



«АККРЕДИТЕУ ЖӘНЕ РЕЙТИНГТІҢ
ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО
АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR
ACCREDITATION AND RATING

REPORT

on the results of the work of the external expert commission for assessment of compliance with the requirements of the standards of specialized accreditation of educational programs

6B07103 « Thermal power engineering »

7M07102 « Thermal power engineering »

8D07102 «Thermal power engineering»

NJSC «Almaty University of Power Engineering and
Telecommunication»

in the period from March 13-16, 2024

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING
External Expert Commission

***Addressed to
the Accreditation
Council of the IAAR***



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in the period from March 13-16, 2024**

Almaty city

(I) LIST OF DESIGNATIONS AND ABBREVIATIONS

ECTS	- European Credit Transfer and Accumulation System
AIS	- Automated information system
AC	- Academic calendar
JSC	- Joint stock company
BD	- Basic disciplines
UC	- The university component
EW	- Educational work
HEI	- Higher education institution
EEC	- External Expert Commission
AC	- Attestation Commission
SCSE	- The State compulsory standard of education
DLT	- Distance learning technologies
UNT	- Unified national testing
ICT	- Information and communication technologies
IC	- Individual curriculum
CC	- Component of choice
CCFE	- Committee for Control in the field of education and MES of the RP
CT	- Comprehensive testing
CTA	- Comprehensive testing of applicants
CTE	- Credit technology of education
CED	- Catalog of elective disciplines
IS	- Interlibrary subscription
MSHE RP	- Ministry of Science and Higher Education of the Republic of Kazakhstan
MEP	- Modular educational program
MC	- Modular curriculum
EP	- Educational program
IAAR	- Independent Agency for Accreditation and rating
SRW	- Science-research work
SRWS	- Science-research work of students
NQF	- National qualifications framework
RC	- Required component
GES	- General education subjects
EP	- Educational program
RO	- Registration Office
IQF	- Industry qualifications framework
CD	- Core disciplines
PTS	- Professor- teaching staff
EPR	- Editorial and Publishing Department
RK	- The Republic of Kazakhstan
RIEL	- Republican Interuniversity Electronic Library
WR	- Working curriculum
MM	- Mass media
QMS	- Quality management System
IWL	- Independent work of the learner
IWS	- Independent work of students
IWSGT	- Independent work of students under the guidance of a teacher
EDMS	- Electronic document management system
TPE	- Technical and professional education
TMPT	- Theory and methodology of professional training
SC	- Standard curriculum

TSS	- Training and support staff
EMC	- Educational and methodical complex
EMCD	- Educational and methodological complex of the discipline
EMC EP	- Educational and methodological complex of the EP
EMC	- Educational and Methodological Council
EC	- Educational curriculum
AC	- Academic council
DER	- Digital educational resource
CE	- Center of Excellence
EEMCD	- Electronic educational and methodical complex of discipline



INTRODUCTION

In accordance with Order №7-24-OD dated 04.01.2024 of the Independent Accreditation and Rating Agency, from March 13-16, 2024, an external expert commission assessed the compliance of educational programs 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering" at the «Almaty University of Power Engineering and Telecommunications named after G.Daukeev» (Almaty) standards of specialized accreditation of the educational program of the organization of higher and postgraduate education of the NAAR (№57-20-OD dated June 16, 2020, sixth edition).

The report of the external expert commission (EEC) contains an assessment of the presented educational program according to the criteria of the NAAR standards, the recommendations of the IEC for further improvement of the OP and the parameters of the OP profile.

Composition of EEC:

Chairman of the EEC IAAR - Timur Arsenovich Tabishev, Candidate of Pedagogical Sciences, Associate Professor, Head of Education Quality Management, FSBEIHE «Kabardino-Balkarian State University named after H.M. Berbekov» (Nalchik, Russian Federation);

Foreign expert of the IAAR – Razinkina Elena Mikhailovna, Doctor of Pedagogical Sciences, V.A. Almazov National Medical Research Center of the Ministry of Health of the Russian Federation (St. Petersburg, Russia), off-line participation;

National expert of the IAAR – Alimgazin Altai Shurumbaevich, Doctor of Technical Sciences, «Eurasian National University named after Gumilyov» (Astana, RK), off-line participation;

National expert of the IAAR – Talipov Olzhas Manarbekovich, PhD, Toraigyrov University (Pavlodar, RK), offline participation;

National expert of the IAAR - Ospanov Erbol Amangosovich, PhD, East Kazakhstan Technical University named after Serikbayeva (RK), off-line participation;

National expert of the IAAR - Mehdiyev Ali Javanshirovich, Candidate of Technical Sciences, Associate Professor of KATIU Seifullina (Astana, RK);

Expert of the IAAR, Работодатель – Alexey Vladislavovich Kan, Head of «EXPLORATION PRODUCTION» LLP (Almaty, Republic of Kazakhstan), on-line participation

Expert of the IAAR, learners– Бакирбаева Анар Акылбаевна, докторант 1 курс, Карагандинский технический университет имени Абылкаса Сагинова (Караганда, Республика Казахстан), on-line участие;

Expert of the IAAR, learners – Аубакирова Зульфия Акылбековна, докторант 1 курс, Карагандинский технический университет имени Абылкаса Сагинова (Караганда, РК), on-line участие

Expert of the IAAR, learners – Анапьянова Самал Багдатовна, докторант 2 курс, Казахский национальный аграрный исследовательский университет, on-line участие;

Coordinator of the EEC IAAR – Gulfiya Rivkatovna Nazyrova, Ph.D. in Economics, Project Manager for specialized and institutional IAAR accreditation, on-line participation.

REPRESENTATION OF THE EDUCATIONAL ORGANIZATION

History. In 1960, for the first time in Kazakhstan, on the basis of the Kazakh Polytechnic Institute (KazPTI), training of power engineers for the energy industry of Kazakhstan was started. For this purpose, in 1961, the KazPTI opened an energy faculty, which in 1975, in accordance with the decisions of the Central Committee of the CPSU and the Council of Ministers of the USSR and the Central Committee of the Communist Party of Kazakhstan and the Council of Ministers of the Kazakh SSR, was transformed into an independent educational institution - **the Almaty Energy Institute (AEI)**.

In 1996, by a decree of the Government of the Republic of Kazakhstan, the Almaty Energy Institute was joined to the Kazakh National Technical University as an educational and scientific complex of Energy and Telecommunications. But already in May 1997, by Decree of the Government of the Republic of Kazakhstan, the university again gained independence as a non-governmental one and was renamed, taking into account the training of specialists in power engineering and communications, as: "**Almaty Institute of Energy and Communications**" (AIEC).

Since July 1, 2010, the Almaty Institute of Energy and Communications has received the status of a university – a **non-profit Joint-Stock Company "Almaty University of Energy and Communications"** - with the right to prepare masters and PhD doctors. Since 2019, the university has been named after Gumarbek Daukeev - a **non-profit Joint-stock Company "Almaty University of Power Engineering and Telecommunications named after Gumarbek Daukeev"** (AUPET).

The training of personnel in the AUE is carried out in accordance with an indefinite State license to engage in educational activities № KZ 80LAA00018161 dated 05.20, in 2021 passed the licensing control for compliance with the qualification requirements of the Ministry of Internal Affairs of the Republic of Kazakhstan.

Quality. Currently, AUPET, positioning itself as a practice-oriented university, conducts training in the areas of information and communication technologies, information security, telecommunications, engineering and engineering, occupational health and safety and agroengineering. Since 2006, the university has been certified according to the international quality management system. An external inspection audit is conducted annually along with an internal audit, and recertification audits are conducted every three years. In 2020-2021, a recertification audit was conducted at NJSC AUPET for compliance with the requirements of the ISO 9001:2015 standards, which resulted in a certificate of conformity issued by the Russian Register Certification Association. The activities of AUES are aimed at ensuring the competitiveness of the country through high-quality training for the real sector of the economy by improving the quality of education, integrating science, education, business and production, expanding international cooperation and creating favorable conditions for all participants in the educational process, which is reflected in the results of the activities of AUPET.

Educational programs of the university. The University has developed 35 educational programs (hereinafter referred to as the Bachelor's degree program), 25 master's degree programs and 6 doctoral degree programs.

Employment. In general, 81% of bachelor's degree graduates and 90% of master's degree graduates were employed on average in 2019-2023.

The contingent of students of the university. As of 01.10.2023, there are 5965 students, including 5590 students (5032 of them on the basis of a state educational grant), 319 undergraduates (294 of them on the basis of a state educational grant), 56 doctoral students (50 of them on the basis of a state educational grant).

Staff of the PTS. For 2022-2023, the total number of full-time teachers at the university is 540 people, including 29 doctors of sciences, 113 candidates of sciences, 43 PhD, 172 Masters of Sciences. The settlement rate of full-time teaching staff is 35%.

Structure. The organizational structure of the University includes 4 institutes – the Institute of Energy and Green Technologies, the Institute of Natural Sciences and Humanities, the Institute of Automation and Information Technology, the Institute of Communication and Space Engineering, which includes 14 departments, 10 of them are graduates. The scientific infrastructure is represented by four scientific and technical centers (STC) and nine scientific and research laboratories (SRL) engaged in research activities related to the implementation of specific scientific projects commissioned by enterprises.

Material and technical base. The university campus includes 3 academic buildings with a total area of 29473 m² (academic building A - 13715.8 m², academic building B - 7902.7 m², academic building named after Daukeev G.Zh. - 7164.5 m²) with canteens and cafes, lecture halls and an assembly hall. All academic buildings and 3 dormitories are located on a total area of 4.86 hectares owned by the university on private property rights. There is a printing house and a library with an area of 500 square meters of reading rooms, gyms and football fields with a total area of 4149.8 square meters. On the territory of the university, an outdoor sports ground with an area of 2977.5 m² with three fields for mini football, a gymnastic playground, running tracks 65 m long and 195 m around the sports ground is located between the academic buildings.

Ratings. AUPET has a stable image as a prestigious specialized technical university. In subsequent years, AUPET consistently ranks high in its traditional specialties of energy and telecommunications. According to employers, AUPET is one of the top ten universities in Kazakhstan. In 2023, according to the League of Honesty, «Almaty University of Power Engineering and Telecommunications named after G. Daukeev» (average score – 78.20%) took 5th place among universities in Kazakhstan.

Membership. In order to improve the quality of services, competitiveness and exchange of experience, AUPET participates in international, national and regional professional associations and alliances, carrying out mutually beneficial cooperation. AUPET is a member of the Kazakhstan Electric Power Association and the Kazakhstan Information Security Association, is a member of the Alliance of Universities, and is a member of the League of Academic Integrity. On April 28, 2021, the Alliance of Universities "University Alliance of Science and Technology" (hereinafter - UAST) was established in the city of Nur Sultan. The purpose of the Alliance is to create an integrated scientific and educational environment for the training of competitive personnel by consolidating human, logistical and other resources. AUPET publishes the scientific journal "Bulletin of AUPET".

Brief description of accredited EP:

EP 6B07103 «Thermal Power Engineering».

The purpose of the EP is to train highly qualified personnel in the field of thermal power engineering who possess theoretical and practical knowledge, skills and abilities necessary for their implementation in professional activities, meet the needs of domestic and global intellectual labor markets, and are ready to make a qualitative leap in the development of thermal power engineering.

Field of education- 6B07 Engineering, manufacturing and construction industries - 6B071 Engineering and engineering, a group of educational programs - B062 Electrical engineering and power engineering.

The field of professional activity is thermal power engineering as an integral part of technology, which includes a set of tools, methods and methods of human activity created for generating and applying heat, controlling its flows and converting various types of energy into heat.

Since 2018, the term of study in the register of EP is 4 years. Language of instruction: Russian, Kazakh. NQF, IQF level: 6. With elements of dual training. State license for educational activities № KZ 80LAA00018161 dated 05.20

EP 7M07102 «Thermal Power Engineering».

The purpose of the EP - Training of highly qualified scientific and pedagogical personnel in the field of thermal power engineering, possessing theoretical and practical knowledge, skills and abilities to study processes and devices of thermal technology, implementation of technical and scientific projects, systematic problem solving using innovative approaches, building concepts and strategies of activity, possessing modern pedagogical technologies that meet the needs of domestic and global intellectual labor markets, capable of to solve the problems of improving society, economy, production, education, science, to develop breakthrough technologies.

Field of education - 6 In 07 Engineering, manufacturing and construction industries - 6B071 Engineering, group of educational programs - M098 Thermal power engineering.

The field of professional activity is thermal power engineering as an integral part of technology, which includes a set of tools, methods and methods of human activity created for generating and applying heat, controlling its flows and converting various types of energy into heat.

Since 2018, the training period has been in the register of EP for 2 years. Language of instruction: Russian, Kazakh. NQF level, IQF: 7. State license for educational activities № KZ 80LAA00018161 dated 05.05.2020

EP 8D07102 « Thermal Power Engineering ».

The purpose of the EP - Training of highly qualified scientific and pedagogical personnel for the system of higher and postgraduate education and the scientific sphere in the field of thermal power engineering, possessing fundamental educational, methodological and research training, in-depth theoretical and practical knowledge, skills and abilities to study processes, devices and systems of thermal power engineering, the implementation of technical and scientific projects, systematic problem solving using innovative approaches, building concepts and business strategies, responsible for making coordinated decisions using logical methods, proficient in the methodology of modeling and management of thermal power systems, modern advanced pedagogical technologies that meet the needs of domestic and global intellectual labor markets, capable of solving problems of improving society, economy, production, education, science, and developing breakthrough technologies/

The field of education- 6B07 Engineering, manufacturing and construction industries - 6B071 Engineering, group of educational programs - D098 Thermal Power Engineering.

The field of professional activity is thermal power engineering as an integral part of technology, which includes a set of tools, methods and methods of human activity created for generating and applying heat, controlling its flows and converting various types of energy into heat.

A specialist for work in research universities, research and design institutes, universities, enterprises, energy profile capable of performing the following types of professional activities: research; production and technological; organizational and managerial; pedagogical.

EP in the register since 2018. The term of study is 3 years. Language of instruction: Russian, Kazakh. NQF level, IQF: 8. State license for educational activities № KZ 80LAA00018161 dated 05.05.2020

(II) DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCEDURE

The University passed institutional and specialized accreditations with the Independent Agency of Accreditation and Rating (IAAR) in 2019. Educational programs 6B07103201 – Thermal Power Engineering, 7M07102 – Thermal Power Engineering and 8D07102 –Thermal Power Engineering are accredited by the agency for 5 years.

DESCRIPTION OF THE EEC VISIT

The work of the EEC was carried out on the basis of the approved Program of the visit of the expert commission on specialized accreditation of educational programs to the Almaty University of Energy and Communications named after G.Daukeev in the period from March 13-16, 2024.

In order to coordinate the work of the EEC, an introductory meeting was held, during which powers were distributed among the members of the commission, the schedule of the visit was clarified, and agreement was reached on the choice of examination methods.

To obtain objective information about the quality of the educational program and the entire infrastructure of the university, to clarify the content of the self-assessment report, meetings were held with vice-rectors in areas of activity, heads of structural divisions, directors of institutes, heads of departments, teachers, students, employers and graduates. A total of 47 representatives took part in the meetings.

During the tour, the members of the EEC got acquainted with the state of the material and technical base of the university and were viewed: Laboratory A233 "Technology of water and fuel", Laboratory A107 "Thermal power plants", Laboratory A229 "Systems of production and distribution of energy carriers", TRL "Renewable energy sources and new technologies in energy conservation", STC "Research of problems of development of thermal power engineering".

At the meeting of the EEC IAAR with the university's target groups, the mechanisms for implementing the university's policy were clarified and the individual data presented in the university's self-assessment report were specified.

During the accreditation period, classes were attended on March 15, 2024:

- "Burning theory and furnace devices" (Bachelor's degree, 2nd year, gr. TES-21-3 and EAEM-21-4, number of present - 15), lecturer – Ph.D., Associate Professor Yamanbekova A, K.;

- "Heat and mass transfer" (bachelor's degree, 2nd year, gr. TE-22-2 and EAEM-22-2, number of present – 14), lecturer – Ph.D., Associate Professor Borisova N.G.

Interactive whiteboards, projectors, flipcharts were observed in the classrooms, slides and video lectures were used. The process of conducting classes was conducted in the form of an oral and combined survey, defense of the presentation of homework, discussions, trainings, business games.

The EEC experts analyzed the conditions of the student's practice bases, and also asked questions to the heads of organizations: «AIES» JSC, «Buran Boile2r LLP, «KNEP» JSC.

In accordance with the accreditation procedure, an online survey of teachers and students was conducted.

In order to confirm the information provided in the Self-assessment Report, external experts requested and analyzed the working documentation of the university. Along with this, the experts studied the Internet positioning of the university through the official website of the university (<https://aues.edu.kz/>).

As part of the planned program, recommendations for improving accredited educational programs of the State «Almaty University of Power Engineering and Telecommunications named after G.Daukeyev», developed by the EEC based on the results of the examination, were presented at a meeting with the management on 03/16/2024.

(VI) COMPLIANCE WITH THE STANDARDS OF SPECIALIZED ACCREDITATION

6.1 Standart «Educational program Management»

1. The university must demonstrate the development of a goal and strategy for the development of the OP based on an analysis of external and internal factors with the broad involvement of a variety of stakeholders.
2. The quality assurance policy should reflect the relationship between scientific research, teaching and learning.
3. The university demonstrates the development of a culture of quality assurance.
4. Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including in the implementation of joint/double-degree education and academic mobility.
5. The management of the Educational institution ensures transparency in the development of the educational institution's development plan based on an analysis of its functioning, the real positioning of the university and the orientation of its activities to meet the needs of students, the state, employers and other interested parties.
6. The management of the EP demonstrates the functioning of mechanisms for the formation and regular revision of the development plan of the EP and monitoring its implementation, evaluating the achievement of learning goals, meeting the needs of students, employers and society, and making decisions aimed at continuous improvement of the EP.
7. The management of the EP should involve representatives of groups of interested persons, including employers, students and teaching staff in the formation of a development plan for the EP.
8. The management of the EP should demonstrate the individuality and uniqueness of the educational institution's development plan, its consistency with national development priorities and the development strategy of the educational organization.
9. The university must demonstrate a clear definition of those responsible for business processes within the framework of the EP, the distribution of staff responsibilities, and the differentiation of functions of collegial bodies.
10. The management of the EP ensures coordination of the activities of all persons involved in the development and management of the EP, and its continuous implementation, as well as involves all stakeholders in this process.
11. The management of the EP should ensure the transparency of the management system, the functioning of the internal quality assurance system, including its design, management and monitoring, and appropriate decision-making.
12. The management of the EP should carry out risk management.
13. The management of the educational institution should ensure the participation of representatives of interested persons (employers, professor-teaching staff, students) in the collegial management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program.
14. The university must demonstrate innovation management within the framework of the OP, including the analysis and implementation of innovative proposals.
15. The management of the EP should demonstrate its openness and accessibility to students, teaching staff, employers and other interested persons.
16. The management of the Educational Institution confirms the completion of training in educational management programs.
17. The management of the OP should strive to ensure that the progress made since the last external quality assurance procedure is taken into account in preparing for the next procedure.

The evidentiary part

In November 2017, the AUPET Transformation Strategy until 2025 was developed (reviewed and approved by the AUPET Board of Directors, Minutes № 5-24 dated 12/29/2017). The strategy presents the university's transformation mission "Formation of the best intellectual resources of the national knowledge economy and the most advanced technologies for the industrial and innovative development of the country, adapted to the conditions of world integration and globalization." The strategic development Plan of the Non-profit Joint Stock Company "Almaty University of Power Engineering and Telecommunications named after Gumarbek Daukeev" for 2021-2023 defines the basic directions of development at the corporate level and in the main strategic directions, is a medium-term document.

Today, the university has carried out a lot of work by the AUPET team to create a Strategy for the development of nuclear power plants until 2030, which is at the stage of final consideration and approval by the Board of Directors.

