

# REFUND +

## REGIONAL WORKSHOP

### Belgium

Final version

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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 this old boilers by high efficient condensing gas or RES-boilers, the federal government hoped to save 30% of CO<sub>2</sub> emissions, less NO<sub>x</sub> and almost no SO<sub>2</sub> 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 20<sup>th</sup> December of 2002 in the royal resolution 'tot wijziging van het KB/WIB 92 inzake de belastingvermindering 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, thermostatic 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 8<sup>th</sup>

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.

Please recall the feature of the tax measure as in the interview report.

## 2. Agenda



Project supported by the European Commission  
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### REFUND + project

#### Agenda for the regional workshop

9<sup>th</sup> June 2008

#### Introduction

Dear Mr/Mrs,

You were recently involved as participant in VITO's European Refund+ project. I would kindly like to invite you on our regional workshop which will present the final results of our contacts with you and the sector.

#### Contact

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#### Venue

Date: 9<sup>th</sup> June 2008

Hour: 9.00h -13.00h

Place: Building 'Graaf de Ferraris'  
Koning Albert II-laan 20  
Meeting room 6P40 (6th floor)


Plan: [http://www.mobielvlaanderen.be/bereikbaarheidsnids/bestem\\_hou-no.php?a=13&nav=4](http://www.mobielvlaanderen.be/bereikbaarheidsnids/bestem_hou-no.php?a=13&nav=4)

#### Agenda

9.00-9.30	Introduction to the project and to the regional workshop purpose
9.30-10.30	Presentation of the economic analysis results – Feedback and reactions
10.30-10.45	Coffee break
10.45-11.45	Presentation of the qualitative analysis results – Feedback and reactions
11.45-12.30	Common discussion



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### Overview of the Agenda

- The workshop is held in order to communicate the final results of two project Work Packages, namely:
  - The economic analysis results
  - The qualitative analysis results (the Focus Group discussions were part of this Work Package)
- Introduction to the project (its targets and the main work steps) and presentation of the regional workshop purpose.
- Overview presentation of the Economic analysis results  
Presentation of the different types of measures studied, their different role observed, their impact and failure. Short presentation of the analysis of the other countries covered (France, Austria, Portugal, Italy). Belgian results will be presented in detail.
- Overview presentation of the Qualitative analysis results  
Presentation of the different behaviours among consumers and the main remarks from requested people (final consumers, installers, expert marketing). Again a synthesis of the results from the other countries covered will be shown. Belgian results will be presented in detail.
- Open discussion with the participants. The purpose is to get reactions on the national measures, the assessment about the success and failure aspects, the upcoming changes, etc.

### General information:

- As the workshop is addressing a Dutch as well as a French speaking audience the presentations will be held in English.
- During discussion moments each participant can use his native language.

Kindest Regards,

Ruben Guisson

VITO – Energy Technology

### 3. Workshop attendees

Name	Function	Institute/firm name	Sector	E-mail
Mr. Matthys Geert (MG)	Representative ind. association	ODE*/De Nayer	Heat pumps	Geert.matthys@denayer.wenk.be
Ms. Gouthiere Isabelle (GI)	Representative Walloon Energy Agency	MRW/DGTRE	No specification	i.gouthiere@mrw.wallonie.be
Mr. Van Lieshout Lieven (VLL)	Representative Flemish Energy Agency	VEA	Biomass	Lieven.vanlieshout@vea.be
Mr. Van Droogenbroeck Frank (VDF)	Representative Flemish Energy Agency	VEA	Heat pumps/Solar thermal	Frank.vandroogenbroeck@vea.be
Mr. Van Gijzeghem Francies (VGF)	Representative promotional association	ODE*	Biomass	Francies@ode.be
Mr. Vleeschouwers Bart (VB)	Representative ind. association	ODE*/BB	Biomass	Bart.Vleeschouwers@boerenbond.be
Ms. Wils Nancy (WN)	Secretary	VITO	/	Nancy.wils@vito.be
Mr. Piette Ivan (PI)	Representative ind. association	Viessmann	Solar thermal	Ivan.piette@viessmann.be
Mr. Nauta Joost (NJ)	Representative Energy Agency Netherlands	SenterNovem	Subsidies renewable/sustainable energy	j.nauta@senternovem.nl
Mr. Guisson Ruben (GR)	Workshop leader	VITO	Biomass/Heat pumps/Solar thermal	Ruben.Guisson@vito.be

