HYDROMETCENTRE OF RUSSIA

SOCIO-ECONOMIC BENEFITS OF METEOROLOGICAL AND HYDROLOGICAL SERVICES

INVENTORY OF DECISION SUPPORT TOOLS

ITEM	DESCRIPTION
Sector	Energetics
Sub-sector	Operative and control management of electro-energy consumption in SES (Single Energy System) of Russia
Tool Name	Centralized integrated provision of hydrometeorological information
Tool Description	The information on actual and prognostic parameters is provided. The results of calculations of Global spectral model of atmosphere (GSMA), taking into account the synoptic correction for 48 hours (with detalization for every 6-hour interval) are used as prognostic information. Calculations of average daily temperatures forecast for a period up to 9 days.
Weather, Climate or Water inputs	Meteorological and climatological data for running of hydrodynamical forecast models of the meteorological values fields.
Specific weather, climate, water data required	Data on actual temperature, amount of cloudiness, availability and phase of precipitations
Spatial resolution	Data in points
Temporal resolution	From 3 hours up to 9 days
Delivery methodology	Operative synoptic analysis, based on the using of actual data and results of hydrodynamical forecast models of the meteorological values fields.
Frequency of data requirement	Daily
Detailed Tool Description	On the base of the information received, in operative mode the user carries out control, analysis, redistribution and planning of electroconsumption volumes for SES objects on the territory of Russia. The application of the modern software and communication means enables to use the provided information not only in the centre, but also, operatively, in structural territorial divisions of the user.
Spatial resolution	Particular regions which exceed the administrative subjects of territory of Russia by areas
Temporal resolution	From 3 up to 24 hours
Delivery methodology	Electronic communication means
Frequency of data requirement	Data on dangerous weather phenomena are transmitted in operative mode, on actual hydrometerological conditions – every 3 hours, forecasts – daily.

Benefits of tool application	The application of the received hydrometeorological information enables us to control operatively the redistribution of electroenergy consumption volumes among regions, depending on meteorological conditions changes. It is especially important in seasonal power deficits occurring. The centralized receiving of the necessary volume of meteorological information and its' transmission to the territorial divisions enables to exclude the doubling of data acquisition and to decrease the expenses of the user.	
Possible future advances		Increasing number of objects which will be provided by information; improvement and increasing of the forecasts reliability
Comments		
URL		