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MODERN CONSTRUCTIVE EFFICIENCY OF SOLAR HEAT SUPPLY IN ENERGY-EFFICIENT FUQORO BUILDINGS

N.T.Ochilova, G.G. Yadgarova O.P.Gadoeva

Department of civil engineering of Bukhara State Technical University

Keywords: oases on the territory of Uzbekistan and solar installations have been developed and implemented for them, providing housing, heating and warmth in the summer season, air cooling occurs in some parts of the courtyard when the building is directly protected from solar radiation.

Introduction. Volumetric solutions of Oasis and residential and hostel geliouys in the territory of Uzbekistan have been developed for them. solar devices that provide heating and Heat have been developed and implemented .Passive or mixed heliosystems should be used for geliouys in desert areas. Architectural and architectural solutions of these buildings envisage a compact type of construction. The Helio heat supply of various types of residential buildings makes it possible to solve the problem of providing energy in the mountainous and mountainous regions of Central Asia, for example, where there are no private fuel resources, these areas are located far from the main fuel bases of the country. Volumetric solutions of Oasis and residential and hostel geliouys in the territory of Uzbekistan have been developed for them. solar devices that provide heating and Heat have been developed and implemented . Gelio with heat in sunny houses in Oasis areas
Oasis-condition housing envisages that the weather will be sunny, and heating the building will provide water. This solution includes a number of methods aimed at reducing energy consumption in the process of using the House.It is envisaged to use wall and stained glass effects, applied by adding a method in another type of building –bedroom (designed for Oasis conditions).More than 80% of the residential rooms in these buildings are oriented south, the rest to the south west.South East this method is used in bedrooms to provide hot water from solar energy on the summer spring and autumn wall, and for heating and hot water during the winter season. Developed a project of 2-3-storey bedrooms for desert areas, these bedrooms are spacious with a compact tarx. The hot water supply system solar collectors are placed on the windows on the south side of the building. The bedroom has an inner courtyard. Received tarx interior yard f

Research objective: it is estimated that 60% of losses in current energy consumption occur in building heating and air heating systems and 11% in the hot water supply system. In this case, the possibility of saving energy in the housing sector under the Republic due to reducing the reasons for its loss is 1.94 million tons in the oil equivalent, or 20% of the energy consumption of the domestic sector and the population. To provide electricity to residents living in private housing, an average of 2 per household kVt.li it is possible to install modern solar photovoltaic plants (solar panels). This can result in an average of up to 300 kWh per household per month and up to 3,500 kWh of electricity per year. It is estimated

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that 537 cubic meters of natural gas will be used in a two-contour heating boiler to heat a 100 square meter apartment for a month. Similarly field e

Style and materials. The main problem that belongs to the low level of application is explained by the lack of conditions, incentives and effective mechanisms for the implementation and widespread distribution of the principles of energy - efficient construction. There is no complex system of energy consumption management, if this system existed and was in effect, it is possible to achieve significant social efficiency even by increasing the energy efficiency of buildings, the modern requirements of energy conservation. The implementation of energy efficient buildings creates conditions for the creation of responsible training in related industries, as in the frames of the production areas of construction, heat protection products and energy efficient equipment. It makes it possible to reduce and save by 25-30% the funds paid by the population to utilities for heating and electricity supply, and save the saved funds on the energy efficiency of residential buildings.
Results and discussion. From the above analyzes, it can be seen that the increase in energy saving and energy resource requirements of buildings and structures leads to the development of the issue of the introduction of new types of traditional clay brick replacement building materials based on local raw materials, as well as the possibility of applying renewable and alternative types of domestic man-made waste and resource-efficient technologies, : Energy-efficient building materials:
1. When building and building, benefit from block of gazobeton, penobeton or ceramzitobeton, which are clean of ecological niche.
2. The use of thermal insulation materials (penopolystyrene, mineral vata or vermiculite)that make the external facades of buildings and structures modern, highly efficient, but at the same time environmentally friendly;
3. The use of modern multi-chamber energy efficient PVC window frames as a protective barrier of buildings. Energy efficient equipment:
1. Application of a solar photovoltaic system with dimming equipment in the lighting of corridors and streets of buildings and their territory;
2. Application of hybrid systems using solar heliocollector (heat pumps) for hot water supply of heating systems of the building;
3. The use of recuperators for the use of secondary thermal energy of ventilation emissions;
4. Use of energy efficient LED lamp, projectors in indoor and outdoor lighting systems of buildings;
5. Application of thermostats in heating radiators to maximize room temperature, plast the heating networks
6. Application of pribors calculating the total building individual heat energy in multi-storey buildings connected to centralized heating networks;
7. Installation of general building measurement systems (electricity, natural gas, hot and cold water) for high-rise buildings;
8. Application of energy efficient elevators;
9. Installation of closing devices that do not allow you to leave the corridor doors open.

