

**SOLAR-POWERED PUBLIC TRANSPORT
AS A PART OF CITY LOGISTICS**

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Currently, the ecological approach covers all areas, including city logistics. Alternative forms of energy are used to make public transport more environmentally friendly.

An example is solar-powered buses that use solar energy. A sufficiently large area of bus roofs allows the installation of massive solar panels that can provide energy not only for the operation of the engine, but also for the operation of all available electronics: Wi-Fi, USB ports, air conditioners and other accessories.

The solar panels save about 1.7 liters of fuel per 100 kilometers. At the same time, solar energy charges the battery, freeing the alternator from the aid of internal combustion engine. The solar panel system also significantly reduces carbon dioxide emissions into the atmosphere. Since 2013 in the city of Adelaide in Australia has been running a bus that runs entirely on solar energy, which has reduced carbon dioxide emissions by 70 tons per year.

Unfortunately, current system has a significant disadvantage, namely, the operation of solar panels directly depends on the time of year. In winter energy production falls to a minimum level and diesel fuel consumption almost does not change. But at the same time the efficiency of the solar panels is maximum in the summer. For the even distribution of such ecological public transport, it is necessary to develop solar panels with a long service life.

In addition, it is necessary to resolve the issue so that solar-powered public transport can receive energy exclusively from solar panels, without recharging at stationary stations for greater mobility.

It can be concluded that the development of solar-powered public transport can make a great contribution to the development of ecological city logistics and the reduction of carbon dioxide emissions can be drastically reduced.