REFUND +

Qualitative assessment of financial incentives

Private Persons

A Study of the Austrian Approach

Final version

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Content

I. Context and Objectives

1. Context

1.1 Financial incentives for RES heating systems in private homes

Generally, four authorities offer subsidies for RES heating systems in Austria. They differ from province to province and municipality to municipality. Different heating systems attract different levels of subsidy. The subsidies differ also between new buildings and retrofittings. Furthermore subsidies differ, whether solar panels are used for heating water or for boosting the heating system. Moreover, they differ between types of biomass boilers and between mono- and bivalent heat pumps.

Table 1: Overview: instruments of financial incentives

Authority	Kind of support	Relevance (due to amount)	Solar panels	Heat pumps	Biomass boilers
Federal ministry of finance	Income tax allowance	low	X	X	X
Federal Climate- and energy fonds[1]	Direct grants for biomass boilers	middle	-	-	X
Provincial governments	direct grants (different in every province)	high	X	X	X
Provincial government	Cheaper loan for building or retrofitting (different in every province)	high	X	X	X
Municipalities	Direct grants (different in every municipality)	low –middle	X	X	X
Municipalities	Cheaper loans for building or retrofitting (quite rare)	low - middle	X	X	X

1.2 Provincial government subsidies

The most relevant support measures for all three types of RES heating systems are the provincial government's subsidies. These recover 20 to 30% of the investment costs and have a ceiling of 1,100 to 2,900 Euro, depending on the technology (higher ceiling for biomass boilers). These subsidies have not been modified for at least 6 years.

[1] http://www.klimafonds.gv.at/; 15.03.2008

1.3 Municipalities subsidies

These subsidies vary from zero to more than 1,000 Euro. Each municipality decides for itself whether and with which amount RES heating systems will be subsidised. The criteria for subsidies are often connected with those of the provincial government, which means if someone receives subsidies from the provincial government, the municipality will agree the subsidy without further checks.
Subsidies from municipalities are either a fix grant or a percentage of the provincial government's grant.

1.4 Fiscal measures in Austria

In Austria, the fiscal measure which enables buyers to receive a tax rebate when purchasing solar panels, heat pumps or biomass boilers, is defined as a tax allowance.
Applicants can account for those expenses in a rubric called "special expenses" in their tax returns. "Special expenses" may include, for example private retirement pension expenses and new shares. One of the possible expenses are special expenses for creating or retrofitting living space. This includes all kinds of heating systems. The possible sum for "special expenses" – the sum of all single expenses - is limited to 2,920 Euro per person per year. This sum is divided by four and this amount will reduce the assessment basis for the calculation of income tax. This means this amount of income is tax exempt. The tax, calculated for this amount of income, is refunded.

Only the person who paid the costs of the heating system is allowed to take it into account when filling in the tax return sheet.
If you take out a loan to finance your expenses (for example when building a house), you can take into account the annual instalments as "special expenses" every year, until the loan is repaid. In this way you can use this tax allowance more often.
"Special expenses" can be used by people whose income is between 10,900 and 50,900 Euro per year. Those, who's income is higher, cannot use "special expenses". Those, whose income is lower do not pay any income tax at all (they get back the whole income tax at the end of the year). So they do not have an advantage out of "special expenses".[2]

[2] https://www.bmf.gv.at/Publikationen/Downloads/BroschrenundRatgeber/SteuerbuchD_final_version_17.12.pdf,

Statistics of applications for tax returns

On average, more than 3 million people apply for a tax allowance per year (in the year 2001: 3.09 million).[3] This is about 50% of all tax payers (workers, employees, retirees)[4]. In 2004, 1.06 million applications for "special expenses" concerning creating or retrofitting living space were handled.[5]

2. Objective of the project

The objective was to determine the acceptance and satisfaction with the tax allowance and other relevant kinds of subsidies of private owners of biomass boilers, heat pumps and solar panels. In most cases, these were single family house owners.

3. Methodology

The situation around the tax allowance system in Austria is different compared to the other countries investigated in the project REFUND+. This is mainly due to the fact that the tax allowance scheme does not play an important role at all in Austria. Hence, installers don't show very much interest in the scheme because they don't consider it as important for their work and the purchasing process of consumers. Therefore, their input to the analysis and improvement of the scheme is quite limited. Moreover, most of the Austrian installers involved in RES heating, have substantial experience with all types of RES heating systems (biomass, heat pumps, solar thermal). For that reason, the focus of the qualitative analysis was shifted to the qualitative interviews. The range of the installer related analysis was limited to 16 installers which were reached by focus groups or interviews. The range of the qualitative interviews has been extended to 30 persons. This approach made sure to achieve a comprehensive qualitative analysis of the role of the tax allowance scheme (and other promotion instruments) taking into account both the opinions and considerations of installers and consumers in a methodologically clear and sound manner.

3.1 Targeted population

The targeted population were people who have purchased an RES heating system in 2005, 2006 or 2007. It was important to interview the person who made the decision to buy the heating system, in many cases a man.

Table 2: Gender of interviewees

[3] Telephone interview Dr. Rainer, 27.03.08
[4] STATISTIK AUSTRIA, Lohnsteuerstatistik 2006. Erstellt am 06.11.2007
[5] Telephone interview Dr. Rainer, 27.03.08

Gender	Number of interviewees
male	25
female	5
n = 30	

Table 3: Age of interviewees

Age	Number of interviewees
18 – 30 years	5
31 – 40 years	6
41 – 50 years	11
51 – 60 years:	6
Older than 60:	2
n = 30	

Table 4: Profession of interviewees

Profession	Number of interviewees
Worker	3
Employee	21
Self-employed	1
Retiree	5
n = 30	

Table 5: Annual income of interviewees

Annual income	Number of interviewees
up to Euro 10,900	1
Euro 10,901 – 50,900	27
more than Euro 50,900	2
n = 30	

3.2 Survey design

30 qualitative interviews were carried out, 17 of them used the tax allowance, which means, they took "special expenses" into account, 13 did not (nine did not apply for the tax allowance, four applied, but did not receive a tax allowance for some reasons), see Table 6.

Table 6: Repartition of types of RES heating systems among interviewed people

	Solar system	Heat pump	Biomass boiler	Total
Persons in total	10	10	10	30
Persons who used the tax allowance	7	6	4	17
Persons who did not receive tax allowance	0	1	3	4
Persons who did not apply for tax allowance	3	3	3	9

Face to face interviews were conducted at the interviewees' homes, lasting between 45 minutes and two hours. There were 46 open questions. They were carried out according to an interview guideline. This was modified from the original template by not only asking for the fiscal measure (tax allowance) but also for the grants from provincial governments and municipalities, as these two support instruments are more relevant in Austria than the tax allowance. The modified interview guideline is contained in Anne. Modifications are stressed in bold.

The interviews were carried out by a team of researchers and students of the University of Applied Sciences Wiener Neustadt | Campus Wieselburg (in the following text: FHWN Campus Wieselburg).

The interviews were carried out mainly from December 2007 to February 2008.

