

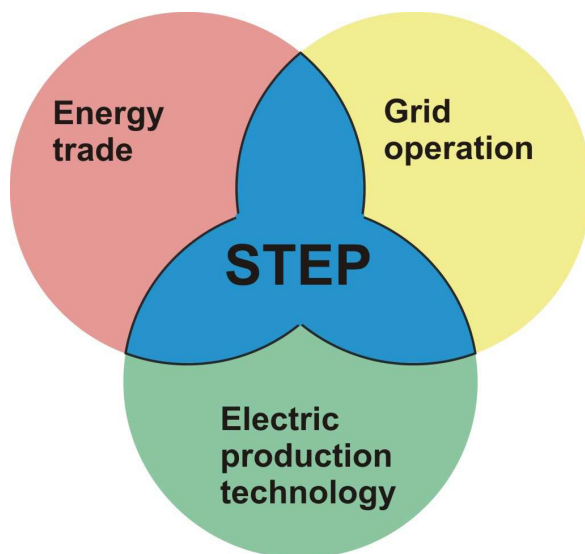
STEP – Support of the Trade and Electricity Production

STEP (Support of the Trade and Electricity Production) is a modular scalable information and real-time control system. STEP controls electricity power production with compliance of business requirements of power company – in terms of a liberalized electricity market.

What is STEP?

STEP is information and control system of electrical power production for any independent power company. STEP connects business and technical production control aspects of electrical energy and/or auxiliary services market environment.

STEP operations and functions participate in electric energy trade, grid operation, production control and electric production technology.



STEP standard functions

Trade:

- Management of commercial transactions
- Providing data, handful tables and summaries suitable for proper business decision

Source control:

- Direct production control from superior authority or from own control center
- Dividing production among energy units according to selected optimal criterions

- Fully automatic realization of assigned daily operation program
- Automatic elimination of production errors

Operation evaluation:

- Analysis and evaluation of balancing production
- Detailed data reports for proving quality delivered energy and analysis of operating failure

STEP Parameters and features

- *Elasticity and flexibility* - easy customization of the standard features to energy companies requirements and to current market environment conditions

Modularity - possibility of gradual construction of the system in terms of function, construction and layout (including the possibility of system delivery for trade support or operation control only)

- *Common database* - the whole system use the same data for trade, production and management technology, the data are long-term archived

Open system - communication with other systems using large number of standard communication protocols, ability to create special reports according to customer requirements

- *Availability for user:* Fat client for dedicated dispatchers workplace, uses control functions,

Thin client (web browser) for access via intranet/internet

- *Reliability* – long-term operated open system, high software robustness, redundant design
- *24/7 service*. Even short outage of control system may bring huge losses

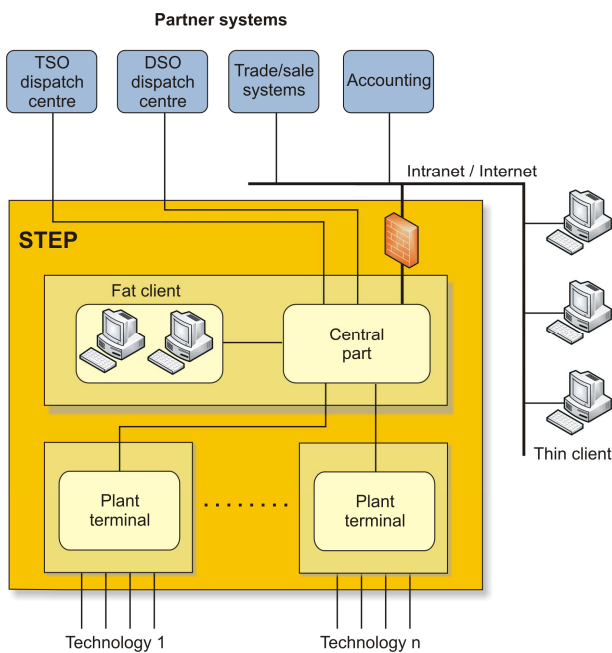
STEP structure and variants

STEP structure fulfils vast requirements for modular system. STEP components are very often used as **terminals of the TSO** dispatch center.

STEP system is mainly delivered in two basic versions:

Compact variant – is designed for smaller power companies with lower decentralization of production sources. STEP functions are realized in **single unit**.

Distributed variant – is suitable for power companies with more plants in different locations. Each power plant usually has its own terminal.



STEP benefits

- Support for quick and proper trade decision in liberalized environment
- Minimizing power production costs
- Helps to maximize power sale profit
- Controls production of electric energy in accordance with the commercial interests of operator
- Short time return of investments
- Automatization of repeatedly executed activities
- Elimination of operation errors.

Key references

ČEZ, a.s. (The Czech Republic) – Dispatcher centre of ČEZ company with relation to sale department. STEP in distributed variant, consists of central and distributed units. (22 power plants).

PPC Energy Group, a.s. (Slovakia) – compact variant designed for two power plants in one location – district heating combined cycle and peak power plant source.

E.ON Elektrárne, s.r.o. (Slovakia) – compact variant for one the most modern power source by E.On – PPC Malženice.

Power plant Burštýn (Ukraine) – compact variant, production control of 12 x 200 MW from superior centre.

OSC, a.s., company covers with its activities the area of production and distribution of electricity and heat. The Company provides a wide spectrum of engineering services, repair and consultancy services, and supplies complex, key ready sets of technical means for up to date control systems, systems for data and information processing and transfer, and simulation systems; the Company also develops special electronic elements and devices.