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1. EXECUTIVE SUMMARY

Public opinion poll on energy efficiency has been conducted with the aim of getting insight into citizens' awareness of energy efficiency as well as to determine which energy efficiency measures they applied or willing to apply in their households in the following period.

The survey was conducted in nine Montenegrin towns (Podgorica, Nikšić, Bijelo Polje, Berane, Pljevlja, Herceg Novi, Bar, Ulcinj, Budva) with 450 household representatives. Condition for participation in the survey was that respondents live in their own house or apartment.

Citizens showed they knew what was implied under the energy efficiency and defined this term as saving and rational energy consumption. Information on rational energy consumption and application of energy efficiency measures was usually obtained via media. In this process of acquiring necessary information they used radio and TV commercials, informative shows and features, as well as broadcasted mini serial on energy efficiency.

Respondents had the opportunity to see broadcasted mini TV series 'Energy efficiency is not an option, it is power' and assessed it as interesting and informative. Only small number of respondents heard of energy efficiency info line and info center/info office.

Most often, respondents applied energy-saving light bulbs in their households, while they showed willingness to apply house/apartment insulation, devices of energy type A and low-e glass windows. As the reason for not applying some of energy efficiency measures, respondents mentioned lack of financial resources.

In the following period it is necessary to work on further informing and rising citizens' awareness of energy efficiency. Carrying out different educational campaigns and programs would result in target changes, from socially acceptable attitudes towards socially acceptable behavior, and taking on real actions in society.

Further broadcasting of TV features and series about energy efficiency would contribute to strengthening citizens' awareness on possibilities of more rational consumption and importance of more efficient household energy resource management.

2. AIM AND METHODOLOGY OF THE SURVEY

CEED conducted public opinion poll on energy efficiency for the purposes of German Society for International Cooperation (GiZ) and the Ministry of Economy. The aim of the project was to get insight into citizens' awareness of energy efficiency, as well as to determine which energy efficiency measures they applied or willing to apply in their households.

To this aim, the quantitative survey with *450 household representatives has been carried out in nine Montenegrin towns*. As starting basis for creation of representative sample¹ MONSTAT's data on the number of adult citizens were used. The survey was conducted in Berane, Bijelo Polje and Pljevlja (northern region), Nikšić and Podgorica (central region) and Bar, Budva, Ulcinj and Herceg Novi (southern region). The following table displays the distribution of respondents² by towns.

	Absolute	Percentage
Podgorica	90	20,0
Nikšić	60	13,3
Bijelo Polje	60	13,3
Berane	45	10,0
Pljevlja	45	10,0
Herceg Novi	35	7,8
Bar	35	7,8
Ulcinj	40	8,9
Budva	40	8,9
Total:	450	100,0%

Graph 1. Table 1. Respondents structure with respect to towns

The survey has been conducted by means of 10-minute *structured questionnaire,* with prevailing closed-type and few open-type questions. The final questionnaire contained 32 questions, including demographic and socio-economic characteristics of respondents. According to GiZ request, after pilot survey, the research team has made necessary adjustments and added questions referring to broadcasting of mini serial "Energy efficiency is not an option, it is power".

CEED Consulting has established its own *polltaker network* in all municipalities of Montenegro for the purpose of conducting survey projects. Persons with multi-year experience in different types of surveys with whom CEED Consulting has good long-year cooperation were hired as polltakers. In addition to experience polltakers already had, they still attended *one-day training* in order to get familiar with the aim of the survey, content of the questionnaire, how to fill it in and deadlines for completion. During the training polltakers were explained every single item in the questionnaire along with the simulation of filling it in. In order to establish contact with target person more easily, CEED Consulting prepared authorization and accreditation for all polltakers as a confirmation of their participation in the project.

