BASICS OF ENERGY SAVING
(name of the discipline)

ABSTRACT
TO THE CURRICULUM OF A HIGHER EDUCATION INSTITUTION

Specialty 1 - 70 03 01 Highways

	Form of higher education	
	Full-time (day)	Correspondence
Course	3	6
Term	6	11
Lectures, hours	16	4
Practical classes, hours	16	2
Credit, semester	6	11
Classroom hours for the academic discipline	32	6
Independent work , hours	24	50
Total hours of academic discipline/ credits	56 / 1	56 / 1

1. 1. Summary of the academic discipline

The discipline "Fundamentals of Energy Saving" is aimed at forming a specialist's correct approach to the formulation and solution of problems of efficient use of fuel and energy resources based on world experience and state policy in the field of energy conservation.

2. Learning outcomes

- to know: the main directions of state policy in the field of energy conservation; - methods of production, transport and consumption of thermal and electric energy and the main ways to increase their efficiency; environmental and economic problems of energy and the main ways to solve them.
- be able to: evaluate technological processes and devices from the point of view of their energy efficiency; use metering devices, control and regulation of thermal and electrical energy; use and promote the main methods of energy saving. - possess: the methodology for assessing the energy efficiency of technological processes and devices; - issues of inventory of emissions of pollutants at industrial enterprises of the road economy; ways to reduce energy intensity in the production of road construction materials.

3. Formed competencies

АК-1 - Be able to apply basic scientific and theoretical knowledge to solve theoretical and practical problems;
АК-2 - Possess system and comparative analysis;
АК-3 - Possess research skills;
АК-4 - Be able to work independently;
АК-7- Have skills related to the use of technical devices, information management and computer work;
АК-8 - Have oral and written communication skills;
СЛК-2 - Be capable of social interaction;
СЛК-3 Have the ability to interpersonal communication;
СЛК-4 Be able to work in a team;
ПК-16 To develop energy-saving technologies for the production of building materials;

ПК-32 To use global information resources;
ПК-46 Should be able to work with the data bank of regulatory and technical documents of the road sector.

4. Requirements and forms of current and interim certification:
- control work;
- protection of individual tasks; - protection of practical work.