

The European Union – Uzbekistan Sustainable Energy Days

International Conference

Energy Efficiency in Uzbekistan: prospects and challenges

Radisson Blu Hotel, Tashkent, 27 June 2023

Role of energy consumption surveys in evidence based energy policy planning (experience of Georgia)

Natalia Shatirishvili, Expert in energy policy planning, World Experience for Georgia, WEG

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Main principles for evidence-based energy policy planning

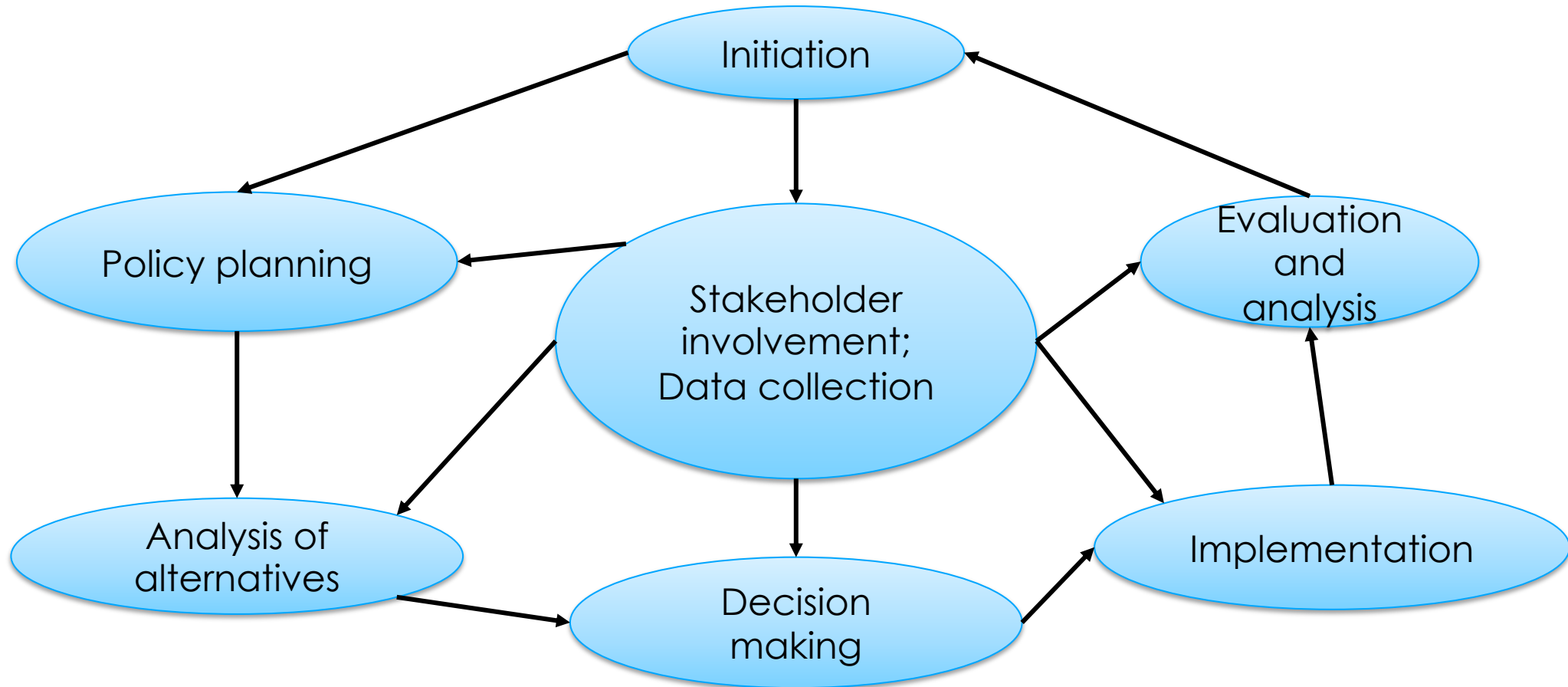
Benefits of evidence-based energy policy planning:

- Increases the chances of making effective decisions and reduces the risks of resource misallocation
- Allows for impartial decision-making and greater transparency in the process.
- Makes various sector participants trust the decisions taken.