In its development strategy, NJCS AUPET strives to provide high-quality and in-demand education, conduct highly profitable scientific and innovative activities. The University sees itself as an international university attracting a large number of international students, teachers and researchers. Guided by the Bologna Principles and based on the strategic development plan of the University, NJCS AUPET aims to improve, modernize and improve the quality of education, its compliance with the requirements of the labor market and society, improve the competencies and skills of graduates based

on educational programs developed jointly with representatives of industry, as well as on the basis of integration of science, education, business and production and expansion of international cooperation. All the prerequisites for the successful implementation of this goal are available, since NJSC AUPET is one of the oldest universities in the country for training specialists in the fields of energy, communications, information technology, actively teaching the latest technologies.

The QMS policy is reflected in the Quality Manual, which defines the AUES quality management system. The quality assurance policy of NJCS "AUPET" is implemented through processes and standards of internal quality assurance, in which all departments of the university participate. The quality Manual is available to all AUPET employees and students, as well as to external stakeholders. The quality manual contains a description of all processes and procedures of the internal quality assurance system of the AUPET, the interaction of processes, the distribution of functions and responsibilities and personnel of all main and auxiliary processes of the university.

The University's policy according to the Quality Manual is brought to the attention of all staff, periodically analyzed and, if necessary, republished.

EP's development 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering» it is carried out at the department «Thermal Power Engineering».

The compliance of the mission, goals and objectives in the implementation of the OP with the requirements of the market is ensured in two directions: the implementation of the EP SCSE and the implementation of the university component, which is formed taking into account global trends, industry orientation and the demand of employers. At the same time, the potential employment and further education of university graduates not only within the country, but also abroad is used to adjust educational programs focused not only on the domestic market, but also on the demands and requirements of the international market. This provides graduates with the opportunity to apply their knowledge and competencies more widely in various areas of their professional activities. For example, in modular educational programs, at the suggestion of employers, representatives from production, the discipline was included in to the IEP 6B07103 "Thermal Power Engineering": «Fundamentals of thermal power plant design», in to the IEP 7M07102 «Thermal Power Engineering» disciplines: « Energy storage and storage systems», «Fundamentals of hydrogen energy», in to the IEP 8D07102 « Thermal Power Engineering» disciplines: « Modern gas turbines and combined cycle gas installations».

Within the framework of approved university-wide goals and objectives, the Department of Thermal Power Engineering sets its own goals for the current academic year at the beginning of the academic year as part of the work plan. The annual plan of the department identifies promising areas of activity to achieve the set goals and improve the quality of student education. All the goals and objectives of the department are aimed at student-centered learning. All types of work on student-centered learning are reflected in the development plans of the Department developed by the EP (presented to experts) and have been adjusted and supplemented annually over the past few years, taking into account the requirements of students and on the recommendations of employers.

The University carries out targeted work to improve the skills of PTS, both within the walls of the university (Winter School 2024) and beyond, teaching staff participation in technical seminars in the field of thermal power engineering, energy conservation, ecology conducted by ministries, associations, PTS participation in International conferences, trainings, international projects (UNDP, USAID).

The University monitors activities and systematizes data in the following areas: 1) analysis of the results of examination sessions in the context of institutes, educational institutions, disciplines with the preparation of annual and semi-annual reports; 2) analysis of the results of the final certification of students (monitoring the updating of the topics of diploma projects and works, the results of passing state exams and defending diploma projects, etc.); 3) development of methodological support for credit technology and analysis of the availability and quality of intra-university documentation, syllabuses, educational literature; 4) questioning of various categories of students, graduates, parents, employers on the quality of educational services provided and preparation of proposals; 5) analysis of the level of informatization of the educational process, the introduction of distance learning technologies.

In planning and implementing the content of educational programs, the results of work in the scientific, methodological, methodical, educational and educational spheres of the teaching staff of the AUES are taken into account. Also, when developing educational programs, the peculiarities of Kazakhstan were taken into account, as a region with a sharply continental climate, in need of specialists in the field of thermal energy and thermal technologies, as well as specialists capable of solving environmental safety problems, specialists for alternative energy.

An audit has been adopted as a management tool in the university's quality assurance activities, consisting of a planned process of systematic and objective assessment carried out by internal or external auditors who report at the request of interested parties. Audits are used to confirm objective evidence of processes, to measure how successfully processes have been implemented, to assess the effectiveness of achieving any defined standard or planned level, and to provide evidence regarding the reduction and elimination of problem areas. Another quality assurance tool is also such a tool as assessment and self-assessment. The procedures and mechanisms by which the university controls the effectiveness of the quality assurance system it has created are described and implemented in accordance with the document "Internal Quality Assurance System".

Evaluation of the effectiveness of the EP is determined by discussing and analyzing the results of academic performance, passing all types of practices, and the quality of graduation papers at meetings of collegial bodies of the university. Measures to control the quality of the educational process, carried out at different levels, are recorded in the form of records, acts, certificates, reports, etc. and are discussed at meetings of the department and the council of the Institute. Based on the analysis and evaluation of control indicators, preventive and corrective measures are being developed. Their effectiveness and efficiency are reviewed at the meetings of the department.

The educational process is organized on the interaction of learning with scientific research. At the same time, domestic and foreign best practices are used, which include: a modular educational program that meets the level of SCSE, the introduction of new pedagogical techniques and technologies: active learning, the development of independent learning, the development of creative and critical thinking, the effective use of ICT and the development of research skills.

The University has an anti-corruption policy. To do this, comprehensive anti-corruption measures are applied: the rector's blog is functioning; the examination session is conducted with the involvement of proctors from among the PTS and the ETP, and encryption of exam papers is used to ensure the objectivity of the assessment, for anonymous "blind" verification.

The analytical part

The University's Development Strategy for the period 2021-2023 is presented In the AUPET's website (<https://aues.edu.kz/>), however, according to the AUPET management, the new University Development Strategy for the period 2024-2027 has not yet been agreed and signed by the Board of Directors (founders) and has not been shown to representatives of the EEC, therefore it is impossible to assess the goals and development strategy of the EP according to paragraphs 1-4 of this Standard.

During the visit to the university, the experts verified the published and implemented quality assurance policy, which reflects the link between scientific research, teaching and learning.

Experts note that the university and the management of the EP have demonstrated the development of a culture of quality assurance, including in the context of the EP, a commitment to ensuring which applies to all ongoing processes, which is confirmed by the internal content of agreements, memorandums of cooperation, etc. documents, and is also noted by the following factors:

- Experts note attracting and training young teaching staff for the implementation of the OP 2 cluster, who practice OP training using modern modeling applications (AutoCAD, «LabVIEW», «GateCycle», «TBT-Shell», «Boiler Designer» и др.);

- Annual recognition at the national and international levels of the results of students' project activities (confirmed by certificates, diplomas, diplomas for prizes in competitions, Olympiads, conferences).

Experts note an annual decrease in the number of students, which indicates the need to strengthen work with applicants and work to improve the competitiveness of the educational institution.

The experts *have been presented with plans for the development of EP*, however, transparency in their development is not visible, since information is not provided on the full procedure for their design, approval, *correction and publication with the participation of internal and external stakeholders*.

The definition of those responsible for business processes within the framework of the cluster, the distribution of staff responsibilities, and the differentiation of functions of collegial bodies are demonstrated.

The management of educational programs and risks in their implementation is transparent at the university (representatives of employers, PTS, students and other interested persons are present in the collegial management bodies of the EP), there is an internal quality assurance system of the EP, which eventually leads to the implementation of innovative proposals in the implementation of the EP.

The management of the EP improves their qualifications in the areas of development of educational programs, in the autumn semester of 2023-2024 academic year, the PTS of the Department of TPP underwent Kaizen training, however, certificates of advanced training in the field of management in education are not presented to experts.

Strengths/best practice on EP 6B07103 «Thermal Power Engineering», 7M07102 « Thermal Power Engineering », 8D07102 « Thermal Power Engineering »:

Not revealed.

EEC recommendations for EP 6B07103 «Thermal Power Engineering», 7M07102 « Thermal Power Engineering », 8D07102 « Thermal Power Engineering »:

1. 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering» EP's Management needs in the period up to 2024-2025 academic year, review the development of a development plan for the University, taking into account all strategic directions of the university's development, based on current development programs of the region and the RK, with the definition of specific target, time indicators of achievement, with the identification of those responsible for their achievement with the participation of external stakeholders in the discussion.

2. The university management should ensure that the heads of 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering» undergo advanced training in the field of education management in the period 2024.

Conclusions of the EEC:

According to the standard "Educational program Management", 17 criteria are disclosed, of which: 14 criteria have a satisfactory position, 3 criteria require improvement.

6.2 Standart «Information management and reporting»

1. The university must ensure the functioning of the information collection, analysis and management system based on modern information and communication technologies and software
2. The management of the EP demonstrates the systematic use of processed, adequate information to improve the internal quality assurance system.
3. The management of the EP demonstrates the existence of a reporting system reflecting the activities of all structural divisions and departments within the framework of the EP, including an assessment of their effectiveness.
4. The university must determine the frequency, forms and methods of evaluating the management of the OP, the activities of collegial bodies and structural divisions, and senior management.
5. The university must demonstrate a mechanism to ensure the protection of information, including the identification of responsible persons for the reliability and timeliness of information analysis and data provision.
6. The university must demonstrate a mechanism to ensure the protection of information, including the identification of responsible persons for the reliability and timeliness of information analysis and data provision.
7. The management of the EP should demonstrate the availability of communication mechanisms with students, employees and other stakeholders, including conflict resolution.
8. The university must ensure the measurement of the degree of satisfaction of the needs of students, teaching staff and staff within the framework of the EP and demonstrate evidence of the elimination of the detected shortcomings.
9. The university should evaluate the effectiveness and efficiency of its activities in the context of the EP. The information collected and analyzed by the university within the framework of the EP should take into account:
 - key performance indicators;
 - dynamics of the contingent of students in the context of forms and types;
 - academic performance, student achievements and expulsion;
 - satisfaction of students with the implementation of the EP and the quality of education at the university;
 - availability of educational resources and support systems for students;
 - employment and career development of graduates.
10. Students, PTS staff must document their consent to the processing of personal data.
11. The management of the EP should help to provide the necessary information in the relevant fields of science.

The evidentiary part

To automate the process of collecting, analyzing and managing information, AUPET has implemented and operates information collection, analysis and management systems based on the use of ICT and software tools: the Thesis program (management of most business processes and their coordination); the official website of AUPET (general information management, news channels, advertising, etc.); AIS "Platonus" (academic information management); integrated library information system, programs "1-C Accounting".

The up-to-date support of various educational, scientific, and methodological information on the site allows the main stakeholders to obtain complete, reliable, socially significant information about the services provided and areas of educational activity or services for applicants wishing to enroll in the AUPET technical University.

In 2018, a unified mail and communication environment for interaction between university staff and students based on the domain was introduced **au.es.kz**. It is implemented on the basis of Google cloud services, in support of universities. Corporate mail covers all key employees of the AUPET and students of three levels, more than 6,000 people in total. Additional features are being actively developed, such as discussion chats, video conferences and other corporate cloud resources.

The university library occupies one of the most important places in the information and educational environment of the university, is a full participant in the educational process, provides information support for scientific and educational activities and meets the information needs of students and teaching staff in various fields of knowledge. For users, the library has 5 points of library and information services - a subscription, three reading rooms and a hall of electronic resources "Media library". Information support is also provided by the presence of an electronic library. Library processes are organized using the Automated Integrated Library System (AILS) "MegaPro", which is an innovative software solution for complex automation of information and library activities.

The library has an information services agreement with the RIEL (Republican Interuniversity Electronic Library) <http://rmebrk.kz> which provides access to the use of the combined information resources of the university libraries of the Republic of Kazakhstan (Agreement № 13 dated 5.01.2021). Registered library users have access to the "Yurite Educational Platform" <https://urait.ru> , with a full-

text database of textbooks and courses from leading Russian universities for all levels of professional education (Agreement № 6029 dated 09/18/2023).

The university has identified responsible persons for the functioning of information systems, software resources, and the reliability of the information used: a press secretary (official website of the university, social networks, mass media); a digital officer (official website of the university, AIS "Platonus"), director of DIT (AIS "Platonus").

Access to information in the AIS "Platonus" is carried out only for an authorized user and is differentiated depending on the needs of users and the functional responsibilities of the service personnel.

The analysis of information is carried out by methods of comparing indicators, the evaluation criteria of which are set out in the provisions on internal and departmental regulatory documents. The results of the analysis are reflected in the certificates, reports of the structural units of the university and provided to responsible persons for making decisions on improving the process. For example, the analysis of the results of the session is carried out by comparing it with the strategic indicators outlined in the university's strategy. Based on the results of the analysis of the session, specific decisions are made at the Academic Council of the University, action plans are being developed to eliminate deficiencies, improve academic performance, and attendance.

The university's web portal contains information on the following sections: education, science, applicants, library, university life, educational programs, institute and departments. On the website you can get brief information about the EP: scientific activity, international cooperation, the development plan of the EP, CED, IEP, etc.

The management of the EP collects and analyzes data obtained as a result of a survey and questionnaire to assess the quality assurance system of education by indicators:

- the level of academic achievement of students;
- students' satisfaction with the quality of implemented EP;
- educational resources and the effectiveness of AUPET activities;
- satisfaction of employers' organizations and the demand for graduates in the labor market;
- compliance with the requirements of the results and objectives of the educational program, etc.

For many processes in the AUPET, including the assessment of the management of the EP, a quality management system has been implemented that assesses the management of the EP, the activities of collegial bodies and structural divisions, senior management, and the implementation of scientific projects.

The assessment of the management of the EP is carried out on the basis of normative documents on the main educational programs of bachelor's, master's and doctoral studies:

- management of educational activity processes;
- planning and evaluation of the university's activities;
- the procedure for conducting a comprehensive audit, etc.

The tools for ensuring the quality of education are: State mandatory education standards; normative documents of the MSHE and the university; Academic Council, Educational and Methodological Council, etc.

Communication with the subjects of the educational process and other interested parties includes interpersonal communications: "student-teacher", "student-student", "student-stream", "teacher-teacher" in the educational process, in classrooms. Communication is also carried out through exhibitions, presentations, seminars, conferences, meetings, etc.

The management of the University uses processed, adequate information to improve the internal quality assurance system through the implementation of the strategic development plan of the university. Within the framework of the EP "Thermal Power Engineering" there is a system of regular reporting reflecting all levels of the structure, including an assessment of the effectiveness and efficiency of the activities of departments and departments, scientific research of PTS and students. For the purpose of real assessment and forecasting of the possible development of the competitive environment, the university systematically collects and analyzes information from the media and Internet resources.

In recent years, there has been a decline in incoming payments to the Thermal Power Engineering EP. The total number of enrolled applicants for full-time education in 2023 at the EP "Thermal Power Engineering" was 10 people.

The dynamics of the number of students enrolled in the EP "Thermal Power Engineering" is largely determined by the lack of grants in the SEP B162 Teploenergetika for a full cycle of training.

The University and the department annually hold events for the employment of university graduates, which include: organization of job fairs, organization of work with graduates at the request of employers. Graduates of accredited EP are successfully employed in their specialty in all regions of the Republic of Kazakhstan (widespread shortage of personnel). The TPE Department constantly monitors the work activities of graduates, invites them to an annual meeting of graduates from different years of graduation, helps in further professional growth through graduate studies and professional development.

The analysis of employment showed that the majority of graduates are employed according to the profile of the EP. Graduates of the TPE Department work in all major industries of the Republic of Kazakhstan, including: TPP-1,2,3 JSC «AIPS» Almaty, MLP «Almatythermalcommenergy», MLP «Buran Boiler», MLP "Kazakhmys energy", MLP «Kazenergonaladka», JSC "CAEPC", TPP-1 and TPP-2 JSC «Astana Energy, JSC "KNEP", JSC "Actobe TPP", JSC "Atyrau TPP", MLP "Maria", JSC "Kazremenergo", in government and commercial structures, etc.

In general, more than 85-88% of graduates of this cluster are employed (including those studying for a master's degree), including more than 70% in their specialty.

The procedure for conflict prevention and resolution is determined by the "Internal Regulations of the non-profit JSC Almaty University of Energy and Communications". The university has a student trade union committee, which includes representatives of the student youth of all institutes. In most cases, all conflicts are resolved at the level of institute directors.

In accordance with the Law of the Republic of Kazakhstan "On Personal Data", university employees and students must give written consent to the collection and processing of their personal data. Obtaining the documentary consent of students, employees and PTS for the processing of personal data is reflected in the Contract for the provision of educational services for students and in the Contract for employees and PTS.

The analytical part

Information management at the University is the collection, analysis and further dissemination of information to improve the quality of services provided, including for the management of educational, methodological, research, educational, financial and other processes. *The members of the EEC IAAR note*, that information management and reporting are provided at the University based on the use of modern information and communication technologies and software tools. Since it is the departments that provide educational services, the effectiveness and efficiency of their activities within the framework of the implementation of the EP is reflected in the annual reports on the main types of activities: educational and methodological work, SRW, educational work, etc., considered at meetings of the department, the Council of the Institute, the EMS, the Academic Council. External experts (the National Chamber of Entrepreneurs of the Republic of Kazakhstan "Atameken", Independent accreditation agencies, etc.) are also involved in assessing the effectiveness and efficiency of the EP, which make up the rating of the EP. Thus, the University ensures information management and regular reporting at the required level.

The results of the survey of students showed that they are generally satisfied with the quality of the EP (87.3%), however, in our opinion, it is necessary to improve /strengthen a number of points:

- the relationship between students and PTS (item 7 of the Questionnaire) – 31.3%;
- Internet accessibility issues (item 15 of the Questionnaire) -62.5%;
- activities of financial and administrative services of AUPET (item 8 of the Questionnaire) – 56.3%;
- discussion of the EP with students.

Strengths/best practices:

Not revealed.

ECC recommendations for EP 6B07103 «Thermal Power Engineering», 7M07102 « Thermal Power Engineering », 8D07102 «Thermal Power Engineering»:

1. The management of the EP in the development plan of the EP for 2025-2028 needs to include measures to ensure that the degree of satisfaction of the needs of students, PTS and staff within the framework of the EP with the definition of specific target, time indicators of achievement, with the identification of those responsible for their achievement with the participation of external stakeholders in the discussion.

2. The management of the EP needs to develop criteria for evaluating the effectiveness and efficiency of activities in the context of the EP. The deadline is until the beginning of the 2024-2025 academic year.

Conclusions of the EEC: According to the «Information Management and Reporting» standard, 17 criteria have been disclosed, of which 15 criteria have a satisfactory position, 2 criteria require improvement.

6.3 Standart «Development and approval of the educational program»

1. The university must demonstrate the existence of a documented procedure for the development of an EP and its approval at the institutional level.
2. The university must demonstrate the compliance of the developed EP with the established goals and planned learning outcomes.
3. The management of the EP should determine the impact of disciplines and professional practices on the formation of learning outcomes.
4. The university demonstrates the existence of a graduate model of an EP describing learning outcomes and personal qualities.
5. The qualifications assigned upon completion of the EP must be clearly defined, explained and correspond to a certain level HCK, QF-EHEA.
6. The management of the EP should demonstrate the modular structure of the program based on ECTS, ensure that the structure of the content of the EP meets the set goals with a focus on achieving the planned learning outcomes for each graduate.
7. The management of the EP should ensure that the content of academic disciplines and learning outcomes correspond to each other and to the level of study (bachelor's, master's, doctoral studies).
8. The management of the EP must demonstrate the conduct of external expertise of the EP.
9. The management of the EP must provide evidence of the participation of students, PTS and other stakeholders in the development and quality assurance of the EP.
10. The management of the EP should demonstrate the uniqueness of the educational program, its positioning in the educational market (regional/national/ international).
11. An important factor is the possibility of preparing students for professional certification.
12. An important factor is the availability of joint(s) and/or double-degree EP with foreign universities.

The evidentiary part

The EP submitted by the University for accreditation has been developed and approved in accordance with the requirements of such documents as the "Regulations on the development of educational programs of higher and postgraduate education (dated 02/24/2020), Academic Policy (08/03/2020), "Regulations on the organization and conduct of professional practice with elements of dual training" (03.08.2020)

EP 2 clusters have been developed, approved at the institutional level and registered in the Register of EHEA EP. There is a revision of the content of the EP. Both external and internal stakeholders are involved in the working group on the development and adjustment of the EP 2 cluster: representatives from «AIES» JSC Kerimkulov K. Chief of TU and Olzhabaev M. chief of PTD TPP-3, TP department's PTS and student's of EP.

