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PRINCIPLES OF FORMATION OF GENERALIZED CRITERIA QUALITY ENERGY FACILITIES

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Any energy object (device, system, process) is usually characterized by a large number of output parameters (characteristics), enabling its intended use in given conditions. These output parameters (consumer properties) define various properties of the object have different physical nature and dimension and so on. For example, AC motors characterized by a set of output parameters that determine the ability to perform the functions defined by the terms of his appointment sturdy, economical use of energy and raw materials, and compliance with safety requirements. Among these options are: technical (current (I), power (P) cos φ, efficiency, etc.) and environmental parameters, which can be operated electric motor (relative humidity, dust saturation, type of protection, type of room, etc.).

The aim – construction of generalized quality criterion energy facilities under uncertainty using weights.

Materials and methods research. Consumer quality energy facility is not determined by the size of a single output parameter, and the totality of relevant values of these parameters. It is all set of values of output parameters (consumer characteristics) distinguish identical in purpose objects and determine priorities for their use by any user. Of course, in the process design (in determining the appropriate terms of reference or optimal variant), and in the process of controlling the monitoring and when comparing identical in purpose, but different characteristics of energy facilities should be considered is the totality of consumer characteristics (output parameters).

In view of the question on formation based set of output parameters of a generalized energy facility parameter, which could be a criterion of quality of the object as an integrated system. It should be borne in mind that different output parameters, of course, have different effects on the choice of the consumer object, and therefore have a different impact on the value of the generalized quality criterion in determining, so to speak, in terms of different (weight) contribution to the final the value of

this criterion. Such generalized parameter (index criterion) an object depends on its initial parameters and, in essence, is the appropriate mathematical model of the object.

Results. Construction of generalized quality criterion energy facility provides an appropriate implementation of the algorithm, which in general is complex and requires a certain number of assumptions and caveats.

Generalized criterion of quality energy facilities often served in additive form which (with clear physical sense and simplicity) satisfies most needs practice in determining the quality energy facilities for various purposes and enables at analysis of the quality of such objects to focus exclusively on developing algorithms and defining appropriate weights.

Information on the values of weights in general, often numerical method for the determination characterized inaccurate and incomplete. It updates the research to developing computational methods (objectification) definition of coefficients.