

Project leader



Partners



REFUND +

Qualitative assessment of direct fiscal measures

Study of the Belgian case Interviews with consumers

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I. Context and Objectives

1. Context

The tax allowance for the 8 energy saving measures were taken by the federal government as one of the different measures to reach the Kyoto goals. One of the energy saving measures is the replacing of old boilers on oil fuel. By replacing these old boilers by high efficient condensing gas or RES-boilers, the federal government hoped to save 30% of CO₂ emissions, less NO_x and almost no SO₂ emissions in residential buildings.

The tax reduction system for energy saving measures in a residential dwelling was approved by the federal government and published on the 20th December of 2002 in the royal resolution 'tot wijziging van het KB/WIB 92 inzake de belastingsvermindering voor energiebesparende uitgaven in een woning' (Income Tax allowance for energy saving investments in a residential dwelling). 7 types of measures were permitted for fiscal reduction:

1. Replacement of an old central heating system by a new condensing boiler, wood boiler or heat pump.
2. Energy audit
3. Solar thermal appliances
4. Photo Voltaic appliances
5. Higher isolating windows
6. Isolation of roofs
7. Regulation of central heating system by programmable thermostats, thermostatique valves or exterior temperature sensors

15% of the expenses of investments in energy saving and RES measures could be deducted from the net taxable income (tax base) for the measures 1,3 and 4. 40% was applicable for the other measures. Expenses (15-40% of the investment) up to the annual amount of 500 € for new dwellings and 600 € for renovation of building were eligible in 2003. The 15-40% of the tax measure is the amount of tax reduction that everybody who pays taxes can receive. The tax reduction is not depended on the marginal tax rate. The reimbursement of the tax can never be more than the total sum of the tax to be paid. If the consumer doesn't have to pay taxes, no reimbursement is given. The reimbursement can not be combined with other investment tax reduction or with professional tax reductions.

The amount can be declared by households for investing in the equipment and installing cost of the different measures. This amount is for the total sum of all the measures.

The tax allowance is implemented since 01/01/2003. Before 2003, tax measure was never implemented for RES or energy efficiency sector.

On the 23rd of June 2004 the legislation changed (Artikel 145 24 Wetboek van de inkomstenbelasting 1992). The first important change was the introduction of an 8th measure: Installation of the heat pump. This change was important because from that moment also new dwellings could apply for the fiscal tax reduction for heat pumps without the condition of changing an old heating system by a heat pump. A second important change was the level of 40% that could be recovered for every measure. Other changes were the technical conditions of the measures who were adapted at the state-of-the-art technology.

During the following years after 2004 the most important evolution was the amount of expenses that could be declared. This maximum ceiling increased over the years. The maximum was a fixed amount in 2006: 1280 €. In 2007 it will be 2600 €, with a special treatment for solar thermal appliances and photo voltaic appliances were 3380 € can be declared (approved by the 'Programmawet 2007'). Next to this, the equal treatment of new and renovation of building was another important evolution in the legislation. The last evolution is that next to the replacement of an old boiler also the cost of the maintenance of a boiler can be recovered.

The conditions of eligibility for all fiscal energy saving en RES measurements are the following:

Before 2005 the person has to be the owner of a residential unit, since 01/01/05 the person can also be a tenant. The installation has to be done by a registered building contractor.

- For replacing an old boiler by a new wood boiler, the wood boiler has to fulfil the norm EN 12809, it has to be a boiler with automatic filling of the non-treated wood or pressurised wood dust. The nominal useable efficiency has to be minimum 60% following the norms 303-5.
- For solar boilers the conditions are the following: the panels have to be installed between east and west direction via the south, the inclination of the panel has to be between 0° and 70° recording to the horizon, measurements has to be taken to minimise the risk for contamination of legionellose. The solar boiler can not be used for heating of swimming pools.
- The conditions of eligibility for a heat pump are the following: The heat pump has to have the EC-label and the pump has to have a minimum COP of 3.

There is no restriction on the fact that the technology is made in Belgium or an imported installation from abroad. There are no restrictions of that kind. The only restriction is that it has to be installed by registered building constructor.

2. Methodology

The fieldwork was done by subcontractor KHK (Katholieke Hogeschool Kempen). Caroline Bonroy coordinated the interviews, co-workers Lin Hoebeke and Peter Verelst. Nathalie Devriendt from VITO supervised the work done by the subcontractor.

The targeted population were households that invested in renewable energy at home: a solar boiler, a heat pump or wood boiler. Only households that used the financial fiscal measure were interviewed.

15 qualitative interviews face to face were done by KHK at the households at home. The length of the interview varied between 45 min and 1,5h depending on the comments the different interviewees had.

