REScoop Plus

D3.3 – Effectiveness Report 1

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Contents

Management summary

This report presents the results of the first analysis on the effectiveness of activities of energy supplying European REScoops (Renewable Energy Sources Cooperatives) to influence and help their members to save energy and to invest in renewable energy.

This report concerns the first of two reports published as deliverable D3.3 of the REScoop Plus project. The overall objective of REScoop Plus is to further develop energy savings as an activity for European REScoops. To reach this overall goal the sub question for Work Package 3 is, *'What behavioral and social aspects influence energy savings and investment by consumers and members of the REScoop?*'

The report under deliverable D3.3 assesses the effectiveness of the tools used by (selected) energy supplying REScoops in Europe.

Following exploratory research (Deliverable 3.1), the development of an analytical framework and research design, a survey was conducted in Spring 2017 with six REScoops in five different EU states. In total, a response of 10,585 was achieved. Following data collection data treatment and analysis were conducted in the Summer of 2017. The main conclusions of the survey analysis are presented below. First results are presented on the analysis regarding energy savings. Second, this is done for the results regarding the analysis of investments in renewable energy technology.

Results on energy savings

Nearly half of the respondents indicate to consume less energy since they became REScoop members. Of those who are aware of actual (measured) energy consumption and savings 40% indicates to have saved at least 10% over 2015-2016. Longitudinal time series studies by TUC (2017) revealed that by joining a REScoop one lowers 20% in energy demand on average, and by becoming a prosumer one lowers electricity consumption by more than 45%.

Respondents indicate to undertake many (individual) energy savings actions. Only, a portion of them indicates that this can attributed to a REScoop, though. The longer respondents indicate to be REScoop members the more they engage in energy savings actions, and the more they indicate to have saved energy. The majority of respondents indicate that energy savings have become more important to them, and to have increased their knowledge level on energy issues since becoming a REScoop member. The far majority of respondents indicates overall satisfaction with REScoop energy service delivery, and state this to be better than energy service delivery by conventional energy suppliers.

A number of specific energy measures and tools implemented by REScoops (i.e. Dr. Watt training sessions, personal advice, or Energy ID) were found to significantly and positively correlate to energy savings (since becoming a REScoop member). Moreover, users were generally satisfied with them. However, only a relatively small portion of the respondents indicate to have actually used these measures. In a particular case – i.e. Dr. Watt training sessions by Enercoop – a measure implemented by a REScoop was found to result in no less than 60% reduction in energy consumption among users.

Rival factors found to statistically correlate to energy savings (and related operationalisations) concern: motivational factors, behavioural factors (e.g., goal-setting, intention), social factor (in particular social network), knowledge level, demographics and household characteristics. Although factors mentioned here are classified as 'rival' some of them can in fact be influenced by REScoop tools and measures, and contribute to energy savings; i.e. motivational factors, behavioural factors, social network and knowledge level. This is more difficult for structural factors like demographics and household characteristics.

Results on investment in renewable energy

Whereas 21% of the respondents indicated to already made invests in renewable energy prior to becoming a REScoop member, 24% has made investments since becoming a REScoop member, and 27% indicates to invest in renewable energy in the near future. The longer respondents are REScoop members the more willing they become to invest. Investment size is rather small on average, though: between 500 and 2500 euros. REScoop members and consumers consider financial-economic return on investment of less importance than production and consumption of renewable ('clean') energy.

There is a significant difference in willingness to invest in renewable energy (future investments) between REScoop members and non-members. REScoop member indicate higher willingness to invest. Members of immature REScoops (i.e. 'young' REScoops) were found more willing to make more future investments in renewable energy technology than members of mature REScoops.

Rival factors found to statistically correlate with investments in renewable energy (and related operationalisations) concern: behaviour, social factors (in particular social network), knowledge level, (some) demographics and (some) household characteristics. Although many factors are classified as 'rival' some of them can in fact be influenced by REScoop tools and measures (excluding demographics and household characteristics), and contribute to energy savings; i.e. motivational factors, behavioural factors, social network and knowledge level.

In 2018 a follow up survey will be conducted among REScoops as part of Work Package 3 task 3.3. This is done to analyse the long-term impact and effects of REScoop measures.

1. Introduction

1.1 About REScoop plus

This report is deliverable D3.3 of the REScoop Plus project, a deliverable that falls under Work Package 3**.** The overall objective of REScoop Plus is to further develop energy savings as an activity for European REScoops. To reach this overall goal the sub question for Work Package 3 is, '*What behavioral and social aspects influence energy savings and investment by consumers and members of the REScoop*?'

The focus in the REScoop Plus project (the successor to the FP7 REScoop20-20-20 project) is to find empirical support for the explicit claim that energy supplying REScoops are more successful to support consumer energy saving than other energy suppliers. Finding evidence for this claim, and plausible explanations for this success in realized energy savings is not only relevant for REScoops, but also in a wider context (i.e. one can also learn from the revealed mechanisms, and theoretically generalize about the energy saving potential to other energy consumers).

Therefore the result of this work package will not only contribute to the development of energy saving activities of REScoops but will also contribute to the generalization of the results to other target groups than REScoop members and to expand the memberships of REScoops to other groups than traditional REScoop groups (middle class, middle age males).

Together with a number of successful decentralized energy supplying cooperatives, the project will measure overall energy savings of the REScoop members and identify best practices (in terms of projects and incentives with high leverage, and hence impact). The REScoop Plus project partners are members of the federation of European REScoops, entitled *REScoop.eu*. Work package 3 focusses on the tools and actions of these REScoops that are already in place or are planned to be implemented by the REScoops in the project on the short term.

The results of Work Package 3 will be disseminated throughout the REScoop.eu network and to policy makers. The ten REScoop partners of the REScoop Plus project are Avanzi (Italy), Coopernico (Portugal), Enostra (Italy) Ecopower (Belgium), Enercoop (France) EBO (Denmark), ODE-NL (The Netherlands), REScoop.be (Belgium), SEV (Italy) and SOM energia (Spain).

1.2 About this effectiveness report

The claim that measures from energy supplying REScoops stimulate the consumer energy savings is an effectiveness question. Effectiveness means that the existence of measures from REScoops not only correlates with (REScoop) consumer energy savings (by lowering their energy consumption pattern), but is also (partially) caused by these measures, and that the energy savings are not (only) caused by other factors (which can be viewed as rivalry explanations). Research on the effectiveness of the REScoop measures was conducted in three ways under Work Package 3 of the REScoop Plus project.

Firstly, in a previous deliverable under another work package deliverable of the project (D.2.3; Work Package 2 by TUN) the data of the overall energy savings of the REScoop members were correlated to

their participation in or exposure to certain measures by the REScoops. (Statistical) Correlation (which assumes a statistical linear relationship between variables) should not be confused with causation, though (which in addition assumes covariation and logical time order between cause and effect).

However, it is difficult in social and behavioral research to establish sound evidence for causal relationships. In order to do this, real experiments are basically required (with treatment and control groups). For reasons of restrictions in time and budget setting up experiments was not possible under REScoop Plus. Therefore, alternative ways had to be used to find evidence and reconstruct causal mechanisms. We do this, through the use of longitudinal data (which derives from Work package 2, report deliverable 2.3), comparison between groups who were exposed to a certain measure or intervention and groups who were not, and elimination of rivalry factors in reconstructing (assumed) causal mechanisms (i.e. the *modus operandi* approach). The analysis in this report make use of some of the results of a complementary study in the REScoop Plus project, of which the results have been published in deliverable *D2.3 - Data analysis report.*

Secondly, by conducting a survey among all the REScoop federations partaking in the REScoop Plus project, and asking REScoop members on how they experience and value interventions, tools and measures implemented by REScoops, and seeking to analyze these data against actual or perceived energy consumption and renewable energy investments. In the questionnaire used in this survey questions and items were based on a research model presented in report *D3.2 Evaluation Methodology* (see also section 1.4 of this report).

Thirdly, by undertaking a limited set of trials with measures and interventions among selected REScoops. This is related to the best practices and the Toolkit that will developed in this project (under Work Package 4). Research design and methodology of these trials are presented in deliverable *D3.2 Evaluation Methodology*.

This report – the first effectiveness report - focuses on the influence that REScoops (and hence the measures and interventions they implement) have on their members according to these members, regarding energy savings and renewable energy investments. Either in general as a member of a REScoop or as a reaction on a specific measure by a REScoop.

The second effectiveness report – which will be delivered in 2018 - will cover the results of the first survey, and the second survey (i.e., (i) the statistical relation between REScoop measures, energy savings and renewable energy investments, and (ii) the trials). In *Effectiveness Report 2 D3.4 (*which will be published by August 2018) the results of the different effectiveness research strategies will be addressed and presented in an integrated manner, which allows us to verify key claims about the effectiveness (and effects of) REScoop measures, tools and interventions.

1.3 Research design and methodology

The analysis in this report is based on surveys among REScoop members, non-members clients (consuming energy supplied by REScoops) and receivers of REScoop newsletters (or people otherwise connected to the REScoop community) of a selected set of REScoops within the REScoop Plus project consortium. They are: Coopernico (Portugal), Enostra (Italy) Ecopower (Belgium), Enercoop (France) EBO (Denmark), SEV

(Italy) and SOMenergia (Spain). Detailed information on the output of the separate surveys is attached to this report as appendixes. In addition, results from a complementary study on effects of a limited set of REScoop interventions - *Deliverable D2.3 - Data analysis report* – were used.

The claim that energy supplying REScoops stimulate consumer energy savings as an effectiveness question can be answered by using both qualitative and quantitative research designs to determine effectiveness of measures, tools and interventions implemented by REScoops.

The quantitative research design is based on the principle of the experimental research model (pre- and posttest, with experiment and control groups). In this design we use trials, where we try to use both experimental and – if possible - control groups, using multiple pre-test and post-test measurements of energy consumption, and a single pre-test and post-test using the survey to collect data on all of the relevant variables of the research model (which offers insight in rival explanations as well).

In the D2.3 - Data analysis report (by TUC; Work package 2) time series of data on the dependent variable (energy consumption) were established and analyzed. This was done to analyze trends over time. This energy consumption data is general on REScoop level, but can also partly be correlated with specific measures.

The experimental logic builds on energy consumption before and after the implementation of a REScoops measure (or energy Investments before and after) compared with members or non-members (who are not exposed to REScoop induced measures). We can compare a REScoop as a whole (with their members being exposed to a set of different measures and/or the influence of being a member). Effectiveness of REScoop measures means that the energy consumption of the experiment group (of which the members or part of members are exposed to a certain REScoop measure) after being exposed to a certain REScoop a measure is lower when compared to the situation before a measure was implemented, and is lower than that of the control group (non-members or part of REScoop members who have not been exposed to a certain REScoop induced measure). This difference is assumed to be caused by a (certain) REScoop measure and not by other factors (i.e., rival explanations).

The qualitative research design follows the same experimental logic but relies on REScoop members' qualitative assessment on the effectiveness of certain REScoop measures. They are asked, using structured (closed-ended) questions, how much they saved (measured), how much they think they saved, and in how far their energy saving behavior is influenced by the REScoop they are members of.

Because of the subjective nature such research methods, they are usually not the only element in an evaluation. Evaluation research typically uses multiple methods, to compensate shortcomings of mono-methods evaluation research (Walker, 2004.) In the *Effectiveness Report 2 D3.4* (to be published by August 2018) insights from the three different effectiveness research methods will presented, analyzed and integrated.

To link the respondents' energy saving behavior to the assumed influence of REScoop measures and interventions we distinguish here between:

1. specific and unspecified measures of REScoop in relation to the respondents (actual) behavior;
2. specific (perceived) energy saving or energy saving behavior;
3. only ex-post measurement, or comparing between ex ante and ex post (prior and after implementation of a certain REScoop measure).

Some remarks have to be made, though:

Ad 1. We distinguish between judgement on specific and unspecified measures implemented by a REScoop. *Unspecified* concerns the general presumed influence of being a member and being exposed to REScoop actions and information. *Specific* concerns the measures where one knows which members took part or were exposed in another way. The questions that make a relation between behavior of the respondents and unspecified contribution of the REScoop (i.e., "Did you undertake the following energy savings actions, and if yes, to what extent can they be contributed to your REScoop's actions?") Specific measures of the REScoop are for instance Ecopower's energy ID, or Enercoop's Dr. Watt. An overview of all type of measures is presented in deliverable D3.1 (*"Report on specific tools of Supplying REScoops in Europe"*).

Ad 2. We distinguish between judgement on the relation between REScoop measures in reported energy savings or reported investments (estimated or measured) or in terms of behavioral change (in terms of actions undertaken, like lowering the thermostat when leaving one's home).

Ad 3. One asks respondents to reveal information on effectiveness judgment only ex-post, asking them about the influence (correlation) of a certain REScoop measure (specified or unspecified) and energy consumption behavior, or one asks respondents to compare energy consumption data before and after being exposed to a certain measure (or after having become a REScoop member).

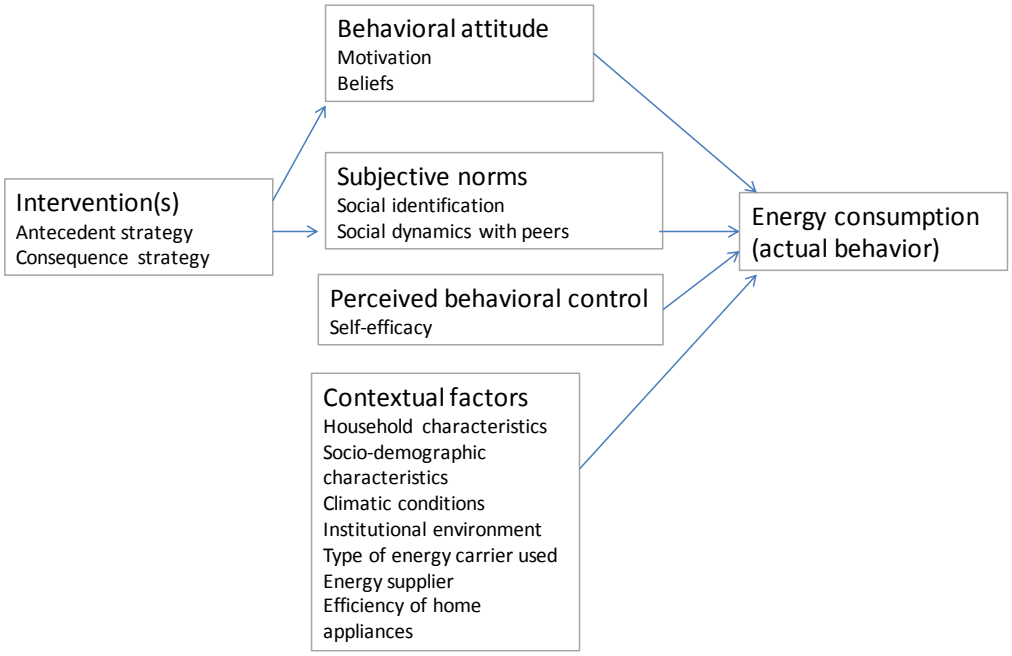
1.4 Research model and rival factors explaining energy savings and investment in renewable energy production technology

To be able to say more about the (potential effectiveness) of the measures we follow the principle of the modus operandi method. The principle of this method is to eliminate rival explanations in the explanation of a certain phenomenon, while trying find evidence that supports certain claims on the direct (expected) relationship between a given measure and the (expected) effect on an outcome variable (like energy consumption). In order to this we first need to know which factors besides the theoretical (independent) variable of interest (i.e., a given REScoop measure) might be a plausible (theoretical) explanation for energy savings among REScoop members. Next, one needs to research which of these factors are present in practice, and actually influence the outcome variable.

Figure 1 presents a simplified research model that forms the conceptual basis of our empirical intervention studies. It incorporates insights from different theories and research traditions, and insights that were derived during previous research, a pilot study, and expert meetings (see for more detail deliverable *D3.2 Evaluation methodology*). In this research model, the REScoop measures are to be found in the box 'intervention(s)'. Interventions (hence REScoop measures and tools) are thus expected to directly influence behavioral attitude and subjective norms, and indirectly energy consumption behavior. The model, however, also contains two other boxes: 'perceived behavioral control', and 'contextual factors'. These two boxes are theorized to directly influence energy consumption. For these reasons, it is clear that REScoop measures alone cannot influence energy consumption alone. More conditions are required, before lowering of energy consumption is expected to occur.

In other words, there are many rival explanations that could plausibly explain for lowering of energy consumption (i.e. energy savings). Next to perceived self-control there are many contextual factors. The latter can be mostly discerned into household characteristics, demographics and environmental conditions.

Figure 1: *simplified research model to explain energy savings among households.*



1.5. Data collection and analysis of the survey

Survey preparation and implementation

The online surveys were undertaken with the survey program LimeSurvey under the license of the University of Twente, on the secure server of the Institute for innovation and Governance Studies (IGS) Data lab of the University of Twente.

With the help of contact persons at the REScoop partners the original English basic questionnaire (see appendix) was translated into six native languages for the REScoops that participated in the survey. Native languages concerned: Dutch for Ecopower in Belgium; Danish for Hvidovre Fjernvarme /Ebo in Denmark; French for Enercoop in France; Portuguese for Coopernico in Portugal; Italian for Enostra in Italy; and German for SEV in the German speaking South Tyrol region in Northern Italy.

The respondents had to enter the online survey via a survey link they received from the REScoop they were either a member or a client to. No tokens or others ways to establish the identities of the respondents, were used (for legal reasons). All respondents were to be considered anonymous. The data

on energy consumption from the REScoops was also anonymous. Hence, survey data cannot be traced back to the actual households they derive from.

The online survey links were unique for all of the REScoops. The respondents could choose between either their native language or the original English. In the translation process questions and answer items were tailored to country specific conditions and circumstances. In this process, some questions were omitted because the questions were not deemed relevant in certain country settings (like statements on nuclear energy, or centralised national energy supply systems). Other questions were changed to match cultural factors of questioning (e.g. a statement on using sustainable food instead of using electrical cars).

The survey samples were derived in close collaboration with contact persons at the REScoops. Either a customer database with e-mail accounts (which was only done with Hvidovre Fjernvarme/Ebo and SEV) was used or a database containing anyone who received a newsletter from a REScoop (which means that respondents do not have to be REScoop members or customer). This difference in approach was related to the business model used by the respective REScoops. The use of the broader community (i.e. the 'newsletter group') enabled us to also collect data among non-members, as most REScoop possessed of a database with 'interested citizens'

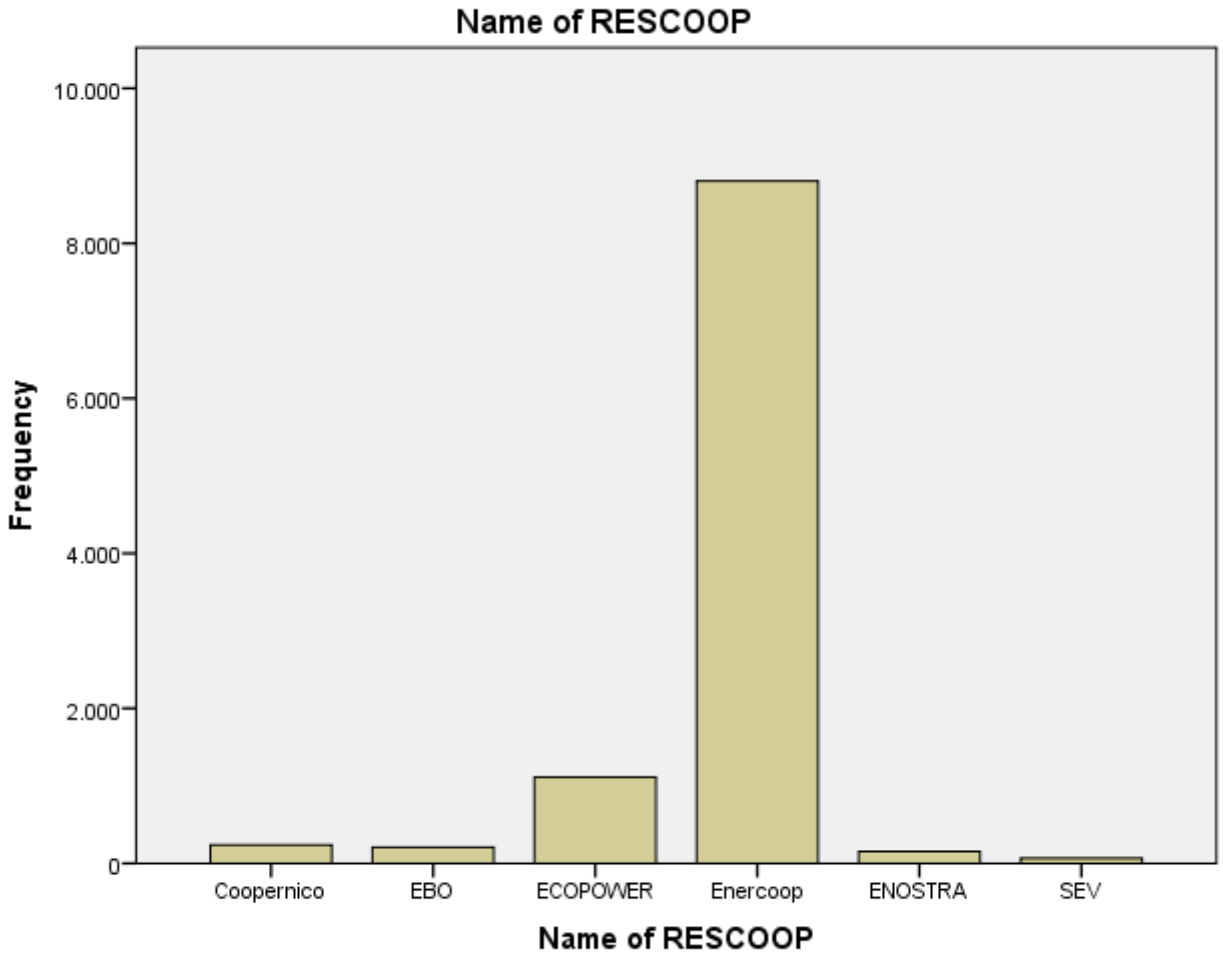
Next, the REScoop partners sent survey links to the respondents. The newsletters and e-mails contained text to explain the purpose of the survey, the research project, and REScoop Plus at large. In addition, the online survey link was coupled with the newsletters and the website on which the online survey was located. To raise the response rate, follow up announcements were used using the REScoops' social media and websites.

Therefore, one can state that the total respondent sample consists out of the community around European REScoop, which are partly REScoop-members, but can also contain other interested persons who receive the REScoop newsletter, visit the REScoop website, or learned about the survey via social media. The total survey response comprised 10,585 respondents. Distribution of respondents among REScoops is, however, rather unevenly distributed. Given the fact that some REScoops are large (in terms of total membership) and some are small there is a bias in the response towards the larger REScoops. Especially Enercoop (N = 8805; i.e., 83.2% of the total response) distorts the results of the analysis due to their over-representation in response. In addition, it should be stated that there is an overrepresentation of 'mature' REScoops (e.g. Enercoop, Ecopower, EBO) when compared to 'newcomers' or REScoops that can be considered 'immature' (i.e. Coopernico, Enostra, and SEV). Figure 2 presents an overview of the survey responses also showing responses per REScoop.

Response rates vary across REScoops. Whereas some managed to get fair response rates (i.e. Enercoop: 22%; EBO: 36%), others fared less well. Moreover, in some cases it was hard to establish any sound response rate as the survey comprised multiple cooperatives falling under a REScoop, while not having any reliable information on total population figures. Therefore, it is hard to come up with any reliable figures on response rate. However, based on the largest two REScoops in the sample (comprising 93.7% of total response in the survey), the response rate would arguably be in the range of 10-12%. However, given that the survey sample also involves non-REScoop members this would probably mean that response among REScoop members is lower; rather in the range of 6-8%.

Figure 2: *Survey responses per REScoop*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Coopernico	239	2,3	2,3	2,3
	EBO	210	2,0	2,0	4,2
	ECOPOWER	1111	10,5	10,5	14,7
	Enercoop	8805	83,2	83,2	97,9
	ENOSTRA	154	1,5	1,5	99,4
	SEV	66	,6	,6	100,0
	Total	10585	100,0	100,0	



In this report we present the results for the surveys in appendices 1-6 (separate document and file). However, among those who are not REScoop members there is a bias towards persons that were able to

use the broader REScoop community database. The analysis of the REScoop measures' effectiveness was largely conducted based on the analysis of the dataset containing all respondents (including those who indicated not to be REScoop members). Next to analysing differences between members and non-members attention is also paid to other issues, like differences between REScoops, and differences between REScoop members (for instance based on gender, or duration of REScoop membership).

The statistical analysis was conducted using the software package SPSS. For the analysis, it was important to construct of a number of variable scales in line with the variables present in the theoretical model (see Figure 1). Scales were made regarding the following variables:

a) motivational factors;
b) behavioural factors;
c) social factors;
d) knowledge and importance level;
e) the sum of energy savings actions taken.

For scales a, b, c, and d sub-items were checked on: internal conceptual consistency and statistical consistency and reliability. For the latter, items were first factor analysed, and secondly a Cronbach's alfa test for reliability was conducted (using a minimum alpha value of .500 as a threshold that would reflect statistical consistency). Results and conceptual consistency are presented in Appendix 4 per scale variable. For scale e. this was not necessary, because number of measures can be summed up without needing a consistency test (i.e. adding up whether measures like lowering the thermostat, installing LED lighting, etc. have been undertaken or not, using a dichotomous scale; i.e., either 'yes' or 'no').

The statistical data analysis involved multiple statistical tests, like ANOVAs, and bivariate correlations. Several non-parametric tests had to be undertaken to analyze items with a non-continuous character. Statistical tests used and their results are presented per (sub) section in the Results chapter (Chapter 2). An overview of key statistics broken down per REScoop is presented in Table II 6.1 of the Appendix II (A8).

1.6 How to read the report?

In the next chapter the conclusions of the results of the survey will be presented. First, attention will be paid to effectiveness and goal achievement of REScoops' measures targeting their members and others. In other words: were energy savings made, and if yes, did this result from contribution by REScoop measures? Second, we go into more detail and analyse the influence of REScoops on specific energy saving actions by households. This includes attention to specific measures implemented by REScoops. Third, the results are presented of the analysis on the perceived influence of being a REScoop member on energy saving behaviour. This includes research comparing energy savings and investments in renewable energy technology between REScoop members, and those who are not members. Fourth, the results of a comparison between groups of REScoop members are presented (e.g. comparing on the basis of the 'maturity' of REScoops). Fifth, the results of the analysis on the influence of rivalry factors (i.e. non-REScoop related) are presented. Next to addressing statistical relationships between selected factors and energy savings results are also presented on statistical relationships between selected factors and investments in renewable energy technology. The report ends with a conclusion, answering the main research question.

2. Effectiveness

2.1 Effectiveness and goal achievement

The goal of the REScoop measures addressed in this study is that REScoop members save energy. To find out whether these measures are effective we first have to find out whether REScoop members save energy, and secondly if they save energy due to the activities implemented by a REScoop. The same goes for investments in green energy.

Energy saving can be operationalized as either actual measured energy savings, or perceived energy savings. As an indicator for energy savings undertaking energy saving behavioral actions (like lowering one's thermostat when leaving home) can be used. For energy savings, the results of statistical analyses are presented below.

Actual measured energy saving

Only 10.5% of the respondents indicate to know how much energy they saved between 2015 and 2016 because they either measured it themselves or inquired it at their energy supplier (Table I.1). Of those who indicate to know the size of their energy savings no less than 40% reveals to have energy savings of at least 10% over this period (Table I.1).

Perceived energy saving

Of the respondents who answered to the statement whether they consume less energy since becoming a REScoop member 47.2% revealed to agree. The majority (52.8%), however, did not agree (Table I.2). When asked to respond to the statement whether ones' REScoop has contributed to save more energy in one's household 20.2 agreed or strongly agreed. However, 45% of those who revealed their preference was neutral, and 29.1% disagreed or strongly disagreed to the statement (Tables I.3). In sum, in general respondents are neutral to whether REScoops have contributed to energy savings, although the distribution is a little bit skewed towards disagreement with the statement.

That REScoop members (who think they) use less energy or undertake energy saving behavioral actions, however, does not directly mean that this was influenced by a REScoop. To draw a conclusion on causation or influence we either qualitative ask about the perceived influence (attribution in the eyes of the REScoop members) or try to rule out as many alternative explanations.

2.2 The influence of REScoops on specific energy saving behavioral actions

Members of REScoops might or might not undertake different kinds of energy saving measures in their households. In the survey they were asked whether particular energy saving behavioural actions they undertake can be attributed to a REScoop. For those who saved energy in a particular way the question was then asked if the energy saving action can be attributed to REScoop to a large extent, a reasonable extent, to a fairly low extent or that the energy saving action cannot be attributed to actions by the REScoop. In this set of questions it was not specified, though, which actions of the REScoops related to the REScoop members this concerned, like giving general or specific information on how to perform the

energy saving action, information on the consequences of not saving energy or help by the REScoop in a different way like offering energy efficient light bulbs or costs saving deals for thermal insulation firms.

The energy saving actions addressed here concerned:

- lowering the house temperature (the thermostat) when leaving the own house;
- adjusting the thermostat to a lower temperature when opening the windows or turn of the lights when leaving rooms;
- my thermostats are adjusted in the same way;
- when buying a washing machine, refrigerator, freezer I select one with a high energy efficiency level;
- adjusting the thermostat to a lower temperature (e.g., 1 or more degrees lower);
- taking shorter showers;
- putting electrical home appliances out of standby-mode (e.g. by using a 'standby-killer');
- installing thermal insulation in my home;
- changing incandescent lighting to highly energy efficient lightning (e.g., LED lighting).

For the three actions mentioned lastly, investments require a more deliberately decision. The others rather imply day-to-day behaviour.

Independent of the type of energy saving actions only a small part of the respondents indicates that their actions can be attributed to a REScoop. The answers show that on the one hand most REScoop members take these energy saving actions, but do not attribute this to a REScoop. About 20% of the respondents indicates that energy savings can be attributed for a large or small part to a REScoop. A larger part indicates that this is not the case (i.e., 45%) (Tables II.4). In sum, the distribution is skewed, with the majority of respondents not attributing energy actions to REScoops.

One plausible explanation for this could be that respondents were already engaged in taking these actions prior to becoming REScoop members. REScoop members were also asked whether they started to save more energy after becoming REScoop members. This revealed that one third (34,3%) indicated to have given more priority to energy savings since becoming a REScoop member ("After having joining my Rescoop, energy savings have become more important to me.") (Table II.5).

2.3 The influence of being a member of a REScoop on (non-specific) energy saving behaviour

Being a member implies that one is exposed to the information given by the REScoops and other measures undertaken by the REScoops to influence their members energy consumption behaviour. Next to REScoop members, however, non-members who for instance receive a REScoop newsletter or visit a REScoop website might also be influenced.

Providing REScoop members with information and even teaching them how they should behave does not per definition lead to desirable change in energy saving behaviour. Information might influence the priority of a certain action.

In the survey REScoop members were asked whether they started to save more energy after they became member of the REScoop and giving energy savings more priority since becoming a member.

Almost 45% of the respondents indicated to be a member of a REScoop. When omitting non-response to the question this is even 55%. For the remaining 45% of the respondents this means that they explicitly answered not to be a REScoop member (Table I.6). Of those who reported to be a member of a REScoop, the number of membership years was on average 2-3 years. The most occurring answer category in terms of length of membership is, however, ' more than 5 years ' (reflecting 15.5% of all respondents) (Table I.7).

For the influence of being a member of a REScoop on (non-specific) energy saving behaviour:

- Do you consume less energy since you are a member of Enercoop?
- After having joining Ecopower, energy savings have become more important to me
- Ecopower has contributed that I save more energy in my household.

Respondents indicate that after becoming a REScoop member -energy saving is considered important (i.e., at least the majority of the respondents agrees to this; with a reasonable standard normal distribution).

However, they also indicate (yet) to save more energy since having become REScoop members (see the earlier note about this; the distribution is skewed, though, with more denial than confirmation to the statement).

We also looked into the relation between the use less energy since membership and undertaking energy saving measures. The results reveal that the more respondents started saving more energy after becoming a member of a REScoop the more of the energy-saving behavioural actions were undertaken. This applies goes to all of the 9 of measures mentioned (and the extent to which they are attributed to the REScoops). However, strikingly, there no significant correlation was found to link to energy savings in the period 2015-2016 when prompted. It looks like there is no correlation between measures by the REScoops and the (perceived) energy savings on the short term, but there are on the long term (since becoming a REScoop member) (Table I.8).

This is how we think this mechanism works:

- Rescoop members think that since they became a member renewable energy becomes more important to them - their level of knowledge in the field of energy in the past three years has improved (e.g. on how to save energy themselves; which energy savings behavioural actions to take).
-the knowledge level of (other) household members in the field of energy is improved.
-that energy services offered by REScoops are better than by other providers (a statement to which the large majority of our respondents complied).
-that they are satisfied with the services provided by REScoops.

Respondents indicate that after they became members of a REScoop:

- energy savings have become more important (at least the majority finds this; there is a reasonable standard normal distribution). However, they also indicate (yet) to save more energy because they are REScoop members (see the earlier note about this; the distribution is skewed, indicating more denial than confirmation to the statement).
- that local production of renewable energy has become more important to them (table I.9);
- their level of knowledge in the field of energy in the past three years has improved, and also the knowledge level of household members (table I.10).
- energy services offered by REScoops are considered better than those offered by other providers. A very large majority indicates to be completely satisfied with the services provided by REScoops (i.e., 80% of the respondents) (table I.11).

2.4 The relation between REScoop membership and renewable energy investments

- Approximately 60% of the respondents (i.e. REScoop members) indicated to have invested nothing before they became members (but also approx. 13% made a relatively large investment, which is 7500 euros or more) (Table I.12)
- Approximately 50% of the respondents has invested nothing since they became REScoop members (Table I.13).
- Approximately 40% of the respondents indicates not to wants to invest in renewable energy in the future (Table I.14)
- When they did invest this mainly concerned small sums of money (500-2500 euro).

These results have to be regarded with caution, though. One has to be aware that there are differences in how far REScoops stimulate members to invest themselves in renewable energy. There might be a distortion related to the fact that more than 90% of the response derives from large scale REScoops, that mainly sell green power themselves, and therefore their members might not be inclined to invest in renewable energy (production installations) themselves.

The more people indicate to take energy saving measures (such as insulation or replace inefficient lighting) the more they are willing to invest in renewable energy appliances. However, the effect turns out to be stronger in the case of investments made prior to becoming a REScoop member, when compared REScoop members having made investment after acquiring membership, or revealed future investments.

We also tried to assess specific measures or interventions implemented by REScoops. Under *specific* we mean those measures for which we know which members mention they took part in it or were exposed to (but only in an ex post situation, since we did not have relevant ex ante data). For this survey data on specific measures were collected on: Dr. Watt training program (Enercoop), Energy ID (Ecopower), energy advice (Ecopower, Enercoop), brochures/newsletter.

Of the Enercoop respondents only a minority indicate to be using measures offered by Enercoop (31%, for example, has asked for advice; for other measures, this percentage is lower; (for example, 3% indicates to have followed a Dr. Watt-training) (Table I.15). However, those who indicate to use those specific measures indicate to be satisfied with them. The measures Dr. Watt-training, advice, online wiki correlate statistically positive and significant to (indicated) energy savings since the respondents indicate to be member of Enercoop (with the strongest effect in the advisory measure). A short-term effect (to energy savings achieved in 2015-16) could not be established, though (Table I.16).

In the Ecopower survey questions were asked about three measures: energy ID, energy advice and a brochure (see report D.3.1 for background information on these measures). Of the respondents only a small part indicates to be using the mentioned measures (e.g., 20% use the measure Energy ID (Table 17). However, those respondents who indicate to use measures reveal that they are satisfied with them. Three of these measures (Energy ID, advice and the brochure) correlate statistically positive and significant to (indicated) energy savings since the respondents are member of Ecopower. A short-term effect on energy saving (energy savings over 2015-2016) could not be established (table I.18)

2.5 Analyzing REScoop interventions and longitudinal consumer energy user data

In project deliverable D2.3 – Data Analysis Report on the basis of the datasets that the REScoops participating in REScoop Plus provided - longitudinal energy consumption related data from six REScoops were statistically analyzed. Part of this analysis is related to questions on effectiveness of measures implemented by REScoops. In the report D2.3 the impact of the various EE interventions by REScoops were (also) assessed.

A main conclusion was that the formation of REScoops and specific practices already adopted by them lead to increased energy efficiency and environmental benefits. More specifically:

- Joining a REScoop leads to more than 20% reductions in energy demand;
- Installing energy production equipment (e.g. solar panels on one's own rooftop) reduces REScoop members' electricity demand by more than 45%;
- Subscribing to consumption monitoring and savings suggestions software platforms results to approximately 35% consumption reduction.

Furthermore, the report shows that energy efficiency interventions of various types, such as technical support, special tariffs, energy generation schemes, and installing smart meters, leads to substantial reductions as measured in various consumption indices. We summarize here some important results that are complementary to those found in our survey results.

In the Danish case, the results come from 300 customers of the Danish district heating cooperative, administrated by EBO. The results show that both becoming a cooperative member and receiving technical support were shown to be beneficial, since the analysis shows:

- a 19.9% reduction in average heating energy consumption in kWh/m^2 (which can be seen as the effect of becoming a cooperative member);
- a 20% reduction in average heating energy consumption in kWh/HDD (effect of receiving technical support);
- and, a 21.4% reduction in average heating energy consumption in kWh/(m^2*HDD) (effect of receiving technical support).

In the case of ECOPOWER (Belgium) a great number of REScoop members are 'prosumers', i.e., they both produce and consume energy. Specifically, the percentage of the total number of cooperative members that are prosumers is 43.04%. Furthermore, ECOPOWER has implemented two energy efficiency intervention measures, namely EnergieID (software monitoring electricity generation and consumption) and information leaflets that target consuming customers who consume too much electricity. The analysis shows that becoming a prosumer has had the greatest positive effect on electricity consumption reduction since it has led to 50.06% reduction in yearly electricity consumption in kWh/No. of Residents and 45.84% reduction in yearly kWh/m^2. Both becoming a cooperative member and a prosumer have led to significant reduction of CO_2 produced, namely 235.12 and 291.03 kg, respectively. Also, registering to the EnergieID software induced more than 10% reduction in every energy consumption index that was examined. However, the analysis regarding the application of the energy efficiency leaflets intervention is inconclusive.

