SURVEY ON PUBLIC OPINION ON ENERGY EFFICIENCY

November, 2009

CONTENT OF PRESENTATION

- **1.** Aim of the survey
- 2. Methodology and sample
- **3. Results of the survey**
- 4. Comparison of the results with the previous survey (november 2008)







AIM OF THE SURVEY

- **Ministry of Economy**, with support of **GTZ** and Federal Ministry for Coopreation and Development of the Republic of Germany, has designed the project 'The Year of Energy Efficiency'. Within the scope of the project, 17 measures have been prepared, which have for their focus different target groups.
- **The reserach on public opinion on energy efficiency**, for the needs of the Ministry for Economic Development and GTZ, was conducted by **CEED Consulting** from Podgorica.
- The aim of the research was assessment of the influence of conducted activities on strenghtening awareness among the citizens on the importance and possibilities of energy efficiency implementation in households.
- In addition, the research will provide the verification of validity of future promotion activities within this Project.



METHODOLOGY AND SAMPLE

Methodology

• Direct method ("face-to-face")

<u>Sample</u>

- **Target group**: household representatives living in their own house/apartments; best informed about electricity consumption
- Sample size: 451 respondent (planned 450)
- **9 municipalities included:** Podgorica (91), Nikšić (60), Bijelo Polje (60), Berane (45), Pljevlja (46), Ulcinj and Budva (po 40), Bar (34) and Herceg Novi (35)
- **Representativeness of the sample:** regional level, type of settlement (urban/rural), gender structure

Research implementation:

• 04 – 30. November 2009

Organization, polltaker training , analysis and report:

• CEED Consulting



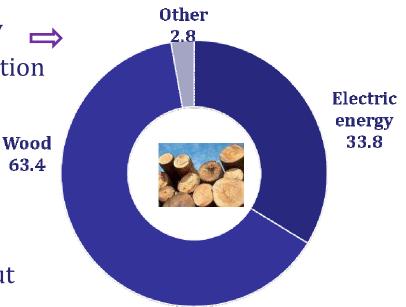


RESULTS OF THE SURVEY



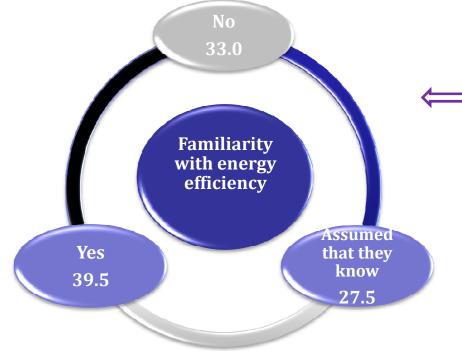
ELECTRIC ENERGY CONSUMPTION

- The most often used energy sources on Montenegrin households are electric energy and wood.
- In the winter period, the citizens generally heat either only with wood or in combination with electricity.
- During the summer, they use standard air conditions for cooling (43.6%).
- Every second citizen often thought about the ways to decrease electricity bill.
- In order to decrease electricity consumption, 51.9% of cititens, implement some of the measures: use of energy saving light bulbs, rational energy use, cooking/heating on wood, etc.





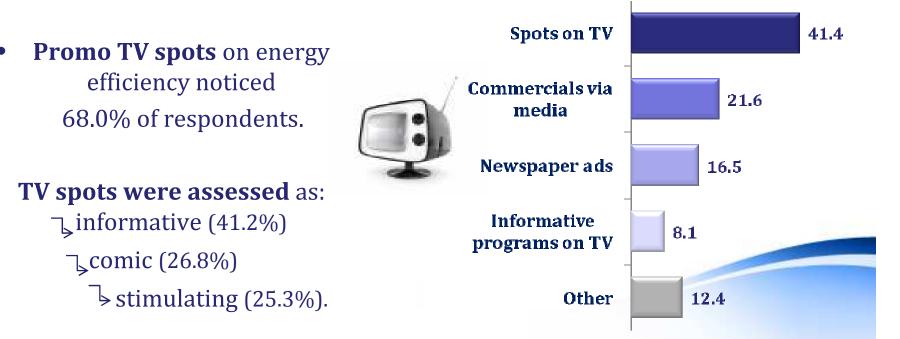
• 46.0% of citizens were familiar with the fact that the **Year of Energy Efficiency** is underway in Montenegro.