Underlying factors:

- Availability of quality data and information
- Availability a team of professionals with skills in data analysis and policy evaluation
- Use of planning tools (power generating system modeling): capacity expansion planning models (WASP IV, PLEXOS), medium-term planning models (MESSAGE, MARKAL TIMES) and others.
- Policy incentives to use evidence-based analysis and recommendations in public decision-making processes.

Evidence-based energy policy process



Using surveys to improve and expand energy statistics

Data and information obtained through surveys (for planning purposes):

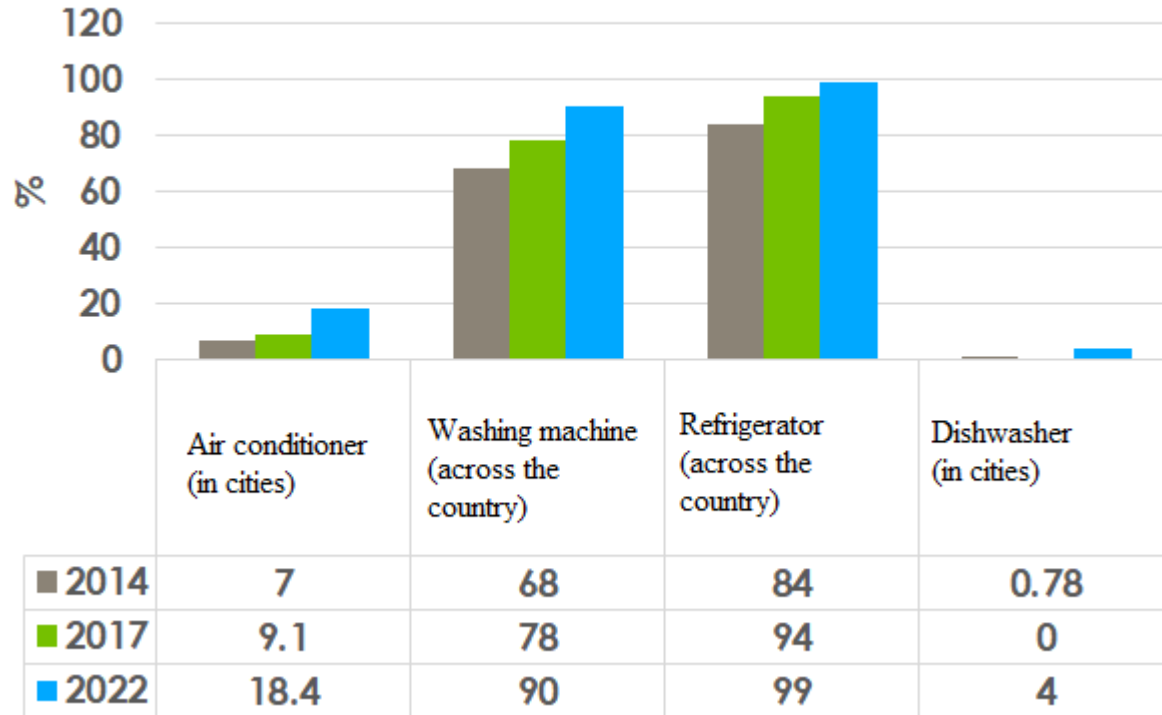
- Patterns of consumer behavior
- Structure of energy consumption in various economic sectors
- Technologies used in various economic sectors (rate of technology adoption)
- Helps to determine/estimate demand elasticity for different energy consumption purposes (heating, lighting, etc.)

Data and information obtained through surveys (for policy analysis):

- Awareness of different stakeholder groups
- Analysis of the main barriers to energy efficiency in various economic sectors
- Helps to evaluate the policy effectiveness (focus groups, consultations, etc.)

