

ToWalk

Energieeffizienz Beratung

PRESENTATION FOR CROATIA

Energy efficiency and renewable energies in buildings with a focus on renovation



WHO AM I



Thomas Utz
56 years young

15 years as project manager
10 years as a management consultant of process
optimization of quality, construction and production
11 years as energy consultant

Mechanical engineer
Energy consultant
Energy management officer
Energy auditor

OVERVIEW



ToWalk Energieeffizienz is a company that deals with the efficient use of energy in bulidings, industry and commerce

We advise companies and owners of buildings on the following topics:

- Energy efficiency in buildings
- Energy efficiency in industrie and commerce
- Energy efficiency in production
- Energy monitoring and billing
- Renewable energy

WHO WE ARE



ToWalk Energieeffizienz is also a network of colleagues and partners.
For special topics in projects, we have colleagues who support us, such as:

- Production heating and cooling
- Vehicle fleet
- Photovoltaic

Our partner supply us with equipment, devices and information, that we need in our projects, such as:

- Meters and sensors for energy monitoring and billing
- Software for energy management and energy monitoring
- Thermal power plant projects
- Photovoltaic projects
- Green Chiller

WHERE WE OPERATED



COOPERATION PARTNER



In order to achieve the best result for our customers, we have entered into partnerships with innovative and modern companies, these companies are specialists in their field



Manufactor of block type thermal power station



TQ Systems specialist in energy monitoring



Krumentia specialist in energy monitoring software



Chilli Cooling als specialist for green chiller



The company 2G plans and produces block-type thermal power station systems in all performance classes.

2G is characterized by its own engine development and production.

The engines are optimized for the respective fuel, e.g. gas, bio-gas, bio-diesel, hydrogen.

In addition to electrical energy, the power plants generate heat in the range of 80 ° C as well as steam





TQ-Systems is a leading manufacturer of electronic components. TQ assemblies were already on board in the lunar module, from the first moon landing in 1969. Today, TQ electronics are installed in almost every vehicle, access control, aircraft, cash register system, etc.

We use energy monitoring for electrical energy, sensors and data loggers from TQ. We also use components from TQ for peak load management and load management, with a view to electromobility.

Energymanager
(bis zu 76 Stromkreise, optional 100)



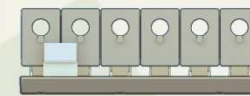
POW 100
Intelligentes Netzteil



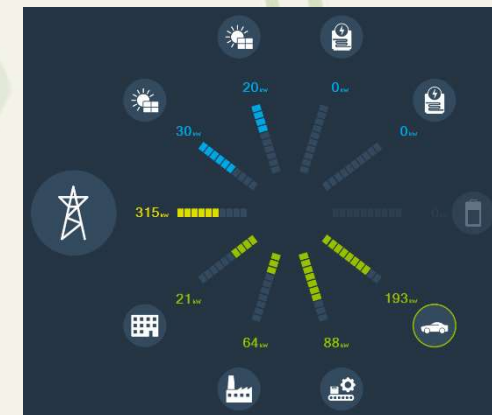
CUB 100
Kommunikationsbaustein



REL 100
Multifunktionales Relaismodul



Sensorbars (z.B. für Temp., Luftdruck)





Chillii Cooling develops and produces alternative chillers with a cooling capacity of 10kW to 10MW.

Green Chillers produce cooling for air conditioning systems and production from heat.

This heat is e.g. generated with solar thermal or block-type thermal power station units.

A green chiller requires around 75% less electricity than a conventional chiller.

Hybrid chillers are also developed depending on the application. These chillers consist of a conventional chiller and a green chiller.






Premium Energy management für das IoT

There are many providers of software for energy monitoring and energy management on the market. Only a few have a configuration tool on board with which the customer can configure and administer the system himself. Even fewer are compatible with all Transmission standards.



enerchart  from Krumedia can process pretty much every data protocol and transmission type and is too almost compatible with every meter and standard. Existing and new meters can be integrated into the software in a short time.→

- Data connection: TCP, Modbus, OPC, UA, SNMP, FTP, NX etc
- Data logger from EMU, Janitzer, TQ, Schneider electric, etc
- Data transmission: Lan, W-Lan, LoRaWan, GSM etc
- Use of IoT Clouds, Backends, APIs etc

OUR SERVICES



ToWalk Energieeffizienz works for its customers and in coordination with its customers. Together with our colleagues and partners, we can always achieve the best result for our customers.

