



Dear friends!

In 2012, Zaporizhzhya City Council made an important decision to change the energy policy of the city, to begin development and implementation of the municipal energy plan for the period until 2025. This plan is designed for a complete thermal and architectural renewal of city public and residential buildings, for a renewal of the city energy supply systems, for a reduction of the ever-increasing burden on the people budgets and Zaporizhzhya municipal budget.

This step was not accidental - we carefully studied practices of European cities. Over the last 2 years, many European experts, diplomats and bankers from Great Britain, Germany, Sweden and other EU countries visited our city. We have carefully examined international experience of residential and public buildings modernization, modern municipal energy, and modern municipal services management experience. Longtime city partner European Bank for Reconstruction and Development gave us and gives great support on this way.

The European Union in 2002 began a significant and far-reaching modernization of its cities and buildings. Green energy and energy efficiency for all European countries and cities became the main vector in the new plan. The plan was called - 20-20-20 plan. For the first time in modern history, keeping development rate, the EU has set a goal up to 2020 not to increase, but to reduce total cities energy consumption by 20%, to reduce greenhouse gas emissions by 20 % and to replace fossil fuels by renewable sources and renewable energy by 20%. Energy, climatic and environmental planning is the main instrument of this great plan. Cities of Europe have created a vast association of more than 4067 cities for mutual assistance in the implementation of this plan. This movement was called worldwide the Covenant of Mayors.

Zaporizhzhya in 2013 join the Covenant of Mayors, our Municipal energy plan will become a part of Europe-wide Plan 20-20-20. We plan to thermally-modify our residential and public buildings as a result of a 15-year program - it will enable to reduce heat demand by 3-4 times from current consumption levels and to reduce energy supply payments while increasing the comfort of life in houses and hotels. The important thing is that all buildings will be architecturally renewed, their useful lives will be extended for 50 years.

Total industry and city's population payments for electricity and gas in 2012 reached a billion USD and will grow. City's population payments for heat, hot water, gas and electricity from 267 million UAH in 2005 increased to 894 million UAH. Additionally, state budget allocates annually investment support for the city's population for more than 877 million UAH only according to the difference in natural gas prices. The overall goal of the Municipal energy plan is to stop pecuniary city's load.

An increase in energy prices has sharply increased city's budget charges for schools, kindergartens and hospitals energy supply - from 32 million UAH in 2000 to 280 million UAH in 2012. Further increase in the natural gas and thermal energy cost jeopardize wages for teachers and doctors, for all public employees. There is a goal in the Municipal energy plan to transfer fully heat connection of more than 500 public buildings from natural gas to local sources of fuel and energy by 2022.

The second big goal of the Municipal Energy Plan is to reduce natural gas requirement for residential buildings heating in the city by means of thermal modernization by 4-5 times, with its partial substitution by local sources of fuel and energy. In order to achieve this goal 20 years and lots of money we are paying for natural gas that always rises in price are necessary.

The third great goal of Zaporizhzhya Municipal Energy Plan is to reduce by 3-4 times the cost of hot water for urban population and public institutions of the city by abandoning of natural gas and switching to renewable and local fuel and energy sources.

Another goal of the Municipal energy plan is to involve local business in its fulfillment. Restructuring of more than 3,000 residential and public buildings, and city's power engineers will provide new jobs for the next 20 years. Money that we pay annually for energy consumption, now supplement budgets of energy companies far beyond the borders of Ukraine. It will be rather nicely if we switch forever a larger share of this money to city's internal business volume, to its modernization.

Nine investment projects that are presented on the pages of this booklet form the basis of Zaporizhzhya Municipal Energy Plan for the period until 2025. These are the first system projects created in four project streams:

Thermal modernization of Zaporizhzhya public and residential buildings

- Investment project “Thermal modernization of 361 public buildings”
- Investment project “Thermal modernization of 2 418 multi-storey residential buildings”
- Investment project “Modernization of heat connections of residential buildings on the basis of district heating substations”

Substitution of natural gas by local fuel and energy in Zaporizhzhya hot water supply system

- Investment project “Transfer of Kommunarskyi District hot water supply to the waste heat from wastewater treatment plant (WWTP-1)”
- Investment project “Transfer of Shevchenkivskyi District hot water supply to pellets”
- Investment project “Substitution of natural gas in hot water supply systems of 590 multi-storey residential buildings due to the potential of ventilation systems waste heat and solar energy”

Renewable energy in Zaporizhzhya housing and communal sector

- Investment project “Modernization of Zaporizhzhya street lighting system on the base of LED lamps and solar plants on the public buildings roofs”
- Investment project “Transfer of 275 public buildings heating to the pellets and heat pumps”

Power consumption reduction at Zaporizhzhya utilities

- Investment project “Power consumption reduction at the municipal enterprise “Vodokanal”

Municipal Energy Plan includes three phases:

- **Phase 1 (2014)** - implementation of pilot projects, transfer to the control model based on utility holding company (Germany), increase of the investment attractiveness of Zaporizhzhya utilities, attraction of extrabudgetary funding, financial and technical partners.
- **Phase 2 (2014-2016)** – establishment of the first investment projects and thermal modernization programs 20 residential multi-storey buildings, 23 public buildings, natural gas substitution projects in the sectors of hot water supply, waste processing with the involvement of extrabudgetary funding. Formation of utilities modernization local businesses on the basis of public-private partnership. Creating of a single Zaporizhzhya utilities modernization operator.
- **Phase 3 (2017-2025)** - implementation of projects and thermal modernization programs 2418 residential multi-storey buildings, 361 public institutions and projects in the sectors of energy supply, street lighting, waste treatment.

I welcome managers and specialists of Zaporizhzhya who work at the Municipal energy plan development, all those who build persistently and consistently future of our city.

Respectfully yours,

Mayor Oleksandr Sin