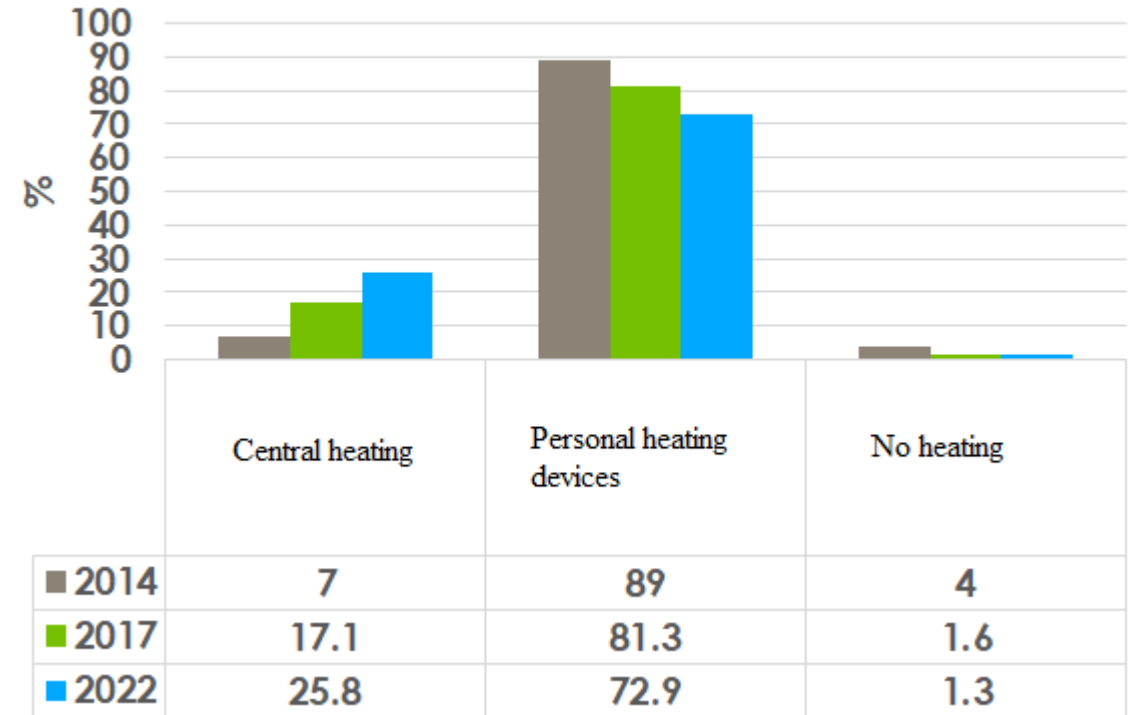
Using surveys to improve and expand energy statistics. Experience of Georgia

Rate of technology adoption



Data can be used to evaluate technology adoption rate and demand elasticity, etc.