¹ Representativeness of the sample implies that selected units of observed group, or population have all characteristics of total population

² Term used in plural implies both male and female gender

Control of polltakers, i.e. the questionnaire completion quality is performed during data collection and upon data entering and processing. There are two aspects of control applied:

- Field work supervision: Polltakers are due to deliver the CEED Consulting research team the following: respondents contact list, general assessment of the interview, list of participants who declined to participate in the survey. Upon completion of interviewing process, field work controllers conduct phone control, based on delivered contact lists. At least 20% of the sample of every polltaker is controlled.
- Analytic supervision: Data are compared based on similarity of answers, expected and noticed relations between related variable (logical control).

For the field work CEED Consulting hired 15 experienced polltakers. The field work took place in the period 1-12 February, 2013.

The respondents included in the survey were guaranteed anonymity, which contributed to obtaining honest answers. *Data entry* was performed in Microsoft Excel, while data processing was performed in SPSS software (statistical package for social sciences for data analysis and processing). In accordance with project objectives, CEED analyst team conducted data analysis, comparative analysis and prepared conclusions and recommendations.

Taking into account the method of sample creation, as well as methodology applied, we believe that presented findings may be treated as valid indicators of citizens' awareness of energy efficiency.

3. SURVEY RESULTS

3.1 Demographic characteristics

The survey was conducted in nine Montenegrin towns with 450 household representatives, where 63.3% of households were urban, while 36.7% were from rural areas. In accordance with defined methodology, the questionnaire should be answered by the person who was the most familiar with the family situation. Also the condition to participate in the survey was that respondents lived in their own house or apartment.³

The gender structure was balanced, even though the percentage was slightly in favor of female sex. Observing the age structure, the most numerous group was the one between 30 and 44.



Respondents interviewed has either up to three (41.8%) or between 4 and 6 members (54.0%). In surface structure of dwelling units dominated houses (67.8%). The average dwelling surface area was $94m^2$. On household level, the total monthly income was up to $350 \in (33.6\%)$ and between $501 \in$ and $1.000 \in (26.9\%)$.



³ In order to have as realistic and unbiased data as possible, surveyors received additional criteria for selection of respondents, thus those working in Electro distribution, Ministry of Economy, GiZ, in journalism/TV/radio, ppublic relations ad well as market research were not allowed to answer the questions



3.2 Household energy consumption

In order to determine which energy-generating product respondents use for heating and cooling in their households, a series of questions referring to this issue was created. Energy generating product most used in households was electricity (75.8%), while wood was used in considerably lower percentage (21.1%).

Which energy-generating product respondents would opt for depended on the dwelling conditions and the region they live in. In the winter period, citizens most often used wood (63.3%) and electricity (28.5%) for heating. Those living in the northern and central region usually opt for wood, while those living in the southern region most often used electricity.



Graph 3. Energy-generating products used for heating during the winter

During the summer period, interviewed people used standard air condition devices (38.4%) and fans (12.9%) for cooling. Those who use standard air-conditions were usually from central and southern region, due to climate specificity in these regions.

High percentage of interviewed (51.7%) said they did not use air condition devices for cooling. This was particularly the case with respondents living on the north, due to lower temperatures characteristic for this area during summer months.



With this survey, we wanted to determine to what extent respondents take care of decreasing electricity bill in the household. Interviewed often (62.8%) or sometimes (20.5%) thought of reducing electricity bill and applied certain measures in order to reduce the electricity consumption (For example: use energy-saving light bulbs, use gas for cooking, spend electricity more rationally and efficiently, use electricity during 'cheaper tariff' period, etc.).



Graph 5. Have you thought about reducing electricity bill in your household?

3.3 Citizens' awareness and knowledge on energy efficiency

With the purpose of viewing the level of citizens' informing and awareness of energy efficiency, we created a series of questions covering this issue. We were interested to learn how respondents would define energy efficiency⁴⁵, which media they use to come to necessary information and whether they used services from info office for energy efficiency.

Almost three quarters of respondents (70.2%) knew and assume they knew what energy efficiency implied. These respondents defined this term as saving (26.9%) and rational energy consumption (61.7%), which indicates that they perceive the meaning of this term in correct way. Within the 'Energy Efficiency Project in Montenegro' a series of promotional activities have been carried out, which contributed to the increase of the level of citizens' actual knowledge and informing on this topic.

