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It would seem that a person has learned to extract energy from the wind, pump electricity from sunlight, but we still continue to burn coal and oil on a global scale in the old fashioned way, polluting the atmosphere with their processing products. Is there still no alternative to traditional power plants? There is an alternative, and it will appear very soon.

Solar power plants. Solar systems have one huge and irreparable drawback: they are dependent on the position of the sun in the sky. No sun, no energy, because daylight hours cannot last forever. We have already learned how solar panels can convert sunlight into direct current, then convert it into a variable and feed it into the network. In space, everything is the same, but how to supply electricity to the earth? This is possible with the help of radio waves. It is these microwaves that will be received on the surface of the earth by a special antenna. The difficulty is that the weight of the space structure will be within 1000 tons [2].

<u>Paving slabs.</u> It turns out that energy can be obtained not only from coal or oil, but also with the help of pedestrians. Each person walking on the sidewalk creates pressure on the surface. If you force, bending only five millimeters, the site to convert mechanical energy into electrical energy, you get a mini power plant [1].

<u>Human muscle strength.</u> Electrical energy can be drawn from our daily lives using natural human power. The principle of a bicycle is a prime example of this. Using a footswitch to activate and power, say, a television set would be of benefit to both the viewer and the planet's global electrical system.

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<u>Glass facades.</u> In fact, this is the thinnest solar panel in the form of tinting, placed between two glasses. The semi-transparent material, made on the basis of organic photovoltaic technology, has a low efficiency, within 8 percent. But if we take into account that in every major city there are at least two tens of millions of windows in total, this complex will be able to provide up to 10 percent of the energy consumption of a skyscraper.

<u>Nuclear fusion.</u> The energy of nuclear fusion is one of the inexhaustible sources of electricity. But so far, scientists have not been able to create the conditions for launching a stably controlled reaction [3]. This can only be done if a magnetic field with fully controllable characteristics is generated. So far, scientists have been able to create the strongest magnetic field with a force of 1200 Tesla for just 100 microseconds.

<u>Flying wind farms.</u> A conventional ground-based wind generator has a lot of disadvantages, although it is one of the promising sources of renewable energy on the planet. However, it is effective only when the wind speed exceeds 4-6 meters per second. Hence all its shortcomings. Predicting the amount of energy is very difficult. The flying wind generator can solve this problem.

Mankind has clearly outlined the development vector for an alternative way of energy production. Of course, we will succeed, but development takes time and, importantly, huge investments.

References

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