In the case of ENERCOOP (France) only a portion of the members was exposed to the energy efficiency intervention 'Dr. Watt' (software package with training sessions). The analysis concludes that the application of Dr. Watt has led to very positive results, as it caused a percentage reduction of 60.31% electricity consumption in kWh/DD and 405.08 kg less CO_2 emissions per customer on average monthly.

3. Explaining effectiveness

3.1 Comparing members and non-members

3.1.1. Analysing differences in investment and energy saving activities between REScoop members and non-members (A5)

Investments in renewable energy technology were analysed to find out whether there are significant differences between REScoop members and non-members. This was done in two ways. First, investments among respondents (i.e. those currently indicating to be REScoop members) before and after becoming a REScoop member were compared. Second, it was analysed whether there are significant differences in the size of investments made, and the size of near future investments. Analysis conveyed statistical tests comparing means (with ANOVAs). [Tables II.4.1].

Renewable energy investments

On investments made prior to becoming REScoop members 54.4% of the respondents indicates not to have made any investment at all. 21.1% confirms to have made investments. Of the investments classes the one most frequently mentioned concerns investments of 'more than 7,500 euros' (9.7% of the respondents). On investments made after respondents became REScoop members 49% indicates not to have made any investment at all. 24.4% of the respondents indicates to have made investments. Of the investments classes the one most frequently mentioned concerns investments of 'between 0 and 2,500 euros' (14.8% of the respondents). On near future investments 39.5% of the respondents indicates not to expect to make any investments. 27.6% indicates to expect to make investments in the near future. Of the investments classes the one most frequently mentioned concerns investments 'between 0 and 2,500 euros' (15.4% of the respondents).

In sum, it looks like there is a small difference in willingness to invest prior to becoming a REScoop member and after having become a REScoop member. The longer respondents are members the more inclined they become to invest (chances of making an investment increases). However, the size of investments after becoming a REScoop member is rather low, especially when comparing against the size of investments made prior to becoming a member. When taking into account that the majority of respondents derives from members and consumers of Enercoop and Ecopower, a plausible reason for this phenomenon could be that since respondents get their green power from an energy supplying REScoop they are not much interested in investing large sums of money in renewable energy generating equipment themselves.

Energy savings actions and perceived REScoop contribution to energy savings

Of the total number of respondents 44.7% indicate to be REScoop members. 36.7% percent of respondents indicate not to be REScoop members. When comparing distributions between the two groups regarding the number of energy saving actions household members engage with there is a significant difference between REScoop members and non-members ($p < .000$). Moreover, the means of energy savings actions taken by REScoop members (7.79) is (significantly) higher than those of non-

members (7.57). In addition, there appears to be a significant difference ($p < .000$) between REScoop members and non-members regarding the distributions when indicating whether REScoops (either with the respondents as members or as consumers of energy supplied by REScoop) have contributed to energy savings in ones' household. Moreover, when comparing means REScoop members indicate a higher contribution of energy savings than non-members do.

3.1.2. Analysing statistical relationships between years of REScoop membership, engaging in energy savings activities and investments in renewable energy production technology (A6)

There is a significant positive statistical relationship between years of REScoop membership and individual energy savings actions undertaken. Moreover, a strong significant positive relationship was found between years of REScoop membership and energy savings since having become a REScoop member. In sum, the longer one holds a REScoop membership, the more likely it is that one engages in individual energy savings actions, and the more one is inclined to report to have made energy savings since becoming a REScoop member. This also holds for reporting energy savings which one attributes to REScoop memberships (and hence, actions implemented by REScoops).

In addition, a significant positive statistical relationship was found between years of REScoop membership and the size of investments made since becoming a REScoop member. However, no significant relationship was found between years of REScoop membership and near future investments in renewable energy. [See Table II.5.1].

3.1.3 Analysing statistical differences between mature and immature REScoops (A7)

In the academic literature research has been conducted comparing new 'immature' REScoops to older, relative 'mature' REScoops. In this research scholars paid attention to differences REScoop members have concerning the core values they adhere to. However, in those studies little attention was paid to whether differences exist regarding energy savings realized, investments in renewable energy technology, REScoop's energy services, and REScoop's contribution to energy savings among REScoop members.

Results of our analysis (which should be read with caution though because of the low response rate by members of immature REScoops: i.e. SEV, Enostra and Coopernico; see alo See Table II.5.2) reveal that no significant differences exist when regarding reported energy savings over 2015-2016, reported energy savings since becoming a REScoop member, and investment in renewable energy since becoming a REScoop member. However, significant differences were found regarding the number energy saving actions undertaken, the perceived contribution of REScoops to energy saving actions taken, and future investments in renewable energy technology.

In all of those cases the means found were higher for immature REScoops. A reason for this could be that members of mature REScoops have already been targeted by their REScoop when they became new members, and complied in terms of taking energy savings actions and already making investments, which would leave out the necessity to do it again a few years later (having longer membership, and the REScoop

having become more mature). Another reason could be the overrepresentation of Enercoop in this survey's sample, having members that are presumably consuming green power supplied by Enercoop, while taking less interest in lowering individual energy consumption, and making investments in renewable energy individually. This claim finds support with the fact that members of Ecopower (the only other REScoop with response over 1,000 in this survey) report to have saved (much) more energy (0.73) than Enercoop members (0.39; a significant difference)[1].

We also analysed differences between mature and immature REScoops regarding satisfaction with services delivered by REScoops. Significant differences were found regarding REScoops being perceived to have contributed to energy savings, knowledge level increase, contribution of REScoops to increased knowledge level, judgement on REScoops offering better energy services than traditional energy suppliers, and satisfaction with REScoop services.

With the exception of the latter the immature REScoops hold the edge on these items scoring higher means than mature REScoops. A plausible explanation to this could be that new (immature) REScoops feel that they should provide more services (like knowledge provision etc.) to support their members. Another one could be related to organizational size and type of organisation. Whereas new, still small-scaled REScoops are likely to be in closer geographical proximity to their members (and likely also in social terms)y, the more professional mature REScoops might have become more distanced (socially and geographically), supplying green power, but being less involved to their members (and perhaps so, because they already were in the past, but grew so much that they cannot do this anymore).

[1] However, of those who looked it up or measured energy consumption themselves Enercoop members report more energy savings over 2015-2016.

3.2 Research into rivalry factors explaining energy savings and investment in renewable energy production technology (A2)

In this section attention is paid to other factors than REScoop's interventions influencing household energy savings and renewable energy investments. Adhering to the research model developed under Deliverable 3.2 we discern the following factors: motivations, behavioural factors, social factors, demographic factors and household characteristics. Before we present the results of statistical tests exploring any statistical relationships we first present descriptive statistics of these factors and the sub-items they convey. Tables presenting the main descriptive statistics per cluster of factor are presented in appendices. Regarding the information presented below a precaution should be made regarding the interpretation of the results vis-à-vis the role of REScoops. Although these factors can be viewed as being independent from actions undertaken by REScoops it has to be argued that motivational factors, social factors and behavioural factors can, in fact, be manipulated by REScoops.

A2.1. Motivational factors [Table II.1.1]

a) Most of the respondents consider production of renewable energy of great importance.
b) Although return on investment (of investments in energy efficient measures) is considered important by respondents, it is given less weight than production of renewable energy.
c) A low energy price is considered of less importance than whether energy is generated from renewable sources.
d) Respondents consider a transparent energy price of great importance.
e) Just about all respondents consider environmental issue of great importance.
f) Just about all respondents dislike nuclear energy.
g) Just about all respondents strongly agree that (human induced) climate change should be prevented.
h) About 85% of the respondents agrees with the claim that in order to reach societal goals one can best organize at the local (community) level.
i) More than 80% of the respondents dislikes large-scale centralized energy companies.
j) Over 90% of the respondents holds the opinion that national government policies mainly support traditional (centralized) energy systems (as opposed to decentralized renewable energy systems).

A2.2. Behavioural factors (addressing intention, goal-setting, efficacy) [Table II.1.2]

a) Over 80% of the respondents view themselves capable or even very well capable of actually realizing intended energy saving targets. 60% view themselves generally capable to realize any other intended goals. This means that they view themselves better capable to achieve intended energy saving goals than other intended goals.
b) Over 60% of the respondents has the intention to lower their energy consumption patterns.
c) Over 60% of the respondents has the intention to only use energy that has been generated locally.
d) 70% of the respondents commits themselves easily when they are challenged to save energy.

e) 80% of the respondents has the intention to continually improve the energy efficiency level of their households.

A2.3. Social factors (trust, social environment, identification within one's social group) [Table II.1.3]

a) Over 85% of the respondents experiences a high level of interpersonal trust between REScoop members.
b) Over 85% of the respondents likes to identify oneself with a green energy supplier.
c) Over 85%% of the respondents likes to be seen as a person who uses energy efficiently.
d) Over 80% of the respondents likes to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle.
e) An ample majority of the respondents does not experience social pressure to save energy (reduce energy use).
f) About 70% of the respondents experiences that energy saving is considered an important value among family and friends.
g) Generating one's own energy locally, however, is considered less important among friends and family (although 45% does consider it important).
h) A majority of the respondents reveals that only few of their friends and/or family members are members of an energy cooperative.
i) Only few respondents agree to the claim that they like to be the first one among their friends who adopts a technological innovation.

A2.4. Demographic factors [Table II.1.4]

a) Of the income categories the average category of the respondents is between 30,000 and 40,000 euros annually (median).
b) Of the (estimated) size classes of households the average size is between 90 and 110 square metres (median). The size class most often reported, however, is 130 square metres or more (modus). Respondents appear to often live in households of a relatively big size.
c) On average respondents are highly educated. At least 70% of them have at least a bachelor's degree at the University of Applied Sciences. Over 40% has even a Master degree at the University.

A2.5. Household characteristics [Table II.1.5]

a) Of the household size categories (in terms of household members), the category of two household members has the highest frequency.
b) The home type most frequently observed is self-detached homes (38%). Second most frequently mentioned is apartments (28%).
c) 63% of the homes is owned by the occupiers. Less than 25% of the homes comprises tenants.
d) In only a minority of the households children below the age of 18 live (37%).
e) In 20% of the households the number of household members changed during the last two years.
f) Of the respondents the far majority revealed to live in a home with a female majority.

A2.6. Knowledge level and importance given to energy issues

a) Of the respondents the majority (57.4%) claims that their knowledge level on energy issues has increased over the last three years. 35% claims that this increase in knowledge level can be attributed to a REScoop (with a skew distribution indicating more agreement than disagreement in favour of this statement). However, no statistical (significant) difference was found when comparing knowledge level increase (over the last three years) between REScoop members and non-members.

3.3 Results of statistical tests exploring statistical relationships between rivalry factor indicators and energy savings (A3)

For motivational factors, behavioural factors, social factors, demographic factors, household characteristics, and knowledge level statistical tests have been conducted to explore statistical linear relationships that significantly correlate with (reported) energy savings (i.e. bivariate correlations and ANOVAs). In order to do this energy savings were operationalized in multiple ways: first, by asking respondents whether they report any energy savings since becoming a REScoop member; second by asking respondents to indicate how much energy they had saved following direct or indirect measurement over the period of 2015-2016; and third, by asking them in how many individual energy saving actions they had engaged (e.g., lowering the thermostat when leaving home). Relations reported below were deemed significant when $p < .01$ (which indicates a confidence level of 99.99%). Table 3 presents the results of the correlational analysis. Significance is indicated by * or ** signs (indicating significant P-values). However, given the large size of the survey in terms of observations, we suggest to rather look at the size of correlation coefficient (i.e. Pearson's R or Spearman's rho) than at mere significance, indicated by the p-value.

A3.1. Motivational factors [Table II.2.1]

a) There is a positive statistical relation between motivations addressing respondents disliking large-scale centralized energy systems and energy savings since having become a REScoop member. This also applies to the number of reported energy saving measures (even showing a stronger statistical relationship). The relationship is, however, not found against reported energy savings in 2015-2016.

A3.2. Behavioural factors [Table II.2.2]

a) There is a rather strong positive statistical relationship between behavioural factors (e.g., intentions, commitment), and both energy savings since having become a REScoop member, and the number of individual energy saving measures undertaken. A positive relationship with energy savings reported in 2015-2016 was also found, but appears to be weaker.

A3.3. Social factors [Table II.2.3]

a) There is a positive statistical relationship between social factors (especially social network), energy savings since becoming a REScoop member, and the number of actual energy saving measures undertaken.

Table 3: *Bivariate correlations between selected items and energy savings.*

	Energy Savings		
	Energy savings since becoming a REScoop member	Reported Energy savings over 2015-2016	Sum of energy savings actions undertaken
Motivational factors			
Environmental motivation	n.s	n.s.	.164 **
Decentralization motivation	.063 **	n.s.	.137 **
Behavioural factors			
Behavioural scale	.220 **	.082**	.282**
Social factors			
Social norms	.091**	n.s.	.182**
Social network	.179**	-.070*	.225**
Demographic factors			
Income	n.s	n.s.	n.s.
Educational level	-.154**	.116**	-.041**
Home size (sqm.)	.041**	-.054*	.242**
Home ownership	.081**	-.116**	.256**
Tenancy	-.081**	.121**	-.259**
Household characteristics			
Household size (members)	-.027*	n.s.	.051**
Change over the last 2 yrs.	-.072**	n.s.	-.060**
Gender division	.047**	n.s.	.039**
Presence of kids (<18 yrs. of age)	.055**	n.s.	-.024*
Knowledge level and weight given to energy issues			
Scale on knowledge and importance	.302**	-.059*	.076**
REScoop related items			
REScoop membership	Not relevant	n.s.	.088**
Number of years membership	.340**	-.180**	.075**
Age of REScoop	n.s.	n.s.	-.081**
Satisfaction with REScoop services	.122**	n.s.	.025*
Higher knowledge level due to REScoop actions	.209**	n.s.	.076**

**. Correlation is significant at the .01 level (1-tailed).
*. Correlation is significant at the .05 level (1-tailed).
n.s. Non-siginficant.

A3.4. Household characteristics [Table II.2.5]

a) There appears to be a relatively small negative statistical relationship between the size of households (in terms of household members) and energy savings since becoming a REScoop member. However, this factor correlates stronger (and also positively) to the number of actual energy saving measures undertaken.
b) There is a negative statistical relationship between change in household member size, energy savings since becoming a REScoop member, and the number of actual energy savings measures taken. This is no wonder since households that have decreased in size are also expected to lower energy consumption. There is however, no statistical relation between household size and energy savings reported over 2015-2016.
c) Gender balance appears statistically related to energy savings. The more 'male' the gender balance is the more respondents report energy savings since becoming a REScoop member, and the more measures they take to save energy. However, the more 'female' the gender balance of a household is the larger the size of energy savings they report on the short run (i.e. over 2015-2016).
d) There appears to be a rather small negative relationship between the presence of children below the age of 18 in households and energy savings since becoming a REScoop member. However, when confronted to energy savings in the short run (over 2015-2016) the relationship appears to be relative small and positive.
e) In sum, when reflecting on household characteristics it appears that although a few significant correlations were found they only show relatively weakly related statistically to energy savings items (indicated by the relatively small sizes of the correlation coefficients when compared to other items outside the demographics cluster).

A3.5. Demographics [Table II.2.4]

a) There is no statistical significant relationship between annual income and energy savings.
b) There is a poor negative relationship between level of education, and both energy savings since becomings a REScoop member and the number of actual energy savings actions taken. However, education level correlates (poorly) positive to the size of energy savings over 2015-2016.
c) There is a strong positive statistical relationship between home size (in square meters of floor surface) and the number of individual energy saving actions undertaken. The relationship is weaker (but still significant) against energy savings since becoming a REScoop member.
d) Home ownership appears positively statistically related to energy savings since becoming a REScoop member and to number of energy saving measures taken. Oddly, home ownership appears negatively related to the size of energy savings reported over 2015-2016.
e) Opposed to effects found related to home ownership are effects found related to tenancy. Tenancy appears negatively related to energy savings since becoming a REScoop member and to number of energy saving measures taken. However, tenancy appears positively related to the size of energy savings reported over 2015-2016.

A3.6. Knowledge level and importance given to energy issues

a) There is a strong positive relationship between knowledge level (and importance given to energy issues) and energy savings since becoming a REScoop member. The relation between knowledge level and individual energy savings actions is also positive and significant, but weaker. An even weaker (and negative) correlation was found between knowledge level and energy savings over 2015-2016.

3.4 Results of statistical tests exploring statistical relationships between rivalry factor indicators and investments in renewable energy production technology (A4)

For motivational factors, behavioural factors, social factors, demographic factors and household characteristics statistical tests were conducted to explore statistical linear relationships that significantly correlate with (reported) investment in renewable energy production technology (i.e. testing bivariate correlations, and ANOVAs). In order to do this, investments were operationalized in multiple ways: first, as investments made prior to becoming a REScoop member; second, as investments made since becoming a REScoop member; and third, revealing the size of investment that are to be made in the near future. Relations reported below were deemed significant when $p < .01$. Table 4 presents the results of the correlational analysis. Significance is indicated by * or ** signs (indicating significant P-values). However, given the large size of the survey in terms of observations, we suggest to rather look at the size of correlation coefficient (i.e. Pearson's R or Spearman's rho) than at mere significance, indicated by the p-value.

A4.1. Motivational factors [Table II.3.1]

a) There appears to be a weak positive statistical relationship between motivational factors (those indicating aversion against centralized energy systems) and the size of near future investments. No significant relationship was found regarding investments made since becoming a REScoop member.

A4.2. Behavioural factors [Table II.3.2]

a) Behaviour (as intention and commitment) appears to have a positive but rather weak statistical relationship to investments made since having become a REScoop member. The relationship is stronger against the size of near future investments.

A4.3. Social factors [Table II.3.3]

a) Social factors (especially social network) are significantly positively related to the size of investments made since having become a REScoop member. Social factors are even more strongly related statistically to the size of near future investments.

Table 3: *Bivariate correlations between selected items and investments in renewable energy.*

	Investments in renewable energy	
	Investments since becoming a REScoop member	Future investments
Motivational factors		
Environmental motivation	n.s.	n.s.
Decentralization motivation	ns.	.042**
Behavioural factors		
Behavioural scale	.040**	.184**
Social factors		
Social norms	.047**	.056**
Social network	.093**	.095**
Demographic factors		
Income	.089**	.108**
Educational level	-.042**	n.s.
Home size (sqm.)	.144**	.170**
Home ownership	.148**	.092**
Tenancy	-.152**	-.099**
Household characteristics		
Household size (members)	.077**	.113**
Change in the last 2 yrs.	-.034**	n.s.
Gender division	.035**	.077**
Presence of kids (<18 yrs. of age)	-.030**	-.070**
Knowledge level and weight given to energy issues		
Scale on knowledge and importance	.074**	.078**
REScoop related items		
REScoop membership	.290**	.141**
Number of years membership	.230**	n.s.
Age of REScoop	n.s.	-.140**
Satisfaction with REScoop services	.050**	n.s.
Higher knowledge level due to REScoop actions	.090**	.076**

**. Correlation is significant at the .01 level (1-tailed).
*. Correlation is significant at the .05 level (1-tailed).
n.s. Non-siginficant.

A4.4. Household characteristics [Table II.3.4]

a) The more children (below 18 years of age) are living at home the more householders tends to invest in the near future. No significant correlation was found regarding the size of investments since becoming a REScoop member.
b) The more members a household has the more investments were made since becoming a REScoop member, and even more investment will be made in the near future.
c) There is a weak but significant statistical relationship between change in number of household members and investments made (the lower the number of household members the lower the size of investment).
d) Regarding gender balance, the more near future investments will be made the more 'male' a household's gender balance is.

A4.5. Demographics [Table II.3.5]

a) There is a positive relationship between income size and the size of investments made since becoming a REScoop member. The relationship is even stronger when regarding the size of near future investments.
b) There is a weak negative statistical correlation between level of education and the size of near future investments. The higher the educational level the higher the expected investments are likely to be.
c) There is a positive statistical relationship between dwelling size (in square metres floor space) and both investments made since becoming a REScoop member, and near future investments.
d) There is a positive relationship between home ownership and investments made since becoming a REScoop member, and also to (but weaker) near future investments.
e) There is a negative relationship between tenancy and investments made since becoming a REScoop member, and (to a lower degree) near future investments.

A4.6. Knowledge level and importance given to energy issues [Table II.3.6]

a) There is a positive relationship between knowledge level (and importance given to energy issues) to both the size of investments made since becoming a REScoop member and the size of near future investment one indicates to make.

4. Conclusions

This report is presents research under work package 3 which seeks to analyze what behavioral and social aspects influence energy savings and investment in renewable energy technology by consumers and members of REScoops. A key aim of the work package is to find empirical support for the explicit claim that energy supplying REScoops are more successful to support consumer energy saving than other energy suppliers. In order to do so, empirical research is conducted. Following exploratory research *(Deliverable 3.1*), the development of an analytical framework and research design, a survey was conducted in Spring 2017 with six REScoops in five different EU states. In total, a response of 10,585 was achieved. It must be noted, however, that the French REScoop of Enercoop delivered up to 83% of the total response. Following data collection data treatment and analysis were conducted in the Summer of 2017. The main conclusions of the survey analysis are presented below. First results are presented on the analysis regarding energy savings. Second, this is done for the results regarding the analysis of investments in renewable energy technology.

Part I: energy savings

Effectiveness and goal achievement

10.5% of the respondents reveals to actually know how much energy they consume and save. Of those who are aware of this (either by measuring themselves or by contacting their energy supplying REScoop) 40% indicates to have saved at least 10% in energy consumption over 2015-2016.

Influence of REScoops on energy savings actions undertaken by householders

Respondents indicate to undertake many (individual) energy savings actions (e.g. by lowering the thermostat, or taking shorter showers). Only, a small part of those respondents, however, indicates that (individual) energy savings actions can be attributed to a REScoop. However, the longer respondents indicate to be REScoop members the more they engage in energy savings actions, and the more they indicate to have saved energy.

Influence of REScoop membership on energy savings by households

The majority of respondents indicate that energy savings have become more important to them since becoming a REScoop member. They also indicate a higher knowledge level on energy issues since becoming a REScoop member. The far majority of respondents indicates overall satisfaction with REScoop energy service delivery, and state this to be better than energy service delivery by conventional energy suppliers. Moreover, respondents indicate to have undertaken more (individual) energy savings actions since becoming a REScoop member.

When asked nearly half of the respondents indicate to consume less energy since they became REScoop members. About 20% of the respondents indicates that a REScoop has contributed to their (individual) energy savings. No (significant) statistical relationship was found, though, between membership and

energy savings over 2015-2016. It looks like there is no correlation between measures by the REScoops and the (perceived) energy savings on the short term, but there is one on the longer term.

A number of specific energy measures and tools implemented by REScoops (i.e. Dr. Watt training sessions, personal advice, or Energy ID) were found to significantly and positively relate to energy savings (since becoming a REScoop member). Moreover, users were satisfied with them. However, only a relatively small portion of the respondents indicated to have actually used them (e.g., 20% of Ecopower respondents indicates to use Energy ID, and 3% of Enercoop members to use Dr. Watt), and no statistical relation could be established to short term energy savings (over 2015-2016).

Longitudinal time series studies by TUC revealed a number of important findings. First, joining a REScoop leads to more than 20% reduction in energy demand. Second, installing energy production equipment (e.g. solar panels on one's own rooftop) reduces REScoop members' electricity demand by more than 45%. At Ecopower (a REScoop with over 50,000 members) no less than 43% of the respondents were found to be prosumers, generating their own green power, locally. Third, the results show that energy efficiency interventions of various types, such as technical support, special tariffs, energy generation schemes, and installing smart meters, were statistically related to substantial reductions in energy consumption: i.e., those who become prosumers save 50% in electricity consumption (as supplied by Ecopower); those who register with Energie ID save 10% in energy consumption; and those who partake in Dr. Watt training sessions at Enercoop lower their electricity consumption by no less than 60%.

Comparison between groups

Comparative analysis on energy savings was conducted between REScoop members and non-members, and between members of 'mature' REScoops and 'immature' REScoops. Results show that REScoop members are more engaged in individual energy savings actions than non-members. They also attribute energy savings more to REScoop than non-members do. Between mature and immature REScoops no significant differences were found regarding energy savings. However, membership of an immature ('young') REScoop was found to statistically relate to (individual) energy savings actions more than membership of a mature REScoop. Immature REScoops were also found to contribute more to energy savings, knowledge level increase on energy issues, and judgement on REScoops offering better energy services than traditional energy suppliers. However, satisfaction of services offered by mature REScoops was perceived better than that of their immature counterparts.

Rival factors

Rival factors found to statistically correlate to energy savings (and related operationalisations) concern: motivational factors, behavioural factors (e.g., goal-setting, intention), social factor (in particular social network), knowledge level, demographics and household characteristics. Of the last two categories especially education level, home size, and ownership appear related statistically. Although factors mentioned here are classified as 'rival' some of them can in fact be influenced by REScoops; i.e. motivational factors, behavioural factors, social network and knowledge level. REScoops can target those factors, and can pursue to influence energy savings among their members in this way (indirectly).

Part II: investments in renewable energy technology

Effectiveness and goal achievement

Half of the REScoop members surveyed indicate not to have invested in renewable energy technology since becoming a REScoop member. 24% indicates to have made investments since becoming a REScoop member. 27% indicates wanting to invest in the next few years. Investments are on average in the range of 500-2500 euros. 60% indicates not to have invested in renewable energy prior to becoming a REScoop member. 21% did already invest before becoming a REScoop member.

Influence of REScoops on renewable energy investments

It looks like there is a small difference in willingness to investment prior to becoming a REScoop member and after having become a REScoop member. The longer respondents are REScoop members the more willing they become to invest. Moreover, REScoop members and consumers consider financial-economic return on investment of less importance than production and consumption of renewable ('clean') energy.

Influence of REScoop membership on renewable energy investments

There is a significant difference in willingness to invest in renewable energy (future investments) between REScoop members and non-members. REScoop member indicate willing to invest significantly more than those who are not members.

Comparison between groups

Members of immature REScoops (i.e. 'young' REScoops) state wanting to make more future investments in renewable energy technology than members of mature REScoops. No significant difference between the groups was established, though, when concerning investments made since becoming a REScoop member. The analysis also revealed a statistical relationship between years of REScoop membership and investments made. The longer one is a REScoop member the more one reveals to have invested in renewable energy.

Rival factors

Rival factors found to statistically correlate to investments in renewable energy (and related operationalisations) concern: behaviour, social factors (in particular social network), knowledge level, demographic factors and household characteristics. Of the last two categories especially income, home size, ownership, but also gender division and presence of kids (below 18 years of age) seem to matter. Although many factors are classified as 'rival' some of them can in fact be influenced by REScoops (excluding demographics and household characteristics).

In Spring 2018 a next series of surveys will be conducted among REScoops as part of Work Package 3 task 3.3, which will be analysed and reported in Summer 2018. The follow up survey is conducted, amongst others, to add a temporal dimension to the analysis. It will allow to analyse what the long-term impact and effects of REScoop measures are.

Appendix 1: Tables Part I Effectiveness (A1)

Table 1.1 Energy saved between 2015 and 2016

Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		9475	89,5	89,5	89,5
	1% less	34	,3	,3	89,8
	Between 10-15%	285	2,7	2,7	92,5
	More than 15%	212	2,0	2,0	94,5
	2% less	76	,7	,7	95,2
	3% less	78	,7	,7	96,0
	4% less	49	,5	,5	96,4
	5% less	209	2,0	2,0	98,4
	6% less	41	,4	,4	98,8
	7% less	31	,3	,3	99,1
	8% less	45	,4	,4	99,5
	9% less	50	,5	,5	100,0
	Total	10585	100,0	100,0	

Table 1.2 Energy consumption since membership of a REScoop

Do you consume less energy since you are a member of Enercoop? (dichotomized)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	2091	19,8	52,8	52,8
	Yes	1871	17,7	47,2	100,0

	Total	3962	37,4	100,0	
Missing	System	6623	62,6		
Total		10585	100,0		

Table 1.3 Energy saving because of REScoop

My REScoop has contributed to that I save more energy in my household.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	654	6,2	7,4	7,4
	Disagree	2426	22,9	27,4	34,8
	Neutral	3978	37,6	45,0	79,8
	Agree	1492	14,1	16,9	96,7
	Strongly Agree	296	2,8	3,3	100,0
	Total	8846	83,6	100,0	
Missing	System	1739	16,4		
Total		10585	100,0		

Tables I.4 Attribution of measures to the REScoop

I lower the house temperature (the thermostat) when I leave my house

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1688	15,9	15,9	15,9
	No	1138	10,8	10,8	26,7
	Yes, and this can be attributed to Ecopower to a large extent	191	1,8	1,8	28,5

Yes, and this can be attributed to Ecopower to a reasonable extent	264	2,5	2,5	31,0
Yes, and this can be attributed to Ecopower to a fairly low extent	553	5,2	5,2	36,2
Yes, but this cannot be attributed to actions by Ecopower	6751	63,8	63,8	100,0
Total	10585	100,0	100,0	

I adjust the thermostat to a lower temperature when I open the windows turn of the lights when I leave rooms or my house

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1402	13,2	13,2	13,2
No	120	1,1	1,1	14,4
Yes, and this can be attributed to Ecopower to a large extent	224	2,1	2,1	16,5
Yes, and this can be attributed to Ecopower to a reasonable extent	252	2,4	2,4	18,9
Yes, and this can be attributed to Ecopower to a fairly low extent	570	5,4	5,4	24,3
Yes, but this cannot be attributed to actions by Ecopower	8017	75,7	75,7	100,0
Total	10585	100,0	100,0	

My thermostats are adjusted in the same way.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1613	15,2	15,2	15,2
	No	1032	9,7	9,7	25,0
	Yes, and this can be attributed to Ecopower to a large extent	90	,9	,9	25,8
	Yes, and this can be attributed to Ecopower to a reasonable extent	272	2,6	2,6	28,4
	Yes, and this can be attributed to Ecopower to a fairly low extent	587	5,5	5,5	34,0
	Yes, but this cannot be attributed to actions by Ecopower	6991	66,0	66,0	100,0
	Total	10585	100,0	100,0	

When buying a washing machine, refrigerator, freezer I select the one with a high energy efficiency level (i.e., A++ label)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1663	15,7	15,7	15,7
	No	485	4,6	4,6	20,3
	Yes, and this can be attributed to Ecopower to a large extent	284	2,7	2,7	23,0
	Yes, and this can be attributed to Ecopower to a reasonable extent	383	3,6	3,6	26,6

	Yes, and this can be attributed to Ecopower to a fairly low extent	692	6,5	6,5	33,1
	Yes, but this cannot be attributed to actions by Ecopower	7078	66,9	66,9	100,0
	Total	10585	100,0	100,0	

I adjust the thermostat to a lower temperature (e.g., 1 or more degrees lower)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1739	16,4	16,4	16,4
	No	1374	13,0	13,0	29,4
	Yes, and this can be attributed to Ecopower to a large extent	187	1,8	1,8	31,2
	Yes, and this can be attributed to Ecopower to a reasonable extent	243	2,3	2,3	33,5
	Yes, and this can be attributed to Ecopower to a fairly low extent	536	5,1	5,1	38,5
	Yes, but this cannot be attributed to actions by Ecopower	6506	61,5	61,5	100,0
	Total	10585	100,0	100,0	

I'm taking shorter showers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1704	16,1	16,1	16,1

	No	1363	12,9	12,9	29,0
	Yes, and this can be attributed to Ecopower to a large extent	154	1,5	1,5	30,4
	Yes, and this can be attributed to Ecopower to a reasonable extent	173	1,6	1,6	32,1
	Yes, and this can be attributed to Ecopower to a fairly low extent	419	4,0	4,0	36,0
	Yes, but this cannot be attributed to actions by Ecopower	6772	64,0	64,0	100,0
	Total	10585	100,0	100,0	

I put electrical home appliances out of standby-mode (e.g. by using a 'standby-killer')

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1672	15,8	15,8	15,8
	No	1897	17,9	17,9	33,7
	Yes, and this can be attributed to Ecopower to a large extent	292	2,8	2,8	36,5
	Yes, and this can be attributed to Ecopower to a reasonable extent	454	4,3	4,3	40,8
	Yes, and this can be attributed to Ecopower to a fairly low extent	686	6,5	6,5	47,2
	Yes, but this cannot be attributed to actions by Ecopower	5584	52,8	52,8	100,0
	Total	10585	100,0	100,0	

I installed thermal insulation in my home.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1786	16,9	16,9	16,9
	No	3377	31,9	31,9	48,8
	Yes, and this can be attributed to Ecopower to a large extent	114	1,1	1,1	49,9
	Yes, and this can be attributed to Ecopower to a reasonable extent	129	1,2	1,2	51,1
	Yes, and this can be attributed to Ecopower to a fairly low extent	285	2,7	2,7	53,8
	Yes, but this cannot be attributed to actions by Ecopower	4894	46,2	46,2	100,0
	Total	10585	100,0	100,0	

I changed incandescent lighting to highly energy efficient lightning (e.g., LED lighting)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1649	15,6	15,6	15,6
	No	1060	10,0	10,0	25,6
	Yes, and this can be attributed to Ecopower to a large extent	314	3,0	3,0	28,6

	Yes, and this can be attributed to Ecopower to a reasonable extent	442	4,2	4,2	32,7
	Yes, and this can be attributed to Ecopower to a fairly low extent	707	6,7	6,7	39,4
	Yes, but this cannot be attributed to actions by Ecopower	6413	60,6	60,6	100,0
	Total	10585	100,0	100,0	

Table II. 4 Giving more priority to energy savings since becoming a REScoop member

After having joined a REScoop, energy savings have become more important to me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	667	6,3	7,3	7,3
	Disagree	1815	17,1	19,9	27,2
	Neutral	3505	33,1	38,4	65,6
	Agree	2418	22,8	26,5	92,2
	Strongly Agree	715	6,8	7,8	100,0
	Total	9120	86,2	100,0	
Missing	System	1465	13,8		
Total		10585	100,0		

Table 1.5 Importance energy saving

After having joined a REScoop, energy savings have become more important to me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	667	6,3	7,3	7,3

	Disagree	1815	17,1	19,9	27,2
	Neutral	3505	33,1	38,4	65,6
	Agree	2418	22,8	26,5	92,2
	Strongly Agree	715	6,8	7,8	100,0
	Total	9120	86,2	100,0	
Missing	System	1465	13,8		
Total		10585	100,0		

Table I.6 Membership

Are you a member of a REScoop?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	4729	44,7	54,9	54,9
	No	3885	36,7	45,1	100,0
	Total	8614	81,4	100,0	
Missing	System	1971	18,6		
Total		10585	100,0		

Table I.7 Membership years

How long have you been a member of a REScoop (in number of years)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		5705	53,9	53,9	53,9
	0-1 year	1004	9,5	9,5	63,4
	1-2 years	881	8,3	8,3	71,7
	2-3 years	606	5,7	5,7	77,4

	4-5 years	748	7,1	7,1	84,5
	More than 5 years	1641	15,5	15,5	100,0
	Total	10585	100,0	100,0	

Table 1.8

Correlations

			Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	How much did you approximately invest in renewable energy generation appliances in the period before you became (RECODED)	How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)
Spearman's rho	Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Correlation Coefficient	1,000	,229**	,112**	,136**
		Sig. (1-tailed)	.	,000	,000	,000
		N	8327	7463	7377	6647
	How much did you approximately invest in renewable energy generation appliances in the period before you became(RECODED)	Correlation Coefficient	,229**	1,000	,080**	,131**
		Sig. (1-tailed)	,000	.	,000	,000
		N	7463	7992	7618	6836
	How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	Correlation Coefficient	,112**	,080**	1,000	,215**
		Sig. (1-tailed)	,000	,000	.	,000
		N	7377	7618	7772	6737
	How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Correlation Coefficient	,136**	,131**	,215**	1,000
		Sig. (1-tailed)	,000	,000	,000	.
		N	6647	6836	6737	7099

**. Correlation is significant at the 0.01 level (1-tailed).

Table I.9 Importance local production of renewable energy

After having joined a REScoop local production of renewable energy has become more important to me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	319	3,0	3,6	3,6
	Disagree	1007	9,5	11,3	14,8

	Neutral	2261	21,4	25,3	40,1
	Agree	4085	38,6	45,7	85,9
	Strongly Agree	1262	11,9	14,1	100,0
	Total	8934	84,4	100,0	
Missing	System	1651	15,6		
Total		10585	100,0		

Table I.10 Improvement of knowledge level in the field of energy

My knowledge level on energy issues has increased in the last three years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	222	2,1	2,5	2,5
	Disagree	869	8,2	9,7	12,2
	Neutral	1794	16,9	20,1	32,3
	Agree	4328	40,9	48,4	80,7
	Strongly Agree	1729	16,3	19,3	100,0
	Total	8942	84,5	100,0	
Missing	System	1643	15,5		
Total		10585	100,0		

My REScoop has contributed to an increased knowledge on renewable energy among our household members.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	383	3,6	4,3	4,3
	Disagree	1629	15,4	18,3	22,7
	Neutral	3165	29,9	35,6	58,3
	Agree	3090	29,2	34,8	93,1
	Strongly Agree	616	5,8	6,9	100,0
	Total	8883	83,9	100,0	
Missing	System	1702	16,1		
Total		10585	100,0		

Table I.11 Service level

A renewable energy cooperation like Ecopower offers better energy services than other energy suppliers do.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	121	1,1	1,4	1,4
	Disagree	659	6,2	7,4	8,7
	Neutral	3901	36,9	43,7	52,4
	Agree	2820	26,6	31,6	84,0
	Strongly Agree	1428	13,5	16,0	100,0
	Total	8929	84,4	100,0	
Missing	System	1656	15,6		
Total		10585	100,0		

I am completely satisfied with the energy services the REScoop offers me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	25	,2	,3	,3
	Disagree	125	1,2	1,4	1,7
	Neutral	1530	14,5	17,3	19,0
	Agree	4282	40,5	48,5	67,6
	Strongly Agree	2860	27,0	32,4	100,0
	Total	8822	83,3	100,0	
Missing	System	1763	16,7		
Total		10585	100,0		

Table I.12 Green energy Investments before membership

How much did you approximately invest in renewable energy generation appliances in the period before you became member of Ecopower?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1805	17,1	17,1	17,1
	Nothing	5757	54,4	54,4	71,4
	500-2,500 euro	508	4,8	4,8	76,2
	2,500-5,000 euro	393	3,7	3,7	80,0
	5,000 – 7,500 euro	302	2,9	2,9	82,8
	More than 7,500 euro	1032	9,7	9,7	92,6
	Does not apply	788	7,4	7,4	100,0
	Total	10585	100,0	100,0	

Table I.13 Green energy Investments after membership

How much did you approximately invest in renewable energy generation appliances after you became a member of Ecopower?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1951	18,4	18,4	18,4
	Nothing	5184	49,0	49,0	67,4
	500-2.500 euro	1570	14,8	14,8	82,2
	2.500-5.000 euro	294	2,8	2,8	85,0
	5.000 – 7.500 euro	187	1,8	1,8	86,8
	More than 7.500 euro	537	5,1	5,1	91,9
	Does not apply	8	,1	,1	91,9
	A8	854	8,1	8,1	100,0
	Total	10585	100,0	100,0	

Table I.14 Green energy Investments in the future

How much do you intend to invest in renewable energy generation appliances in the near future?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1984	18,7	18,7	18,7
	Nothing	4184	39,5	39,5	58,3
	500-2.500 euro	1635	15,4	15,4	73,7
	2.500-5.000 euro	599	5,7	5,7	79,4
	5.000 – 7.500 euro	261	2,5	2,5	81,8
	More than 7.500 euro	420	4,0	4,0	85,8
	Does not apply	24	,2	,2	86,0
	A8	1478	14,0	14,0	100,0
	Total	10585	100,0	100,0	

Table I. 15 Participation in Enercoop measures

Did you contact Enercoop for information or advice about (the size) of you energy use? And if yes, were you satisfied with this contact?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		983	11,2	11,2	11,2
	No	4058	46,1	46,1	57,3
	Yes and satisfied	1204	13,7	13,7	70,9
	Yes and somewhat satisfied	1434	16,3	16,3	87,2
	Yes and not satisfied	110	1,2	1,2	88,5
	Not relevant	1016	11,5	11,5	100,0
	Total	8805	100,0	100,0	

Did you already have a Dr Watt training?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		771	8,8	8,8	8,8
	No	7602	86,3	86,3	95,1
	Yes and statisfied	149	1,7	1,7	96,8
	Yes and somewhat satisfied	77	,9	,9	97,7
	Yes and not satisfied	18	,2	,2	97,9
	Not relevant	188	2,1	2,1	100,0
	Total	8805	100,0	100,0	

Did you already visit the Energy Savings Wiki by Enercoop? (available since February 2017).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		749	8,5	8,5	8,5
	No	6820	77,5	77,5	86,0
	Yes and statisfied	534	6,1	6,1	92,0
	Yes and somewhat satisfied	512	5,8	5,8	97,8
	Yes and not satisfied	62	,7	,7	98,5
	Not relevant	128	1,5	1,5	100,0
	Total	8805	100,0	100,0	

Table1. 16. Correlations between ECOpower energy measures and members energy saving

		Did you contact Enercoop for information or advice about (the size) of you energy use? (dich.)	Did you already have a Dr Watt training ? (dich.)	Did you already visit the Energy Savings Wiki by Enercoop? (available since february 2017). (dich.)	Do you consume less energy since you are a member of Enercoop? (dich.).	Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (percentage; dich.)
Did you contact Enercoop for information or advice about (the size) of you energy use? (dich.)	Pearson Correlation	1	,180**	,285**	,181**	-,089*
	Sig. (2-tailed)		,000	,000	,000	,016
	N	6806	6735	6778	2506	730
Did you already have a Dr Watt training ? (dich.)	Pearson Correlation	,180**	1	,104**	,132**	-,021
	Sig. (2-tailed)	,000		,000	,000	,559
	N	6735	7846	7785	2849	810
Did you already visit the Energy Savings Wiki by Enercoop ? (available since february 2017). (dich.)	Pearson Correlation	,285**	,104**	1	,127**	-,006
	Sig. (2-tailed)	,000	,000		,000	,857
	N	6778	7785	7928	2884	823
Do you consume less energy since you are a member of Enercoop? (dich.).	Pearson Correlation	,181**	,132**	,127**	1	-,005
	Sig. (2-tailed)	,000	,000	,000		,914
	N	2506	2849	2884	2928	402
Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (percentage; dich.)	Pearson Correlation	-,089*	-,021	-,006	-,005	1
	Sig. (2-tailed)	,016	,559	,857	,914	
	N	730	810	823	402	835

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Table I.17 Participation in Ecopower measures

Did you take part in 2006-2007 in the PV Private project of ECOPOWER? And in how far were you satisfied with this?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	698	62,8	94,5	94,5
	Yes and satisfied	32	2,9	4,3	98,8
	Yes and somewhat satisfied	4	,4	,5	99,3
	Yes and not satisfied	5	,5	,7	100,0
	Total	739	66,5	100,0	
Missing	System	372	33,5		
Total		1111	100,0		

Did you contact Ecopower for information or advice about (the size) of your energy use? And if yes, were you satisfied with this contact?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		206	18,5	18,5	18,5
	No	797	71,7	71,7	90,3
	Yes and satisfied	96	8,6	8,6	98,9
	Yes and somewhat satisfied	12	1,1	1,1	100,0
	Total	1111	100,0	100,0	

Do you measure your energy use by using EnergieID.be?