The guidelines provided by the coordinator Oberv'ER were the basis for the interviews. Some specific questions regarding the Belgian situation were added. Specific attention went to the following questions:

- In Belgium there is a combination of premiums given by regions, municipalities, districts or energy companies and the fiscal measure. Interviewees were asked to explain their experience with the different measures and systems. Questions were raised what the advantages and disadvantages are from the different systems.
- The fiscal measure in Belgium is not only given for renewable energy production systems but also for other energy saving measures. More specific questions were raised during the interview regarding the interaction between the different energy saving and renewable energy measure for the same application of the fiscal measure.
- In WP2 the preliminary conclusion was raised that people first invest in energy-saving measures before going further to renewable energy production (cfr. Trias Energetica). In the questionnaire people were asked if they invested/ have already isolated roof and double glazing in their dwellings.

For the collection of the interviews 2 main pathways were followed:

- A mailing was sent to all the co-workers of VITO and KHK. In this mailing people with renewable energy production installation were asked for their cooperation. Also it was asked if they know other family and friends with renewable energy systems.
- Contact with installers of the focus group discussions of the different systems led to more contact details of households.
- Search on the internet of promotion organisms, examples of building cooperation's, etc. were contacted.

The last 2 pathways resulted in very few contacts because cooperation's were bounded to the privacy law and were not allowed to give contact details of their members or clients.

Interviews were taken from the 3 main regions of Belgium: Brussels, Flanders and Wallonia. The repartition between the different types of renewable energy system was done in relation to the installed installations of the different renewable energy systems in Belgium. Most of the interviews were done of households with a solar boiler, followed by a heat pump and the smallest group was the woodboiler sector.

3. Population Sample

In the following table the identity data of the interviewed people are summarized.

Id Number	Interviewed people	Familial situation in the habitation	Professional activity	Renewable energy solution	Postcode	Town	Year of purchase
1	Male, 60 years	Couple, children left house	Employee	Solar boiler	3271	Averbode	2006
2	Male & female	Couple, 2 kids	Employee (economic background)	Solar boiler	2240	Zandhoven	2007
3	Male & female	Couple, 2 kids	Independent & employee	Solar boiler	3201	Langdorp	2003
4	Male	Couple, 2 kids	Employee	Solar boiler		Chisné	2006
5	Male, 37 years	Couple, 3 kids	Employee (IT)	Solar boiler	2450	Meerhout	2007
6	Male & Female	Couple, 1 kid	Politician & governmental employee	Solar boiler		Brussel	2004
7	Male & Female	Couple	Employee	Heatpump	2220	Heist-op-den-Berg	2005
8	Male	Couple	Agricultural Engineer	Heatpump	2990	Wuustwezel	2006
9	Male & Female	Couple		Heatpump	2990	Wuustwezel	2003
10	Male	Couple	Civil engineer & physiotherapist	Heatpump	6220	Fleurus	2005
11	Male	Single	Translator	Pellet boiler	1000	Brussel	2004
12	Male	Couple, 2 kids	Engineer	Pellet boiler		Meux	2006
13	Male & female	Couple	Retired	Pellet boiler	2980	Zoersel	2007
14	Male	Couple, 3 kids	Independent IT	Solar boiler	1160	Oudergem	2007
15	Male & female	Couple, 1 kid	Accountant	Heatpump	4780	Sankt-Vith	2007

II. The Purchasing process

1. Profiles and their motivations for RES

Different motivations of buying RES are given by the interviewed people. Most important arguments are the following:

- environmental concern (15/15)
- energy saving (2/15)
- independent from fossil fuels (5/15)
- technological interest (3/15)
- economical profitability (5/15)
- free of maintenance (heatpumps) (2/15)
- independent of rising fossil fuel prices (4/15)

In most cases it is a combination of arguments to choose for a certain renewable energy system:

For example:

"We have chosen for a solar boiler, first of all because of the energy saving we can do with it but also because we are 'light green' minded people, no 'dark green' but still concerned about the environment." (Interview 1)

"We wanted to be less dependent of fossil fuels that was 40% of our argument and 60% is because we need to do something for the environment." (Interview 2)

The arguments are also different following the different renewable energy systems.

For solar boilers the most given arguments are:

- energy savings possible with a solar boiler (1/7)
- the profitability of the investment (2/7)
- the environmental engagement (7/7)

A solar boiler is the RES-technology with the lowest threshold for the broad public and this can be also found in the answers: arguments like energy saving, profitability (investment is the lowest compared to heatpump and woodboiler) and environmental engagement are combined with this technology.

