WAERMER
Waermewende im urbanen Gebäudebestand mit Hilfe interaktiver Entscheidungsraumanalyse

Examining the willingness to adopt new heating systems of German homeowners

Deliverable 2.5

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Content

Overview

This report summarizes the results of a broad quantitative questionnaire study that aimed to investigate homeowners' willingness to switch their current heating system to a more environmentally friendly alternative. For that purpose, a survey was conducted and used for data collection in the city of Kiel, Germany. In the first section of this report the theoretical background leading to the study's aim is presented. Subsequently, the materials used and the methods applied to analyze the data are described. Finally, the findings are presented and discussed.

1. Theoretical Background

The heating sector, particularly the private residential sector, represents a significant opportunity for emission reductions. In most private buildings in Germany, heating systems rely on fossil fuels such as gas and oil (Umweltbundesamt, 2025a). In contrast, environmentally friendly alternatives, such as heat pumps, which harness renewable energy sources from ground, water, and air in combination with electricity, offer a lower carbon footprint (Gaur, Fitiwi & Curtis, 2021; Amponsah et al., 2014). Other viable options in the residential sector include biomass-based systems (e.g., wood heating) and district heating networks, which efficiently supply energy to multiple buildings using renewable or waste heat sources, such as industrial by-products (Amponsah et al., 2014).

The German government has committed to achieving climate neutrality by 2045 (Umweltbundesamt, 2025b). To meet this target, emissions from the private building sector must be drastically reduced. Given that the majority of homeowners still rely on fossil fuel-based heating systems, a key question arises: Why have so many homeowners not yet transitioned to more environmentally friendly alternatives?

Given that heating systems in private homes need to become more environmentally friendly, a deeper understanding of homeowners' motivations is essential—both motivations to change their current heating system and motivations to maintain the existing one. It is important to understand the potential barriers and concerns people face, and how these challenges might be addressed. The following study aims to provide insight into some of these questions.

The Theory of Planned Behaviour by Ajzen (1991) is a widely used theory in psychology to understand underlying mechanisms of behaviour. According to this theory, three important components must be considered if we want to understand how a certain behaviour and the intention leading to it are formed. These are the attitudes a person holds towards the specific behaviour, the social norms that come into play, as well as the perceived behaviour control. These components are rated by the individual and determine whether the person forms the intention to perform the behaviour or not.

A person can have specific attitudes towards the behaviour, which can be rated as positive or negative. For example, "I think a heat pump is a reliable heating system" or "A heat pump is not a reliable heating system." A person can hold multiple attitudes towards a specific topic at the same time, some of them may be positive, some negative. Another component is social norm. This refers to the extent to which a person considers what others think about the behaviour and whether the opinion of those others is perceived as important. The third component is the perceived behaviour control. This describes whether the person feels able to perform a certain behaviour. This can be influenced by factors the person cannot control (e.g., there is no heating grid planned, so this is no behavioural option) or by factors the person can control (e.g., the person believes to be able to collectively plan a local heating

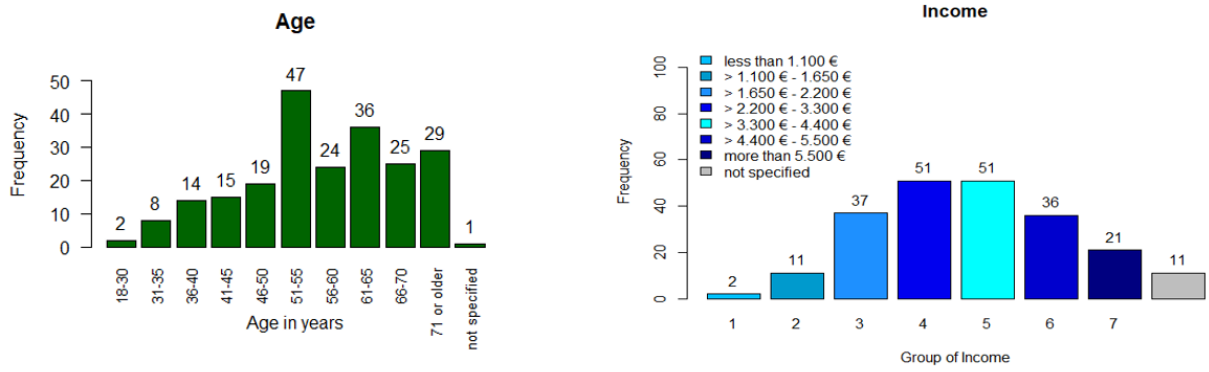
grid). All three components are rated by the individual to form the intention to perform a certain behaviour or not. In this study, the Theory of Planned Behaviour by Ajzen (1991) was used to construct questions with which participants had to rate different heating system scenarios.