	Frequency	Percent	Valid Percent	Cumulative Percent

Valid		197	17,7	17,7	17,7
	No	596	53,6	53,6	71,4
	Yes and satisfied	230	20,7	20,7	92,1
	Yes and somewhat satisfied	80	7,2	7,2	99,3
	Yes and not satisfied	8	,7	,7	100,0
	Total	1111	100,0	100,0	

Did you ever together with your energy bill receive a leaflet about your (high) energy use?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		248	22,3	22,3	22,3
	No	723	65,1	65,1	87,4
	Yes and satisfied	108	9,7	9,7	97,1
	Yes and somewhat satisfied	32	2,9	2,9	100,0
	Total	1111	100,0	100,0	

Table 1.18 Correlations between energy saving measures and energy saving

Correlations

		PV privat project participation (RECODED)	Do you measure your energy use by using EnergieID.be? (dich.)	Did you contact Ecopower for information or advice about (the size) of your energy use? (dich.)	Did you ever together with your energy bill receive a leaflet about your (high) energy use? (dich.)	Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (percentage; RECODED)	Do you consume less energy since you are a member of Ecopower? (dich)
PV privat project participation (RECODED)	Pearson Correlation	1	,121**	,078*	-,054	-,037	,060
	Sig. (2-tailed)		,001	,034	,159	,627	,127
	N	739	731	728	692	171	654
Do you measure your energy use by using EnergieID.be? (dich.)	Pearson Correlation	,121**	1	,028	,025	-,035	,100**
	Sig. (2-tailed)	,001		,399	,471	,618	,005
	N	731	914	892	849	203	799
Did you contact Ecopower for information or advice about (the size) of you energy use? (dich.)	Pearson Correlation	,078*	,028	1	,055	-,041	,074*
	Sig. (2-tailed)	,034	,399		,114	,568	,036
	N	728	892	905	841	200	790
Did you ever together with your energy bill receive a leaflet about your (high) energy use? (dich.)	Pearson Correlation	-,054	,025	,055	1	-,005	,095**
	Sig. (2-tailed)	,159	,471	,114		,942	,009
	N	692	849	841	863	186	755
Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (percentage; RECODED)	Pearson Correlation	-,037	-,035	-,041	-,005	1	,029
	Sig. (2-tailed)	,627	,618	,568	,942		,682
	N	171	203	200	186	215	199
Do you consume less energy since you are	Pearson Correlation	,060	,100**	,074*	,095**	,029	1
	Sig. (2-tailed)	,127	,005	,036	,009	,682	

a member of N Ecopower? (dich)	654	799	790	755	199	814

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix 2: Tables Part II Comparisons between groups and rivalry factors

Part A2. Research into rivalry factors explaining energy savings and investment in renewable energy production technology

Table II.1 Motivational factors

Frequency Table

Production of renewable energy is important

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	87	,8	,9	,9
	Disagree	3	,0	,0	,9
	Neutral	21	,2	,2	1,1
	Agree	314	3,0	3,2	4,3
	Strongly Agree	9403	88,8	95,7	100,0
	Total	9828	92,8	100,0	
Missing	System	757	7,2		
Total		10585	100,0		

For me return on investment is important when buying appliances that produce or use energy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	228	2,2	2,3	2,3
	Disagree	535	5,1	5,5	7,8
	Neutral	2108	19,9	21,6	29,4
	Agree	3665	34,6	37,5	66,9

	Strongly Agree	3236	30,6	33,1	100,0
	Total	9772	92,3	100,0	
Missing	System	813	7,7		
Total		10585	100,0		

A lower energy price is more important to me than if it is sustainable energy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	4857	45,9	49,4	49,4
	Disagree	3860	36,5	39,3	88,7
	Neutral	742	7,0	7,6	96,3
	Agree	265	2,5	2,7	99,0
	Strongly Agree	99	,9	1,0	100,0
	Total	9823	92,8	100,0	
Missing	System	762	7,2		
Total		10585	100,0		

Transparent pricing of energy is important to me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	21	,2	,2	,2
	Disagree	46	,4	,5	,7
	Neutral	272	2,6	2,8	3,5
	Agree	2319	21,9	23,7	27,1
	Strongly Agree	7147	67,5	72,9	100,0

	Total	9805	92,6	100,0	
Missing	System	780	7,4		
Total		10585	100,0		

Environmental issues matter to me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	23	,2	,2	,2
	Disagree	3	,0	,0	,3
	Neutral	41	,4	,4	,7
	Agree	798	7,5	8,2	8,8
	Strongly Agree	8918	84,3	91,2	100,0
	Total	9783	92,4	100,0	
Missing	System	802	7,6		
Total		10585	100,0		

I do not like the use of nuclear energy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	70	,7	,7	,7
	Disagree	198	1,9	2,1	2,8
	Neutral	653	6,2	6,8	9,6
	Agree	1687	15,9	17,6	27,1
	Strongly Agree	7003	66,2	72,9	100,0
	Total	9611	90,8	100,0	
Missing	System	974	9,2		

Total		10585	100,0		

Global climate change is important. It needs to be prevented.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	23	,2	,2	,2
	Disagree	5	,0	,1	,3
	Neutral	108	1,0	1,1	1,4
	Agree	834	7,9	8,5	9,9
	Strongly Agree	8829	83,4	90,1	100,0
	Total	9799	92,6	100,0	
Missing	System	786	7,4		
Total		10585	100,0		

To reach societal goals we can organize ourselves best in local communities

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	42	,4	,4	,4
	Disagree	275	2,6	2,8	3,2
	Neutral	1329	12,6	13,6	16,8
	Agree	3494	33,0	35,7	52,6
	Strongly Agree	4641	43,8	47,4	100,0
	Total	9781	92,4	100,0	
Missing	System	804	7,6		
Total		10585	100,0		

I distrust large-scale traditional energy companies

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	57	,5	,6	,6
	Disagree	267	2,5	2,8	3,4
	Neutral	1229	11,6	12,8	16,2
	Agree	3153	29,8	32,8	48,9
	Strongly Agree	4910	46,4	51,1	100,0
	Total	9616	90,8	100,0	
Missing	System	969	9,2		
Total		10585	100,0		

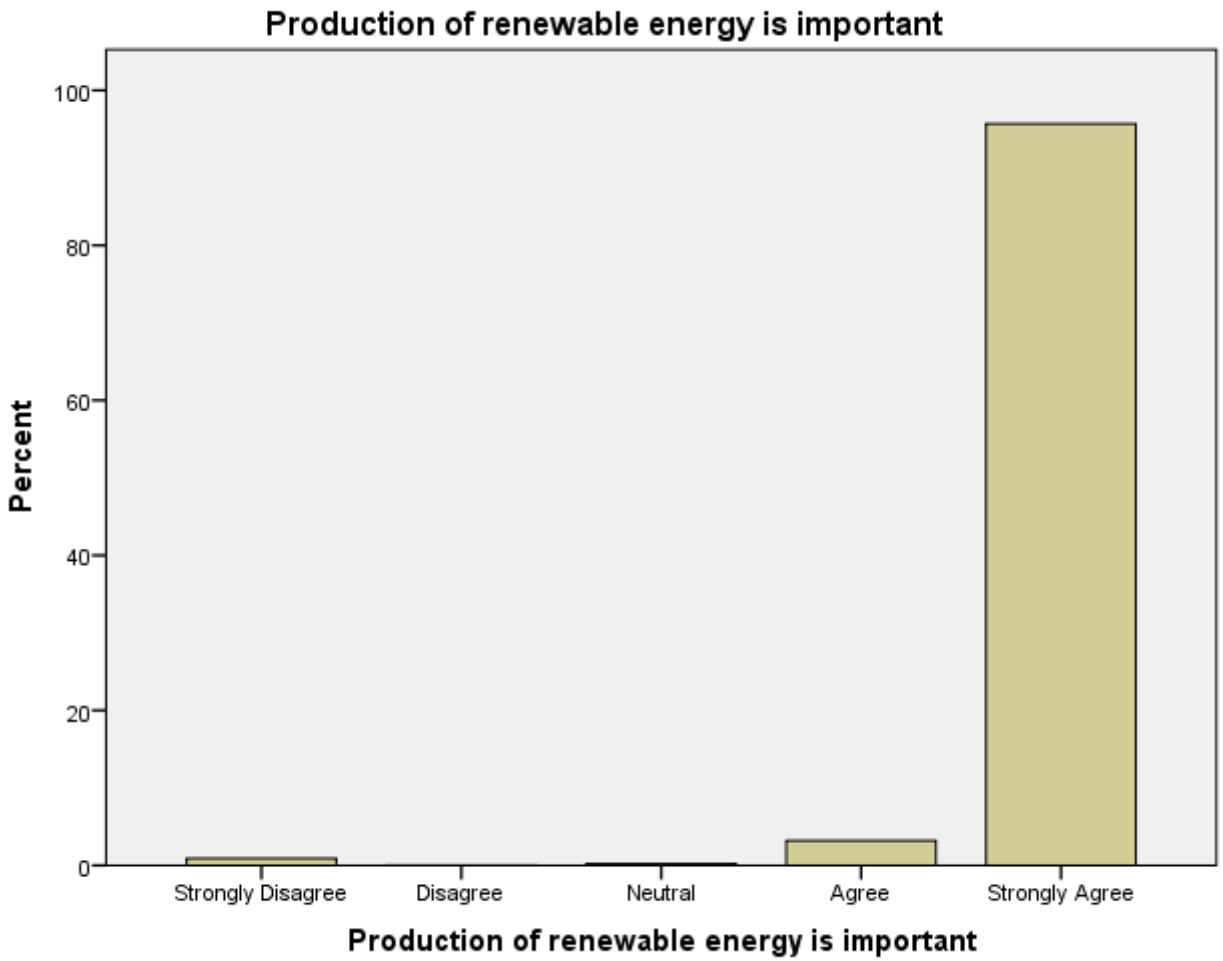
National government policy mainly supports traditional (centralized) energy systems

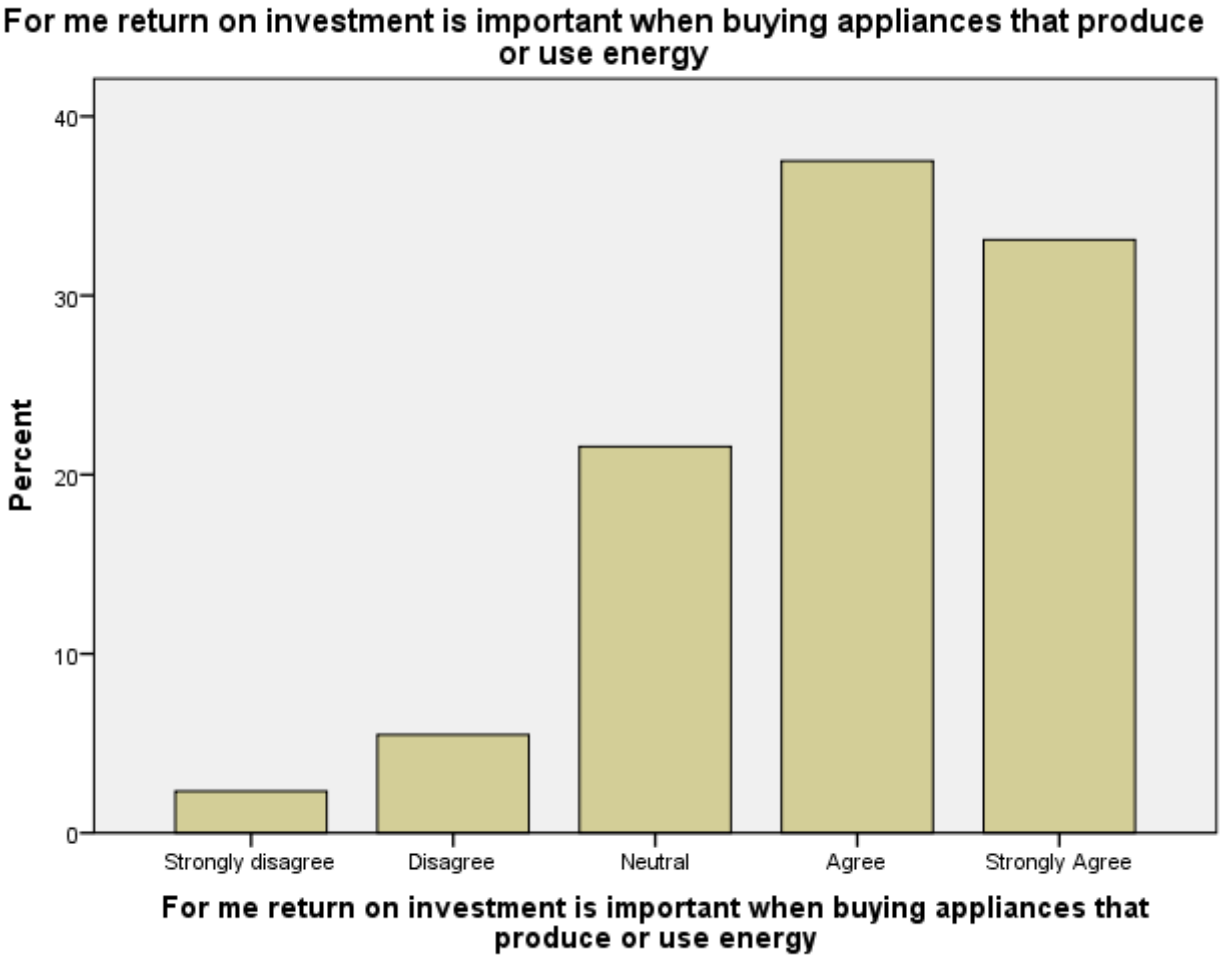
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	35	,3	,4	,4
	Disagree	154	1,5	1,6	2,0
	Neutral	956	9,0	10,0	12,0
	Agree	3987	37,7	41,7	53,7
	Strongly Agree	4429	41,8	46,3	100,0
	Total	9561	90,3	100,0	
Missing	System	1024	9,7		
Total		10585	100,0		

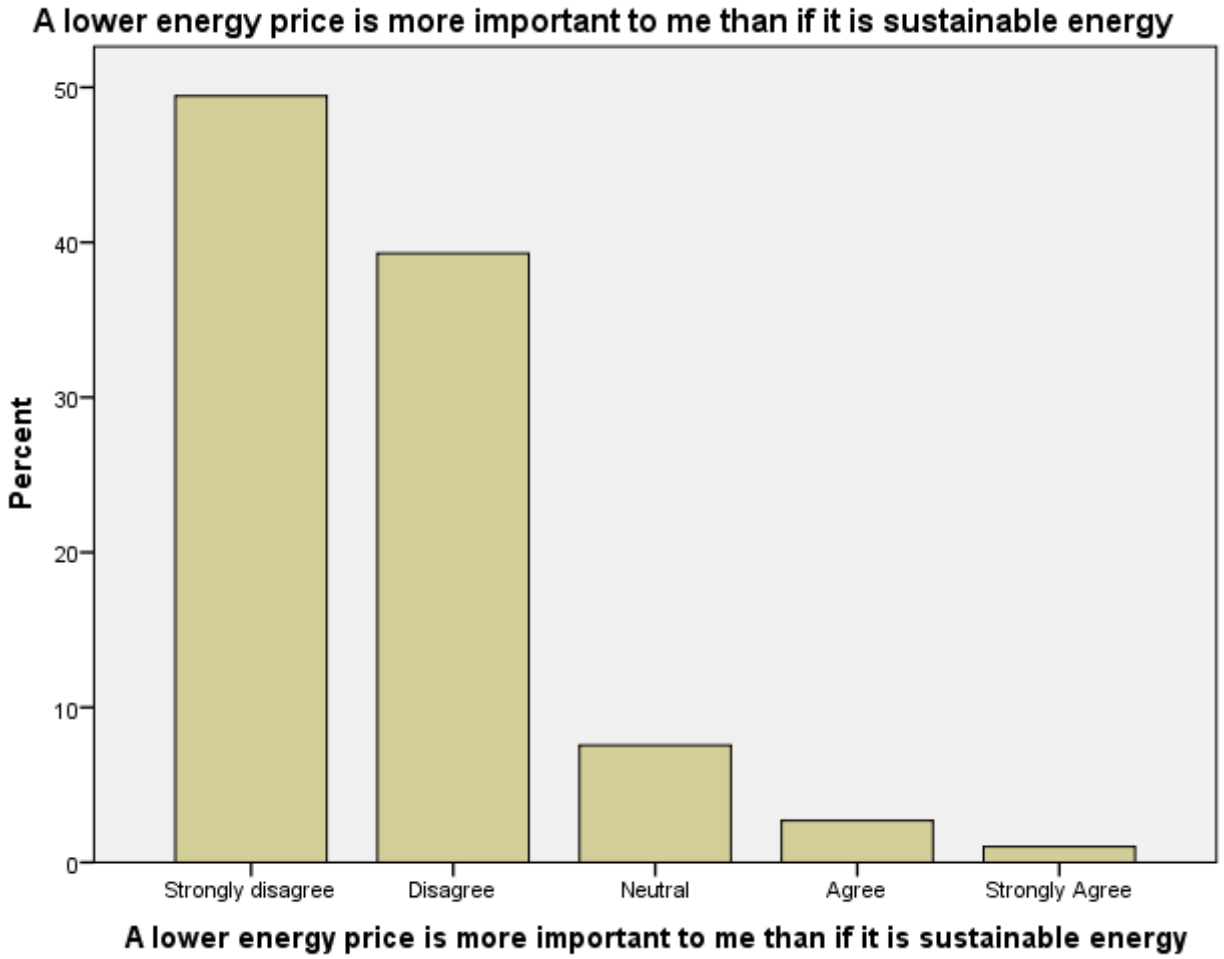
Climate change is not a problem at all.

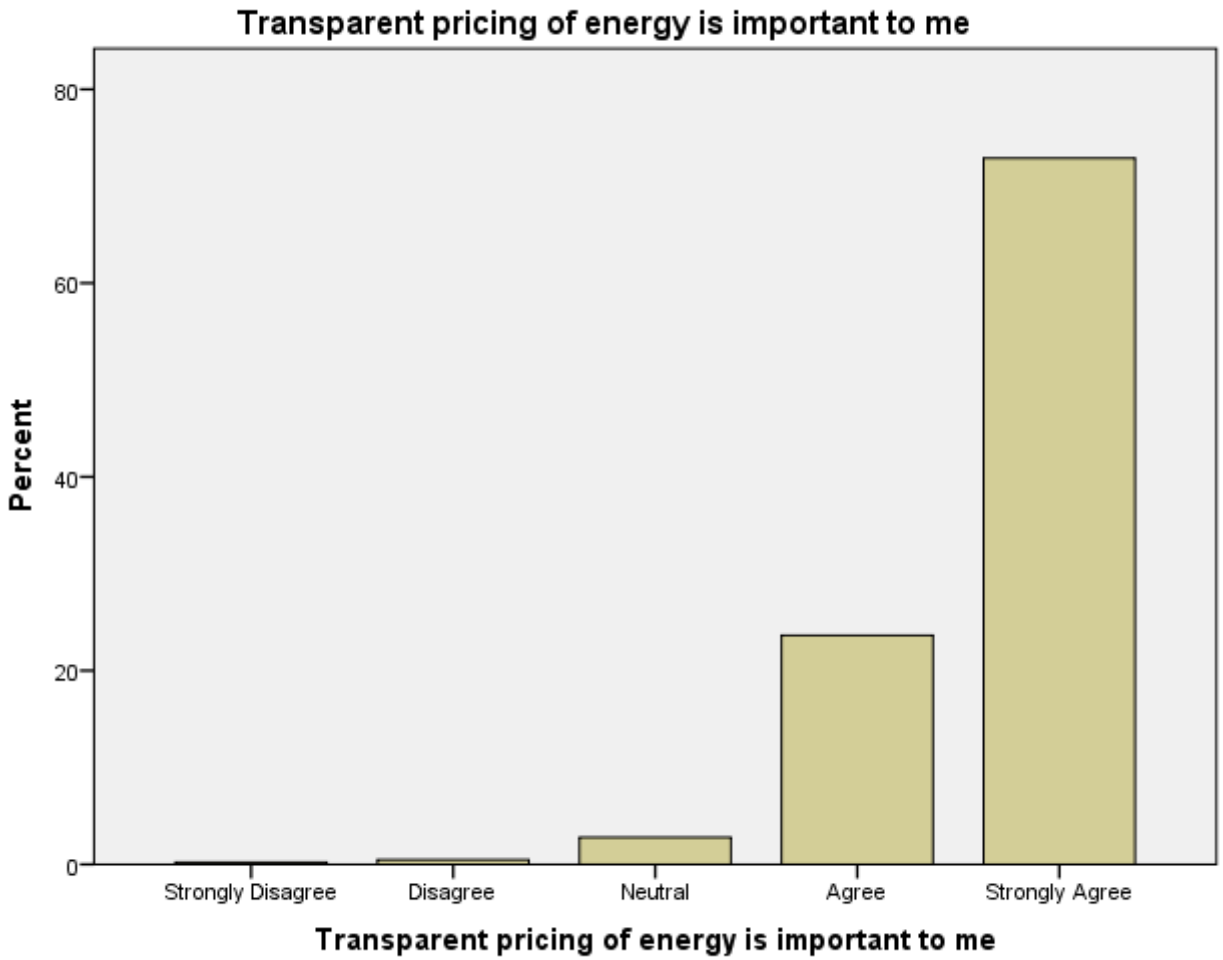
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	8848	83,6	90,1	90,1
	Disagree	726	6,9	7,4	97,4
	Neutral	123	1,2	1,3	98,7
	Agree	52	,5	,5	99,2
	Strongly Agree	76	,7	,8	100,0
	Total	9825	92,8	100,0	
Missing	System	760	7,2		
Total		10585	100,0		

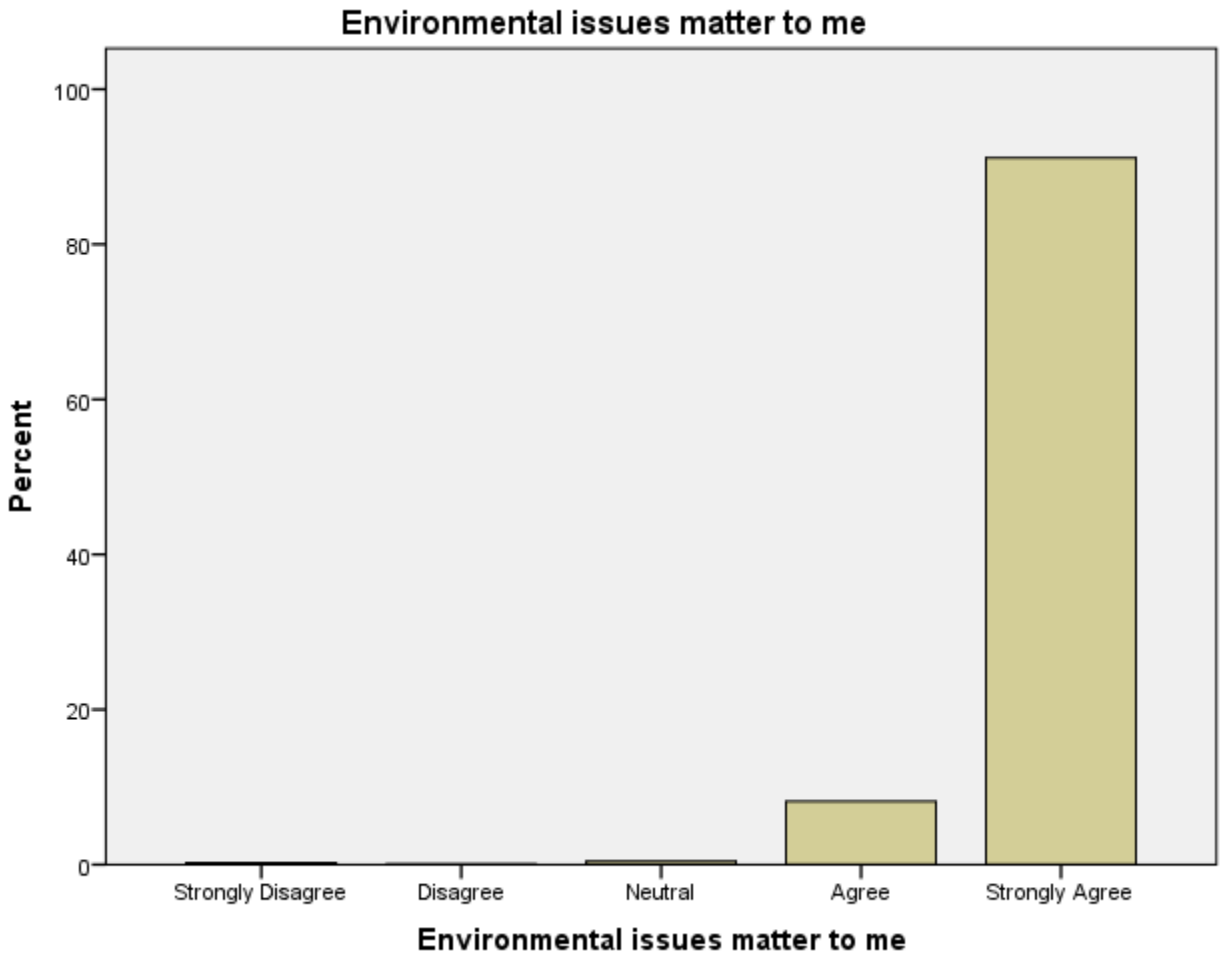
Bar Chart

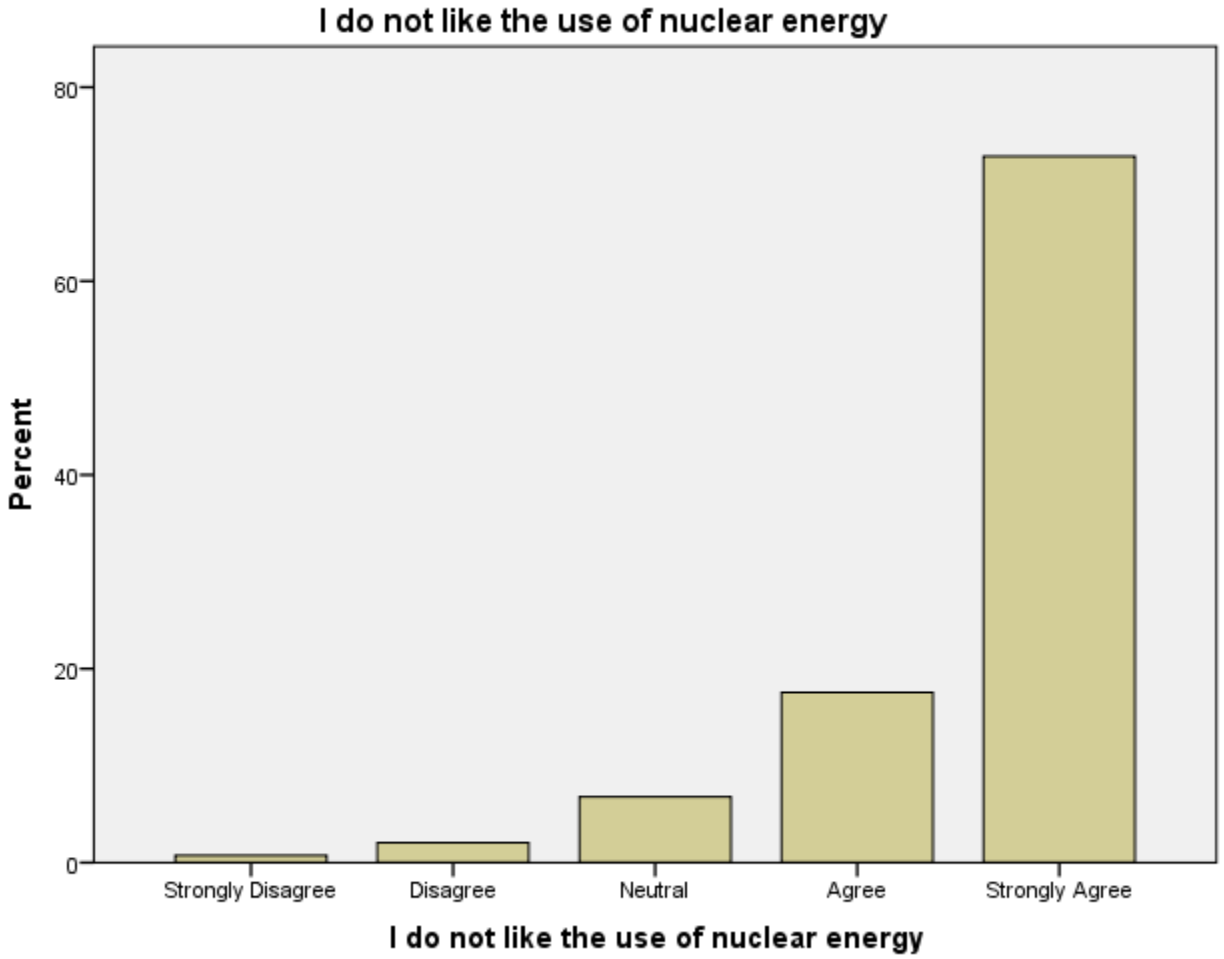

Production of renewable energy is important
Percent
100
80
60
40
20
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
Production of renewable energy is important

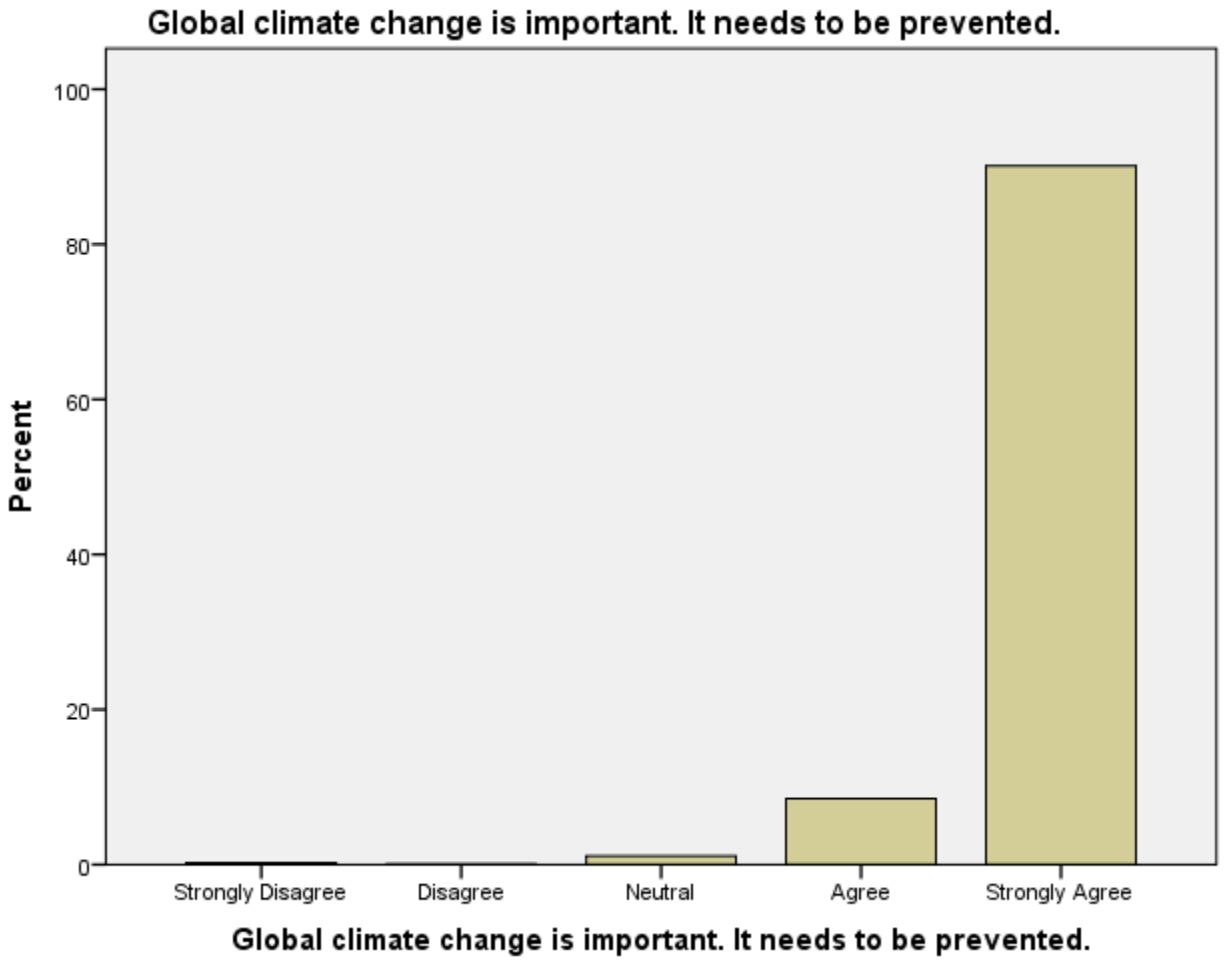

For me return on investment is important when buying appliances that produce or use energy
Percent
40
30
20
10
0
Strongly disagree
Disagree
Neutral
Agree
Strongly Agree
For me return on investment is important when buying appliances that produce or use energy