- More than two thirds of citizens knew and assumed that they
 knew what the term energy efficiency entailed.
 - Familiarity with this term showed equaully middle-aged men and women, which is not a surprise given the importance of the topic.
- Citizens familiar with **the term energy efficiency**, defined it as: saving and rational electric energy use.

MEDIA AS A SOURCE OF INFORMATION

- Media have an important role in raising public awareness, as well as in directing and undertaking of concrete changes. Information on energy efficiency 57.2% of citizens **noticed in the media**.
- The citizens most often inform about energy efficiency through broadacted TV spots and commercials in the media.

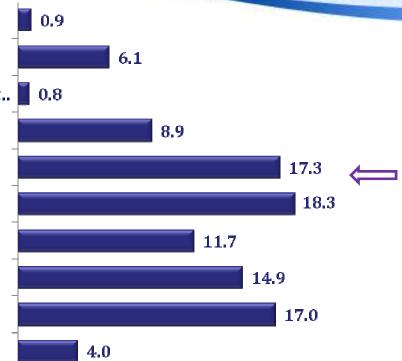




- The citizens showed low familiarity with the terms energy bus, energy audit of buildings and passive houses. Namely, very low percentage of respondents defined these terms: energy bus (5.8%), energy audit of buildings (16.4%) and passive house(17.7%).
- Only 1.3% of surveyed citizens **visited energy efficiency web site** and obtained useful information in that way.
- TV program **Smart Energy** broadcasted on TV Vijesti watched only 2.0% respondents.

EE MEASURES THE RESPONDENTS HAVE NOT HEARD OF

Energy saving light bulbs Devices of energy type A House/apartment.. Windows with low-e glass Thermostat valves Condensate boiler Solar collector Air condition woth inverter Heating pump Nothing from the above

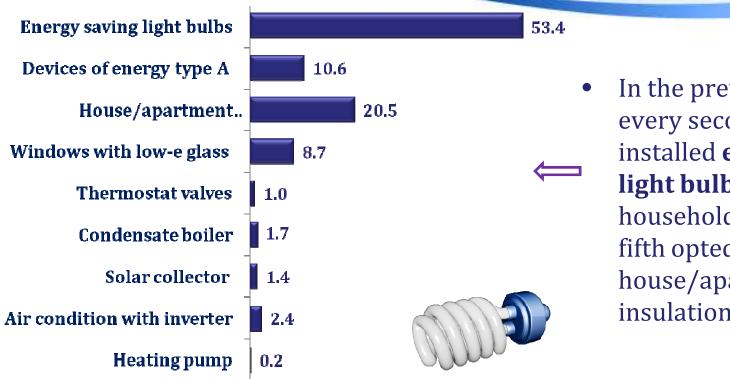


Citizens showed the least familiarity with **condensate boilers,** thermostat valves and heating pumps as energy efficiency measures.



• The least familiraity with mentioned measures had citizens from northern region, women, as well as those with the age between 45 and 59.

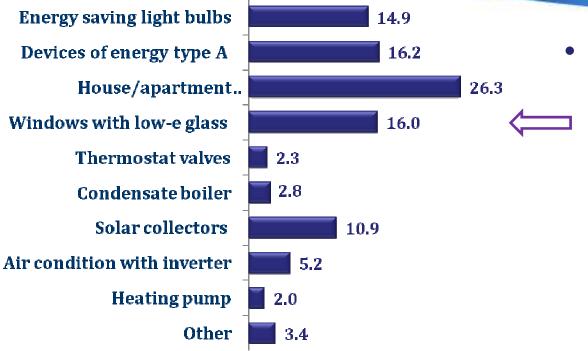
EE MEASURES IMPLEMENTED IN HOUSEHOLDS



In the previous year,
every second citizen
installed energy saving
light bulbs in the
household, while every
fifth opted for
house/apartment
insulation.

 For energy saving light bulbs and house/apartment insulation most often opted citizens from central region, men between 45 and 59.

EE MEASURES THE CITIZENS ARE READY TO IMPLEMENT



Every fourth citizen
showed readiness for
improvement of
house/apartment
insulation. Also, the
citizens would decide to
buy devices of energy
type A and low-e
windows.