3.3 Recruitment channel

The interviewees were recruited in the following way

- installers of the mentioned heating systems provided addresses
- municipalities provided addresses
- people, who live in the surroundings of researchers' and students' homes knew further suitable interviewees

3.4 Regional allocation of interviewees

The interviewees come from rural areas in Lower Austria (22 persons), Upper Austria (5 persons) and Salzburg (3 persons).

3.5 Repartition of types of renewable energy equipment

It was allocated by quota that all three types of RES heating systems have to be represented in the same ratio. Table 6 shows how this quota plan was fulfilled.

4. Population Sample

Table 7: Interviewees, who used the tax allowance (17 persons)

Interviewed people	Familial situation in the habitation	Professional activity	Renewable energy solution	Postcode	Town
male, 27 years old	couple	employee at production plant	solar panels	4594	Grünburg
male	5 children	part-time farmer, chauffeur for a social organisation	solar panels	3251	Purgstall
female	couple, 5 children	CEO of an association, music teacher	solar panels	4802	Ebensee
male, 41 to 50 years	married, 3 children	IT-administrator	solar panels	3250	Wieselburg
male, 31 to 40 years	married, 2 children	IT-administrator	solar panels	3251	Purgstall
male, 43 years old	single, lives with his mother in a house	employee in IT	solar panels	4432	Ernsthofen
male	married, 2 children		heat pump	4830	Hallstatt
male, 51 to 60 years	married, 4 children, 1 son-in-law, 2 grandchildren live in the house	employee in building industry, part-time dairy farmer	heat pump	3251	Purgstall
male above 60 years	married, 3-person-household	retired after an occupational accident, before installer	heat pump	4300	St. Valentin
male, 31 to 40 years	married, 2 children	police officer	heat pump		
male above 60 years	married, 2 children, 2 grandchildren, one child moved away, daughter lives with husband in second half of house	retiree, before employed in public administration	heat pump	4300	St. Valentin
male, 31 years old	married, new house (not finished yet), no children	carpenter	heat pump	3340	Waidhofen /Ybbs
male, 41 to 50 years	4-person-household	employee	biomass boiler	3292	Gaming
female	married	insurance agent	biomass boiler	4581	Rosenau am Hengstpass
male, 41 to 50 years	married, 3 children	technical employee	biomass boiler	4943	Geinberg
male, 31 to 40 years	married, 1 child	in family leave, before employee at BMW	biomass boiler		
male, 18 to	single, lives at his	self-employed	biomass	4432	Ernsthofen

30 years	parents farmhouse	(excavation company)	boiler		

Table 8: Interviewees, who did not use the tax allowance (13 persons)

Interviewed people	Familial situation in the habitation	Professional activity	Renewable energy solution	Postcode	Town
male, 41 to 50 years	married, 2 children	carpenter, bricklayer	solar panels	3251	Purgstall
male, 41 to 50 years	married, 2 children,	railway employee, wife runs a household supplies store	solar panels	3251	Purgstall
male	married	carpenter	solar panels	3340	Waidhofen /Ybbs
male, 41 to 50 years	married, 2 children	technical employee at BMW	solar panels	4300	St. Valentin
male, 51 to 60 years	2 children, 3 grandchildren	teacher of severely handicapped pupils, wife: headmaster of primary school	heat pump	3251	Purgstall
male, 51 to 60 years	married	retired, wife is employed	heat pump	5161	Elixhausen
male, 41 to 50 years	married, 3-person-household (former 5 persons)	teacher of commercial education, wife also employed	heat pump	3250	Wieselburg
male, 51 to 60 years	married, parents live in the same house	retired headmaster at primary school	heat pump		
female, 31 to 40 years	married, 2 children, parents in law and grand-father in law live in one house	part-time employed as commercial employee, husband runs dairy farm	wood chips boiler	3281	Oberndorf
female, 41 to 50 years	married, 2 grown-up children	employed at a doctor's	biomass boiler	5161	Elixhausen
male	married, 1 child		biomass boiler	5161	Elixhausen
male, 41 to 50 years	married, 1 child	technician	biomass boiler	3332	Biberbach
female, 28 years old	couple, pregnant	employee	biomass boiler	4300	St. Valentin

4.1 Familial situation

Most of the interviewees are married or live in cohabitation. Two persons do not have a partner. Many of the interviewees have children.

4.2 Household size

Most interviewees live in two- to four-person-households, as shown in Table 9. On average four persons live in one household.

Table 9: Household size of interviewees

Household size	Number of interviewees
2 persons	8
3 persons	6
4 persons	8
5 persons	3
6 persons	1
7 persons	3
9 persons	1
Average per household	4
n = 30	

4.3 Type of Building

The interviewees who live in farm houses are part-time farmers or their family runs the farm. They have an income from employment elsewhere.

Table 10: Type of building

Type of Building	Number of interviewees
Single family houses	23
Farm houses	7
n = 30	

4.4 Living area

The houses include low energy houses, double houses, multi-family houses and classic single family houses.

Table 11: Living area

Living area	Number of interviewees
up to 150 m²	7
151 – 200 m²	8
201 – 300 m²	5
301 – 400 m²	2
not mentioned	8
n = 30	

How long have the interviewees lived in their houses?

Table 12: How long have the interviewees lived in their houses?

Interviewees live in this house since …	Number of interviewees
1959 and before	2
Sixties	4
Seventies	3
Eighties	7
Nineties	4
2000 or later	10
n = 30	

When was the heating system installed?

Table 13 When was your heating system installed?

When installed?	Number of interviewees
2005	7
2006	9
2007	14
n = 30	

4.5 Hobbies

Table 14: Hobbies of interviewees

Hobbies	Mentions
Hiking	6
Reading	5
Sports	5
Cycling	5
Nature	4
Winter sports	4
Gardening	3
Computers	3
Travelling	3
Handicrafts	3
Family	2
Music	2
Others	4
Others: Repairing, Working at an installer's, photography, Sauna	
n = 30 (multiple answers possible)	

Many of the interviewees prefer outdoor-activities.

II. The Purchasing process

1. Consumer profiles and their motivations for RES

Table 15: Profiles of interviewees and their motivations for RES

no.	short name	profiles	number of interviewees
1	"traditionalist, farming background"	own their own fire wood, cheap fuel, agricultural background	6
2	"economists"	economic reasons, want to get away from oil, too expensive, RES heating system substitutes or supports fossil fuel system	7
3	"DIY ecologists "	ecological reasons, do-it-yourselfer, interested in technology	6
4	"modern convenient ecologists"	ecological reasons, comfort, modern lifestyle	8
5	"convenients"	comfort, convenience; not primarily ecological reasons	2
	hybrid	mixture of more than one profile	1

1.1 "Traditionalist, farming background"

People with an agricultural background, who are part-time farmers or children of farmers. Their lifestyle and thinking is still similar to farmers. They own their own fire wood, which is therefore very cheap for them. They do not consider any other kind of central heating than a biomass boiler (wood chips or log wood). Some of them have an additional heating system for the production of hot water, for example a heat pump or solar panels.