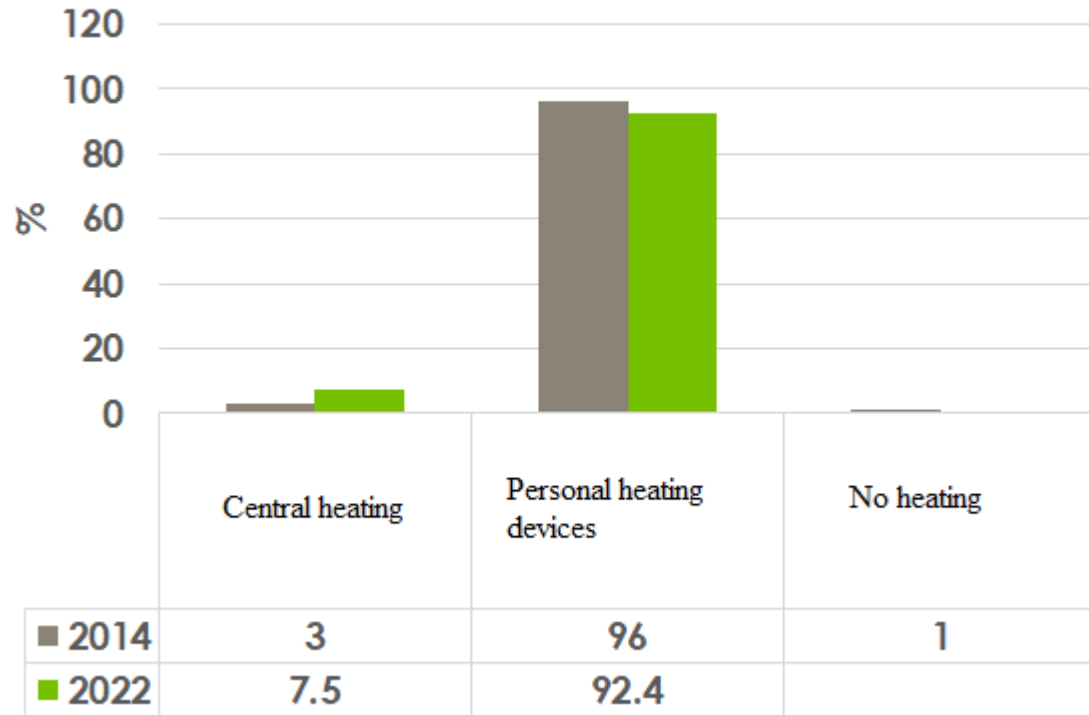
Heating systems in cities



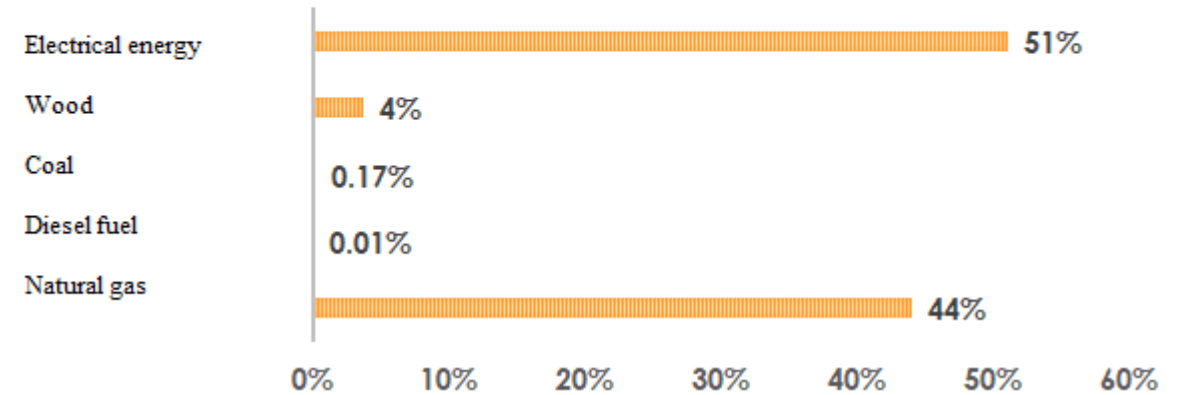
Data can be used to evaluate demand elasticity, determine the “optimal” heating level for a medium-term consumption projection, and so on.