2. Sample recruitment and description

To contact homeowners in the city of Kiel, flyers were distributed in two different districts: Ellerbek and Oppendorf. The district of Ellerbek consists of single-family houses as well as apartment buildings. Oppendorf is characterised by a more village-like setting, with a higher proportion of single-family houses and larger properties featuring more garden space compared to Ellerbek.

For the purposes of this study, only homeowners were considered as participants, since they are the ones who can independently decide whether to replace their heating system. Tenants were therefore excluded from the questionnaire, and flyers were not distributed in apartment buildings. To increase the number of participants, flyers were distributed twice, at intervals of a few weeks. Data collection took place between May 31 and August 10, 2023.

Figure 1: Age and income distribution



The final sample consists of 220 homeowners: 139 from Ellerbek and 81 from Oppendorf. As shown in Figure 1, the majority of participants are aged 51 or older. The majority of participants in both districts have a net income between 2.200 and 4.400€ per household. In Oppendorf 50 participants identified as male, 29 as female, and 2 did not wish to specify their gender. In Ellerbek, 99 participants identified as male and 40 as female. None of the participants identified as non-binary.

3. Methods

For data collection, a custom survey was developed, which is elaborated in the following section. The statistical methods used to analyse the data are explained in Section 3.2. For statistical analysis RStudio was used (Posit team, 2023).

3.1. Materials

A questionnaire comprising approximately 120 items was developed and pre-tested. The survey consists of three main content sections. The first section includes information about the participants, such as age, gender, income, and education (sociodemographic data), as well as details about the house and household they live in (e.g., living area, number of people in the household, past or planned renovations), and the number of cars owned. At the end of the questionnaire, participants were asked to provide specific information about their current heating systems and the types of heating sources they used over the past year. The results from these data were also used by project partners (Digel, Holzhauer & Krebs, 2024).

In addition to these basic household characteristics, a second section of the survey contains items related to attitudes toward the environment, knowledge about different heating systems, and selected items from a revised scale for environmental awareness (Geiger, 2020; see appendix 1).

The main part of the survey consists of three different heating scenarios, which were presented to participants. Each scenario provides detailed information about the system, and participants were asked to rate each scenario using specific items, as well as to assess their willingness and intention to purchase such a system. The scenarios were presented in German; the translated versions of the two heat pump scenarios are as follows:

> **Scenario 1:** One option is to replace your currently installed heating system with a heat pump and a photovoltaic system. After deducting state subsidies, such a typical installation would cost from €37,000 onwards. Modern heat pumps are highly efficient and generate two to, in some cases, up to five times more useful heat from outside air, ground heat, or groundwater than the electrical energy they consume. When a heat pump is combined with a sufficiently powerful photovoltaic system, the ongoing operating costs for heating your residential building and producing hot water can be significantly reduced. Furthermore, such a combined solution ensures a high degree of independence from the energy market. This way, you can heat your residential building almost entirely without climate-damaging CO_2 emissions.
>
> **Scenario 2:** One option is to replace your currently installed heating system with a larger heat pump and photovoltaic system that are jointly acquired and operated by several neighbouring households. Even after deducting state subsidies, such a typical installation—e.g., for five houses—would cost from €50,000 onwards. These costs would be shared among the neighbours. Modern heat pumps are highly efficient and generate two to, in some cases, up to five times more useful heat from outside air, ground heat, or groundwater than the electrical energy they consume. When a larger heat pump is combined with a sufficiently powerful photovoltaic system, the ongoing operating costs for heating your residential building and producing hot water can be significantly reduced. Furthermore, such a combined solution ensures a high degree of independence from the energy market. This way, you can heat your residential building almost entirely without climate-damaging CO_2 emissions.