In this group there were six people, who own a central heating system run on biomass. Four of them own solar panels in addition to their wood chip boiler. One of those four persons built a new house, three changed an old biomass boiler. One person converted a farm building to a residential building and owns a wood chip boiler. One interviewee runs two heat pumps in addition to a log wood boiler.

- *"We have a lot of waste wood on our farm, so the log wood boiler is ideal. In summer, we use the heat pump for hot water (for the residential building as well as for the calves and for cleaning in the milking room." (heat pump, 3251)*
- *"We have our own forest at my brother's farm, so there is plenty of wood chips. The solar panels we use to fill up the buffer store." (solar panels, 4594)*

5 out of 6 people in this group used the tax allowance.

1.2 "Economists"

For this group, economic reasons are most important. They want to reduce their oil consumption or, in case of a new house, install a completely different system, for example a heat pump. Their ages vary, as also their profession.

This group has seven interviewees. Five from seven replaced or boosted an oil boiler. Two of them replaced an oil boiler with a pellet boiler. One replaced an oil boiler with a monovalent heat pump. Two people reduce their oil consumption by boosting the system with solar panels or a heat pump. The remaining two interviewees built a new house and installed a monovalent heat pump.

- *"I didn't want the oil heating anymore, because prices are increasing." (biomass boiler, 5161)*
- *"Energy is getting more and more expensive. So energy efficient houses and ground water for heating makes sense. It is cheap energy." (heat pump, 4300)*

In this group only two out of seven participants received the tax allowance. Three did not apply for and two did not receive any subsidies at all, because their measure was not fully accepted to fulfill the requirements for subsidies.

1.3 "DIY ecologists"

Those people are interested in renewable energies in general. They like doing things themselves (men with a technical or engineering background often). For them, ecological reasons are most relevant. They like to effect something and always find things to improve.

In this group are six interviewees. Most of them replaced or boosted an existing RES heating system with a new or different one. One person purchased a pellet boiler to replace an old self-made pellet boiler. Four persons bought solar panels; two of them additional to a biomass boiler (wood chips and log wood), one additional to a tiled stove, one additional to an oil boiler. One person replaced an old log wood boiler with a flexible boiler, which can burn pellets as well as log wood.

- *"I would not use a heating system run on fossil fuels." (solar panels, 3251)*
- *"We want to get away from oil. The solar panels help us save oil. Maybe one day we will install also PV-panels.", "In my spare time I like repairing/improving anything around/in the house." (solar panels, 4432)*

In this group, four out of six people applied for tax allowance and also received it.

1.4 "Modern convenient ecologists"

For those people, ecological reasons were most important. They appreciate labour extensive heating systems and do not care that much, if they know everything about the system. They do not have a strong affinity to do-it-yourself. They live a modern life-style and some of them own modern energy-saving-houses. They are open-minded for new systems "above the standard" (wood gasification boiler, evacuated tube collector, special drill method for heat pump)

This group has eight persons. Five of them built a new house. Two of them installed a monovalent heat pump, three of them installed a biomass heating (2 pellets, 1 log wood) combined with solar panels.
The remaining three persons bought a heat pump to support an oil or gas boiler.

- *"In this ecological and energy saving house (8 kW heating load) we don't want to put in a chimney.", "The heating system has to work without much effort (labour extensive)". (heat pump, 3340)*
- *"For us, it was important to purchase something sustainable, something to promote renewable energies." (biomass boiler, 4581)*

The majority of this group (5 out of 8) used the tax allowance. Two did not receive the tax allowance, one did not apply.

1.5 "Convenients"

This group of two interviewees appreciates minimum effort in run the heating system. They stress freedom from dirt and dust. Ecological reasons are not most relevant. Both installed solar panels to support their existing gas heating system.

> *"For us it was relevant, which heating system can be installed quickly and which extra effort comes with the installation of the heating system." (solar panels, 3251)*

Both interviewees in this group did not apply for tax allowance.

People, who could not have been allocated unambiguously to one group, are called "hybrids." For one interviewee ecological and economic reasons are equally relevant. This family has five children and installed solar panels to support the heat pump, which is the central heating system. This family used the tax allowance.

"We wanted to use the energy of sun, which is there anyway. Furthermore it was important for us, how much solar panels cost." (solar panels, 4802)

2. Reasons for installing an RES heating system

The most important reasons for installing a RES heating system mentioned in the qualitative interviews are lower running costs as well as environmental protection and sustainability. However, a lot of other reasons were stressed, too. E.g: availability of own firewood, a general preference for RES, good experiences with old, existing RES heating systems, independence from oil prices etc.

2.1 Role of fossil fuel prices in the purchasing decision

For more than one third of the interviewees the fossil fuel prices were a key factor. Another third said they would have bought an RES-system anyway. Two interviewees claimed that they would have kept their oil or gas heating system provided the price for fossil fuel was stable.

Considering the profile groups, for the group of "**Economists**" the rising oil prices played a very important role. One said if gas prices were lower he would have bought a gas heating instead of the heat pump.

- *"Yes, the rising prices of fossil prices played an important role, otherwise I would have bought a gas heating system." (heat pump, 4300)*
- *"Yes, because energy prices are rising steadily, but quality of living does not rise equally with the prices. A heat pump is cheap heating." (heat pump)*

In all other groups were more people, who stated, the oil prices had no influence for them, as they have decided for an RES heating system anyway. For some of them the high oil prices were an additional reason for purchasing an RES heating system.

- *"The rising fossil prices did not play a role, we never considered oil." (biomass boiler, 4581)*
- *"The oil prices played a role, but we never considered oil anyhow." (solar panels, 4594)*

3. The purchasing context

3.1 Reasons for installing a new heating system

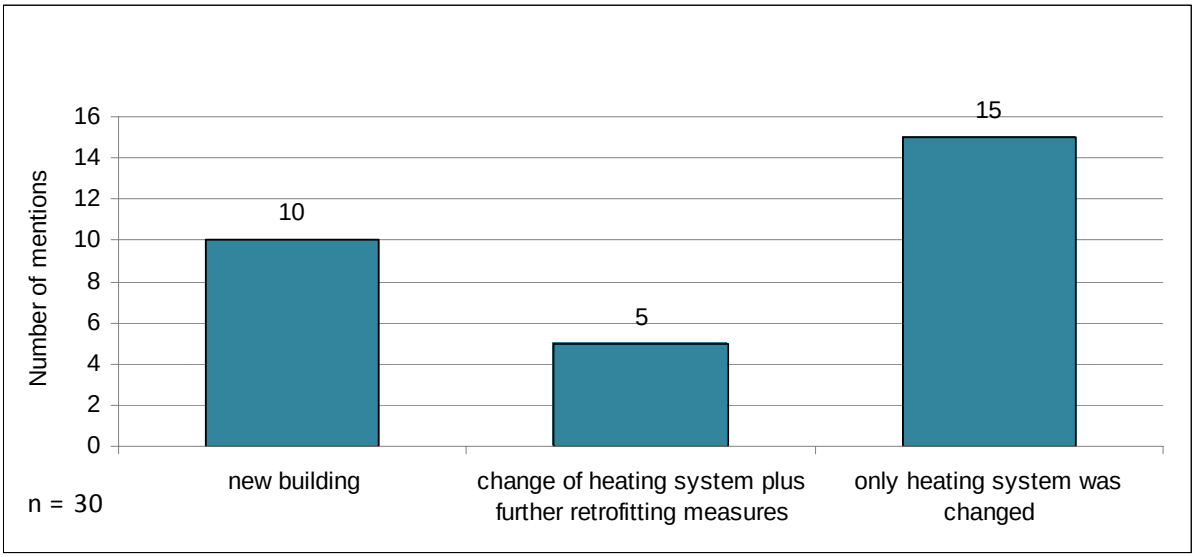

Figure 1: The purchasing context of the heating systems

The majority of the interviewees changed the heating system as a single measure. Five persons took further measures on this occasion, such as thermal insulation. Ten people built a new house.

