STUDY OF THE COMPLEX ECONOMIC INDICATOR OF SPP

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Обґрунтовано характер змін собівартості виробленої електроенергії від сонячних електростанцій

The use of autonomous agribusiness enterprises causes controversial judgments in society, the main of which is the economic impracticability of the corresponding projects, which is connected with the high cost of energy resources. [1, 2]

The price of electricity of the centralized system (CS) conditionally changed over time with an upward trend. Unlike the price of electricity from a centralized system (CS), the cost (C) of electricity from solar power plants (SPP) is constantly decreasing, which is explained by the dependence:

$$C = \frac{Z}{W} \qquad (1)$$

where Z – total capital and depreciation costs for SPP, *grn*;
W – volumes of usefully used electricity from SPP, *кWth*.

Volumes of usefully used energy from SPP are determined according to the dependence:

$$W_{SPP} = \eta K_{\text{н}SPP} A \int_0^t \sum g_{jt} dt, \qquad (2)$$

where: η - annual and seasonal efficiency of the solar installation, *acting*;
A – solar collector plane, m^2;
t – time of use of the solar installation load, *hours*;
n - days of the calculation period of the jth season, *acting*;
q_{jt} – solar radiation intensity at time t of the nth day of the jth season, kW/m^2;
$K_{\text{н}SPS}$ - coefficient of non-coincidence of the consumer's load schedule with the availability of solar energy, *acting*: $0 \leq K_{\text{н}} \leq 1$.

The study of the functional dependencies of the amount of electricity produced by SPP will make it possible to make a decision in the design process regarding the long-term forecasting of the effectiveness of the use of SPP.

List of references
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