Experienced specialists of the TP department took part in the development of graduate models:

- EP 6B07103 «Thermal Power Engineering» - Dostiyarov A.M., Doctor of Technical Sciences, Professor of the TP Department, AUPET; Musabekov R.A., Ph.D., Professor of the TP Department, AUPET, Borisova N.G., Ph.D., Associate Professor of the TP Department, AUPET, Kibarin A.A., Ph.D., Professor of the TP Department, AUPET.

- EP 7M07102 «Thermal Power Engineering» - Serikov E.A., Ph.D. Professor of the Department of TP, Genbach A.A., Ph.D. Professor of the Department of TP, Dostiyarov A.M., Ph.D. Professor of the Department of TP, Aliyarov B.K., Ph.D. Academician of the National Academy of Sciences of the Republic of Kazakhstan, Borisova N.G. Ph.D., Associate Professor of the Department of TP AUPET.

- EP 8D07102 «Thermal Power Engineering» - Musabekov R.A., Ph.D., Professor of the Department of TPP AUPET, Dostiyarov A.M., Ph.D., Professor of the Department of TPP, Aliyarov B.K., Ph.D., Academician of the National Academy of Sciences of the Republic of Kazakhstan, Borisova N.G., Ph.D., Associate Professor of TP AUPET, Kibarin A.A., Ph.D., Professor departments of TP AUPET.

The approval of the EP takes place in stages in accordance with the established procedure, first the EP is heard at a meeting of the department (protocol # 8 of April 21, 2023), then the EP is approved at a meeting of the EMS AUPET (Protocol # 6 of April 26, 2023), then the approval of programs is carried out at a meeting of the Academic Council of the University (protocol # 11 of 17 May 2023).

The members of the ECC IAAR note that the EP 2 clusters submitted for accreditation have passed an external review. Thus, external expertise at the stage of developing educational programs was carried out with the involvement of specialists from leading energy companies: “AIES JSC”, “Kazkotloservice” LLP, KazSRIE named after Sh.CH. Chokin. In April 2021, the University was successfully tested for compliance with the legislation of the Republic of Kazakhstan in the field of education and science and meets the qualification requirements for licensing educational activities (Act of the CQAFE of the MES of the Republic of Kazakhstan # 31 dated 06/04/2021). The University passed institutional and specialized accreditations with the Independent Accreditation and Rating Agency (IAAR) in 2019. Educational programs 6B07103 – Thermal Power Engineering, 7M07102 – Thermal Power Engineering and 8D07102 – Thermal Power Engineering are accredited by the agency for 5 years (until 2024).

The development of educational programs is carried out taking into account the proposals of employers JSC «AIEPS», LPP «Heat and communication energy», LPP « Almaty thermal networks», JSC « Samruk-Energo » and others. The opinion of employers was reflected in the development of a catalog of elective disciplines, which serves as the basis for the formation of an individual student's curriculum.

For individualization of education, a significant number of elective disciplines are presented in accredited educational institutions, which makes it possible for undergraduate students to form professional skills taking into account their interests in their future profession. Students can get acquainted with the list and brief content of the disciplines on the University's website, in the AIS "Platonus", as well as in the Register of the EP EHEA of the MSHE of the Republic of Kazakhstan.

The professional practice of students is carried out in industrial, research, design organizations, the main activity of which determines the availability of facilities and types of professional activities of graduates in EP 6B07103 «Thermal Power Engineering», 7M07102 « Thermal Power Engineering», 8D07102 « Thermal Power Engineering ». The University has concluded agreements on internships for students of cluster 2 with such enterprises as: JSC «АЛЭС» TPP-1, TPP-2, TP-3, Almaty city; LPP «AITN» Almaty city; JSC «KNE», Almaty city, LPP «Buran-Boiler» Almaty city and others. Some of the students are interning under individual internship agreements: LPP «KazakhMysEnergy», Karaganda city; LPP « Membrane technologies», Almaty city; LPP « Almatythermalcommunenergo », Almaty city; JSC « Tarazenergycenter» the city if Taraz; LPP «Karaganda Energy center» TPP-3, Karaganda city; LPP « Mangystau Nuclear Power Plant - Kazatomprom», Aktau city; JSC “Atyrau thermal networks” Atyrau city; JSC EEC, Pavlodar region, Akcu city; JSC «Aktobe TPP», Aktobe city.

With «AIES» a memorandum was signed on the preparation of students of the educational program 6B07103-“Thermal power engineering” for a dual training system. About 45 people annually undergo training at “AIES” JSC in the dual form of training with obtaining a working qualification.

Graduates, after completing their bachelor's degree in EP, can continue their studies in a master's degree in a related master's degree program.

Analytical part

The members of the EEK IAAR note that the University defines goals for each developed and approved program, the basis of which are SCSE, regulatory acts of the Republic of Kazakhstan and the needs of the labor market.

When determining the contribution of disciplines to the process of determining learning outcomes, recommendations and suggestions from employers are taken into account.

The ECC notes the need to introduce a more active practice of implementing dual training, which was also noted by groups of students, graduates, employers, and heads of practice bases at a meeting with the ECC. *It is noticed*, that the university, as a whole, is ready both morally and according to documented procedures to begin purposeful work on large-scale practice-oriented training. It is necessary to bring not only summer professional practices to the practice bases, branches of departments, but also to conduct practical, laboratory and lecture classes within the framework of full-fledged disciplines, with the preparation of official schedules at the bases of enterprises (not only guest or excursion classes).

In addition, the accredited department has excellent potential to carry out work in the field of providing students with additional professional competencies that will enable students to be more in demand and competitive after graduation due to various qualifications obtained during their studies, conducting professional certifications of students, developing and implementing programs for assigning microqualifications to students, etc.

The internal work on the development of massive open online courses should also not work only one way. It is necessary to involve your students to study external courses from open platforms to develop their professional skills.

The university management needs to move to the format of recognition of non-formal learning methods.

Strengths/best practices:

Not revealed.

ECC recommendations for EP 6B07103 «Thermal Power Engineering», 7M07102 « Thermal Power Engineering », 8D07102 « Thermal Power Engineering »:

1. 6B07103 «Thermal Power Engineering» EP's management it is necessary to include measures to expand the forms of the dual education system in the development plans of the educational institution and begin their implementation. *The deadline is by the beginning of the 2024-2025 academic year.*

2. 6B07103 «Thermal Power Engineering» EP's management to carry out purposeful work on the organization of training of students for professional certification, including the recognition of the results of non-formal education. *The deadline is by the beginning of the 2024-2025 academic year.*

3. 6B07103 «Thermal Power Engineering» EP's management due to the small enrollment of students in 2022-2023, it is necessary:

- dramatically intensify career guidance work in the admissions office, recruitment company, etc.;
- develop a specific marketing plan to increase the enrollment of students in 2024 and in subsequent years;

- to activate the positioning of the EP in the national educational market, since currently 43% of applicants for this EP are representatives of the region of the Almaty region.

Conclusions of the ECC:

According to the standard "Development and approval of educational programs", 12 criteria are disclosed, of which according to EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering": 10 are satisfactory, 2 criteria require improvement.

6.4 Standart «Continuous monitoring and periodic evaluation of educational programs»

1. The university should ensure the revision of the structure and content of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society.
2. The university must demonstrate the existence of a documented procedure for monitoring and periodic evaluation in order to achieve the goal of the EP and continuous improvement of the EP.
3. Monitoring and periodic evaluation of the EP should consider:
 - the content of the program in the context of the latest achievements of science and technology in a particular discipline;

- changes in the needs of society and the professional environment;
 - workload, academic performance and graduation of students;
 - effectiveness of student assessment procedures;
 - needs and degree of satisfaction of students;
 - compliance of the educational environment and the activities of support services with the objectives of the OP.
4. The management of the EP should publish information about the changes to the EP, inform interested parties about any planned or undertaken actions within the framework of the EP.
5. Support services should identify the needs of different groups of students and the degree of their satisfaction with the organization of training, teaching, assessment, and mastering the EP in general.

The evidentiary part

The University defines and consistently applies procedures for monitoring, periodic evaluation and revision of educational programs in order to ensure that they achieve their goals and meet the needs of students and society. The procedure for monitoring and periodic evaluation of educational activities at the university is carried out on the basis of internal documents: "Regulations on the development of educational programs of higher and postgraduate education (dated 02/24/2020), Academic Policy (08/03/2020).

The University ensures the participation of students, potential employers and other stakeholders in the evaluation and revision of programs. This is confirmed by the participation of PTS, students and employers in Academic Committees, the presence of external expertise submitted to the experts of the ECC with proposals for studying and updating the IEP cluster. Основанием для данных процедур являются:

- changes in the SCSE of higher and postgraduate education;
- the introduction of new professional standards;
- proposals of potential employers formed based on the results of a survey or joint events with graduate departments;
- recommendations from representatives of the practice bases;
- the results of the research activities of the University faculty in the field of thermal power engineering;
- changes in the regulatory requirements for the development of the EP.

The improvement of educational programs includes procedures:

- Annual examination of methodological support at the level of the meeting of departments, the EMS of the university, the Academic Council of the university.
- Annual analysis and expansion of the SED with the involvement of employers.
- Maintaining feedback with stakeholders aimed at improving the EP (round tables, final conferences on industrial, pedagogical and research practices, joint scientific and methodological seminars).
- Monitoring of the implementation of the EP at the EMS level.
- Assessment of the quality of the EP by the main stakeholders.
- Annual internal audits to determine the compliance of the planning, organization, monitoring and EP's quality processes with the established requirements.
- Analysis of the results of external quality assurance procedures.
- Review of the overall results of monitoring and evaluation of the EP, development of measures to improve

The assessment of the quality of the implementation of the EP is determined by analyzing the conducted open classes and mutual visits of PTS.

Students' academic performance is systematically monitored in the form of a discussion of the results of boundary controls 1 and 2, examination sessions in study groups. Corrective actions and decisions are taken based on the results.

The process of monitoring, evaluation and improvement is reflected in the decisions of the collegial bodies.

The quality of educational programs is assessed annually by the main stakeholders, namely:

- annual survey of students on the quality of the educational program, learning environment and support services;
- analysis of the organization of open classes and mutual visits of PTS;
- the assessment of educational results of students of the EP is considered at meetings of departments, EMS;
- interaction of the department with representatives of the practice bases, including through the joint formation of a catalog of elective disciplines.

The management of accredited EP conducts coordinated work with stakeholders, interaction is carried out through joint coordination of educational and professional practice programs, participation in conducting training sessions, performing research, participating in seminars, organizing advanced training courses, discussing topics of diploma and master's works.

The internal evaluation of educational programs is carried out through the conclusion of an expert group. Based on the conclusion of the expert group, the educational program is reviewed and recommended for approval at meetings of departments, the educational and methodological Council of the university and approved by the Academic Council of the university. After passing all the stages of approval and approval, the educational program is introduced into the educational process.

All measures to control the quality of the educational process carried out at different levels are recorded in the form of records, acts, certificates, reports, etc., and are discussed at meetings of departments, EMS and the Academic Council of the University. Based on the analysis and evaluation of control indicators, measures are being developed to improve the quality of educational programs.

The workload, academic performance and graduation of students comply with regulatory requirements and SCSE. According to the data of constant monitoring, a report on the results of the sessions is analyzed and formed. This issue is periodically considered at meetings of departments, EMS, and the Academic Council of the university in order to take the necessary measures to improve academic performance and achieve the desired results.

A student who does not agree with the results of the assessment on the exam has the right to appeal. In some cases (due to illness, family circumstances, or other objective reasons), the dean's office may allow the student to take an individual examination session.

An annual survey of students is conducted to assess the teaching activities of PTS, the analysis of the survey is carried out at meetings of departments. Based on the results of the discussion, the management of the EP decides on corrective actions.

The educational environment and support services correspond to the goals of the educational program, so the educational process for accredited programs is implemented in specialized classrooms and training laboratories equipped with the necessary equipment and software.

The analytical part

The process of monitoring, evaluating and improving the EP is the responsibility of the head of the department and is controlled by the EMS. Documentary evidence of changes in educational programs are: decisions of collegial bodies; action plans for improving educational programs updated methodological support based on decisions of collegial bodies; protocols of events. The main objectives of discussing the results of monitoring and evaluation of the educational program at collegial meetings are: to facilitate the evaluation of the educational program and its improvement; to inform about changes in external requirements for the educational program; to maintain an exchange of ideas with other organizations implementing the educational program; harmonization of content with EPS of Kazakhstan and foreign universities; determining the areas of professional development of teaching staff implementing the educational program; recommendation on passing external quality assurance procedures; determining the forms and content of feedback from stakeholders for the development of the educational program. However, experts note the need for to analyze the applied procedures for evaluating students for their effectiveness.

Informing about changes in the EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering» They are held at meetings of departments, educational and methodological councils, and the Academic Council of the university. Also, interested persons are informed about upcoming meetings on the consideration of educational programs by means

of communication (mobile communication/e-mail/WhatsApp). Facebook Instagram, Telegram), through which they inform all interested parties about the events held at the departments and at the university. *However, the ECC commission notes* the absence of a mechanism for informing all interested parties about any planned or taken actions in relation to accredited OP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering" on the university's website. The university *does not publish* information about the changes made to the EP.

ECC experts want to pay attention the university's management responded to the results of the survey of PTS (Application 3 of this report), which have unsatisfactory answers on the following points:

- the involvement of teaching staff in the process of making managerial and strategic decisions – not satisfied – 25.8% of teaching staff, the adequacy of the recognition by the university leadership of the potential and abilities of teachers – not satisfied – 16.1% of PTS, the ability of PTS to combine teaching with scientific research and practical activity – not satisfied with 19.6% of PTS, the perception of the leadership and administration of the university of criticism in their address – 25.8% of PT are not satisfied.

Strengths / best practices:

Not revealed.

ECC recommendations for EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. To the EP 6B07103 «», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering» management It is necessary to post detailed information on the university's website annually related to changes in the structure and/or content of the OP, graduate model, etc., in order to inform stakeholders about the decisions taken regarding the consideration of their proposals. *The deadline is within 10 days after the relevant changes are made.*

2. The university management needs to conduct a separate, detailed, anonymous survey of students and teaching staff, for satisfaction with technical and digital means for the implementation of the university's OP, based on the results obtained, to hold a discussion at the Academic Council of the AUE, in order to identify problematic issues, develop a plan of corrective and preventive actions, with further implementation in accordance with the timing of the development strategy the university and the *publication of information about the work done for teaching staff and students. The deadline is until the beginning of the 2024-2025 academic year.*

3. Recommend that, at the request of Employers, 3-D modeling of processes in the thermal power industry and dual training be introduced into the content of the EP.

Conclusions of the ECC:

According to the standard "Continuous monitoring and periodic evaluation of educational programs", 10 criteria are disclosed, of which: 9 - have a satisfactory position, 1 criterion – requires improvement.

6.5. Standart «Student-centered learning, teaching and performance assessment»

1. The management of the educational institution should ensure respect and attention to various groups of students and their needs, providing them with flexible learning paths.
2. The management of the EP should ensure teaching based on modern achievements of world science and practice in the field of training, the use of various modern teaching methods and evaluation of learning outcomes that ensure the achievement of the goals of the OP, including competencies, skills to perform scientific work at the required level.
3. The management of the EP should determine the mechanisms for distributing the educational load of students between theory and practice within the framework of the EP, ensuring the development of the content and achievement of the goals of the EP by each graduate.
4. An important factor is the availability of own research in the field of teaching methods of the disciplines of the EP.
5. The university must ensure that the procedures for evaluating learning outcomes are consistent with the planned results and goals of the EP.
6. The university must ensure the consistency, transparency and objectivity of the mechanism for evaluating the results of EP training, publication of criteria and assessment methods in advance.
7. Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in

this area.

8. The management of the EP should demonstrate the existence of a feedback system for the use of various teaching methods and evaluation of learning outcomes.

9. The management of the EP should demonstrate support for the autonomy of students with simultaneous guidance and assistance from the teacher.

10. The management of the educational institution must demonstrate the existence of a procedure for responding to complaints from students.

The evidentiary part

The proper level of attention and respect for different groups of students and their needs is demonstrated. The possibility of choosing elective disciplines (learning paths) based on CED is described. In AUPET the “Thermal Power Engineering” software provides flexible learning paths, which is presented in detail in the Modular Curricula of the EP. The flexibility of learning trajectories is due to the elective disciplines, as well as the choice of specialization, starting from the third year. The structure of the EP 8B07103 – “Thermal Power Engineering” allows in the learning process, at the request of the student, to master additional competencies in addition to training in the main educational direction, through the minors. The minors belong to the variable part of the EP and are implemented as students' choice of a number of disciplines. The minors are offered for all students to choose from. Each student can choose to study one major. The list of majors and minors disciplines is provided to the student at the end of the first year. Also, within the framework of the educational program, at the request of the student, it is possible to master additional competencies in addition to training in the main educational direction through the disciplines of free choice (four disciplines).

During the academic year, PTS office hours are fixed, PTS consultation schedules are available at the departments, additional information is provided in syllabuses on disciplines, the student can also contact the teacher by e-mail.

The use of modern IT technologies in the teaching process (video lectures, distance learning technologies, multimedia presentations) is emphasized. At the same time, the justification for the effectiveness of these methods and methods of teaching and learning in relation to OP, *as well as monitoring the effectiveness of their application, is not fully presented.*

Great importance is attached to the development and use of innovative methods and information technologies in the educational process. The experience of implementing the most relevant and effective methods becomes an object of exchange between teachers through demonstration and open classes and is recorded in journals of mutual visits of teachers and reflected in the work plans of the department. Lectures, training seminars, and open classes with the use of innovative technologies are systematically conducted.

Ensuring equal opportunities for students is achieved by developing educational, methodological, organizational, methodological and information support for the educational process in two languages of instruction: Kazakh and Russian.

In order to ensure social support for students, systematic work on social support has been organized - according to the strategic development plan, financial support for orphaned students and children left without parental care, financial support for students from low-income and socially vulnerable families, provision of places for nonresident and foreign students to live in student dormitories are provided. There is an agreement with catering establishments to provide coupons for free meals for orphans left without parental care. The Board of Trustees, if funds are available to the fund, appoints and pays nominal social scholarships for students from vulnerable segments of the population. Professor of the Department of TPE Kibarin A.A. is the founder of the annual social scholarship.

The university supports talented young people.

For students to choose an individual educational trajectory, the necessary conditions are created, which include: the ability to choose the language of instruction, elective disciplines, teachers; electronic registration for elective disciplines; formation of an individual curriculum; organization of an additional semester for repeated or additional study of disciplines; the possibility of learning by distance technologies; familiarization with personal results of educational achievements; the possibility of learning within the framework of academic mobility; the opportunity to use the educational portal; the possibility of using the electronic library of the university, the Republican Interuniversity electronic

Library; for conducting laboratory and practical work, students can use specialized laboratories, multimedia classrooms of the university and conditions for obtaining practical skills on the bases of practices.

The University monitors the effectiveness of the educational services provided by systematically conducting surveys of students using various standardized questionnaires. The main methods of periodic assessment of educational activities include questionnaires, conversations and surveys; internal audits; analysis of the rector's blog, "complaints and suggestions box"; media content analysis, etc.

In the learning process, a criterion generally accepted in world practice is used on a scale of alphabetic and numeric designations, reflecting the mechanism for implementing credit transfer based on the ECTS credit system. In accordance with this scale, estimates of the current, milestone and final control are set.

Knowledge assessment is carried out in accordance with the decision of the EMS meeting on the procedure for conducting exams and evaluating students' academic achievements (Protocol # 2 dated 10/30/2023). In order to ensure that each graduate learns the learning results, it is established that students take exams in writing. *At the same time, experts note*, that there are no internal approved documents regulating the procedure for conducting exams.

When implementing a student-centered approach, the feedback process takes into account the wishes and needs of students and makes decisions that are taken into account when compiling the EP. Feedback from students is carried out through the definition of an individual login and password, which creates the possibility of forming a two-way communication between the subjects of the educational process. Access to the necessary educational materials can also be obtained through the "Educational Portal" of the university's website.