Half of the interviewees purchased a heating system for central heating, half bought one additional to a central heating system.

Table 16: New building or retro-fitted appliance

Appliances in new buildings or retro-fitted appliances (n = 30)				
	solar panels	*heat pump*	*biomass boiler*	*Total*
appliances in new buildings	2	4	4	*10*
Retro-fitted appliances	8	6	6	*20*
Total	*10*	*10*	*10*	*30*

One third of the interviewees bought an appliance for a new building, two thirds changed a heating system or added to an existing one.

Seven (out of 20) interviewees replaced an existing central heating system with a new one. 13 (out of 20) persons bought an appliance to support the existing central heating system (solar panels, heat pumps).

Table 17 Appliances in new buildings: Combinations with other heating systems

Appliances in new buildings (n = 10)				
	solar panels	*heat pump*	*biomass boiler*	*Total*
combined with RES	2	1	3	*6*
monovalent heating system	0	3	1	*4*
Total	*2*	*4*	*4*	*10*
No combinations with fossil systems in new buildings!				

The majority of the interviewees, who bought an appliance for a new building (6 out of 10), combined it with another RES heating system.

3.2 How did consumers choose for different technologies?

Solar heating system (n = 10)

Three interviewees purchased solar panels on the recommendation of their installers. Further motives were:

- when constructing a house it is quite easy to install solar panels
- it is a cheap alternative.

In two cases the families of the interviewees suggested buying solar panels. The cost-benefit-ratio was very important for one person. One person bought the solar panel because of the information from a house building fair. Another person bought the solar panels to support the existing oil heating system, to burn less oil.

Heat pump (n=10)

Three persons bought the devices on the recommendation of their installers. Two interviewees are satisfied with their heat pumps, and therefore plan to continue with that heating system. Two persons mentioned that it is important for them to switch to a renewable energy system. One person never considered any different heating system than a heat pump. Further motives were price-performance-ratio, planning when constructing the house and information on a fair for house building.
One interviewee is experienced in installing heating systems and thinks, that this system is the best.

Biomass boiler (n = 10)

Two persons decided on a biomass boiler because they wanted a renewable energy source. Two interviewees mentioned the high efficiency of pellet boilers. The recommendation of their installer was important for two persons. The other interviewees mentioned good experiences with pellet boilers, the possibility when building a new house, the cost-benefit-ratio and information at fairs.

4. Time and steps of the purchasing process

The period of time people consider buying a heating system varies significantly. Some of the interviewees spend only a few months on the purchasing decision, others two, three years or even longer. There are no differences between the different heating systems concerning this point.

4.1 How long before the purchasing decision did you consider?

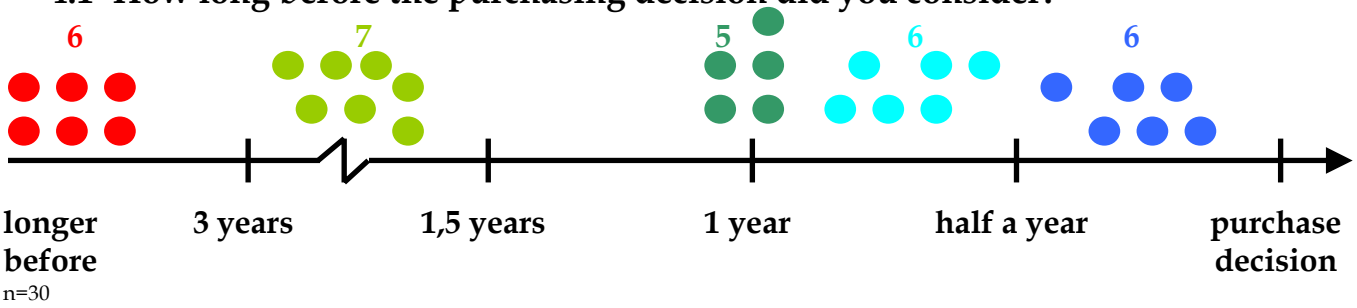

Figure 2: Period of time interviewees spent on dealing with the heating system

- *"We spent one year choosing the heating system. In general we took quite a long time planning everything concerning the house. I would do it again in this way." (heat pump, 3340)*
- *"We bought our (second) heat pump within one month. Our family grew and it was very annoying always having too little hot water so that I always had to heat up the boiler in summer only for hot water." (heat pump, 3251)*

Considering the profiles of interviewees, among the "**DIY ecologists**" more people than in other groups already deal with the matter "heating system" for several years.

> *"I adopted my positive attitude towards renewable energies when I attended college in Weyer." (solar panels, 3340)*

Among the "**modern convenient ecologists**" most interviewees took one year or less to inform themselves about the heating system. In this group are people, who built a new houses or a new flat into an old house. In the group of "**traditionalists, farming background**" are some people, who decided within one year as well. Those two people, who decided within one month, which heating system they will purchase, had a need for action, because their old heat pump was broken or was too small and winter was coming soon.

Did they compare prices between traditional heating system and RES-heat appliances?

The interviewees were asked, which role rising oil prices played in their decision to buy a heating system. For about 60% the rising oil prices played a significant role.

Which questions occurred when purchasing?

For the interviewees most questions occurred concerning the following themes:

- cost-performance-ratio
- total costs
- functionality, maintenance
- pros and cons of each heating system
- recommended manufacturer
- compatibility with existing heating system

4.2 With whom people talked most intensively about the heating system

The most important dialogue partner is the installer. Secondly ranked is the family. Less important are other owners of devices, friends and other persons.

- *"I just talked to my installer, my family was not involved." (solar panels, 4432)*
- *"Only my installer was involved in my decision, because my family was not interested." (biomass, 3292)*
- *"I talked mostly to my son. We agreed quite quickly. We did not involve anybody else." (heat pump, 3251)*
- *"There was another couple building a house at the same time. We had a much contact with them. We often went to fairs together." (heat pump, 3340)*

4.3 What were the main reasons to decide for this particular device?

Most interviewees choose the brand recommended by their installer. Another reason was that people chose the brand with the best price-performance-ratio, which means they compared several offers. Further mentions were the service offered by the manufacturing company, lower emissions, the size of the device, the price of the total offer.