\*ODE: Organisation for sustainable energy

\*\*MRW/DGTRE : Ministry from the Walloon Region – DG Technology, Research & Energy

\*\*\*VEA: Flemish Energy Agency

**Note:** Ivan Piette (absent with notification), Joost Nauta (absent without notification). The workshop leader decided however to proceed with the workshop as planned, due to the difficulties of finding a suitable date & to follow the foreseen project time schedule.

## 4. Minutes

### 4.1 Introduction to the project and to the regional workshop purpose

A brief introduction of the project was given by means of a PPT-presentation (see attachment slide 1-22). Goal of the introduction was to discuss the content of the project and the purpose of the workshop. The different direct tax measure systems applied in the EU were explained i.e. Austria, Belgium, France & Portugal.

*General comment:* During the meeting it became (once again) clear that that the difference between the direct tax reduction system (reduction from taxes to be paid) and the system where a reduction is made from the taxable income (life insurance, mortgage loans, etc) is not always clear. Both systems exist in Belgium.

*Comment VB:* Evaluating the different European direct tax measure systems one could make the interpretation/conclusion that the tax incentive has not a major impact. The Austrian system for example has a very low net incentive result for the end-consumer. However in Austria there is a high percentage of wood heating installations, more than 50% of the installations sold are wood-heated. While on the other hand in Belgium the net impact of the incentive is very high but with a very low success ratio when looked at the number of wood boilers sold.

*Comment GR:* It is difficult to pinpoint the exact success of the fiscal measure. The success of wood boilers in Austria or the lack of it in Belgium is also due to a set of preconditions. In Belgium (and certainly in the Flemish region) the choice was made to construct a dense natural gas grid, in the last decade a lot of people have connected to the gas grid. The switch towards a wood boiler system is a big change. In addition Austria has a history of heating on wood while this history is lacking in Belgium. Plus; there is an important restriction in Belgium for wood boilers; only the replacement of an old boiler system is eligible for the tax incentive (not for new installations).

*Comment VLL:* Attention should also be paid to the fact that the fiscal measure addresses more than wood boilers, it is a package of energy saving measures. The conclusion that the fiscal measure does not work based on only the wood boiler experience is at least a little hasty.

*Comment VB:* Agrees with VLL and stresses that he is not against the incentive whatsoever.

### 4.2 Presentation of WP2: The economic analysis

The results of WP2 were presented by means of the PPT-presentation (see ppt attachment p23-37). After the presentation of the WP2-results a discussion moment was foreseen to comment on these results.

#### Comments on slides

*Comment VLL:* On slide 7 there is no percentage given for wood boiler systems for the years 2003-2004. This gives the impression that these figures are not known or could not be estimated. However out of market studies it became clear that the number of systems sold was very low; but still could be estimated. VLL asks to update this information. The economic analysis mentions a number of 10 pellet boilers installed in the Flemish region & a number of 272 pellet boilers installed in the Walloon region by end 2005 (no info on 2003 & 2004).

**Comment MG:** On slide 8 results from the premiums awarded by the Flemish grid owners for RES-heating measures are extrapolated to the Belgian case. MG argues that the conditions for solar systems to be eligible for the Flemish grid premium are not the same as the ones for the tax reduction measure. A condition for the Flemish grid premium was that the solar system had a Belsolar-label (Belgian solar industry association) while this was not the case to be eligible for the tax reduction measure. GR agrees with this comment but mentions that this extrapolation was the best available method to (double) check the results from the federal data since no other data are/were available.