Depending on the district in which participants live, they were presented with a district heating network, like was the case for Ellerbek:

> **Scenario 3a:** One option is to replace your currently installed heating system by connecting to the local district heating network. This would cost approximately €12,000 after deducting state subsidies. A so-called district heating interface station will be installed in the building,

> requiring little space and providing hot water ready for use. Maintenance and repair costs typically associated with individual heating systems do not apply with a district heating connection, as they are already included in the base tariff. Operation requires no further action from the household occupants. Central heating plants generate the required energy and feed hot water into the district heating network. If a gas-fired power plant is used to produce the heat, slightly fewer climate-damaging CO_2 emissions are released compared to a conventional central heating system.

In Oppendorf, a local district heating network was offered as one scenario:

> **Scenario 3b:** One option is to replace your currently installed heating system by connecting to a shared neighbourhood heating network offered by an operating company. This would cost approximately €12,000 after deducting state subsidies. The remaining costs would be shared among the users within the network community. Various technological options are available for the required central heating plant. In the building, only a heat interface station needs to be installed—requiring little space and providing hot water ready for use. Operation typically requires no further action from the household occupants. Depending on the energy source used and the distances between individual connection points, a very favourable CO_2 balance can usually be achieved.

For all scenarios it was additional stated that prices may vary: "*These costs refer to a typical installation. Depending on the overall market situation, local price levels, and the specific building conditions, investment costs may be lower or higher.*"

Participants were then asked to rate each of the presented scenarios. The items used for the ratings are based on the Theory of Planned Behaviour (Ajzen, 1991). Table 1 shows the translated items and their corresponding categories within the TPB (attitude, perceived behavioural control, and social norms).

Table 1: Items for scenario ratings and their TPB categories

Item	TPB
The heating method presented…	
… I consider environmentally friendly	Attitude
… I consider cost-effective in operation	Attitude
… I consider to be a reliable solution	Attitude
… I think is worth striving for	Attitude
… would my neighbours approve of.	Social Norms
… my circle of friends/my family would approve of	Social Norms
The opinion of my neighbours on this matter is important to me.	Social Norms
The opinion of my friends / family on this matter is important to me.	Social Norms
… I consider feasible for installation in my house	Perceived behaviour control
… I consider financially feasible for implementation in my home	Perceived behaviour control

To measure participants' *Installation Intention,* two items were used: "*I could imagine purchasing such a heating system for my home*." and "*I intend to install such a heating system in the near future (within the next 5 years).*" In appendix 2 the Scenarios from the questionnaire are presented in German.

3.2. Statistical Methods

Data was analysed using descriptive statistical methods as well as inferential statistical methods. The results of the descriptive analysis are described in detail in Deliverable 2.2. To identify the factors influencing homeowners' *Installation Intention*, inferential statistical methods were employed. A regression model was used to predict *Installation Intention* based on 18 predictors. A best-subset selection regression was performed using the *dredge* package in RStudio. This method employs automated model selection through the *MuMIn* package for multi-model inference (Bartoń, 2023). All possible combinations of the given predictors were evaluated to predict *Installation Intention*. The model that best fits the data was selected. Since p-values cannot be reliably interpreted after model selection, a commonality analysis was conducted to identify the most influential predictors in the final model. For each scenario, *Installation Intention* was predicted using a separate regression model. Based on the Theory of Planned Behaviour, the three predictors—attitude, social norms, and perceived behavioural control—were included as fixed predictors, meaning they were always retained in the final regression model.