- *"The boiler offered by GILLES seemed to be the most robust one. Friends stated, that GILLES is the "Mercedes" among the biomass boilers." (biomass boiler, non-user, 3281)*
- *"My installer recommended this brand. He is my neighbor, so I feel sure, that in case of damage he would repair it very quickly." (heat pump, user, 3251)*
- *"This installer already installed my first heat pump in 1989, so we already know him very well." (heat pump, user 3251)*

4.4 Why did you choose this RES heating system, but not a heating system run on fossil fuels?

- *"We build an energy-saving house in the country, so we don't want to burn anything nor have a chimney." (heatpump, 3340)*
- *"I want to get away from oil" (solar panel, 4432)*
- *"That was never up for debate" (solar panel, 3251)*
- *"We have our own wood, and wood is the cheapest way to heat." (biomass boiler, 3281)*

4.5 Why did you choose this RES heating system, but not a different heating system run on renewable energies?

Table 18: Why not a different heating system run on renewable energy

Solar panels	Heat pump	Biomass boiler
Advantages		
additional heating	labour extensive	own fire-wood
enough space available	economical	ecological reason
ecological reason	no storage of fuel	easy to handle
low costs	no fuel purchasing	
no fuel to buy	low costs	
	best suitable	
Disadvantages		
retrofit is necessary	cost-intensive	no storage room
not possible	high electricity costs	prices may change
uneconomic		dirt, dust
depending on weather		noneconomic
cost-intensive		retrofit is necessary
		Log wood is labour intensive
n = 30 (multiple answers possible)		

- *"Pellets prices are rising too." (heat pump, 3340)*
- *"Log wood is too labour intensive" (heat pump, 3340)*
- *"I always wanted solar panels" (solar panel, 4432)*
- *"We made good experiences with our old heat pump, so we purchased another one." (heat pump, 3351)*

5. First contact with subsidies

A large share of persons heard about subsidies (including tax allowance) at least one year before the purchasing process. Also a high share of the interviewees got informed on subsidies when discussing the topic "heating system", some when talking to the installer. A few persons could not tell when they heard about the subsidies for the first time, however it was clear to them that they knew about the subsidies.

At least five of the 17 interviewees, who used the tax allowance, knew already about the tax allowance before the purchasing process, because they fill in the tax return sheet every year.
9 of the 13 non-users of the tax allowance have never heard about the tax allowance for this purpose before.

5.1 Was it difficult to take into account the heating system in the tax return sheet?

The majority of the interviewees, who used the tax allowance (12 out of 17 interviewees), stated, that it was not difficult to take the heating system into account in the tax return. Four persons have not filled in the return yet, because they bought the heating system in 2007.

- *"I always fill in my tax return sheet online, that works very well." (solar panel, 4432)*
- *"You have to become familiar with the topic, but then it is very easy." (heat pump, 3251)*

6. Information sources

6.1 Information on financial incentives in general

The internet is a frequently used source of information concerning subsidies in general. Secondly ranked people get information from their installer concerning subsidies. Far behind there are provinces, municipalities, banks, fairs and others. Between the three types of heating systems there are no significant differences.

Considering, where the different profile groups received information on subsidies, there were only little differences between the profiles. In the groups of

"**Convenients**" and "**Modern, convenient ecologists**" are people, who order a tax consultant, which is (hardly) not the case in the other profile groups.

The group of "**Modern, convenient ecologists**" mentioned quite a lot of sources. Those are the internet, tax consultants, installers, provincial government and municipalities.

Among the groups of "**traditionalists, farming background**" and "**DIY ecologists**" were several persons, who have already known subsidies and the tax allowance for long time. They could not remember where they heard first about it. These persons fill in their tax return every year and so know very well how to take into account "special expenses".

The group of "**Economists**" listed many sources for information on subsidies, most frequently mentioned: internet, installers and producers of the appliances. Concerning tax allowance four of the seven interviewees have never heard of the measure of tax allowance before.

6.2 Special information on tax allowance

The internet is the most important source to learn about the tax allowance. There are also some people, who fill in the tax return sheet every year and do not know anymore where they got that information from.

- *"I read about the different kinds of "special expenses" in the "Steuerbuch" (information from the ministry of finance)." (solar panels, 3251)*
- *"I heard about the possibility of tax allowance when I was in school (commercial college)." (solar panel, 4594)*
- *"I always knew about the tax allowance, because I fill in the tax return every year. I always specify any kind of "special expenses". (heat pump, 3251)*

From which sources did you get the best information on subsidies?

The interviewees found the best information in the internet. A very reliable source is the provincial government. The installers are ranked third for giving useful information.

Was it easy for you to get information on subsidies?
Most interviewees (more than 80%) found it easy to get information on subsidies.

7. Relations with installers

The majority of the interviewees solicited several offers and contacted several installers. The other 10 had only one offer from their best-known installer. Mainly those who bought solar panels collected more than one offer.

Some interviewees said that someone in their family (brother, uncle) worked as an installer. Others said that someone in their family knew an installer. For some interviewees it was important, that the installer lived nearby in case of an emergency. However, there are also interviewees who received several offers and chose the one, that suited them best, regardless of whether they knew him well or not.

Do consumers who choose to meet several installers before making a decision belong to the same profile of consumers?
The group of "**DIY ecologists**" collected two to five offers. No one in that group talked to only one installer. In the group of "**modern convenient ecologists**" six people gathered up to four offers, but there are also three persons who had only one offer. In the other profile groups there are nearly as many interviewees who gathered several offers as those who did not.

What do the installers know about the fiscal measure?
About half of the interviewees stated, that the installer explained the concept of the fiscal measure. This ratio is nearly equal for users and non-users of the tax allowance. Most interviewees explained that their installer informed them on subsidies in general (primarily on subsidies from the provincial government).

Most interviewees told, that their installer informed them on subsidies in general (primarily on subsidies from the provincial government).

8. Conclusion

Reasons for installing an RES heating system
The most important reasons for purchasing an RES heating system instead of a fossil one, are the low running costs and environmental benefits. This means the oil price plays a significant role in the purchasing decision. Further reasons were the

availability of fire wood from proprietary forests, a principal preference of RES and the profitability of those heating systems (full costing).

Context of purchase

About two thirds of the interviewees bought a heating system to replace an old one or to add it to another one. Heat pumps were mostly purchased as support for an existing heating system.

In new buildings the majority of the interviewees had a combination of several RES heating systems, but no combination with fossil heating systems.

Time and steps

The time people spend on making a buying decision varies. Some think about it for years, while others have to decide within weeks, because their old heating system is out.

Information sources for heating systems

Aside form the family, the installer is the most important person to talk about a heating system. The recommendation of the installer is one of the most frequently mentioned reasons to decide for a particular appliance. Often one installer installs only one brand of solar panels, heat pump and biomass boiler. Consequently, the consumer can not choose among several brands.

Information on subsidies

Concerning subsidies, the most important source is the internet. The installer also plays a vital role, as he often notifies his customers on subsidies. Consumers said it was easy to gather information on subsidies.

Fiscal measure

Some of the consumers knew already about the tax allowance before the purchasing process, while others got this information during this phase. With regard to the tax allowance, most of the interviewees get information from the internet. Those who used the tax allowance had no difficulties when taking into account the heating system in their tax return sheets.

