GERMAN
POLISH
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SOCIETY
IN UKRAINE

The “Green Concept” project

Mission

To serve children and youth and to protect their lawful rights we design, implement and manage innovative public-private partnership projects aimed to raise living standards in Ukraine to a European level.

Vision

A civil society based on the rule of law wherein the rights of children and young people are effectively realized with their active participation and in which natural resources are carefully utilized.

We sincere thank for support and help our sponsors:

BOSCH
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Міністерство соціальної політики України
oa
КБУ
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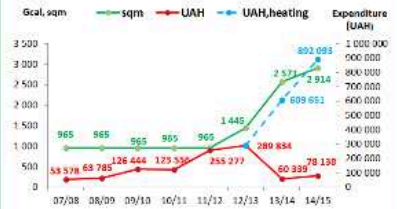
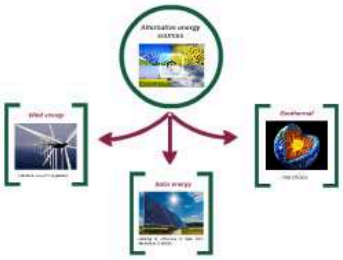
The GPUSU is the parent company of the Centre child in need “Our Kids”

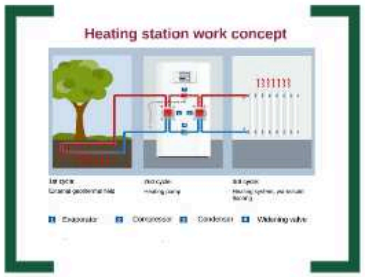
Premises for implementation of the geothermal heating system:

Saving effect





Heating station work concept



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Centre “Our Kids” is an exemplary project pilot of private-public partnership and energy efficient plan in Ukraine and other countries of the Eastern Partnership in UN. The Centre was created in 2008 and provides direct immediate help for children and youths, who experience some difficult life circumstances.

Premises for implementation of the geothermal heating system:

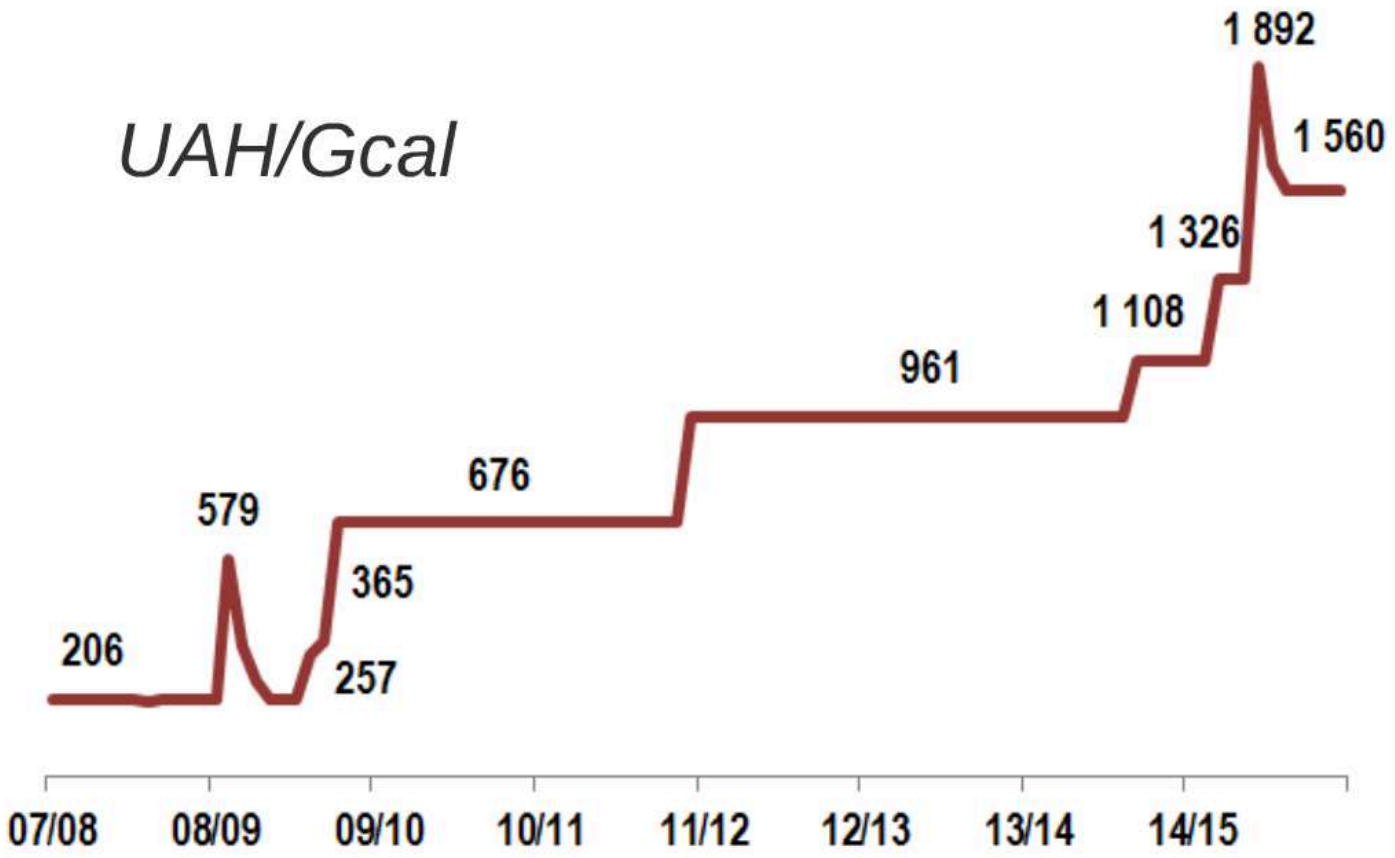
1. Rapid growth of the heating costs

2. Area increase

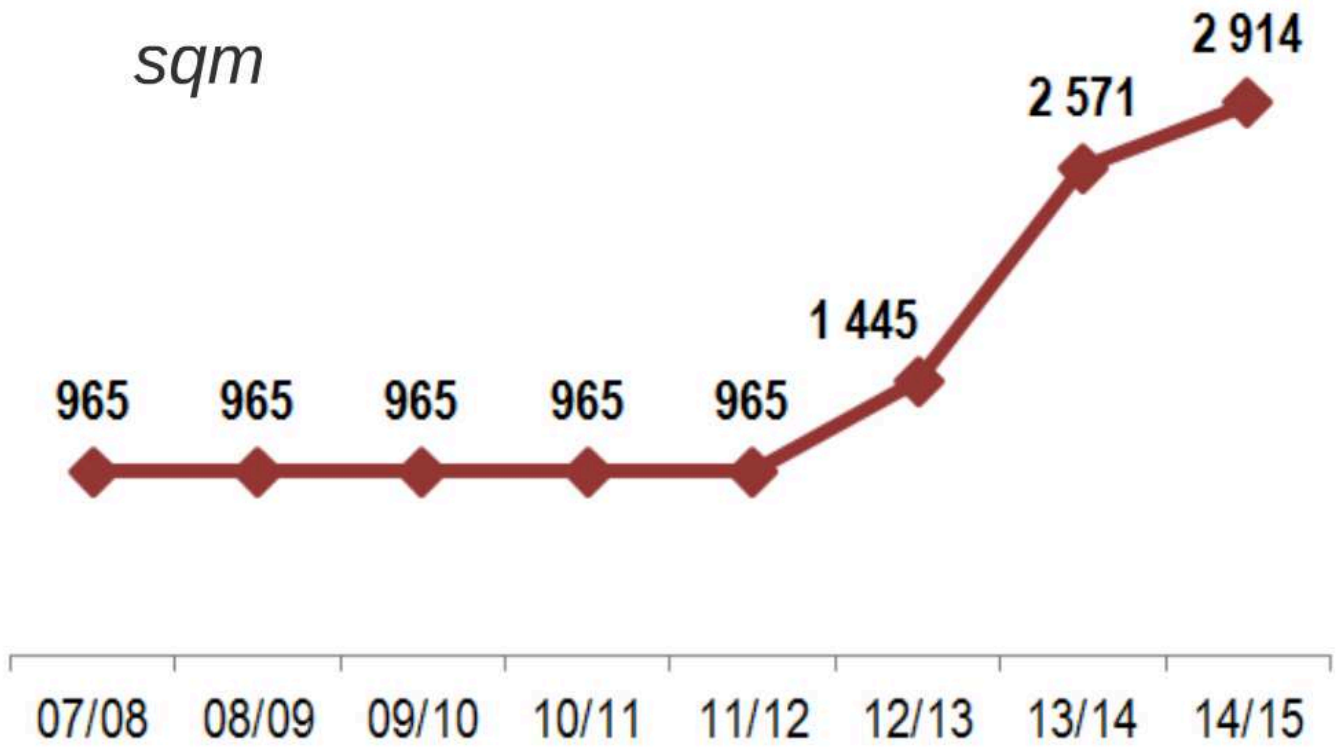
3. Increase of utility bills

4. Untimely start and end of the heating season, as