**Comment GI:** On slide 11 where the percentage of the budget going to RES-heating measures is low, while it is very high for isolation & double glazing. The percentage of the budget for isolation & double glazing might have dropped in the year 2008 in favor of the RES-heating measures. GR mentions that this can certainly be possible but that only figures until 2005 were available at the time of the analysis. However this strengthens the idea that it is very interesting to follow-up these figures in the following. VB mentions in addition that the high percentage of the budget going to isolation in the years 03-04-05 might mainly be allocated to new buildings. In those years a lot of new dwellings were built & they could also apply for the tax reduction measure for isolation (isolation being one of the measures eligible for tax reduction, see the bubble system on slide 2). RG mentions that the existence of the bubble system (RES-heating measures are an integral part of a bubble of 8 energy saving & production measures) makes it hard to analyse the data. There are no specific data available for RES-heating measures only for the entire bubble.

## General comments

**Comment VB:** stresses that a consistent and long-term policy is very important for the end-user to get acquainted with the system of the tax measure. As seen on slide 3 a lot of changes took place in the last 4-5 years. Consistency is a key condition to make the system a success more than updating technical conditions and the exact height of the reduction. An end-user's go/no-go decision will not depend on the fact if an accredited installer is necessary or not but on the fact that he is certain to get his tax reduction (not only this year but also in the years to come, since the implementation of a RES-heating system takes longer than one year). The system or the principal itself should be fixed for several years. Confidence of the end-user in the tax (or other incentives) system is essential!

**Comment MG:** Disagrees with the comment made by VB. MG feels that in a young market and in a young system, such as the tax reduction system, the opportunity should be there to improve/update the system and its conditions.

**Comment VB:** Argues that he thinks a long term stability of the tax reduction measure increases the confidence of the end-user in the measure. In a yearly changing measure the end-user does not have the certainty that the measure will still exist the next year while the decision making process to implement a RES-heating measure most of the times is more than one year.

**Comment GI:** Agrees with the fact that the system should be consistent on long-term however argues that the modifications that have been made to tax reduction system were all positive ones (increase of ceiling, increase of eligible amount of cost,...). So changes were in this case for the better.

**Comment VB:** Mentions that there recently was a press release in a newspaper which mentioned that the energy price was increasing due to the whole system (not only the fiscal ones) of incentives for energy saving & RES-production. The costs of these incentives are forwarded to the end-consumer in their energy bill. He foresees that this will play an important role in the coming years in a discussion on the height of the incentives.

**Comment VDF:** The multitude of incentives on different levels (see slide 9) is also not stimulating the general success of the measures, it generates confusion at the end-user & installer side.

**Comment MG:** A recurring problem for renovation of dwellings is the fact that the investments are mostly made in one & the same year. People buy new windows, isolation & heating system all in once during the renovation. This makes a high investment in one and the same year (over)filling immediately the existing cap for the direct tax reduction. To counter this, people are spreading the renovation over several years (f.e. double glazing (year x), isolation (year x+1),...) with all practical inconveniences of not being able to finish the renovation in an acceptable timeframe. It therefore should become possible to apply several measures in one and the same year but to spread the investment over several fiscal years with a cap for each measure and not a bubble system (were all measures are fit into one cap).

**Comment VLL:** The administrative part of the direct tax measure is very simple & straightforward (federal level). You just have to send the invoice of the installation along with your tax sheet (i.e. after installation) and that's it. The subsidy for photovoltaic installations from the Flemish region for example is more complex (on the administrative level). In the latter situation you have to get an approval before starting the installation (i.e. before installation). The administrative burden is higher.

**Comment VB:** Filling out their tax sheet it might be confusing for end-consumers that in the case of the tax reduction system they have to fill in 40% of the amount the invoice while for all other deduction possibilities, concerning the taxable income, the full amount has to be filled out (f.e. loans, pension saving,...). It might be more straightforward to let the end-consumer fill in the total amount of his invoice for the direct tax measure and to let the tax authority account the deduction. In this way the confusion is countered (in each case the full amount has to be filled out) & the end-consumer does not have to know the cap for the measure (which changes frequently).

**Comment MG:** Attention should be paid to the fact that installations work properly. It is often the case that solar boiler systems do not work properly. I.e. the end-user thinks that his solar system is providing heat while it is still the traditional (fossil fuel) heating system which does the gross of the heating. A calorimeter on the solar system would be a useful application to monitor the efficiency of such an installation.