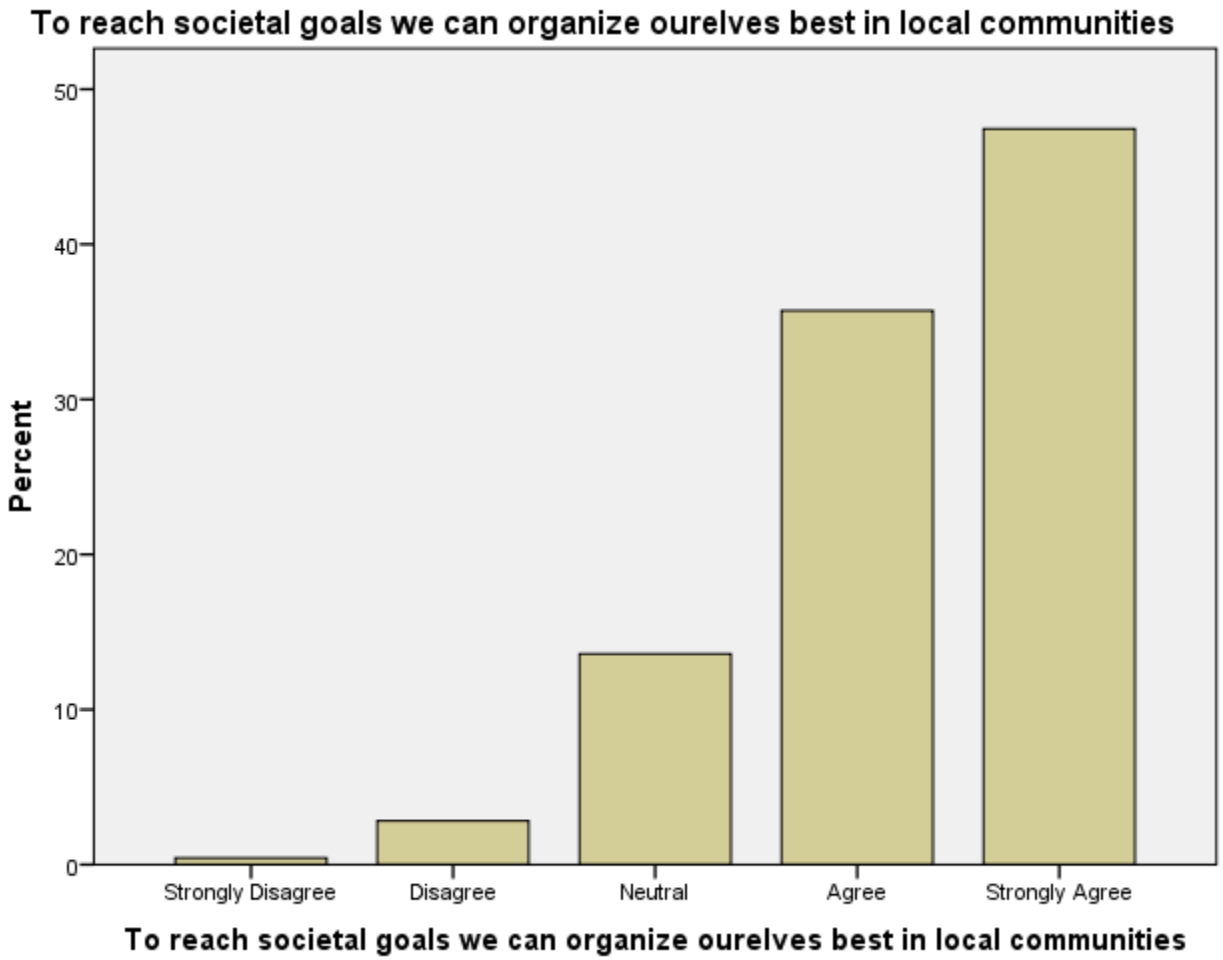

A lower energy price is more important to me than if it is sustainable energy
Percent
50
40
30
20
10
0
Strongly disagree
Disagree
Neutral
Agree
Strongly Agree
A lower energy price is more important to me than if it is sustainable energy

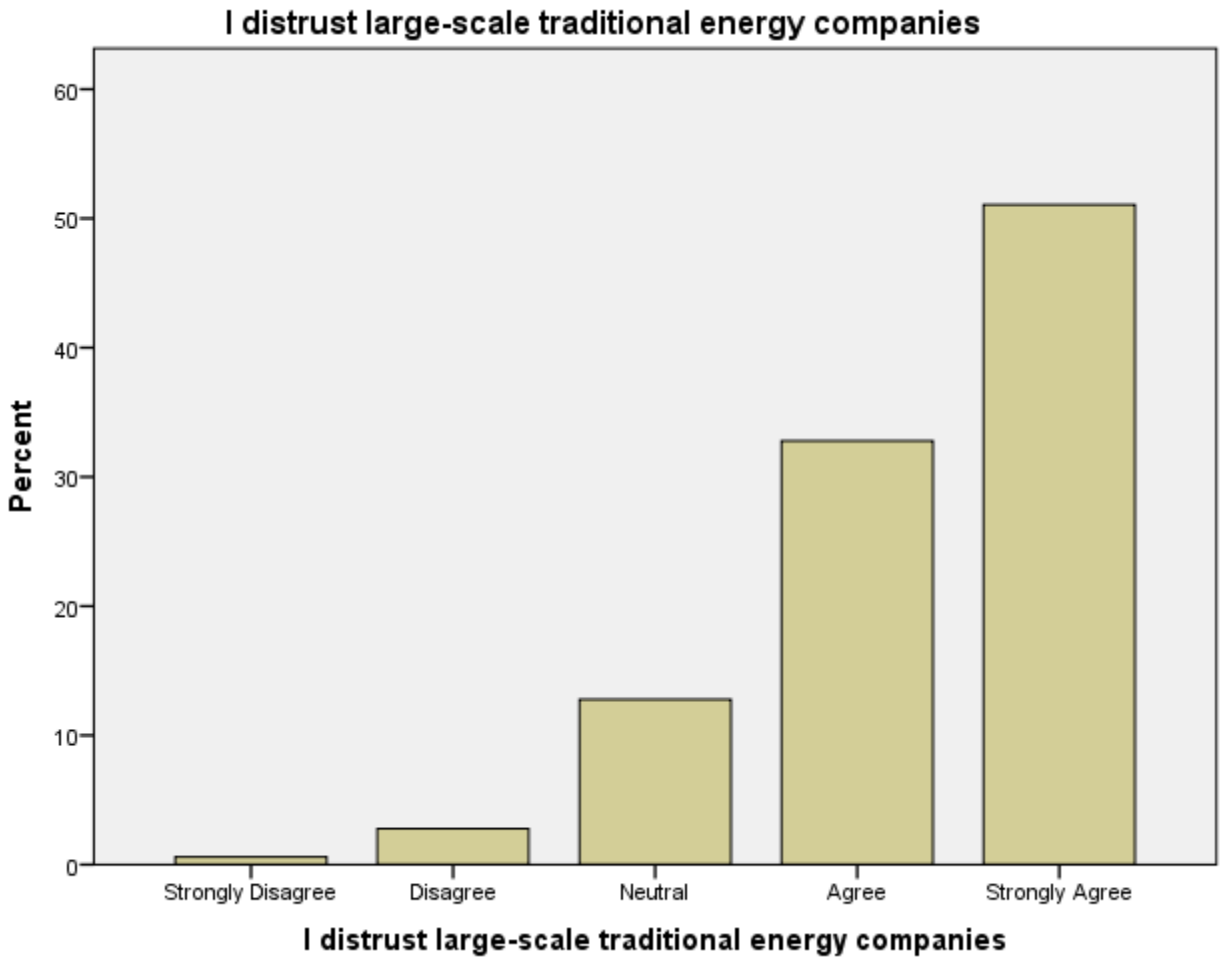

Transparent pricing of energy is important to me
Percent
80
60
40
20
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
Transparent pricing of energy is important to me

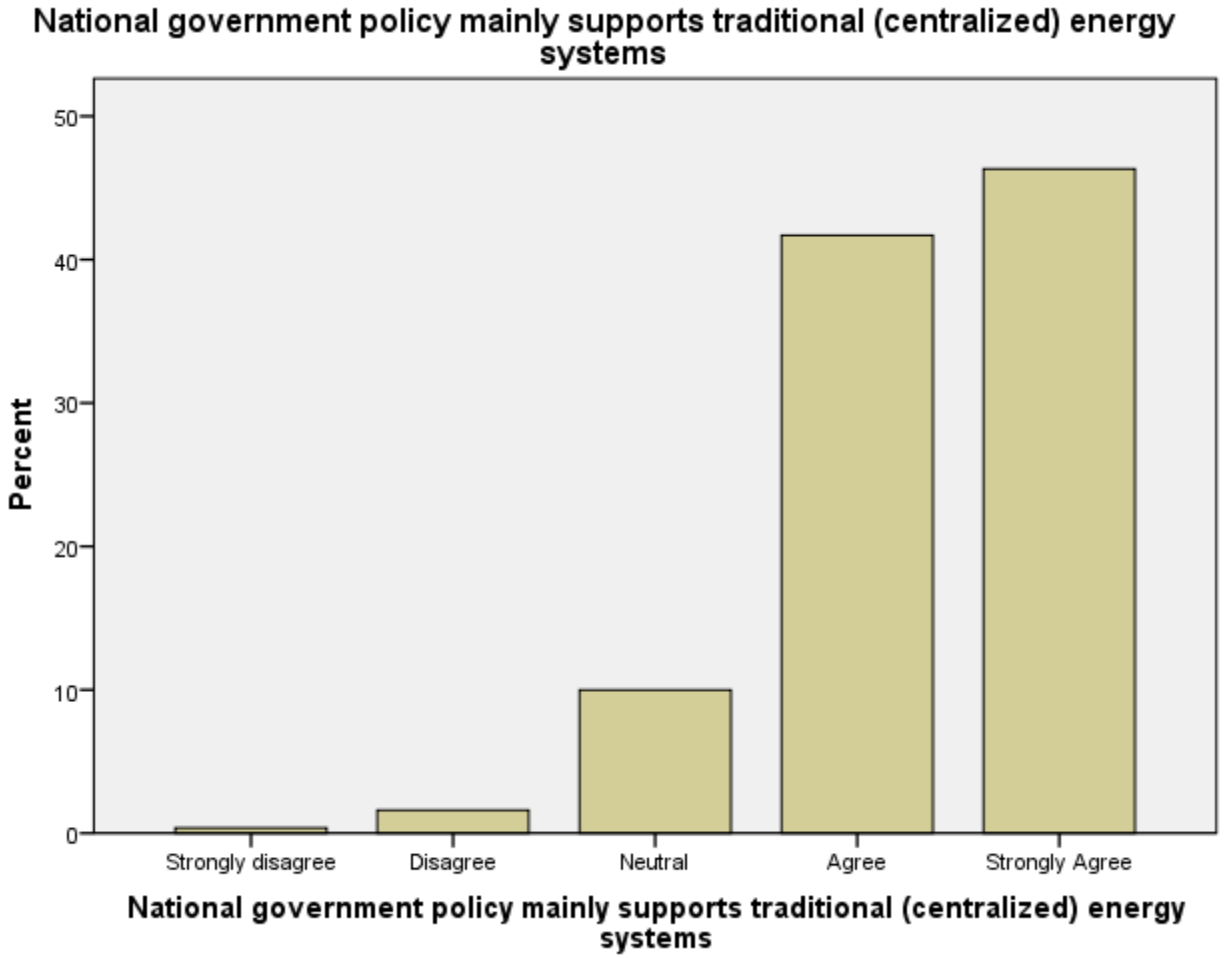

Environmental issues matter to me
100
80
60
40
20
0
Percent
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
Environmental issues matter to me


I do not like the use of nuclear energy
Percent
80
60
40
20
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I do not like the use of nuclear energy


Global climate change is important. It needs to be prevented.
Percent
100
80
60
40
20
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
Global climate change is important. It needs to be prevented.


To reach societal goals we can organize ourelves best in local communities
Percent
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
To reach societal goals we can organize ourelves best in local communities


I distrust large-scale traditional energy companies
Percent
60
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I distrust large-scale traditional energy companies


National government policy mainly supports traditional (centralized) energy systems
Percent
50
40
30
20
10
0
Strongly disagree
Disagree
Neutral
Agree
Strongly Agree
National government policy mainly supports traditional (centralized) energy systems

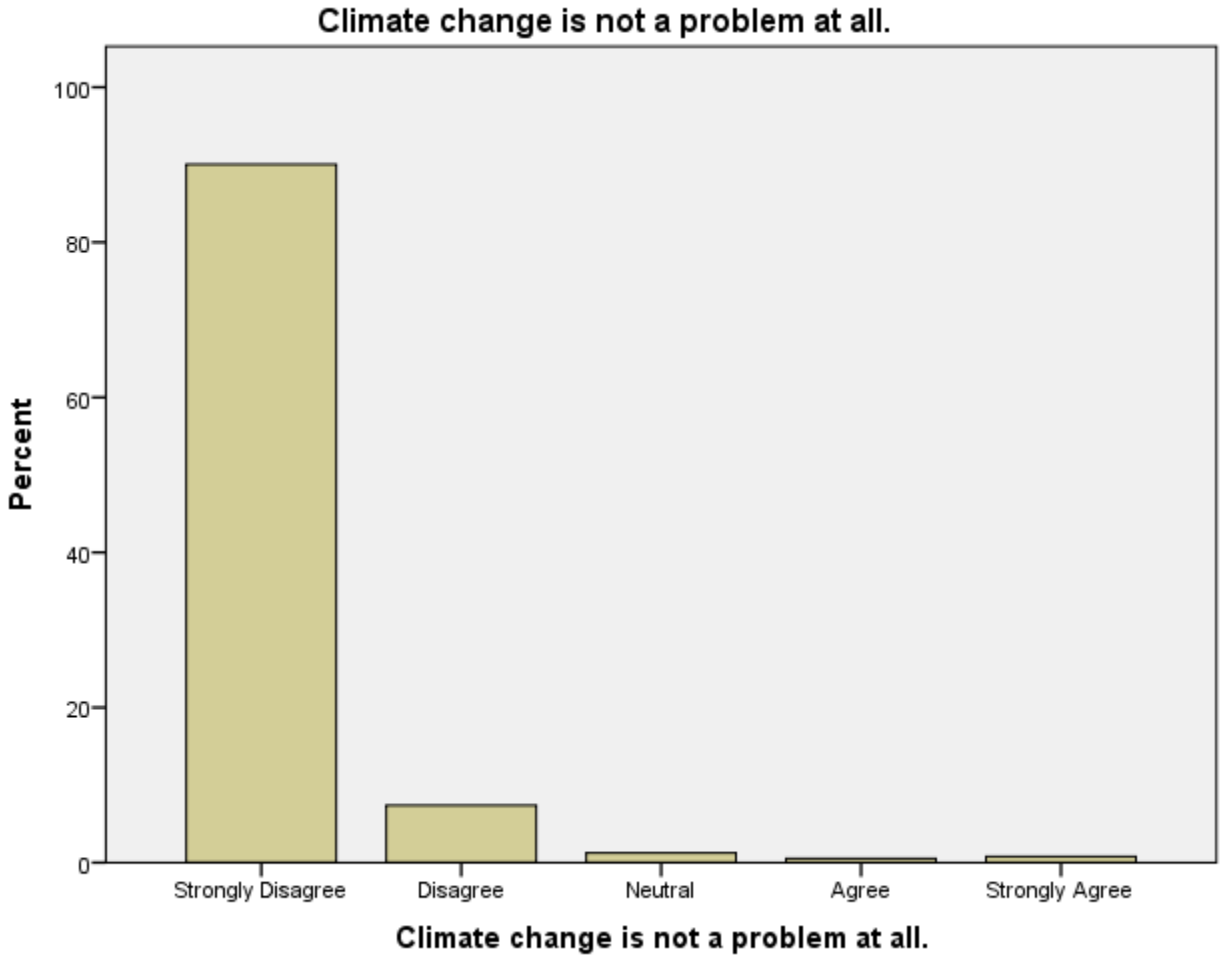

Climate change is not a problem at all.
Percent
100
80
60
40
20
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
Climate change is not a problem at all.

Table II.2 Behavioural factors (addressing intention, goal-setting, efficacy)

Frequency Table

I view myself capable of actually realizing intended energy saving targets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	15	,1	,2	,2
	Disagree	221	2,1	2,3	2,5
	Neutral	1195	11,3	12,5	15,0
	Agree	5732	54,2	60,1	75,1
	Strongly Agree	2372	22,4	24,9	100,0
	Total	9535	90,1	100,0	
Missing	System	1050	9,9		
Total		10585	100,0		

I have the intention to lower my energy consumption patterns intensively

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	59	,6	,6	,6
	Disagree	687	6,5	7,2	7,8
	Neutral	2811	26,6	29,6	37,4
	Agree	4384	41,4	46,1	83,5
	Strongly Agree	1565	14,8	16,5	100,0
	Total	9506	89,8	100,0	
Missing	System	1079	10,2		
Total		10585	100,0		

I have the intention to only use energy that has been produced locally

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	64	,6	,7	,7
	Disagree	608	5,7	6,6	7,3
	Neutral	2564	24,2	27,8	35,1
	Agree	4063	38,4	44,1	79,2
	Strongly Agree	1914	18,1	20,8	100,0
	Total	9213	87,0	100,0	
Missing	System	1372	13,0		
Total		10585	100,0		

I view myself capable of realizing challenging targets I set (e.g. sports targets or diet targets).

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	79	,7	,8	,8
	Disagree	691	6,5	7,3	8,1
	Neutral	2848	26,9	29,9	38,0
	Agree	4494	42,5	47,2	85,2
	Strongly Agree	1406	13,3	14,8	100,0
	Total	9518	89,9	100,0	
Missing	System	1067	10,1		
Total		10585	100,0		

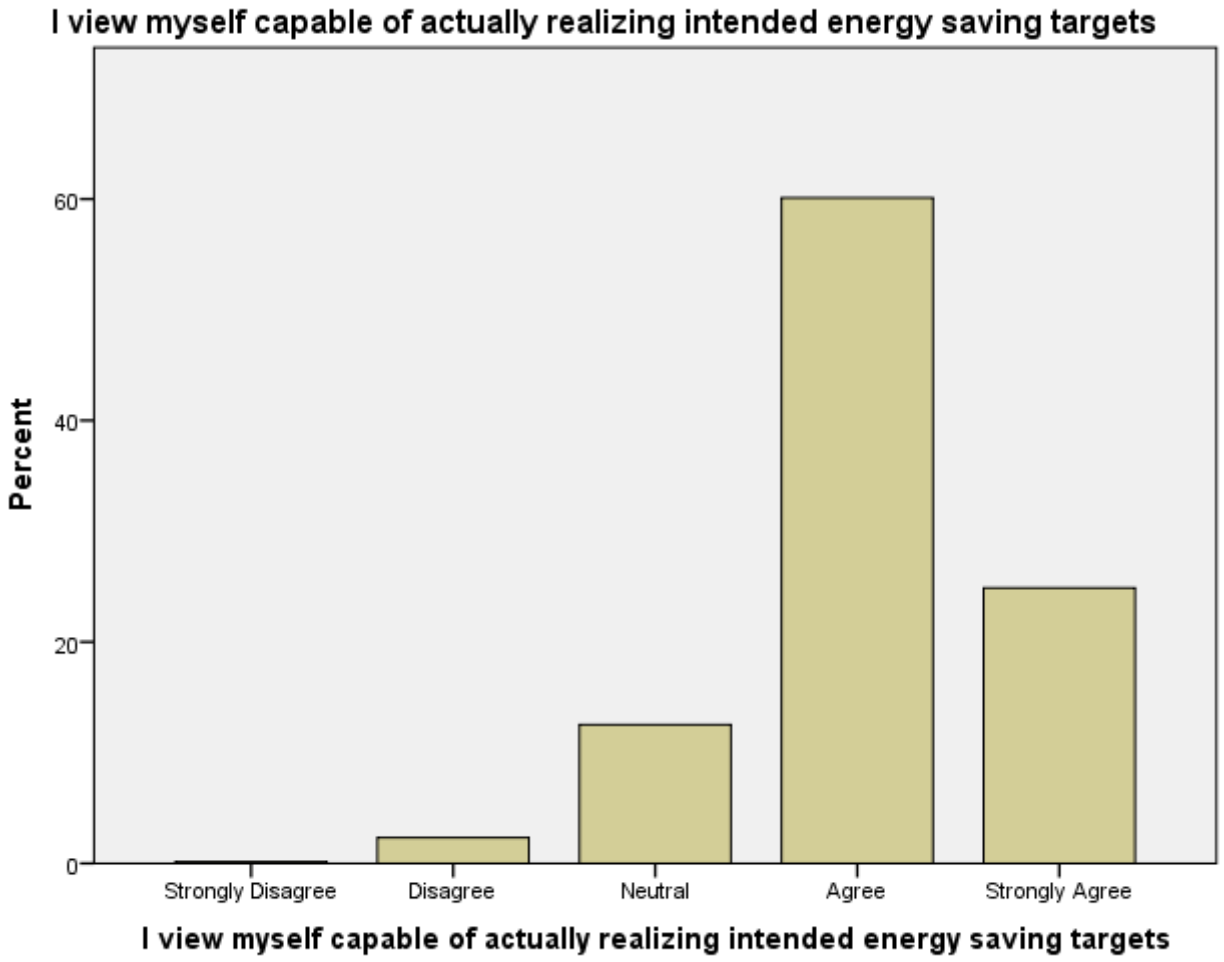
When I am challenged to save energy, I commit myself easily

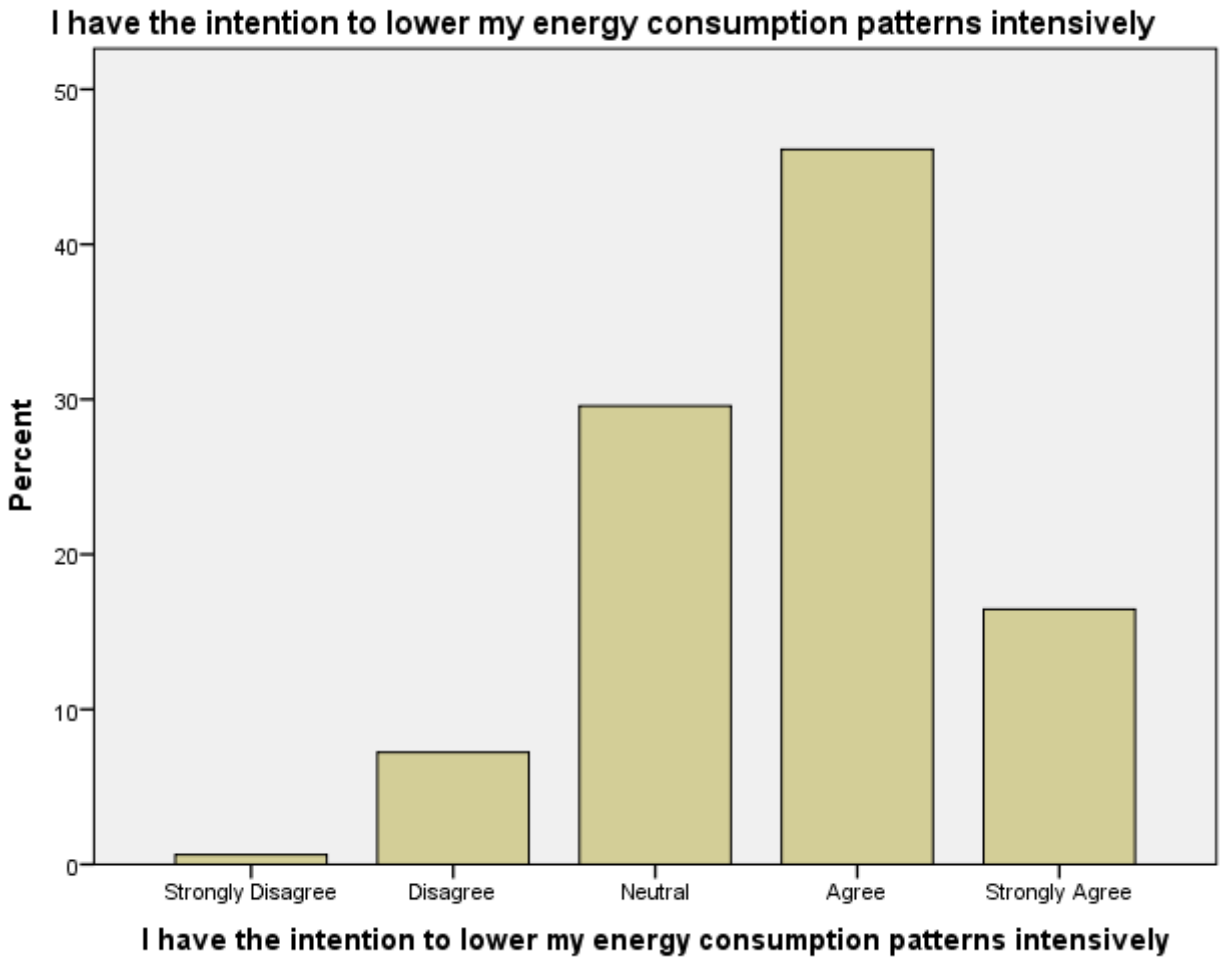
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	58	,5	,6	,6
	Disagree	522	4,9	5,5	6,1
	Neutral	2422	22,9	25,5	31,6
	Agree	5010	47,3	52,8	84,4
	Strongly Agree	1482	14,0	15,6	100,0
	Total	9494	89,7	100,0	
Missing	System	1091	10,3		
Total		10585	100,0		

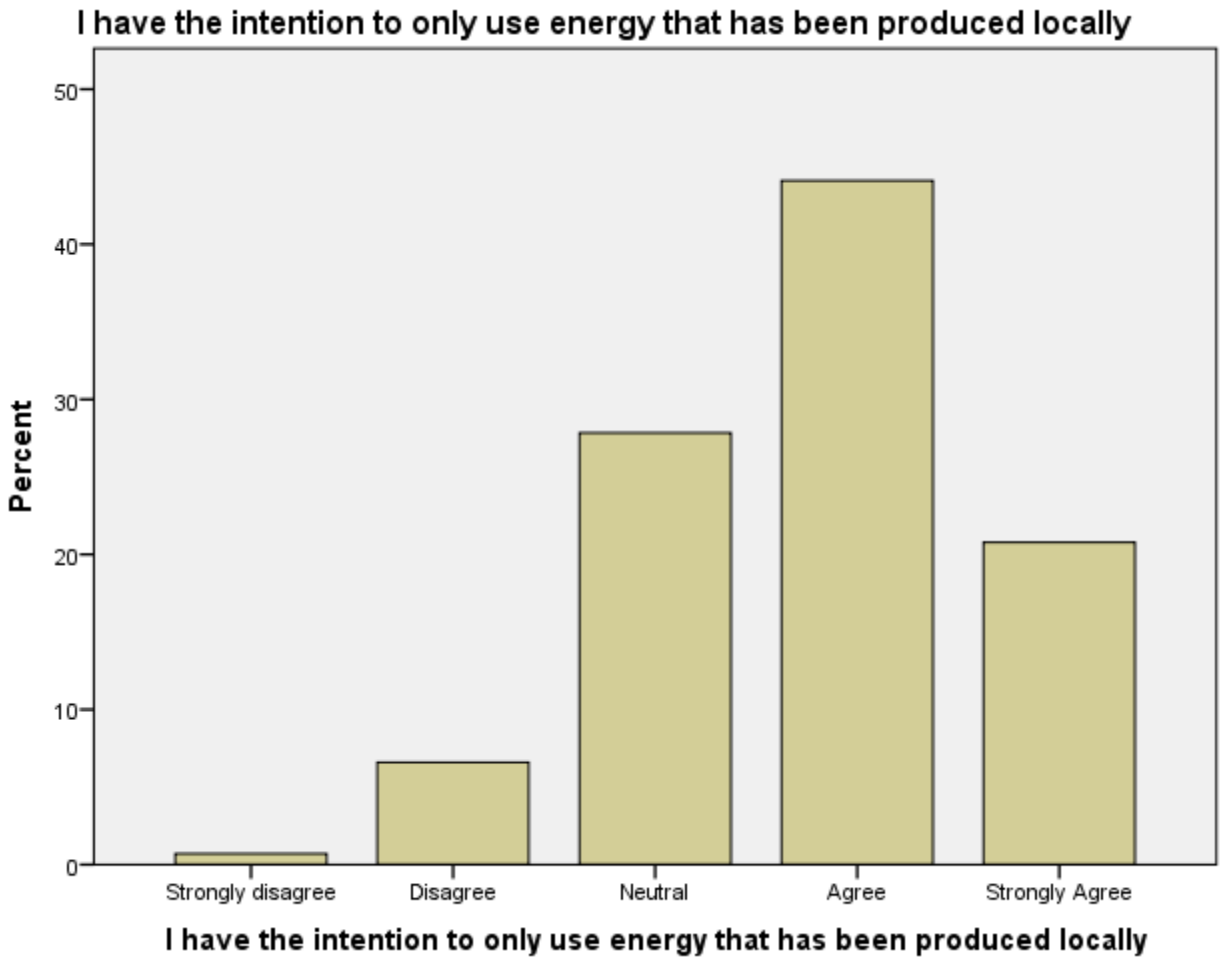
I have the intention to continually improve the energy efficiency level of my household.

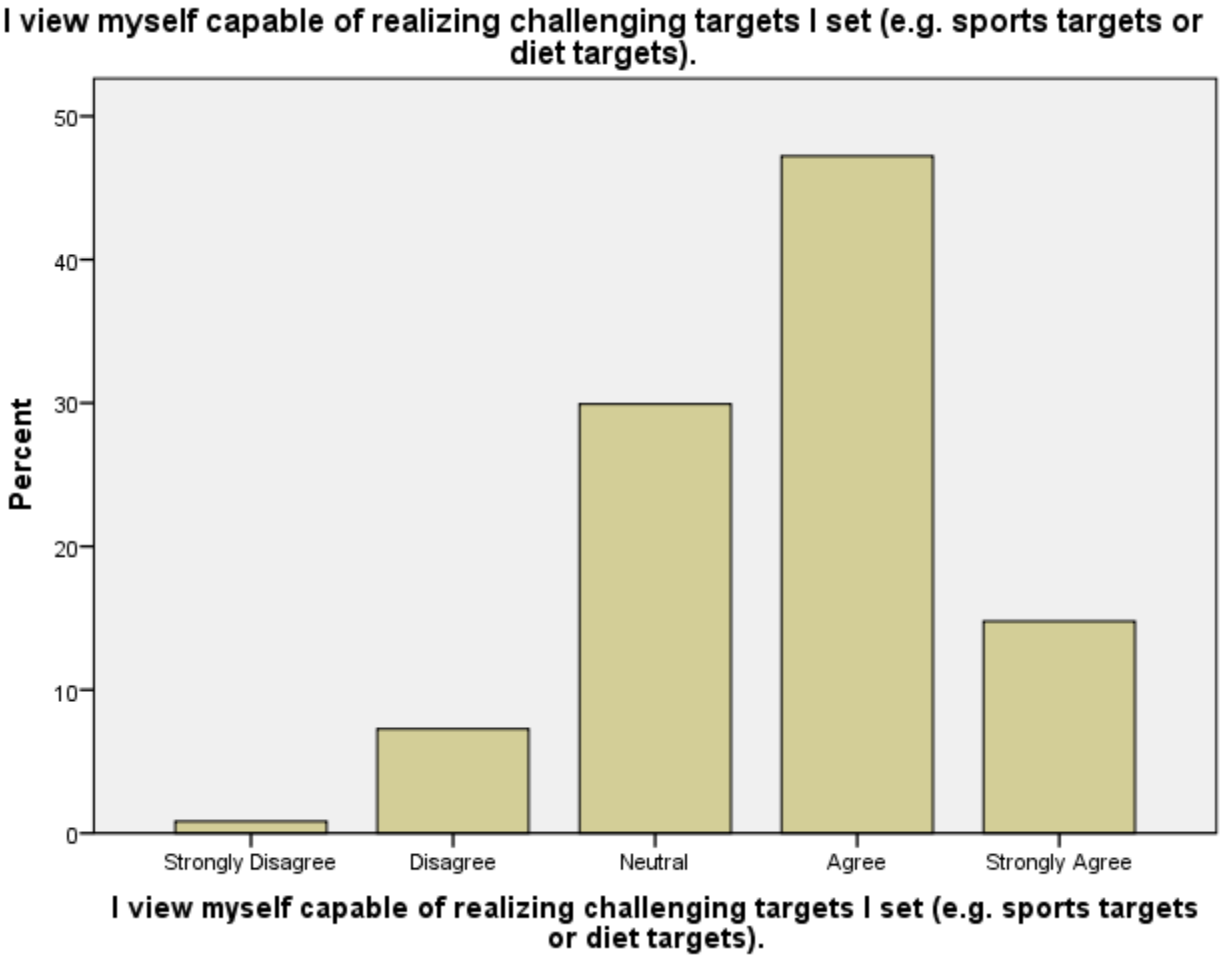
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	25	,2	,3	,3
	Disagree	217	2,1	2,3	2,5
	Neutral	1440	13,6	15,1	17,6
	Agree	5578	52,7	58,4	76,0
	Strongly Agree	2291	21,6	24,0	100,0
	Total	9551	90,2	100,0	
Missing	System	1034	9,8		
Total		10585	100,0		

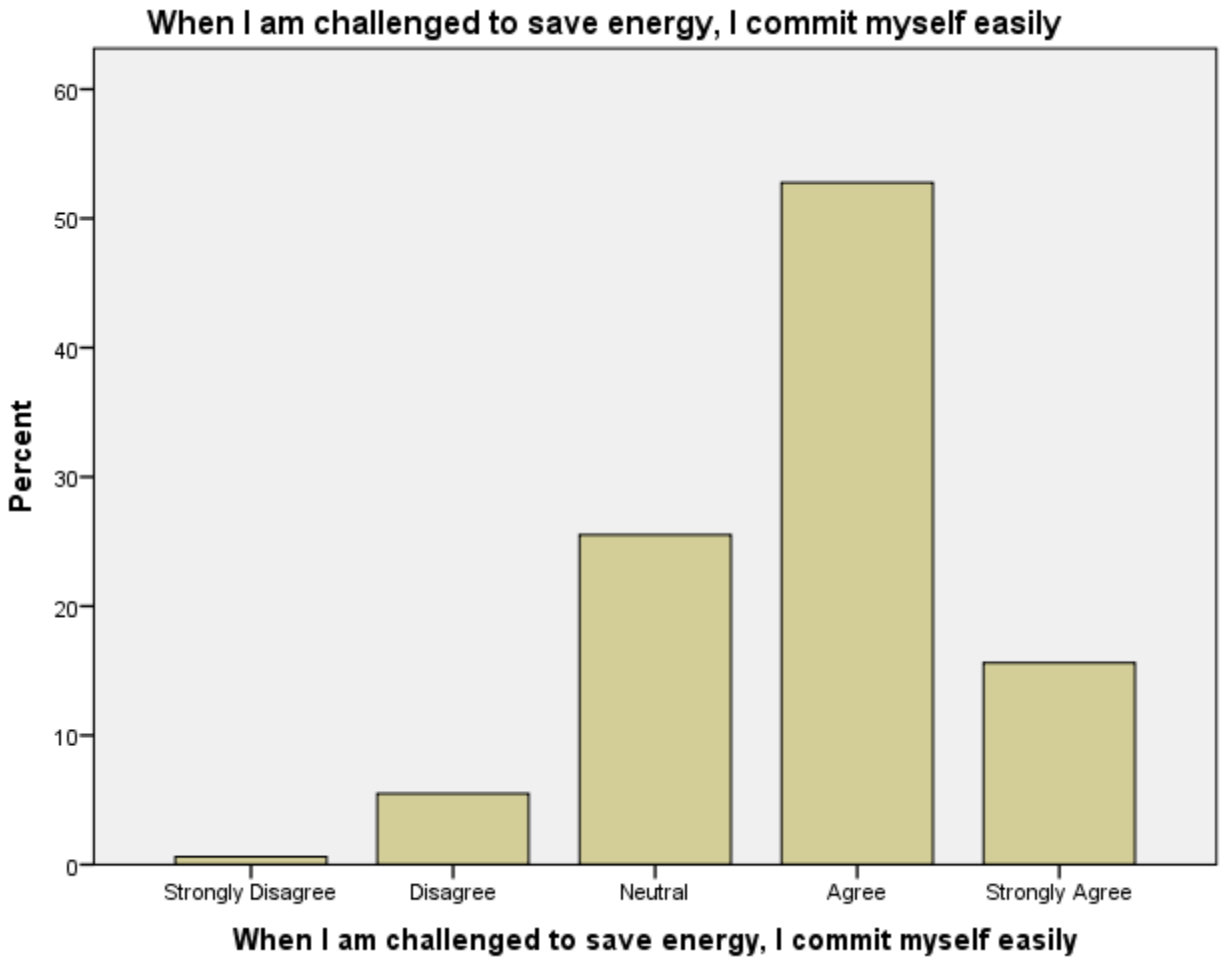
Bar Chart


I view myself capable of actually realizing intended energy saving targets
Percent
60
40
20
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I view myself capable of actually realizing intended energy saving targets


I have the intention to lower my energy consumption patterns intensively
Percent
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I have the intention to lower my energy consumption patterns intensively


I have the intention to only use energy that has been produced locally
Percent
50
40
30
20
10
0
Strongly disagree
Disagree
Neutral
Agree
Strongly Agree
I have the intention to only use energy that has been produced locally


I view myself capable of realizing challenging targets I set (e.g. sports targets or diet targets).
Percent
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I view myself capable of realizing challenging targets I set (e.g. sports targets or diet targets).