4. Results

Table 2 shows the regression models for Scenario 1 (heat pump in combination with a photovoltaic system), Scenario 2 (heat pump in combination with a photovoltaic system jointly acquired and operated with neighbours), and Scenario 3 (district heating network or local neighbourhood heating network). The regression model for Scenario 1 has an R^2 of 0.53, meaning that 53% of the variance in *Installation Intention* can be explained by the model. For Scenario 2, 47% of the variance is explained, and for Scenario 3, 50% of the variance can be explained by the model.

For Scenario 1, in addition to the TPB-based predictors (attitude, social norms, and perceived behavioural control), the following variables were included in the model: knowledge, the disturbance through construction works related to heat pumps, if an energy consultation had taken place, and satisfaction with the current heating system. The only predictors with a negative influence on *Installation Intention* are satisfaction with the current heating system (the higher the satisfaction, the lower the intention to install a heat pump) and social norms (how do neighbours, family members or friends think about the heating system and are those opinions important for the participant).

For Scenario 2, the same set of predictors as in Scenario 1 was included in the final model. Satisfaction with the current heating system again shows a negative relationship with *Installation Intention*. For the predictor energy consultation, the category "energy consultation took already place" had a negative connection to the dependent variable *Installation Intention* compared to the reference category "I have not thought about an energy consultation". This means that a person who already had an energy consultation has a lower *Installation Intention* for Scenario 2 compared to a person that

Table 2: Regression Models for *Installation-Intention* for the three Scenarios

	Scenario 1 Heat pump and PV	Scenario 2 Heat pump and PV with neighbours	Scenario 3 District / local heating network
N	192	196	198
R^2	0.55	0.49	0.52
Adjusted R^2	0.53	0.47	0.50
Predictors	**Coefficients (SE)**	**Coefficients (SE)**	**Coefficients (SE)**
Constant	24.76 (6.71)	25.93 (6.52)	27.48 (7.52)
Attitudes	0.12 (0.06)	0.001 (0.07)	0.24 (0.07)
Social Norm	-0.01 (0.07)	0.07 (0.06)	0.21 (0.05)
Perceived Behaviour Control	0.28 (0.05)	0.24 (0.05)	0.09 (0.06)
Knowledge	0.09 (0.05)	0.14 (0.05)	0.16 (0.05)
Construction works	0.07 (0.04)	0.08 (0.04)	
Energy Consultation (EC) 2	9.46 (3.14)	7.71 (3.19)	
EC 3	5.89 (3.72)	2.38 (3.70)	
EC 4	2.52 (3.45)	-0.10 (3.40)	
Income			-1.47 (0.82)
Gender_male			5.47 (2.53)
Satisfaction with current system	-0.33 (0.06)	-0.30 (0.05)	-0.35 (0.05)

Notes: The predictor Energy Consultation (EC) is dummy coded. EC1:" I have not thought about an EC"; EC2:" Yes, I have thought about an EC"; EC3:" I have contacted an EC"; EC4:" EC took already place". The Predictor Gender is also dummy-coded.

had not thought about having an energy consultation. The coefficient is quite low though (-0.10). For Scenario 3, the following variables were included as predictors in addition to the TPB variables: knowledge, satisfaction with the current heating system, and the sociodemographic variables income and gender. Satisfaction with the current heating system again has a negative effect on *Installation Intention* for a district or local heating network. Income also has a negative effect: the higher the household's net income, the lower the *Installation Intention*. Regarding gender, male participants show a higher *Installation Intention* compared to female participants.

In Figure 2 the results of the commonality analysis are presented for the three scenarios. The commonality analysis the percentage of the explained variance in the regression model (R^2) that can be attributed to each predictor. For all three Scenarios the predictor *satisfaction with current heating systems* has the most effect on *Installation Intention* with 15.77 % for scenario 1, 17.5 % in scenario 2 and 24.77 % in scenario 3. For both heat pump scenarios, the second predictor with the most effect on the dependent variable is *perceived behaviour control*. In scenario 1, this is followed by *energy consultation*, *attitudes*, *knowledge*, and *construction works*. According to the commonality analysis, *social norms* do not have an effect on *Installation Intention* in this scenario. The same is the case for the predictor *attitudes* in the second scenario. *Knowledge* has a higher effect than in Scenario 1 followed by *energy consultation*, *construction works* and *social norms*. For the third scenario every predictor influences the *Installation Intention*. In this case *social norms* have the highest effect after *satisfaction with current heating systems* followed by *attitudes*, *knowledge*, *gender*, *income* and *perceived behaviour control*.