Using surveys to improve and expand energy statistics. Experience of Georgia

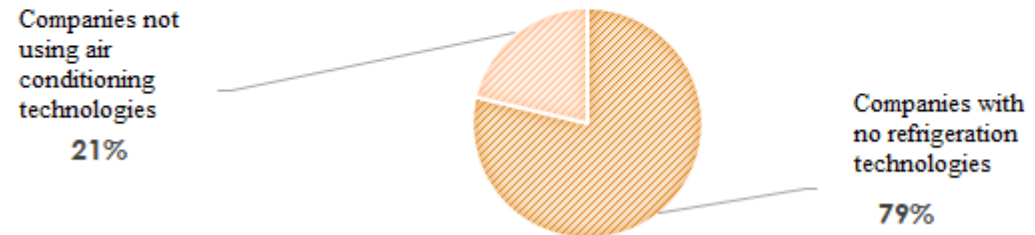
Heating system in rural settlements



ENERGY RESOURCES USED FOR HEATING IN COMMERCIAL SECTOR

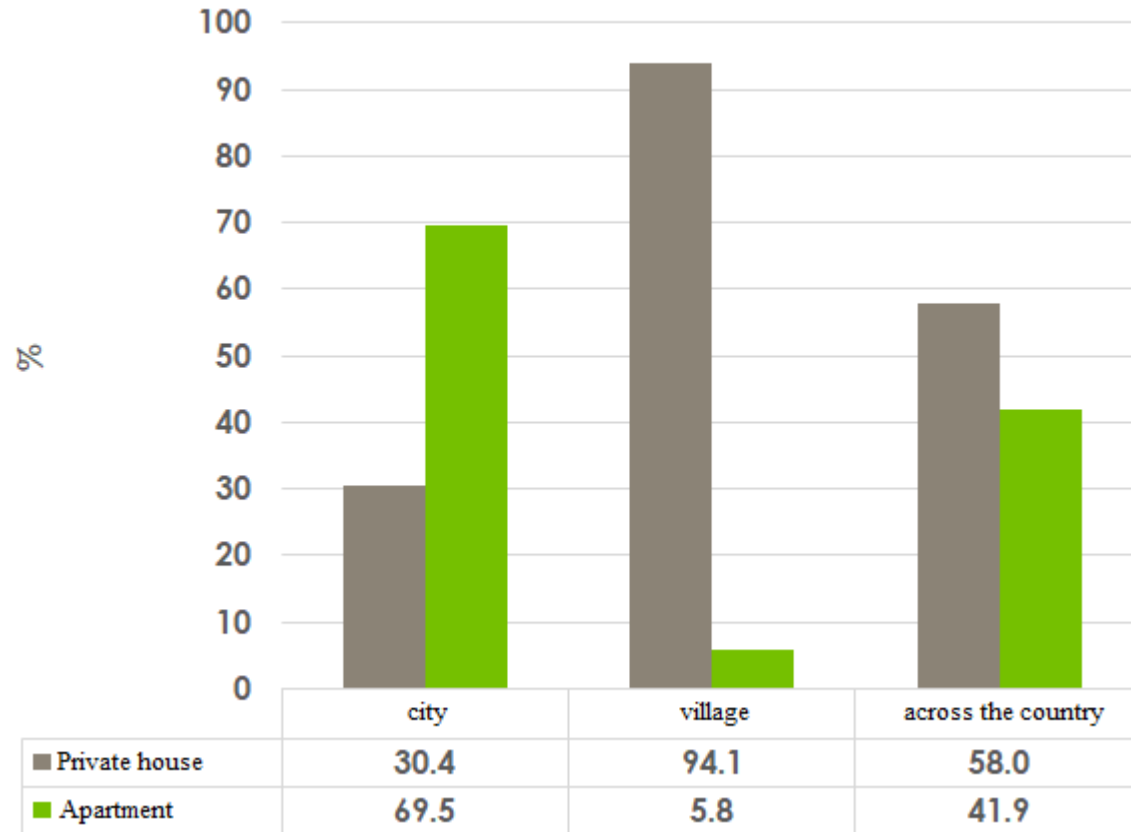


AVAILABILITY OF REFRIGERATION AND AIR CONDITIONING TECHNOLOGY IN COMMERCIAL SECTOR

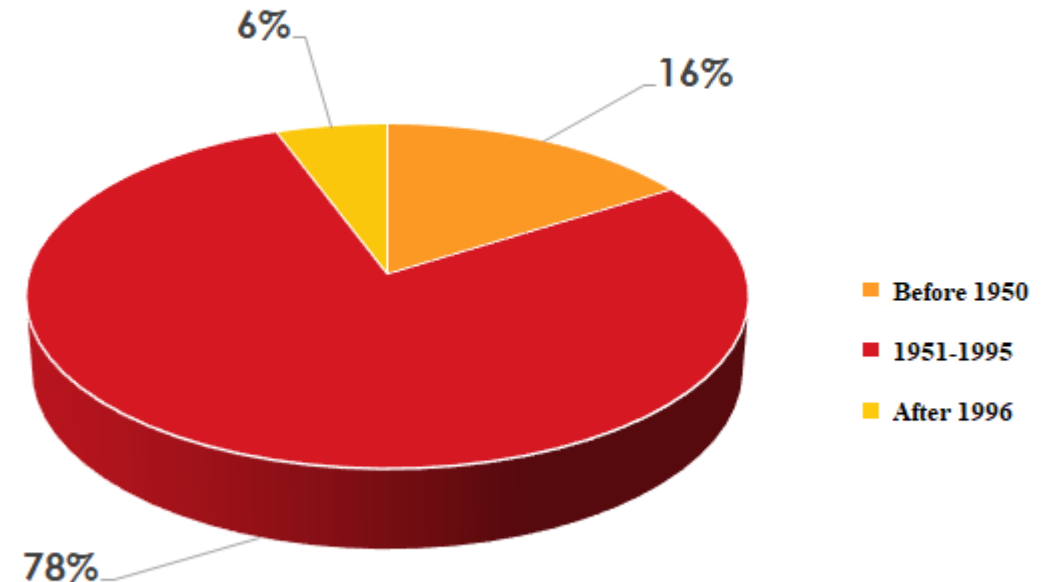


Using surveys to improve and expand energy statistics. Experience of Georgia

Types of housing in household sector 2022



Year of house construction in household sector (city) 2022



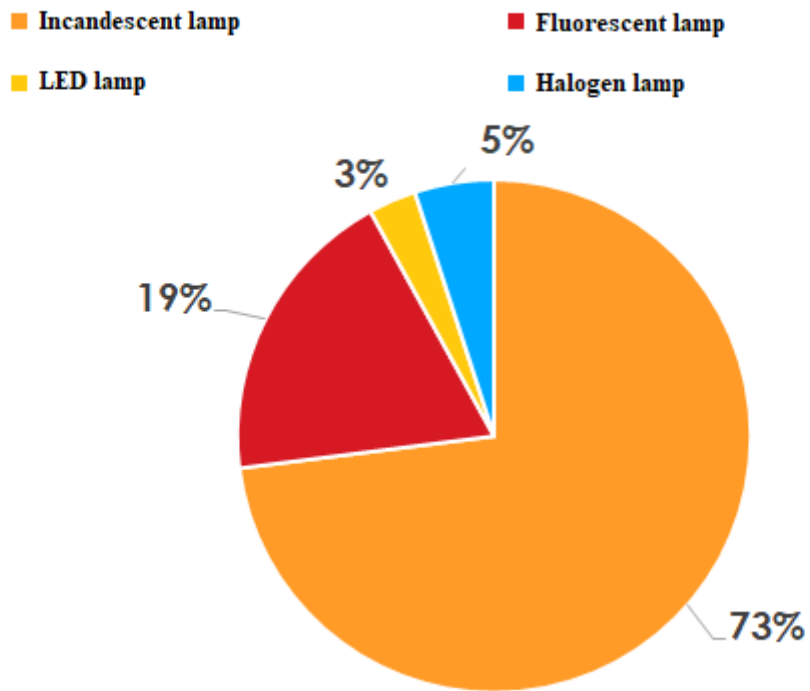
Using survey results in energy policy planning. Experience of Georgia

- Formal surveys and statistics are produced and published regularly by the National Statistics Office.
- In addition, donor-sponsored projects and research organizations conduct non-systematic studies. The data is usually open to public.
- The Ministry of Economy and Sustainable Development of Georgia, with the support of an expert group, uses the MARKAL TIMES long-term energy sector planning model. The survey results play an important role in building the model structure, which should maximally reflect the sector specifics. The PLEXOS and WASP IV models are used for capacity planning.
- MARKAL TIMES is used to develop scenarios that form the basis of such strategic documents as, for example, an integrated energy and climate plan, an energy efficiency plan, an intended nationally determined contribution (under the implementation of the Paris Agreement) and others.
- The survey results also form the basis for an in-depth analysis of energy policy and the development of recommendations.

