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System Operator of the United Power System

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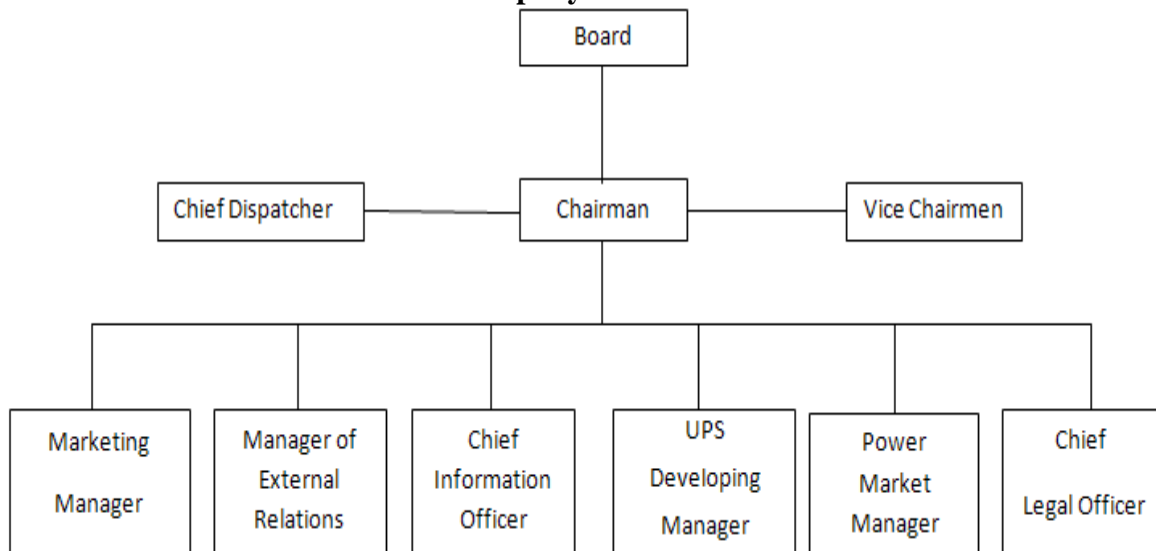
Introduction

The open joint-stock company System Operator of the United Power System is a specialized organization that single-handedly performs centralized control of the United Power System of Russia and provides electricity dispatching services and operates a high voltage electricity transmission grid.

Company history

Before 2002 energy control system consisted of Central Dispatch Office, 7 unified dispatching offices and regional dispatching offices. In 2002 a new administrative organization was established-System operator- Central Dispatch Office of United Power System which got functions of managing of the United Power System. In 2008 company changed its name to System operator of the United Power System. Nowadays the company is based in Moscow and has a work force of more than 8000 employees.

Company Structure



The head of the company is the Chief Executive Officer. He is responsible to the Board of Directors. The Board of Directors is first of all responsible for ensuring that energy meets all its financial and legal obligations.

Managers of various departments which are vital to a company report directly to the CEO. These managers may be referred to as the management team. They are required to

advise the CEO on consequences of any decision in terms of costs,time,personnel e.t.c.For example:

Chief Information Officer is responsible for leading and overseeing the development, implementation and operation of information systems and information technology policy.Chief Dispatcher is responsible for the operation of the Electricity Management System used to monitor and control the electricity generation and is responsible for monitoring systems that provide real-time information on electricity transmission system.

All departments are interdependent. There are regular meeting to develop long-term energy strategies and plans.

Corporate Culture

One of the main aims of the company is to provide people challenging and rewarding work in a pleasant environment. Firstly, corporate culture includes formal dress style. Additionally everyone should follow certain rules:

- pay attention to expected norms of behavior.
- build and maintain positive working relationships.
- maintain a positive attitude.
- value constructive criticism.

Work behavior should include: cooperation, showing respect for others, professional communication.

Also corporate culture includes company's own trademark and anthem. In addition to this there are regular classes and courses for professional and personal development of staff.

Company Activities

System Operator of the United Power System is a specialized organization which provides centralized operative and dispatching control of technological mode of the United Power System of Russia (UPS of Russia).