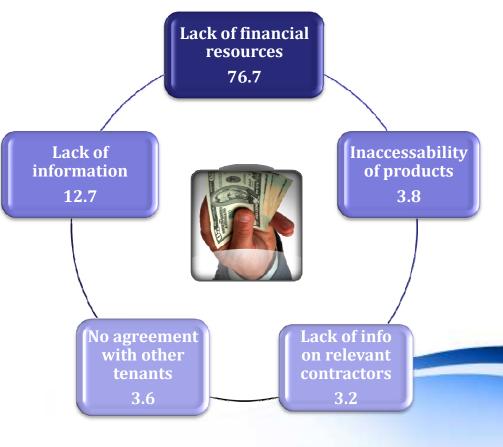


 For better house/apartment insulation would opt citizens from northern region, which is to some point justified by climate conditions characteristic for that area.

REASONS FOR NOT IMPLEMENTING EE MEASURES

- As the reason for not implementing some of the measures three fourths of the citizens stated the **lack of financial resources**.
- The lack of financial resources was equally emphasized by both middle aged men and women with monthly income up to 500€.
- Also, the citizens from northern region most often stated this reason.



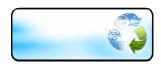




- The research was conducted on representative sample taking into consideration demographic and socio-economic characteristics of respondents. Stratification of the sample was made by region and urban/rural settlement.
 - Gender → **Men** : Women = **50.6** : 49.4
 - Age \longrightarrow 15 to 29 (16.7), **30 to 44 (36.4)**, 45 to 59 (33.9), > 60 (12.9)
 - Monthly income → <350€ (25.3), 351-500€ (36.0), 501-1.000€ (31.8),
 >1001€ (6.9)
 - Level of educattion → primary school (5.8), **high school (70.1)**,

higher school/faculty (24.1)

• You live in \longrightarrow house (71.4), apartment (28.4).





CONCLUSIONS





- Survey on public opinion was conducted with the purpose of assessing the influence of conducted activities on strenthening the awareness among the citizens on the importance and possibilities of energy efficiency implementation in households.
- Every second citizen **implemented some of the measures** in order to decrease electricity consumption in household.
- More than two thirds of citizens showed **familiarity with the term energy efficiency** and are aware of its importance for economic development of the country.
- Citizens familiar with **energy efficiency defined** at as saving and rational use of electricity. *Men* were able to define this term in slightly higer percentage than women.
- Every second citizen noticed information on energy efficiency in **the media**. Different channels of informing are one of the ways to increase public awareness. *Women* more often than men noticed in the media information related to rational energy consumption.



- The research showed that the citizens were the least familiar with **condensate boilers.** *Men* were better informed and familiar with the EE measures that can be implemented in household.
- Every second citizen installed energy saving bulbs in the household during the last year.
- Every fourth citizen was ready to implement **house/apartment insulation**.
- Three quarters of citizens as the reason for not implementing some of the measures stated **the lack of financial resources**.
- The research showed that the implementation of some of EE measures depended on financial status of the citizens. It is necessary to draw attention of the public on the quality of living achieved through implementation of EE measures and put finances "in the second plan".