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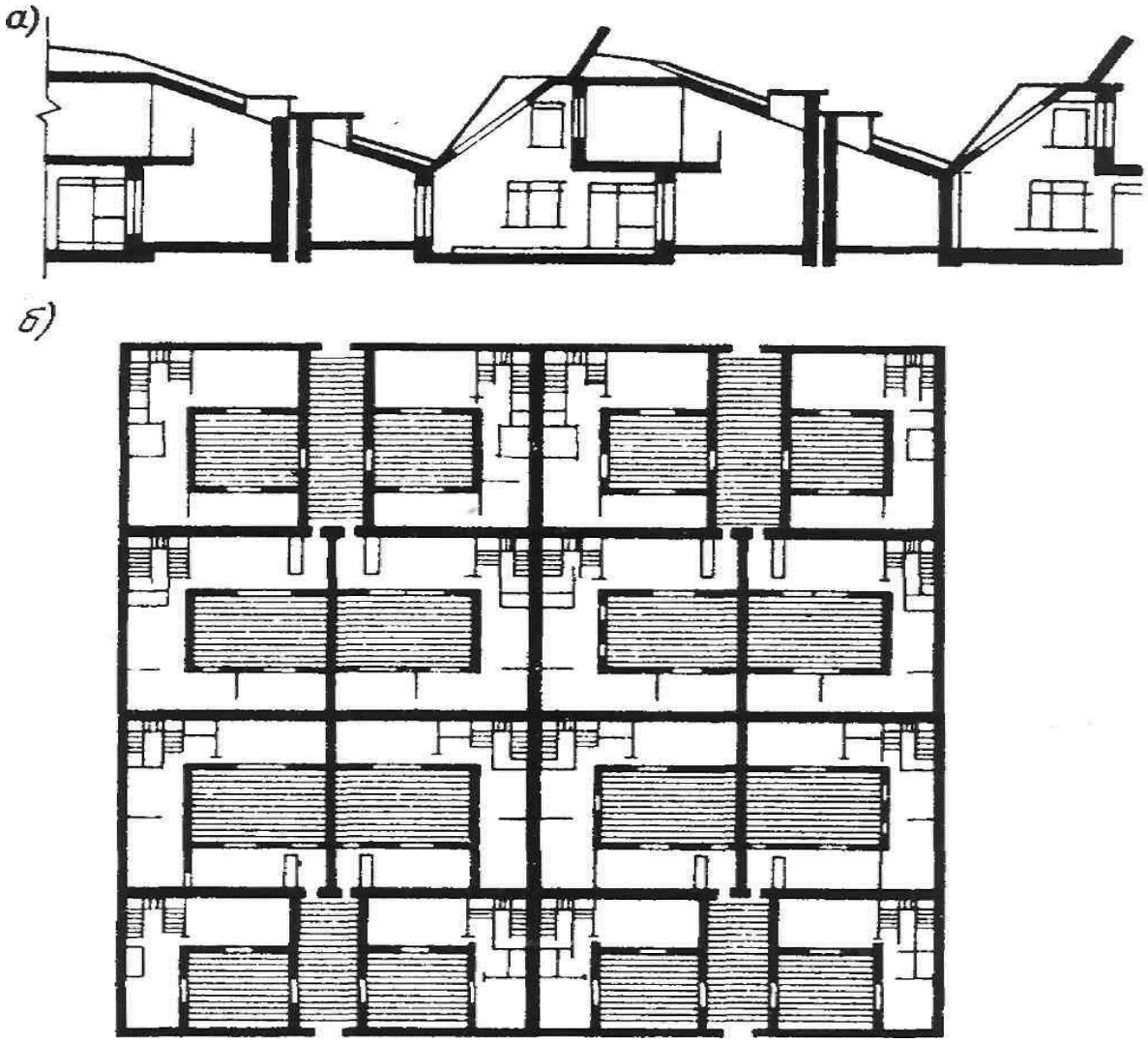

Figure 1-1 it is envisaged that the housing will be sunny in the air, and the heating of the building will be provided with water.

During the summer season, when the building is protected directly from solar radiation, air cooling occurs in some areas of the inner courtyard space, and the constant moistening of the greened areas also affects this. Such a method serves to increase the comfort of living and the efficiency of urban planning construction.

Hot water supply can be ensured by placing solar collectors on the roof of the building and the southern facade, making full use of solar energy possible by making a complex dense appearance, as well as directing most residential areas to the South The Helio heat supply of various types of residential buildings makes it possible to solve the problem of providing energy in the mountainous and mountainous regions of Central Asia, for example, where there are no private fuel resources, these areas are located far from the main fuel bases of the country. The widespread use of passive heliosystem geliouys in these places is of great interest. The effectiveness of the proposed solutions of geliouys is determined by improving

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sanitary-hygienic conditions and saving re-generated fuel types. The options for the project of the development of heated buildings using solar energy allow its authors to draw the following conclusions:

1. Currently, in the conditions of Central Asia, passive and active system geliouys are built, which use solar energy, these houses are designed without any architectural theoretical and practical form foundations, without taking into account the use of solar energy for energy supply. Taking into account the provision of residential premises with sunny heat, it is necessary to look for a new approach to their construction.
2. It is necessary to ensure an open type of construction of architectural and educational solutions of geliouys, which were applied to the passive system in Oasis areas. These buildings should have a narrow body with helioelements on the southern facade or roof. The common rooms of the building should be two-color or summer rooms should be oriented to the south (in apartments located at 2 levels). It is necessary to consider heliocabularies without harming the functional organization of logical processes in summer rooms. Summer, spring, autumn season it is envisaged that the windows will be designed as an opening window. It is necessary to comply with measures to reduce heat loss in passive system geliouys of providing heliocentricity.
3. Cho‘l hududlari uchun quyosh issiqlik bilan ta’minlashadigan turar-joy binolarini konstruksiyalarida yassi kollektorlar qo‘llanilgan, issiqlikni ta’minlashda passiv yoki aralash quyosh sistemalari taklif qilinadi. Jalyuzaning bir tomoni qora ranga, boshqa tomoni nur qaytaruvchi rang bo‘yoq
bilan bo‘yalishi kerak. Jalyuzalar turli joylashish va funksiyalarga ega, qishda jalyuzaning qora tomonga aylantirilishi mumkin. Bu holda jalyuza yaxlit vertikal yuza hosil qiladi, jalyuzaning kumush rangi qismi issiqlikni xonaga qaytaradi. Yozda jalyuzaning kumush rangini quyosh nurlarini qaytarish uchun tashqari tomonga o‘girib qo‘yish mumkin. Jalyuzani himoya qatlami hisobiga qalinlashtirib, yozda issiqlik kelishini kamaytirish va qishda issiqlik yo‘qotilishini kamaytirish mumkin.
4. Ichki hovlili kam qavatli turar-joy binolarida qishki mavsumida derazalarni 2 kavatli oynavandlab berkitish lozim. Markaziy Osiyo hududlari uchun hovlili turar-joy binolari an’anaviy bo‘lib hisoblanadi. Issiq yoz va sovuq qishning keskin kontinental iqlimi odamzodning ko‘p asrlik ko‘nikma va tajribalarni ifodalaydi. Uyni bunday tariflash, zich qurilish olib borib, tashqi to‘siqlar maydonini kichraytirish imkonini beradi, tashqi to‘siqlar qishda sovish va qizish xususiyatiga ega. Xonadon bir sathli ikki sathli va bir-ikki sathli yechimga ega bo‘lishi mumkin.
5. In residential buildings, where passive heat supply systems are used, rooms are placed on the south side of the facade, when placing rooms in 2 rows, direct contact with rooms oriented to the North should be established, the common room should be 2-way, which allows you to transfer the hot air of heliofassad to rooms oriented to the North. In this case, it is necessary to place the door seats opposite. When applying mixed systems of providing heliocentricity, flat heliocabularies are used as simple active heliocystems, while air or liquid serve as heat carriers (water, oil, antifreezes).
Their size is a major factor. The larger the building, the farther the room is from the heliocabularizer, the more rational is the application of fluid systems.To achieve such a useful coefficient of work for air systems, it is necessary to use large-heat air pipes or high-power with the help of ventilators, it is necessary to ensure a high speed of air circulation.

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When using flat collectors with active heliosystems, liquid heliosystems should be installed on large buildings with a wide body or on the territory of the building.

6. Solar heat supply in various passive systems of heat supply in residential buildings, the area of helioyuza can be 60-70% of the heated area (yard glazing-1/3 helioyuza). It is possible to achieve a heat supply of 40-60% by mirroring summer rooms of buildings oriented in a southern direction and using active heliosystems. Energy-saving volumetric solutions in accordance with the "architectural-educational solutions of multi-storey residential buildings"of residential buildings provide: - reduce the surface area of external walls at the cost of reducing the multi-cross section of the volume of the building; - increase the width of the body, taking into account the regulatory requirements for the lighting of rooms; - increase the length of the building, taking into account urban planning situations; - increase the total area of apartments on floors, taking into account fire resistance requirements;

-the use of structural elements (including stair cells of type N2 or N3, where smoke does not accumulate, and stair cells of type L2, which are installed on the upper slope), which conditions the increase in the thermal efficiency of a residential house. Their size is a major factor. The larger the building, the farther the room is from the heliocabularizer, the more rational is the application of fluid systems.To achieve such a useful coefficient of work for air systems, it is necessary to use large heated air pipes or ensure a high speed of air flow with the help of high-power ventilators.

Conclusion. Solar heat supply in various passive systems of heat supply in residential buildings, the area of helium can be 60-70% of the heated area. It is possible to achieve a heat supply of 40-60% by mirroring summer rooms of buildings oriented in a southern direction and using active heliosystems.Energy-saving volumetric solutions in accordance with the "architectural-educational solutions of multi-storey residential buildings"of residential buildings provide the following.

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