Relation with installers

The installers play a very important role. Many interviewees trust their well-known installer. About one third of the interviewees had only one offer, the one of their installer "of trust". About half of the interviewees claimed, that the installer informed them on tax allowance as well.

III. Role of the fiscal measure

1. Relations with installers/sellers

1.1 Did the installer/seller explain the concept of the tax allowance to you?

About half of the interviewees were informed on the tax allowance by their installers/sellers. There is a slight difference between users and non-users in terms of tax allowance, more users than non-users said that their installer explained the concept to them.

Most interviewees stated, that their installer provided them with general information (primarily on subsidies from the provincial government).

1.2 Did the installer/seller use the subsidies (including tax allowance) as an argument in the sales pitch?

In the cases of about two thirds of the interviewees the installer/seller did not use subsidies as an argument in his sales pitch. Quite often this topic was part of the pitch, but it was not used actively as a sales argument. For many customers the subsidies are a "nice bonus".

> *"The installer informed me about subsidies from the provincial government and the municipality's subsidies, but he didn't use this as a sales argument." (solar panel, 4432)*

1.3 Calculation of the investment

Most of the interviewees justify their purchase as an economic investment, especially those, who substituted or supported a fossil heating system. They calculated their annual running costs and see an advantage by using a different heating system. Almost all interviewees mentioned that they bought the appliance also for ecological reasons, but for many this is not the only reason. For those interviewees in the profile group "**DIY ecologists**" and "**modern convenient ecologists**" the ecological aspect prevails. For those two groups additional costs are acceptable.

Did you calculate your tax reduction in advance?

The amount of the tax reduction was only calculated by three persons in advance, but mostly in a pool with all other kinds of tax reductions.

- *"We did not calculate the tax reduction in advance; we simply exhaust the maximum amount." (heat pump, 3340)*
- *"With "Finanz-online" I calculated my tax reduction in detail in advance. But this means the entire tax reduction, not only the amount caused by the solar panels." (solar panels, 4432)*

"Special expenses" reduce the assessment base (income) on max. EUR 670,-[6], they are not deductible from the tax. The tax is calculated from the reduced assessment base by using a tax rate. This tax rate varies, as it depends on your income (the tax rate depends on the income group). So the actual tax reduction (the amount you receive on your bank account) is less than 670,- Euro. Hardly any of interviewees know how much tax return they receive. Some of them knew the entire amount of tax reduction, but not particular that amount caused by the RES-heating system.

2. Positioning of the interviewee in accordance with calculations

The group of "**traditionalists, farming background"** did not do any calculation. They do not think about the market price of the fire wood, nor do they assess their own labour. So for them a biomass boiler will always cause the cheapest running costs. One person stated that without subsidies, they would have bought the biomass boiler later.

- *"We have plenty of old forest on our own, which can ideally be used for wood chips heating." (biomass boiler, 4432)*
- *"We would have bought the same biomass boiler. However, we would have waited for our old log wood boiler to break completely." (biomass boiler, 3281)*

For the "**economists**" group the financial benefits are the key motivator for installing an RES heating system. They are convinced that they will save money by using this new technology, compared to an old fossil fuel system. Many calculate full costs, but running costs are of great importance.

6 https://www.bmf.gv.at/Publikationen/Downloads/BroschrenundRatgeber/SteuerbuchD_final_version_17.12.pdf

"For me, the oil consumption was too high. Changing to natural gas would be even more expensive." (heat pump, 3251)

The groups of "**DIY ecologists**" and "**modern convenient ecologists**" see the ecological benefit of the RES heating systems as the most important factor. They would have bought the heating system even if there was no financial incentives by public authorities.

"For me it was always clear that we would install solar panels eventually. We would have purchased them even if there had been no subsidies." (solar panels, 3251)

For the group of "**convenients**", the comfort aspect was most important. Both interviewees stated that they would have bought the same model of appliance, even without subsidies. One person said subsidies were quite important for them.

"We would have bought the same appliance. Subsidies did not influence our purchasing decision." (solar panel, 3251)

3. Function of the subsidies

Most of the interviewees (21 out of 30) said that subsidies were not the driving force when they purchased the heating system. So quite often the subsidies are seen as a reassurance of the project. Only sometimes they play a triggering role.

- *"I would have bought the same model and the same size of solar panels, even if there were no subsidies. I want to reduce my oil consumption as far as possible." (solar panels, 4432)*
- *"Without the subsidies from provincial government, probably we would have bought the wood chip boiler later, when our old log wood boiler was broken completely. (biomass boiler, 3282)*
- *"Independently of subsidies, for us it was important: easy, little effort, not fuels to buy" (heat pump, 3340)*

The majority of the interviewees said they would have bought the same heating system even though there were no subsidies. There were no significant differences between users and non-users in terms of tax allowance. Many employees see the subsidies as a bonus.

- *"Yes, the subsidy eases the financing." (solar panels, 3340)*

- *"We would have bought the solar panels also without subsidies, because it was the only appliance to combine with our gas heating system." (solar panels, 3251)*

Profiles of heating system purchasers

Considering the profiles of heating system purchasers, especially for the group of "**DIY ecologists**" the subsidies do not play any role. In the profile groups of "**Economists**" and "**Modern convenient ecologists**" the majority mentioned that the subsidies had no influence on their purchasing decision.

Three persons stated they would have made a different decision, in case of no/less subsidies. One "**DIY ecologist**" claimed that due to the subsidies he chose a more expensive brand of pellet boiler. One family, they are farmers, stated they would have purchased the wood chip boiler some years later without subsidies. Another person mentioned that the subsidies facilitated her to dimension their solar panels more generously.

3.1 Which model would you have bought without subsidies?

In general, most interviewees answered, they would have bought the same appliance even without subsidies. Two persons stated definitely that they would not have bought this heating system at all without the subsidies. One person mentioned, that it made her decision easier, to install larger solar panels.

> *"The subsidies facilitated us to dimension the solar panels more generously." (solar panels, 4802)*

In the group of **"Traditionalists, farming background"** one person said he would not have bought the solar panels at all. One interviewee stated they would have bought the new wood chip boiler later, as the old boiler is still working. Another one among this profile group said he would have bought a heat pump instead of a wood chip boiler in case of no subsidies (although he owns his own fire wood).

In the group of "**DIY ecologists**" one interviewee, who already constructed his own pellet boiler years before, said he would have bought a different brand of pellet boiler without subsidies.

The remaining profile groups answered quite similar, they would have bought the same model even without subsidies.

- *"We have so many additional expenses as we build the whole house, that we use this tiny amount to pay for other invoices" (solar panel, 4594)*

- *"No, the tax allowance is a very small amount and didn't influence our purchase decision, as for us it was clear that we would buy a heat pump again. " (heat pump, 3251)*

None of the interviewees said, that the tax allowance influenced their purchasing decision. It came as a pleasant and unexpected surprise. In some cases it was expected, however, it still did not influence the buying decision.

4. Positioning of consumer profiles compared to tax allowance

For all interviewees the tax allowance was no more than an unexpected surprise, sometimes it was even expected.