For heat pumps there is a slight other accent of coming to the decision of choosing for this RES technology. The first step in the whole purchase process is the practical situation that there is no gas-connection available for their dwellings. Conventional solutions if a gasboiler is not possible, are a heating system on fuel oil or electricity heating. The option of using the fossil fuel oil is not taken because of the possible leaking of the tank (3/5), the not optimal burning of the fuel oil. Those dwellings are mostly situated in a more remote site and are chosen because of their bond with nature. Electricity heating is not efficient, so the search for an alternative system with a clean fuel and less electricity consumption starts and a solution is found in the heatpump technology.

"There is no connection to the gas grid, so only options were electricity or fuel oil ... a heatpump is environmental friendly, we have the space to install it. We are independent of fossil fuel." (Interview 7)

The interviewed people who invested in a pellet boiler, are people who are very concerned about the environment and already have taken all possible steps to be in-line with their ecological philosophy. A pellet boiler is the last step. They already invested in all possible energy saving measures, also installed a solar boiler (3/3) and the last step is installing the pelletboiler. Installers of a pellet boiler are also pioneers, because the technology is still very badly known in Belgian and they have to go a whole way to find the right information.

"I'm half German, I read a lot of eco-magazine and I know pelletboilers from Germany and Austria ... I wanted something completely ecological, totally independent from fossil fuels. ... I decided to install a solar boiler and the installer also had a pellet boiler so,"
(Interview 11)

So if we want to divide the interviewed people in different groups, than we can find the following types:

- **The group of ecologist:** They have a great environmental consciousness and a real will to act. They try to adopt a way of life in accordance with their convictions. The installation of this kind of equipment is a way to act. People investing in pellet boilers are mostly concentrated under this type of people. (6/15)
- **The group of technological interested people:** People who manifested a personal interest for technical innovations (men with a technical or engineering background often). They also want to be more independent from an energetic point of view. Interview 12: 'I have chosen for pellet heating system because of my interest in biomass-to-energy applications, I started to work in research of wood gasification, their the interest grow, now I switched jobs to a pellet boiler producer.' (2/15)
- **The group of cautious people:** People belonging to middle class and for whom renewable energies is a possibility to protect them from deregulation on individual energy market. Environment is important for them but it has to be profitable too. A lot of these category can be find in the interviewed people of the solar boilers. (6/15)
- **The group of engaged (political) people:** In one interview of a solar boiler there was especially the will to be the 'good example' because of the engagement the couple had as politician. They have an active contribution in society and really feel responsible for implementation of ecological issues. Interview 6: 'We are convinced of the necessity of renewable energy ... also via my political action I'm involved in it.' (1/15)

2. Context of the purchase

The different contexts of the purchase discussed in the different interviews were the following:

- complete renovation of the house or even building a new house (10/15)
"We did a complete transformation of the house, we changed from a 3 front house to a two front house. Isolation of roof, walls, new windows everything was done at the same time." (Interview 6)
"The house is completely broken down and a new one is rebuild." (Interview 7)
"The place used to be a forge, a farm, ... It used to be a working place. Now it are sleeping rooms, a living room and a kitchen." (Interview 15)
- Need to change the boiler (2/15)
"I had a gasboiler of 15 years old and needed to change it." (Interview 11)
- Expansion of their existing installation. (3/15)
"When Is was building my house in 1997 I already wanted a solar boiler but there was no financial space for it, so in 2007 I had the budget and installed a solar boiler together with photo voltaic system." (Interview 2)

Especially for the heat pumps the first context is the most important one. This is linked to the technology because a heat pump has to be combined with an adapted heating system in the house (floor heating) and is done only with major renovations or with the building of a new house. This can also be seen in the way prices are given for heating pumps namely always the complete installation outside and inside.

Solar boilers can profit more from the third purchasing context and are possible as an expansion of the existing heating installation. This because of the kind of technology.

3. Time and steps of the purchasing process

Depending on the type of RES-installations and the context of the purchase the lead times between the idea of a RES and the effective installation is different.

The lead time for **solar boilers** can be short especially if it is not part of a complete renovation of the house, but an additional installation as energy saving measure for their conventional heating and tapwater installations. Times of 4 months till 1,5 years are mentioned in the solar boiler interviews.

"End of March we visited the installer of the solar boiler and in july the solar boiler was installed." (Interview 1)

The technical information about solar boilers was easily found by the people who are interviewed. Most information was collected via internet, building fairs and also most people were very pleased with the technical information they received from their installers.

For **heat pumps** the process is taking longer (till 2,5 years) and already starts with an architect at the planning time, this because heat pumps are mostly combined with a complete renovation or new building of a house.

"We did a complete renovation of the house in 2007 ... our architect calculated our house with an Energy-level of 57 (reference is 100), quite exceptional, so we calculated if a heat pump was feasible with this low energy consumption." (Interview 8)

"November 06 we asked for an offer and a year later the pump was installed." (Interview 15 had a short lead-time)

Technical information about heat pumps was collected by the interviewed people on building fairs, given to them by their architects, internet was also a source of information and also recommendations and information was provided by friends.