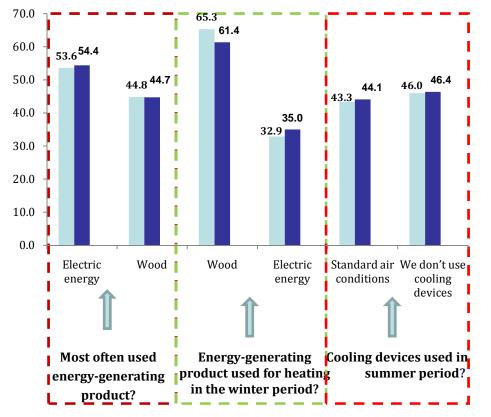


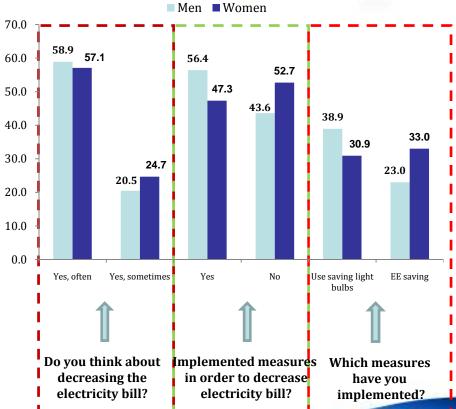
RESULTS 2009

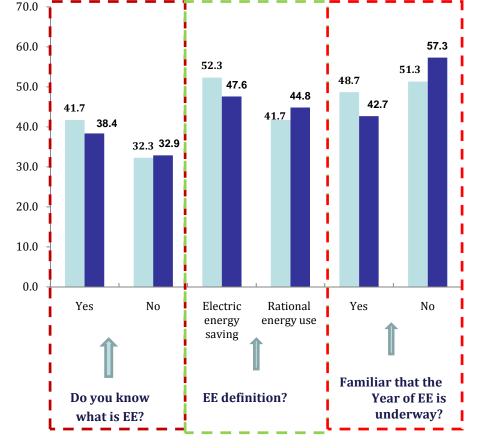
CROSS DATA BY GENDER

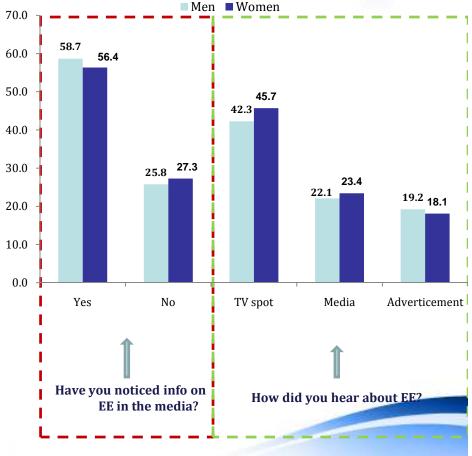


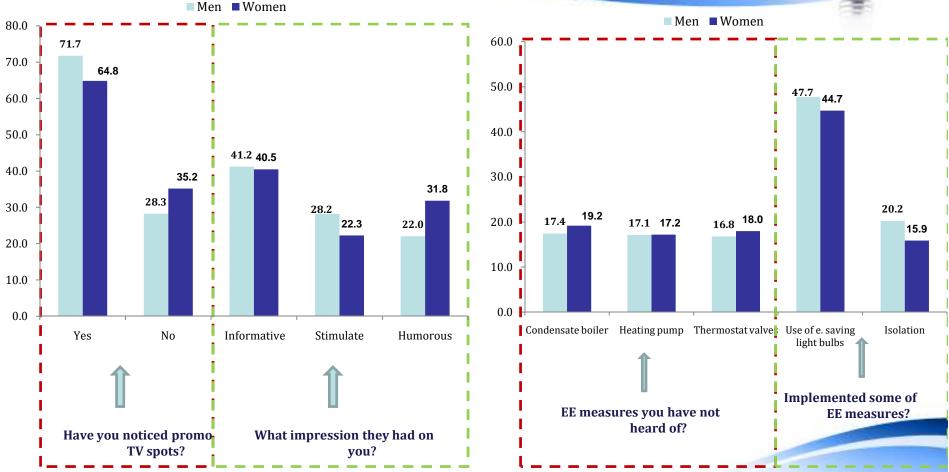
Men Women

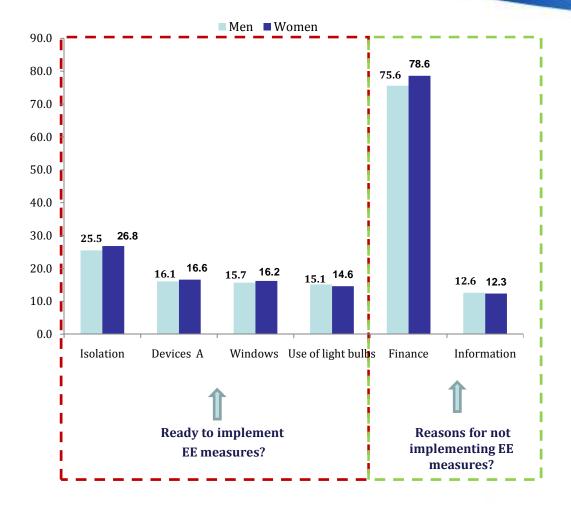












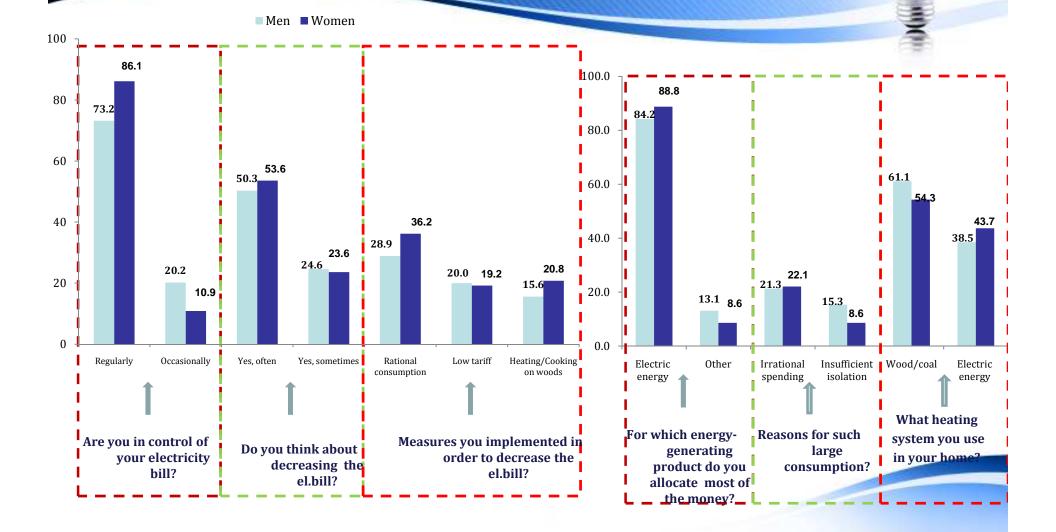




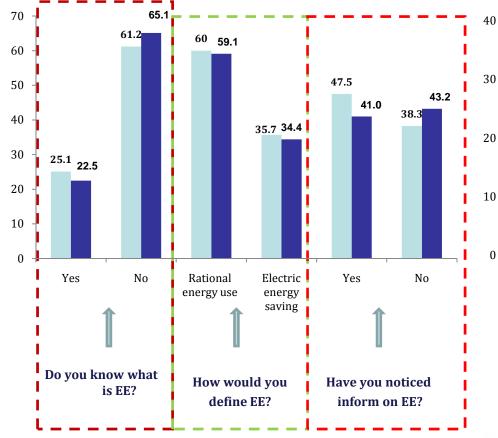
RESULTS 2008

CROSS DATA BY GENDER

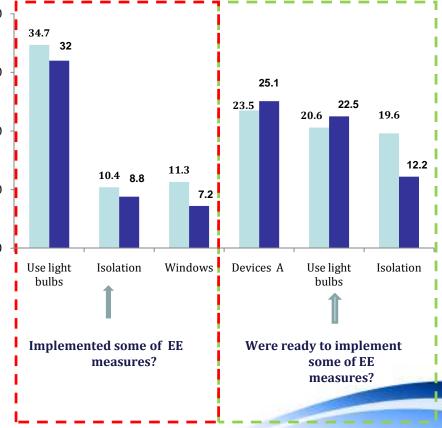




Men Women



Men Women



Men Women

80 71.2 73.2 60 40 29.8 28.3 26.5 26.9 22.8 19.4 20 14.7 14.6 0 Thermostat valves Air condition with Condensate boiler Finance Information н inverter EE measures you have not **Reasons for not implementing** heard of? **EE measures?**





COMPARISON OF THE RESULTS

BEFORE AND AFTER BEGINNING THE PROJECT ON EE



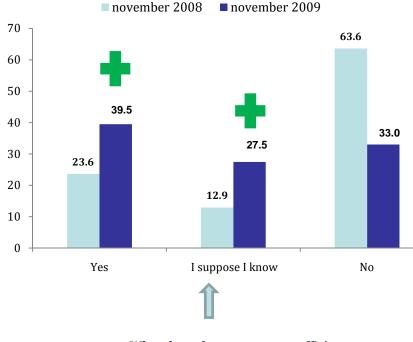


- The obtained results of the research **justify the purpose of implementation of the Project** The Year of Energy Efficiency. The citizens are more familiar with the term energy efficiency, they have applied some of the EE measures and are ready to continue to implement them in the future period.
- Implementation of a series of activities influenced on the strengthening awareness among citizens on the importance and possibilities of energy efficiency implementation.
- In **30.5% increased number of citizens** who knew what the term energy efficiency entails ($36.5\% \rightarrow 67.0\%$).