Table 3: Communality Analysis for the Regression Models of the three heating Scenarios.

Notes: Commonality Analysis for the Predictors of Installation-Intention (dependent variable) in % for the three Scenarios: 1 = heat pump with PV; 2 = heat pump and PV provided with neighbours; 3 = connection to district heating grid. Green predictors indicate a positive correlation with the dependent variable; red predictors indicate a negative correlation.

Scenario 1 (R^2 = 0.55)		Scenario 2 (R^2 = 0.49)		Scenario 3 (R^2 = 0.52)	
Predictor	Total Effect in %	Predictor	Total Effect in %	Predictor	Total Effect in %
Satisfaction with current heating system	15.77	Satisfaction with current heating system	17.5	Satisfaction with current heating system	24.77
Perceived behaviour control	15.15	Perceived behaviour control	12.81	Social Norm	8.04
Energy Consultation	4.45	Knowledge	3.93	Attitudes	5.36
Attitudes	1.6	Energy Consultation	3.91	Knowledge	5.18
Knowledge	1.3	Construction Works	1.96	Gender	2.3
Construction Works	1.16	Social Norm	0.83	Income	1.59
Social Norm	0	Attitudes	0	Perceived behaviour control	1.11

5. Discussion

For all three scenarios, participants who are satisfied with their current heating system have a lower intention to change their system. This result shows that there may be some key situations in which homeowners may be open for a change if they are not that satisfied with their current heating systems. That could be when the heating system needs to be repaired, for example.

Especially in the heat pump scenarios *perceived behavioural control*—encompassing beliefs about one's ability to manage financial costs or construction-related challenges—emerged as a key predictor of *Installation Intention*. This underscores the necessity of providing homeowners with targeted support that enhances their sense of capability to install such systems. Such support could include financial subsidies or energy consultations, both of which may help homeowners feel more confident in their ability to afford the installation and better understand how specific systems can be implemented in their individual circumstances.

In the district or local heating network scenario the predictor *perceived behaviour control* does not play such an important role compared to the heat pump scenarios. Instead, predictors such as *social norms*, *attitudes*, and *knowledge* emerged as more important. Financial aspects appear to play a lesser role compared to the heat pump scenarios. *Income* and *perceived behavioural control* do not have a strong effect on *Installation Intention*. *Income* itself has a negative impact. Specifically, higher household net income is associated with lower *Installation Intention*. This may indicate that homeowners with lower incomes are more interested in connecting to a district or local heating network. The results suggest that willingness to adopt heat pumps could be significantly enhanced through improved professional support, as reflected in the predictor *energy consultation*, combined with targeted assistance in financing.

When interpreting these findings, it is important to recognize that generalization to the broader population is difficult. The sample was drawn from two specific districts in the city of Kiel, which already have a strong presence of energy transition initiatives, including workshops and consultations on heating system upgrades. Furthermore, only a small proportion of the individuals contacted participated in the study. This raises the likelihood of selection bias—particularly that individuals who were already interested in the topic and had engaged with it extensively were more likely to respond to the questionnaire.

However, this study took place in a German city, which means that the data collection and therefore the results stem from realistic contexts. It depicts how homeowners in the districts perceived the heating systems at that time point and which factors played a role for them. Therefore, the results can provide good insights into possible mechanisms that could be addressed to help homeowners transition to environmentally friendly heating systems. Those mechanisms could include enhancing homeowners´ sense of being able to raise the financial funds for such new systems, as well as ensuring that homeowners receive more information tailored to their individual homes through professional consultations.

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Appendix 1 – Items used by Geiger, 2020

The following items used in our questionnaire are derived from a revised scale for environmental awareness by Geiger (2020). On the left side of the table are the original items; on the right side, they are translated into English.