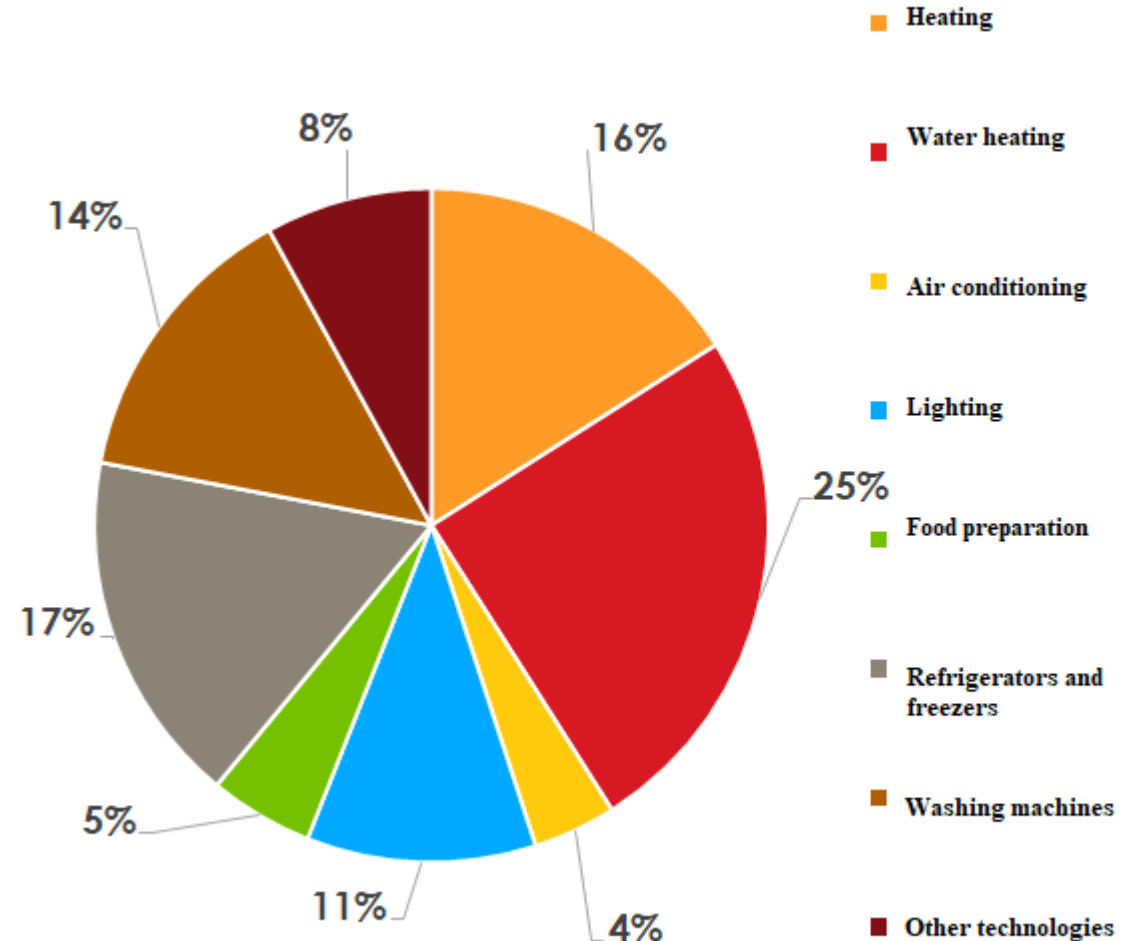
Using survey results in energy policy planning. Experience of Georgia

- Surveys can be used in developing policies to manage consumer demand.