More details available on: http://www.energetska-efikasnost.me/fag.php?l=mn

⁴ The term "energy efficiency" has two meanings. The first relates to electronic appliances and the second relates to measures. Energy efficient appliance is the one that has a high degree of efficiency i.e. small losses while transforming one form of energy into another. For example, an ordinary" light bulb transforms a significant amount of electric energy into heat energy, and just a small amount into useful light energy. Having this in mind, the above mentioned bulb is an energy inefficient device. When it comes to measures, energy efficiency includes measures implemented with the aim of reducing energy consumption. No matter whether it is a technological or non technological measure, or changes in behavior, all measures include the same, or even a higher degree of achieved comfort and standards of living.



Graph 6. Energy efficiency awareness and definition

Slightly above four fifths of interviewed (83.8%) noticed information referring to rational energy consumption and application of energy efficiency measures in the media. Radio and TV commercials were the most frequent channel of informing (41.7%), while informative TV shows and features and mini serial on energy efficiency were mentioned in lower percent (19.0% and 14.6% respectively).



Graph 7. Noticing of information on rational energy consumption and channels of informing

A question referring to whether respondents watched the broadcasted serial 'Energy efficiency is not an option, it is power' was created in order to find out to what extent they had chance to see it. Two fifths of citizens (43.8%) said they noticed the mini serial on energy efficiency broadcasted on TV channels and TV Vijesti's website. They assessed it as interesting, informative, and edifyingand it really gets one to think (Table 2). It is necessary to continue with similar promotional activities in the future in order to contribute to raising awareness of energy efficiency.

Table 2.	Broadcasted mini serial	'Energy efficiency	is not an option, i	t is power' is:
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	%
Interesting	25,8 🕁
Boring	5,8

Informative	25,0 🕁
Edifying	17,3
Stimulates application of EE measures	9,9
Gets one to think	16,2

Every fifth respondent (18.6%) has heard of energy efficiency info line. However, even though they heard of it, they used its services in rather small percent (only 4.8%).

Table 3. Info line

Heard of info line?	Yes – 18,6%		No – 81,4%
Used info line services?	Yes – 4,8%	No – 95,2%	-

Only 14.7% respondents heard of energy efficiency info center/office. Even though they heard of it, they visited it in only 18.5% of cases, in order to inform about rational electricity consumption, ways of saving and available credit lines aimed for energy efficiency improvement.

Table 4. Info center/info office

Heard of info center/office?	Yes - 14,7%		No - 85,3%
Visited/planned to visit info center/info office?	Yes – 18,5%	No – 81,5%	-

Only 22.4% of interviewed was able to define the term energy audit of buildings as 'assessment of possibilities for energy efficiency improvement; screening building by energy type; application of energy efficiency measures and indicating the ways of achieving rational consumption, etc'.

The term passive house defined 26.9% of respondents as 'house which does not use electricity, house with thermo insulation, house using alternative energy sources.etc'.

3.4 Application of energy efficiency measures in household

In order to view the current level of familiarity with energy efficiency measures, a series of questions were created asking if the respondents applied any of energy efficiency measures last year and whether they are willing to apply some in the future.

Regarding energy efficiency measures citizens have not heard of, it was found that they were the least familiar with thermostat valves (21.2%), condensation boilers (19.5%), heating pumps (19.1%) and air conditions with inverter (13.5%).

	%
Use of energy saving light bulbs	0,6
Devices of energy type A	5,6
Air condition with inverter	0,3
Window with e-low emission	5,3
Thermostat valve	21,22 🙀
Condensate boiler	19,5 🛣

Solar collector and photo-voltage cells	6,4
Air condition with inverter	13,.5
Heating pump	19,1 🛣
Nothing of the above	8,5

Interviewed applied some of energy efficiency measures in the previous year, most often energysaving light bulbs (42.4%). As presented on the graph, respondents opted for house/apartment insulation and windows with low-e glass in considerably lower percent (11.3% and 10.1% respectively) as energy efficiency measures.

