PRODUCING ENERGY IS SIMPLE

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During the past decade, the world began to study one of the global challenges of the XXI century - the development of new energy-saving technologies for using non-conventional renewable energy sources. Existing energy sources can not provide a query of the total population of the globe. Moreover, energy-saving technologies should be viewed not only globally but also at the individual level. We don't have to look far for examples.

The heat of the human body is not a resource that comes to mind when we talk about reducing the ever-increasing heating costs. As it turns out, human warmth has great energy potential. Railway stations, clubs, supermarkets - places with large concentrations of people can be provided with the heat exchangers in the ventilation system. Excess heat of human bodies converts into hot water, which is then pumped into the heating system of a neighboring building. The system not only pleases with its environmental performance, but also with the economic feasibility of its use, since it allows to reduce heating costs by 25%. It is more profitable to spend a small amount of electricity needed to transform and redirect the heat than to invest heavily in natural gas heating.

Recently a technology that converts mechanical energy of human walking into electrical energy was presented. Paving stone absorbs the kinetic energy which is transferred from steps to the surface, and generates about 2,1 kW/h. All the energy of the steps directs to the lithium-polymer battery, and then is used in the required order (lighting of the bus stop at night, feeding information displays). Return on investment will take about a year. The service life of the board is 5 years or 20 million steps. This "buttons" are made of recycled materials. The top cover is made from old tires.

For energy-saving, anything that is around the person can be used, even public transport. Anyone who lives next to the railway, confirms that going on the high speed trains, especially freight, raise the wind, which contains a sufficient amount of energy. For this purpose, there is modern system of turbines, installed between the railway sleepers, which generates electricity at the time when the train passes above them. By installing the system on the railroad or subway, we can use the energy potential of the resource, which is now wasted. The system does not depend on the non-permanent natural sources of energy, it uses a source that is a byproduct of human activity.

Another energy-saving setting is a generator of electricity, which is used in the handrails, for which passengers are kept while traveling in public transport. The process of obtaining energy is carried out by the use of piezoelectric ceramics - all the energy stored in this way, is transmitted to the board system of the bus. And only then, each passenger can plug into an outlet whatever he wants.

Even while you are on vacation, you may not notice how things that surround you, produce electricity using alternative energy sources. Scientists have developed solar cells that are embedded into parasol. So the creative umbrella will be useful to charge any device while you are lying on the beach.

The original solution of energy problems of mobile devices in urban areas was solved by an alternative vertical windmill, capable of operating in either direction of the wind, and specially designed for installation in city parks, beaches, bus stops and other public places. The wide base of the windmill can be used as a comfortable bench. Despite the fact that wind energy is one of the main sources of renewable energy, it all comes down to the giant windmills, unsuitable for use in urban settings: too bulky, too noisy, and the appearance is poor. The only advantage of these wind monsters - the development of large amounts of electricity. Small compact wind turbines are less efficient, but more friendly to man. They can be safely used in urban and home environments, which makes wind energy more affordable for the average person.

You can have your personal unusual devices foe saving and producing energy in your own house. For example, there is an unusual way to recharge laptops. Energy that is produced in collisions of fingers on the keyboard device can be used for this purpose. The developers propose to cover the keys with the very thin membrane made of piezoelectric - a material that is capable of converting mechanical energy into electrical energy. In this case, the mechanical energy from the impact of the key can be turned into electricity, and engaged to supply the batteries. To implement the idea into practice, you must create a piezoelectric membrane, the thickness of which would be measured in nanometers. It may be applied not only to laptops, but also in other mobile devices - such as smartphones with touch screen.

Surprising, that simple curtains can transform solar energy into electricity. You can design a house with curtains, which contain photovoltaic cells and get about 16 kW/h with their use. The project uses photovoltaic fabric produced from organic materials. Unlike conventional solar panels, they can be easily modified and pressed.

Instead of mindlessly taking away the last wealth of our planet, we must learn to apply all around us energy diversity with benefit.

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