Besides, the System Operator controls the synchronous operation of UPS of Russia with power systems of 12 foreign states: Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Mongolia, Latvia, Lithuania, Uzbekistan, Ukraine, and Estonia. In the course of the activity the System Operator carries out 3 main groups of tasks:

- ensuring reliable operation of UPS of Russia in real time.
- ensuring perspective reliability of UPS of Russia.
- ensuring technological unity and effective work of the wholesale and retail markets of electricity and capacity.

Performing the tasks assigned to it, the System Operator carries out the following main functions:

- exercises the centralized operative and dispatching control of electric mode of UPS of Russia in real time.
- carries out short-term, medium-term and long-term planning of electric modes for UPS of Russia.
- provides functioning and development of automatic systems of relay protection and emergency control automatic systems.
- participates in development and implementation of development programs of UPS of Russia, the interconnected and regional power systems.
- participates in control of technical condition of the power entities influencing reliability and security of UPS of Russia operation, and also in investigation of technological disturbances.
- carries out control of timely and appropriate implementation of investment programs of the generating companies created by the results of the capacity trade.

- carries out technological and administrative support of trading procedures, participates in development of technologies of the markets of electricity and capacity.

Conclusion

Company System Operator of the United Power System as many other companies has its own success strategy. The main reasons of their success are independence and objectivity.

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Wo Wasser fließt, fließt Strom

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Abstract: Im Artikel wurden aktuelle Fragen und Forschungstrends auf dem Gebiet der Wasserkraft untersucht. Die Anlagen und Generatoren sind dargestellt, die den Energiefluss in Strom umwandeln. Die Prognose ist für die Entwicklung der Wasserkraft in Deutschland und Russland angeführt. Daten sind über die Kosten für 1 kW pro Stunde für traditionelle und alternative Anlagen aktualisiert.

Schlüsselwörter: Wasserkraftanlage, alternative Energie, Generator, Wellengenerator.

Die Aktualität dieses Artikels besteht darin, die komplexe Analyse der Parameter der Anlagen bei der Umwandlung der Wasserkraft in Strom zu zeigen und die Daten über die Nutzung der Wasserenergie in verschiedenen Ländern anzuführen.

Das Ziel des Artikels wird durch die Notwendigkeit der Betrachtung der Wasserenergie in Deutschland, Russland und Österreich bedingt.

Die Objekte der Forschung im Artikel sind traditionelle und alternative Anlagen in den europäischen Ländern.

Die Wasserenergie ist heute die aussichtsreichste der erneuerbaren Energiequellen auf dem Gebiet der Energiewirtschaft. Das Potential dieser Energie ist in der Welt riesig, des-

halb haben die Wissenschaftler die verschiedenen Anlagen zur Umwandlung der Wasserkraft in Strom erfunden. Es gibt eine große Zahl der Anlagen, aber sie werden nach dem gleichen Prinzip betrieben.

In der deutschen wissenschaftlichen Zeitschrift „Wassertriebwerk“ wird ein Artikel angeführt, in dem steht: „Die Energie einer Wasserströmung kann Arbeit verrichten. Dies wird in Wasserkraftwerken genutzt: Die Strömungsenergie treibt dort über ein Turbinenrad Generatoren an, die Strom erzeugen (Abb.1).

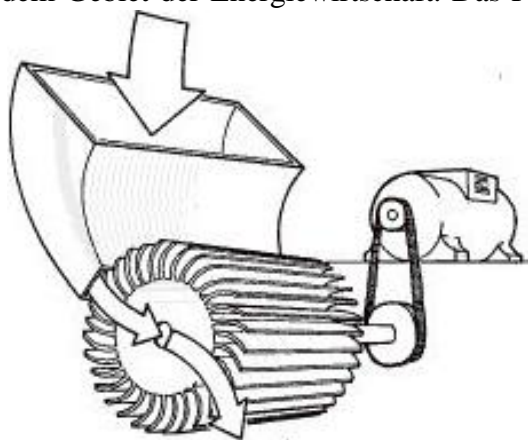


Abb. 1: Das Konstruktionsprinzip einer Wasserturbine.