Every fourth respondent (22.8%) stated he/she did not apply any of energy efficiency measures in their household in the previous year. This brings to conclusion that interviewed decided to apply only energy efficiency measures which did not require significant financial resources (for example energy-saving light bulbs) or not to not apply any of mentioned measures at all (due to high credit indebtedness of citizens, lack of information, etc.).



Graph 8. Energy efficiency measures applied in the household

We defined question to see the level of willingness to apply some of energy efficiency measures in their household in the future period. As presented on the graph, respondents would most often opt for house/building insulation (26.7%), devices of energy type A (13.9%) and windows with low-e glass (13.7%).

In 12.7% of cases citizens stated they would not be willing to apply any of mentioned measures. This means that they recognize importance and effects they might achieve by applying energy efficiency measures in the household.



Graph 9. Willingness to apply energy efficiency measures in the household

The crucial reason for not planning to apply some of energy efficiency measures for interviewed was the lack of financial resources (74.3%) and lack of information (12.5%).

	%
Lack of information	12,5
Lack of financial resources	74,3 🕁
Lack of information about relevant contractors	2,1
Inability of reach agreement with other tenants in common residential building	2,5
Inaccessibility of adequate products	5,1
Other	3,5

Table 6. Reasons for not applying energy efficiency measures

In 12.5% of cases respondents thought of getting a loan to apply some energy efficiency measures in the household. They most often heard of credit lines for solar collectors and panels offered by Montenegrin banks (Erste, Ckb, Prva bank and Nlb bank).

4. SURVEY RESULTS COMPARISON⁶

Are you aware of the meaning of energy efficiency



 Higher number of citizens knew or assume they knew what was implied under energy efficiency

Have you noticed information on EE in the media?



 Higher number of respondents noticed information on energy efficiency in the media



How would you define energy efficiency?

 Higher number of those who define energy efficiency as rational consumption

How did you hear of energy efficiency?⁷



Interviewed get informed via radio and TV comercials and mini serial on energy efficiency. Also, the number of respondents who state informative TV shows and features as source of information grows as well.

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⁶ Results of surveys conducted in 2008, 2009, 2010, 2011, 2012 and 2013 are compared.

It can be noticed that at the beginning of the project 'Year of Energy Efficiency' (2008) the awareness of energy efficiency was at lower level, but during the project implementation in 2009 the level of awareness raised. For 2010 was characteristic that respondents showed lower awareness than it was the case in 2009, but this is due to decreased intensity of the public campaign. During 2011, the campaign was intesified (TV, radio, newspapers, roundtables, public presentations) which contributed to the increase in the level of citizens' awareness of energy efficiency measures. During 2012 and 2013 promotional features and mini seria 'Energy efficiency is not an option, it is power' were broadcasted, which contributed to better informing of citizens on more rational energy use in household.

⁷ As promotional activities started in 2008 within the project the Year of Energy Efficiency, the respondents could not be asked how they have heard of the project. For this reason, the graph displays results for 2009, 2010, 2011, 2012 and 2013.



Information on energy efficiency

 Higher number of respondents who get information through radio and TV commercials, mini serial on energy efficiency, as well as informative TV shows and features

Which cooling devices do you use in the summer?



 Slightly reduced number of those using standard air condition devices

Have you heard of energy efficiency center/office?



Respondents get information on energy efficiency through different media:



 There is higher number of respondents who get information through radio and TV commercials, mini serial on energy efficiency, informative TV shows and features, as well as published texts and ads (newspapers, magazines)

Have you heard of energy efficiency info line?



 Reduced number of those who heard of energy efficiency info line

> Reduced number of those who heard of energy efficiency center/office

Prepared by: CEED



Did you implement any of energy efficiency

 Number of respondents who use energy-saving light bulbs or who opted for house/apartment insulation increased

Which of the following energy efficiency measures you <u>would be willing</u> to implement in your household?



 Citizens showed greater willingness to implement house/apartment insulation in their household in comparison to other measures

Among the following EE measures, is there any you have not heard of so far?



 Reduced number of those who have not heard of air conditions with inverter as EE measure

Reasons for not implementing some of mentioned measures?