The facts of the implementation of the complaint procedures are not presented due to the lack of complaints received on EP's 6B07103, 7M07102, 8D07102 -Thermal Power Engineering.

The analytical part

The university carries out systematic work on monitoring the academic performance of students. The NJSC AUPET uses a modular rating system for assessing students' knowledge, a clear gradation of assessment is adopted, presented in syllabuses of disciplines, planning for advanced training of PTS is demonstrated, with the responsibility of the procedure for the management of departments and institutes.

PTS of the EP 6B07103, 7M07102, 8D07102 –Thermal Power Engineering Traditional and interactive teaching methods are used as part of the educational process. The members of the ECC IAAR note that as part of the educational process, the following innovative teaching methods and technologies are used in the preparation of bachelors: case study, business and role-playing games; round table, discussion, debate, press conference, brainstorming, presentations.

At the same time, the experts have not been shown examples of own developed teaching methods and the availability of a feedback mechanism for the use of various teaching methods and evaluation of learning outcomes.

In NJSC AUPET a number of internal regulatory documents have been adopted defining the principles of intermediate and final control of students. The main examples related to control are given by EP 6B07103 and 7M07102 – Thermal Power Engineering. When training specialists at the doctoral level in EP 8D07102 – Thermal Power Engineering The requirements for the RWDS assessment criteria are not presented. In addition, the main purpose of a doctoral student's education should be considered to be the defense of a doctoral dissertation, assuming the required minimum of tasks (including publications, conferences and writing a dissertation), however, the report does not mention and *does not directly indicate* the mechanisms for *evaluating the achievement of these results*.

Strengths / best practices:

1. EP's management provides teaching based on modern achievements of world science and practice in the field of training (SRW, patents), the use of various modern teaching methods and evaluation of learning outcomes that ensure the achievement of the goals of the EP, including competencies, skills to perform scientific work at the required level.

2. Recommendations ECC about EP 6B07103, 7M07102, 8D07102 –Thermal Power Engineering:

1. To the management of EP 6B07103, 7M07102, 8D07102 –Thermal Power Engineering It is necessary to monitor the applied teaching methods of specialized disciplines in order to improve the quality of teaching. *The deadline is annually.*

2. Based on the results of monitoring the teaching methods used, in the development plans EP 6B07103, 7M07102, 8D07102 –Thermal Power Engineering to include measures for the development and implementation of PTS's own research in the field of teaching methods in the educational process. *The deadline is by the beginning of the 2024-2025 academic year.*

3. In the EP's developments plans 6B07103, 7M07102, 8D07102 –Thermal Power Engineering to include measures to improve the skills of teaching staff in the field of application of modern methods of *assessing students' achievements*, and to begin their implementation. *The deadline is by the beginning of the 2024-2025 academic year.*

4. To consider the possibility of introducing, at the request of Employers, a mechanism for redistributing the workload between theory and practice from the existing ratio of 30 hours.-lectures, 15 hours. – practical classes for 15 hours.-lectures and 30 hours.-practical classes.

5. The management of EP 8D07102 – Thermal Power Engineering should develop requirements for the criteria for evaluating research and development, as well as the required minimum of tasks (including publications, conferences and writing a dissertation) to enter the defense, indicating the *mechanism and evaluation* of achieving these results. *The deadline is by the beginning of the 2024-2025 academic year.*

Conclusions of the ECC:

According to the standard "Student-centered learning, teaching and assessment of academic performance", 10 criteria are disclosed, of which according to OP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering":1 criterion has a strong position, 8 criteria have a satisfactory position, 1 criterion requires improvement.

6.6. Standart «Students»

1. The university must demonstrate the policy of forming a contingent of students and ensure transparency, publication of procedures governing the life cycle of students (from admission to completion).
2. The management of the EP should provide for special adaptation and support programs for newly enrolled and foreign students.
3. The university must demonstrate compliance of its actions with the Lisbon Recognition Convention, including the existence and application of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal education.
4. The university should provide an opportunity for external and internal academic mobility of students, as well as assist them in obtaining external grants for training.
5. External and internal academic mobility of students, as well as to assist them in obtaining external grants for training.
6. The university should encourage students to self-education and development outside the main program (extracurricular activities).
7. An important factor is the availability of a support mechanism for gifted students.
8. The university should demonstrate cooperation with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility/National Academic Recognition Information Centers" ENIC/NARIC in order to ensure comparable recognition of qualifications.
9. The university must provide students with internship places, demonstrate the procedure for facilitating the employment of graduates, and maintain contact with them.
10. The university must demonstrate the procedure for issuing graduates with documents confirming their qualifications, including the achieved learning outcomes.
11. The management of the EP should demonstrate that graduates of the program have skills that are in demand in the labor market and that these skills are really relevant.
12. The management of the educational institution should demonstrate the existence of a mechanism for monitoring the employment and professional activities of graduates.
13. An important factor is the existence of an active alumni association/association.

The evidentiary part

AUPET has a policy of forming a contingent of students in the context of the EP from admission to graduation and ensures transparency of its procedures. The procedures governing the life cycle of students (from admission to completion) are defined, approved, and published in internal documents. Every year, the University approves the price list for paid educational services, agreed with the MSHE of the Republic of Kazakhstan. The NPP imposes the requirements established by the Ministry of Internal Affairs of the Republic of Kazakhstan on persons applying for training in the EP 2 cluster - the presence of an UNT certificate with a passing score (65) or a CTA (for college graduates).

The contingent of students of YP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering" is formed as a result of the annual competition for the state educational grant for EP B062 "Electrical Engineering and Energy" and on a contractual basis. The dynamics of the student body according to EP 6B07103 "Thermal power engineering" is presented in the table:

Name of the specialty / EP	Speciality				EP				
	2015	2016	2017	2018	2019	2020	2021	2022	2023
Thermal Power Engineering	78	77	77	152	68	71	64	26	10

Experts note a decrease in the number of students enrolled in the accredited EP 2 cluster.

For newly enrolled students, an orientation week is held, where introductory lectures are held, familiarization with educational and methodological documentation. Taking into account the information received, students form individual curricula, build educational trajectories, using the opportunity to choose academic disciplines, taking into account their needs in obtaining appropriate competencies within the chosen specialty.

For all students, the conditions necessary for the effective development of the chosen educational program are created in accordance with their interests and needs, providing appropriate resources (library, consulting, information, etc.). The director of the institute, the head of the department, and leading teachers conduct introductory classes where applicants get acquainted with the specifics of studying the EP, the department, study the University Charter, the rules of residence in the dormitory, the student self-government system, visit the library, reading rooms and subscriptions, where there is an extensive electronic information search system.

Each student is provided with a reference guide, which provides step-by-step information about the educational process for the entire first year of study: the schedule of the educational process, the schedule of classes, the schedule of certification, sessions, vacations, summer additional educational events; the plan of public, scientific events of the university.

Students and visitors to the official website of the university can familiarize themselves with the rules of admission, transfer from course to course, from other universities, on the procedure for transferring credits mastered at other universities, deductions, etc.

Academic mobility in AUPET is determined by the existence of mutually beneficial cooperation agreements. The main criterion for selecting students for academic mobility abroad is the availability of an international certificate (for example, IELTS, TOEFL) or successful passing of a university test (advanced level) and a GPA score of at least 3.33. The final document confirming the student's education under the mobility program is a transcript of the training. Experts note a very weak implementation of the "academic mobility of students" program.

The degree of satisfaction of students with the management system at the university is carried out by the QMS department.

Purposeful work is carried out at the university on an ongoing basis, designed to help students in the learning process, in everyday life, relationships with peers, teachers, staff, etc. Teachers are on duty in university dormitories with round tables and discussions on various topics related to both the educational process and everyday problems. Teachers of the department conduct consulting hours on a monthly basis, as part of educational work, where they try to identify existing problems in order to

eliminate them in a timely manner. In accordance with the current policy, visits to cultural events are organized on an ongoing basis in order to broaden the horizons of students.

All types of professional practices are planned and conducted in accordance with the academic calendar of the university and working curricula, according to which methodological guidelines have been compiled and approved, containing a detailed list of tasks for students, requirements for practical training, the content of practice, types of accounting documentation, samples of registration of accounting documents, etc. The referral of students to all types of practices is issued by the order of the rector of the AUPET with an indication of the terms of the internship, the practice base and the head(s) of the practice. Professors, associate professors, and experienced teachers of the department who are well aware of the specifics of the profession and the activities of the practice bases are appointed as heads of the practice. The organization of all types of practices begins with the department holding orientation conferences, where student trainees are instructed about the rules of SP, rules of conduct, and are introduced to the requirements for internship programs and accounting documentation. Each student - intern is given a package of documents, including a practice diary, an internship program, methodological manuals and a student report form. The work of the student interns is supervised by the heads of the practice from the department and the practice base.

During the implementation of the EP, special attention is paid to attracting students to SRW. The research work of students is realized through the implementation of program term papers and theses in educational and scientific laboratories of the Department of PE. Students of the EP 2 cluster annually take part in the Republican subject Olympiad among students of higher educational institutions of the Republic of Kazakhstan and take prizes. Over the past 5 years, students of the EP 2 cluster have become winners and prize-winners of various scientific and creative competitions, among them the subject Olympiad, the republican research and development competition, the republican and international review competition of diploma projects, scientific and practical conferences of students. Students receive letters of thanks and diplomas.

The indicator of the demand for graduates, their success in employment is used as an indicator of the compliance of graduate training with the social order and expectations of society, as an indicator of social security and guarantees of adaptation of graduates in new socio-economic conditions.

A Job Fair is held twice a year in AUPET. More than 50 enterprises of various forms of ownership take part in the job fair. AUPET students can directly interview specialists present at the fair, as well as view vacancies available from partner companies of the university.

The analytical part

The university has demonstrated in recent years, especially in 2022-2023, *a weak policy of forming a contingent of students in this field*. In particular, it can be noted from the communication with the PTS of the Department of Thermal Power Engineering the following points:

- complaints from the PTS of the EP about their active *non-admission to work in the admissions committee, recruitment company*. For example, in 2023, out of 10 applicants who consciously enrolled in the specialty "Thermal Power Engineering", 9 people were redirected to the specialty "Electric Power Engineering", etc., as a result of which only 1 applicant entered the department.

One can see the obvious unwillingness of the AUPET leadership to discredit the EP in order to close it in the near future, which will cause great damage to the training of highly qualified personnel in the field of Thermal energy! *After all, AUPET, the leading university of energy profile in the Republic of Kazakhstan, has a powerful material and technical base, a strong teaching staff - about 20 doctors of technical sciences, Ph.D., PhD, research is conducted at a high scientific level.*

The current model of forming a contingent of students complies with the legislation of the Republic of Kazakhstan. To increase the number of applications for admission from applicants, the Institute is working to provide applicants with information about the university and specialties. The university regulates the procedures that ensure the life cycle of students (from admission to completion).

The management of the EP has demonstrated its readiness to provide students with places of practice. A memorandum was signed with JSC "AIES" on the preparation of students of the educational program 6B07103-Thermal power engineering for a dual training system. About 20-40 people annually undergo training at "AIES" JSC in the dual form of training with obtaining a working qualification.

From 05 to 30 June 2023, 16 students of the Institute of Thermal Power Engineering and Thermal Engineering in the specialty "Thermal Power Engineering" completed an internship under the dual training program at JSC "AIES": they spent two weeks on practical training at TPP-1, three weeks passed theoretical training in the personnel training department, in addition, they also organized an excursion to TPP-3, at the end of the training, the students passed the exam, all students received certificates. The classes were conducted by experienced practitioners.

The university provides an opportunity for external and internal mobility of students. Memoranda and contracts have been signed to develop interaction between internal and external mobility. After signing an agreement with the university, a coordinator for academic mobility is appointed, who provides advisory assistance to students in determining the list of disciplines to study and apply for. Based on the application received, the university issues an order on the terms of study, languages of study and specialty.

VEK experts note the need to develop the implementation of the program "Academic mobility of students" within the framework of cluster 2.

1. Strengths / best practices:

Elements of dual education have been introduced into the student training program for EP 6B07103 "Thermal Power Engineering". Third-year students of EP 6B07103 "Thermal Power Engineering" annually undergo training at JSC "AIES" in a dual form of education with a working qualification. The management of the EP provides assistance to the employment of graduates, maintains contacts with them.

EEC recommendations for EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal power Engineering":

1. In accordance with the University's Development Program, the management of EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering": plan and achieve indicative indicators in the plans for the development of educational programs of the item "academic mobility – incoming / outgoing, internal / external". The deadline is annually.

2. The management of the university and the OP strengthen the work on the formation of the contingent of the EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power aEngineering": plan and achieve indicative indicators in the plans for the development of educational programs. *The deadline is annually.*

Conclusions of the EEC:

According to the "Students" standard, 12 criteria were disclosed, of which according to EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering": 1 criterion has a strong position, 9 criteria have a satisfactory position and 1 criterion requires improvement.

6.7 Standart «Professor-teaching staff

1. The university should have an objective and transparent personnel policy in the context of the EP, including hiring (including invited PTS), professional growth and staff development, ensuring the professional competence of the entire staff.
2. The university must demonstrate the compliance of the qualitative composition of PTS with the established qualification requirements, the university's strategy, and the goals of the EP
3. The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning and teaching.
4. The university should provide opportunities for career growth and professional development of PTS, including young teachers.
5. The university should involve in teaching specialists from relevant industries with professional competencies that meet the requirements of the EP.
6. The university must demonstrate the existence of a mechanism for motivating the professional and personal development of PTS.
7. The university should demonstrate the widespread use of PTS of information and communication technologies and software in the educational process (for example, on-line training, e-portfolio, MOOCs, etc.).
8. The university should demonstrate the focus of its activities on the development of academic mobility, attracting the best

foreign and domestic teachers.

9. The university must demonstrate the involvement of each teacher in promoting a culture of quality and academic integrity at the university, determine the contribution of PTS, including invited ones, to achieving the goals of the EP.

10. An important factor is the involvement of PTS in the development of the economy, education, science and culture of the region and the country.

The evidentiary part

The personnel policy at the department generally comes from the general personnel policy of the university. Institutional procedures in relation to teaching staff and staff (recruitment, promotion, encouragement, reduction, dismissal, rights and duties, job descriptions) have been developed on the basis of the laws of the Republic of Kazakhstan "On Education", the Labor Code, the Charter of the NJSC AUPET named after G.Daukeev."

The process of personnel selection, determining the conformity of employees' qualifications, registration of their admission, relocation and dismissal, preparation of documents for approval in the positions of employees is managed by the Department of organizational and personnel work of the university together with the heads of structural divisions and in accordance with the staffing table. Currently, there are two forms of employment in AUPET: competitive selection of applicants for the position of teaching staff, followed by the conclusion of an employment contract; conclusion of an employment contract upon application for a period of up to one year.

The procedure for holding a competition to fill vacant positions is regulated by the regulatory documents of the MES of the Republic of Kazakhstan and the Regulations on the competition developed in the AUPET. The procedure for the recruitment of teachers through a competition for vacant positions is regulated by the "Regulations on the competitive replacement of positions of the teaching staff of the NJSC Almaty University of Power Engineering and Telecommunications" (edition 5 dated 04/25/2022). The existing mechanism allows you to get a holistic view of the professional competence of the teacher, to determine his compliance with the desired position. The competition commission conducts a qualitative analysis of the indicators of the teacher's educational, methodological and research activities, studies the characteristics from the last place of work, the motivated conclusion of the department on the applicant, the voting results of the members of the host department. Long-term practice shows that there is a steady tendency to give competitive preference to masters, candidates and doctors of sciences who can contribute to improving the human resources potential of the university.

A comprehensive assessment of the professional activity of teaching staff covers educational, methodical, scientific and educational work. The competence of teachers, evaluation of the effectiveness and quality of teaching is systematically evaluated by the administration of the university and the department. Students are involved in assessing the quality of teaching staff work. An anonymous student survey "Teacher through the eyes of students" is conducted at AUPET. The survey covers all students who came to classes on the day of the survey. The questionnaire includes two questions: the student's assessment of the teacher's work and informing about cases of violation of ethical standards of behavior by teachers. The AUPET has a rating system for the activities of PTS. The complex coefficient R (rating) in accordance with the "Methodology for determining allowances (taking into account the rating - KPI) to the official salaries of employees of the NJSC AUPET is determined twice a year.

For high-quality teaching, teachers take various advanced training courses at universities and manufacturing enterprises in Almaty and far and near abroad. The results of the internship are introduced into the educational process and used in research work. *Experts note* the stable professional development of the PTS of the 2nd cluster within the framework of the specialized disciplines of the MES, which is confirmed by the availability of certificates.

Staffing of the PTS according to the staffing table is 100%. The basic education of the teaching staff of the PE department corresponds to the provision of high-quality training of specialists in the EP 2 cluster. The number of teaching staff corresponds to the contingent of students, the degree and quality of involvement of the teaching staff in interaction with students, the provision of curatorial and consulting assistance (educational consultations, admission on personal and academic issues, educational and curatorial work), the management of educational and industrial practices, research work of students and undergraduates.

The PTS involved in the implementation of EP 2 cluster includes full-time teachers with extensive experience in production, in SRI (Doctor of Technical Sciences Aliyarov B.K., Doctor of Technical Sciences Dostiyarov A.M., Candidate of Technical Sciences Dzhunusova L.R., Candidate of Technical Sciences Kibarin A.A.)

Experts note that a lot of research work is being carried out at the Department of Thermal Power plants. During the period 2019-2023, the faculty of the department published more than 250 scientific publications, including more than 35 in rating journals, 15 textbooks and 7 monographs. The effectiveness of the inventive activity of the scientists of the department is regulated by the availability of security documents, acts of implementation, copyright certificates, innovative patents and developed recommendations.

In recent years, the faculty of the Department of TPI has been actively participating in competitions for grant financing of scientific projects of the SK of the MSHE of the Republic of Kazakhstan:

- Scientific supervisor - Orumbayev Rakhimzhan Kabievich, GF 2018-2020 "Research and development of a wide range of promising hot water boilers with thermal capacity from 0.63 MW to 145 MW using natural gas, liquid and solid fuels for own industrial production in Kazakhstan" (total amount of financing 27.0 million tenge). As a result of the work, sets of working technical drawings for the manufacture of a line of hot water boilers were obtained;

- Scientific supervisor - Dostiyarov Abai Mukhamedyarovich, GF 2018-2020 "Research and development of microfibre front-end devices, integrated technical solutions to improve the environmental safety of gas turbine installations in Kazakhstan" (total amount of financing 24.0 million tenge). Based on the results of the work, recommendations for the operation of gas turbine installations and patents for the development of microfibre front-end devices were obtained;

- Scientific supervisor - Arkady Alexandrovich Shishkin, GF 2018-2020 "Research by methods of mathematical modeling and physical experiment of an innovative pulverized coal burner designed to increase the efficiency of burning Ekibastuz coal" (total amount of financing 30.0 million tenge). As a result, patent developments for an ash-collecting device were obtained.

- Scientific supervisor - Dostiyarov Abai Mukhamedyarovich, GF 2022-2024 on the topic AR14872041 "Development and research of new front-end combustion chamber devices for improving environmental safety and efficiency of gas turbine installations in Kazakhstan", under Contract № 288/30-22-24 dated 18.10.2022 from the Book of the MSHE of the Republic of Kazakhstan. The total amount of financing is 75.4 million tenge.

- Scientific supervisor - Umyshev Dias Raybekovich, GF 2023-2025 on the topic No.AR19680488 "Efficiency research and development of optimal circuit solutions for combined heat supply systems taking into account the use of renewable energy in Kazakhstan" within the framework of the grant financing agreement №340/23-25 dated 08/03/2023 with the State Enterprise "SK MSHE RK". The total amount of financing is 76.8 million tenge.

Scientific projects are also implemented within the framework of RDW and commercial projects (household contract works) STC "Research of problems of development of thermal power engineering" (Department of "Thermal Power Engineering"). Since 2019, more than 15 projects have been completed.