In the case of heat pumps specific calculations were made in comparison with the use of a conventional fuel oil installation.

"We let an installer of a conventional fuel oil installation do the calculation and he gave us a price of 10.000 € for a complete heating installation with tank. This was our reference situation ..." (Interview 8)

Wood boilers have also very long lead times, this not because of the purchase context but more because of the unknown technology in Belgium and the difficulties to find the right technical information.

"It took ages between the idea and the installation of the pelletboiler. It was very difficult to find someone that knows pelletboilers. I first tried the regular installers of boilers but they didn't know pelletboilers ... finally I took directly contact with the Austrian producer of pelletboilers myself to have the right technical information ... via friends I found an installer that never installed at pelletboiler before but was willing to do it, but he was not convinced of the ecology argument and probably never installed a pelletboiler afterwards either..." (Interview 11)

4. When did they hear about the fiscal measure for the first time?

Two groups of people can be distinguished in the group of interviewed people:

- The first group who are people that heard about the fiscal measure for the first time from their installer once they were already convinced of the purchase of a RES technology. This group is also the group of early adapters of the technology. (5/15)

"We heard the first time about the fiscal measure from our installer." (Interview 7)

- A second group knew about the fiscal measure from the start. (10/15)

"We knew about the fiscal measure out of the newspaper." (Interview 1)

"We are accountants it's part of our job to know these things. We knew this as soon as it was published in the legislation." (Interview 15)

5. Source of information

A wide source of channels were used for finding the right information but the most important channels are the following:

- internet (9/15)
- building fairs (7/15)
- installers (6/15)
- municipalities (2/15)
- friends or family (3/15)
- newspapers (4/15)
- architect (2/15)
- brochures (1/15)

Especially the building fairs are very important for most of the interviewed people, here they found the technical information they needed about the RES-application. A lot of them also had the first contact with their installer, followed by a visit to their house and than the decision to buy the system.

"I have been already a loyal visitor of the building fair 'Batibouw' for the last 25 years ... just go once a year to that fair and you have all the information you need." (Interview 4)

Information about the fiscal measure was mostly found through the Internet and brochures.

"We read about the fiscal measure for the first time on the GEDIS-internet website." (Interview 9)

6. Relations with installers

The two types of consumers were present in the group of interviewed people. People that only had one offer and already decided to install the renewable heating system

"We went to the open-days of a solar boiler company and decided there." (Interview 1)

"A friend had a heat pump installed, we contacted one installer, we didn't make a lot of considerations, ..." (Interview 15)

People first collecting 3 to 4 detailed offers before deciding which type to choose from.

"We went with 4 installers to a detailed quote." (Interview 8)

A critical point that a lot of the interviewed people mentioned was the fact that in the beginning of a 'new' RES there are very few installers. For solar boilers this problem is in the meantime solved.

"There are a lot of new installers for solar boilers." (Interview 1)

For heat pumps it was possible after some search work to find different installers.

"It isn't a big sector, the number of installers is limited, ..." (Interview 15)

For pellet boilers the pioneers had a real hard job to find the installers. For pellet boilers the pioneers still have to search hard for the right installers.

“If you can read German, you can find a lot of information on the Internet. I worked with company X, from Austrian origin and active in France.” (Interview 12)

Consumers also rely on recommended installers by family, friends or neighbours.

“Friends of us who were also building and took that system and he who is an engineer did all the calculations of the different systems.” (Interview 7)

7. Conclusion on the part

In the group of interviewed people, 4 groups can be distinguished namely the ecologist, the technical inspired people, the cautious people and the (political) engaged people. Those four groups have preferences for different renewable energy system.

The context of purchasing is also differing following the RES-system. This is related to the typical technical characteristics of the technology. Also the stadium of the RES-technology in a country is important for the partition between types of consumers, purchase context and lead times between idea, purchase and installing is also evolving with the stadium of the technology.

Out of the interviews with pelletboiler consumers it can be learned that this technology is at the beginning in Belgium and mostly ecologist are investing in this technology and the search between idea and installing is a long way to go.

III. Role of the fiscal measure

1. Relations with sellers

I - 1. Did they use it as an argument?

The relations with the sellers and installers are in most cases good. Most of them did use the fiscal measure as a selling argument.

2. Calculation of the investment and positioning of the interviewee in accordance with calculations

Most of the interviewed people (11/15) made calculations on the investment or let the installer/seller made the calculations. In the group of ecologist less detailed calculations were made than in the group of cautious people, logical following there arguments of changing to RES.