When I am challenged to save energy, I commit myself easily
Percent
60
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
When I am challenged to save energy, I commit myself easily

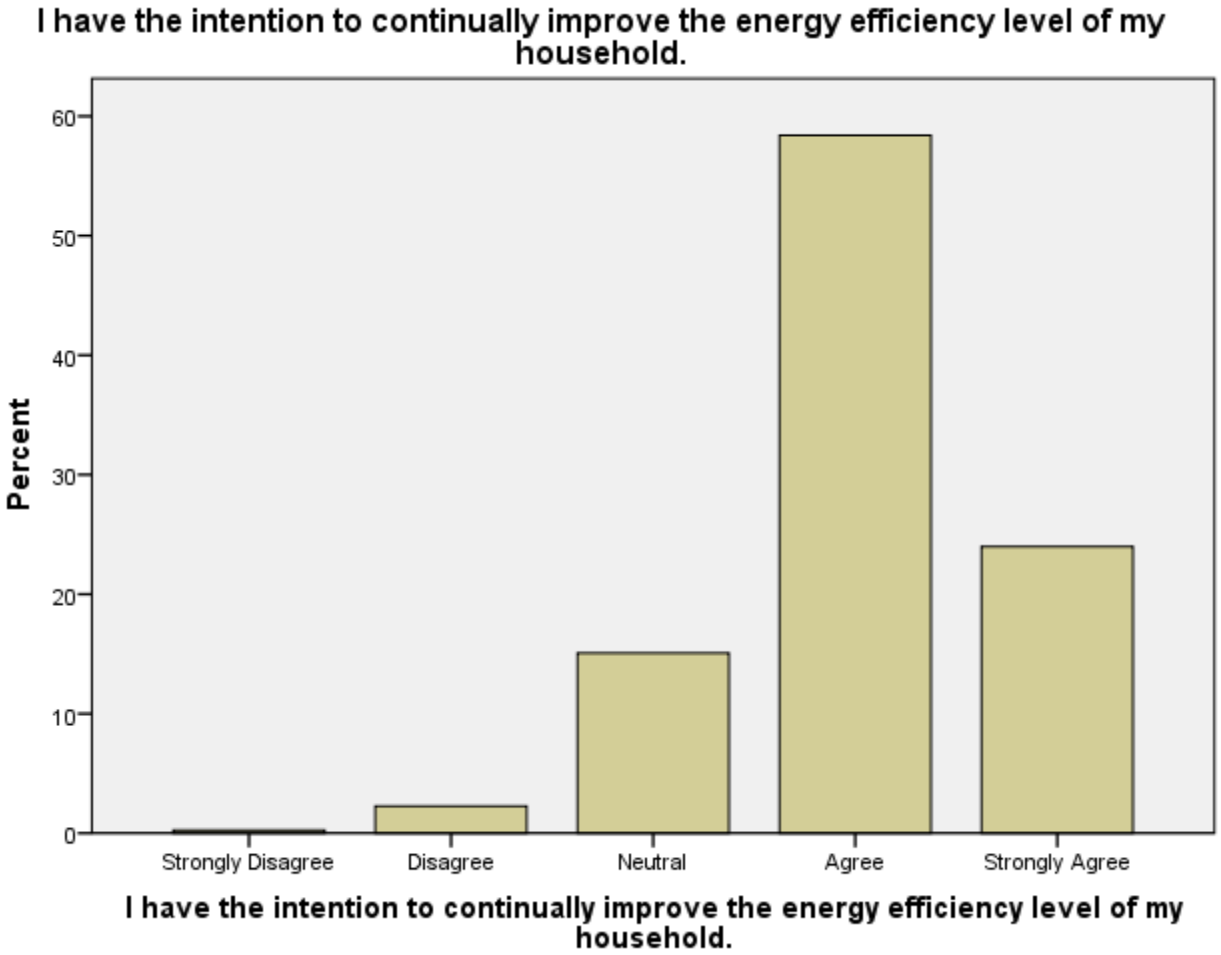

I have the intention to continually improve the energy efficiency level of my household.
Percent
60
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I have the intention to continually improve the energy efficiency level of my household.

Table II.3 Social factors (trust, social environment, identification within social group)

Frequency Table

I experience a high level of interpersonal trust between members of my REScoop

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	16	,2	,2	,2
	Disagree	40	,4	,4	,6
	Neutral	1167	11,0	12,4	13,0
	Agree	5075	47,9	53,8	66,7
	Strongly Agree	3143	29,7	33,3	100,0
	Total	9441	89,2	100,0	
Missing	System	1144	10,8		
Total		10585	100,0		

I like to identify myself with a green energy supplier

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	24	,2	,2	,2
	Disagree	47	,4	,5	,7
	Neutral	1289	12,2	13,4	14,1
	Agree	4384	41,4	45,5	59,6
	Strongly Agree	3895	36,8	40,4	100,0
	Total	9639	91,1	100,0	
Missing	System	946	8,9		
Total		10585	100,0		

I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	44	,4	,5	,5
	Disagree	155	1,5	1,6	2,1
	Neutral	1513	14,3	16,0	18,1
	Agree	3868	36,5	41,0	59,2
	Strongly Agree	3853	36,4	40,8	100,0
	Total	9433	89,1	100,0	
Missing	System	1152	10,9		
Total		10585	100,0		

I like to be seen as a person who uses renewable energy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	23	,2	,2	,2
	Disagree	49	,5	,5	,7
	Neutral	1356	12,8	14,0	14,8
	Agree	3976	37,6	41,2	56,0
	Strongly Agree	4254	40,2	44,0	100,0
	Total	9658	91,2	100,0	
Missing	System	927	8,8		
Total		10585	100,0		

I like to be seen as a person who saves energy

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	30	,3	,3	,3
	Disagree	57	,5	,6	,9
	Neutral	1262	11,9	13,0	13,9
	Agree	4249	40,1	43,9	57,9
	Strongly Agree	4076	38,5	42,1	100,0
	Total	9674	91,4	100,0	
Missing	System	911	8,6		
Total		10585	100,0		

Saving energy is considered an important value among my friends and family

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	57	,5	,6	,6
	Disagree	646	6,1	6,7	7,3
	Neutral	2465	23,3	25,5	32,8
	Agree	4890	46,2	50,7	83,5
	Strongly agree	1592	15,0	16,5	100,0
	Total	9650	91,2	100,0	
Missing	System	935	8,8		
Total		10585	100,0		

Generating one's own energy locally is considered important among my friends and family

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	251	2,4	2,7	2,7
	Disagree	1300	12,3	13,8	16,4
	Neutral	3971	37,5	42,1	58,5
	Agree	2838	26,8	30,1	88,5
	Strongly agree	1082	10,2	11,5	100,0
	Total	9442	89,2	100,0	
Missing	System	1143	10,8		
Total		10585	100,0		

I don't want to be the last one in my social network who adopts new technological gadgets

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	3189	30,1	34,3	34,3
	Disagree	2368	22,4	25,5	59,8
	Neutral	2553	24,1	27,5	87,3
	Agree	757	7,2	8,1	95,4
	Strongly Agree	424	4,0	4,6	100,0
	Total	9291	87,8	100,0	
Missing	System	1294	12,2		
Total		10585	100,0		

I like to be the first one among my friends who adopts a technological innovation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	2753	26,0	28,6	28,6
	Disagree	2673	25,3	27,8	56,4
	Neutral	3025	28,6	31,4	87,8
	Agree	855	8,1	8,9	96,7
	Strongly Agree	318	3,0	3,3	100,0
	Total	9624	90,9	100,0	
Missing	System	961	9,1		
Total		10585	100,0		

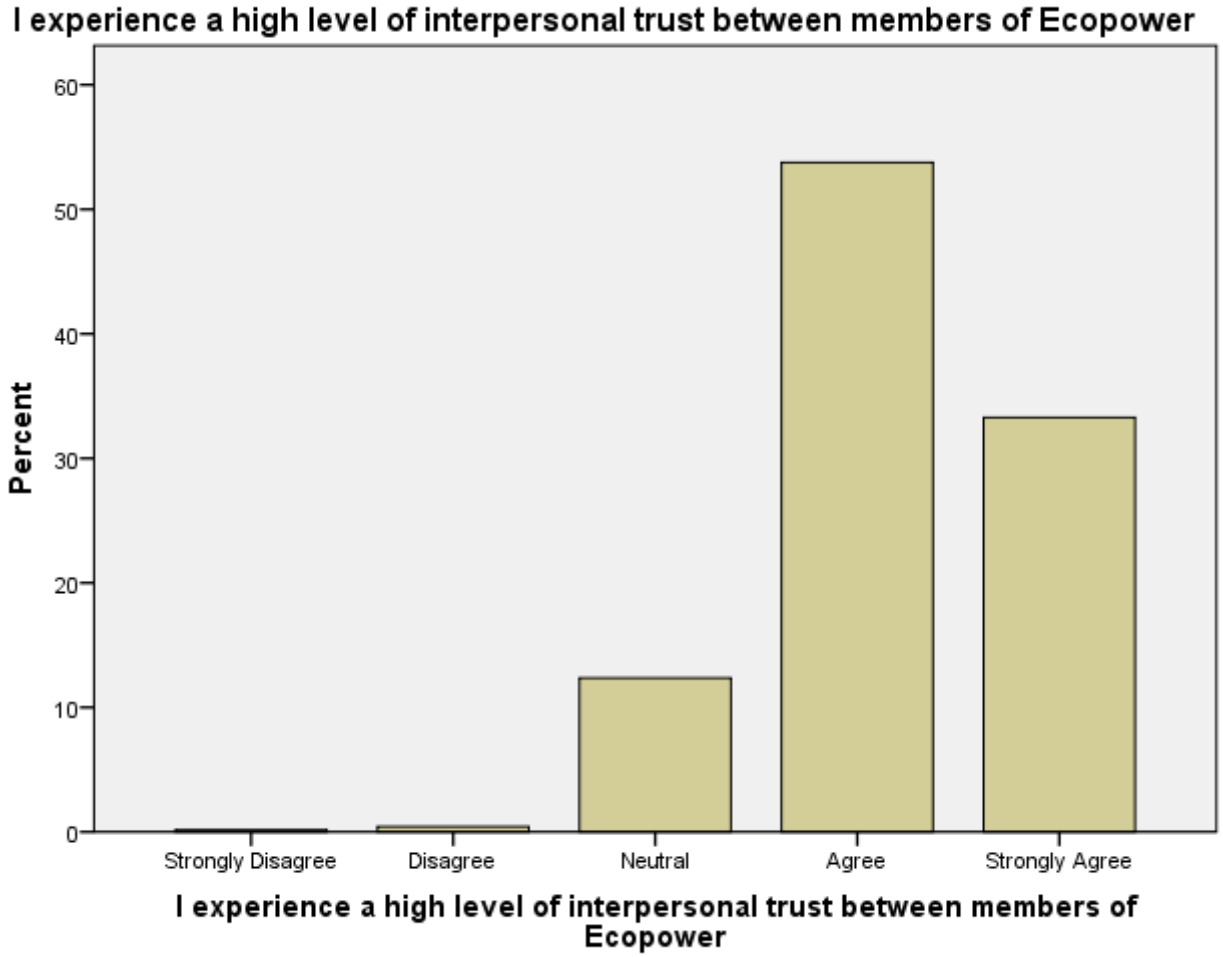
Many of my friends and/or family members are members of an energy cooperative

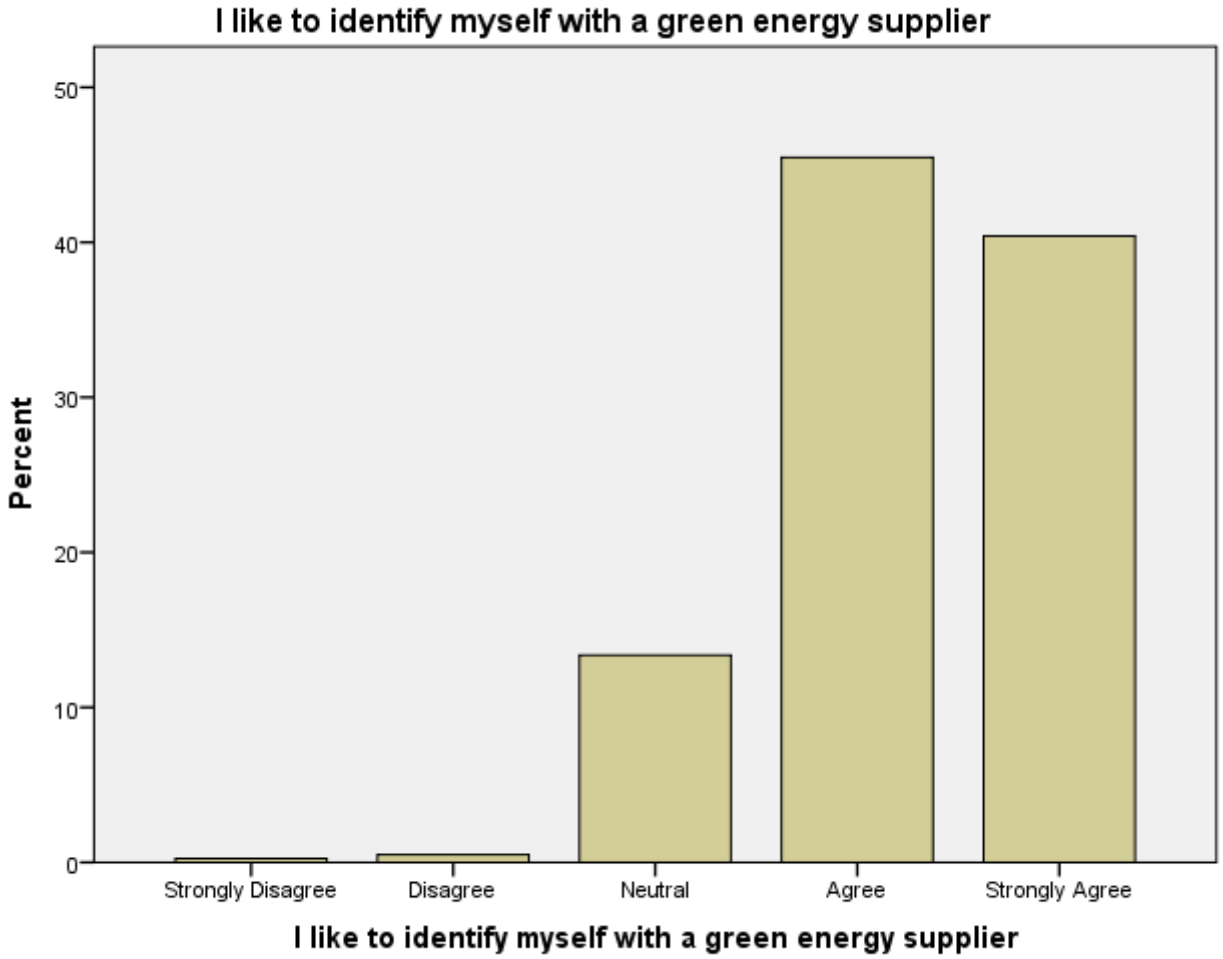
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	1754	16,6	18,3	18,3
	Disagree	3624	34,2	37,9	56,3
	Neutral	2701	25,5	28,3	84,5
	Agree	1318	12,5	13,8	98,3
	Strongly agree	163	1,5	1,7	100,0
	Total	9560	90,3	100,0	
Missing	System	1025	9,7		
Total		10585	100,0		

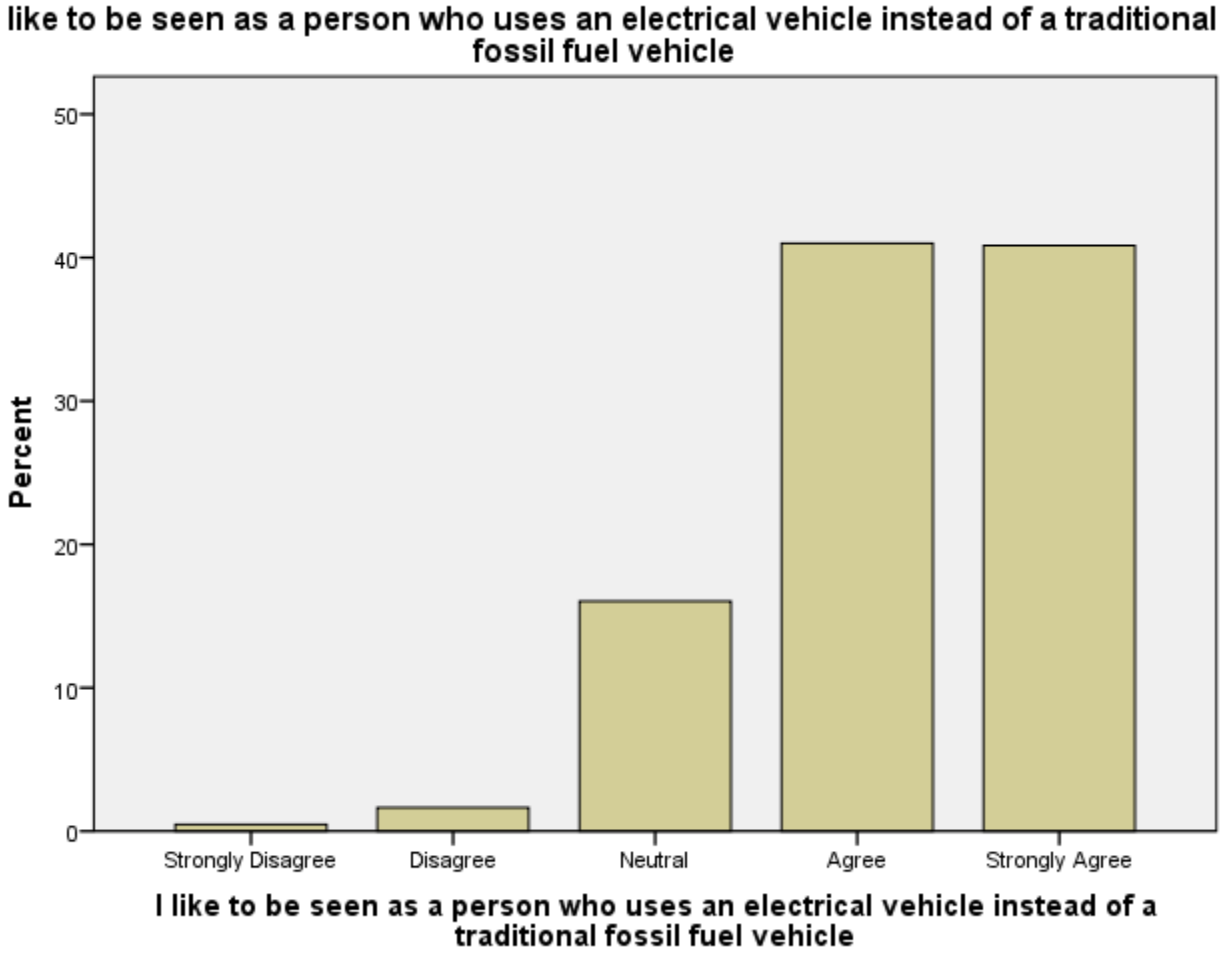
I experience social pressure to save energy (reduce energy use)

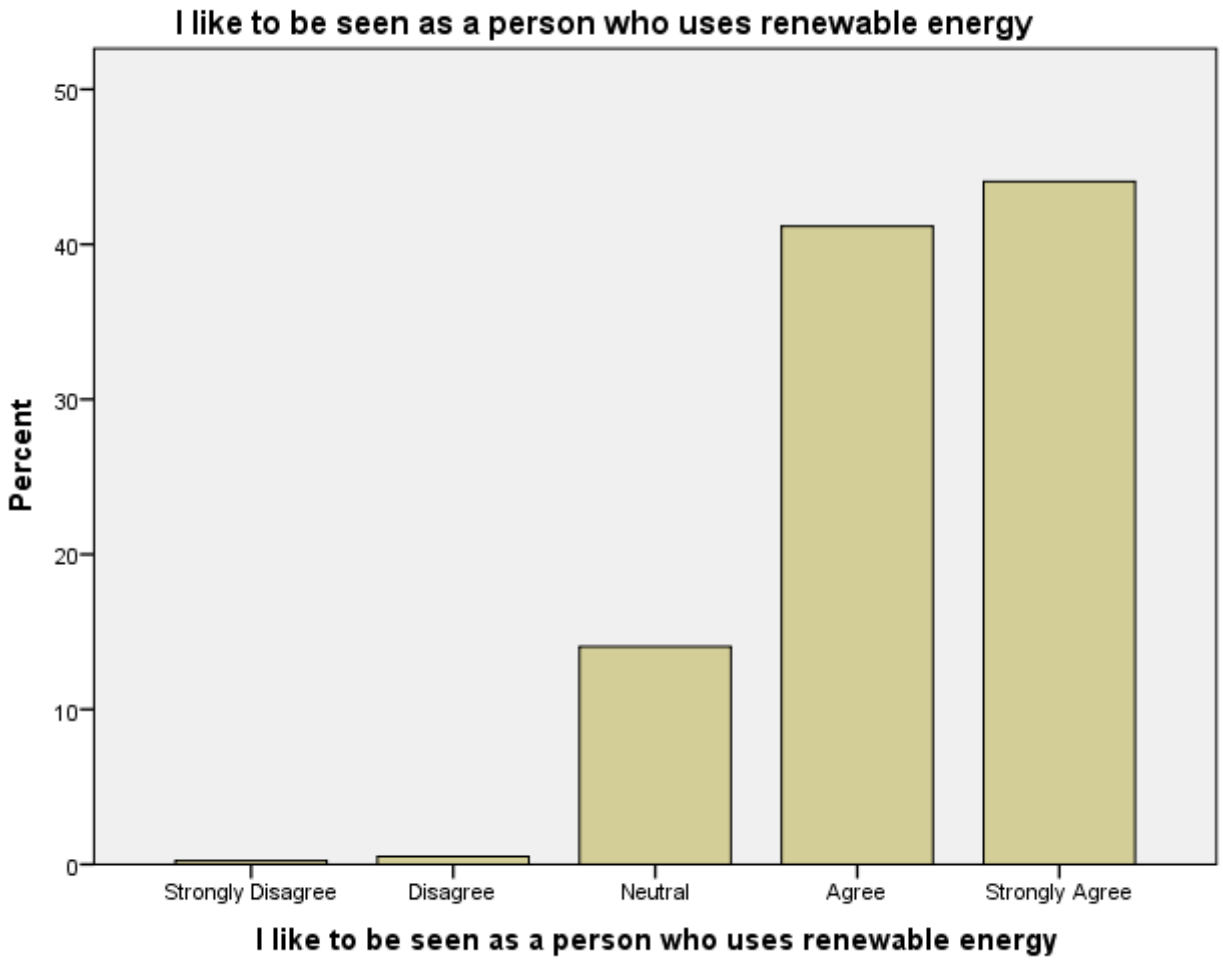
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1741	16,4	18,0	18,0
	Disagree	3817	36,1	39,5	57,5
	Neutral	2457	23,2	25,4	82,9
	Agree	1432	13,5	14,8	97,7
	Strongly Agree	221	2,1	2,3	100,0
	Total	9668	91,3	100,0	
Missing	System	917	8,7		
Total		10585	100,0		

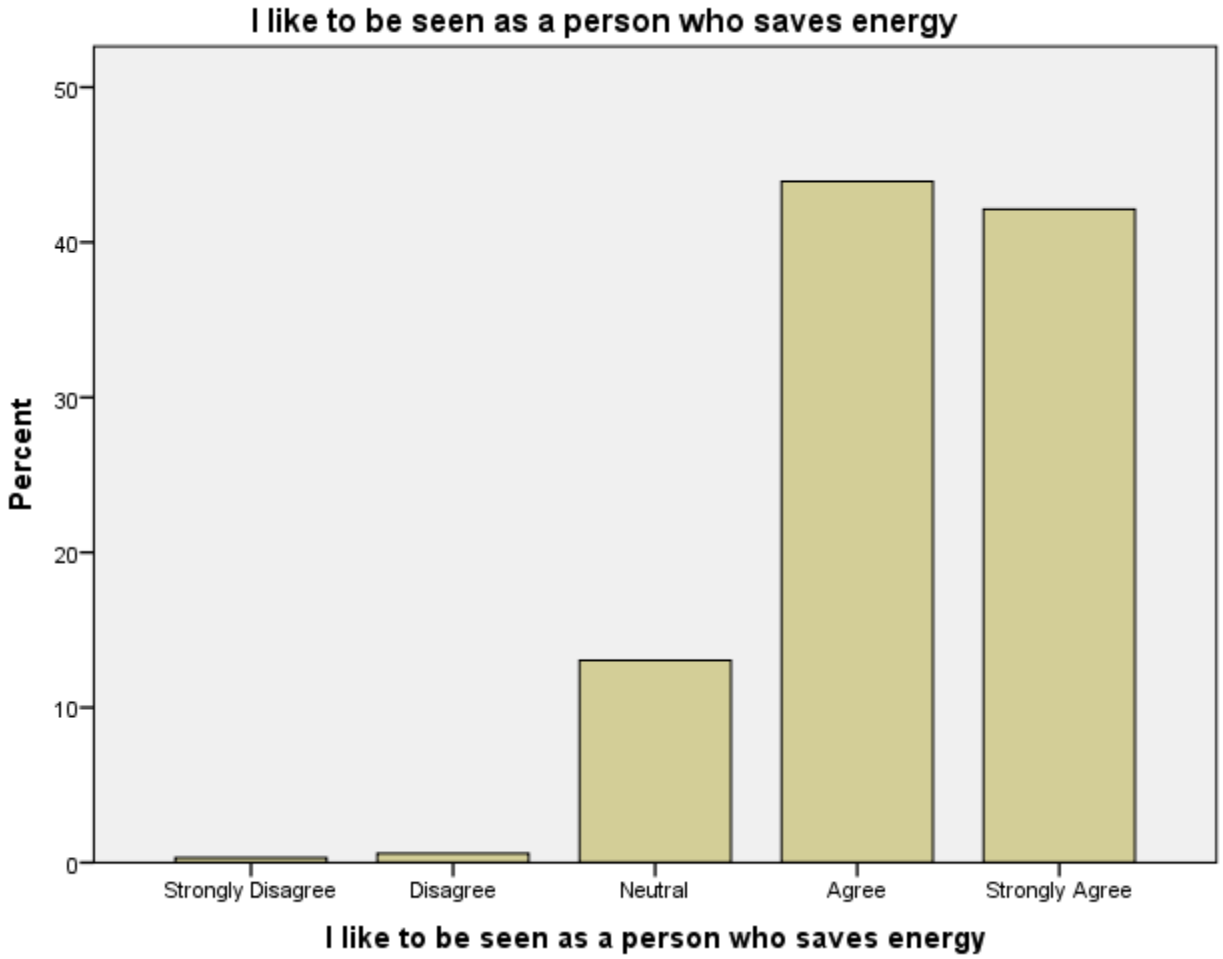
Bar Chart

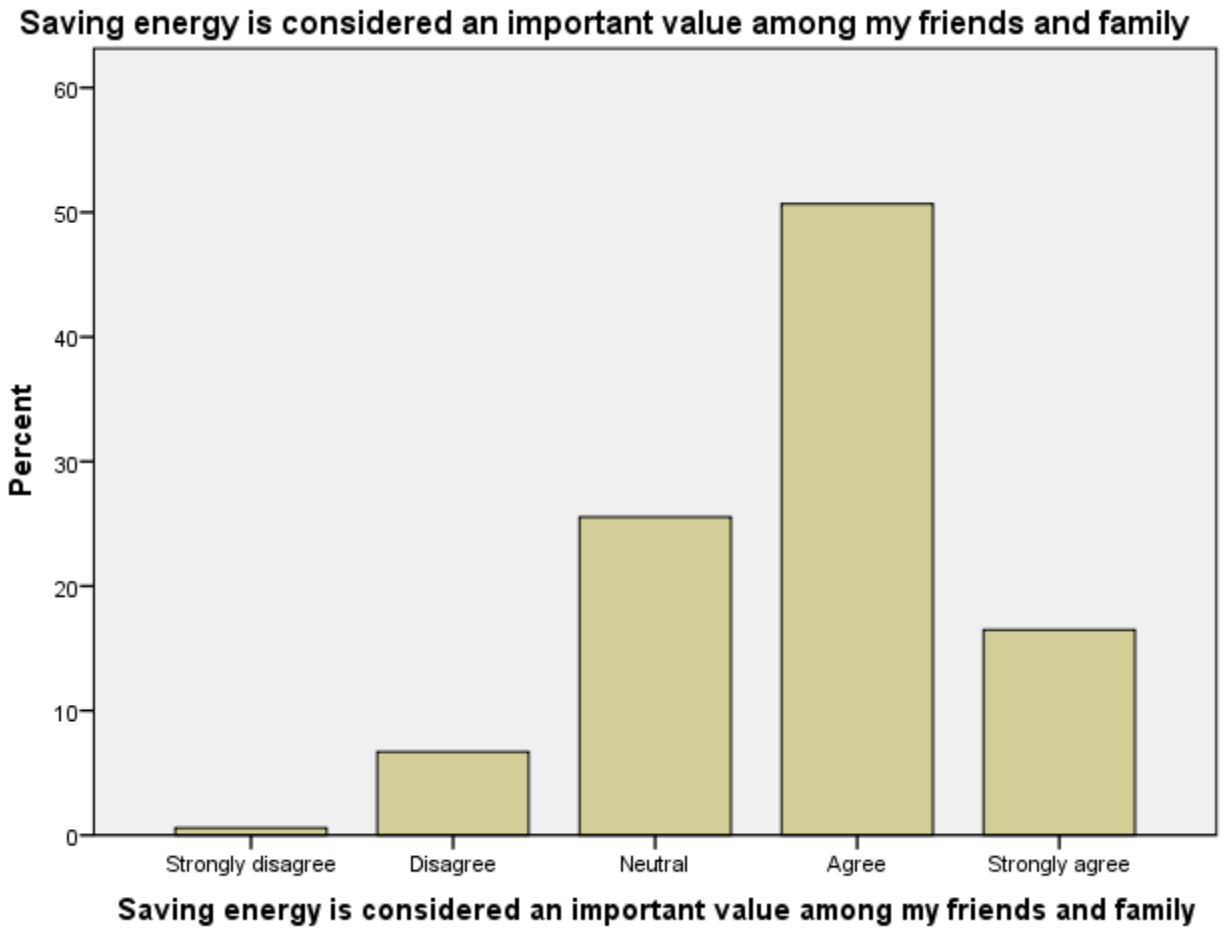

I experience a high level of interpersonal trust between members of Ecopower
Percent
60
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I experience a high level of interpersonal trust between members of Ecopower

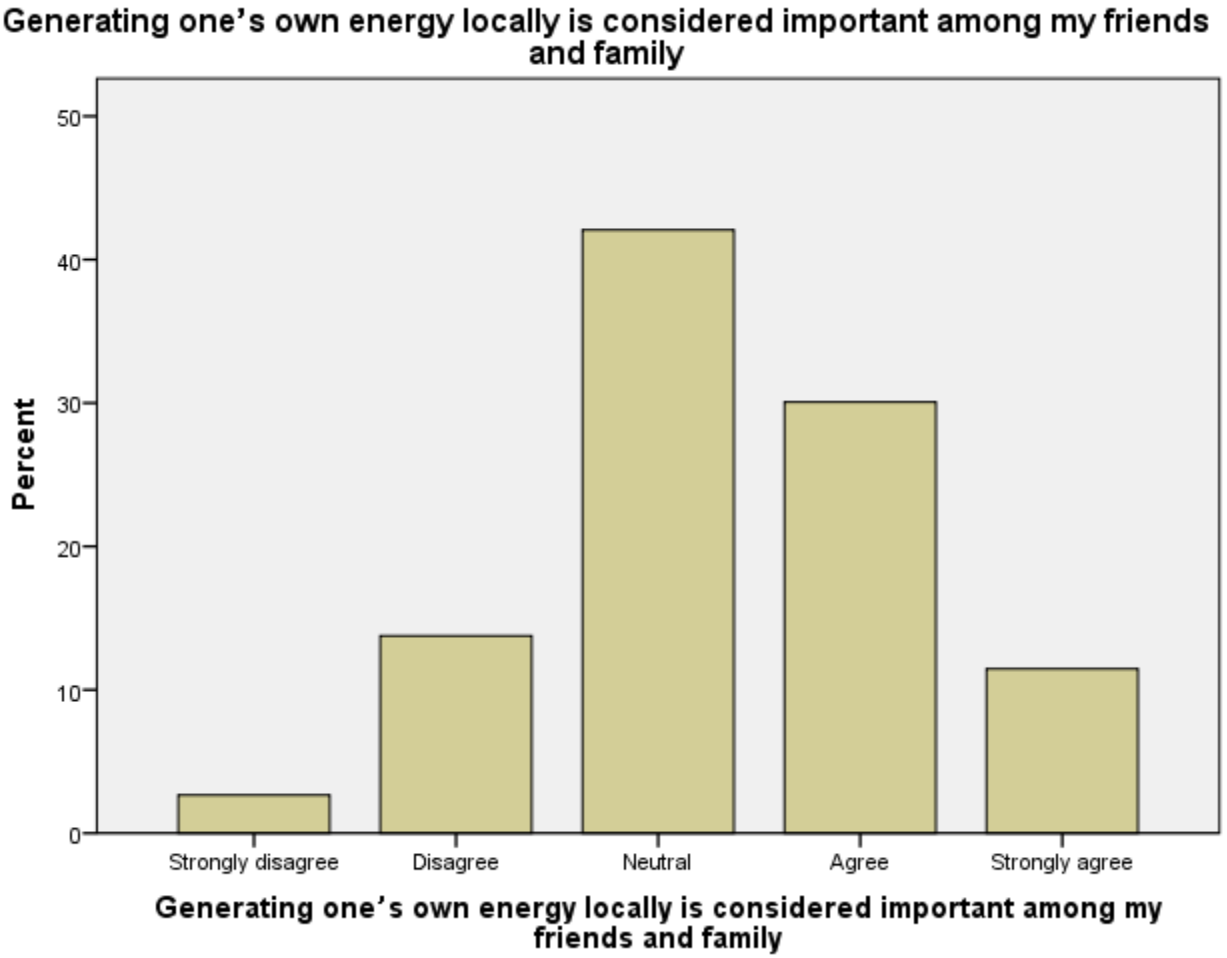

I like to identify myself with a green energy supplier
Percent
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I like to identify myself with a green energy supplier

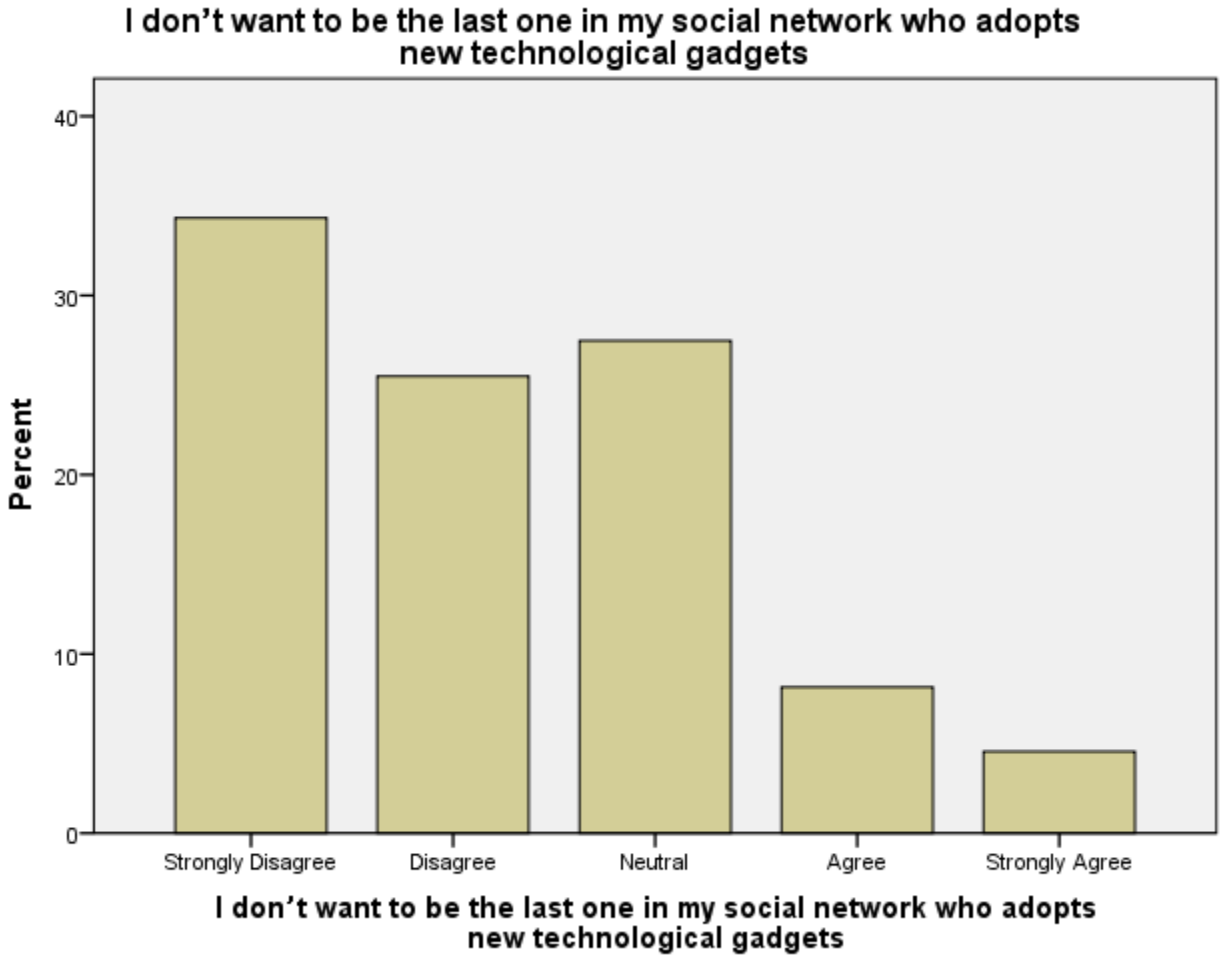

I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle
Percent
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle

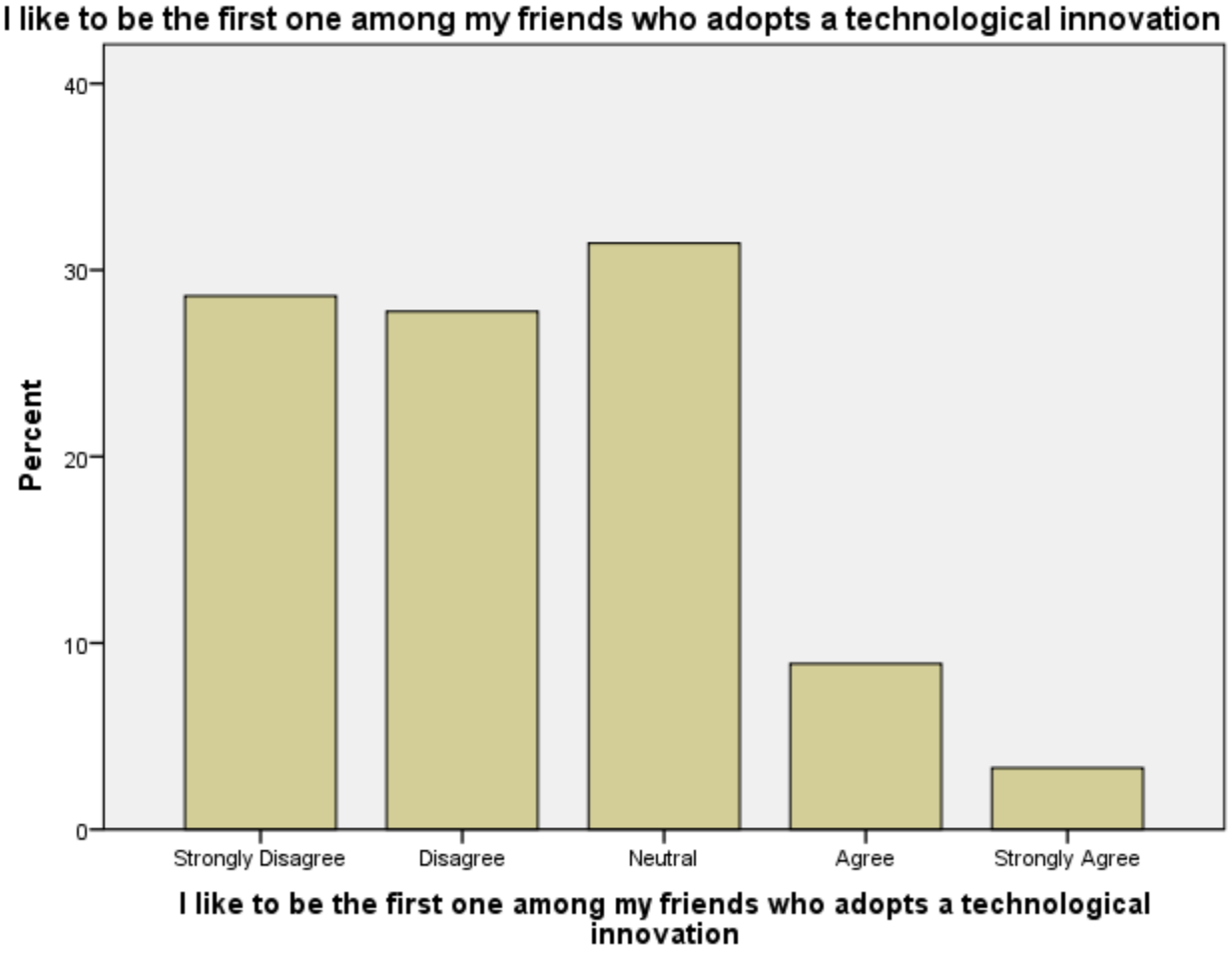

I like to be seen as a person who uses renewable energy
Percent
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I like to be seen as a person who uses renewable energy

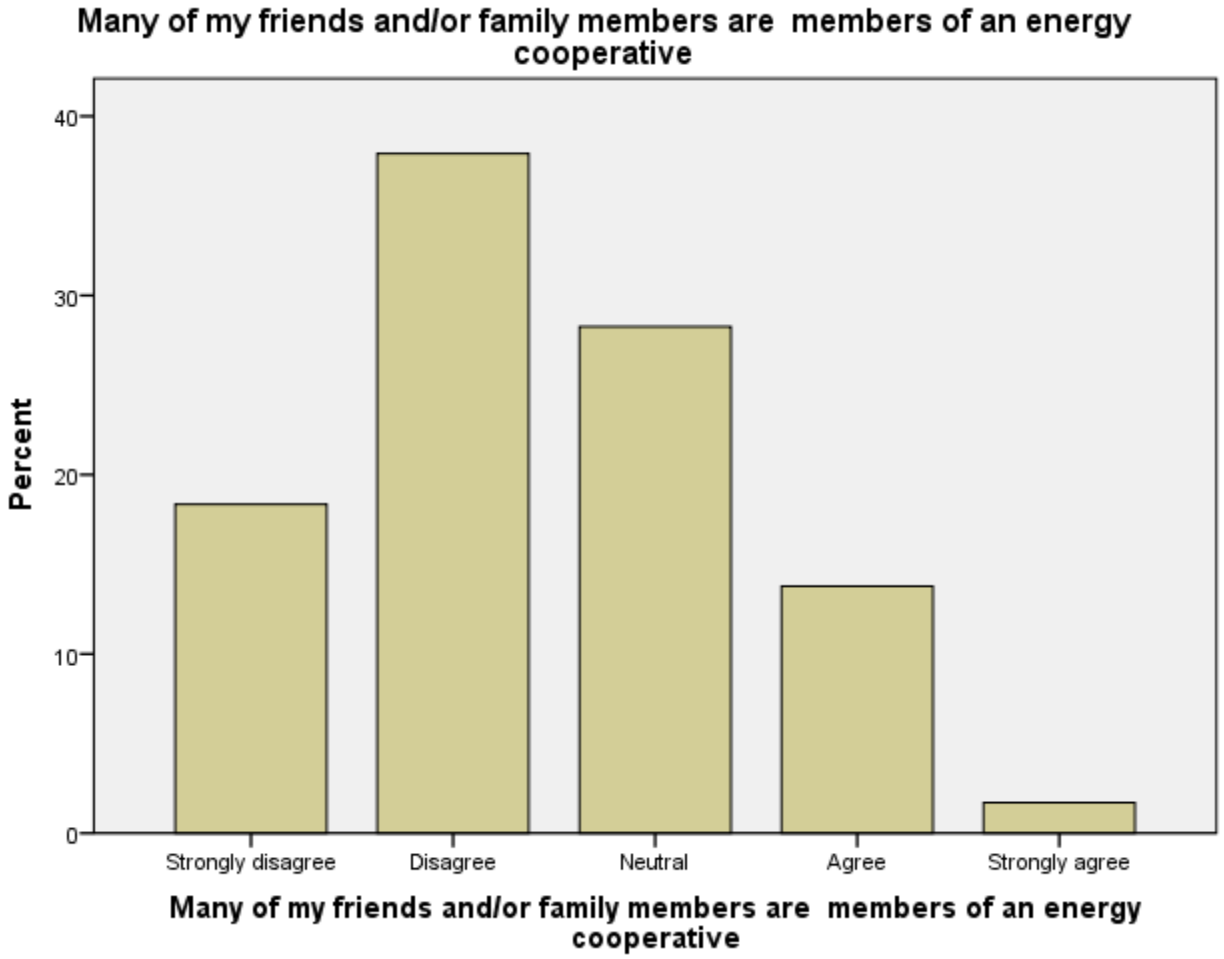

I like to be seen as a person who saves energy
Percent
50
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I like to be seen as a person who saves energy


Saving energy is considered an important value among my friends and family
Percent
60
50
40
30
20
10
0
Strongly disagree
Disagree
Neutral
Agree
Strongly agree
Saving energy is considered an important value among my friends and family


Generating one's own energy locally is considered important among my friends and family
Percent
50
40
30
20
10
0
Strongly disagree
Disagree
Neutral
Agree
Strongly agree
Generating one's own energy locally is considered important among my friends and family


I don’t want to be the last one in my social network who adopts new technological gadgets
Percent
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I don’t want to be the last one in my social network who adopts new technological gadgets


I like to be the first one among my friends who adopts a technological innovation
Percent
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I like to be the first one among my friends who adopts a technological innovation


Many of my friends and/or family members are members of an energy cooperative
Percent
40
30
20
10
0
Strongly disagree
Disagree
Neutral
Agree
Strongly agree
Many of my friends and/or family members are members of an energy cooperative

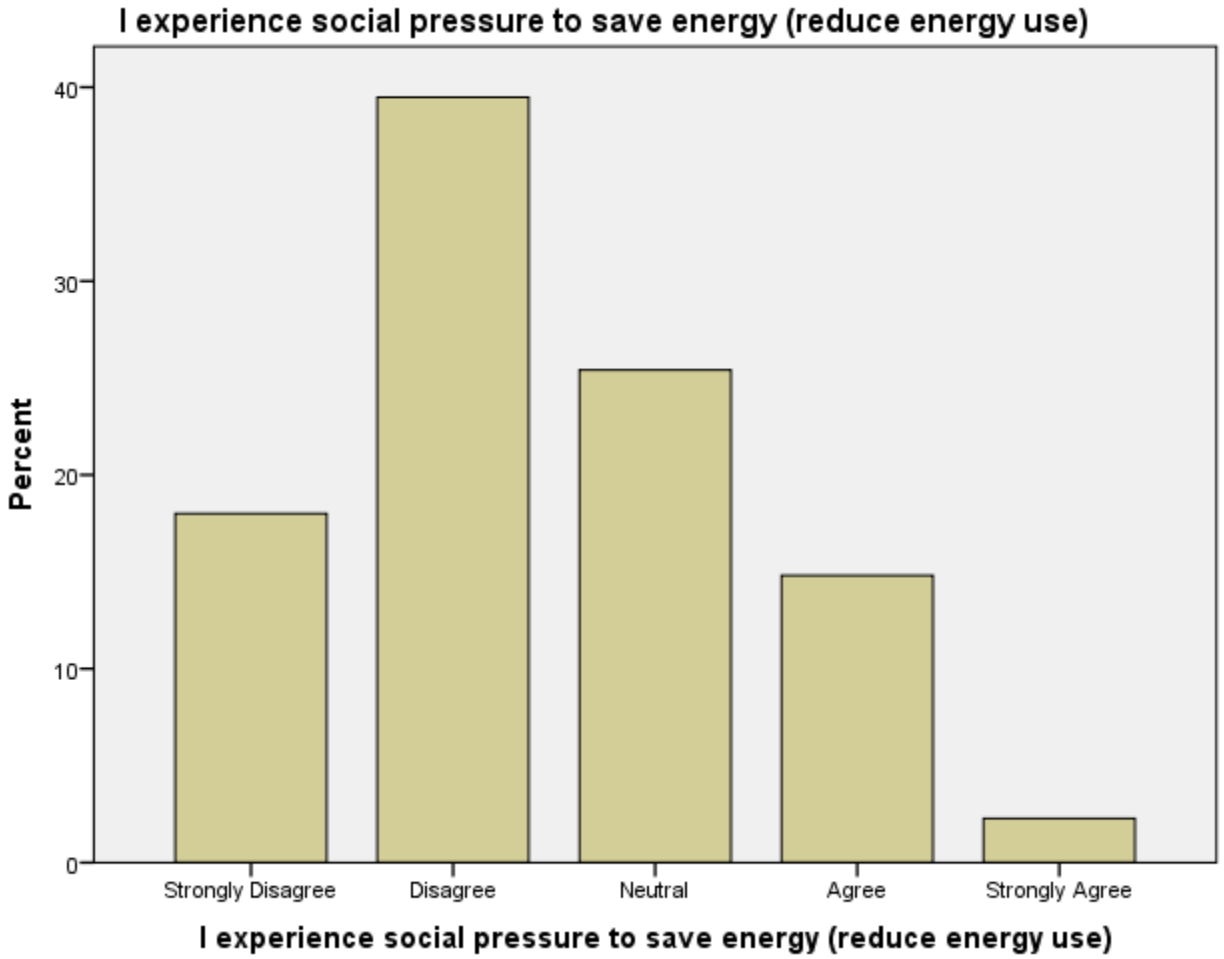

I experience social pressure to save energy (reduce energy use)
Percent
40
30
20
10
0
Strongly Disagree
Disagree
Neutral
Agree
Strongly Agree
I experience social pressure to save energy (reduce energy use)

Table II.1.4 Demographic factors

Frequency Table

How many members has your household?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		660	6,2	6,2	6,2
	1	2357	22,3	22,3	28,5
	2	3957	37,4	37,4	65,9
	3	1408	13,3	13,3	79,2
	4	1530	14,5	14,5	93,6
	5	531	5,0	5,0	98,7
	6	111	1,0	1,0	99,7
	7	18	,2	,2	99,9
	more than 7	13	,1	,1	100,0
	Total	10585	100,0	100,0	

Are any kids living in your household (18 years of age or younger)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	3214	30,4	33,1	33,1
	No	6494	61,4	66,9	100,0
	Total	9708	91,7	100,0	
Missing	System	877	8,3		
Total		10585	100,0		

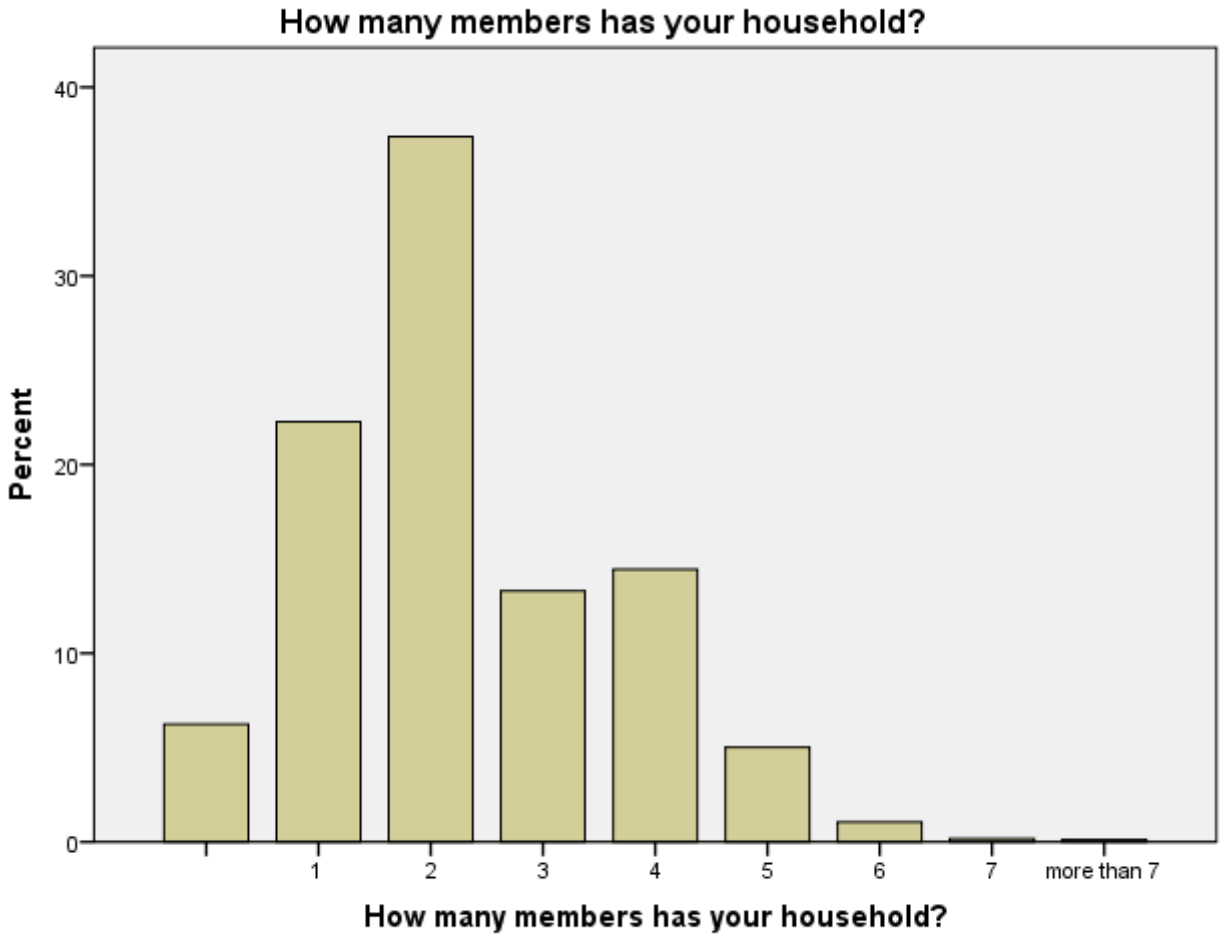
Did the number of household members change in the last two years?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		807	7,6	7,6	7,6
	No	7664	72,4	72,4	80,0
	Yes, increased with one	990	9,4	9,4	89,4
	Yes, increased with two	94	,9	,9	90,3
	Yes, decreased with one	751	7,1	7,1	97,4
	Yes, decreased with two	189	1,8	1,8	99,1
	Yes. increased with more than two	27	,3	,3	99,4
	Yes. decreased with more than two	63	,6	,6	100,0
	Total	10585	100,0	100,0	

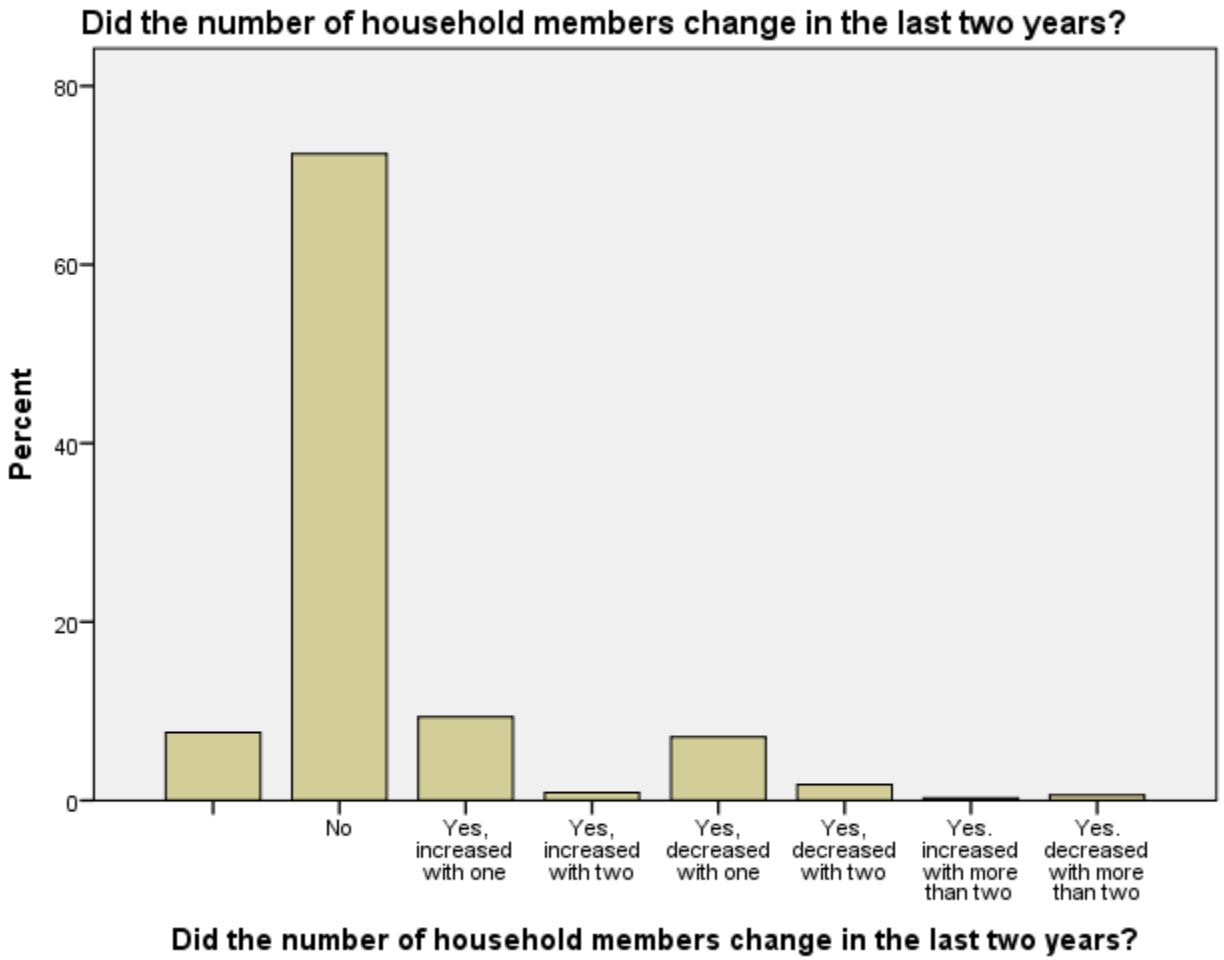
What is the gender division of the household members? (RECODED)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female majority	4593	43,4	46,1	46,1
	No gender majority/equal division	4905	46,3	49,2	95,3
	Male majority	465	4,4	4,7	100,0
	Total	9963	94,1	100,0	
Missing	System	622	5,9		
Total		10585	100,0		

Bar Chart


How many members has your household?
Percent
40
30
20
10
0
1
2
3
4
5
6
7
more than 7
How many members has your household?


Are any kids living in your household (18 years of age or younger)?
Percent
60
40
20
0
Yes
No
Are any kids living in your household (18 years of age or younger)?


Did the number of household members change in the last two years?
Percent
80
60
40
20
0
No
Yes, increased with one
Yes, increased with two
Yes, decreased with one
Yes, decreased with two
Yes. increased with more than two
Yes. decreased with more than two
Did the number of household members change in the last two years?

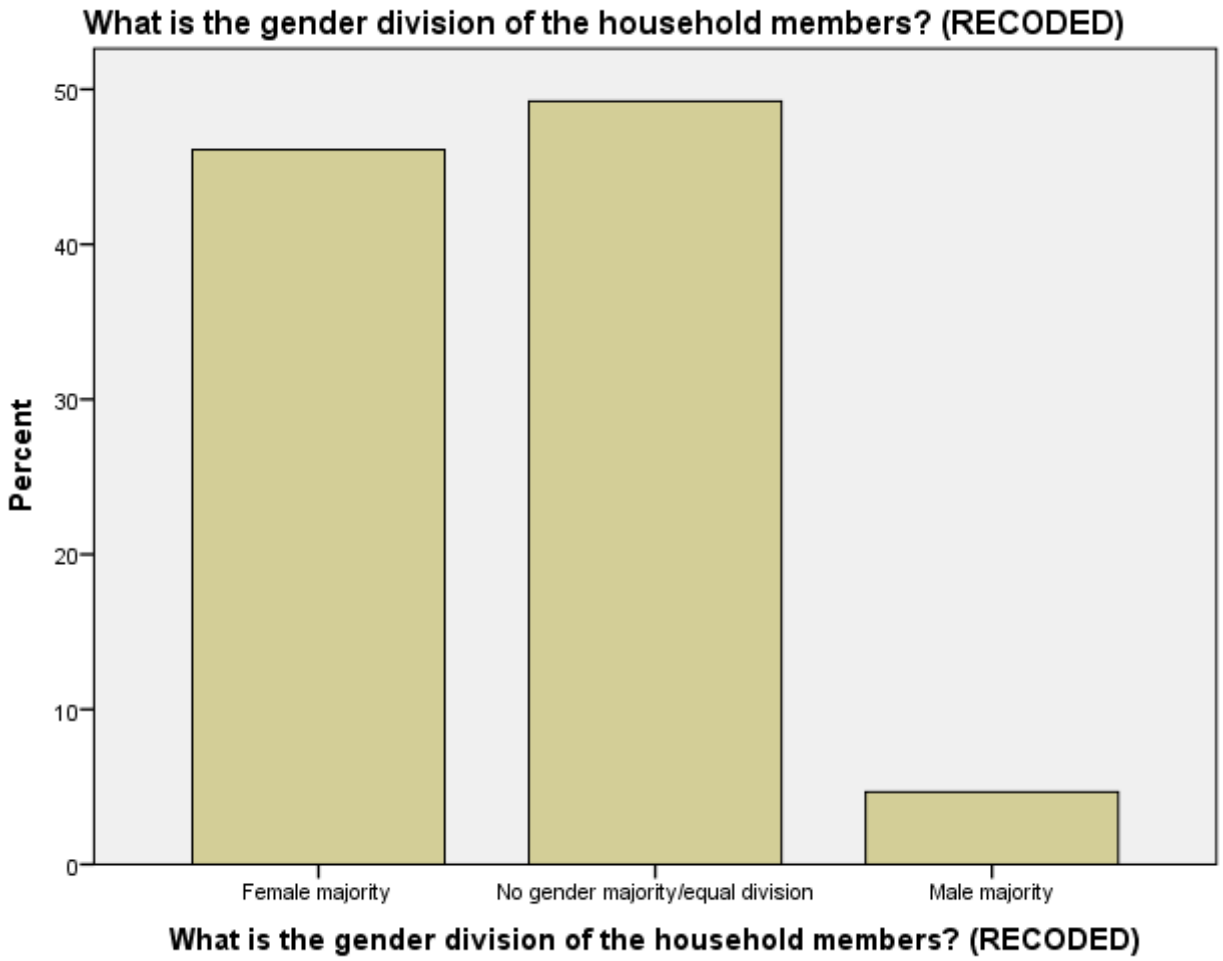

What is the gender division of the household members? (RECODED)
Percent
50
40
30
20
10
0
Female majority
No gender majority/equal division
Male majority
What is the gender division of the household members? (RECODED)

Table II.1.5. Household characteristics

Frequency Table

What is the household income (per year), classified into

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1555	14,7	14,7	14,7
	0-20,000 euros	1815	17,1	17,1	31,8
	80,000 euros or more	476	4,5	4,5	36,3
	50, 000-60,000 euros	1342	12,7	12,7	49,0
	30,000-40,000 euros	1913	18,1	18,1	67,1
	20,000-30,000 euros	2078	19,6	19,6	86,7
	60,000-70,000 euros	789	7,5	7,5	94,2
	70,000-80,000 euros	574	5,4	5,4	99,6
	40.000-50.000 euros	43	,4	,4	100,0
	Total	10585	100,0	100,0	

What is the highest educational level among the household members?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1395	13,2	13,2	13,2
	No school	8	,1	,1	13,3
	university Master's level	4232	40,0	40,0	53,2
	university Bachelor's level	1859	17,6	17,6	70,8
	university of applied sciences	1167	11,0	11,0	81,8

	secondary vocational education	508	4,8	4,8	86,6
	high school	399	3,8	3,8	90,4
	elementary school	54	,5	,5	90,9
	postdoctoral study	963	9,1	9,1	100,0
	Total	10585	100,0	100,0	

What is the (estimated) size of your home? (in square meters floor space:

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1361	12,9	12,9	12,9
	30 m2 or less	263	2,5	2,5	15,3
	90-110 m2	1536	14,5	14,5	29,9
	70-90 m2	1660	15,7	15,7	45,5
	40-70 m2	1415	13,4	13,4	58,9
	30-50 m2;	1001	9,5	9,5	68,4
	more than 130 m2	1738	16,4	16,4	84,8
	110-130 m2	1611	15,2	15,2	100,0
	Total	10585	100,0	100,0	

In what type of house do you live?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1327	12,5	12,5	12,5
	Detached house	4140	39,1	39,1	51,6

	Semi-detached	809	7,6	7,6	59,3
	Other	149	1,4	1,4	60,7
	Apartment	3001	28,4	28,4	89,1
	Maisionette	358	3,4	3,4	92,4
	Row home	801	7,6	7,6	100,0
	Total	10585	100,0	100,0	

Do you own the house or rent the house you are living in?

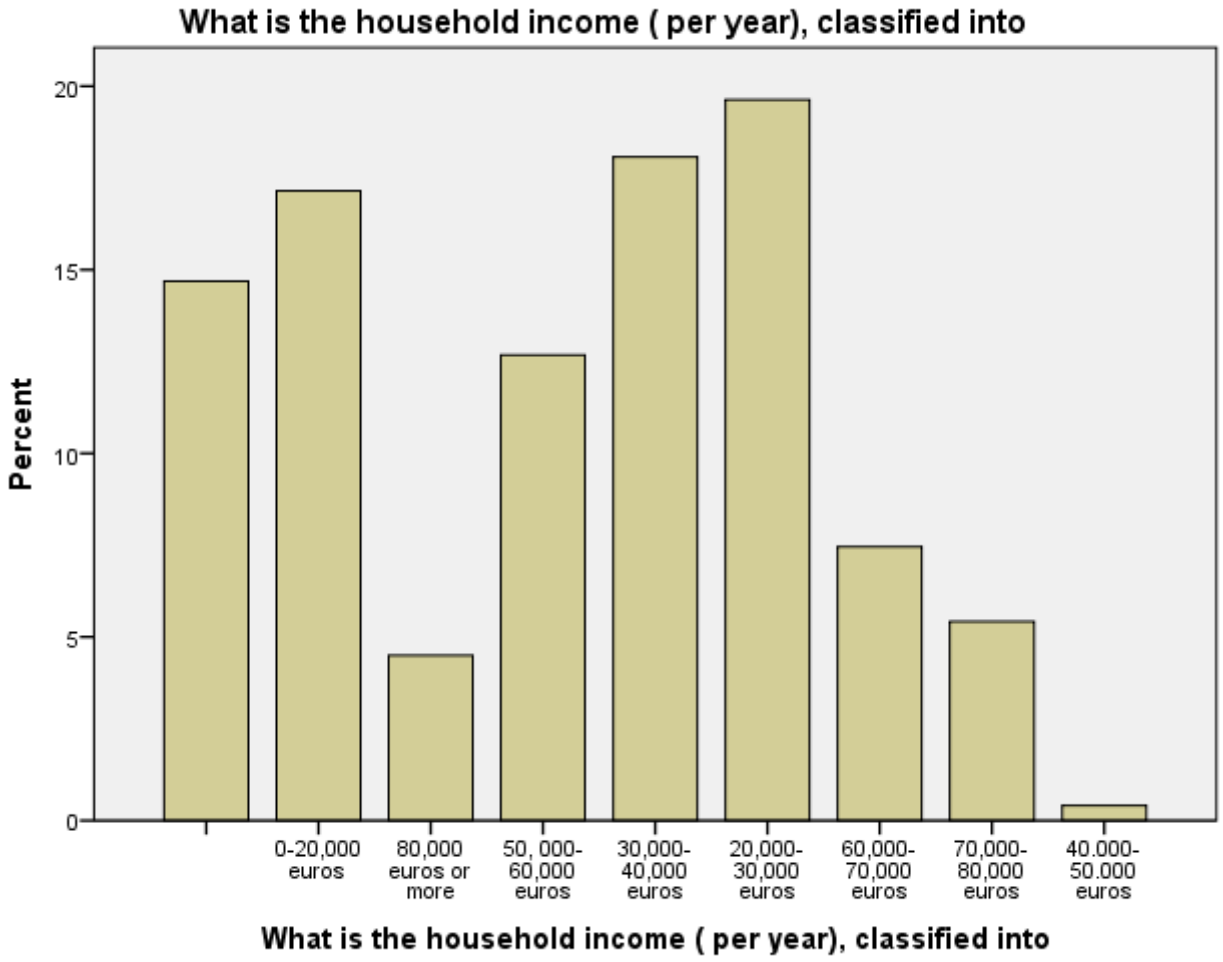
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1361	12,9	12,9	12,9
	Own	6818	64,4	64,4	77,3
	Rent	2305	21,8	21,8	99,0
	Other	101	1,0	1,0	100,0
	Total	10585	100,0	100,0	

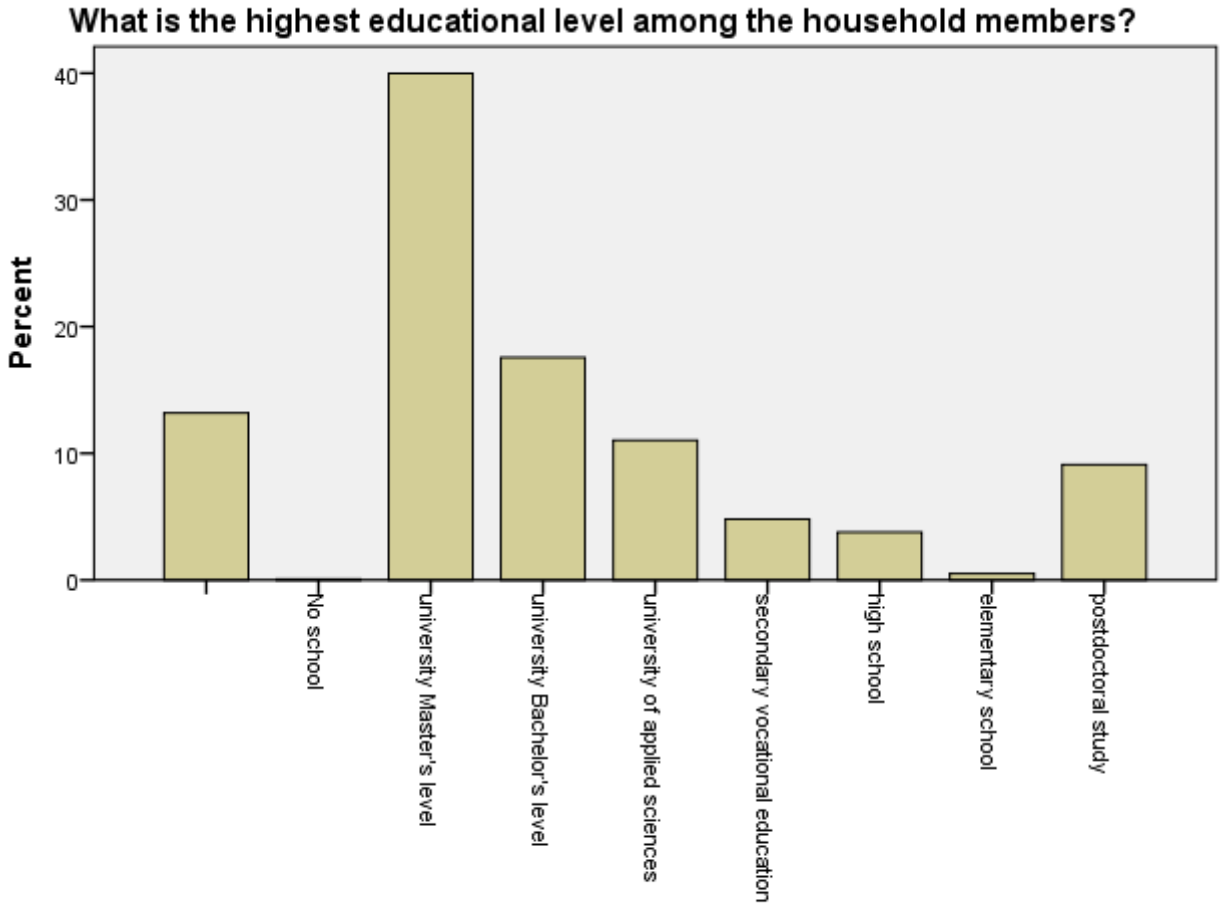
Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		9475	89,5	89,5	89,5
	1% less	34	,3	,3	89,8
	Between 10-15%	285	2,7	2,7	92,5
	More than 15%	212	2,0	2,0	94,5
	2% less	76	,7	,7	95,2

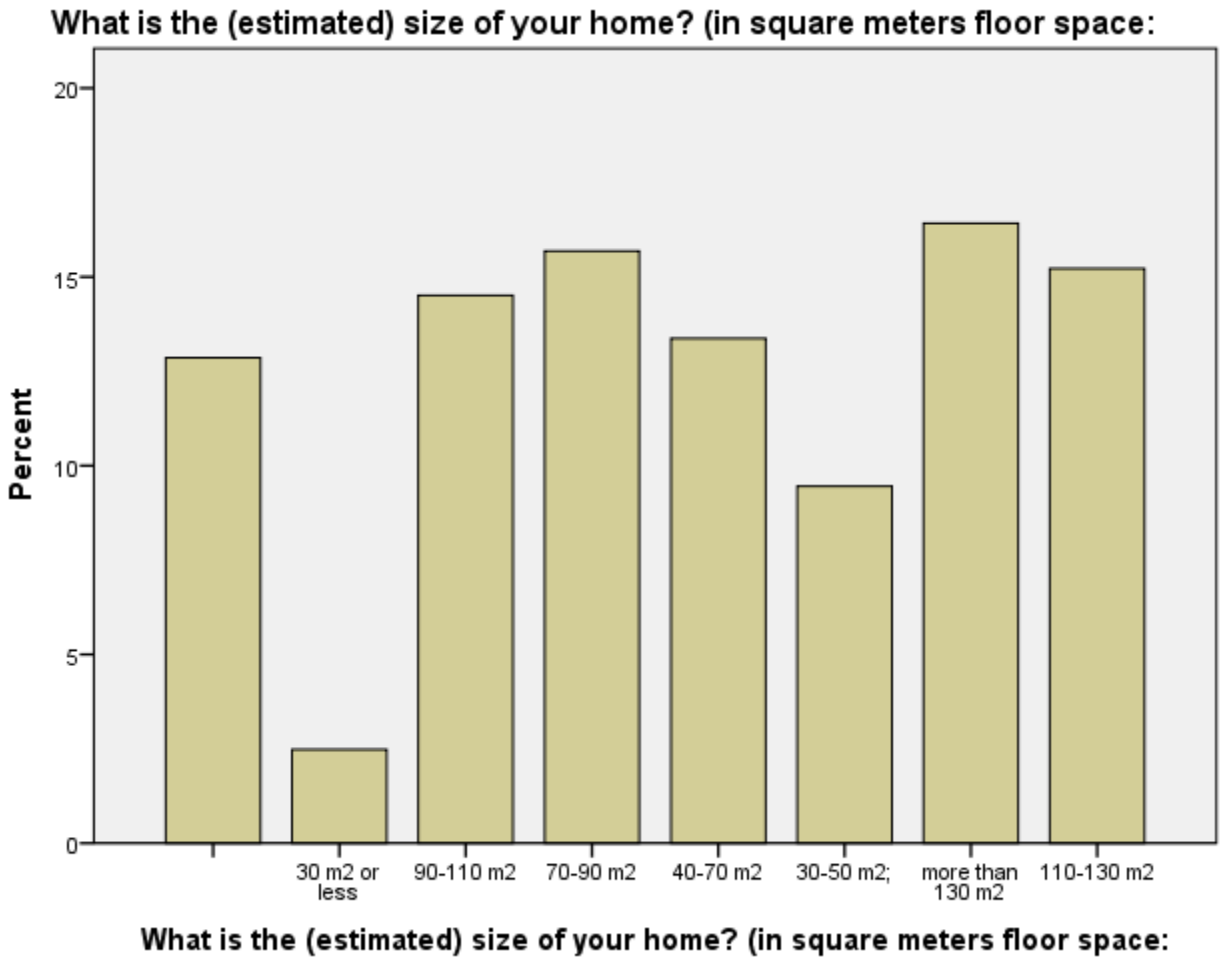
	3% less	78	,7	,7	96,0
	4% less	49	,5	,5	96,4
	5% less	209	2,0	2,0	98,4
	6% less	41	,4	,4	98,8
	7% less	31	,3	,3	99,1
	8% less	45	,4	,4	99,5
	9% less	50	,5	,5	100,0
	Total	10585	100,0	100,0	

