

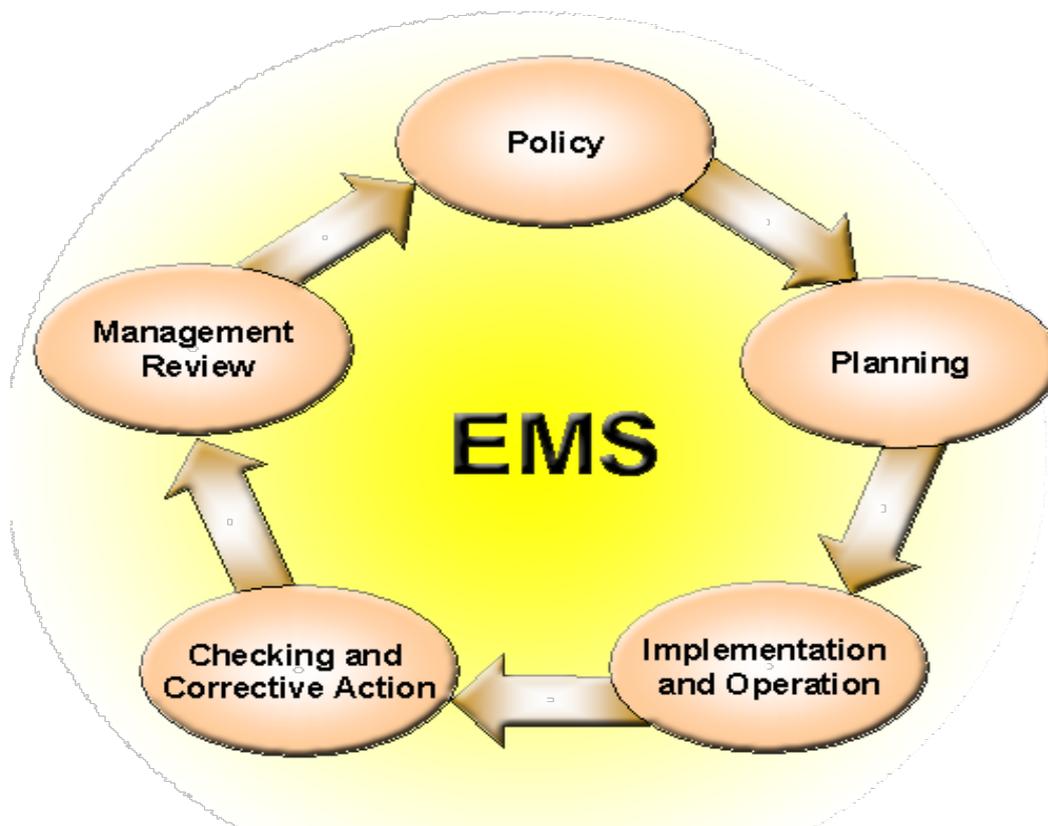
ENVIRONMENTAL IMPACT MANAGEMENT OF FEDERAL GRID COMPANY

1. INTRODUCTION

The main goal of the state energy policy in environmental safety of power industry is a gradual limitation of fuel and energy environmental impact by reducing emission (discharges) of pollutants into environment, and decreasing generation of industrial and domestic waste.

2. ENVIROMENTAL POLICY

Issues of environmental safety in Federal Grid Company are governed by federal laws of the Russian Federation - "On Environmental Protection", the Water Code of the Russian Federation, "On Air Protection", "On Production and Consumption Waste" as well as by internal organizational and administrative documents - "Environmental Policy of JSC Federal Grid Company", Program on the implementation of the Environmental Policy of JSC Federal Grid Company for 2011-2013, Regulations on industrial environmental monitoring, "Corporate standards of environmental safety of power facilities at all stages of life cycle," and others.



The objective of Environmental Policy of JSC Federal Grid Company is to increase the level of environmental safety of the UNEG facilities and provide reliable and environmentally safe

transmission and distribution of electric energy. As part of the Program on the implementation of the Environmental Policy, Federal Grid Company carries out technical and organizational measures to minimize the negative impact of its industrial activities on the environment.

Technical measures:

- replacing equipment which contains hazardous and toxic substances;
- repairing systems and devices of oil receivers;
- organizing places of temporary waste storage;

Organizational measures:

- improving current system for self-monitoring and conducting environmental audits;
- carrying out environmental training of personnel.

Effects on the atmosphere.

In the course of production activities at PJSC FGC UES's branches, air pollution occurs as a result of pollutants from stationary sources of emissions (wood / metalworking machines, parking lots, diesel generator sets, oil-filled equipment, welding stations, etc.).

Volumes of emissions are set by calculation during the development of projects of maximum permissible emissions (MPE) and are not analytically measured, since the operation of this equipment is not permanent and the emissions are very small.

Reducing the volume of pollutant emissions into the atmosphere in 2017 is connected with exclusion of diesel-generator sets from sources of emissions in new MPE projects.

Volumes of emissions of pollutants into the atmosphere, tonnes

year	2013	2014	2015	2016	2017
tonnes	162,7	184	221,1	226,7	182,1

The Company does not create direct greenhouse gas emissions from its primary business (transmission and distribution of electricity).

Use of water resources. In the branches of PJSC FGC UES, water withdrawal for industrial and other needs is carried out from both surface and underground sources, from urban water supply and other sources (for example, bottled water). Water resources are used for household, drinking, fire and technological needs.

Water consumption, thousand m³

year	2013	2014	2015	2016	2017
tonnes	1,282.7	1,160.1	1,039.9	901.1	898.3

The annual decrease in water consumption is associated with a reduction in losses due to timely maintenance and repair of water supply systems in the branches of PJSC FGC UES, as well as actions to save water resources.

The procedure for environmental management in the branches of Federal Grid Company is divided into stages of planning, implementation, monitoring and control action (if necessary, environmental policy may be adjusted).

Environment Action Plans of the branches necessarily include the following items:

- implementation and development of the environmental management system (EMS) that meets the requirements of the international standard ISO 14001;
- conducting industrial environmental monitoring and environmental audits;
- carrying out environmental training of personnel;
- developing legal and technical documentation and improving documentation to support environmental activity.

3. RESULTS

The main results you achieved in the field of environmental protection in 2017, which was declared “the year of ecology” by the President of the Russian Federation:

1. environmental management system was transferred to the new version of ISO 14001:2015.
2. improved our approach to the environmental management system and have established new requirements for managing environmental risks. The recertification audit conducted in November-December confirmed full compliance with the requirements of this standard. In terms of specific environmental indicators, in 2017 the volume of water disposal to water facilities decreased by 29%, and the volume of waste generation decreased by 16.8%.
3. All the target quantitative environmental indicators set for the year were achieved. In March we traditionally took part in the international action “Earth Hour”. This year, 762 of our facilities participated. Due to joint efforts, the energy saving amounted to almost 10 MWh.
4. FGC UES cooperate with environmental NGOs :

In 2017, as before, we provided charitable assistance to the Center for the Study and Conservation of the Amur Tiger. We also cooperate with the Russian Geographical Society, the Russian Bird Conservation Union and the World Wildlife Fund of Russia (WWF-Russia).