- Number of citizens who have not heard for some of the EE measures decreased (thermostat valves – decreased in 10.2% and condensate boiler – decreased in 6.4%).
- Number of citizens who installed energy saving bulbs increased in 30.2% (36.5% →67.0%).
- 12.9% of citizens shows readines for better house/apartmetn insulation (15.3% → 28.2%)
- The number of citizens (4.7%) who as the most important reason for not implementing some of EE measures stated the lack of finances increases (72.0% → 76.7%)

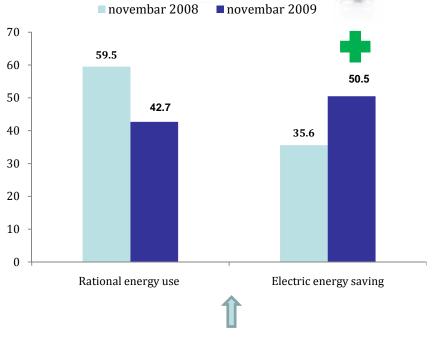
Comparison of the results



What does the term energy efficiency entails?

✓ Number of citizens who knew or assumed that they knew what the term EE entails increased

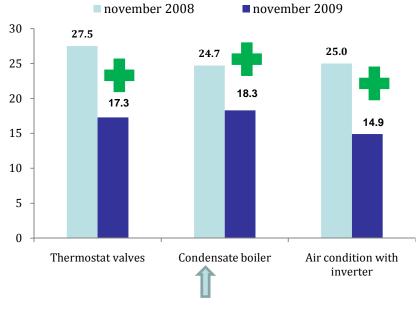
(36.5% ➡ 67.0%)



How would you define energy efficiency?

✓ The term energy efficiency is defined as electric energy saving.

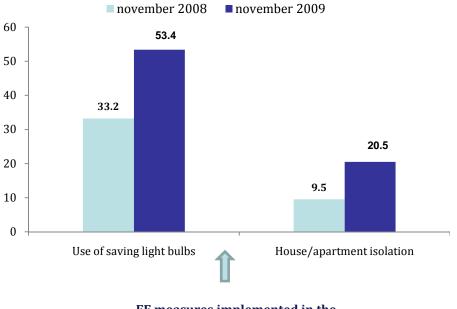
Comparison of the results



EE measures they have not heard of?

Number od citizens who are not familiar with certain EE measures decreased.

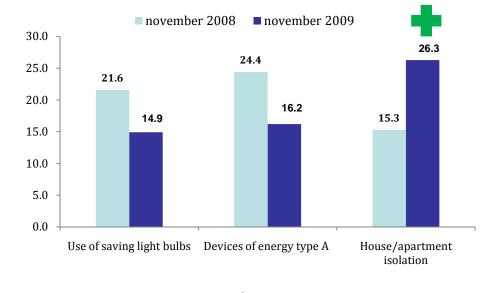
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EE measures implemented in the household?

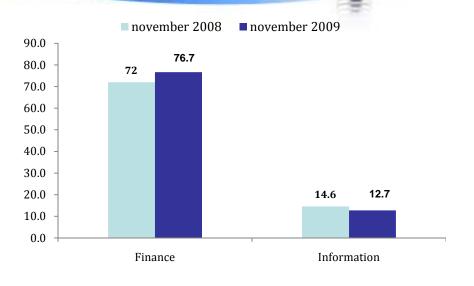
- Number of citizens who installed energy saving light bulbs in their household increased
 - (33.2% ➡ 63.4%)

Comparison of the results





✓ Citizens show readiness for better house/apartment insulation (15.3% → 28.2%).





✓ Even in this year, the most important reason for not implementing some of the measures were finances.