The lack of funds is recognized as the most important reason for not implementing some of energy efficiency measures

5. SURVEY RESULTS BY GENDER (2013)

Are you aware of the meaning of energy efficiency



Have you noticed information on EE in the media?



What impression episodes of this serial left on you?





Have you watched episodes of serial 'Energy efficiency is not an option, it is power'?



Would you like to see more often series on energy efficiency on TV?



How would you define energy efficiency?

2013

Prepared by: CEED

Thermostat

valve

Air condition

with inverter

.....



Among the following EE measures, is there any you have not heard of so far?





Which of the following energy efficiency measures would you be willing to implement in your

Heating pump Condesate boiler

.....



Reasons for not implementing some of mentioned measures?



6. CONCLUSIONS AND RECOMMENDATIONS

Based on obtained results from the survey on public opinion poll on energy efficiency the following conclusions were defined:

- Public opinion poll on energy efficiency was conducted in nine Montenegrin towns with 450 household representatives.
- Gender structure: 49.1% men and 50.9% women. Age structure: 18-29 (22.7%), 30-44 (27.3%), 45-59 (26.9%) and over 60 (23.1%).
- Energy-generating product most often applied in the household was electricity (76%). For heating in the winter period wood and electricity are used, while during summer months standard air-conditions.
- Citizens knew and assume they knew what energy efficiency implied (70%). The fact that they defined energy efficiency as rational energy consumption (62%) and energy saving (27%) indicates that they get informed and perceive this term in correct way.
- Media is the most important channel of informing on rational energy consumption and implementation of energy efficiency measures. Respondents get necessary information thanks to radio and TV commercials (42%), informative TV shows and features (19%) and mini serial on energy efficiency (15%).
- 64% of citizens watched mini serial 'Energy efficiency is not an option, it is power' and assessed it as interesting and informative.
- For energy efficiency info line heard 19% of citizens and only 5% actually used its services. For energy efficiency info centre/office heard 15% of respondents and 19% of them either visited or planned to visit it.
- Citizens most often used energy saving light bulbs in their households (42%), while in lower percent they opted for house/apartment insulation (11%) and windows with low-e glass (10%).
- Respondents showed willingness to apply one of the following energy efficiency measures in the future period – house/apartment insulation (27%), devices of energy type A (14%) and windows with low-e glass (14%).
- The critical reason for not implementing any of energy efficiency measures was the lack of financial resources (74%) and information (12%).

In accordance with the main conclusions from the survey on public opinion poll on energy efficiency the following recommendations are created:

- Work on further citizens' informing and awareness of energy efficiency topic. Carrying out different educational campaigns and programs would result in target changes, from socially acceptable attitudes to socially acceptable behavior, and taking some real actions in society.
- Get public familiar with **energy efficiency measures**, which can be applied in the household and point to the possibilities each of them offers. In this way awareness of possibilities of achieving energy efficiency would be enhanced as well as the importance of transparent r energy resource management in the household.
- Promote energy efficiency measures in a way to calculate index, which will measure economic and energy effects of measures applied in the household. Available information on possible energy saving and their financial viability would influence the change of citizens' awareness.
- Place information on existence of energy efficiency info line and info centre/office (via TV, newspapers, printed materials) in order to make citizens more informed about their activities and services they offer.

Result comparison of conducted surveys (2008-2013):

Citizens showed **increased awareness** of energy efficiency.

Percentage of citizens familiar with the energy efficiency term in 2009 increased in 15.9% compared to 2008 (from 23.6% to 39.5%), but this percentage recorded a drop in 2010 in comparison to 2009 in 1.2% (from 29.5% to 38.3%), but also increased in 2011 in comparison to 2010 for 9.9% (from 38.3% to 48.2%) and continued to grow in 2012 for 4.0% (from 48.2% to 52.2%). Awareness of energy efficiency increased in 2013 in comparison to 2008 for 24.8% (from 23.6% to 48.4%).

Interviewed usually defined energy efficiency as energy saving and rational consumption.