Table A1: Items from Geiger (2020) translated

Original Item in German	Item translated into English
Ich unterhalte mich mit Bekannten über die Konsequenzen von Umweltverschmutzung, Klimawandel und Energieverbrauch.	I am discussing the consequences of environmental pollution, climate change, and energy consumption with acquaintances.
Es beunruhigt mich, wenn ich daran denke, in welchen Umweltverhältnissen zukünftige Generationen wahrscheinlich leben müssen.	It worries me when I think about the environmental conditions future generations will likely have to live in.
Der Klimawandel bedroht auch die Lebensgrundlagen hier in Deutschland.	Climate change also threatens the basic living conditions here in Germany.
Mehr Umweltschutz bedeutet mehr Lebensqualität und Gesundheit für alle.	Greater environmental protection means higher quality of life and better health for everyone.
Zugunsten der Umwelt sollten wir alle bereit sein, unseren derzeitigen Lebensstandard einzuschränken.	We should all be willing to reduce our current standard of living for the sake of the environment.

Appendix 2 – Heating scenarios in German

This appendix presents the heating system scenarios used in the questionnaire, in German.

Scenario 1:

Wärmepumpe in Kombination mit einer Photovoltaikanlage

Eine Möglichkeit ist es, Ihre bisher installierte Heizungsanlage durch eine Wärmepumpe und Photovoltaikanlage zu ersetzen. Diese würden auch nach Abzug der staatlichen Förderung ab € 37.000,— für eine typische Anlage kosten . Moderne Wärmepumpen sind hocheffizient und produzieren zwei bis z.T. fünf Mal mehr Nutzwärme aus Außenluft, Erdwärme oder Grundwasser, als sie elektrische Energie verbrauchen. Wird eine Wärmepumpe mit einer ausreichend leistungsfähigen Photovoltaikanlage kombiniert, lassen sich die laufenden Betriebskosten zur Beheizung Ihres Wohngebäudes und Bereitung des Warmwassers erheblich reduzieren. Zudem gewährleistet eine solche Kombinationslösung eine hohe Unabhängigkeit vom Energiemarkt. So können Sie Ihr Wohngebäude nahezu ohne klimaschädliche CO_2-Emissionen beheizen.

Die dargestellte Art zu heizen, ...

... halte ich in ihrer Installation für mein Haus machbar.	stimme gar nicht zu	stimme voll zu
... halte ich bezüglich ihres Einbaus finanziell für mein Haus umsetzbar.	stimme gar nicht zu	stimme voll zu
... halte ich für umweltfreundlich.	stimme gar nicht zu	stimme voll zu
... halte ich für kostengünstig im Betrieb.	stimme gar nicht zu	stimme voll zu
... halte ich für eine zuverlässige Lösung.	stimme gar nicht zu	stimme voll zu
... halte ich für erstrebenswert.	stimme gar nicht zu	stimme voll zu
... würde meine Nachbarschaft gutheißen.	stimme gar nicht zu	stimme voll zu
... würde mein Bekanntenkreis / meine Familie gutheißen.	stimme gar nicht zu	stimme voll zu
Die Meinung meiner Nachbarschaft in dieser Sache ist mir wichtig.	stimme gar nicht zu	stimme voll zu
Die Meinung meines Bekanntenkreises / meiner Familie in dieser Sache ist mir wichtig.	stimme gar nicht zu	stimme voll zu

Denken Sie an die dargestellte Option und betrachten Sie die folgenden Aussagen. Inwiefern stimmen Sie diesen zu?

