the EAC members together with the presentations / documents of the meeting and the trial version of the tool.

The project consortium will provide update on the progress to the EAC in mid October and the next meeting will be organized in December. For the majority of EAC members Brussels will be the better location for the meeting instead of Vienna. If approved by the project consortium the next meeting will be held in Brussels again.

End of meeting.

Participants:FROnT European Advisory Committee: Arnaud Duvielguerbigny - COGEN Europe; Federica<br/>Sabbati - EHI; Gaia Stigliani – Ecuity; Gerhard Moritz - Büro für Effizienz; Jan Geiss – EUFORES;<br/>Maarten de Groote – BPIE; Maria João Carvalho - LNEG; Paola Mazzucchelli - EUREC; Paul Voss -<br/>EUROHEAT; Riccardo Viaggi – EBC; Sander Lensink – ECN; Sergio Diaz de Garayo - CENER;

Project partners: Andrew King - EST; Eva Flora Varga – ESTIF; Gundula Tschernigg - AIT; Joana Fernandes – ADENE; Johannes van Steenis – NL Agency; Luca Angelino - EGEC; Margarita Ortega – IDAE; Tomas Larriba – CREARA; Nathalie Hemeleers - AEBIOM; Pedro Dias - ESTIF; Stefano Lambertucci - ESTIF; Susana Fonseca – QUERCUS

Files:

- FROnT\_WP4\_SURVEY-IDAE\_EAC Meeting.pdf
- Consultation-RHC\_support\_schemes-KSF-Initial\_draft\_June 2015.pdf
- FROnT EAC meeting\_Estimating RHC Energy Costs.pdf
- FROnT\_WP2\_Sup.schemes&KSF.pdf
- FROnT-WP3-LCoHC.pdf
- CREARA\_FROnT\_RHCcost\_tool\_V8.3.xlsx
- FROnT\_D3 1 Partial Report\_elaboration of a cost estimation methodology.pdf