To date, together with the Department of "TP" at the STC "IPRTE", the following scientific research directions are being implemented: "Study of problems and prospects of coal-fired thermal power engineering" (under the guidance of Academician of the National Academy of Sciences of the Republic of Kazakhstan, Doctor of Technical Sciences Aliyarov B.K.); "Research and development of efficient boiler units and heat exchangers" (under the guidance of PhD Korobkov M.S.); "Development and research of promising fuel-burning devices" (under the guidance of prof., Doctor of Technical Sciences Dostiyarov A.M.); and SRW and RDW are also carried out, including on household services. contractual work on the basis of the engineering and technical center "Research of energy efficiency problems" (under the guidance of certified energy auditor Kasimov A.S.) and the engineering and technical center "Energy Monitoring and Expertise" (under the guidance of the head of the Department of TAU, Candidate of Technical Sciences Kibardina A.A.). In the Prince engineering and technical centers, work is carried out on energy expertise, energy and technical audit, preparation of energy saving programs, use of VER and RES, etc.

The calculation of the academic load for the academic year is carried out by the department in accordance with the working curriculum of the EP and the contingent of students. The distribution of the academic load is carried out taking into account the qualifications of teachers. Lectures are conducted by professors, associate professors, PhD doctors and senior teachers. To date, the current staff of the TP department fully ensures the strategic development of the EP "Thermal Power Engineering". The teaching load of teachers is reflected in the "Individual work Plan of the teacher", which includes a list of activities, deadlines and a report on implementation. Individual plans are approved before the beginning of the academic year by the head of the department, the director of the IEGT. The analysis of the implementation and evaluation of the activities of teachers is carried out at the end of the academic year, as evidenced by the minutes of the meetings of the departments, the conclusions of the heads of departments in individual plans.

Academic mobility involves the involvement of foreign teachers from near and far abroad (Oleg Alexandrovich Ivanin, Ph.D., specialist in the field of heat and mass transfer, energy efficiency improvement, MEI, Moscow; Professor at the Berlin Higher School of Economics and Law (Germany), Doctor of Engineering Yuri Plotkin, Ilya Iliev specialist in the field of energy efficiency and thermal power plants, University of Rousse (Bulgaria), Doctor of Engineering Sciences).

The university provides opportunities for career growth and professional development of EP's PTS. The formation of scientific and pedagogical personnel is carried out by training masters and PhD doctors. In general, the AUPET provides career opportunities for faculty of the department: master's degree, doctoral studies and further teacher, senior lecturer, associate professor, professor, head of the department, etc. In the TP Department *there are examples of career growth of PTS, starting from student years (or the position of an assistant, teacher), ending with a managerial position:* Korobkov M.S. (head of the department), Umyshev D.R., Akimbek G., Amanbekova A.K., Bondarev D.Y. All the listed PTS from their student years to the present day have worked in various positions.

In order to improve the professional level, motivate employees and stimulate employees, there is a system of awarding teachers and employees for personal contributions and achieved results in their work. For high performance in educational, methodological, research and social work, teachers are awarded badges, diplomas and letters of thanks from the President of the Republic of Kazakhstan, the Minister of Education and Science of the Republic of Kazakhstan, the Mayor's Office of the city, the Rector.

The analytical part

The analysis of the qualitative state of human resources over the years shows stability. The University conducts purposeful work on the training and retraining of scientific and pedagogical personnel. The peculiarity of the recruitment of PTS is academic continuity – it is the training of their own personnel through master's and doctoral studies and the involvement of graduates in scientific and pedagogical activities.

However, it is possible to note recently a *certain uncertainty of a number of PTS in the prospects of their future work within the framework of this EP due to the likelihood of reduction /dismissal, depending on the desire of the AUPET management.*

The University encourages the participation of teaching staff in academic mobility programs, foreign internships, joint research with foreign partners and international projects. *At the same time, the ECC notes the need to strengthen the implementation of the outgoing program* - external and internal academic mobility of teaching staff, since among the PTS of the departments of cluster 2 there is excellent potential and professionalism for sharing their experience among universities of both the Republic of Kazakhstan and foreign educational organizations.

The university actively practices a system of control visits to classes by representatives of the department. The main assessment criterion is knowledge of the subject, proficiency in teaching methods and interactive teaching methods, the ability to structure the lesson and make rational use of study time. The assessment of internal experts is reflected in the journals of mutual visits of the department.

The University implements a policy of maintaining professional standards and ethics through regulatory documents.

The analysis of the qualitative and quantitative composition of PTS in training allows us to draw

the following conclusions: teachers widely use various active teaching methods in the educational process. Innovative learning technologies have been introduced, covering all types of educational work (lectures, laboratory-practical, seminars), considerable attention is paid to distance learning technologies. The University has developed and is updating mechanisms and criteria for systematic assessment and stimulation of the effectiveness of teaching quality.

Strengths/best practice on EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. The opportunity for career growth and professional development of PTS at the university, training of their own staff through master's and PhD studies and attracting graduates to scientific and pedagogical activities.

2. Full compliance of the qualitative composition of PTS with the established qualification requirements, the university's strategy, and the goals of the EP.

ECC recommendations for EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering» EP's management to include in the plans for the development of educational programs and in the work plans of the TP department and implement the points: "Participation of PTS in the program "outgoing - external and internal academic mobility, incoming – internal academic mobility", "invitation to cooperation of Kazakhstani and foreign scientists" and begin their implementation. *The deadline is 2024-2025 academic year.*

Conclusions of the ECC:

According to the standard "PTS and teaching efficiency", 10 criteria are disclosed, of which for OP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering": 1 criterion is strong, 8 criteria have a satisfactory position, 1 criterion requires improvement;

6.8 Standart «Educational resources and student support systems»

1. The university must ensure that the infrastructure, educational resources, including material and technical ones, correspond to the objectives of the educational program.
2. The management of the EP must demonstrate the sufficiency of classrooms, laboratories and other facilities equipped with modern equipment to ensure the achievement of the goals of the EP.
3. The university must demonstrate the compliance of information resources with the needs of the university and the implemented programs, including in the following areas:
 - technological support for students and teaching staff in accordance with educational programs (for example, online training, modeling, databases, data analysis programs);
 - library resources, including a fund of educational, methodological and scientific literature on general education, basic and profile disciplines on paper and electronic media, periodicals, access to scientific databases;
 - examination of SRW, graduation papers, dissertations on plagiarism;
 - access to educational Internet resources;
 - the operation of WI-FI in its territory.
4. The university must demonstrate that it creates conditions for conducting scientific research, integrating science and education, publishing the results of the research work of PTS, staff and students.
5. The university should strive to ensure that the educational equipment and software used for the development of educational programs are similar to those used in the relevant sectors of the economy.
6. The management of the EP should demonstrate the availability of support procedures for various groups of students, including information and counseling.
7. The management of the educational institution should show the availability of conditions for the advancement of the student along an individual educational pathway.
8. The university should take into account the needs of different groups of students (adults, working, foreign students, as well as students with special educational needs).
9. The university must ensure that the infrastructure meets the security requirements.

The evidentiary part

The University has a material and technical base that provides all types of practical training and research work for teaching staff and students of cluster 2 provided for in the curriculum. Systematic work is being carried out to update and improve the material and technical base of the EP, the available resources of the department are analyzed annually and adjustments are made depending on the contingent of students, and the monitoring results are reflected in the minutes of the meeting of the TP department implementing the EP, in the minutes of the Institute Council. To replenish the resource fund, based on the submission of the department, applications for the purchase of resources are submitted to the procurement department. Employees of the procurement department select possible suppliers, and commercial offers are requested based on purchase requirements. The internal procurement commission selects the best offers, and if necessary, a tender is announced for the purchase of expensive goods and services. The university has medical centers, sports facilities, an assembly hall for organizing students' leisure, canteens, cafes and buffets. The number of computer classes, multimedia classrooms, language labs, television classrooms, interactive classrooms correspond to the modern needs of the educational process and research activities of the PTS and students.

In all computer classes and multimedia classrooms in buildings A, B, D, there is access to the information local area network of the university, as well as to the World Wide Web. In total, 1,084 workstations operate in local computer networks, of which 1,050 workstations have Internet access at a speed of 1 Gbit/sec. Local computer networks installed in buildings "A", "B", "D" are integrated into a single network through fiber-optic communication.

The University has established student support services (office registrar department, ACC- Academic Counseling Center).

For teaching students to EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»: there are 18 educational and scientific laboratories: educational laboratory A107 "Thermal power plants"; educational laboratory A109 "Superchargers and heat engines"; educational laboratory A111 "Boiler plants and steam generators"; educational laboratory A323 "Mechanics of liquid and gas"; educational laboratory A229 "Energy production and distribution systems"; educational laboratories A231 and A233 "Technology of water and fuel"; educational laboratory B133 "TTI"; educational laboratory B134 "Materials Science"; educational laboratory B135 "Technical thermodynamics and heat and mass transfer"; educational laboratories A408, A410 and A412 "Chemistry", A016 "Workshop"; STC "Research of problems of development of thermal power engineering" A503, A505; TSRL "Renewable energy sources and new technologies in energy saving" A012, TSRL "Water treatment and water-technical modes" A508.

Financing of educational programs is carried out in a timely manner, both at the expense of budget financing and from research income. Every year, the faculty participates in research competitions organized by the Committee of JSC "Science Foundation" of the Ministry of Internal Affairs of the Republic of Kazakhstan and other competitions.

The fund of educational and methodical literature is updated in accordance with the monitoring of new educational publications in the disciplines of the department, through the publication of its own textbooks and educational and methodical literature. Educational materials, software, and educational literature are available to all students. The learning environment of students, including the necessary logistical and information resources, corresponds to the goals of educational programs. For the effective operation of the infrastructure, the department's laboratory base and information resources are being modernized.

The total library stock is 600,778 copies, including 225631 copies in Kazakh, 6755 copies in foreign languages. Students and teaching staff can get access to electronic information resources from any computer at the university, in the "Media Library", as well as from home on the university's website <https://aues.edu.kz/ru/site/library>.

During the operation of the equipment, students are instructed on safety precautions when working in analytical laboratories, which is marked in a special journal. Safety requirements are regulated by the occupational health and Safety Management organization standard. When leaving for professional practice, an instruction is conducted, which is also marked in a special magazine. The management of the EP ensures equal opportunities for students.

The needs of students are identified in accordance with the Law of the Republic of Kazakhstan on Education and are met through their choice of subjects, educational and elective courses, extracurricular activities and associations in the system of additional education. The University takes into account the needs of groups of students for working students, international students, students with disabilities, and gifted students.

The analytical part

According to the results of meetings with the management, students, graduates and employers, the *ECC members found* that the university organized work in the field of career guidance, student support, created an educational environment for students to achieve the required professional level, provided representation of students in the collegial governing bodies of the university, developed methods of feedback and informing students, organized cultural and social life students.

The management of the EP, together with the management of the university, on a regular basis create conditions to ensure the sufficiency of material resources and infrastructure for conducting scientific research, providing bases of practices, integrating science into the educational process, publishing the results of research work of students.

At the same time, At the meeting with the ECC, students expressed a desire to create opportunities for opening additional coworking centers, places for extracurricular time. Accordingly, the university management needs to analyze the available resources and consider the possibility of expanding the recreation areas for students.

For students of all ages, all types of training sessions, including practical, term papers and theses, and projects are supported by modern software packages. *However, it is obvious that the university needs to expand quantitatively the park of specialized programs*, including simulators, simulators, programs for modeling thermal circuits, for the implementation of OP 2 cluster, since the prospect of future specialists in the heat power industry involves the use of a powerful computer base with professional application software packages.

The procedure for supporting students with disabilities is regulated by the regulations of the university's QMS. At the same time, *ECC experts note that the university management needs to analyze the possibilities of participation in educational and other processes* of potential groups of people with disabilities and for the identified categories of people to continue working on the organization without barrier access to all resources and processes.

At a meeting with all target groups, *the problem* of unstable operation of the Wi-Fi network at the university *was voiced*.

Strengths / best practices:

Not revealed.

ECC recommendations for EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. The university's management, taking into account the University's Development Program, should develop a roadmap for further improvement of the university's infrastructure, taking into account the special needs of students, teaching staff and other interested persons (a barrier-free environment, tactile markings and signs, the development of specialized literature, the passage of special courses for teaching staff) and begin its implementation. *The term is 2024-2025 academic year.*

2. The university management should consider allocating funding to cover the areas providing the educational process of the 2 clusters with a Wi-Fi access network. *The deadline is by the beginning of the 2024-2025 academic year.*

3. The university management should analyze the available resources and organize the expansion of recreation areas for students. *The deadline is by the beginning of the 2024-2025 academic year.*

4. The university management, together with the management of OP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering", needs to analyze the existing computer base (including the availability of professional software packages), based on the results of the analysis, determine the allocation of necessary funding for the purchase of computers and professional programs with the required power characteristics.

Conclusions of the ECC:

According to the standard "Educational resources and student support systems", 13 criteria were disclosed, of which according to OP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering": 121 criteria have a satisfactory position, 1 position requires improvement.

6.9 Standart «Informing the public»

1. The university guarantees that the published information is accurate, objective, relevant and reflects all areas of the university's activities within the framework of the educational program.
2. Public awareness should include support and explanation of the national development programs of the country and the system of higher and postgraduate education.
3. The university management should use a variety of ways to disseminate information (including mass media, web resources, information networks, etc.) to inform the general public and interested persons.
4. Information about the educational program is objective, relevant and should include:
 - the purpose and planned results of the EP, the assigned qualification;
 - information about the assessment system of students' academic achievements;
 - information about academic mobility programs and other forms of cooperation with partner universities and employers;
 - information about the opportunities for the development of personal and professional competencies of students and employment;
 - data reflecting the positioning of the OP in the educational services market (at the regional, national, and international levels)
5. An important factor is the publication on open resources of reliable information about PTS, in terms of personalities.
6. The university must publish audited financial statements on its own web resource.
7. The university should post information and links to external resources based on the results of external assessment procedures.
8. An important factor is the placement of information on cooperation and interaction with partners, including scientific/consulting organizations, business partners, social partners and educational organizations.

The evidentiary part

The "Almaty University of Power Engineering and Telecommunication named after G.Daukeev" openly publishes complete and reliable information about the university's activities, admission rules, terms and form of study, international programs and partnerships of the university, contact and other information useful for applicants and students. Teachers of the departments participate in events aimed at informing applicants, students and all interested parties.

Teaching staff and students of the university inform the general public about the activities of the AUE through the following forms: the official Internet resource of the University www.aues.edu.kz ; an online library resource with access to an electronic library <https://library.aues> .Facebook Instagram, Telegram, Twitter, Youtube; public speaking in Almaty and Almaty region; publications in republican, regional and city/trade union media.

Information on explaining the national development programs of the country and the system of higher and postgraduate education is published on the official website of the university. The information resource of the site is open and publicly available.

Information about student life (<https://aues.edu.kz/ru/student-life/index>), academic mobility (<https://ic.aues.kz/ru>), Career Center (<https://aues.edu.kz/ru/career/index>), the best students (<https://aues.edu.kz/ru/students/best>), Information about outstanding graduates (<https://aues.edu.kz/ru/graduate-new/our-graduates>) and others it is publicly available on the university's website.

One of the ways to address complaints or suggestions from interested parties is to contact the head of the university directly in his personal blog, located on the main page of the university's website. Public feedback via the rector's blog is prompt. After the next request or question is published on the blog, the answer is published during the working day.

The university holds meetings of the rector, vice-rectors, deans, heads of departments with students, employers, teachers and staff, where each participant of the meeting can ask any question of interest to any of the leaders and get reliable information.

In January 2022, the university improved its position in the international ranking of Webometrics presence in the Internet space to 26th place from 43 among 128 universities in Kazakhstan, positions were strengthened according to criteria such as "Openness" (Openness), calculated from the number of citations from the university's website by top authors of the Google Academy Bibliographic Links service (Google Scholar Citations) and "Visibility" (Visibility or Impact), calculated from the number of external sources linking to the university's website.

In 2023, AUPET took part in the UI GreenMetric world ranking, which identifies the most sustainable development-oriented universities on the planet. Moreover, according to the results of the international Rating Agency UI GreenMetric World University Rankings, our university took 468th place out of 1183 universities in the world. Among the 18 Kazakhstani higher educational institutions participating in the ranking, AUPET was awarded 4th place. The purpose of the rating is to quantify efforts to maintain the sustainability (environmental friendliness) of campuses.

The educational process is organized on the platform of AIS "Platonus". The rules for using the platform are open and available to students (<http://edu2.aues.kz/>).

An external assessment of the quality of the university's activities and the satisfaction of consumers of educational services is carried out through certification, certification and accreditation of the university and educational programs and participation in ratings. The university's participation in the ratings is a guarantee of sustainable quality.

The analytical part

The university's website contains links to significant information resources of the university, full-text electronic information systems and other resources useful for the educational and scientific process. The AUPET website contains reliable, objective, up-to-date information about the EP under consideration, which reflects the expected learning outcomes of the implemented EP; qualifications and (or) qualifications that will be assigned upon completion of the educational program; teaching approaches, training, as well as the system (procedures, methods and forms) of assessment; information about passing scores and educational opportunities provided to students; information about graduate employment opportunities.

The management of the OP provides for a variety of ways to disseminate information, including the media, information networks to inform the general public and interested parties, however, the university management needs to take targeted actions to improve the availability of up-to-date information about departments, about the specifics of the EP, and the implementation of the EP on the university's website, since there is data on the department's web page that contains outdated information.

In addition, there are no publications on open resources of reliable information about PTS, in terms of personalities.

In particular, such well-known scientists have been working fruitfully at the Department of Thermal Power Engineering for many years both in the Republic of Kazakhstan and the CIS countries, laureate of the State Prize of the Republic of Kazakhstan, Academician of the National Academy of Sciences of the Republic of Kazakhstan, Doctor of Technical Sciences, Professor Aliyarov B.K., who in recent years has been the author/co-author of a number of monographs (translation of terminology in the field of thermal energy into Kazakh and English languages).

Doctor of Technical Sciences, Professor Dostiyarov A.M. is a well-known scientist in the field of gas turbine installations, he created a scientific school in the AUPET on microfakel combustion in gas turbines, in which 1-2 young scientists of the Republic of Kazakhstan annually defend PhD dissertations.

Information about the PTS is available in a closed intra-university portal, which *does not carry* any useful load on career guidance, PR and marketing policy within the framework of the university's implemented activities.

Strengths / best practices:
Not revealed.

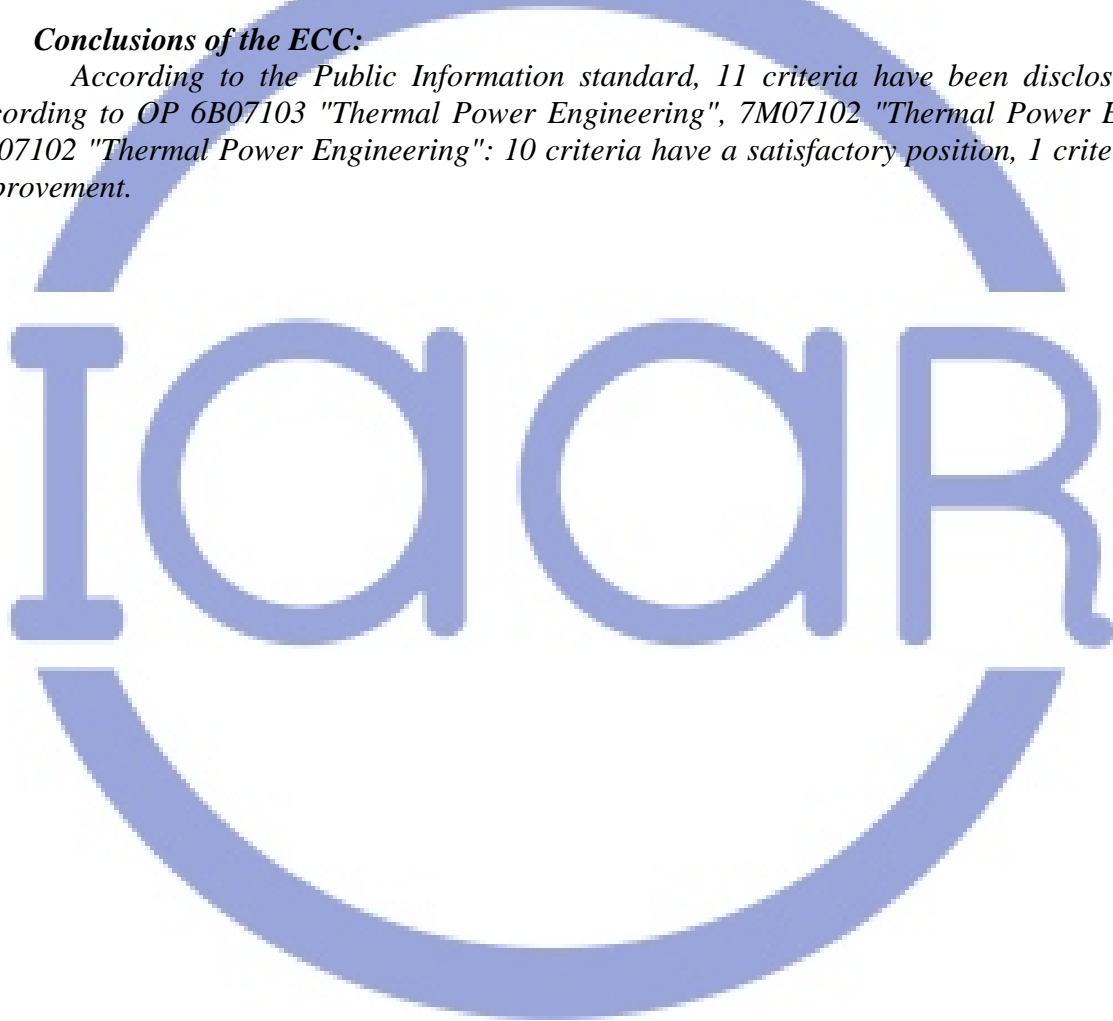
ECC recommendations to EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. By the beginning of the 2024-2025 academic year, the university management should determine the requirements for publishing reliable, objective, up-to-date information on the university's website within the framework of structural divisions, including departments and about PTS implementing EP, and begin to implement them.