Lighting technologies, 2014



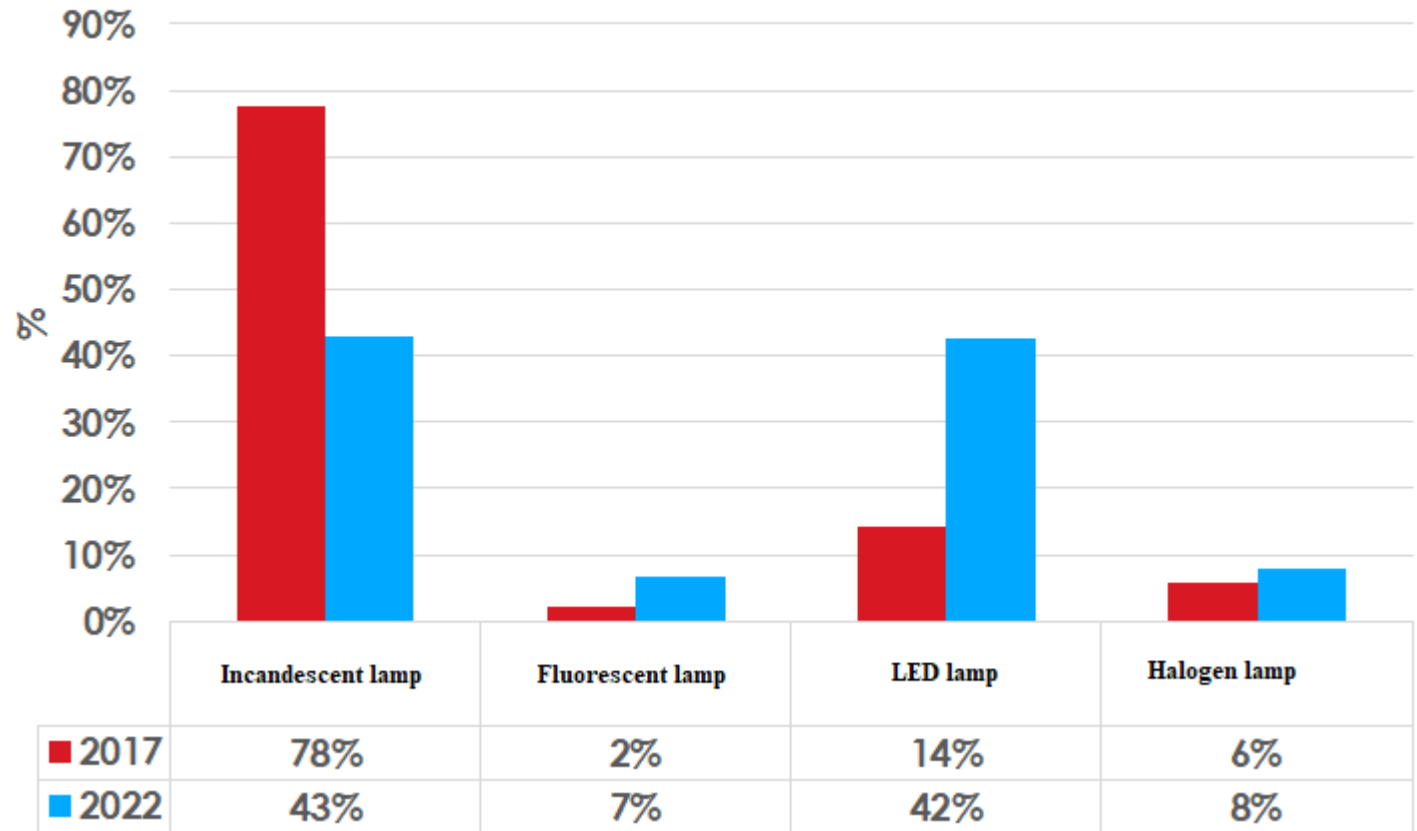
Electricity consumption in household sector



Using survey results in energy policy planning. Experience of Georgia

According to the national climate plan, as well as the energy efficiency plan, it is planned to revise the existing regulations on the import of incandescent lamps in order to completely replace them with energy efficient lighting technologies.

Lighting technologies, 2017 and 2022





THANK YOU FOR YOUR ATTENTION!

Natalia Shatirishvili
n.shatirishvili@weg.ge