Important parameters that are calculated are the following:

- pay back time
"I made an excel sheet with the calculations ... I calculated a pay-back time of 7,8 years."
(Interview 8)
"We calculated the pay back ratio based on the COP." (Interview 15)
- ratio investment cost versus premium + fiscal measure:
"A ratio of 2,5 on 4 including fiscal measure and all premiums of the different authorities, ..." (Interview 2)
- difference with conventional fuel
"We let an installer of a conventional fuel oil installation do the calculation and he gave us a price of 10.000 € for a complete heating installation with tank. This was our reference situation ..." (Interview 8)

Depending on their context of purchasing different choices for different RE-systems were made. Especially for solar boilers the interviewed people had already the idea of installing it when they were building the house but the budget was at that time too small.

"I'm following the renewable sector already since 1997, we built in that year but didn't had the financial space to invest in renewable energy. Now 10 years later it was possible." (Interview 3)

Some of the heat pump users are already dreaming of a next step and want to install Photo Voltaic panels to make their own electricity to foresee there pumps of the compressors of the heat pump.

"My dream is that once I can produce my own power to provide the pumps of the compressor." (Interview 8)

"We still buy electricity but we're going to install photovoltaic panels to cover the electricity needs." (Interview 15)

Out of this reasoning those parts of these people want to go further in the pyramid of sustainable energy supply.

3. Function of the credit tax

Depending on the renewable energy system and the cost of it combined with the different roles of the interviewees the function of the credit tax was different.

For the cautious people the tax credit was the starting point and solar boilers profited most of it.

For the heat pump the tax credit was more a reassuring role. *"If the government is supporting this technology then it must be good and environmental friendly"*. The ratio of the fiscal measure in comparison to the total cost of the installation was not of the same range as for solar boilers. *"The fiscal measure did play no role in the decision making process."*

The woodboiler sector does not profit completely from the fiscal measure because only when replacing an old boiler, people can make use of the fiscal measure. The fact that a wood boiler is easier and more practical to install in a new building than in a renovation combined with the fact that at this moment most ecologist (3/3) are choosing for this technology, the function of the tax credit for this RE-technology is rather marginal (more information on this theme in the report of the focusgroup discussions).

4. Conclusion on the part

The function of the tax credit is related to the renewable energy technology (ratio investment/fiscal measure) and the role of the consumer (ecologist, cautious people).

IV. Routes for improvement

1. General level of satisfaction expressed by the interviewed consumers

The implementation of the measure was for almost everybody very simple and straightforward (13/15), no problems occurred with filling in the tax letters. The consumers received from their installers a simple document with all the necessary information that they send as proof of their investment together with their tax letter. No refused fiscal measures were detected in the group of interviewees.

"I searched my information about the fiscal measure on the internet. Everything was very clear, my installer filled in a paper declaring that he fulfilled all necessary technical requirements following the Royal Decision (law) and that was it." (Interview 9)

"The fiscal measure was no problem, for the Regional Walloon application it was more problematic." (Interview 15)

2. Understanding of the measure

If the interviewed people were asked to explain the fiscal measure, they could explain the most important parts of it, but nobody could answer in detail.

The ceiling of the measure was clear for the interviewees, the percentage of the investment made was also clear. The technical requirements were not well known, most people knew that the installers had to be recognised but for the rest of the technical conditions the consumers relied on their installers.

It was not always completely clear for the consumers if the fiscal advantage was given as a reduction of their income (false: 2/15) or of reduction of their taxes to be paid (correct). The most important thing for Belgian people is that they pay less taxes. During the interview people were also asked if they used subsidies and the amount of subsidies was better and more precise known than the amount of the fiscal measure.

"The Walloon region gives 1750 € for a pelletboiler, the fiscal measure is 40% of the total investment that I could bring in, I have to search how much it was," (Interview 12)

"May be people like more the system of premiums because they are more visible. With premiums you receive a clear amount, with taxes it not so visible." (Interview 15)

Most important part is that the consumers did know enough to use the fiscal measure. In most of the cases the ceiling was the limiting factor of the amount that could be claimed so there was no necessity to go into details in the invoices of the investment.

