

*Materials of Conferences***THE INFLUENCE OF ENERGY EFFICIENCY ON ENERGY DEVELOPMENT BURYATIA**

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Nowadays solution of the efficient energy use problem is one of the priority directions in Russian national politics [1]. According to the definition of Federal Court № 261 «About energy saving and increasing power efficiency», efficient energy use is a characteristic, which features ratio useful effect of energy resources use to energy resources costs. Thereby, power efficiency is efficient power use, which results resources saving, raising of industrial productivity and competitive capacity, reduction of exhaust gas emissions into the atmosphere, household running costs and fuel cost.

Last ten years the purpose of the Russian Government was to establish normative economic and information mechanisms, which can encourage increase of efficiency energy use, and to develop and to implement the federal programmes of improvement energy efficiency [2].

To define the main trends of fuel and energy sector of Republic of Buryatia (FES of RB), It was developed «Strategy of fuel and energy industry of Republic of Buryatia over the period to 2030», approved by Buryatia Government of the 15th of May 2009 № 177. The document determines priorities, conditions, goals and objectives of развития fuel and energy sector of Republic and its main industries.

There are the following objectives to solve:

- investment and entrepreneurship improvement, innovation technologies encouraging, infrastructure development;
- creating of leading tourism centre of the Eastern part of Russia;
- efficient use of productive and natural capacity;
- modernization of infrastructure;
- enhancing of natural resources management, ensuring ecological safety and environmental protection;
- mining enterprises development on the territory of Republic of Buryatia.

Gusinoozerskaya state district power station and Irkutsk energetic system provide the work of existing power consumption of Buryatia and surrounding areas. Nowadays it is enough for normal functioning of energetic system, however there are limits on the connections of new consumers in the Baikal district, round the Baykal-Amur Mainline, in the eastern parts of Buryatia and in the City of Ulan-Ude.

Significant growth of a power consumption is expected and power deficiency is predicted to 2015 year due to the further economic development of the republic and put into operation new large industrial enterprises, mining and processing works.

For ensuring and economic development of the Republic of Buryatia and elimination of deficiency the electric power, two strategy of energy security development are possible. The first consists in construction of the new power networks, the second – in effective use of energy.

So, input of power capacities on combined heat central 2 (CHC2) can solve a problem of developing power deficiency. Continuation of construction of the Ulan-Ude CHC2 is the fastest, effective and economic action for a covering increasing thermal and electric load of Ulan-Ude and the Republic of Buryatia, and also solution of environmental.

The perspective directions and the most worked in the sphere of development use of renewable sources are: energy of the small rivers and solar energy.

The Republic of Buryatia possesses the potential of the small rivers energy. At meeting on development of electronetwork economy of Siberia in November, 2013 (Chita) the question of construction of Mokskaya hidroelectric power station was brought again up. The hidroelectric power station is considered as basis of Baikal-Amur mainline electrification and as one of sources of a covering of deficiency of the Buryat power supply system. Export of part of the electric power to China is possible.

Besides, Center of Power Effective Technologies ltd. actively realises projects on use solar energy making the equipment on own technology in the Republic of Buryatia.

Solar installation are used for a heat supply of social objects, the industrial enterprises, houses.

Also one of strategic plans are gas supply and republic gasification. In 2008 Buryatia signed the cooperation agreement with Gasprom. Now the Republic of Buryatia is partially installed gas by the liquefied hydrocarbonic gas. Delivery liquefied gas is carried out by Buryatgaz which main activities is acquisition, transportation, storage and realization of the liquefied gas, transfer of motor transport to gas fuel, construction and installation of autogas-filling stations.

Thus, it should be noted three priority directions in development of power industry of Buryatia: expansion of the Ulan-Ude CHC-2, construction of Mokskaya hidroelectric power station and justification of construction of the gas pipeline.

References

1. Energy Efficient Russia, 2009. URL: <http://www.mckinsey.com>.
2. Matrosov Y.A energy Efficiency and ecology the basis of modern requirements to heat buildings // Academia. Architecture and construction. – 2009. – № 5.

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