Percentage of citizens who defined EE as energy saving in 2009 increased for 14.9% in comparison to 2008 (from 35.6% to 50.5%), but this percentage slightly dropped in 2010 in comparison to 2009, for 6.9% (from 50.5% to 43.6%), but it is still higher in 2011 than in 2010 for 4.3% (from 43.6% to 47.9%). Number of those defining energy efficiency as energy saving, dropped for 26.1% in 2013 in comparison to 2012 (from 53.0% to 26.9%)

Number of those who define energy efficiency as rational consumption in 2013 increased for 35.2% in comparison to 2012 (from 26.5% to 61.7%).

Number of respondents who, thanks to the media, notice information on rational energy consumption by increasing energy efficiency is growing.

Percentage of citizens who notice information on EE in the media in 2009 increased in 13.6% in comparison to 2008 (from 43.6% to 57.2%), while this percentage remained the same in 2010 (from 57.2% to 57.1%), but it is still higher in 2011 than in 2010 for 10.5% (from 57.1% to 67.6%). Number of those who notice information on rational consumption in the media increased for 30.2% in 2013 in comparison to 2008 (from 43.6% to 73.8%).

Respondents got informed about EE via broadcasted radio and TV commercials, mini serial on energy efficiency, informative TV shows and features as well as published texts and ads (newspapers, magazines). Carrying out promotional activities influenced strengthening public awareness of the importance of the implementation of energy efficiency measures.

Percentage of citizens who get informed about energy efficiency via radio and TV commercials, mini serial on energy efficiency and informative TV shows and features decreased for 2.1% in 2010 in comparison to 2009 (from 75.1% to 73.0%), and this trend continued to drop in 2011 in comparison to 2010, when it decreased for 13.7% (from 73.0% to 59.3%), but it was still 3.0% higher in 2012 than in 2011 (from 59.3%) to 62.3%), while in 2013 it showed increase in 15.1% in comparison to 2012 (from 62.3% to 77.4%). The percentage of citizens who get informed about energy efficiency via radio and TV commercials, mini serial on energy efficiency as well as informative TV shows and features is increased for 2.3% in 2013 in comparison to 2009 (from 75.1% to 77.4%).

In comparison to 2008, the number of respondents who used different media to get to information about energy efficiency (radio and TV commercials, minis serial on energy efficiency, informative TV shows and features and published texts and ads) increased in 4.2% in 2013 (from 43.7% to 87.9%).

Reduced number of interviewed people who have not heard of some energy efficiency measures – thermostat valves and condensate boiler.

Percentage of citizens who have not heard of some of energy efficiency measures is reduced in 10.2% in 2009 in comparison to 2008 (thermostat valves – from 27.5% to 17.3%) and 6.4% (condensate boiler - from 24.7% to 18.3%), but this percentage increased in 2010 by 4.5% when compared to 2009 (thermostat valves – from 17.3% to 21.8%) and by 2.9% (condensate boiler – from 18.3% to 21.2%), but it slightly decreased in 2012 for 0.1% in comparison to 2011 (thermostat valves – from 19.2% to 19.1%) and 0.4% (condensate boiler – from 18.8% to 18.4%).

Comparing 2013 to 2008, the percentage decreases for 6.3% (thermostat valves – from 27.5% to 21.1%) and for 5.2% (condensate boiler – from 24.7% to 19.5%).

Number of citizens who use energy saving light bulbs in their households increased Percentage of citizens who applied energy saving light bulbs in 2009 in comparison to 2008 increased in 20.2% (from 33.2 to 53.4%), while this percentage decreased in 10.1% in 2010 in comparison to 2009 (from 53.4% to 43.3%), but also dropped in 2011 for 6.2 % when compared to 2010 (from 43.3% to 37.1%). This percentage increased in 2012 in comparison to 2011 for 9.7% (from 37.1% to 46.8%) Number of those who applied energy-saving light bulbs increased for 9.2% in 2013 in comparison to 2008 (from 33.2% to 42.4%).

Respondents show willingness to conduct house/apartment insulation in the following period.