3. Critics from the consumers and possible improvements

The following critics were heard during the interviews:

The fiscal measure is for eight different energy saving and renewable energy measures. If you are in a context of a complete new construction of a house or a complete renovation, all these measures are implemented at the same time and the ceiling is for all the measures together. It is not possible to use the fiscal measure for the double glazing, the isolation of the roof, the RE-system because the ceiling is already reached with one measure. Despite the investments you did in all these measures, you can only use the fiscal measure once and not spread it over several years. (6/15)

"It would be better that a separate ceiling for each fiscal measure was implemented,"
(Interview 7)

Another comment on the fiscal measure was that you need to wait for 2 years before you have the money back. (2/15)

"The only disadvantage is that you have to pay it first yourself and only receive it back after 2 years." (Interview 6)

An important issue that was raised is the fact that if you don't pay taxes you can't take advantage of this measure. By many interviewed people this was perceived as socially unfair because people with a low income are the ones with the highest problems of paying their energy bills. (5/15)

"... or they have to less income and can't make use of the measure." (Interview 6)

A suggestion made by some of the interviewed people was that the ceiling of the measure should be a gliding parameter in function of the effort for energy saving and the efficiency of the measure. Not only for the RES-measures but also for the energy saving measures. One interviewee would even go so far that a RE-system is only eligible if the house has already implemented enough energy saving measures (roof isolation, double glazing, etc.) before going to the next step or coupling the ceiling to the CO₂- saving of the implemented measure.

"... a ceiling that can be raised depending on the amount of isolation used in the ceiling 4 cm, going higher if 8 cm, etc. ... " (Interview 5)

"... if you invest in an installation with less CO₂ the government should pay you because they need there CO₂-reduction." (Interview 12)

4. Opinion of the consumers on installers

In most cases the consumers are satisfied about the installers especially with the information about the fiscal measure. There were more problems with getting enough data from installers to fill in the paperwork for the premium of the different authorities and in some cases with the after-care of the installations.

No side effects of the fiscal measure were detected during the interviews.

5. Conclusion on the part

The Belgian people are pleased with the fiscal measure, they find it an straightforward and easy way and a good manner of the federal government to give support to energy saving and renewable energy systems. Nevertheless some improvements can be made: the fact that it is a ceiling for all measures together not possible to spread it over more years in time and the fact that it is not a very social measure for those who are not paying taxes.

V. Specific Belgian issues addressed

1. Mix of subsidies and fiscal measure

During the interviews questions were also raised about the premiums used for the RE-systems. All of the people used AND the premium system AND the fiscal measures (15/15).

Advantages of the premiums were:

- the lead time to receive the money is shorter
- the amount of the subsidies is better known

Disadvantages of the premiums were:

- premiums are not predictable: one year there are subsidies, the following year not, authorities decide in relation to their budget space they have but consumers can not rely on that.
- premiums are different for every region, district and municipalities: differences in amount of the premium, in the technical conditions, in the eligibility of RE-systems
- less premiums but higher amount would be a more efficient way to push the renewable energy sector

"All municipalities should make arrangements to implement the same premiums ... municipalities decide from year to year, than they implement it, the other year not, as consumer you can't rely on it." (Interview 7)

"You have premiums for this and that ... and from this and that authority, it is normal that some people don't see a beginning to it anymore. It would be more practical to give them a personalised log-book with the premiums they have the right for." (Interview 8)

2. Fiscal measure also for energy saving technologies

The fiscal measure in Belgian is not only given for renewable energy production systems but also for other energy saving measures.

As already explained in the critics and improvements consumers ask to have separate ceiling for the different measures and/or to give the possibility to spread the fiscal advantage over several years even if the investment is done in the same year.

3. Trias energetica

In WP2 the preliminary conclusion was raised that people first invest in energy-saving measures before going further to renewable energy production (cfr. Trias Energetica).

An extra question was raised if people already had double glazing and an isolated roof. In all the interviews this was the case (15/15).

More arguments to support this preliminary conclusion of WP2 is the fact that in a lot of interviews people are explaining that the investment in an RE-system is the part of a complete renovation, building process where energy saving is as important as the RE-system, or that the RE-system is the last step of the complete renovation/building process. Also the will to go one step further in the pyramid of sustainable energy supply, is mentioned in some interviews. For example 3 interviewed people of the pelletboiler (interview 11 and 12 and 13) already invested in a solar boiler. Another example is interviewee 3 who installed a solar boiler and photovoltaic panels at the same time.

"I'm following the renewable sector already since 1997, we builded in that year but didn't had the financial space to invest in renewable energy. Now 10 years later it was possible." (Interview 3)

"My dream is that once I can produce my own power to provide the pumps of the compressor." (Interview 8)

VI. Conclusions and recommendations for the interviews analysis

The most important conclusions and recommendations for the interview analysis is that the fiscal measure has a different influence on the different renewable energy systems according to their technical implementation parameters but also related to the group of consumers that are choosing for the technology.

Important differences can be seen between the solar boiler where a bigger part of the interviewees are “cautious people” convinced by a combination of economy and ecology and installing a solar boiler as an addition and energy saving measure on their conventional heating system.

This in comparison to the ecologists who want to be completely independent from fossil fuels and choose for the pelletboiler.