well as the absence of the opportunity to influence it.

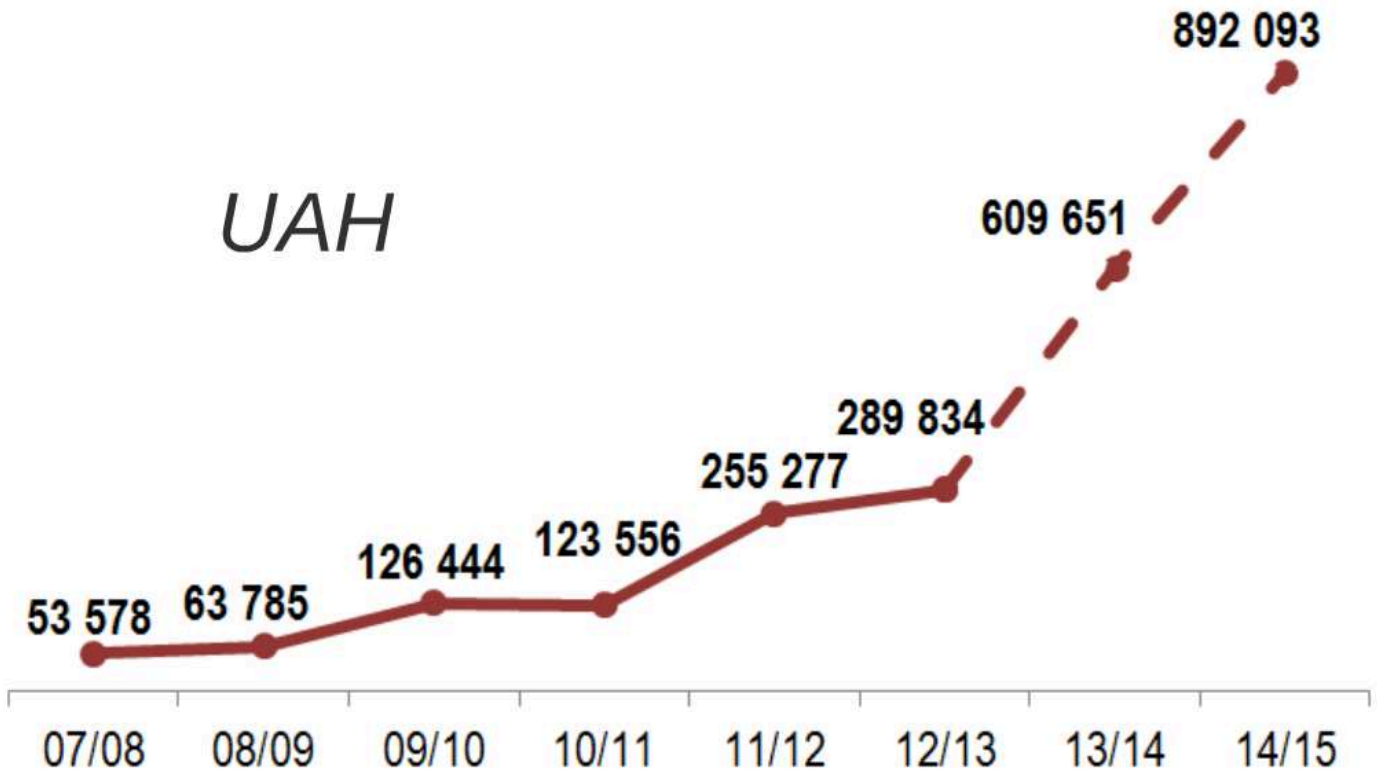
1. Rapid growth of the heating costs



2. Area increase



3. Increase of utility bills