Percentage of citizens who are willing to conduct facility insulation increased in 11.0% in 2009 in comparison to 2008 (from 15.3% to 26.3%), but this percentage increased in 2010 by 2.7% in comparison to 2009 (from 23.6% to 29.0%), but it decreased in 2011 in comparison to 2010 for 0.7% (from 29.0% to 28.3%). In 2012, this percentage decreased in 2.4% in comparison to 2011 (from 28.3% to 25.9%). Number of those who are willing to implement house/apartment insulation increased for 11.4% in 2013 compared to 2008 (from 15.3% to 26.7%).

The most important reason for not implementing some of energy efficiency measures was the lack of funds.

Percentage of citizens, who as the reason for not applying energy efficiency measures stated lack of financial resources, showed mild growth comparing 2008 and 2013 (from 72.0% to 74.3%).

7. REFERENCES

- Strategy of Energy Efficiency in Montenegro <u>http://www.energetska-</u> <u>efikasnost.me/uploads/file/Dokumenta/Strategija%20energetske%20efikasnosti%20Crn</u> <u>e%20Gore.pdf</u>
- Montenegro Energy Policy until 2030 <u>http://www.energetska-</u> efikasnost.me/uploads/file/Dokumenta/Energetska%20politika%20Crne%20Gore%20do %202030.%20godine.pdf
- Law on Energy Efficiency, "Official Journal of Montenegro", No. 29/10 dated 20.05.2010 <u>http://www.energetska-</u> <u>efikasnost.me/uploads/file/Dokumenta/Zakon%200%20energetskoj%20efikasnosti.pdf</u>
- Energy Efficiency Strategy Action Plan (2008-2012) <u>http://www.energetska-efikasnost.me/download/EE%20Akcioni%20plan-2008-2012.pdf</u>
- Public Opinion Poll on Energy Efficiency (November 2008 May 2011), GiZ and the Ministry of Economy, survey conducted by CEED Consulting
- <u>http://www.energetska-efikasnost.me/</u>
- http://www.minekon.gov.me/ministarstvo
- http://www.oie-cg.me/srp/Energetika.asp
- www.epcg.co.me
- http://www.efikasnost.com

8. ANNEX - Questionnaire

Condition for interviewing: Respondent lives in his/her own apartment/house

1. Which of the following energy-generating products you <u>most often</u> use in your household:

- 1. Electricity
- 2. Wood
- 3. Gas
- 4. Other, specify_____

2. What energy-generating product do you use for <u>heating</u> in the winter period:

- 1. Electric energy ("on electricity")
- 2. Gas
- 3. Heating oil
- 4. Wood
- 5. Coal
- 6. Solar energy
- 7. Heating pumps
- 8. Other, specify_____

3. Which of the following devices do you use for <u>cooling</u> in the summer period:

- 1. Standard air condition
- 2. Air condition with inverter
- 3. Fans
- 4. Heating pumps
- 5. Other, specify_____
- 6. We don't use cooling devices

4. Have you considered to reduce your electricity bill in your household:

- 1. Yes, often
- 2. Yes, sometimes
- 3. Rarely
- 4. Haven't thought about it

5. Have you taken any actions in your household in order to reduce your electricity consumption?

- 1. Yes, specify measure_____
- 2. No

6. Are you aware of the meaning of the energy efficiency term?

- 1. Yes
- 2. I assume I know, but I am not sure
- 3. No (skip to Q 8)

7. How would you define energy efficiency?

8. Have you noticed in the media information referring to rational energy consumption by increasing energy efficiency?

- 1. Yes
- 2. I am not sure
- 3. No (skip to Q 10)

9. How did you hear about energy efficiency? (multiple answers possible):

- a. Published texts on energy efficiency (newspapers, magazines, etc.)
- b. Radio and TV commercials
- c. Through Internet, i.e. visit to energy efficiency web site
- d. Through facebook
- e. From friends, relatives
- f. Informative shows and TV features
- g. Mini serial on energy efficiency
- h. Other, specify_____