5. Function of the credit tax and technology

Regardless of the heating system technology, all interviewees stated that the tax allowance had no influence on their purchasing decision.

What were the reasons for non-users of the tax allowance scheme for not applying it?

A special focus was put on the reasons why a large part of the interviewees did not use the tax allowance scheme. Several factors were identified:

1) As will be noted in section IV/2 a large part of those people who did not use the tax allowance scheme for the RES-Heating system is **not aware of tax allowances in general**. On the other hand, those people who used the tax allowance scheme for RES-Heating system, knew tax allowances (for other type of expenses) before. So, one of the major reasons for not applying the tax allowance scheme for RES-Heating systems is that people just are not aware of the scheme and that they have not applied it before for other types of expenses.

2) People got **no information about tax allowances for RES-Heating systems** in Austria. This holds especially for installers who do not inform consumers of this scheme.
   This fact is related to the quite low amount of support due to the tax allowance. So, there is no incentive for the installers, energy consultants, agencies etc. to inform about the scheme.

3) For people who are not acquainted with tax allowances in general, noted that the scheme is too **complicated**. The low amount of support is not incentive enough to overcome this barrier.
(However, on the other hand people who are acquainted with the tax allowance scheme partly said that the scheme in fact is not very complicated to handle).

4) One additional possible explanation would be that people due to their income or their specific situation regarding special expenses etc. are not able to benefit from the tax allowance scheme. Although we consider this as a relevant factor, we could not verify it by the qualitative interviews. (One reason for that might be that those people nevertheless applied for the tax allowance and mentioned afterwards that they could not benefit due to several reasons.)

What were the reasons for users of the tax allowance scheme for not benefiting from the scheme?

As will be pointed out in Section IV/2, a substantial share of the users of the tax allowance scheme had to decide upon various special expenses. In fact, this means that they did not actually benefit from the scheme because they would have had other special expenses to include in the tax allowance, too. So, the overall perception of those people was that the tax allowance has no big impact in general.

Moreover, there were also interviewees who filled in the tax allowance scheme but were not able to benefit because of their level of income.

6. Conclusion

Relation with sellers
About half of the interviewees said, that their installers/sellers explained the concept of tax allowance. Furthermore the interviewees mentioned that about one third of the installers/sellers used subsidies as an argument in their sales pitch.

Role of fossil prices
For some of the interviewees the rising oil price was the reason for buying an RES heating system. For some of the others, the oil price does not play such a big role, as they would have bought an RES heating system anyway.

Calculation of tax reduction
Almost nobody calculated his tax reduction with the tax allowance in detail. The interviewees did not know exactly how much they actually saved by taking into account the heating system. From the finance authority you only get the information, how much tax you will save in total; it is not mentioned separately how much of this amount was caused by the heating system.

Function of subsidies
The majority of the interviewees (about two thirds) said, that subsidies did not influence their purchasing decision significantly. The subsidies often function as reassurance for financing, or as a bonus. People mostly knew that there are subsidies, however, not how much. Only sometimes the subsidies play an important role.

Function of tax allowance
The tax allowance has no impact on anybody. The tax allowance is like a nice little bonus, but it does not cause a sensation. The tax allowance also has no influence on particular technologies.

IV. Routes for improvement

1. General level of satisfaction expressed by the interviewed consumers

In general the interviewees are very satisfied with the subsidies of the provincial government and the municipalities. They said that the subsidies were easy to understand and it was simple to apply for, see Most interviewees (more than 80%) found it easy to get information on subsidies.

For most interviewees (more than 80%) it was easy to get information on subsidies.

Advantages of the existing implementation of the subsidies

Overall, a large share of the interviewees showed a high satisfaction with the existing system of subsidies. In particular, the quick pay-out and processing as well as the practical implementation were mentioned.

- *"Our expectations in the amount of subsidies were fulfilled." (heat pump, 3340)*
- *"I am very satisfied with the existing system, it works very well." (solar panels, 4432)*

2. Understanding the measure

2.1 Were you familiar with the concept of the tax allowance?

Which profile groups applied for and received the tax allowance, is described in chapter II.1 Consumer profiles and their motivations for RES, page 15.

Overall, a large share of those interviewees who used the tax allowance was familiar with the concept of tax allowances before. However, the opposite holds for interviewees who did not used the tax allowance scheme.

„I fill in my tax return every year, so I know how it works." (heat pump, 3251)

2.2 Did you know that the tax allowance is contained in the pool "special expenses"?

We could find the same result with respect to the questions whether the tax allowance is included in the pool of "special expenses": For the users of the tax allowance this was quite clear (already before they applied it for the RES-Heat system, where for the non-users of the tax allowance it was not.

2.3 Did you have to decide on one expense among several others?

Most of the interviewees who used the tax allowance had to decide for one expense among several ones due to the cap of special expenses. This means that for these persons the RES-Heat systems did not lead to a real economic incentive because they would have had other special expenses to deduct, too.

3. Consumers' assessment (complaints)

Disadvantages

Of course, a significant share of the interviewees stressed that the level of subsidies is too low. Besides of this, some mentioned that the systems are too complicated, too less appealing and the procedure takes too much time.

> *„They give you the run around – from county court to notary and back again – you have to run around a lot. It would be better if there was clear information about requirements, and about which documents are needed." (heat pump, 3340)*

Six people did not have complaints about the existing system of subsidies. The most frequent critics said that the amount of the subsidies was insufficient. In general, the interviewees were quite satisfied with the existing system of subsidies.

4. Consumer opinion on installers

The interviewees were asked whether the installer had informed them on subsidies and tax allowance. They were asked as well whether the installer/seller used the subsidies or the tax allowance as an argument in the selling pitch, see chapter III.1. Relations with installers/sellers (page 28).

They were not asked, whether they were satisfied with the installer.

5. Improvements

5.1 What improvements could be made on financial incentives?

The single mentions were:

- Higher subsidies
- More information on subsidies

- clear requirements which documents were needed for appliance
- rise tax allowance
- higher ceiling
- quicker process
- federal control of energy prices (relating to RES)
- supported loans
- deduct input VAT
- tax rebate
- outside finance
- clarify process of subsidies
- higher tariffs on green electricity

The individual arguments were:

- clear information on requirements which documents are needed for appliance
- higher tax allowance
- higher ceiling
- speed up process
- federal control of energy prices (relating to RES)
- supported loans
- deduct input VAT
- tax rebate
- outside finance
- clarify process of subsidies
- higher tariffs on green electricity

5.2 Which kind of financial incentive would you prefer?

Most interviewees would leave things the way they are now. About one third would prefer only investment grants, no tax allowance. Three interviewees would prefer a higher amount for tax allowance, one of them would even prefer this as the only financial incentive. One person mentioned, people should have the choice, which kind of support instrument they want to use.

Considering the profile groups, there are no differences between the profiles.

- *"If someone gets informed himself, it is quite easy." (solar panel, 4432)*
- *"People who want to invest in RES should receive support." (heat pump, 3340)*
- *"Don't know that much about tax allowance – you don't hear much about it" (heat pump, 3340)*

As the money, in many cases, is need immediately, it is crucial that consumers receive the financial incentive as quickly as possible. A pay-out in rates is not preferred by anybody. People wish to receive the money at once.