4. Untimely start and end of the heating season, as well as the absence of the opportunity to influence it.

Alternative energy sources

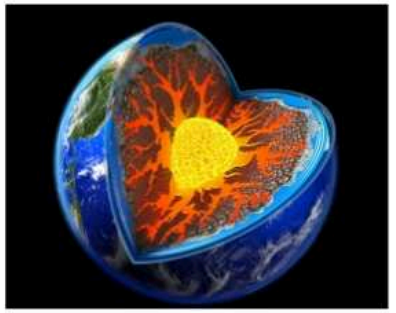
Wind energy

Cannot be used in megacities

Solar energy

Lacking in efficiency in Kyiv from November to March

Geothermal



Our choice

Wind energy

Cannot be used in megacities

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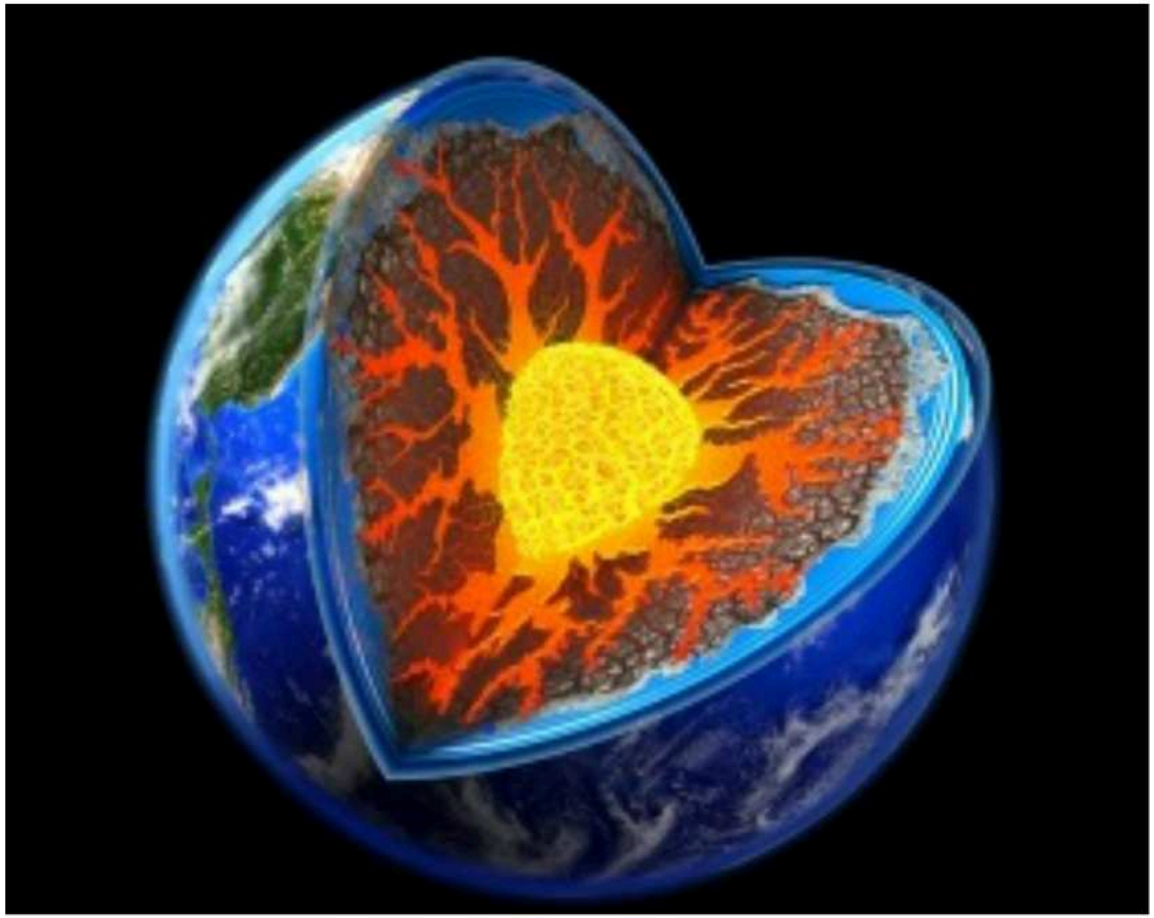


