

Peter the Great St. Petersburg Polytechnic University

PASSPORT OF THE EDUCATIONAL PROGRAM

38.04.02_10 "Energy management"

Major: 38.04.02 «Management»

Qualification: Master

Approved «_» _____

Saint-Petersburg

Description of the educational program

The purpose of the main educational program is to train highly qualified specialists in the management of energy enterprises and systems. In-depth study of disciplines of specialization related to various aspects of activity management at the micro level (energy enterprises), meso level (regional energy systems) and macro level (unified energy system of the state) in the context of meeting the requirements for economic, energy and environmental efficiency, obtaining full theoretical knowledge, practical skills, allows the graduate to freely and confidently apply energy management methods to the activities of research objects and, on this basis, realize the potential to increase their efficiency, set specific tasks and choose methods for solving them.

Key features of the program

A feature of this educational program is a systematic approach, in which the production, transmission and consumption of energy is considered as a complex socio-technical system, the main components of which are technical, organizational, economic and socio-behavioral subsystems. A coordinated analysis of these subsystems is carried out on the basis of materials from real Russian and international projects implemented with the active participation of teachers participating in the implementation of this educational program. Students enrolled in this program get the opportunity not only to study the materials of these projects, but also to take a direct part in their implementation in the framework of the implementation of both research projects and graduation qualification works.

Profile disciplines

- Institutional framework for the economy and management of the electric power industry
- Planning and forecasting the development of power systems
- Tariff regulation in the energy sector
- Economics and Energy Saving Management

Graduated students professions

- Energy Management Specialists
- Tariff Specialist
- Specialist in planning maintenance and repair (MRO) at energy enterprises
- Specialist in procurement at energy enterprises
- Leading specialist of the department for work on the wholesale electricity (capacity) market

Examples of graduation paper topics

- Directions for improving the organization of accounting of technical and economic indicators at CHP
- Evaluation of the economic efficiency of the use of multi-chamber arresters on overhead power lines supplying oil pumping stations
- Comparative analysis of financing mechanisms for energy saving measures for budgetary institutions
- Formation of competence among personnel in the electric power industry on the example of PJSC "Lenenergo" "Cable network"
- Analysis of the effectiveness of modern methods of cleaning heat exchangers on the example of JSC "TGC-1", Optimization of maintenance costs of CCGT units of JSC "TGC-1" by introducing the policy of import substitution and changing the existing structure of service contracts

Research projects

Draft ENI CBC 2014-2020 Program "Development of Regional Green Energy Markets (Green ReMark)"
Draft program BSR INTERREG on the basis of the Agreement between the EU, the Russian Federation and Germany on participation in the financing of the activities of the transnational cooperation program BSR INTERREG "Areas of smart cities in the Baltic Sea Region in the 21st century (AREA21)"
BSR INTERREG project project "Smart City Districts in the Baltic Sea Region in the 21st Century in Action"
Project ENI CBC 2014-2020 "KS11135 King's Road Renaissance: new dimension and digital tools"
Draft program BSR INTERREG based on the Agreement between the EU, RF and Germany on participation in financing activities of the transnational cooperation program BSR INTERREG "Synergy of adaptation to climate change and mitigation of its consequences in energy efficiency projects (CAMS Platform)"
BSR INTERREG program draft based on the Agreement between the EU, the Russian Federation and Germany on participation in financing the activities of the transnational cooperation program BSR INTERREG "Lighting of the Baltic Sea Region - Cities Accelerate the Implementation of Sustainable and Smart Urban Lighting Solutions (LUCIA)"

Partners

PJSC TGK-1
http://www.tgc1.ru/
PJSC TGC-1 is a leading producer of electric and thermal energy in the North-West region of Russia. It unites 52 power plants in four constituent entities of the Russian Federation: St. Petersburg, the Republic of Karelia, Leningrad and Murmansk regions. 19 of them are located above the Arctic Circle. Installed electric capacity is 6.9 GW, heat capacity - 13.51 thousand Gcal / hour.
PJSC "LOESK"
https://loesk.ru/
LOESK, being a natural monopoly in the electric power industry in the Leningrad Region, strictly complies with the requirements of the current legislation, including the antimonopoly one, aimed at maintaining free and fair competition. The strategic mission of JSC LOESK is to ensure a reliable, uninterrupted supply of electricity 24/365 to consumers in the Leningrad Region, take a leading position in the energy market, be a reliable partner for investors, take care of the interests of shareholders and meet the highest customer requirements. Transitioning to international standards of business transparency, environmentally responsible operation of facilities and innovative social policy, the company should become a benchmark for the energy complex of the region.
LLC Peterburgteploenergo
https://ptenergo.ru
Today in service of Petersburgteploenergo there are 6 districts of St. Petersburg and 4 districts of the Republic of Karelia. Boiler houses 000 Peterburgteploenergo are fully automated heat supply facilities of the latest generation, which operate without the constant presence of maintenance personnel. The efficiency of boiler equipment is 92-93%. They provide for "weather-dependent regulation" of temperature, which makes it possible to provide the most comfortable temperature in apartments: in cold weather, the boiler room gives out a higher temperature, and in warm weather - a lower one. This ensures not only comfortable living for citizens, but also the rational use of energy resources.

Contacts

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