Ich könnte mir vorstellen, eine solche Heizungsanlage für mein Haus anzuschaffen.	stimme gar nicht zu	stimme voll zu
Ich habe vor, eine solche Heizungsanlage in naher Zukunft (5 Jahre) zu installieren.	stimme gar nicht zu	stimme voll zu

Scenario 2:

Gemeinschaftliche Anschaffung und Nutzung einer Wärmepumpe in Kombination mit einer Photovoltaikanlage

Eine Möglichkeit ist es, Ihre bisher installierte Heizungsanlage durch eine durch mehrere Nachbarn gemeinschaftlich angeschaffte und betriebene größere Wärmepumpe und Photovoltaikanlage zu ersetzen. Diese würden auch nach Abzug der staatlichen Förderung ab € 50.000,— für eine typische Anlage z.B. für 5 Häuser kosten . Die verbleibenden Kosten würden unter den Nachbarn aufgeteilt werden. Moderne Wärmepumpen sind hocheffizient und produzieren zwei bis z.T. fünf Mal mehr Nutzwärme aus Außenluft, Erdwärme oder Grundwasser, als sie elektrische Energie verbrauchen. Wird eine größere Wärmepumpe mit einer ausreichend leistungsfähigen Photovoltaikanlage kombiniert, lassen sich die laufenden Betriebskosten zur Beheizung Ihres Wohngebäudes und Bereitung des Warmwassers erheblich reduzieren. Zudem gewährleistet eine solche Kombinationslösung eine hohe Unabhängigkeit vom Energiemarkt. So können Sie Ihr Wohngebäude nahezu ohne klimaschädliche CO_2-Emissionen beheizen.

Die dargestellte Art zu heizen, ...

... halte ich in ihrer Installation für mein Haus machbar.	stimme gar nicht zu	stimme voll zu
... halte ich bezüglich ihres Einbaus finanziell für mein Haus umsetzbar.	stimme gar nicht zu	stimme voll zu
... halte ich für umweltfreundlich.	stimme gar nicht zu	stimme voll zu
... halte ich für kostengünstig im Betrieb.	stimme gar nicht zu	stimme voll zu
... halte ich für eine zuverlässige Lösung.	stimme gar nicht zu	stimme voll zu
... halte ich für erstrebenswert.	stimme gar nicht zu	stimme voll zu
... würde meine Nachbarschaft gutheißen.	stimme gar nicht zu	stimme voll zu
... würde mein Bekanntenkreis / meine Familie gutheißen.	stimme gar nicht zu	stimme voll zu
Die Meinung meiner Nachbarschaft in dieser Sache ist mir wichtig.	stimme gar nicht zu	stimme voll zu
Die Meinung meines Bekanntenkreises / meiner Familie in dieser Sache ist mir wichtig.	stimme gar nicht zu	stimme voll zu

Denken Sie an die dargestellte Option und betrachten Sie die folgenden Aussagen. Inwiefern stimmen Sie diesen zu?

Ich könnte mir vorstellen, eine solche Heizungsanlage für mein Haus anzuschaffen.	stimme gar nicht zu	stimme voll zu
Ich habe vor, eine solche Heizungsanlage in naher Zukunft (5 Jahre) zu installieren.	stimme gar nicht zu	stimme voll zu

Scenario 3a:

Anschluss an das örtliche Fernwärmenetz

Eine Möglichkeit ist es, Ihre bisher installierte Heizungsanlage durch einen Anschluss an das örtliche Fernwärmenetz zu ersetzen. Das würden auch nach Abzug der staatlichen Förderung etwa € 12.000,— kosten. Es wird im Haus eine sogenannte Fernwärmeübergabestation eingebaut, die wenig Platz benötigt und Ihnen das Warmwasser gebrauchsfertig zugänglich macht. Für andere Heizsysteme typische Wartungs- und Instandhaltungskosten fallen bei einem Fernwärmeanschluss nicht an, sondern sind bereits im Grundpreis inbegriffen. Der Betrieb erfolgt ohne weiteres Zutun der Hausbewohnenden. Zentrale Heizkraftwerke erzeugen die notwendige Energie und speisen Warmwasser ins Fernwärmenetz ein. Wird für die Erzeugung der Wärme ein Gaskraftwerk verwendet, werden gegen über einer Hauszentralheizung etwas weniger klimaschädliche CO_2-Emissionen ausgestoßen.

Die dargestellte Art zu heizen, ...