2. The management of EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering", IEGT and AUPET is recommended to ensure regular and timely updating on the university's website of information about changes in the programs of OP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering", potential scientific projects, the most significant publications with the participation of students and teaching staff, as well as "success stories" of future graduates of the EP.

Conclusions of the ECC:

According to the Public Information standard, 11 criteria have been disclosed, of which according to OP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering": 10 criteria have a satisfactory position, 1 criterion requires improvement.



(VII) OVERVIEW OF STRENGTHS/BEST PRACTICES FOR EACH STANDARD

The standard "Educational Program Management"
has not been identified.

The standart «Information management and reporting»
has not been identified.

The standart «Development and approval of educational programs»
has not been identified.

The standart «Continuous monitoring and periodic evaluation of educational programs»
has not been identified.

The standart «Student-centered learning, teaching and performance assessment»

1. The management of the EP provides teaching based on modern achievements of world science and practice in the field of training (research results, patents), the use of various modern teaching methods and evaluation of learning outcomes that ensure the achievement of the goals of the EP, including competencies, skills to perform scientific work at the required level.

The standart «Students»

1. Elements of dual education have been introduced into the student training program for EP 6B07103 "Thermal Power Engineering". Third-year students of EP 6B07103 "Thermal Power Engineering" annually undergo training at JSC 'AIES' in a dual form of education with a working qualification. The management of the EP provides assistance to the employment of graduates, maintains contacts with them.

The standart «Professor-teaching staff»

1. The opportunity for career growth and professional development of PTS at the university, training of their own staff through master's and PhD studies and attracting graduates to scientific and pedagogical activities.

2. Full compliance of the qualitative composition of PTS with the established qualification requirements, the university's strategy, and the goals of the EP.

The standart «Educational resources and student support systems»
has not been identified.

The standart «Informing the public »
has not been identified.

(VIII) OVERVIEW OF RECOMMENDATIONS FOR QUALITY IMPROVEMENT FOR EACH STANDARD

According to the standard «Educational program Management»:

ECC recommendations for EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. The management of EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering" needs to review the development of the EP development plan before the 2024-2025 academic year, taking into account all strategic directions of the university's development, based on current development programs of the region and the Republic of Kazakhstan, with the definition of specific target, time indicators of achievement, with the definition of those responsible for their achievement with the participation of external stakeholders in the discussion.

2. The university management should ensure that the heads of EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering" undergo advanced training in the field of education management in the period 2024.

According to the standart «Information management and reporting»:

ECC recommendations for EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. The management of the EP in the development plan of the EP for 2025-2028 needs to include measures to ensure that the degree of satisfaction of the needs of students, teaching staff and staff within the framework of the EP with the definition of specific target, time indicators of achievement, with the identification of those responsible for their achievement with the participation of external stakeholders in the discussion.

2. The management of the EP needs to develop criteria for evaluating the effectiveness and efficiency of activities in the context of the EP. *The deadline is until the beginning of the 2024-2025 academic year.*

According to the standart «Development and approval of the educational program»:

ECC recommendations for EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. The management of EP 6B07103 "Thermal Power Engineering" needs to include measures to expand the forms of the dual training system in the development plans of the EP and begin their implementation. *The deadline is by the beginning of the 2024-2025 academic year.*

2. The management of EP 6B07103 "Thermal Power Engineering" should carry out purposeful work on organizing the preparation of students for professional certification, including recognition of the results of non-formal education. *The deadline is by the beginning of the 2024-2025 academic year.*

According to the standart «Continuous monitoring and periodic evaluation of educational programs»:

ECC recommendations for EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. The management of EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering" on the university's website must annually post detailed information related to changes in the structure and/or content of EP, graduate model, etc., to inform stakeholders about the decisions taken regarding the consideration of their proposals. The deadline is within 10 days after the relevant changes are made.

2. The university management needs to conduct a separate, detailed, anonymous survey of students and PTS, for satisfaction with technical and digital means for the implementation of the university's EP,

based on the results obtained, to hold a discussion at the Academic Council of the AUPET, in order to identify problematic issues, develop a plan of corrective and preventive actions, with further implementation in accordance with the timing of the development strategy the university and the publication of information about the work done for teaching staff and students. *The deadline is until the beginning of the 2024-2025 academic year.*

According to the standart «Student-centered learning, teaching and performance assessment»:

ECC recommendations to the EP 6B07103, 7M07102, 8D07102 –Thermal Power Engineering:

1. Manager of the EP 6B07103, 7M07102, 8D07102 –Thermal Power Engineering It is necessary to monitor the applied teaching methods of specialized disciplines in order to improve the quality of teaching. *The deadline is annually.*

2. Based on the results of monitoring the teaching methods used, the development plans of EP 6B07103, 7M07102, 8D07102 –Thermal Power Engineering include measures for the development and implementation of teaching staff's own research in the field of teaching methods in the educational process. *The deadline is by the beginning of the 2024-2025 academic year.*

3. The development plans of EP 6B07103, 7M07102, 8D07102 –Thermal Power Engineering include measures to improve the skills of teaching staff in the field of applying modern methods of evaluating student achievements, and begin their implementation. *The deadline is by the beginning of the 2024-2025 academic year.*

4. The management of EP 8D07102 – Thermal Power Engineering should develop requirements for the criteria for evaluating research and development, as well as the required minimum of tasks (including publications, conferences and writing a dissertation) to enter the defense, indicating the mechanism and evaluation of achieving these results. *The deadline is by the beginning of the 2024-2025 academic year.*

According to the standart «Students»:

ECC recommendations to the EP 6B07103 «Thermal Power Engineering», 7M07102 « Thermal Power Engineering », 8D07102 « Thermal Power Engineering »:

1. In accordance with the University's Development Program, the management of EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering ": plan and achieve indicative indicators in the plans for the development of educational programs of the item "academic mobility – incoming / outgoing, internal / external". *The deadline is annually.*

2. The management of the university and the EP strengthen the work on the formation of the contingent of the EP 6B07103 "Thermal Poer Engineering", 7M07102 "Thermal Poer Engineering", 8D07102 "Thermal Poer Engineering": plan and achieve indicative indicators in the plans for the development of educational programs. *The deadline is annually.*

According to the standart «Professor-teaching staff»:

ECC recommendations to the EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. The management of EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering" should include in the development plans of educational programs and in the work plans of the TP department and implement the points: "Participation of PTS in the program"outgoing - external and internal academic mobility, incoming – internal academic mobility", "invitation to cooperation of Kazakhstani and foreign scientists" and begin to implement them. *The deadline is 2024-2025 academic year.*

According to the standard «Educational resources and student support systems»:

ECC recommendations to the EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. The university's management, taking into account the University's Development Program, should develop a roadmap for further improvement of the university's infrastructure, taking into account the special needs of students, teaching staff and other interested persons (a barrier-free environment, tactile markings and signs, the development of specialized literature, the passage of special courses for PTS) and begin its implementation. *The term is 2024-2025 academic year.*

2. The university management should consider allocating funding to cover the areas providing the educational process of the 2 clusters with a Wi-Fi access network. *The deadline is by the beginning of the 2024-2025 academic year.*

3. The university management should analyze the available resources and organize the expansion of recreation areas for students. *The deadline is by the beginning of the 2024-2025 academic year.*

4. The university management, together with the management of EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering", needs to analyze the existing computer base (including the availability of professional software packages), based on the results of the analysis, determine the allocation of necessary funding for the purchase of computers and professional programs with the required power characteristics.

According to the standart «Informing the public»:

ECC recommendations to the EP 6B07103 «Thermal Power Engineering», 7M07102 «Thermal Power Engineering», 8D07102 «Thermal Power Engineering»:

1. By the beginning of the 2024-2025 academic year, the university management should determine the requirements for publishing reliable, objective, up-to-date information on the university's website within the framework of structural divisions, including departments and about PTS implementing EP, and begin to implement them.

2. The management of EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering", IEGT and AUPET is recommended to ensure regular and timely updating on the university's website of information about changes in the programs of EP 6B07103 "Thermal Power Engineering", 7M07102 "Thermal Power Engineering", 8D07102 "Thermal Power Engineering", potential scientific projects, the most significant publications with the participation of students and teaching staff, as well as "success stories" of future graduates of the EP.

(IX) OVERVIEW OF RECOMMENDATIONS FOR THE DEVELOPMENT OF THE ORGANIZATION OF EDUCATION

- Harmonization of the content of the university's educational activities with foreign educational organizations, purposeful work on the development of joint (network) educational programs with partner universities (including the implementation of a dual degree program).

- Expanding the geography of universities for the development of international relations with foreign educational organizations with the involvement of all interested parties, including employers, in the process.

Expanding the geography of partner enterprises to develop relationships for the organization of professional practices, internships, and places of employment.

- Development of a PR management strategy and/or a marketing strategy of the university in order to strengthen competitiveness in the educational services market.

- In order to ensure the attractiveness of students' participation in mobility programs, international programs, etc., the responsible structural unit should include in the activity plan: regular (at least 1 time per quarter) holding of international fairs, exhibitions, round tables and other international events, on an ongoing basis to provide language courses (including with native speakers) for students of AUPET, with coverage of all events in the media.

- The management of the EP should take into account the results of the PPP survey in order to make appropriate decisions (Appendix 3 of this report).

(X) RECOMMENDATIONS TO THE ACCREDITATION COUNCIL



Application 1. Evaluation table « SPECIALIZED PROFILE PARAMETERS » (EX-ANTE)

№ s/n	№ s/n	Evaluation criteria	The position of the educational organization			
			Strong	Satisfactory	Improvement is expected	Unsatisfactory
Standart «Educational program Management»						
1	1.	The university should demonstrate the development of a goal and strategy for the development of the EP based on an analysis of external and internal factors with the broad involvement of a variety of stakeholders.			+	
2	2.	The quality assurance policy should reflect the relationship between scientific research, teaching and learning.			+	
3	3.	The university demonstrates the development of a culture of quality assurance.		+		
4	4.	Commitment to quality assurance should apply to any activity performed by contractors and partners (outsourcing), including in the implementation of joint/double-degree education and academic mobility.		+		
5	5.	The management of the EP ensures transparency in the development of the EP development plan based on an analysis of its functioning, the real positioning of the university and the orientation of its activities to meet the needs of students, the state, employers and other interested parties.		+		
6	6.	The management of the EP demonstrates the functioning of mechanisms for the formation and regular revision of the EP development plan and monitoring its implementation, evaluating the achievement of learning goals, meeting the needs of students, employers and society, and making decisions aimed at continuous improvement of the EP.		+		
7	7.	The management of the EP should involve representatives of groups of interested persons, including employers, students and teaching staff in the formation of a development plan for the EP.		+		
8	8.	The management of the EP should demonstrate the individuality and uniqueness of the EP's development plan, its consistency with national development priorities and the development strategy of the educational organization.		+		
9	9.	The university must demonstrate a clear definition of those responsible for business processes within the framework of the EP, the distribution of staff responsibilities, and the differentiation of functions of collegial bodies.		+		
10	10.	The management of the EP ensures coordination of the activities of all persons involved in the development and management of the EP, and its continuous implementation, as well as involves all stakeholders in this process.		+		
11	11.	The management of the EP should ensure the transparency of the management system, the functioning of the internal quality assurance system, including its design, management and monitoring, and appropriate decision-making.		+		
12	12.	The management of the EP should carry out risk management.		+		
13	13.	The management of the EP should ensure the participation of representatives of interested persons (employers, PTS, students) in the collegial management bodies of the educational program, as well as their representativeness in making decisions on the management of the educational program.			+	
14	14.	The university must demonstrate innovation management within the framework of the EP, including the analysis and implementation of innovative proposals.		+		

15	15.	The management of the EP should demonstrate its openness and accessibility to students, PTS, employers and other interested persons.		+		
16	16.	The management of the EP confirms the completion of training in educational management programs.			+	
17	17.	The management of the EP should strive to ensure that the progress made since the last external quality assurance procedure is taken into account when preparing for the next procedure.		+		
Total according to the standard			0	14	3	0
Standart «Information management and reporting»						
18	1.	The university must ensure the functioning of the information collection, analysis and management system based on modern information and communication technologies and software		+		
19	2.	The management of the EP demonstrates the systematic use of processed, adequate information to improve the internal quality assurance system.		+		
20	3.	The management of the EP demonstrates the existence of a reporting system reflecting the activities of all structural divisions and departments within the framework of the EP, including an assessment of their effectiveness.		+		
21	4.	The university should determine the frequency, forms and methods of evaluating the management of the EP, the activities of collegial bodies and structural units, and senior management.		+		
22	5.	The university must demonstrate a mechanism to ensure the protection of information, including the identification of responsible persons for the reliability and timeliness of information analysis and data provision.		+		
23	6.	The university demonstrates the involvement of students, employees and PTS in the processes of collecting and analyzing information, as well as making decisions based on them.		+		
24	7.	The management of the EP should demonstrate the availability of communication mechanisms with students, employees and other stakeholders, including conflict resolution.		+		
25	8.	The university must ensure the measurement of the degree of satisfaction of the needs of students, teaching staff and staff within the framework of the EP and demonstrate evidence of the elimination of the detected shortcomings.			+	
26	9.	The university should evaluate the effectiveness and efficiency of its activities in the context of the EP.			+	
27	10.	The information collected and analyzed by the university within the framework of the EP should take into account:				
	10.1	key performance indicators		+		
	10.2	dynamics of the contingent of students in the context of forms and types		+		
	10.3	academic performance, student achievements and expulsion		+		
	10.4	satisfaction of students with the implementation of the EP and the quality of education at the university		+		
	10.5	accessibility of educational resources and support systems for students		+		
	10.6	employment and career development of graduates.		+		
28	11.	Students, PTS and staff must document their consent to the processing of personal data.		+		
29	12.	The management of the EP should help to provide the necessary information in the relevant fields of science		+		
Total according to the standard			0	15	2	0
Standart «Development and approval of the educational program»						
30	1.	The university must demonstrate the existence of a documented procedure for the development of an EP and its approval at the institutional level.		+		
31	2.	The university must demonstrate the compliance of the developed EP with the established goals and planned learning outcomes.		+		
32	3.	The management of the EP should determine the impact of disciplines and professional practices on the formation of learning outcomes.		+		
33	4.	The university demonstrates the existence of a graduate model of an EP describing learning outcomes and personal qualities.		+		
34	5.	The qualifications awarded upon completion of the EP must be clearly defined, explained and correspond to a certain level HCK, QF-EHEA.		+		

35	6.	The management of the EP should demonstrate the modular structure of the program based on ECTS, ensure that the structure of the content of the EP meets the set goals with a focus on achieving the planned learning outcomes for each graduate.		+		
36	7.	The management of the EP should ensure that the content of academic disciplines and learning outcomes correspond to each other and to the level of study (bachelor's, master's, doctoral studies).		+		
37	8.	The management of the EP must demonstrate the conduct of external expertise of the EP.		+		
38	9.	The management of the EP must provide evidence of the participation of students, PTS and other stakeholders in the development and quality assurance of the EP.		+		
39	10.	The management of the EP should demonstrate the uniqueness of the educational program, its positioning in the educational market (regional/national/ international)			+	
40	11.	An important factor is the possibility of preparing students for professional certification.		+		
41	12.	An important factor is the availability of joint(s) and/or double-degree EP with foreign universities.			+	
Total according to the standard			0	10	2	0
Standart «Continuous monitoring and periodic evaluation of educational programs»						
42	1.	The university should ensure the revision of the structure and content of the EP, taking into account changes in the labor market, the requirements of employers and the social demand of society.			+	
43	2.	The university must demonstrate the existence of a documented procedure for monitoring and periodic evaluation in order to achieve the goal of the EP and continuous improvement of the EP.		+		
44	3.	Monitoring and periodic evaluation of the EP should consider:		+		
	3.1	the content of the program in the context of the latest achievements of science and technology in a particular discipline;		+		
	3.2	changes in the needs of society and the professional environment		+		
	3.3	workload, academic performance and graduation of students		+		
	3.4	effectiveness of student assessment procedures		+		
	3.5	the needs and satisfaction of students;		+		
	3.6	compliance of the educational environment and the activities of support services with the goals of the EP		+		
45	4.	The management of the EP should publish information about the changes to the EP, inform interested parties about any planned or undertaken actions within the framework of the EP.			+	
46	5.	Support services should identify the needs of different groups of students and their degree of satisfaction with the organization of training, teaching, assessment, and mastering of the EP in general		+		
Total according to the standard			0	9	1	0
Standart «Student-centered learning, teaching and performance assessment»						
47	1.	The management of the EP should ensure respect and attention to different groups of students and their needs, and provide them with flexible learning paths		+		
48	2.	The management of the EP should ensure teaching based on modern achievements of world science and practice in the field of training, the use of various modern teaching methods and evaluation of learning outcomes that ensure the achievement of the goals of the EP, including competencies, skills to perform scientific work at the required level.	+			
49	3.	The management of the EP should determine the mechanisms for distributing the educational load of students between theory and practice within the framework of the EP, ensuring the development of the content and achievement of the goals of the EP by each graduate.			+	
50	4.	An important factor is the availability of own research in the field of teaching methods of the disciplines of the EP.		+		
51	5.	The university must ensure that the procedures for evaluating learning outcomes are consistent with the planned results and goals of the EP.		+		