"People should familiarise themselves with the topic, use their brain, it's not that difficult." (heat pump, 3340)

Regarding the advice to the ministry and provincial governments, more information on the subsidies is ranked first. Of course, higher subsidies were demanded, too. Moreover a quite long list of additional things were raised like easy handling, an equal approach for everybody, a separated item on the tax return sheet, equal subsidies for whole Austria etc.

Regarding the advice to professionals, clearly better consulting and trainging dominated the answers of the interviewees. Moreover, better planning of appliances, optimised and cheaper products, more information were mentioned randomly.

"I would really appreciate a brochure about subsidies." (heat pump, 3340)

6. Conclusion

General level of satisfaction
In general, the interviewees are quite satisfied with the existing financial incentives for RES heating systems. They stated that the scheme of subsidies is easy to understand and to apply.

Tax allowance
Almost every interviewee who used the tax allowance was familiar with this concept. Nine out of 17 users had to decide on one expense, for which they applied for tax allowance, as the lid of this measure is quite low. Especially when building a house or doing several retrofitting measures, the ceiling is exceeded very quickly.

Consumer complaints
Complaints often focus on the amount of subsidies. The interviewees also stated that the system was too complicated. However, six people had no complaints at all.

Improvements
Improvements should be done by raising the subsidies and providing more information on them. Most of the interviewees would prefer to hang on to the existing system. They would like to use options, grants and tax allowance. One person suggested to leave the choice up to the people.

V. Conclusions of and recommendations for the interview analysis

Subsidies play a role when deciding on an RES heating system, but in most cases it is more an assurance than triggering for the purchase. The tax allowance does not influence the purchase decision at all.

The main contact person during the purchase process was the installer. Also, concerning information on subsidies, he is the most important source of information aside from the internet.

The internet was also the main source of information on tax allowance. Also the installer and for some groups the tax consultant are quite important.

Although the interviewees are satisfied with the existing subsidies, they would prefer higher subsidies and a quicker pay-out at once (no installments).

VI. Sources

https://www.bmf.gv.at/Publikationen/Downloads/BroschrenundRatgeber/SteuerbuchD_final_version_17.12.pdf

http://www.klimafonds.gv.at/; 15.03.2008

Telephone interview Dr. Anton RAINER, Federal Ministry of Finance, VI-2, 27.03.2008

STATISTIK AUSTRIA, Lohnsteuerstatistik 2006. Erstellt am 06.11.2007

VII. Tables and figures

Tables

Figures

VIII. Annex

1. Guidelines for qualitative interviews

1. Gender:
2. Age:
3. Profession:
4. Annual income:

Introduction

5. Could you tell me something about yourself, please (family, profession, hobbies, …)?
6. Could you please describe your house in detail (size, age, building standard, …)?
7. Since when have you lived in this house?
8. Could you please describe your solar panels/heat pump/biomass boiler?

Purchase decision

9. How did you choose your solar panels/heat pump/biomass boiler?
10. How did you decide to buy a solar panels/heat pump/biomass boiler?
11. Which questions did you ask yourself when purchasing?
12. Where did you get information about the solar panels/heat pump/biomass boiler?
13. Who did you mostly talk to about the solar panels/heat pump/biomass boiler?
14. Did you contact companies? Did you get several offers?
15. How long before purchasing did you start thinking about it?
16. When was your solar panels/heat pump/biomass boiler installed on site?
17. Which persons have been involved in the decision process?

18. Which reasons were important for you for purchasing this solar panels/heat pump/biomass boiler rather than any other heating system?

19. Why did you choose a solar panels/heat pump/biomass boiler and not a heating system run by fossil fuels?

20. Why did you choose this solar panel/heat pump/biomass boiler rather than any other kind of renewable heating system? Did you think about buying other systems?

Subsidies

21. Did the opportunity of **applying for subsidies** influence your purchasing decision? If yes, in which way? If no, why not?

21.a Did the opportunity of **getting a tax exemption** when buying this heating system influence your purchasing decision? If yes, in which way? If no, why not?
22. When did you first hear about the **subsidies**?
22.a When did you first hear about the **tax allowance**? (investment allowance, tax exemptions, …)? By whom? Where? What information? Under which circumstances? How did this influence your purchase decision?
23. (if the interviewee received the tax exemption): What financial calculation did you make? Please explain your calculation in detail.
24. How much tax exemption did you actually get? Did you know that before filling in your tax assessment?
25. Did you receive subsidies from the provincial government or from the local authority? If yes, how much? If no, why not?
26. **Did the subsidies influence your investment (cheaper, more expensive, better)? Did especially the fiscal measure influence your investment?** Did you plan from the beginning to buy this solar panels/heat pump/biomass boiler? If no, why did you change your opinion?
27. How much did the solar panels/heat pump/biomass boiler cost (incl. and excl. VAT)?
28. Which model would you have bought without the subsidies?
29. Which role did the increase in fossil fuel prices play in your choice? Which model would you have bought had the fossil fuel prices been stable?

Information about subsidies

30. Where did you get information about **subsidies in general**?
30.a Where did you get information about the **opportunity of a tax exemption** for this investment?
31. Who did you get the information from?
32. Where did you find the most comprehensive information?

33. Was it easy for you to collect information **concerning subsidies**? Was it easy to collect information **about the tax exemption**?

34. Were you familiar with the concept of "tax exemption"? Could you explain it to me? What is the significance of the ceiling?
35. Did you know that this is part of a pool of expenses that are eligible to the fiscal measure?
36. Did you have to make a choice of investments?
37. Did you get almost the same information from the different partners?
38. Did the plumber explain you the **tax exemption**? Did he inform you about **subsidies in general**? Did he use **subsidies and tax exemptions** as a selling argument?
39. Could you list the eligibility conditions to be able to benefit from this measure?
40. Was it difficult for you to bring in the solar panels/heat pump/biomass boiler in your tax declaration? If yes, why? In which part of the tax declaration did you bring it in? Which amount did you bring in? Did you have to attach additional documents?
41. In which way did you receive the tax reduction? (less tax, allowance, …)

Improvements

42. How do you assess the practical realization of the **subsidies**, how that **of tax exemptions** (pros and cons)?
43. Which suggestions can you make for financial incentives of renewable heating systems?
44. Which kind of subsidies for renewable heating systems would you prefer (assuming the sum remains at the same level)?

- **only investment allowance from provincial government and local authorities**
- **only tax reduction, but higher than recently (but not subsidies from provincial government and local authorities)**
- **both options, as it was by now**
- **higher amounts as tax exemptions (therefore less investment allowance from provincial government or local authorities**

How should a fiscal measure look like?

45. How would the perfect support measure look like? What is most important for you?

- rapid payment	**- direct allowance**
- user friendly	**- whole amount at once**
- tax reduction	**- in installments**
- …	

46. Which suggestions would you recommend to the followings?

- finance ministry
- energy agencies, provincial governments

- experts for renewable energy (i.e. plumbers)