Interesting routes for improvement are made during the interviews like making a ceiling per measure and/or make it possible to spread the fiscal advantage over several years. Also the social inequity of the fiscal advantage was addressed. For these two improvements it can be interesting to see how countries like France deal with this issues.

ANNEX: Translated Guidelines for Interviews

Introductie (15 min)

Presentatie interviewer

Geheimhouding / opname (alle interviews moeten opgenomen worden maar stel hen gerust dat het alleen is om niets te vergeten + de interviewer neemt notities tijdens het interview, het versneld de analyse, anders dan het hele interview te moeten neerschrijven achteraf.

Introductie van het onderwerp: *“Uw aankoop van een installatie met hernieuwbare energie...”*

Voorstelling van de geïnterviewde (familie, beroep, hobby's en interesses).

Kunt u uw huis beschrijven (aantal kamers, oppervlakte (m²), bouwjaar van het huis, datum van renovatie, hoeveel inwoners,) Sinds wanneer woont u al in het huis? Staat van het huis (dakisolatie / dubbele beglazing / regeling van centrale verwarming met programmeerbare thermostaat, thermostatische kranen of buitenvoeler / energie audit)

Beschrijving van 'uw hernieuwbare energie systeem': Wat hebt u geïnstalleerd? (eerst spontaan, indien niet vernoemd, vraag naar merk, geïnstalleerde capaciteit (kW), functie en gebruik, aanvullende energie die gebruikt wordt (gas, elektriciteit, olie,...)).

Het aankoopproces van de installatie op spontane basis (20 min)

De geïnterviewde wordt gevraagd om een spontane indruk:

“Vertel me hoe je tot de keuze van uw hernieuwbaar energie systeem komt sinds het begin dat u er aan dacht tot het moment van aankoop?”

Welke vragen hebt u zichzelf gesteld, de contacten die u gemaakt hebt, de mensen met wie u gepraat hebt, de keuze of trade-offs die u gemaakt hebt zodat ik een beter idee kan krijgen over wat u gedacht hebt tijdens het aankoopproces?”

In deze fase, vraagt de interviewer na zodat de geïnterviewde verder gaat met zijn verhaal.

Doel van de spontaniteit: (not to distort, through precise questions asked from the start which reflect the interviewer's grid of analysis, the collection of information regarding ideas, people and motivations that played a major role in the choice.)

Vraag dan naar volgende onderwerpen:

Wanneer begon het aankoopproces / Datum van installatie van het systeem

Mensen en factoren die de keuze van het RES systeem hebben beïnvloed: Architect, bouwmeester, vrienden, de wil om geld te besparen, persoonlijke overtuigingen en milieuzorg, stijging van de fossiele brandstoffenprijs etc....

Redenen voor de keuze van dit RES systeem Specifiek: Installateur / Besparingen / Persoonlijke overtuigingen en milieuzorg / Andere

Waarom deze oplossing en geen systeem gebaseerd op conventionele energie?

Waarom de keuze voor dit systeem in plaats van een ander hernieuwbaar energiesysteem? Heb je de andere ook overwogen?

Diepte bevraging over de financiële aspecten van de aankoop (25 min)

U weet dat er in België een belastingsaftrek is voor investeringen in energie besparende maatregelen sinds 2003 waaronder ook hernieuwbare energie verwarmingsinstallaties.

Hebt u gebruik gemaakt van deze belastingstoelage voor uw hernieuwbare verwarmingsinstallatie?

Wanneer hoorde u voor de eerste keer van deze fiscale maatregel?

Van Wie?

Waar?

Welke informatie?

In welke omstandigheden?

Welke informatie zocht u rond deze fiscale maatregel?

Welke informatie vond u?

Hoe beïnvloedde dit uw koopervaring?

Heeft het een rol gespeeld bij de keuze van het model?

Was het de eerste keer dat u gebruik maakte van deze fiscale maatregel?

Hebt u er al gebruik van gemaakt voor andere energiebesparende maatregelen in de vorige jaren? Zo ja, welke? (Dakisolatie / dubbele beglazing / Fotovoltaic / condensatieboiler / etc)

Hebt u deze fiscale maatregel volledig voor uw hernieuwbare energie installatie gebruikt of ook nog voor andere energiebesparende maatregelen?

Waarom maakte u geen gebruik van deze belastingstoelage. Bespreek de obstakels en verklaringen in detail.

Als u wist dat u er gebruik van kon maken, had het dan uw investering veranderd? (Op vlak van keuze van installatie bijvoorbeeld)

Welke financiële berekening hebt u gemaakt? Laat de geïnterviewde hun berekeningen verklaren, Probeer uit te zoeken welke punten hem interesseren (de gehele investering, terugverdientijd...)

Welke financiële hulp hebt u gekregen?