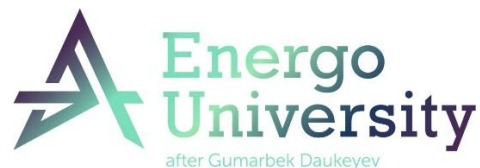
52	6.	The university must ensure the consistency, transparency and objectivity of the mechanism for evaluating the results of EP training, publication of criteria and assessment methods in advance.		+		
53	7.	Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in this area.		+		
54	8.	The management of the EP should demonstrate the existence of a feedback system for the use of various teaching methods and evaluation of learning outcomes.		+		
55	9.	The management of the EP should demonstrate support for the autonomy of students with simultaneous guidance and assistance from the teacher.		+		
56	10.	The management of the EP must demonstrate the existence of a procedure for responding to student complaints.		+		
Total according to the standard			1	8	1	0
Standart «Students»						
57	1.	The university must demonstrate the policy of forming a contingent of students and ensure transparency, publication of procedures governing the life cycle of students (from admission to completion).			+	
58	2.	The management of the EP should provide for special adaptation and support programs for newly enrolled and foreign students.		+		
59	3.	The university must demonstrate compliance of its actions with the Lisbon Recognition Convention, including the existence and application of a mechanism for recognizing the results of academic mobility of students, as well as the results of additional, formal and non-formal education.		+		
60	4.	The university should provide an opportunity for external and internal academic mobility of students, as well as assist them in obtaining external grants for training.		+		
61	5.	The university should encourage students to self-education and development outside the main program (extracurricular activities).		+		
62	6.	An important factor is the availability of a support mechanism for gifted students		+		
63	7.	The university should demonstrate cooperation with other educational organizations and national centers of the "European Network of National Information Centers for Academic Recognition and Mobility/National Academic Recognition Information Centers" ENIC/NARIC in order to ensure comparable recognition of qualifications.		+		
64	8.	The university must provide students with internship places, demonstrate the procedure for facilitating the employment of graduates, and maintain contact with them.	+			
65	9.	The university must demonstrate the procedure for issuing graduates with documents confirming their qualifications, including the achieved learning outcomes.		+		
66	10.	The management of the EP should demonstrate that graduates of the program have skills that are in demand in the labor market and that these skills are really relevant.		+		
67	11.	The management of the EP should demonstrate the existence of a mechanism for monitoring the employment and professional activities of graduates		+		
68	12.	An important factor is the existence of an active alumni association/association.		+		
Total according to the standard			1	10	1	0
Standart «Professor-teaching staff»						
69	1.	The university should have an objective and transparent HR policy in the context of the EP, including hiring (including invited PTS), professional growth and staff development, ensuring the professional competence of the entire staff.		+		
70	2.	The university must demonstrate the compliance of the qualitative composition of teaching staff with the established qualification requirements, the university's strategy, and the goals of the EP	+			
71	3.	The management of the EP should demonstrate the change in the role of the teacher in connection with the transition to student-centered learning and teaching.		+		
72	4.	The university should provide opportunities for career growth and professional development of PTS, including young teachers.		+		

73	5.	The university should involve in teaching specialists from relevant industries with professional competencies that meet the requirements of the EP.		+		
74	6.	The university must demonstrate the existence of a mechanism for motivating the professional and personal development of PTS.		+		
75	7.	The university should demonstrate the widespread use of PTS of information and communication technologies and software in the educational process (for example, on-line training, u-portfolio, MOOCs, etc.).		+		
76	8.	The university should demonstrate the focus of its activities on the development of academic mobility, attracting the best foreign and domestic teachers.		+		
77	9.	The university must demonstrate the involvement of each teacher in promoting a culture of quality and academic integrity at the university, and determine the contribution of PTS, including invited ones, to achieving the goals of the EP.		+		
78	10.	An important factor is the involvement of PTS in the development of the economy, education, science and culture of the region and the country		+		
Total according to the standard			1	8	1	0
Standard «Educational resources and student support systems»						
79	1.	The university must ensure that the infrastructure, educational resources, including material and technical ones, meet the goals of the educational program.		+		
80	2.	The management of the EP must demonstrate the sufficiency of classrooms, laboratories and other facilities equipped with modern equipment to ensure the achievement of the goals of the EP		+		
81	3.	The university must demonstrate the compliance of information resources with the needs of the university and the implemented programs, including in the following areas:				
	3.1	technological support for students and PTS in accordance with educational programs (for example, online training, modeling, databases, data analysis programs);		+		
	3.2	library resources, including a fund of educational, methodological and scientific literature on general education, basic and profile disciplines on paper and electronic media, periodicals, access to scientific databases;		+		
	3.3	examination of SRW, graduation papers, dissertations on plagiarism;		+		
	3.4	access to educational Internet resources;		+		
	3.5	the operation of WI-FI in its territory.			+	
82	4.	The university must demonstrate that it creates conditions for conducting scientific research, integrating science and education, publishing the results of the research work of PTS, staff and students.		+		
83	5.	The university should strive to ensure that the educational equipment and software used for the development of educational programs are similar to those used in the relevant sectors of the economy.		+		
84	6.	The management of the EP should demonstrate the availability of support procedures for various groups of students, including information and counseling		+		
85	7.	The management of the EP should show the availability of conditions for the advancement of the student along an individual educational trajectory.		+		
86	8.	The university should take into account the needs of different groups of students (adults, working, foreign students, as well as students with special educational needs).		+		
87	9.	The university must ensure that the infrastructure meets the security requirements.		+		
Total according to the standard			0	12	1	0
Standart «Informing the public»						
88	1.	The university guarantees that the published information is accurate, objective, relevant and reflects all areas of the university's activities within the framework of the educational program.		+		
89	2.	Public awareness should include support and clarification of the national development programs of the country and the system of higher and postgraduate education.		+		
90	3.			+		

		The university management should use a variety of ways to disseminate information (including mass media, web resources, information networks, etc.) to inform the general public and interested persons.				
91	4.	Information about the educational program is objective, relevant and should include:		+		
	4.1	the purpose and planned results of the EP, the assigned qualification;		+		
	4.2	information about the assessment system of students' academic achievements;		+		
	4.3	information about academic mobility programs and other forms of cooperation with partner universities and employers;		+		
	4.4	data reflecting the positioning of the EP in the educational services market (at the regional, national, and international levels).		+		
92	5.	An important factor is the publication of reliable information on PTS on open resources, in terms of personalities			+	
93	6.	The university must publish aerated financial statements on its own web resource.		+		
94	7.	The university should post information and links to external resources based on the results of external assessment procedures		+		
95	8.	An important factor is the posting of information about cooperation and interaction with partners, including scientific/consulting organizations, business partners, social partners and educational organizations.		+		
Total according to the standard			0	10	1	0
In total			3	95	13	0



Application 2. THE PROGRAM OF THE VISIT TO THE EDUCATIONAL ORGANIZATION



AGREED

Rector of the NJSC «Almaty University of Power Engineering and Telecommunication named after G.Daukeyev»

_____ Syzdykov M.K.
«__» _____ 2024

APPROVE

General manager of the NI «Independent agency for accreditation and rating»

_____ Zhumagulova A.B.
«__» _____ 2024

PROGRAM
VISIT OF THE EXTERNAL EXPERT COMMISSION INDEPENDENT AGENCY FOR ACCREDITATION AND RATING (IAAR) IN THE NJSC "ALMATY UNIVERSITY OF POWER ENGINEERING AND TELECOMMUNICATION"

STAGE 2 SPECIALIZED ACCREDITATION
Date of the visit: March 14-16, 2024

Date and time	ECC's work with target groups	Position and Surname, First name, Patronymic of the target group participants	The form of communication
<i>March 11, 2024</i>			
15.00-16.00 <i>According to the time of Astana</i>	Preliminary meeting of the ECC	<i>External IAAR experts</i>	Connect to the Zoom Conference: https://us02web.zoom.us/j/6813032588 Conference ID:681 303 2588
<i>March 13, 2024</i>			

<i>According to the schedule during the day</i>	Arrival of the members of the External Expert Commission		
20.00	Dinner	<i>External IAAR experts</i>	
Day 1: March 14, 2024			
08.10-09.00	Transfer from the hotel to the University	<i>Coordinator of the University – Mankhanova Azhar Yerlanovna (Director of the Department of Academic Affairs) 87772983128</i>	
09.00-09.15	Allocation of responsibility of experts, solution of organizational issues	<i>External IAAR experts</i>	Connect to the Zoom Conference: https://us02web.zoom.us/j/6813032588 Conference ID:681 303 2588
09.15-09.45	Interview with the Rector	Rector- Syzdykov Murat Kanatovich	Auditorium # 213, of the building A Connect to the Zoom Conference: https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
09.45-10.00	Technical break		
10.00-10.40	Interviews with Vice-rectors	Vice-Rector for Academic Affairs – Sarsenova Aigul Saparbekovna, Vice-Rector for Social and Educational Work - Kadylbekov Yermek Kamalbekuly, Head of the Rector's Office– Yessimzhanov Zhanat Kuanyshevich	Auditorium # 213, of the building A Connect to the Zoom Conference: https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
10.40-10.50	Technical break		
10.50-11.30	Interviews with heads of structural divisions of ED	Digital Officer – Urazakov Margulan Maksutovich, Head of the Registrar's office – Neledva Vera Vasilyevna, Financial Director - Rakhmetova Gulzia Salatovna, Director of the Department of Academic Affairs - Mankhanova Azhar Yerlanovna, Head of the Academic Counseling Center – Kudaibergen Zhuldyz Malikovna, Director of the Department of Youth Policy – Kabi Elikbay Kasenkhanuly, Chief Librarian - Natalya Stepanovna Netesova,	Auditorium # 213, of the building A Connect to the Zoom Conference: https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588

		Executive Secretary of the Admissions Committee- Almuratova Kamshat Bimuratovna.	
11.30-11.45	Exchange of views of the members of the external expert commission		Auditorium # 210 A of the building Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
11.45-12.30	Interviews with heads of departments and heads of the MEP	<p>Director of the Institute of Automation and Information Technology - Fedorenko Igor Anatolyevich, Director of the Institute of Energy and Green Technologies - Begimbetova Ainur Serikovna, Department of Automation and Control - Abzhanova Laula Kosyganovna, Department of IT Engineering - Tukenova Leila Muratbekovna, Department of Cybersecurity - Enlik Begimbayeva, Department of Electric Power Engineering - Amitov Ernar Tanibergenovich, Department of Thermal Power Engineering - Korobkov Maxim Sergeevich, Department of Renewable and Alternative Energy Sources - Shynybay Zhandos Sapargalievich,</p> <p><i>Responsible software developers EP:</i></p> <p>Thermal power engineering – Energy supply of agriculture – Sagyndikova Aigul Zhursinovna, Software engineering - Utegenova Anara Urantaevna Energy audit and energy management – Nuclear power plants and installations – Energy supply of oil and gas pumping complexes -, Automation and control - Sabina N.V., Khan S.G., Toybaeva Sh.D., Zhusupbekov S.S., Sagindikova A.Zh., Information security systems - Elena G. Satimova</p>	Auditorium # 213 of the A building
12.30-13.00	The work of the ECC	<i>External IAAR experts</i>	Auditorium # 213 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
13.00-14.00	Lunch		

14.00-14.15	Exchange of views of the members of the external expert commission		Auditorium # 213 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
14.15-15.00	Interview with the PTS of the MEP	<i>Application 1</i>	Auditorium # 213 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
15.00-15.15	Technical break		
15.00-16.00	Survey of teaching staff (in parallel)	<i>Application 1</i>	The link is sent to the e-mail of the teacher personally
15.15-16.50	Scheduled class attendance (Application: links to classes)	<i>External IAAR experts Application 4</i>	
16.00-17.00	Student survey (in parallel)	<i>Application 2</i>	The link is sent to the student's e-mail personally
16.50-17.30	Visual inspection of the ED and the material, technical, educational and laboratory base	<i>Itinerary Application 3</i>	
17.30-19.00	The work of the ECC discussion of the results of the first day	<i>External IAAR experts</i>	Auditorium # 210 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
19.00-20.00	Dinner		
Day 2: March 15, 2024			
08.10-09.00	Transfer from the hotel to the University		
09.00-09.15	The work of the ECC		Auditorium # 210 of the building A

			Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
09.15-10.50	Interviews with MEP students	<i>Application 2</i>	Auditorium # 213 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
10.50-11.30	Meeting with stakeholders (representatives of practice bases and employers)	<i>Application 5</i>	Auditorium # 213 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
11.30-11.40	Technical break		
11.40-13.00	Working with documents (documents must be uploaded to the cloud in advance)		Auditorium # 210 building A
13.00-14.00	Lunch		
14.00-14.15	Technical break		
14.15-15.00	Interviews with graduates of the MEP	<i>Application 6</i>	Auditorium # 213 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
15.00-17.00	Selective visits to EP practice bases	<i>Application 7</i>	
17.00-17.15	Technical break		
17.00-18.00	The work of the EEC, discussion of the results of		Auditorium # 210 of the building A

	the second day and profile parameters (recording is underway)		Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
18.30-19.30	Dinner		
Day 3: March 16, 2024			
08.10-09.00	Transfer from the hotel to the University		
09.00-10.00	The work of the ECC is the development and discussion of recommendations (a record is being kept)	<i>External IAAR experts</i>	Auditorium # 210 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
10.00-10.20	Technical break		
10.20-12.30	The work of the ECC is discussed, decisions are made by voting (recording is being conducted)	<i>External IAAR experts</i>	Auditorium # 210 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
12:30-13:00	The final meeting of the ECC with the leadership of the university		Auditorium # 213 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
13.00-14.00	Lunch		
14.00-15.00	The work of the ECC, Discussion of the results of the quality assessment	<i>External IAAR experts</i>	Auditorium # 210 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588
15.00-15.15	Technical break		
15.15-18.00	The work of the ECC, Discussion of the results of the quality assessment	<i>External IAAR experts</i>	Auditorium # 213 of the building A Connect to the Zoom Conference https://us02web.zoom.us/j/6813032588 Conference ID: 681 303 2588

Application 3. THE RESULTS OF THE TEACHER SURVEY**The PTS questionnaire**

The results of an anonymous survey of the PTS Almaty University of Power Engineering and Telecommunication named after Gumarbek Daukeev

1. Total number of questionnaires: 31**2. Which EP do you serve:**

6B07103 Thermal Power Engineering	10 peop	32,3%
7M07102 Thermal Power Engineering	3 peop	9,7%
8D07102 Thermal Power Engineering	1 peop	3,2%
6B06105 Software Engineering	2 peop	6,5%
6B07106 Nuclear power plants and installations	1 peop	3,2%
6B07113 Energy audit and energy management	3 peop	9,7%
6B07126 Energy supply of oil and gas pumping complexes	1 peop	3,2%
6B07108 Automation and management	9 peop	29%
7M07105 Automation and management	1 peop	3,2%

3. Position

Professor	4 peop	12,9%
Docent	13 peop	41,9%
Senior Teacher (senior teacher)	9 peop	29%
Teacher (lecturer)	4 peop	12,9%
Head of the Department	1 peop	3,2
Acting professor		
Docent		

4. Academic degree, academic title

Honored Worker of the Republic of Kazakhstan	0 peop	0%
Doctor of Science	1 peop	3,2%
Candidate of science	7 peop	22,6%
Master's degree	11 peop	35,5%
PhD	8 peop	25,8%
Professor	0 peop	0%
Docent	3 peop	9,7%
No	4 peop	12,9%

5. Work experience

Less than 1 year		
1 year – 5 years	8	25,8%
Over 5 years	23 peop	74,2%

No	Questions	Very well	Well	Relatively bad	Bad	Very poor	Didn't answer
6	To what extent does the content of the educational program meet your scientific and professional interests and needs?	20 peop (64,5%)	11 peop (35,5%)	0 peop (0%)	0 peop (0%)	0 peop (0%)	-
7	How do you assess the opportunities provided by the University for the professional development of PTS	13 peop (41,9%)	16 peop (51,6%)	2 peop (6,5%)	0 peop (0%)	0 peop (0%)	-
8	How do you assess the opportunities provided by the	12 peop (38,7%)	18 peop (58,1%)	1 peop (3,2%)	0 peop (0%)	0 peop (0%)	-

	University for the career growth of PTS						
9	How do you assess the degree of academic freedom of the faculty	12 peop (38,7%)	17 peop (54,8%)	2 peop (6,5%)	0 peop (0%)	0 peop (0%)	-
	To what extent can teachers use their own						
10	• Strategies	16 peop (51,6%)	14 peop (45,2%)	1 peop (3,2%)	0 peop (0%)	0 peop (0%)	-
11	• Methods	20 peop (64,5%)	10 peop (32,3%)	1 peop (3,2%)	0 peop (0%)	0 peop (0%)	-
12	• Innovations in the learning process	13 peop (41,9%)	15 peop (48,4%)	3 peop (9,7%)	0 peop (0%)	0 peop (0%)	-
13	How do you assess the work on the organization of medical care and disease prevention at the university?	10 peop (32,3%)	19 peop (61,3%)	2 peop (6,5%)	0 peop (0%)	0 peop (0%)	-
14	How is the management of the educational institution paying attention to the content of the educational program?	11 peop (35,5%)	20 peop (64,5%)	0 peop (0%)	0 peop (0%)	0 peop (0%)	-
15	How do you assess the sufficiency and accessibility of the necessary scientific and educational literature in the library?	15 peop (48,4%)	14 peop (45,2%)	2 peop (6,5%)	0 peop (0%)	0 peop (0%)	-
16	Do you assess the level of conditions created that take into account the needs of different groups of students?	9 peop (29%)	20 peop (64,5%)	1 peop (3,2%)	1 peop (3,2%)	0 peop (0%)	-
	Evaluate the accessibility of the manual						
17	• For students	13 peop (41,9 %)	16 peop (51,6%)	2 peop (6,5%)	0 peop (0%)	0peop (0%)	-
18	• For teachers	10 peop (32,3%)	17 peop (54,8%)	4 peop (12,9%)	0 peop (0%)	0 peop (0%)	-
19	Evaluate the involvement of the PTS in the process of making managerial and strategic decisions	6 peop (19,4%)	17 peop (54,8%)	8 peop (25,8%)	0 peop (0%)	0 peop (0%)	-
20	How is the innovation activity of PTS encouraged?	8 peop (25,8%)	18 peop (58,1%)	5 peop (16,1%)	0 peop (0%)	0 peop (0%)	-
21	Evaluate the level of feedback between the PTS and the management	9 peop (29%)	18 peop (58,1%)	4 peop (12,9%)	0 peop (0%)	0 peop (0%)	-
22	What is the level of stimulation and involvement of young professionals in the educational process?	11 peop (35,5%)	17 peop (54,8%)	3 peop (9,7%)	0 peop (0%)	0 peop (0%)	-
23	Evaluate the created opportunities for professional and personal growth for each teacher and employee	11 peop (35,5%)	18 peop (58,1%)	2 peop (6,5%)	0 peop (0%)	0 peop (0%)	-
24	Assess the adequacy of recognition of the potential and abilities of teachers	11 peop (35,5%)	15 peop (48,4%)	5 peop (16,1%)	0 peop (0%)	0 peop (0%)	-
	How is the work done						
25	• Academic mobility	9 peop (29%)	20 peop (64,5%)	2 peop (6,5%)	0 peop (0%)	0 peop (0%)	-
26	• Professional development of PTS	11 peop (35,5%)	17 peop (54,8%)	3 peop (9,7%)	0 peop (0%)	0 peop (0%)	-
	Appreciate the support of the university and its management						
27	• Scientific research initiatives of the PTS	9 peop (29%)	18 peop (58,1%)	4 peop (12,9%)	0 peop (08%)	0 peop (0%)	-
28	• Development of new educational programs/academic disciplines/methods	15 peop (48,4%)	16 peop (51,6%)	0 peop (0%)	0 peop (0%)	0 peop (0%)	-
	Assess the level of faculty's ability to combine PTS						
29	• With scientific research	10 peop (32,3%)	15 peop (48,4%)	5 peop (16,1%)	1 peop (3,5%)	0 peop (0%)	-

30	• With practical activities	10 peop (32,3%)	16 peop (51,6%)	4 peop (12,9%)	1 peop (3,2%)	0 peop (0%)	-
31	Assess how well the students' knowledge obtained at this university corresponds to the realities of the requirements of the modern labor market	13 peop (41,9%)	18 peop (58,1%)	0 peop (0%)	0 peop (0%)	0 peop (0%)	-
32	How does the management and administration of the university perceive criticism in their address?	4 peop (12,9%)	1 peop (61,3%)	8 peop (25,8%)	0 peop (0%)	0 peop (0%)	-
33	Assess how well your academic workload meets your expectations and capabilities	9 peop (29%)	18 peop (58,1%)	3 peop (9,7%)	1 peop (3,2%)	0 peop (0%)	-
34	Evaluate the focus of educational programs/training programs on the formation of students' skills and abilities to analyze the situation and make forecasts	13 peop (41,9%)	18 peop (58,1%)	0 peop (0%)	0 peop (0%)	0 peop (0%)	-
35	Evaluate how the educational program meets the expectations of the labor market and employers in terms of content and quality of implementation	14 peop (45,2%)	16 peop (51,6%)	1 peop (32%)	0 peop (0%)	peop (0%)	-

