

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
NATIONAL TECHNICAL
UNIVERSITY "KHARKIV POLYTECHNIC INSTITUTE"

Pulpit	Electric stations
Speciality	141 "Electric power engineering, electrical engineering and electromechanics"
Educational program	Electricity 141-01 "Electric stations"
Form of study	Full-time
Academic discipline	Energy Storage Systems and Maneuvering at the Power Grid
Semester	9

EDUCATIONAL MATERIALS FOR
INDEPENDENT WORK.
INDIVIDUAL TASKS

LIST OF TOPICS OF INDIVIDUAL TASK (ABSTRACT)

- 1) Maneuverable capabilities of traditional power plants and RES;
- 2) Gas turbine plants as high-maneur power;
- 3) Hydroaccumulating power plants;
- 4) Super flywheels;
- 5) Rechargeable batteries;
- 6) Supercapacitors;
- 7) Fuel cells;
- 8) Inductive superconducting drives;
- 9) Pneumatic accumulators;
- 10) Hybrid forms of electricity storage;

REQUIREMENTS FOR COMPLIANCE

The student should understand in depth on the topic of the abstract:

- 1) To investigate the relevance of the issue;
- 2) Give the basic principles of operation of the devices specified in the topic;
- 3) Give examples of the use of existing (if any) devices specified in the topic;
- 4) To independently conclude the expediency of using the devices specified in the topic, with the indication of advantages and disadvantages;
- 5) At the end, issue, according to the VAC, the list of used sources of information

The work is presented in the form of an explanatory note on 10-30 pages:

- 1) Cover sheet;
- 2) Table of contents;
- 3) List of conditional designations and abbreviations;
- 4) Introduction;
- 5) The main part;
- 6) Conclusions;

List of sources of information.