

Water utilities can save up to 25 % of their power costs

The consultancy ProCom, located in Aachen, Germany, shows water utilities how they can manage the operation of their drinking water systems in accordance with power prices – and profit from low prices on power exchanges.

Aachen, February 2014 – The consultancy ProCom GmbH, located in Aachen, opens up enormous saving potential to water utilities. If operation of drinking water utilities is led by power prices, it is possible to save up to 25% of power costs. The basic idea consists in planning the operation of water storage facilities – e.g., water towers – according to power prices and no longer only to tank filling levels. In other words: water tanks are preferably filled when the power price is low. Operation of expansion turbines is shifted to times with high power prices.

Since reliability of supply enjoys top priority in provision of drinking water, numerous restrictions must be observed such as minimum filling levels, reserves for firefighting purposes and mix ratios. These restrictions place high demands on operational planning. To cope with the increasing complexity, ProCom offers a planning solution for drinking water systems based on the IT platform BoFiT.

Model-based operational planning

The ProCom planning solution for drinking water systems is based on a techno-economic model. It models all economic conditions – such as power purchase agreements and market constraints – as well as all relevant technical parameters and restrictions such as minimum and maximum filling levels of water storage facilities. The solution calculates the optimal operational plan on the basis of availabilities, power prices and demand forecasts. The system strictly observes the constraints of the model to assure the security of supply at all times.

Process consulting and support

In addition to knowledge of power markets and their rules, a change in the management of drinking water facilities requires implementation and/or modification of control and planning processes. ProCom consultants provide the necessary power market expertise. They support clients in designing processes and in implementing solutions. The IT platform BoFiT additionally offers the possibility of supporting and automating central processes company-wide. The operational change will therefore not result in additional burdens on company staff.



Press Release

Cloud-based solution as option

For companies that prefer to avoid procurement and operational costs for hardware and software, ProCom offers a cloud-based solution. In such cases, ProCom sets up and organises a standard IT solution in its data processing service centre. Users of the cloud solution daily submit their input values – such as availabilities – and receive the optimal operational plan for their facilities by e-mail or through an FTP server.

Drinking water facilities can earn money on the power market

For multi-commodity utilities, expansion of the basic solution is highly advisable. Drinking water plants can be integrated into a power generation portfolio and offer significant added value. The high flexibility of fast reacting drinking water pumps can, for example, be marketed on balancing energy markets. In best cases, money is earned when the pumps are running.

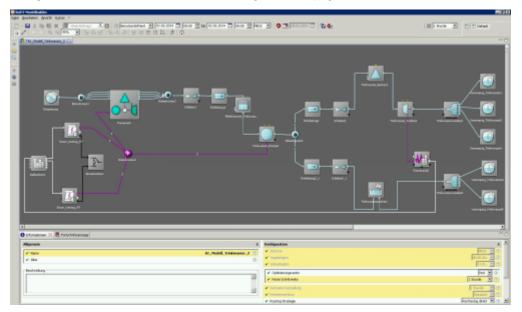


Image: techno-ökonomisches Planungsmodell.jpg



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About ProCom GmbH

In the energy business, regulations and boundary conditions are constantly changing. Decisions must be reached despite ever greater uncertainties. ProCom provides consulting support in all issues involving the central added value of power generation and marketing. ProCom studies render transparent the opportunities and the risks of such decisions. With process and IT expertise, ProCom supports the successful implementation of strategic objectives, up to and including operative plant activities. ProCom solutions, data services, and market information enable optimal management of energy portfolios on all time horizons and markets.