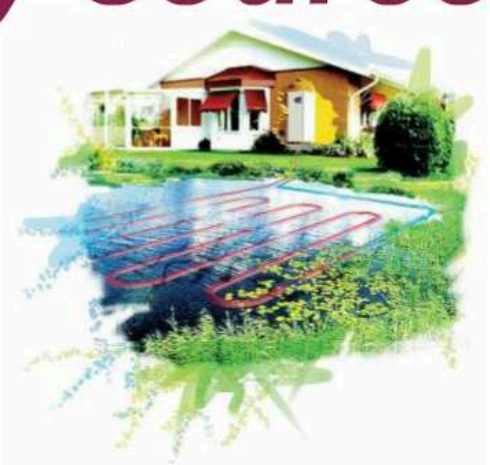
Our choice

Advantages of geothermal energy:

- *Independent from climate, time of day and year*
- *Used for both water and heat supply simultaneously*
- *Low maintenance costs*
- *Long expenditure time*
- *Environmentally friendly renewable energy*
- *Availability from any point on the planet (including megacities and rural territory)*
- *Requires small amount of space*

Types of subsurface geothermal energy sources:

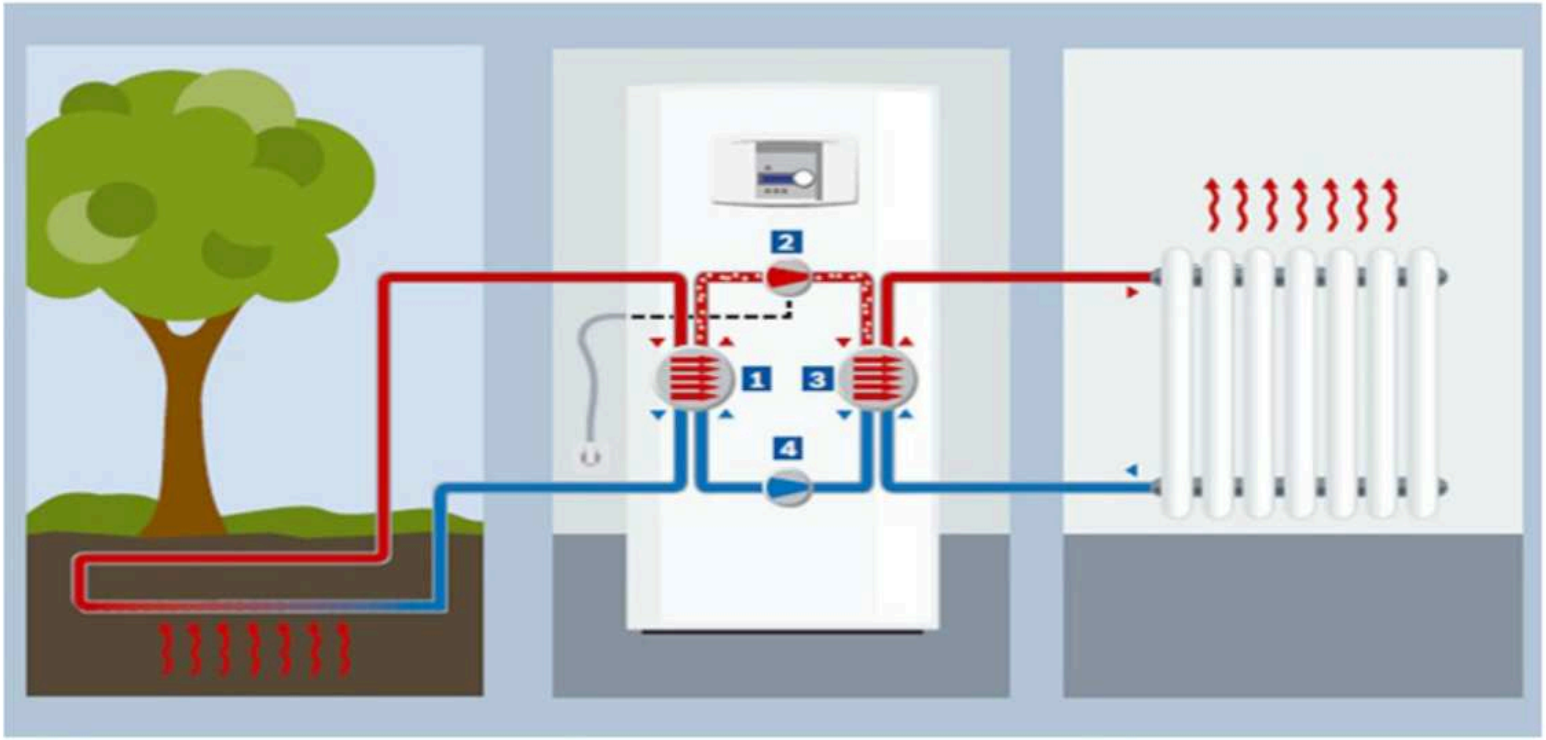
Underground water heat



Ground probes

Ground collectors

Heating station work concept



1st cycle:

External geothermal field

2nd cycle:

Heating pump

3rd cycle:

Heating system, warm/cold flooring

1 Evaporator 2 Compressor 3 Condenser 4 Widening valve

1st cycle: External geothermal field

- *54 ground probes*
- *3 collector wells*

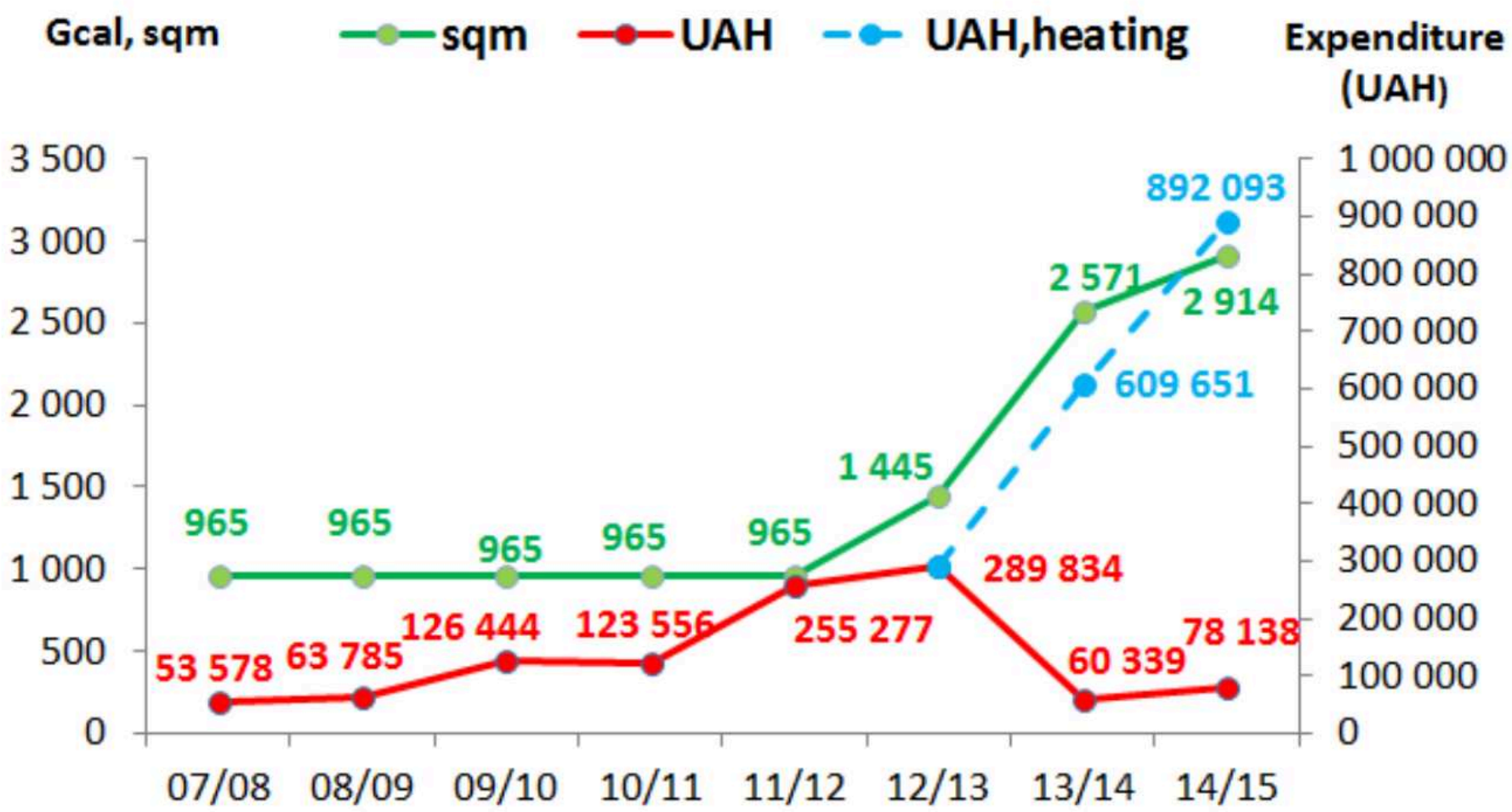
2nd cycle: Heating pump

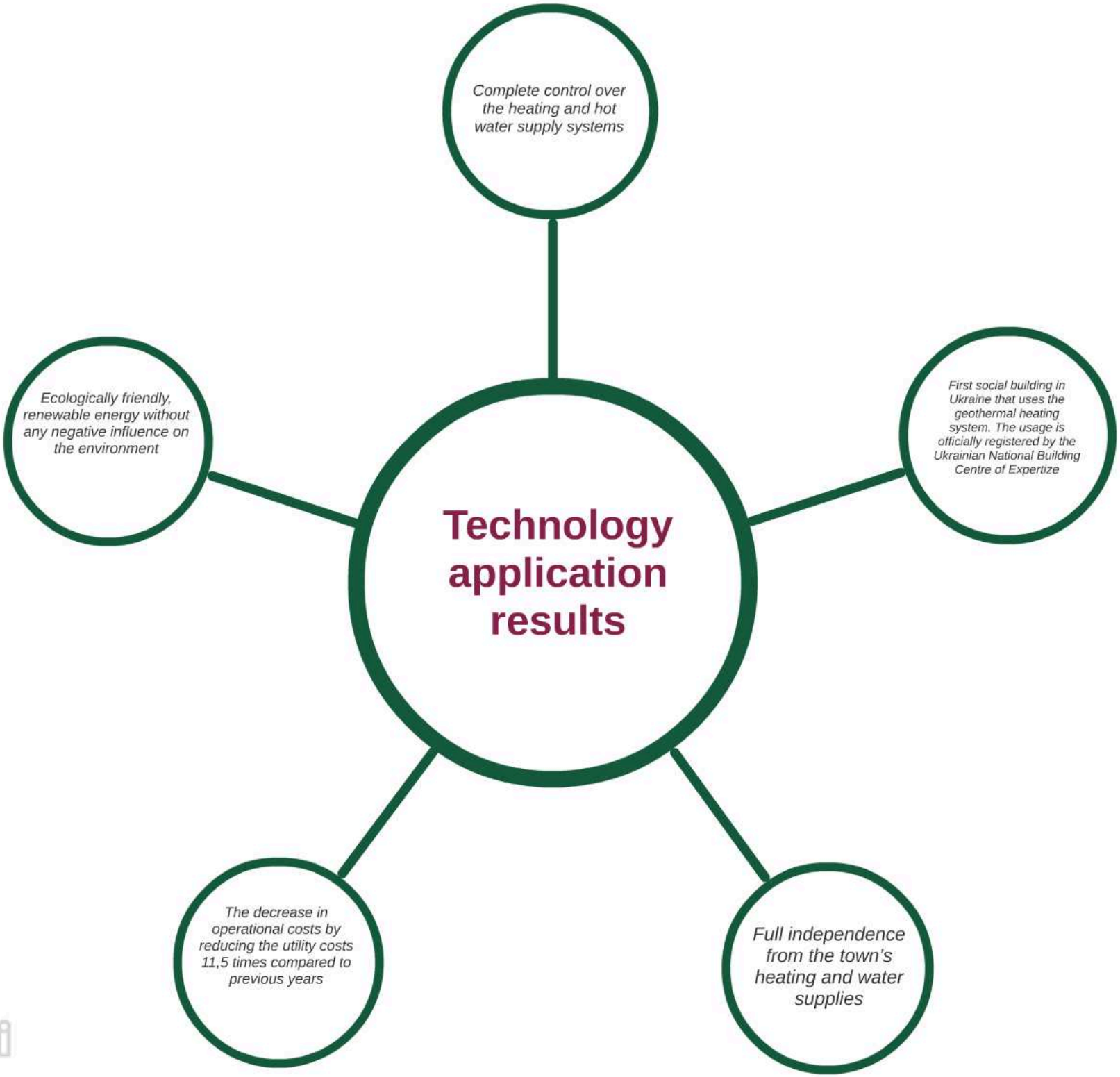
- *3 heating pumps*
- *1 electric cauldron*

3rd cycle: Heating system, warm/cold flooring

- *hot water*
- *heating system*
- *warm flooring*
- *Cooling the building during summer*

Saving effect




Complete control over the heating and hot water supply systems
Ecologically friendly, renewable energy without any negative influence on the environment
First social building in Ukraine that uses the geothermal heating system. The usage is officially registered by the Ukrainian National Building Centre of Expertize
Technology application results
The decrease in operational costs by reducing the utility costs 11,5 times compared to previous years
Full independence from the town's heating and water supplies

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and partners

Ost-Ausschuss der Deutschen Wirtschaft

КБУ Конфедерація Будівельників України

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