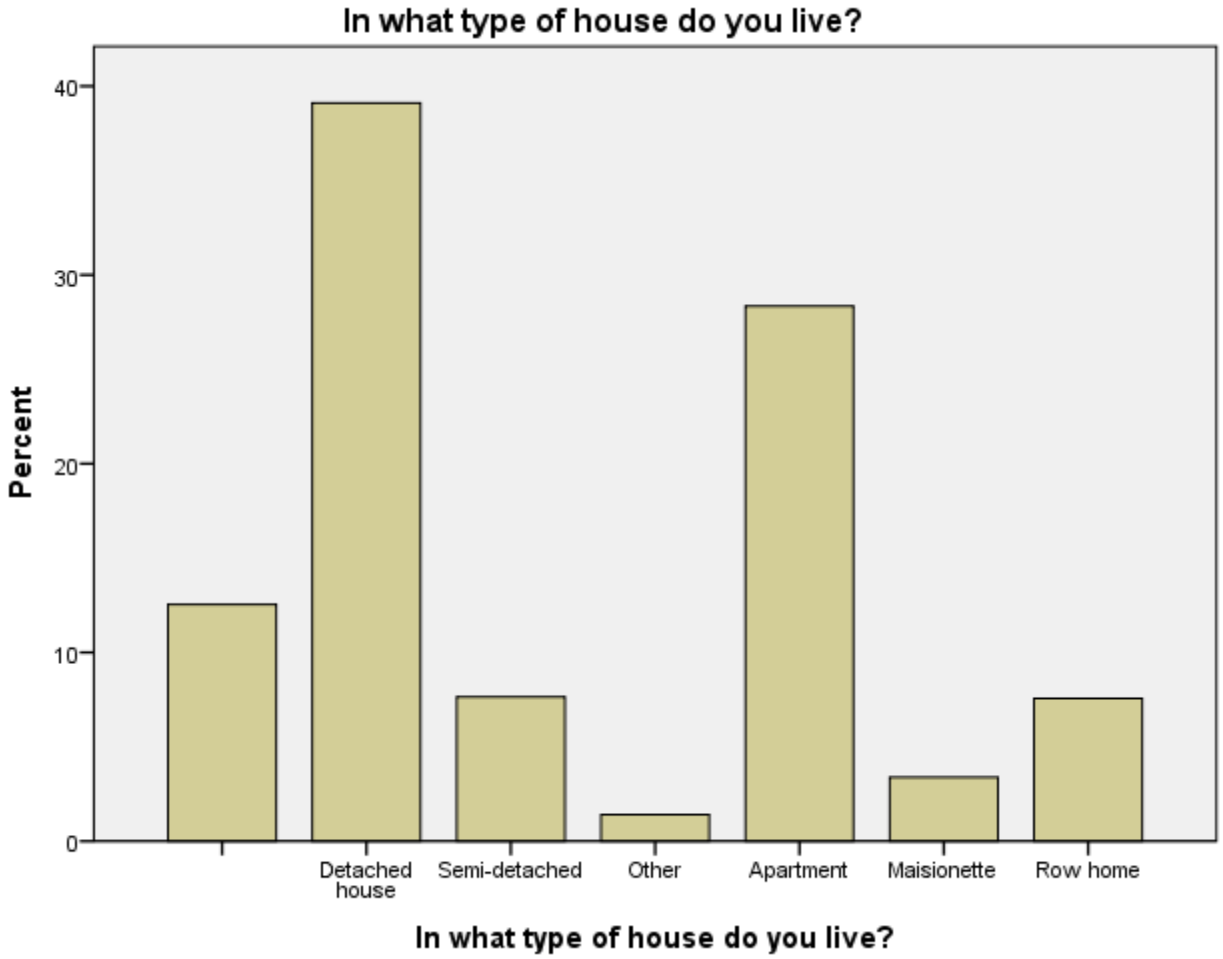
Bar Chart

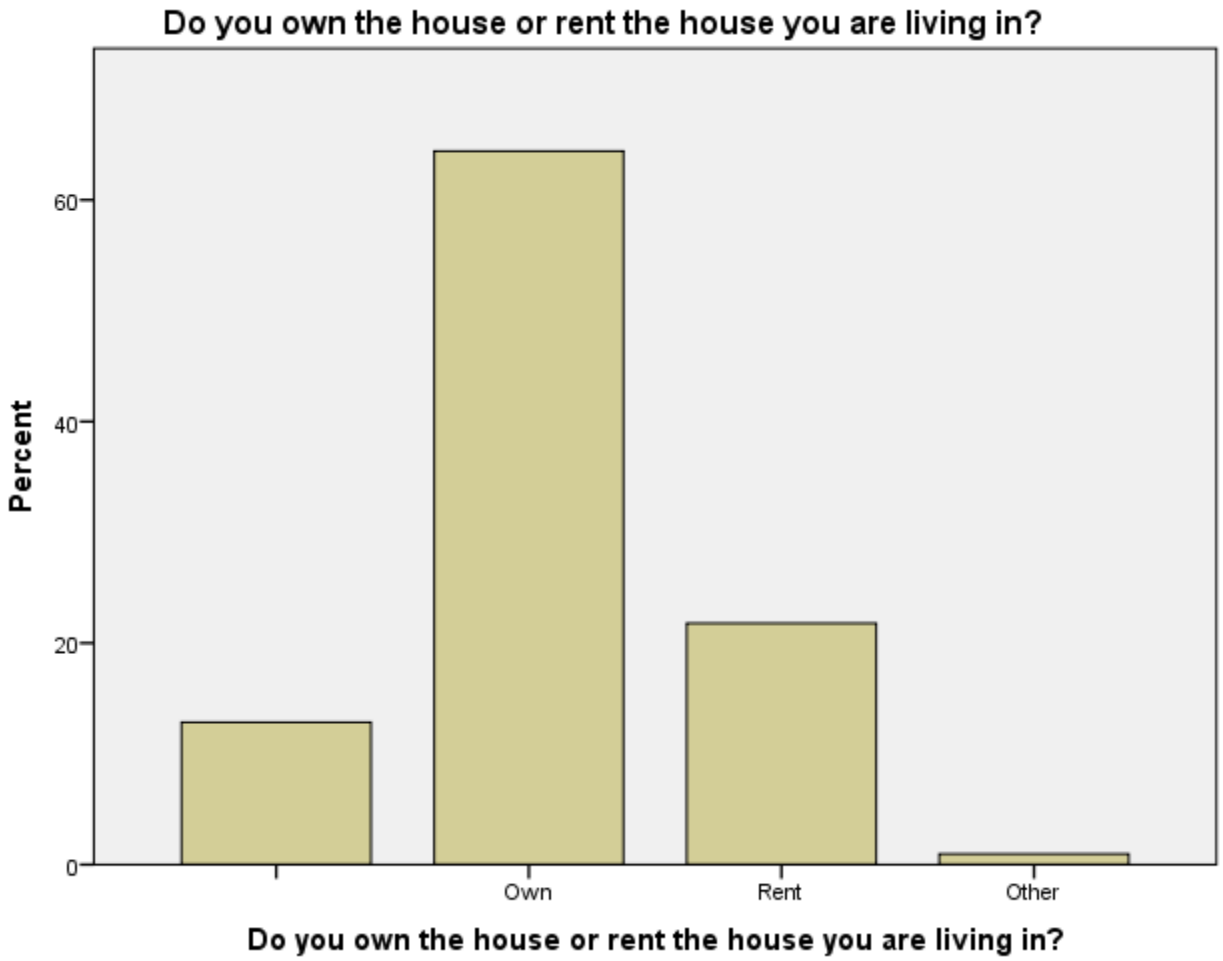

What is the household income (per year), classified into
Percent
20
15
10
5
0
0-20,000 euros
80,000 euros or more
50, 000-60,000 euros
30,000-40,000 euros
20,000-30,000 euros
60,000-70,000 euros
70,000-80,000 euros
40.000-50.000 euros
What is the household income (per year), classified into

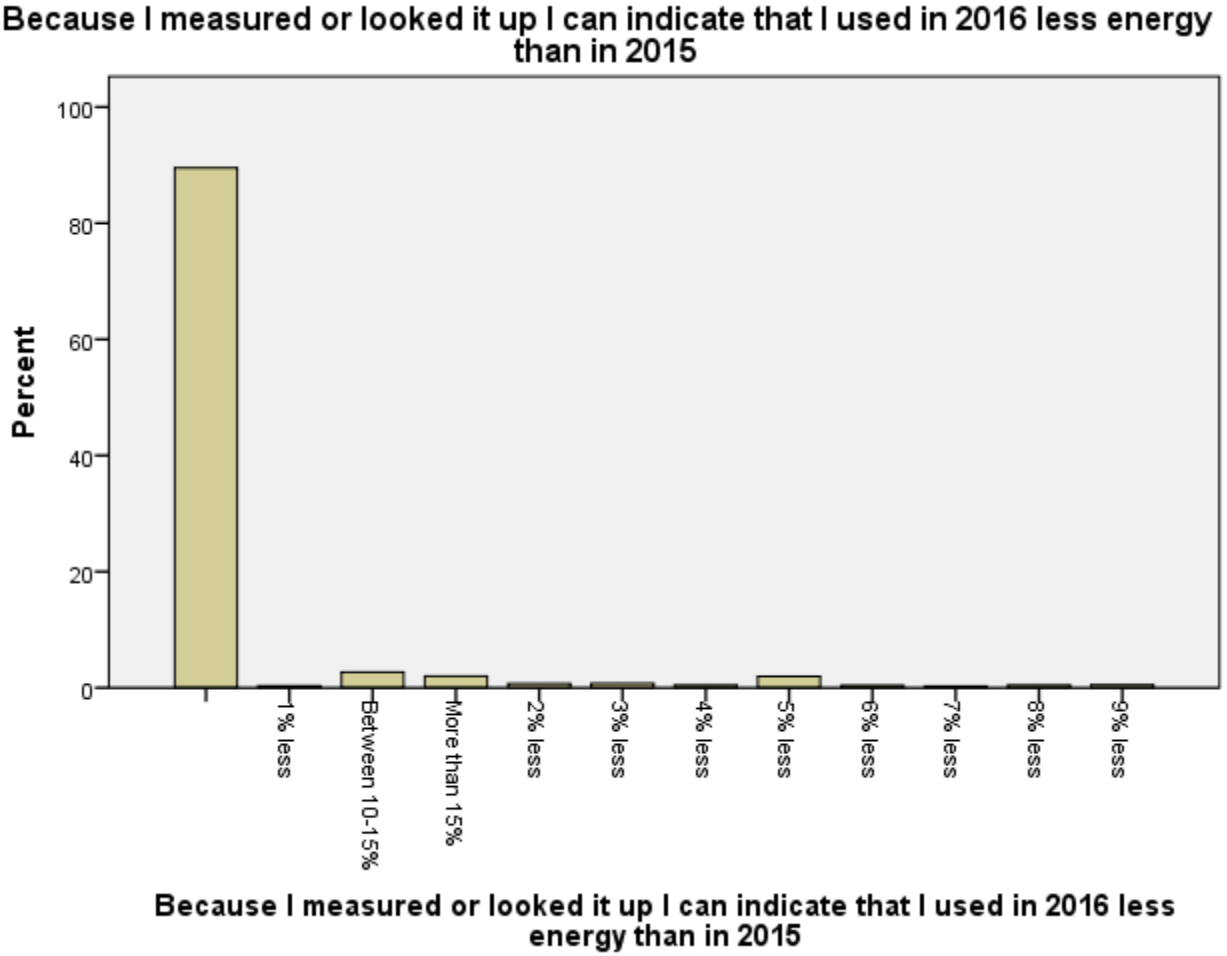


What is the highest educational level among the household members?


What is the (estimated) size of your home? (in square meters floor space:
Percent
20
15
10
5
0
30 m2 or less
90-110 m2
70-90 m2
40-70 m2
30-50 m2;
more than 130 m2
110-130 m2
What is the (estimated) size of your home? (in square meters floor space:


In what type of house do you live?
Percent
40
30
20
10
0
Detached house
Semi-detached
Other
Apartment
Maisionette
Row home
In what type of house do you live?


Do you own the house or rent the house you are living in?
Percent
60
40
20
0
Own
Rent
Other
Do you own the house or rent the house you are living in?


Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015
Percent
100
80
60
40
20
0
1% less
Between 10-15%
More than 15%
2% less
3% less
4% less
5% less
6% less
7% less
8% less
9% less
Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015

Part A3. Results of statistical tests exploring statistical relationships between rivalry factor indicators and energy savings

Table II.2.1. Motivational factors

Correlations

		My REScoop has contributed to that I save more energy in my household.	Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (RECODED)	Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Scale variable containing MOT5, 6, 7, 9 and 10	Scale variable containing MOT 8, 9 and 10 (distrust of centralism)
My REScoop has contributed to that I save more energy in my household.	Pearson Correlation	1	,496**	-,079**	,148**	,074**	,110**
	Sig. (1-tailed)		,000	,006	,000	,000	,000
	N	8846	3767	1032	8282	8671	8740
Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Pearson Correlation	,496**	1	-,034	,146**	,023	,063**
	Sig. (1-tailed)	,000		,192	,000	,083	,000
	N	3767	3962	642	3499	3747	3778
Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (RECODED)	Pearson Correlation	-,079**	-,034	1	-,091**	,034	-,014
	Sig. (1-tailed)	,006	,192		,002	,133	,326
	N	1032	642	1110	973	1066	1072
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Pearson Correlation	,148**	,146**	-,091**	1	,164**	,137**
	Sig. (1-tailed)	,000	,000	,002		,000	,000
	N	8282	3499	973	8327	8175	8238
Scale variable containing MOT5, 6, 7, 9 and 10	Pearson Correlation	,074**	,023	,034	,164**	1	,801**
	Sig. (1-tailed)	,000	,083	,133	,000		,000
	N	8671	3747	1066	8175	9418	9390
Scale variable containing MOT 8, 9 and 10 (distrust of centralism)	Pearson Correlation	,110**	,063**	-,014	,137**	,801**	1
	Sig. (1-tailed)	,000	,000	,326	,000	,000	
	N	8740	3778	1072	8238	9390	9498

**. Correlation is significant at the 0.01 level (1-tailed).

Table II.2.2. Behavioural factors

Correlations

		My REScoop has contributed to that I save more energy in my household.	Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (RECODED)	Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Scale variable containing BEH1, 2, 3, 4. 5 and 6
My REScoop has contributed to that I save more energy in my household.	Pearson Correlation	1	,496**	-,079**	,148**	,221**
	Sig. (1-tailed)		,000	,006	,000	,000
	N	8846	3767	1032	8282	8633
Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Pearson Correlation	,496**	1	-,034	,146**	,220**
	Sig. (1-tailed)	,000		,192	,000	,000
	N	3767	3962	642	3499	3715
Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (RECODED)	Pearson Correlation	-,079**	-,034	1	-,091**	,082**
	Sig. (1-tailed)	,006	,192		,002	,004
	N	1032	642	1110	973	1054
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Pearson Correlation	,148**	,146**	-,091**	1	,282**
	Sig. (1-tailed)	,000	,000	,002		,000
	N	8282	3499	973	8327	8158
Scale variable containing BEH1, 2, 3, 4. 5 and 6	Pearson Correlation	,221**	,220**	,082**	,282**	1
	Sig. (1-tailed)	,000	,000	,004	,000	
	N	8633	3715	1054	8158	9030

**. Correlation is significant at the 0.01 level (1-tailed).

Table II.2.3. Social factors

Correlations

		My REScoop has contributed to that I save more energy in my household.	Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (RECODED)	Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Scale variable containing SOC 1, 2, 3, 4, and 5	Scale variable containing SOC 6, 7 and 10
My REScoop has contributed to that I save more energy in my household.	Pearson Correlation	1	,496**	-,079**	,148**	,179**	,178**
	Sig. (1-tailed)		,000	,006	,000	,000	,000
	N	8846	3767	1032	8282	8473	8683
Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Pearson Correlation	,496**	1	-,034	,146**	,091**	,179**
	Sig. (1-tailed)	,000		,192	,000	,000	,000
	N	3767	3962	642	3499	3579	3742
Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (RECODED)	Pearson Correlation	-,079**	-,034	1	-,091**	-,008	-,070*
	Sig. (1-tailed)	,006	,192		,002	,399	,011
	N	1032	642	1110	973	1019	1063
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Pearson Correlation	,148**	,146**	-,091**	1	,182**	,225**
	Sig. (1-tailed)	,000	,000	,002		,000	,000
	N	8282	3499	973	8327	8030	8206
Scale variable containing SOC 1, 2, 3, 4, and 5	Pearson Correlation	,179**	,091**	-,008	,182**	1	,224**
	Sig. (1-tailed)	,000	,000	,399	,000		,000
	N	8473	3579	1019	8030	9067	8912
Scale variable containing SOC 6, 7 and 10	Pearson Correlation	,178**	,179**	-,070*	,225**	,224**	1
	Sig. (1-tailed)	,000	,000	,011	,000	,000	
	N	8683	3742	1063	8206	8912	9294

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

Table II.2.4. Demographic factors

Correlations

		My REScoop has contributed to that I save more energy in my household.	Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (RECODED)	Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	What is the annual household income (Recoded)	What is the highest educational level? (RECODED)	Size of home (in sq. metres) (RECODED)	Do you own the house you are living in? (ownership)	Do you rent the house you are living in? (tenant)
My REScoop has contributed to that I save more energy in my household.	Pearson Correlation	1	,496**	-,079**	,148**	-,044**	-,130**	,027**	,061**	-,060**
	Sig. (1-tailed)		,000	,006	,000	,000	,000	,006	,000	,000
	N	8846	3767	1032	8282	8464	8593	8612	8609	8609
Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Pearson Correlation	,496**	1	-,034	,146**	-,015	-,154**	,041**	,081**	-,081**
	Sig. (1-tailed)	,000		,192	,000	,175	,000	,006	,000	,000
	N	3767	3962	642	3499	3736	3815	3843	3850	3850
Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (RECODED)	Pearson Correlation	-,079**	-,034	1	-,091**	-,001	,116**	-,054*	-,116**	,121**
	Sig. (1-tailed)	,006	,192		,002	,489	,000	,035	,000	,000
	N	1032	642	1110	973	1080	1094	1103	1104	1104
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Pearson Correlation	,148**	,146**	-,091**	1	-,015	-,041**	,242**	,256**	-,259**
	Sig. (1-tailed)	,000	,000	,002		,083	,000	,000	,000	,000
	N	8282	3499	973	8327	8042	8151	8174	8164	8164
What is the annual household income (Recoded)	Pearson Correlation	-,044**	-,015	-,001	-,015	1	,311**	,338**	,201**	-,193**
	Sig. (1-tailed)	,000	,175	,489	,083		,000	,000	,000	,000
	N	8464	3736	1080	8042	9030	8988	9010	8996	8996
What is the highest educational level? (RECODED)	Pearson Correlation	-,130**	-,154**	,116**	-,041**	,311**	1	,060**	-,058**	,061**
	Sig. (1-tailed)	,000	,000	,000	,000	,000		,000	,000	,000
	N	8593	3815	1094	8151	8988	9190	9154	9147	9147
Size of home (in sq. metres) (RECODED)	Pearson Correlation	,027**	,041**	-,054*	,242**	,338**	,060**	1	,482**	-,487**
	Sig. (1-tailed)	,006	,006	,035	,000	,000	,000		,000	,000
	N	8612	3843	1103	8174	9010	9154	9224	9184	9184
Do you own the house you are living in? (ownership)	Pearson Correlation	,061**	,081**	-,116**	,256**	,201**	-,058**	,482**	1	-,972**
	Sig. (1-tailed)	,000	,000	,000	,000	,000	,000	,000		,000
	N	8609	3850	1104	8164	8996	9147	9184	9224	9224
Do you rent the house you are living in? (tenant)	Pearson Correlation	-,060**	-,081**	,121**	-,259**	-,193**	,061**	-,487**	-,972**	1
	Sig. (1-tailed)	,000	,000	,000	,000	,000	,000	,000	,000	
	N	8609	3850	1104	8164	8996	9147	9184	9224	9224

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

Table II.2.5. Household characteristics

Correlations

		My REScoop has contributed to that I save more energy in my household.	Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (RECODED)	Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Household size (members)	Change in no. of household members (ordinal; numeric).	What is the gender division of the household members? (RECODED)	Are any kids living in your household (18 years of age or younger)?
My REScoop has contributed to that I save more energy in my household.	Pearson Correlation	1	,496**	-,079**	,148**	-,051**	-,042**	,024*	,073**
	Sig. (1-tailed)		,000	,006	,000	,000	,000	,013	,000
	N	8846	3767	1032	8282	8781	8667	8810	8586
Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Pearson Correlation	,496**	1	-,034	,146**	-,027*	-,072**	,047**	,055**
	Sig. (1-tailed)	,000		,192	,000	,046	,000	,002	,000
	N	3767	3962	642	3499	3935	3897	3953	3813
Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015 (RECODED)	Pearson Correlation	-,079**	-,034	1	-,091**	,017	,048	-,037	-,046
	Sig. (1-tailed)	,006	,192		,002	,290	,058	,112	,065
	N	1032	642	1110	973	1102	1087	1105	1066
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Pearson Correlation	,148**	,146**	-,091**	1	,051**	-,060**	,039**	-,024*
	Sig. (1-tailed)	,000	,000	,002		,000	,000	,000	,017
	N	8282	3499	973	8327	8261	8159	8294	8101
Household size (members)	Pearson Correlation	-,051**	-,027*	,017	,051**	1	,233**	,341**	-,751**
	Sig. (1-tailed)	,000	,046	,290	,000		,000	,000	,000
	N	8781	3935	1102	8261	9925	9698	9891	9638
Change in no. of household members (ordinal; numeric).	Pearson Correlation	-,042**	-,072**	,048	-,060**	,233**	1	,057**	-,241**
	Sig. (1-tailed)	,000	,000	,058	,000	,000		,000	,000
	N	8667	3897	1087	8159	9698	9778	9736	9489
What is the gender division of the household members? (RECODED)	Pearson Correlation	,024*	,047**	-,037	,039**	,341**	,057**	1	-,062**
	Sig. (1-tailed)	,013	,002	,112	,000	,000	,000		,000
	N	8810	3953	1105	8294	9891	9736	9963	9670
Are any kids living in your household (18 years of age or younger)?	Pearson Correlation	,073**	,055**	-,046	-,024*	-,751**	-,241**	-,062**	1
	Sig. (1-tailed)	,000	,000	,065	,017	,000	,000	,000	
	N	8586	3813	1066	8101	9638	9489	9670	9708

**. Correlation is significant at the 0.01 level (1-tailed).

*. Correlation is significant at the 0.05 level (1-tailed).

A4. Results of statistical tests exploring statistical relationships between rivalry factor indicators and investments in renewable energy production technology

Table II.3.1. Motivational factors

Correlations

		How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Scale variable containing MOT5, 6, 7, 9 and 10	Scale variable containing MOT 8, 9 and 10 (distrust of centralism)
How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	Pearson Correlation	1	,184**	-,013	-,010
	Sig. (1-tailed)		,000	,134	,196
	N	7772	6737	7615	7675
How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Pearson Correlation	,184**	1	,006	,042**
	Sig. (1-tailed)	,000		,315	,000
	N	6737	7099	6957	7007
Scale variable containing MOT5, 6, 7, 9 and 10	Pearson Correlation	-,013	,006	1	,801**
	Sig. (1-tailed)	,134	,315		,000
	N	7615	6957	9418	9390
Scale variable containing MOT 8, 9 and 10 (distrust of centralism)	Pearson Correlation	-,010	,042**	,801**	1
	Sig. (1-tailed)	,196	,000	,000	
	N	7675	7007	9390	9498

**. Correlation is significant at the 0.01 level (1-tailed).

Table II.3.2. Behavioural factors

Correlations

		How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Scale variable containing MOT5, 6, 7, 9 and 10	Scale variable containing BEH1, 2, 3, 4. 5 and 6
How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	Pearson Correlation	1	,184**	-,013	,040**
	Sig. (1-tailed)		,000	,134	,000
	N	7772	6737	7615	7584
How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Pearson Correlation	,184**	1	,006	,184**
	Sig. (1-tailed)	,000		,315	,000
	N	6737	7099	6957	6835
Scale variable containing MOT5, 6, 7, 9 and 10	Pearson Correlation	-,013	,006	1	,283**
	Sig. (1-tailed)	,134	,315		,000
	N	7615	6957	9418	8870
Scale variable containing BEH1, 2, 3, 4. 5 and 6	Pearson Correlation	,040**	,184**	,283**	1
	Sig. (1-tailed)	,000	,000	,000	
	N	7584	6835	8870	9030

**. Correlation is significant at the 0.01 level (1-tailed).

Table II.3.3. Social factors

Correlations

		How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Scale variable containing SOC 1, 2, 3, 4, and 5	Scale variable containing SOC 6, 7 and 10
How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	Pearson Correlation	1	,184**	,047**	,093**
	Sig. (1-tailed)		,000	,000	,000
	N	7772	6737	7439	7637
How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Pearson Correlation	,184**	1	,056**	,095**
	Sig. (1-tailed)	,000		,000	,000
	N	6737	7099	6786	6972
Scale variable containing SOC 1, 2, 3, 4, and 5	Pearson Correlation	,047**	,056**	1	,224**
	Sig. (1-tailed)	,000	,000		,000
	N	7439	6786	9067	8912
Scale variable containing SOC 6, 7 and 10	Pearson Correlation	,093**	,095**	,224**	1
	Sig. (1-tailed)	,000	,000	,000	
	N	7637	6972	8912	9294

**. Correlation is significant at the 0.01 level (1-tailed).

Table II.3.4. Demographic factors

Correlations

		How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	What is the annual household income (Recoded)	What is the highest educational level? (RECODED)	Size of home (in sq. metres) (RECODED)	Do you own the house you are living in? (ownership)	Do you rent the house you are living in? (tenant)
How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	Pearson Correlation	1	,184**	,089**	-,042**	,144**	,148**	-,152**
	Sig. (1-tailed)		,000	,000	,000	,000	,000	,000
	N	7772	6737	7564	7667	7680	7674	7674
How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Pearson Correlation	,184**	1	,108**	,011	,170**	,092**	-,099**
	Sig. (1-tailed)	,000		,000	,170	,000	,000	,000
	N	6737	7099	6910	7013	7018	7017	7017
What is the annual household income (Recoded)	Pearson Correlation	,089**	,108**	1	,311**	,338**	,201**	-,193**
	Sig. (1-tailed)	,000	,000		,000	,000	,000	,000
	N	7564	6910	9030	8988	9010	8996	8996
What is the highest educational level? (RECODED)	Pearson Correlation	-,042**	,011	,311**	1	,060**	-,058**	,061**
	Sig. (1-tailed)	,000	,170	,000		,000	,000	,000
	N	7667	7013	8988	9190	9154	9147	9147
Size of home (in sq. metres) (RECODED)	Pearson Correlation	,144**	,170**	,338**	,060**	1	,482**	-,487**
	Sig. (1-tailed)	,000	,000	,000	,000		,000	,000
	N	7680	7018	9010	9154	9224	9184	9184
Do you own the house you are living in? (ownership)	Pearson Correlation	,148**	,092**	,201**	-,058**	,482**	1	-,972**
	Sig. (1-tailed)	,000	,000	,000	,000	,000		,000
	N	7674	7017	8996	9147	9184	9224	9224
Do you rent the house you are living in? (tenant)	Pearson Correlation	-,152**	-,099**	-,193**	,061**	-,487**	-,972**	1
	Sig. (1-tailed)	,000	,000	,000	,000	,000	,000	
	N	7674	7017	8996	9147	9184	9224	9224

**. Correlation is significant at the 0.01 level (1-tailed).

Table II.3.5. Household characteristics

Correlations

		How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Are any kids living in your household (18 years of age or younger)?	Household size (members)	Change in no. of household members (ordinal; numeric).	What is the gender division of the household members? (RECODED)
How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	Pearson Correlation	1	,184**	-,030**	,077**	-,034**	,035**
	Sig. (1-tailed)		,000	,005	,000	,002	,001
	N	7772	6737	7548	7721	7616	7740
How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Pearson Correlation	,184**	1	-,070**	,113**	-,001	,070**
	Sig. (1-tailed)	,000		,000	,000	,459	,000
	N	6737	7099	6910	7050	6957	7069
Are any kids living in your household (18 years of age or younger)?	Pearson Correlation	-,030**	-,070**	1	-,751**	-,241**	-,062**
	Sig. (1-tailed)	,005	,000		,000	,000	,000
	N	7548	6910	9708	9638	9489	9670
Household size (members)	Pearson Correlation	,077**	,113**	-,751**	1	,233**	,341**
	Sig. (1-tailed)	,000	,000	,000		,000	,000
	N	7721	7050	9638	9925	9698	9891
Change in no. of household members (ordinal; numeric).	Pearson Correlation	-,034**	-,001	-,241**	,233**	1	,057**
	Sig. (1-tailed)	,002	,459	,000	,000		,000
	N	7616	6957	9489	9698	9778	9736
What is the gender division of the household members? (RECODED)	Pearson Correlation	,035**	,070**	-,062**	,341**	,057**	1
	Sig. (1-tailed)	,001	,000	,000	,000	,000	
	N	7740	7069	9670	9891	9736	9963

**. Correlation is significant at the 0.01 level (1-tailed).

Table II.3.6. Knowledge level and importance given to energy issues

Correlations

		How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Scale variable containing SAT 1, 3, 5, and 6 (importance and knowledge)
How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	Pearson Correlation	1	,184**	,078**
	Sig. (1-tailed)		,000	,000
	N	7772	6737	7625
How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Pearson Correlation	,184**	1	,074**
	Sig. (1-tailed)	,000		,000
	N	6737	7099	6943
Scale variable containing SAT 1, 3, 5, and 6 (importance and knowledge)	Pearson Correlation	,078**	,074**	1
	Sig. (1-tailed)	,000	,000	
	N	7625	6943	8795

**. Correlation is significant at the 0.01 level (1-tailed).

A5. Analysing differences in investment and energy saving activities between REScoop members and non-members

Table II.4.1. Analysis on differences between groups regarding investments made in renewable energy technology

Frequency Table

How much did you approximately invest in renewable energy generation appliances in the period before you became member of a REScoop?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1805	17,1	17,1	17,1
	Nothing	5757	54,4	54,4	71,4
	500-2,500 euro	508	4,8	4,8	76,2
	2,500-5,000 euro	393	3,7	3,7	80,0
	5,000 – 7,500 euro	302	2,9	2,9	82,8
	More than 7,500 euro	1032	9,7	9,7	92,6
	Does not apply	788	7,4	7,4	100,0
	Total	10585	100,0	100,0	

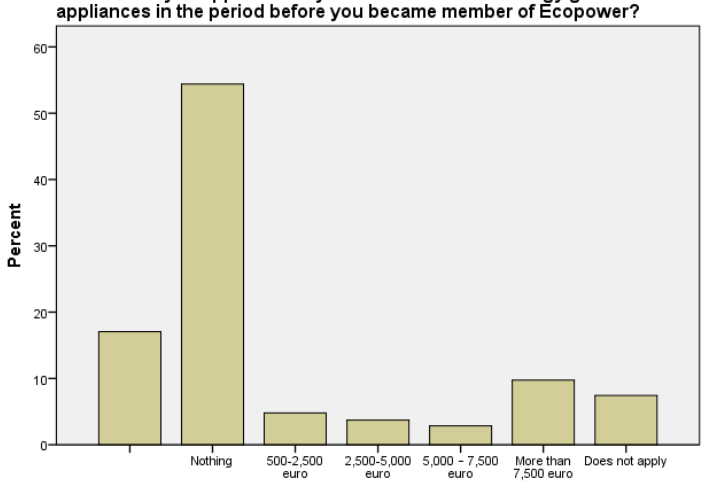
How much did you approximately invest in renewable energy generation appliances after you became a member of a REScoop?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1951	18,4	18,4	18,4
	Nothing	5184	49,0	49,0	67,4
	500-2.500 euro	1570	14,8	14,8	82,2
	2.500-5.000 euro	294	2,8	2,8	85,0
	5.000 – 7.500 euro	187	1,8	1,8	86,8
	More than 7.500 euro	537	5,1	5,1	91,9
	Does not apply	8	,1	,1	91,9
	A8	854	8,1	8,1	100,0
	Total	10585	100,0	100,0	

How much do you intend to invest in renewable energy generation appliances in the near future?

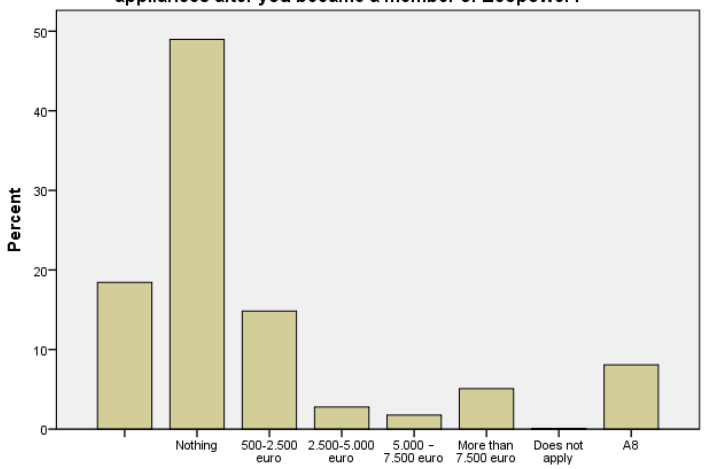
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1984	18,7	18,7	18,7
	Nothing	4184	39,5	39,5	58,3
	500-2.500 euro	1635	15,4	15,4	73,7
	2.500-5.000 euro	599	5,7	5,7	79,4
	5.000 – 7.500 euro	261	2,5	2,5	81,8
	More than 7.500 euro	420	4,0	4,0	85,8
	Does not apply	24	,2	,2	86,0
	A8	1478	14,0	14,0	100,0
	Total	10585	100,0	100,0	

How much did you approximately invest in renewable energy generation appliances in the period before you became member of Ecopower?



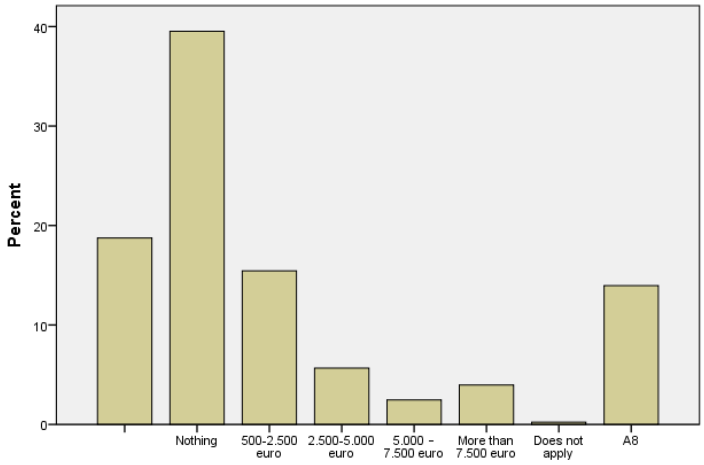
How much did you approximately invest in renewable energy generation appliances in the period before you became member of Ecopower?

How much did you approximately invest in renewable energy generation appliances after you became a member of Ecopower?



How much did you approximately invest in renewable energy generation appliances after you became a member of Ecopower?

How much do you intend to invest in renewable energy generation appliances in the near future?



How much do you intend to invest in renewable energy generation appliances in the near future?

Notes

Output Created		04-AUG-2017 16:57:26
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
Missing Value Handling	Definition of Missing	For each dependent variable in a table, user-defined missing values for the dependent and all grouping variables are treated as missing.
	Cases Used	Cases used for each table have no missing values in any independent variable, and not all dependent variables have missing values.
Syntax		MEANS TABLES=INV1a BY RES1 /CELLS=MEAN COUNT STDDEV /STATISTICS ANOVA.
Resources	Processor Time	00:00:00,11
	Elapsed Time	00:00:00,09

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
How much did you approximately invest in renewable energy generation appliances in the period before you became(RECODED) * Are you a member of a REScoop?	7471	70,6%	3114	29,4%	10585	100,0%

Report

How much did you approximately invest in renewable energy generatio

Are you a member of a REScoop?	Mean	N	Std. Deviation
Yes	1,9360	4216	1,52626
No	1,6175	3255	1,28017
Total	1,7972	7471	1,43292

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
How much did you approximately invest in renewable energy generation appliances in the period before you became(RECODED) * Are you a member of a REScoop?	Between Groups	(Combined)	186,272	1	186,272	91,823	,000
	Within Groups		15151,511	7469	2,029		
	Total		15337,782	7470			

Measures of Association

	Eta	Eta Squared
How much did you approximately invest in renewable energy generation appliances in the period before you became(RECODED) * Are you a member of a REScoop?	,110	,012

Notes

Output Created		04-AUG-2017 17:03:17
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
Missing Value Handling	Definition of Missing	For each dependent variable in a table, user-defined missing values for the dependent and all grouping variables are treated as missing.
	Cases Used	Cases used for each table have no missing values in any independent variable, and not all dependent variables have missing values.
Syntax		MEANS TABLES=INV3a BY RES1 /CELLS=MEAN COUNT STDDEV MEDIAN SPCT NPCT /STATISTICS ANOVA.
Resources	Processor Time	00:00:00,13
	Elapsed Time	00:00:00,11

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED) * Are you a member of a REScoop?	6633	62,7%	3952	37,3%	10585	100,0%

Report

How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)

Are you a member of a REScoop?	Mean	N	Std. Deviation	Median	% of Total Sum	% of Total N
Yes	1,8897	3734	1,21916	1,0000	60,8%	56,3%
No	1,5716	2899	,99895	1,0000	39,2%	43,7%
Total	1,7506	6633	1,13911	1,0000	100,0%	100,0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED) * Are you a member of a REScoop?	Between Groups	(Combined)	165,121	1	165,121	129,723	,000
	Within Groups		8440,439	6631	1,273		
	Total		8605,560	6632			

Measures of Association

	Eta	Eta Squared
How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED) * Are you a member of a REScoop?	,139	,019

Notes

Output Created		04-AUG-2017 17:06:04
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
Missing Value Handling	Definition of Missing	For each dependent variable in a table, user-defined missing values for the dependent and all grouping variables are treated as missing.
	Cases Used	Cases used for each table have no missing values in any independent variable, and not all dependent variables have missing values.
Syntax		MEANS TABLES=ScaleESAVdich BY RES1 /CELLS=MEAN COUNT STDDEV MEDIAN SPCT NPCT /STATISTICS ANOVA.
Resources	Processor Time	00:00:00,12
	Elapsed Time	00:00:00,14

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken). * Are you a member of a REScoop?	7743	73,2%	2842	26,8%	10585	100,0%

Report

Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).