**Comment VGF:** (in reaction on the previous comment) This also pleads for the accreditation of installers. It is not because end-users apply for the tax reduction that installations are installed adequately and that the net result of the measure (saving or producing RES energy) is satisfactory. The government should not exempt taxes for badly installed or over-dimensioned installations. The level or the know-how of the installer should in one way or the other be guaranteed.

**Comment GR:** *An accreditation of installers can be a relevant tool to enforce this (at the moment the installer has to be registered, but this does not guarantee a proper know-how f.e. a traditional registered installer of central heating systems does necessarily has know-how about wood boilers.*

**Comment VB:** *But on which level does this accreditation need to be organized? It seems logical to do this on a federal level since the direct tax measure is a federal matter (and not on regional level). Three accreditation systems in the three regions (Flemish, Walloon, Brussels) seems not appropriate.*

**Comment MG:** *It seems not logical that for certain measures a fiscal reduction is given while it is at the same time an obligation by law. Maintenance/upkeep of oil boilers ( yearly) and gas boilers( each 2 years) by a certified technician is obligated by law. The maintenance/upkeep cost of an oil boiler system is at the same time eligible for tax reduction. The same can be said for tax reduction (and premiums) for double glazing (high efficiency). Due to the EPBD and the K-45 obligation (in Flanders) for new buildings double glazing is necessary. (it is virtually unseen that new buildings are equipped with single glazing windows). So when double glazing has become the standard why foresee tax reduction for this type of measure? It would be more interesting to give tax reductions to end-users who do better than the legal obligation of E-100. (note: This already exist on the level of Flemish grid owners who provide a subsidy for new buildings with an E-level<100, but not on federal (tax) level..)*

**Comment VB:** *Stresses that the K-isolation obligations are (at the moment) different in the different regions Flemish region (K45), Walloon region (K55, but K45 obligation starting 1/09/08). The tax measure is a federal matter while the regional conditions are different (at the moment). This might imply that the pressure for double glazing, for example, to become the standard is higher in the Flemish region (K45) than in the Walloon region (K55).*

**Comment GI:** *There should also be a more explicit difference between new buildings (who have to comply with a 'strict' EPBD) and renovation of old dwelling where the energy saving and energy efficiency can be strongly improved and were there is no strong legislative framework.*

**Comment MG:** *Following the Trias Energetica it is logic to still have isolation and double glazing within the bubble system of measures. Certainly for old dwellings. It is also logic to have them in a bubble as such you are stimulated to first apply for the most efficient investment (f.e. starting with isolation before investing in PV panels).*

**Comment VB:** *The avoided energy cost due to a better isolation of a dwelling is less tangible for an end-user than a PV panel with a running electricity production meter or a decreasing oil price. This is a psychological matter but must not be underestimated. The result of isolation is indirect for the end-consumer and thus less tangible. In this point of view VB agrees that it is logical that the first step of the Trias energetica is more subsidized than step 2 and/or 3.*

**Comment GI:** *It is important that people invest in a logic way; first isolation then RES-heating (note: all agree with this point of view). In order to make sure that a certain logic is*

*followed an audit system can be organized. Dwellings should be audited with a listing of priority investments ranked by efficiency (investment in relation to energy saving possibility). ). This is particularly interesting in the case of renovation. Tax reduction for certain investments (f.e. RES-heating) should not be possible when other, higher priority, investments were not fulfilled (f.e. isolation).*

### **4.3 Presentation of WP3: Qualitative analysis results**

The results of WP3 were presented by means of a PPT-presentation (see attachment). After the presentation of the WP3-results a discussion moment was foreseen to comment on these results.