Welke (regionale of gemeentelijke subsidies)?

Hoeveel?

wanneer?

Hoe heeft de financiële hulp uw investering beïnvloed?

Wat waren de gevolgen van de verkregen hulp op het vlak van prijsreductie?

Hebt u berekend hoeveel korting u zou krijgen dankzij de fiscale maatregelen?

Als niet alles gezegd is: Ik zou graag weten wat het factuurbedrag was voor het materiaal / Werkuren / met en zonder Btw? Is het mogelijk om de factuur te bekijken? Details noteren als ze vertoond wordt.

Welke rol heeft de stijging van de fossiele brandstofprijzen in uw keuze? Leg uit. Welke keuze zou u gemaakt hebben als de prijzen van fossiele brandstoffen stabiel gebleven waren.

De pedagogie rond de fiscale maatregel (15 min) NB Dit deel kan wat lichter zijn.

Hoe hebt u informatie verzameld over deze fiscale maatregelen?

Welke stappen hebt u ondernomen?

wie hebt u gecontacteerd?

Welke documenten hebt u hierover bekeken?

Wat vond u ervan?

Zou u zeggen dat u het makkelijk gehad hebt om de nodige informatie te verzamelen?

Waarom?

Was het concept “belastingsaftrek” u bekend?

Hoe komt dit?

Kunt u mij het mechanisme uitleggen?

Wat is de betekenis van het plafond?

Weet u dat dit hoort bij een reeks van energiebesparende uitgaven die in aanmerking komen voor fiscale maatregelen?

Hebt u een keuze moeten maken qua investeringen?

Wat denkt u van de verschillende gesprekspartners, van de verschillende informatiebronnen?

In het bijzonder, wat met de rol van de verkoper? / van de installateur in de uitleg van het concept? Heeft hij het gebruikt in zijn verkoopsgesprek?

Kunt u de voorwaarden noemen die nodig zijn om te kunnen gebruik maken van deze maatregel?

Noem de criteria op voor de fiscale maatregel in België, deze zijn: Woonplaats / Technische normen van het materiaal / Plafond op de uitgave / De installateur moet het materiaal kopen ipv de consument zelf...

Het doel van dit deel is om te zien of de fiscale maatregel goed is uitgelegd en of de consumenten niet voor een onaangename verrassing komen te staan die de publieke opinie over deze maatregel zouden veranderen.

Was de fiscale maatregel makkelijk te integreren in uw belastingsaangifte?

Waarom? (in principe zijn waarom-vragen niet zo goed, eerder vragen ‘hoe komt dit’ of ‘kan je me dit verder uitleggen?’)

In welk deel hebt u deze uitgave ondergebracht?

Welk bedrag hebt u ingevuld?

Had u enige begeleidende documenten die u had toe te voegen, welke dan?

Verbeterpunten (15 min)

Wat denkt u van het principe van de fiscale maatregel?

Wat vindt u van de praktische implementatie?

Was dit ingewikkeld voor u?

Hoe komt dit?

Wat is uw tevredenheid over deze fiscale steun?

De voordelen (op spontane basis) Detailleer de vernoemde aspecten.

De minpunten (op spontane basis) Detailleer de vernoemde aspecten.

Leg belastingskrediet en belastingsvermindering uit

Noem de voor- en nadelen van elk systeem.

Wat zijn de voor- en nadelen van de subsidiaire principes.

Als we de eigenschappen van de subsidie naar een fiscale maatregel omzetten zou het dan hetzelfde blijven voor u? (Noot : Hier vooral aftasten of een subsidie-systeem t.o.v. fiscale aftrek voor gebruiker verschil maakt)

Zou u dezelfde investering gedaan hebben? Zou u die investering dan nog wel gedaan hebben?

Welke verbeteringen zouden we kunnen aanbrengen aan het mechanisme? Specificeer en motiveer: " Wat anders?" zo vaak als nodig om de ideeën duidelijk te maken

Welke verbeteringen zouden we kunnen maken op de maatregel zelf?

Welke verbeteringen zouden we kunnen maken op de andere aspecten? (Bv andere parallelle ondersteuningsmaatregelen)

Hoe zou de ideale ondersteuningsmaatregel voor hernieuwbaar energie verwarmingssystemen eruit zien? Laat hen detailleren.

Welk advies zou u graag geven aan:

Het ministerie van financiën?

Het energieagentschap?

De hernieuwbare energie professionals? (o.a. installateurs)

De consumenten die op zoek gaan naar een hernieuwbare energie installatie?

Aanbevelingen om de implementatie van de maatregel te optimaliseren /

Aanbevelingen om de efficiëntie van de maatregel te verhogen

Dankwoord en einde

Handtekening van de lijst van deelname en voor het geschenk