10. Have you watched episodes of mini serial 'Energy efficiency is not an option, it is power'?

- 1. Yes
- 2. No (skip to q13)

11. What impression those episodes made on you (choose only *2 answers*):

- 1. Interesting
- 2. Boring
- 3. Informative
- 4. Edifying
- 5. Stimulates application of some of suggested measures
- 6. Get one to think

12. Would you like to see more of series about energy efficiency on TV?

- 1. Yes
- 2. No
- 3. Haven't thought about that

13. Have you heard of energy efficiency info line (080 081 660)?

- 1. Yes
- 2. No (skip to Q15)

14. Have you used this line for any services (080 081 660)?

- 1. Yes
- 2. No

15. Have you heard of energy efficiency info center or info office?

- 1. Yes
- 2. No (skip to Q17)
- **16.** Have you ever visited or are you planning to visit energy efficiency info center or info office?
 - 1. Yes
 - 2. No

- 17. For what reason would you call energy efficiency info line or visit info center (office)? Describe what the respondents answered.
- 18. How would you define the term energy audit of buildings?
- 19. How would you define the term passive house?
- 20. Among the following examples, is there any that you haven't heard of so far?

(Specify only those you haven't heard of)

- 1. Use of saving light bulbs
- 2. Devices of energy type A (explanation: devices with minimal energy consumption)
- 3. House/apartment isolation
- 4. Windows with low-e (low emission) (explanation: windows with better isolation)
- 5. Thermostat valve
- 6. Condensate boiler
- 7. Solar collector and photo-voltage cells
- 8. Air condition with inverter
- 9. Heating pump
- 10.Other, specify _
- 11.Nothing of the above

21. Have you <u>implemented any of energy saving measures</u> in your household in the last year? (*multiple answers possible*)

- 1. Use of saving light bulbs
- 2. Devices of energy type A (explanation: devices with minimal energy consumption)
- 3. House/apartment isolation
- 4. Windows with low-e (low emission) (explanation: windows with better isolation)
- 5. Thermostat valve
- 6. Condensate boiler
- 7. Solar collector and photo-voltage cells
- 8. Air condition with inverter
- 9. Heating pump
- 10.Other, specify _
- 11.Nothing of the above

22. Which of the following measures you would be willing to implement in your household? *(Specify all measures you would implement*)

- 1. Use of saving light bulbs
- 2. Devices of energy type A (explanation: devices with minimal energy consumption)
- 3. House/apartment isolation
- 4. Windows with low-e (low emission) (explanation: windows with better isolation)
- 5. Thermostat valve
- 6. Condensate boiler
- 7. Solar collector and photo-voltage cells
- 8. Air condition with inverter
- 9. Heating pump
- 10.Other, specify _____
- 11.Nothing of the above

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23. Please specify the reasons <u>for not implementing</u> some of the <u>mentioned</u> <u>measures:</u>

- 1. Lack of information
- 2. Lack of financial resources
- 3. Inaccessibility of adequate products
- 4. Lack of information about relevant contractors
- 5. Inability to reach agreement with other tenants in common residential building
- 6. Some other reason, specify_____

24. Have you considered taking a loan to apply some of energy efficiency measures in your household?

- 7. Yes
- 8. No

25. Have you heard of any credit lines of this type and if yes, please specify them?

- 1. Yes, specify_____
- 2. No

DEMOGRAPHIC INFORMATION

1. How many members does your household have?

- 1. Up to 3 members
- 2. From 4 to 6 members
- 3. More than 7 members

2. Do you live in:

- 1. House, specify surface area_____
- 2. Apartment, specify surface area_____

3. Respondent's level of education?

- 1. Primary school
- 2. Secondary school
- 3. College/faculty
- 4. Other, specify_____

4. Sex:

- 1. Male
- 2. Female

5. Age

6. What is the amount of total monthly income of your household (sum of all incomes of household members)?

- 1. Up to 350 €
- 2. From 351 to 500 €
- 3. From 501 to 1000 €
- 4. From 1001 to 1500 €
- **5.** Above 1501€

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