Are you a member of a REScoop?	Mean	N	Std. Deviation	Median	% of Total Sum	% of Total N
Yes	7,7923	4194	1,21993	8,0000	54,9%	54,2%
No	7,5689	3549	1,30263	8,0000	45,1%	45,8%
Total	7,6899	7743	1,26334	8,0000	100,0%	100,0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken). * Are you a member of a REScoop?	Between Groups	(Combined)	95,964	1	95,964	60,589	,000
	Within Groups		12260,519	7741	1,584		
	Total		12356,482	7742			

Measures of Association

	Eta	Eta Squared
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken). * Are you a member of a REScoop?	,088	,008

A6. Analysing statistical relationships between years of REScoop membership, engaging in energy savings activities and investments in renewable energy production technology

Notes

Output Created		04-AUG-2017 17:40:00
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
Missing Value Handling	Definition of Missing	For each dependent variable in a table, user-defined missing values for the dependent and all grouping variables are treated as missing.
	Cases Used	Cases used for each table have no missing values in any independent variable, and not all dependent variables have missing values.
Syntax		MEANS TABLES=ScaleESAVdich BY RES2a /CELLS=MEAN COUNT STDDEV MEDIAN SPCT NPCT /STATISTICS ANOVA.
Resources	Processor Time	00:00:00,08
	Elapsed Time	00:00:00,10

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken). * How long have you been a member of a REScoop (in number of years)? (RECODED)	4178	39,5%	6407	60,5%	10585	100,0%

Report

Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).

How long have you been a member of a REScoop (in number of years)? (RECODED)	Mean	N	Std. Deviation	Median	% of Total Sum	% of Total N
0-1 years	7,6417	882	1,26903	8,0000	20,7%	21,1%
1-2 years	7,7158	739	1,24522	8,0000	17,5%	17,7%
2-3 years	7,8733	505	1,14077	8,0000	12,2%	12,1%
4-5 years	7,8382	649	1,17852	8,0000	15,6%	15,5%
5 years or more	7,8824	1403	1,20791	8,0000	34,0%	33,6%
Total	7,7942	4178	1,21882	8,0000	100,0%	100,0%

ANOVA Table

			Sum of Squares	df	Mean Square	F	Sig.
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken). * How long have you been a member of a REScoop (in number of years)? (RECODED)	Between Groups	(Combined)	40,372	4	10,093	6,832	,000
	Within Groups		6164,606	4173	1,477		
	Total		6204,978	4177			

Measures of Association

	Eta	Eta Squared
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken). * How long have you been a member of a REScoop (in number of years)? (RECODED)	,081	,007

Table II.5.1

Notes

Output Created		04-AUG-2017 17:43:21
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=RES2a ScaleESAVdich INV2a INV3a /PRINT=ONETAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00,06
	Elapsed Time	00:00:00,06

Correlations

		How long have you been a member of a REScoop (in number of years)? (RECODED)	Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)
How long have you been a member of a REScoop (in number of years)? (RECODED)	Pearson Correlation	1	,075**	,282**	-,009
	Sig. (1-tailed)		,000	,000	,290
	N	4880	4178	4077	3723
Scale variable containing ESAVdich 1, 2, 3, 4, 5, 6, 7, 8 and 9 (sum of measures taken).	Pearson Correlation	,075**	1	,104**	,120**
	Sig. (1-tailed)	,000		,000	,000
	N	4178	8327	7377	6647
How much did you approximately invest in renewable energy generation appliances after you became a member? (RECODED)	Pearson Correlation	,282**	,104**	1	,184**
	Sig. (1-tailed)	,000	,000		,000
	N	4077	7377	7772	6737
How much do you intend to invest in renewable energy generation appliances in the near future? (RECODED)	Pearson Correlation	-,009	,120**	,184**	1
	Sig. (1-tailed)	,290	,000	,000	
	N	3723	6647	6737	7099

**. Correlation is significant at the 0.01 level (1-tailed).

Notes

Output Created		04-AUG-2017 17:56:09
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics for each pair of variables are based on all the cases with valid data for that pair.
Syntax		CORRELATIONS /VARIABLES=RES2a SAT2 RES4a /PRINT=ONETAIL NOSIG /MISSING=PAIRWISE.
Resources	Processor Time	00:00:00,08
	Elapsed Time	00:00:00,07

Correlations

		How long have you been a member of a REScoop (in number of years)? (RECODED)	My REScoop has contributed to that I save more energy in my household.	Do you consume less energy since you are a member of Enercoop ? (dichotomized)
How long have you been a member of a REScoop (in number of years)? (RECODED)	Pearson Correlation	1	,177**	,340**
	Sig. (1-tailed)		,000	,000
	N	4880	4511	3957
My REScoop has contributed to that I save more energy in my household.	Pearson Correlation	,177**	1	,496**
	Sig. (1-tailed)	,000		,000
	N	4511	8846	3767
Do you consume less energy since you are a member of Enercoop ? (dichotomized)	Pearson Correlation	,340**	,496**	1
	Sig. (1-tailed)	,000	,000	
	N	3957	3767	3962

**. Correlation is significant at the 0.01 level (1-tailed).

Appendix 3: RESCOOPplus English basic version questionnaire

There are 64 questions in this survey

Your household

We want to ask you some questions about your household

[]How many members has your household?

Please choose **only one** of the following:

- ○1
- ○2
- ○3
- ○4
- ○5
- ○6
- ○7
- ○more than 7

[]Are any kids living in your household (18 years of age or younger)?

Please choose **only one** of the following:

- ○Yes
- ○No

[]What is the gender division of the household members?

Please choose **only one** of the following:

- ○Male only
- ○Female only
- ○One male-one female
- ○One male-two female
- ○Two female-one male
- ○Other

[]What is the average age of the household members (age in number of years)?

Only numbers may be entered in this field.

Please write your answer here:

-

[]Did the number of household members change in the last two years?

Please choose **only one** of the following:

- ○No
- ○Yes, increased with one
- ○Yes, increased with two
- ○Yes. increased with more than two
- ○Yes, decreased with one
- ○Yes, decreased with two
- ○Yes. decreased with more than two

My opinion about energy and climate

Please indicate to which extent you agree with the following statements

[]Production of renewable energy is important

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]For me return on investment is important when buying appliances that produce or use energy

Please choose **only one** of the following:

- ○Strongly disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

For instance solar panels and household appliances

[]A lower energy price is more important to me than if it is sustainable energy

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]Transparent pricing of energy is important to me

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]Environmental issues matter to me

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I do not like the use of nuclear energy

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]Global climate change is important. It needs to be prevented.

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]Local communities can organize themselves best

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I distrust large-scale traditional energy companies

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]National government policy mainly supports traditional (centralized) energy systems

Please choose **only one** of the following:

- ○Strongly disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]Climate change is not a problem at all.

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

How I see my role

To which extent do you agree with the following statements?

[]I experience a high level of interpersonal trust between members of Ecopower

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I like to identify myself with Ecopower

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I like to be seen as a person who uses renewable energy

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I like to be seen as a person who saves energy

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]Saving energy is considered an important value among my friends and family

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]Generating one's own energy locally is considered important among my friends and family

Please choose **only one** of the following:

- ○Strongly disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly agree

[]I don't want to be the last one in my social network who adopts new technological gadgets

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I like to be the first one among my friends who adopts a technological innovation

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]Many of my friends and/or family members are Ecopower members

Please choose **only one** of the following:

- ○Strongly disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly agree

[]I experience social pressure to save energy (reduce energy use)

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

My behavior

To which extent do you agree with the following statements?

[]I view myself capable of actually realizing intended energy saving targets

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I have the intention to lower my energy consumption patterns intensively

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I have the intention to only use energy that has been produced locally

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I view myself capable of realizing challenging targets I set (e.g. sports targets or diet targets).

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]When I am challenged to save energy, I commit myself easily

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]I have the intention to continually improve the energy efficiency level of my household.

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

Ecopower

[]Are you member of Ecopower?

Please choose **only one** of the following:

- ○Yes
- ○No

[]How long have you been a member of Ecopower (in number of years)?

Please choose **only one** of the following:

- ○0-1 year
- ○1-2 years
- ○2-3 years
- ○4-5 years
- ○More than 5 years

[]Did you use xxxxxxxxx offered by the Ecopower? And to which extent are you satisfied with them?

Please choose **only one** of the following:

- ○No
- ○Yes and statisfied
- ○Yes and somewhat satisfied

- ◯Yes and not satisfied
- ◯Does not apply

[]Do you consume less energy since you are a member of Ecopower?

Please choose **only one** of the following:

- ◯Yes, and I measured this
- ◯Yes, I think so
- ◯No
- ◯I don't know

Experiences with Ecopower

[]After having joining Ecopower, energy savings have become more important to me

Please choose **only one** of the following:

- ◯Strongly Disagree
- ◯Disagree
- ◯Neutral
- ◯Agree
- ◯Strongly Agree

[]Ecopower has contributed that I save more energy in my household.

Please choose **only one** of the following:

- ◯Strongly Disagree
- ◯Disagree
- ◯Neutral
- ◯Agree
- ◯Strongly Agree

[]After having joined Ecopower local production of renewable energy has become more important to me.

Please choose **only one** of the following:

- ◯Strongly Disagree
- ◯Disagree
- ◯Neutral

- ○Agree
- ○Strongly Agree

[]Ecopower has contributed to me producing renewable energy at home

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]My knowledge level on energy issues has increased in the last three years

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]Ecopower has contributed to an increased knowledge on renewable energy among our household members.

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

[]A renewable energy cooperation like Ecopower offers better energy services than other energy suppliers do.

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree

- ○Neutral
- ○Agree
- ○Strongly Agree

[]I am completely satisfied with the energy services Ecopower offers me

Please choose **only one** of the following:

- ○Strongly Disagree
- ○Disagree
- ○Neutral
- ○Agree
- ○Strongly Agree

Energy saving actions

Did you undertake the following energy savings actions, and if yes, to what extent can they be contributed to your REScoop's actions?

[]I lower the house temperature (the thermostat) when I leave my house

Please choose **only one** of the following:

- ○No
- ○Yes, and this can be attributed to Ecopower to a large extent
- ○Yes, and this can be attributed to Ecopower to a reasonable extent
- ○Yes, and this can be attributed to Ecopower to a fairly low extent
- ○Yes, but this cannot be attributed to actions by Ecopower

[]I turn of the lights when I leave rooms or my house

Please choose **only one** of the following:

- ○No
- ○Yes, and this can be attributed to Ecopower to a large extent
- ○Yes, and this can be attributed to Ecopower to a reasonable extent
- ○Yes, and this can be attributed to Ecopower to a fairly low extent
- ○Yes, but this cannot be attributed to actions by Ecopower

[]I'm doing laundry while using an economic/energy efficient mode on my washing machine

Please choose **only one** of the following:

- ○No
- ○Yes, and this can be attributed to Ecopower to a large extent
- ○Yes, and this can be attributed to Ecopower to a reasonable extent
- ○Yes, and this can be attributed to Ecopower to a fairly low extent
- ○Yes, but this cannot be attributed to actions by Ecopower

[]When buying a washing machine, refrigerator, freezer I select the one with a high energy efficiency level (i.e., A++ label)

Please choose **only one** of the following:

- ○No
- ○Yes, and this can be attributed to Ecopower to a large extent
- ○Yes, and this can be attributed to Ecopower to a reasonable extent
- ○Yes, and this can be attributed to Ecopower to a fairly low extent
- ○Yes, but this cannot be attributed to actions by Ecopower

[]I adjust the thermostat to a lower temperature (e.g., 1 or more degrees lower)

Please choose **only one** of the following:

- ○No
- ○Yes, and this can be attributed to Ecopower to a large extent
- ○Yes, and this can be attributed to Ecopower to a reasonable extent
- ○Yes, and this can be attributed to Ecopower to a fairly low extent
- ○Yes, but this cannot be attributed to actions by Ecopower

[]I'm taking shorter showers

Please choose **only one** of the following:

- ○No
- ○Yes, and this can be attributed to Ecopower to a large extent
- ○Yes, and this can be attributed to Ecopower to a reasonable extent
- ○Yes, and this can be attributed to Ecopower to a fairly low extent
- ○Yes, but this cannot be attributed to actions by Ecopower

[]I put electrical home appliances out of standby-mode (e.g. by using a 'standby-killer')

Please choose **only one** of the following:

- ○No
- ○Yes, and this can be attributed to Ecopower to a large extent
- ○Yes, and this can be attributed to Ecopower to a reasonable extent
- ○Yes, and this can be attributed to Ecopower to a fairly low extent
- ○Yes, but this cannot be attributed to actions by Ecopower

[]I installed thermal insulation in my home.

Please choose **only one** of the following:

- ○No
- ○Yes, and this can be attributed to Ecopower to a large extent
- ○Yes, and this can be attributed to Ecopower to a reasonable extent
- ○Yes, and this can be attributed to Ecopower to a fairly low extent
- ○Yes, but this cannot be attributed to actions by Ecopower

[]I changed incandescent lighting to highly energy efficient lightning (e.g., LED lighting)

Please choose **only one** of the following:

- ○No
- ○Yes, and this can be attributed to Ecopower to a large extent
- ○Yes, and this can be attributed to Ecopower to a reasonable extent
- ○Yes, and this can be attributed to Ecopower to a fairly low extent
- ○Yes, but this cannot be attributed to actions by Ecopower

Investments

We want to ask you some questions about your investments in renewable energy generation appliances

[]How much did you approximately invest in renewable energy generation appliances in the period before you became member of Ecopower?

Please choose **only one** of the following:

- ○Nothing
- ○500-2,500 euro
- ○2,500-5,000 euro
- ○5,000 – 7,500 euro
- ○More than 7,500 euro

- ○Does not apply

Including solar panels, heat pump, charging point electric car, etc.

[]How much did you approximately invest in renewable energy generation appliances after you became a member of Ecopower?

Please choose **only one** of the following:

- ○Nothing
- ○500-2.500 euro
- ○2.500-5.000 euro
- ○5.000 – 7.500 euro
- ○More than 7.500 euro
- ○Does not apply

Including solar panels, heat pump, charging point electric car etc.

[]How much do you intend to invest in renewable energy generation appliances in the near future?

Please choose **only one** of the following:

- ○Nothing
- ○500 - 2,500 euro
- ○2,500- 5,000 euro
- ○5,000 – 7,500 euro
- ○More than 7,500 euro
- ○Does not apply

Your house and living situation

[]What is the household income (per year), classified into

Please choose **only one** of the following:

- ○0-20,000 euros
- ○20,000-30,000 euros
- ○30,000-40,000 euros
- ○50, 000-60,000 euros
- ○60,000-70,000 euros
- ○70,000-80,000 euros

- ○80,000 euros or more

[]What is the highest educational level among the household members?

Please choose **only one** of the following:

- ○no school
- ○elementary school
- ○high school
- ○secondary vocational education
- ○university of applied sciences
- ○university Bachelor's level
- ○university Master's level
- ○postdoctoral study

[]Do you consider yourself as belonging to an ethnic minority in the region where you live?

Please choose **only one** of the following:

- ○Yes
- ○No

[]What is the (estimated) size of your home? (in square meters floor space:

Please choose **only one** of the following:

- ○30 m2 or less
- ○30-50 m2;
- ○40-70 m2
- ○70-90 m2
- ○90-110 m2
- ○110-130 m2
- ○more than 130 m2

[]In what type of house do you live?

Please choose **only one** of the following:

- ○Detached house
- ○Semi-detached
- ○Row home

- ○Maisionette
- ○Apartment
- ○Other

[]Do you own the house or rent the house you are living in?

Please choose **only one** of the following:

- ○Own
- ○Rent
- ○Other

[]Did you move to another home recently, if yes, how long ago?

Please choose **only one** of the following:

- ○No
- ○Yes. last year
- ○Yes, two years ago
- ○Yes, but more than three years ago

[]In 2016 I used less energy than in 2015

Please choose **only one** of the following:

- ○Yes, and I measured this
- ○Yes, because I saw it on my energy bill
- ○Yes, I think so
- ○No, I don't think so
- ○No
- ○I don't know

[]Because I measured or looked it up I can indicate that I used in 2016 less energy than in 2015

Only answer this question if the following conditions are met:
Answer was 'Yes, and I measured this' *or* 'Yes, because I saw it on my energy bill' at question '75 [CHAR8]' (In 2016 I used less energy than in 2015)

Please choose **only one** of the following:

- ○1% less
- ○2% less

- ○3% less
- ○4% less
- ○5% less
- ○6% less
- ○7% less
- ○8% less
- ○9% less
- ○Between 10-15%
- ○More than 15%

Submit your survey.
Thank you for completing this survey.

Appendix 4: Variable scales

Scales were made regarding the following variables:

f) Motivational factors
g) Behavioural factors
h) Social environment
i) Knowledge and importance level
j) Sum of energy savings actions taken

For scales a, b, c, and d sub-items were checked on: internal conceptual consistency and statistical consistency and reliability. For the latter, items were first factor analysed, and secondly a Cronbach's alfa test for reliability was conducted (using a minimum alfa value of .500 as a threshold that would reflect statistical consistency). Results and conceptual consistency are presented below per scale variable. For scale e. this was not necessary, because number of measures can be summed up without needing a consistency test (i.e. adding up whether measures like lowering the thermostat, installing LED lighting, etc. have been undertaken or not, using a dichotomous scale; i.e., either 'yes' or 'no').

A. Motivational factors

Notes

Output Created		31-JUL-2017 14:02:55
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis AA\Ale datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES SOC1 SOC2 SOC5 SOC4 SOC3 SOC6 SOC7 SOC9 SOC10 SOC11 /MISSING LISTWISE /ANALYSIS SOC1 SOC2 SOC5 SOC4 SOC3 SOC6 SOC7 SOC9 SOC10 SOC11 /PRINT INITIAL CORRELATION EXTRACTION /CRITERIA MINEIGEN(1) ITERATE (25) /EXTRACTION PC /ROTATION NOROTATE /METHOD=CORRELATION.
Resources	Processor Time	00:00:00,09
	Elapsed Time	00:00:00,08
	Maximum Memory Required	13688 (13,367K) bytes

Correlation Matrix

		I experience a high level of interpersonal trust between members of Ecopower	I like to identify myself with a green energy supplier	I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle	I like to be seen as a person who uses renewable energy	I like to be seen as a person who saves energy	Saving energy is considered an important value among my friends and family	Generating one's own energy locally is considered important among my friends and family	I like to be the first one among my friends who adopts a technological innovation	Many of my friends and/or family members are member s of an energy cooperative	I experience social pressure to save energy (reduce energy use)
Correlation	I experience a high level of interpersonal trust between members of Ecopower	1,000	,471	,329	,334	,259	,135	,127	,004	,041	,041
	I like to identify myself with a green energy supplier	,471	1,000	,416	,475	,370	,136	,144	,038	,056	,042
	I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle	,329	,416	1,000	,695	,586	,180	,145	,031	,001	,045
	I like to be seen as a person who uses renewable energy	,334	,475	,695	1,000	,704	,216	,212	,074	,063	,099
	I like to be seen as a person who saves energy	,259	,370	,586	,704	1,000	,266	,225	,031	,085	,062
	Saving energy is considered an important value among my friends and family	,135	,136	,180	,216	,266	1,000	,634	,048	,281	,211
	Generating one's own energy locally is considered important among my friends and family	,127	,144	,145	,212	,225	,634	1,000	,105	,341	,237
	I like to be the first one among my friends who adopts a technological innovation	,004	,038	,031	,074	,031	,048	,105	1,000	,067	,180
	Many of my friends and/or family members are members of an energy cooperative	,041	,056	,001	,063	,085	,281	,341	,067	1,000	,226
	I experience social pressure to save energy (reduce energy use)	,041	,042	,045	,099	,062	,211	,237	,180	,226	1,000

Communalities

	Initial	Extraction
I experience a high level of interpersonal trust between members of Ecopower	1,000	,340
I like to identify myself with a green energy supplier	1,000	,491
I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle	1,000	,681
I like to be seen as a person who uses renewable energy	1,000	,763
I like to be seen as a person who saves energy	1,000	,633
Saving energy is considered an important value among my friends and family	1,000	,705
Generating one's own energy locally is considered important among my friends and family	1,000	,724
I like to be the first one among my friends who adopts a technological innovation	1,000	,766
Many of my friends and/or family members are members of an energy cooperative	1,000	,422
I experience social pressure to save energy (reduce energy use)	1,000	,491

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,195	31,950	31,950	3,195	31,950	31,950
2	1,770	17,696	49,646	1,770	17,696	49,646
3	1,051	10,508	60,154	1,051	10,508	60,154
4	,934	9,340	69,494			
5	,797	7,968	77,462			
6	,732	7,323	84,785			
7	,510	5,099	89,884			
8	,399	3,993	93,877			
9	,361	3,611	97,489			
10	,251	2,511	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component		
	1	2	3
I experience a high level of interpersonal trust between members of Ecopower	,538	-,223	-,034
I like to identify myself with a green energy supplier	,645	-,271	,036
I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle	,752	-,336	,043
I like to be seen as a person who uses renewable energy	,827	-,269	,079
I like to be seen as a person who saves energy	,770	-,198	-,024
Saving energy is considered an important value among my friends and family	,512	,592	-,305
Generating one's own energy locally is considered important among my friends and family	,500	,650	-,226
I like to be the first one among my friends who adopts a technological innovation	,123	,231	,835
Many of my friends and/or family members are members of an energy cooperative	,252	,593	-,082
I experience social pressure to save energy (reduce energy use)	,236	,493	,438

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

Notes

Output Created		28-JUL-2017 15:51:23
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=MOT8 MOT9 MOT10 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=SCALE CORR COV.
Resources	Processor Time	00:00:00,06
	Elapsed Time	00:00:00,11

Case Processing Summary

		N	%
Cases	Valid	9498	89,7
	Excluded[a]	1087	10,3
	Total	10585	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,567	,570	3

Inter-Item Correlation Matrix

	To reach societal goals we can organize ourelves best in local communities	I distrust large-scale traditional energy companies	National government policy mainly supports traditional (centralized) energy systems
To reach societal goals we can organize ourelves best in local communities	1,000	,247	,203
I distrust large-scale traditional energy companies	,247	1,000	,470
National government policy mainly supports traditional (centralized) energy systems	,203	,470	1,000

Inter-Item Covariance Matrix

	To reach societal goals we can organize ourelves best in local communities	I distrust large-scale traditional energy companies	National government policy mainly supports traditional (centralized) energy systems
To reach societal goals we can organize ourelves best in local communities	,679	,171	,125
I distrust large-scale traditional energy companies	,171	,705	,294
National government policy mainly supports traditional (centralized) energy systems	,125	,294	,558

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
12,91	3,124	1,767	3

Notes

Output Created		31-JUL-2017 19:53:14
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=MOT5 MOT6 MOT7 MOT9 MOT10 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=CORR.
Resources	Processor Time	00:00:00,05
	Elapsed Time	00:00:00,07

Case Processing Summary

		N	%
Cases	Valid	9418	89,0
	Excluded[a]	1167	11,0
	Total	10585	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,617	,626	5

Inter-Item Correlation Matrix

	Environmental issues matter to me	I do not like the use of nuclear energy	Global climate change is important. It needs to be prevented.	I distrust large-scale traditional energy companies	National government policy mainly supports traditional (centralized) energy systems
Environmental issues matter to me	1,000	,284	,362	,150	,128
I do not like the use of nuclear energy	,284	1,000	,218	,369	,291
Global climate change is important. It needs to be prevented.	,362	,218	1,000	,128	,110
I distrust large-scale traditional energy companies	,150	,369	,128	1,000	,468
National government policy mainly supports traditional (centralized) energy systems	,128	,291	,110	,468	1,000

B. Behavioural factors

Notes

Output Created		31-JUL-2017 14:05:50
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES Beh1 Beh2 Beh3 Beh4 Beh5 Beh6 /MISSING LISTWISE /ANALYSIS Beh1 Beh2 Beh3 Beh4 Beh5 Beh6 /PRINT INITIAL CORRELATION EXTRACTION /CRITERIA MINEIGEN(1) ITERATE (25) /EXTRACTION PC /ROTATION NOROTATE /METHOD=CORRELATION.
Resources	Processor Time	00:00:00,13
	Elapsed Time	00:00:00,26
	Maximum Memory Required	5704 (5,570K) bytes

Correlation Matrix

		I view myself capable of actually realizing intended energy saving targets	I have the intention to lower my energy consumption patterns intensively	I have the intention to only use energy that has been produced locally	I view myself capable of realizing challenging targets I set (e.g. sports targets or diet targets).	When I am challenged to save energy, I commit myself easily	I have the intention to continually improve the energy efficiency level of my household.
Correlation	I view myself capable of actually realizing intended energy saving targets	1,000	,527	,279	,309	,458	,389
	I have the intention to lower my energy consumption patterns intensively	,527	1,000	,362	,274	,435	,471
	I have the intention to only use energy that has been produced locally	,279	,362	1,000	,271	,341	,330
	I view myself capable of realizing challenging targets I set (e.g. sports targets or diet targets).	,309	,274	,271	1,000	,448	,283
	When I am challenged to save energy, I commit myself easily	,458	,435	,341	,448	1,000	,423
	I have the intention to continually improve the energy efficiency level of my household.	,389	,471	,330	,283	,423	1,000

Communalities

	Initial	Extraction
I view myself capable of actually realizing intended energy saving targets	1,000	,528
I have the intention to lower my energy consumption patterns intensively	1,000	,570
I have the intention to only use energy that has been produced locally	1,000	,358
I view myself capable of realizing challenging targets I set (e.g. sports targets or diet targets).	1,000	,360
When I am challenged to save energy, I commit myself easily	1,000	,576
I have the intention to continually improve the energy efficiency level of my household.	1,000	,495

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,887	48,110	48,110	2,887	48,110	48,110
2	,816	13,604	61,714			
3	,750	12,503	74,217			
4	,606	10,097	84,314			
5	,498	8,298	92,612			
6	,443	7,388	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component
	1
I view myself capable of actually realizing intended energy saving targets	,727
I have the intention to lower my energy consumption patterns intensively	,755
I have the intention to only use energy that has been produced locally	,599
I view myself capable of realizing challenging targets I set (e.g. sports targets or diet targets).	,600
When I am challenged to save energy, I commit myself easily	,759
I have the intention to continually improve the energy efficiency level of my household.	,703

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Notes

Output Created		31-JUL-2017 19:24:17
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=Beh1 Beh2 Beh3 Beh4 Beh5 Beh6 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA.
Resources	Processor Time	00:00:00,11
	Elapsed Time	00:00:00,29

Case Processing Summary

		N	%
Cases	Valid	9030	85,3
	Excluded[a]	1555	14,7
	Total	10585	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
,776	6

C. Social factors

Notes

Output Created		31-JUL-2017 19:28:34
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis AA\Ita datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES SOC1 SOC2 SOC5 SOC4 SOC3 SOC6 SOC7 SOC9 SOC10 SOC11 /MISSING LISTWISE /ANALYSIS SOC1 SOC2 SOC5 SOC4 SOC3 SOC6 SOC7 SOC9 SOC10 SOC11 /PRINT INITIAL CORRELATION EXTRACTION /CRITERIA MINEIGEN(1) ITERATE (25) /EXTRACTION PC /ROTATION NOROTATE /METHOD=CORRELATION.
Resources	Processor Time	00:00:00,09
	Elapsed Time	00:00:00,09
	Maximum Memory Required	13688 (13,367K) bytes

Correlation Matrix

		I experience a high level of interpersonal trust between me mbers of Ecopower	I like to identify myself with a green energy supplier	I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle	I like to be seen as a person who uses renewable energy	I like to be seen as a person who saves energy	Saving energy is considered an important value among my friends and family	Generating one's own energy locally is considered important among my friends and family	I like to be the first one among my friends who adopts a technological innovation	Many of my friends and/or family members are member s of an energy cooperative	I experience social pressure to save energy (reduce energy use)
Correlation	I experience a high level of interpersonal trust between members of Ecopower	1,000	,471	,329	,334	,259	,135	,127	,004	,041	,041
	I like to identify myself with a green energy supplier	,471	1,000	,416	,475	,370	,136	,144	,038	,056	,042
	I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle	,329	,416	1,000	,695	,586	,180	,145	,031	,001	,045
	I like to be seen as a person who uses renewable energy	,334	,475	,695	1,000	,704	,216	,212	,074	,063	,099
	I like to be seen as a person who saves energy	,259	,370	,586	,704	1,000	,266	,225	,031	,085	,062
	Saving energy is considered an important value among my friends and family	,135	,136	,180	,216	,266	1,000	,634	,048	,281	,211
	Generating one's own energy locally is considered important among my friends and family	,127	,144	,145	,212	,225	,634	1,000	,105	,341	,237
	I like to be the first one among my friends who adopts a technological innovation	,004	,038	,031	,074	,031	,048	,105	1,000	,067	,180
	Many of my friends and/or family members are members of an energy cooperative	,041	,056	,001	,063	,085	,281	,341	,067	1,000	,226
	I experience social pressure to save energy (reduce energy use)	,041	,042	,045	,099	,062	,211	,237	,180	,226	1,000

Communalities

	Initial	Extraction
I experience a high level of interpersonal trust between members of Ecopower	1,000	,340
I like to identify myself with a green energy supplier	1,000	,491
I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle	1,000	,681
I like to be seen as a person who uses renewable energy	1,000	,763
I like to be seen as a person who saves energy	1,000	,633
Saving energy is considered an important value among my friends and family	1,000	,705
Generating one's own energy locally is considered important among my friends and family	1,000	,724
I like to be the first one among my friends who adopts a technological innovation	1,000	,766
Many of my friends and/or family members are members of an energy cooperative	1,000	,422
I experience social pressure to save energy (reduce energy use)	1,000	,491

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3,195	31,950	31,950	3,195	31,950	31,950
2	1,770	17,696	49,646	1,770	17,696	49,646
3	1,051	10,508	60,154	1,051	10,508	60,154
4	,934	9,340	69,494			
5	,797	7,968	77,462			
6	,732	7,323	84,785			
7	,510	5,099	89,884			
8	,399	3,993	93,877			
9	,361	3,611	97,489			
10	,251	2,511	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component		
	1	2	3
I experience a high level of interpersonal trust between members of Ecopower	,538	-,223	-,034
I like to identify myself with a green energy supplier	,645	-,271	,036
I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle	,752	-,336	,043
I like to be seen as a person who uses renewable energy	,827	-,269	,079
I like to be seen as a person who saves energy	,770	-,198	-,024
Saving energy is considered an important value among my friends and family	,512	,592	-,305
Generating one's own energy locally is considered important among my friends and family	,500	,650	-,226
I like to be the first one among my friends who adopts a technological innovation	,123	,231	,835
Many of my friends and/or family members are members of an energy cooperative	,252	,593	-,082
I experience social pressure to save energy (reduce energy use)	,236	,493	,438

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

Notes

Output Created		31-JUL-2017 19:30:22
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=SOC1 SOC2 SOC5 SOC4 SOC3 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=CORR.
Resources	Processor Time	00:00:00,06
	Elapsed Time	00:00:00,07

Case Processing Summary

		N	%
Cases	Valid	9067	85,7
	Excluded[a]	1518	14,3
	Total	10585	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,815	,812	5

Inter-Item Correlation Matrix

	I experience a high level of interpersonal trust between members of Ecopower	I like to identify myself with a green energy supplier	I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle	I like to be seen as a person who uses renewable energy	I like to be seen as a person who saves energy
I experience a high level of interpersonal trust between members of Ecopower	1,000	,475	,333	,337	,259
I like to identify myself with a green energy supplier	,475	1,000	,413	,477	,370
I like to be seen as a person who uses an electrical vehicle instead of a traditional fossil fuel vehicle	,333	,413	1,000	,690	,580
I like to be seen as a person who uses renewable energy	,337	,477	,690	1,000	,702
I like to be seen as a person who saves energy	,259	,370	,580	,702	1,000

Notes

Output Created		31-JUL-2017 19:34:22
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=SOC6 SOC7 SOC10 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=CORR.
Resources	Processor Time	00:00:00,05
	Elapsed Time	00:00:00,06

Case Processing Summary

		N	%
Cases	Valid	9294	87,8
	Excluded[a]	1291	12,2
	Total	10585	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,673	,682	3

Inter-Item Correlation Matrix

	Saving energy is considered an important value among my friends and family	Generating one's own energy locally is considered important among my friends and family	Many of my friends and/or family members are members of an energy cooperative
Saving energy is considered an important value among my friends and family	1,000	,633	,278
Generating one's own energy locally is considered important among my friends and family	,633	1,000	,339
Many of my friends and/or family members are members of an energy cooperative	,278	,339	1,000

D. Knowledge and importance level

Notes

Output Created		31-JUL-2017 20:34:30
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
Missing Value Handling	Definition of Missing	MISSING=EXCLUDE: User-defined missing values are treated as missing.
	Cases Used	LISTWISE: Statistics are based on cases with no missing values for any variable used.
Syntax		FACTOR /VARIABLES SAT1 SAT2 SAT3 SAT5 SAT6 SAT7 SAT8 /MISSING LISTWISE /ANALYSIS SAT1 SAT2 SAT3 SAT5 SAT6 SAT7 SAT8 /PRINT INITIAL CORRELATION EXTRACTION /CRITERIA MINEIGEN(1) ITERATE (25) /EXTRACTION PC /ROTATION NOROTATE /METHOD=CORRELATION.
Resources	Processor Time	00:00:00,06
	Elapsed Time	00:00:00,07
	Maximum Memory Required	7376 (7,203K) bytes

Correlation Matrix

		After having joined a REScoop, energy savings have become more important to me	My REScoop has contributed to that I save more energy in my household.	After having joined a REScoop local production of renewable energy has become more important to me	My knowledge level on energy issues has increased in the last three years	My REScoop has contributed to an increased knowledge on renewable energy among our household members.	A renewable energy cooperation like Ecopwer offers better energy services than other energy suppliers do.	I am completely satisfied with the energy services the REScoop offers me
Correlation	After having joined a REScoop, energy savings have become more important to me	1,000	,624	,477	,287	,415	,201	,100
	My REScoop has contributed to that I save more energy in my household.	,624	1,000	,406	,245	,435	,264	,131
	After having joined a REScoop local production of renewable energy has become more important to me	,477	,406	1,000	,351	,466	,184	,121
	My knowledge level on energy issues has increased in the last three years	,287	,245	,351	1,000	,462	,141	,083
	My REScoop has contributed to an increased knowledge on renewable energy among our household members.	,415	,435	,466	,462	1,000	,263	,173
	A renewable energy cooperation like Ecopwer offers better energy services than other energy suppliers do.	,201	,264	,184	,141	,263	1,000	,364
	I am completely satisfied with the energy services the REScoop offers me	,100	,131	,121	,083	,173	,364	1,000

Communalities

	Initial	Extraction
After having joined a REScoop, energy savings have become more important to me	1,000	,617
My REScoop has contributed to that I save more energy in my household.	1,000	,570
After having joined a REScoop local production of renewable energy has become more important to me	1,000	,554
My knowledge level on energy issues has increased in the last three years	1,000	,377
My REScoop has contributed to an increased knowledge on renewable energy among our household members.	1,000	,578
A renewable energy cooperation like Ecopwer offers better energy services than other energy suppliers do.	1,000	,655
I am completely satisfied with the energy services the REScoop offers me	1,000	,718

Extraction Method: Principal Component Analysis.

Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,877	41,100	41,100	2,877	41,100	41,100
2	1,192	17,029	58,130	1,192	17,029	58,130
3	,882	12,603	70,733			
4	,634	9,053	79,786			
5	,568	8,108	87,894			
6	,491	7,008	94,902			
7	,357	5,098	100,000			

Extraction Method: Principal Component Analysis.

Component Matrix[a]

	Component	
	1	2
After having joined a REScoop, energy savings have become more important to me	,755	-,219
My REScoop has contributed to that I save more energy in my household.	,746	-,113
After having joined a REScoop local production of renewable energy has become more important to me	,717	-,199
My knowledge level on energy issues has increased in the last three years	,582	-,195
My REScoop has contributed to an increased knowledge on renewable energy among our household members.	,756	-,075
A renewable energy cooperation like Ecopwer offers better energy services than other energy suppliers do.	,469	,660
I am completely satisfied with the energy services the REScoop offers me	,325	,782

Extraction Method: Principal Component Analysis.
a. 2 components extracted.

Notes

Output Created		31-JUL-2017 20:37:17
Comments		
Input	Data	O:\Projecten\H2020 RESCOOP PLUS\WP3\D3.3 Empricial analysis A\Alle datasets\Dataset all RESCOOPs_integrated.sav
	Active Dataset	DataSet1
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	10585
	Matrix Input	
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the procedure.
Syntax		RELIABILITY /VARIABLES=SAT1 SAT3 SAT5 SAT6 /SCALE('ALL VARIABLES') ALL /MODEL=ALPHA /STATISTICS=CORR.
Resources	Processor Time	00:00:00,06
	Elapsed Time	00:00:00,06

Case Processing Summary

		N	%
Cases	Valid	8795	83,1
	Excluded[a]	1790	16,9
	Total	10585	100,0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
,735	,735	4

Inter-Item Correlation Matrix

	After having joined a REScoop, energy savings have become more important to me	After having joined a REScoop local production of renewable energy has become more important to me	My knowledge level on energy issues has increased in the last three years	My REScoop has contributed to an increased knowledge on renewable energy among our household members.
After having joined a REScoop, energy savings have become more important to me	1,000	,478	,288	,416
After having joined a REScoop local production of renewable energy has become more important to me	,478	1,000	,352	,465
My knowledge level on energy issues has increased in the last three years	,288	,352	1,000	,461
My REScoop has contributed to an increased knowledge on renewable energy among our household members.	,416	,465	,461	1,000