36. Why do you work at this university?

- ✓ After graduation, I had the choice to work in production or at the university. I decided to work for a year and then decide. I enjoyed teaching and therefore decided to continue. And why this particular university, because firstly, I like that there are opportunities to work in a scientific direction, i.e. combine them. Also, the atmosphere in the team plays an important role in choosing a place of work. I believe that our university has opportunities for career growth. And an important factor is employee bonuses. *разумие, перспективы*
- ✓ AUPET - one of the leading universities in the field of technology, Central Asia,
- ✓ I chose to work at this university because I believe in its mission and the values of education. This university is known for its high-quality educational process and attractive learning environment, which promotes the development of students and helps them achieve success.
- ✓ The only specialized university in the energy sector
- ✓ The opportunity to realize the professional qualities of a teacher and scientist in one of the best technical universities of the Republic of Kazakhstan for 29 years
- ✓ High professionalism of the department. Management support
- ✓ I have been working at this university for almost 40 years. I have been teaching since the opening of the Department of Engineering Thermophysics, now the Department of Thermal Power Engineering. For many years we have been training industrial thermal power engineers for the country's economy. I like the organization of the student's learning process from the first year to the last year, where I take a direct part in various stages of training (reading special courses, applying for industrial and postgraduate practice, thanks to many years of communication with industrial enterprises and even assistance in hiring graduates of the department). To be honest, I am very happy when my graduate student or just a graduate of our department got a job in his specialty and years later this graduate achieved career growth and asks us to send our students to his company for employment. This is the main point of your work at the university, that you see the result of your work!
- ✓ I graduated from this university.
- ✓ I don't like to change places
- ✓ Enrolled in doctoral studies
- ✓ Because this is my second Homeland!
- ✓ There are opportunities to combine teaching with scientific research. Good bachelor's degree level. The university has a good reputation. Conformity to values and culture.
- ✓ I love AUPET
- ✓ Here, students really study on their own, they get grades for their knowledge. There is a very high level of teaching staff at the department, there is a lot to learn from them, the material is very complex, but interesting.
- ✓ Where is it? The highest level of qualifications of the teaching staff is here, this is the first! And the second one! I grew up here!
- ✓ I have been working at this university for 20 years. Attitude to teaching staff and students, discipline, exactingness.
- ✓ The best of the available options.
- ✓ I like to study and teach students.
- ✓ It just so happened.
- ✓ 1. The opportunity to combine teaching and doctoral studies, as well as research activities. 2. The qualification level of the PTS, I think I can learn a lot from my colleagues. 3. The atmosphere at the department and the support of colleagues. 3. I consider AUPET to be one of the best universities in the Republic of Kazakhstan

37. How often are master classes and reading of topics with the participation of practitioners conducted as part of your course?

very often	2 peop	6,5%
often	15 peop	48,4%
sometimes	12 peop	38,7%
very rarely	2 peop	6,5%
Absolutely not	2 peop	6,5%

38. How often do invited teachers (domestic and foreign) participate in the learning process?

very often	3 peop	9,7%
often	12 peop	38,7%
sometimes	12 peop	41,9%
very rarely	3 peop	9,7%
never	3 peop	9,7%

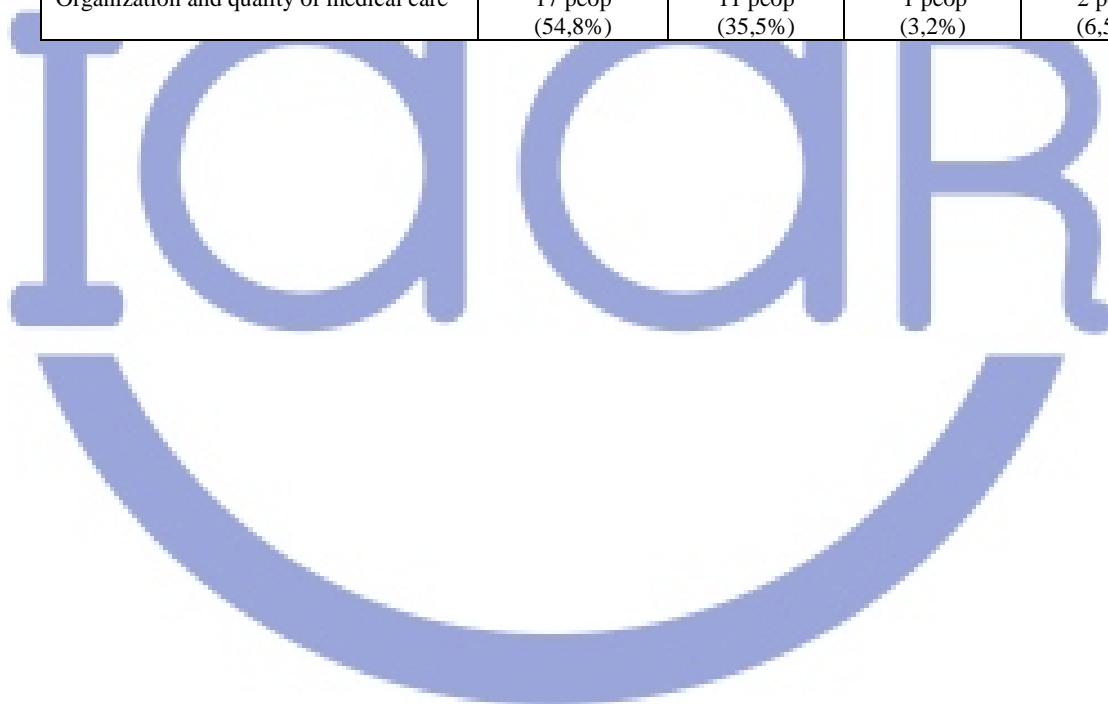
39. How often do you encounter the following problems in your work: (please give an answer in each line)

	Often	Sometimes	Never	There is no answer
Lack of classrooms	2 peop (6,5%)	13 peop (41,9%)	16 peop (51,6%)	-
Unbalanced academic load by semester	2 peop (6,5%)	15 peop (48,4%)	14 peop (45,2%)	-
Unavailability of necessary literature in the library	0 peop (0%)	11 peop (35,5%)	20 peop (64,5%)	-
Overcrowding of study groups (too many students in a group)	2 peop (6,5%)	11 peop (35,5%)	18 peop (58,1%)	-
Inconvenient schedule	2 peop (6,5%)	12 peop (38,7%)	17 peop (54,8%)	-
Inappropriate classroom conditions	2 peop (6,5%)	14 peop (45,2%)	15 peop (48,4%)	-
Lack of Internet access/weak Internet	5 peop (16,1%)	14 peop (45,2%)	12 peop (38,7%)	-
Students' lack of interest in learning	2 peop (6,5%)	17 peop (54,8%)	12 peop (38,7%)	-
Late receipt of information about events	1 peop (3,2%)	11 peop (35,5%)	19 peop (61,3%)	-
Lack of technical facilities in classrooms	4 peop (12,9%)	16 peop (51,6%)	11 peop (35,5%)	-
Other problems	<ul style="list-style-type: none"> ✓ No ✓ no, no problem ✓ Lack of modern professional software products for thermal power engineering ✓ I ask the Ministry of Higher Education and Science to revise the classifier and withdraw EP Teploenergetika from the group of EP Electrical Engineering and Energy. ✓ More hours are allocated for laboratory work. ✓ No ✓ added to the rank ✓ There are no significant problems at the university, as all the necessary conditions for effective work have been created. ✓ I would like a uniform load. In our specialty, we constantly have to study a lot. I would like to do more science, but there is very little time ✓ Equipping lecture halls with computer equipment and screens. ✓ Low teacher salary ✓ It is inconvenient that the teaching room is located in Building D, and all the cathedral laboratories are in Building A ✓ No 			

40. There are many different sides and aspects in the life of the university that affect every teacher and employee in one way or another. Rate how satisfied you are:

Question	Completely satisfied	Partially satisfied	Not satisfied	I find it difficult to answer
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The attitude of the university management towards you	16 peop (51,6%)	15 peop (48,4%)	0 peop (0%)	0 peop (0%)
Relations with direct management	23 peop (74,2%)	8 peop (25,8%)	0 peop (0%)	0 peop (0%)
Relations with colleagues at the department	28 peop (90,3%)	3 peop (9,7%)	0 peop (0%)	0 peop (0%)
Participation in management decision-making	16 peop (51,6%)	14 peop (45,2%)	1 peop (3,2%)	0 peop (0%)
Relations with students	27 peop (87,1%)	4 peop (12,9%)	0 peop (0%)	0 peop (0%)
Recognition of your successes and achievements by the administration	19 peop (61,3%)	9 peop (29%)	1 peop (3,2%)	2 peop (6,5%)
Support for your suggestions and comments	18 peop (58,1%)	10 peop (32,3%)	3 peop (9,7%)	0 peop (0%)
The activities of the university administration	16 peop (51,6%)	12 peop (38,7%)	1 чел. (3,2%)	2 чел. (6,5%)
Terms of payment	11 peop (35,5%)	15 peop (48,5%)	5 peop (16,1%)	0 peop (0%)
Working conditions, list and quality of services provided at the university	22 peop (71%)	8 peop (25,8%)	1 peop (3,2%)	0 peop (0%)
Occupational safety and health	22 peop (71%)	8 peop (25,8%)	1 peop (3,2%)	0 peop (0%)
Managing changes in the university's activities	14 peop (45,2%)	15 peop (48,4%)	1 peop (3,2%)	1 peop (3,2%)
By providing a social package: rest, sanatorium treatment, etc.	10 peop (32,3%)	16 peop (51,6%)	2 peop (6,5%)	3 peop (9,7%)
Organization and quality of nutrition at the university	18 peop (58,1%)	10 peop (32,3%)	1 peop (3,2%)	2 peop (6,5%)
Organization and quality of medical care	17 peop (54,8%)	11 peop (35,5%)	1 peop (3,2%)	2 peop (6,5%)



Application 4. THE RESULTS OF THE STUDENT SURVEY*Application form for students*

The results of an anonymous student survey

NJCS «Almaty University of Power Engineering and Telecommunication named after G.Daukeyev»

Total number of questionnaires: 16

Man (male)	12 peop	75 %
Woman (femal)	4 peop	25%

1. evaluate how satisfied you are with the following situations: (please note that you are satisfied:)

Questions	Completely satisfied	Partially satisfied	Partially dissatisfied	Not satisfied	I find it difficult to answer
1. Relations with the Dean's office	10 peop (62,5 %)	5 peop (31,3 %)	0 peop (0 %)	1 peop (6,3 %)	0 peop (0 %)
2. The level of accessibility of the dean's office	12 peop (75 %)	3 peop (18,8 %)	0 peop (0 %)	1 peop (6,3 %)	0 чел (0 %)
3. The level of accessibility and responsiveness of the university management	10 peop (62,5 %)	5 peop (31,3 %)	0 peop (0 %)	1 peop (6,2 %)	0 чел (0 %)
4. The availability of academic counseling to you	12 peop (75 %)	1 peop (6,3 %)	1 peop (6,3 %)	1 peop (6,3 %)	0 чел (6,3 %)
5. Support of educational materials in the learning process	13 peop (81,3 %)	2 peop (12,5%)	1 peop (6,3 %)	0 peop (0 %)	0 чел (0 %)
6. Availability of personal counseling	12 peop (75 %)	2 чел (12,5 %)	0 чел (0 %)	0 чел (0 %)	2 чел (12,5 %)
7. Student-teacher relationship	8 peop (50 %)	5 peop (31,3 %)	2 peop (12,5 %)	0 peop (0 %)	1 чел (6,3 %)
8. Financial and administrative services of the educational institution	9 peop (56,3 %)	5 peop (31,3%)	0 peop (0%)	1 peop (6,3 %)	1 чел (6,3 %)
9. Accessibility of health services	12 peop (75 %)	3 peop (18,8 %)	0 peop (0 %)	0 peop (0 %)	1 чел (6,3 %)
10. The quality of medical care at the university	11 peop (68,8 %)	4 peop (25 %)	0 peop (%)	0 peop (%)	1 чел (6,3%)
11. The level of accessibility of library resources	13 peop (81,3 %)	1 peop (6,3 %)	1 peop (6,3 %)	0 peop (0 %)	1 чел (6,3 %)
12. The quality of services provided in libraries and reading rooms	14 peop (87,5 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)	1 чел (6,3 %)
13. Satisfaction with the existing educational resources of the university	13 peop (81,3 %)	2 peop (12,5%)	0 peop (0 %)	0 peop (0 %)	1 чел (6,3 %)
14. Availability of computer classes	13 peop (81,3 %)	2 peop (12,5%)	0 peop (0 %)	0 peop (0 %)	1 чел (6,3 %)
15. The availability and quality of Internet resources	10 peop (62,5 %)	4 peop (25 %)	1 peop (6,3%)	1 peop (6,3 %)	0 чел (%)
16. The content and information content of the website of educational organizations in general and faculties (schools) in particular	11 peop (68,8 %)	4 peop (25 %)	0 peop (0 %)	0 peop (0 %)	1 чел (6,3 %)
17. Classrooms, classrooms for large groups	9 peop (56,3%)	4 peop (25 %)	2 peop (12,5 %)	1 peop (6,3 %)	0 чел (0 %)
18. Rest rooms for students (if available)	9 peop (56,3 %)	1 peop (6,3 %)	1 peop (6,3 %)	3 peop (18,3 %)	2 чел (12,5 %)
19. Clarity of the procedure for taking disciplinary action	12 peop (75 %)	3 peop (18,8 %)	0 peop (0 %)	0 peop (0 %)	1 чел (6,3 %)
20. The quality of the educational program as a whole	9 peop (56,3 %)	5 peop (31,3 %)	1 peop (6,3 %)	1 peop (6,3 %)	0 чел (0 %)
21. The quality of educational programs in the EP	9 peop (56,3 %)	4 peop (25 %)	2 peop (6,3 %)	1 peop (6,3 %)	0 чел (0 %)

Questions	Completely satisfied	Partially satisfied	Partially dissatisfied	Not satisfied	I find it difficult to answer
22. Teaching methods in general	10 peop (62,5 %)	4 peop (25 %)	1 peop (6,3 %)	0 peop (0 %)	1 peop (6,3 %)
23. The speed of response to feedback from teachers regarding the educational process	11 peop (68,8 %)	5 peop (31,3 %)	0 peop (0 %)	0 peop (0 %)	0 peop (0 %)
24. The quality of teaching in general	9 peop (56,3 %)	6 peop (37,5 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)
25. Academic workload/student requirements	11 peop (68,8 %)	2 peop (12,5 %)	1 peop (1 %)	1 peop (1 %)	1 peop (1 %)
26. The requirements of the PTS for the student	14 peop (87,5 %)	1 peop (6,3 %)	0 peop (0 %)	0 чел (0 %)	1 peop (6,3 %)
27. Information support and explanation of the admission rules and the strategy of the educational program (specialty) before admission to the university	10 peop (62,5%)	4 peop (25 %)	1 peop (6,3 %)	0 peop (0 %)	1 peop (6,3 %)
28. Informing the requirements in order to successfully complete this educational program (specialty)	13 peop (81,3 %)	1 peop (6,3 %)	1 peop (6,3 %)	0 peop (0 %)	1 peop (6,3 %)
29. The quality of examination materials (tests and examination questions, etc.)	11 peop (68,8 %)	4 peop (25 %)	0 peop (0 %)	0 peop (0 %)	1 peop (6,3 %)
30. The objectivity of the assessment of knowledge, skills and other educational achievements	13 peop (81,3 %)	2 peop (12,5 %)	0 peop (0 %)	0 peop (0 %)	1 peop (6,3 %)
31. Available computer classes	13 peop (81,3 %)	1 peop (6,3 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (6,3 %)
32. Available scientific laboratories	12 peop (75 %)	3 peop (18,8 %)	0 peop (0 %)	0 peop (0 %)	1 peop (6,3 %)
33. Objectivity and fairness of teachers	10 peop (62,5 %)	5 peop (31,3 %)	0 peop (0 %)	0 peop (0 %)	1 peop (6,3 %)
34. Informing students about courses, educational programs and academic degrees	12 peop (75 %)	3 peop (18,8 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)
35. Providing students with a dormitory	13 peop (81,3 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)	2 peop (12,5 %)

4. Rate how much you agree:

Statement	Full consent	I agree	I partially agree	I disagree	Complete disagreement	They didn't answer
1. The course program was clearly presented	9 peop (56,3 %)	5 peop (31,3 %)	2 peop (12,5 %)	0 peop (0 %)	0 peop (0 %)	-
2. The course content is well structured	10 peop (62,5 %)	3 peop (18,8 %)	2 peop (12,5 %)	1 peop (6,3 %)	0 peop (0 %)	-
3. The key terms are sufficiently explained	9 peop (56,3 %)	6 peop (37,5 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)	-
4. The material proposed by the teacher is relevant and reflects the latest achievements of science and practice	9 peop (56,3 %)	4 peop (25 %)	3 peop (18,8 %)	0 peop (0 %)	0 peop (0 %)	-
5. The teacher uses effective teaching methods	8 peop (50 %)	6 peop (37,5 %)	2 peop (12,5 %)	0 peop (0 %)	0 peop (0 %)	-
6. The teacher owns the taught material	12 peop (75 %)	3 peop (18,8 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)	-
7. The teacher's presentation is clear	10 peop (62,5 %)	4 peop (25 %)	2 peop (12,5 %)	0 peop (0 %)	0 peop (0 %)	-
8. The teacher presents the material in an interesting way	9 peop (56,3 %)	4 peop (25 %)	3 peop (18,8 %)	0 peop (0 %)	0 peop (0 %)	-
9. The objectivity of the assessment of knowledge, skills and other educational achievements	8 peop (50 %)	6 peop (37,5 %)	2 peop (12,5 %)	0 peop (0 %)	0 peop (0 %)	-
10. The timeliness of the assessment of students' academic achievements	8 peop (50 %)	5 peop (31,3 %)	2 peop (12,5 %)	1 peop (6,3 %)	0 peop (0 %)	-
11. The teacher satisfies my requirements for personal development and professional formation	10 peop (62,5 %)	4 peop (25 %)	2 peop (12,5 %)	0 peop (0 %)	0 peop (0 %)	-

12. The teacher stimulates the activity of students	12 peop (75 %)	1 peop (6,3 %)	3 peop (18,8 %)	0 peop (0 %)	0 peop (0 %)	-
13. The teacher stimulates the creative thinking of students	9 peop (56,3 %)	3 peop (18,8 %)	4 peop (25 %)	0 peop (0 %)	0 peop (0 %)	-
14. The appearance and manners of the teacher are adequate	12 peop (75 %)	2 peop (12,5 %)	2 peop (12,5 %)	0 peop (0 %)	0 peop (0 %)	-
15. The teacher shows a positive attitude towards students	9 peop (56,3 %)	5 peop (31,3 %)	2 peop (12,5 %)	0 peop (0 %)	0 peop (0 %)	-
16. The system of assessment of educational achievements (seminars, tests, questionnaires, etc.) reflects the content of the course	11 peop (68,8 %)	4 peop (25 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)	-
17. The evaluation criteria used by the teacher are clear	11 peop (68,8 %)	4 peop (25 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)	-
18. The teacher objectively evaluates the achievements of students	9 peop (56,3 %)	5 peop (31,3 %)	2 peop (12,5 %)	0 peop (0 %)	0 peop (0 %)	-
19. The teacher speaks a professional language	12 peop (75 %)	3 peop (18,8 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)	-
20. The organization of education provides sufficient opportunity for sports and other leisure activities	10 peop (62,5 %)	2 peop (25 %)	21 peop (6,3 %)	1 peop (6,3 %)	0 peop (0 %)	-
21. The facilities and equipment for students are safe, comfortable and modern	10 peop (62,5 %)	5 peop (31,3 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)	-
22. The library is well equipped and has a fairly good collection of books	12 peop (75 %)	2 peop (12,5 %)	2 peop (12,5 %)	0 peop (0 %)	0 peop (0 %)	-
23. Equal opportunities are provided to all students	11 peop (68,8 %)	4 peop (25 %)	1 peop (6,3 %)	0 peop (0 %)	0 peop (0 %)	-

5. Other problems regarding the quality of teaching (Baska maseler): 4 answers

- No
- Insufficient attention to the individual needs of students
- Not really
- No