... halte ich in ihrer Installation für mein Haus machbar.	stimme gar nicht zu	_____	stimme voll zu
... halte ich bezüglich ihres Einbaus finanziell für mein Haus umsetzbar.	stimme gar nicht zu	_____	stimme voll zu
... halte ich für umweltfreundlich.	stimme gar nicht zu	_____	stimme voll zu
... halte ich für kostengünstig im Betrieb.	stimme gar nicht zu	_____	stimme voll zu
... halte ich für eine zuverlässige Lösung.	stimme gar nicht zu	_____	stimme voll zu
... halte ich für erstrebenswert.	stimme gar nicht zu	_____	stimme voll zu
... würde meine Nachbarschaft gutheißen.	stimme gar nicht zu	_____	stimme voll zu
... würde mein Bekanntenkreis / meine Familie gutheißen.	stimme gar nicht zu	_____	stimme voll zu
Die Meinung meiner Nachbarschaft in dieser Sache ist mir wichtig.	stimme gar nicht zu	_____	stimme voll zu
Die Meinung meines Bekanntenkreises / meiner Familie in dieser Sache ist mir wichtig.	stimme gar nicht zu	_____	stimme voll zu

Denken Sie an die dargestellte Option und betrachten Sie die folgenden Aussagen. Inwiefern stimmen Sie diesen zu?

Ich könnte mir vorstellen, eine solche Heizungsanlage für mein Haus anzuschaffen.	stimme gar nicht zu	_____	stimme voll zu
Ich habe vor, eine solche Heizungsanlage in naher Zukunft (5 Jahre) zu installieren.	stimme gar nicht zu	_____	stimme voll zu

Scenario 3b:

Anschluss an ein Nahwärmenetz

Eine Möglichkeit ist es, Ihre bisher installierte Heizungsanlage durch einen Anschluss an ein gemeinschaftliches Nahwärmenetz, welches durch eine Betriebsgesellschaft angeboten wird, zu ersetzen. Das würde auch nach Abzug der staatlichen Förderung etwa € 12.000,— kosten . Die verbleibenden Kosten würden in der Nutzendengemeinschaft aufgeteilt werden. Es stehen verschiedene technologische Optionen für die erforderliche zentrale Heizungsanlage zur Auswahl. Im Haus wird lediglich eine Übergabestation installiert, die wenig Platz benötigt und das Warmwasser gebrauchsfertig zugänglich macht. Der Betrieb erfolgt oft ohne weiteres Zutun der Hausbewohnenden. Je nach verwendeter Energiequelle und Distanzen zwischen den einzelnen Anschlüssen kann meist eine sehr günstige CO_2-Bilanz erreicht werden.

Die dargestellte Art zu heizen, ...

... halte ich in ihrer Installation für mein Haus machbar.	stimme gar nicht zu	stimme voll zu
... halte ich bezüglich ihres Einbaus finanziell für mein Haus umsetzbar.	stimme gar nicht zu	stimme voll zu
... halte ich für umweltfreundlich.	stimme gar nicht zu	stimme voll zu
... halte ich für kostengünstig im Betrieb.	stimme gar nicht zu	stimme voll zu
... halte ich für eine zuverlässige Lösung.	stimme gar nicht zu	stimme voll zu
... halte ich für erstrebenswert.	stimme gar nicht zu	stimme voll zu
... würde meine Nachbarschaft gutheißen.	stimme gar nicht zu	stimme voll zu
... würde mein Bekanntenkreis / meine Familie gutheißen.	stimme gar nicht zu	stimme voll zu
Die Meinung meiner Nachbarschaft in dieser Sache ist mir wichtig.	stimme gar nicht zu	stimme voll zu
Die Meinung meines Bekanntenkreises / meiner Familie in dieser Sache ist mir wichtig.	stimme gar nicht zu	stimme voll zu

Denken Sie an die dargestellte Option und betrachten Sie die folgenden Aussagen. Inwiefern stimmen Sie diesen zu?

Ich könnte mir vorstellen, eine solche Heizungsanlage für mein Haus anzuschaffen.	stimme gar nicht zu	stimme voll zu
Ich habe vor, eine solche Heizungsanlage in naher Zukunft (5 Jahre) zu installieren.	stimme gar nicht zu	stimme voll zu