

Want to Be Energy Efficient? It's Not Difficult!

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And this is a true statement. There are several reasons, but the main reason is that energy efficiency of different projects has been systematically developing across the globe during the past 15 years, and it has been a widely positive experience.

This experience is recognized in the national systems of increasing energy efficiency and ecology of construction projects, the number of which is approaching 30. BREEAM (BRE Environmental Assessment Method) and LEED (Leadership in Energy and Environmental Design) systems have the most popularity among other systems.

Worldwide experience has determined about 70 conceptual recommendations that help increase energy efficiency and ecology of buildings and construction. Combining these recommendations while taking into account the climate specific to a country, its policy of rate scale for resources and considering professional experience and traditions, it is not difficult to create a national system for designing and implementation in Russia.

But we should use LEED and BREEAM standards in practical usage until that happens. Besides, LEED standards are seen to be more prospective due to priority in developing energy efficiency of buildings, which has been intended to develop by our government in their governmental regulations.

Our company, Bureau of Technics, has been supervising and designing projects in accordance with LEED requirements and recommendations for the last five years. There are currently five projects that are eager to obtain LEED certification. Among them is a hypermarket, a business center and mall, residential property, an office building and a sports and wellness center. The LEED analysis is made for the four biggest projects of Sochi-2014: Big Ice Arena, Arena for Figure Skating, Stadium for Curling, Complex of Alpine Skiing Tracks.

The obtained experience shows a higher engineering complexity of the project as are higher economic benefits in investment costs in this stage of implementation.

One of the most important conclusions from practical experience is that expectations of increasing investment costs with increased energy efficiency of the building are not approved. Moreover, it can be asserted that the implementation of the building in compliance with LEED standards in conditions of Russian usage allows decreasing investment costs instead of its increasing.

The second aspect that should be taken into account is significant increasing of energy efficiency by 38 to 45 percent in comparison with conventional decisions. This increasing is approached simply without specific creative and intellectual efforts. It is simply the product of professional work.

The third point considers the issue from the human standpoint rather than from one of design and construction: Good results are obtained by skilled engineers. It means that if the company has not prepared its engineers well and they could not obtain LEED credentials, their results would not be as high and would not be sought after.

National features of the construction industry allow us to consider the issues related with energy efficiency of buildings in light of investment efficiency. It is well known that being energy efficient is hardly having a controllable quality of an indoor environment

and minimization of costs of resources, but having significantly reduced investments in demand for resources of the property.

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