

5. Burning gas emits CO₂. Although oil does not produce the same amount of CO₂ as with coal combustion, it still emits greenhouse gases into the atmosphere and increases global warming.

In conclusion, I can give many examples of environmental pollution resulting from the processing of oil and gas products. Today's priorities for the development and production of oil and gas should be overestimated taking into consideration the fact that the risks and the burden of negative impacts on the environment food is not compensated by a corresponding potential benefits, as indicators of the production of this gas is very low.

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HOME HEATING SYSTEMS

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A warm dwelling has long been a concern of the man; today this topic has not lost its relevance. Thermal comfort in the house is provided by various heating systems. For many centuries, mankind has used the simplest heating system namely the oven. It heated everything: from royal palaces to peasant houses. The oven is still used to heat private houses, especially in rural areas. However, scientific and technological progress has improved the system of heat supply, which has led to the emergence of various modern heating systems.

Heating is understood to be the artificial heating of premises during the heating period in order to compensate for heat loss and maintain a given temperature level that meets the conditions of thermal comfort and the requirements of the technological process. In our country it is one of the main components of a modern comfortable home.

Modern technologies and appropriate equipment have made it possible to create a wide range of heating systems that meet almost any requirements: sanitary and hygienic, economical, construction and installation, operational, etc. As a rule, all heating systems consist of three elements: heat-generating installation (heat sources), means of the heat carrier delivery (heat pipes) and

heating devices (radiators). The classification of heating systems is quite broad due to their diversity.

Namely: solid fuel boilers, electric boilers, individual convectors, liquid fuel boilers, heat pumps, solar heating systems, gas boilers, under-floor heating systems, etc.

In our country, people living in private homes and outside the city limits most often use heating systems of the most general type. In agricultural regions of our country, heating is provided by solid fuel boilers, and in the industrialized regions of the country – by gas heaters, since they have a straightforward design, easy to install and operate. However, more and more people have started using other alternative heating methods.

As an example, the use of natural power sources, which are operated in Kherson, Odessa and coastal areas of our country. These alternative power sources include solar panels or (solar photovoltaic modules) and wind mills.

Solar panel is a photovoltaic generator, the principle of which is based on the physical properties of semiconductors, it absorbs the sunlight energy and converts it into electrical or thermal energy. The service life of a solar battery generally reaches 25 years.

Wind power plants (WPPs), also: a wind power plant is a power plant that uses a wind turbine to convert mechanical wind energy into electrical one. Wind power plants are a system of renewable energy, since wind is a renewable energy source. Wind power plants are also sometimes referred to as “wind mills”.

These two types of alternative energy sources are economically unprofitable in our region due to the fact that in our latitudes the number of sunny days is limited and the efficiency is nullified, and with wind farms everything is much more complicated because they are effective only in coastal areas, and their installation is simply ineffective in other parts of our country.

Another type of alternative power source is heat pumps.

A heat pump is a unit that makes it possible to use free environmental energy for heating. The energy contained in the air, soil or water is transferred to the heat carrier of the heating system. The principle of operation of the heat pump is based on a closed Carnot cycle.

This type of energy delivery is quite effective for our region, because in winter the soil does not freeze to a great depth, which enables to use the energy of the earth. However, the heat pump is the latest invention and the equipment required for its operation is quite costly.

Unfortunately, almost all alternative power supplies for people in our region are either inefficient or very expensive to maintain, so most residents continue to install and take advantage of solid fuel, gas and electric boilers.

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NAFTOGAZ ENERGY EFFICIENCY MANAGEMENT

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Naftogaz priorities to protect the environment are maintaining high environmental standards, rational use of fuel and energy resources, energy efficiency, and the introduction of energy management systems by enterprises of the group.

The group’s energy consumption structure. Natural gas dominates (almost 86%) the fuel and energy resources (FER) consumed by the enterprises of the group. As a result of the energy efficiency program for 2015-2020 and energy conservation programs implemented by subsidiaries ,in 2016 Naftogaz saved 306.8 thousand t in reference fuel (214.8 thousand t in oil equivalent), or UAH 1.6 billion in monetary terms. Natural gas savings amounted to 240.1 mcm and electricity savings totaled 25.5 million kWh. Actual energy savings exceeded the target by 90.8 tcm in reference fuel, including natural gas by 68.9 mcm. The introduction of a 6 MW condensing power plant (CPP) into operation in Shebelynka gas condensate and oil processing enterprise (Ukrgezvydobuvannya) resulted in significant reduction in thermal energy consumption. The CPP uses waste heat of flue gas from gas fractionation units for technological needs and producing electricity in a steam turbine for its own needs.

Implementation of energy management system at the enterprises of the group. In 2016, Naftogaz began to implement an energy management system (EnMS) to streamline energy efficiency management procedures in accordance with the energy efficiency requirements of ISO 50001. During 2016, an energy audit was performed at the enterprises of the companies, energy efficiency policies and objectives were drafted, and an EnMS implementation plan for 2017-2020 developed.

Monitoring of natural gas consumption by different groups of households. In order to analyze the actual use of natural gas by households, the company has monitored the consumption of natural gas during the heating season 2015-2016 via in different social groups. In addition, to determine the maximum amount of natural gas used for different purposes by customers with