#### **General comments**

***Comment VB:** Certainly in case of wood boilers the uncertainty about the long-term availability of the biomass fuel combined with a fluctuating price of pellets causes a negative climate in the decision making process at the end-users side. The availability of the sun is more certain and secure; average sun hours and temperatures are available. It would therefore also have been interesting to not only ask why the interviewees did chose for f.e. solar heating but also why they did not chose for biomass.*

***Comment VGF:** Promotional actions and campaigns are very important. Communication about the different possibilities (the different RES-heating techniques as well as the different incentives) is crucial. At the moment this happens to few in the world of pellet boilers in the Flemish region.*

***Comment GI:** Mentions that due to the large success of certain subsidies they have been cancelled in the Walloon Region. In the period 2005-2007 a subsidy of 1.750 euro was granted for a <50 kW biomass boiler in the Walloon region. For the period 2008-2009 the subsidy is only granted for biomass boilers with a power of >50 kW shutting out most of the residential boilers (Isabelle is this correct? I added the part in red to make your remark (in green) more concrete, is this what you meant?)*

***Comment GR:** Opens the discussion about the fine dust emission of biomass boilers and the high pressure on the Belgian air quality.*

***Comment VLL:** Argues that the fine dust emissions of pellet boilers are about 60% lower than traditional wood log stoves and are in that respect an environmentally friendly.*

***Comment VGF:** Mentions that a young technique like biomass boilers (qua market as well as technique) must not be compared/weight with a developed market and technique like fossil fuel boilers. Time should be given for these young techniques to develop and improve themselves. Fossil fuel boilers were in the past also more polluting than nowadays.*

***Comment VB:** Warns that fine dust issues play an important psychological role in the community. Everybody knows somebody with asthma, long-cancer,... This psychological impact must not be underestimated and a good informational campaign is important in this regard, making sure that wood-boilers are not depicted as an environmental unfriendly technique.*

***Comment MG:** Asks if the pellet supply is not limited in Belgium?*

**Comment VB:** *Reacts that about 90% of the pellets (which are mostly imported) are used in the electricity producing sector (dedicated installations and co-firing). There are about 6 pellet producing companies in the Walloon region which secures the production.*

**Comment GR:** *How to promote the wood boiler sector?*

**Comment VB:** *The restriction of the fact that wood boilers are only eligible for tax reduction if it concerns the replacement of an old central heating system should be dropped. This is a key necessity.*

**Comment VB:** *To profit from the tax reduction the installation of the measures has to be performed by a registered installer. This precondition is sometimes negative for the implementation of a certain measure. Registered installers are f.e. seldom interested in the isolation of just one roof (renovation of a dwelling). On the other hand the subsidy from grid owners foresee the choice between: installation of the isolation by a registered installer (high premium) or do-it-yourself (low premium).*

**Comment MG:** *Remarks that there is some inconsistency in the federal energy policy. There exist is a oil fuel premium for low income households (since 2004), to support these households in their energy needs. They mostly have an old installation and can not profit from the tax reduction since they do not pay (enough) taxes. So they are triggered to keep heating with an old oil boiler installation.*

**Comment MG:** *There is no incentive foreseen for passive cooling with heat pumps. Applying passive cooling the circulation pumps of the heat pump system are running without compressor. The compressor is by-passed and the ground-loop is coupled to the above ground-loop with a heat exchanger. This implies an extra cost for the installer namely the heat exchanger. This system can be an environmental friendly solution for the inefficient (mobile) air conditioners which are nowadays sold in local stores. MG pleads for an extra incentive to promote this form of passive cooling since it reduces CO2 and regenerates the soil which increases the efficiency of the heat pump.*

**Comment BV:** *Sees ideally a fit combination for PV, solar and heat pumps. PV provides electricity for heat pump (pump & compressor). The summer surplus heat from the solar boiler is stored underground and pumped up in winter.*

## Conclusion

- **The income tax reduction system is a good incentive. Attention should be paid to:**
  - **Keeping the system as easy as possible (the administration is at the moment fairly easy).**
  - **Minimizing the changes in the system to give a security & stability feeling towards the end-consumer.. However changes made until now were all positives ones (increasing caps, ...). So this argument is black nor white but somewhere in the middle. An equilibrium should be found between system stability & positive changes in the system.**

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- **The final result of the tax reduction system is hard to assess due to a variety of incentives on other levels (regional, provincial, municipality,...). This variety increases possibilities for the end-consumer but decreases the accessibility.**