Among other things, we offer the following services:

- Energy consulting for buildings, industry und commerce
- Energy efficiency in production
- Energy audit
- Energy management according to ISO 50001
- Developing of concepts to increase energy efficiency in buildings, industry and commerce
- Proof of CO₂ (Carbon) savings
- Concepts for energy monitoring
- Concepts for renewable energies
- Training our customers for our products

Emirates Grand Hotel Dubai



Study for possible savings

Decrease of total energy consumption about 38% is possible

- Optimize cooling units
- Optimize laundry
- Change Illumination

A total of 65% savings is possible through further measures:

- Use of green chiller's
- Use of block-type thermal power station
- Use of photovoltaics



HOTEL STADTHALLE WIEN



100% self sufficient
CO₂ neutral certified

Decrease of energy demand
about 60%

- Using of photovoltaics
- Using of solar heat
- Isolation of walls, floors and roof
- New windows



RESIDENTIAL BUILDING



Residential Building Munich (Germany)

Concept for new heating and warm water

Decrease of total energy cost about 55%

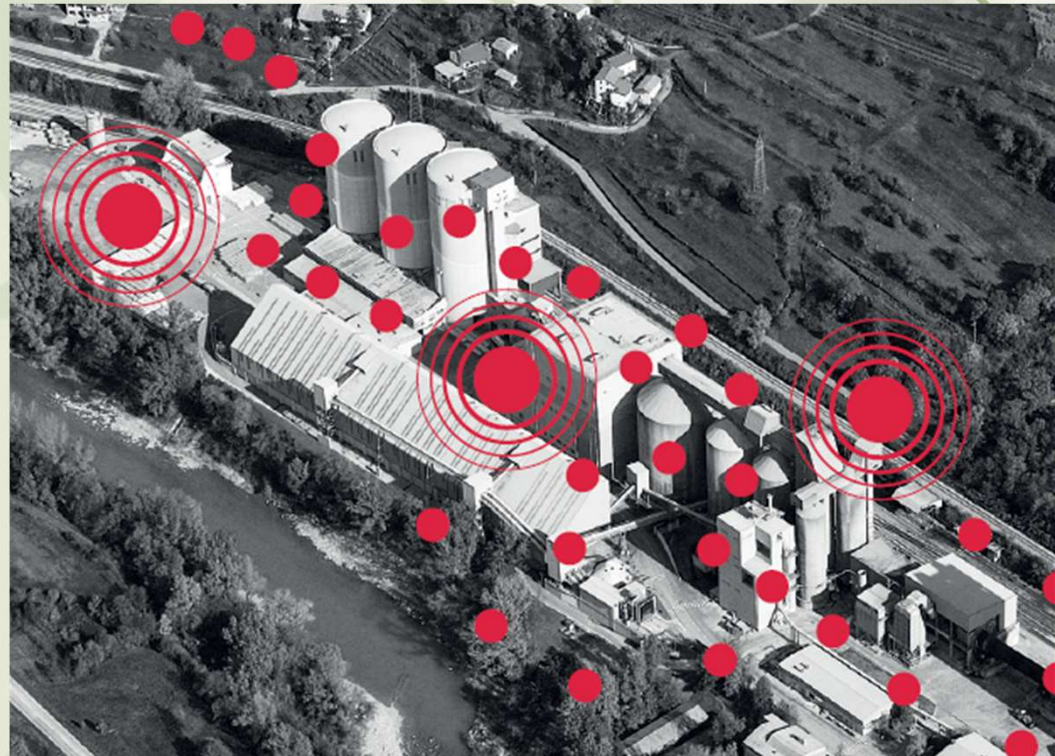
- Final concept with combined heat and power unit and peak load heater
- Optimize of heating pipes/distribution

ENERGY MANAGEMENT CEMENT PRODUCTION



Energy management for Cement
produktion in Slowenien

- 90 years of history
- 25 buildings
- **Production:** 3.000 tons of clinker /day
- **Ambition:** TOP - 10 EU cement factory in energy efficiency



Achieved savings of 32% in water, 23% in gas and 36% in electricity

Energy audit Smiths Group Germany



Carrying out of 13 energy audits for
Smiths Group Germany.

Concept development for the
efficient use of energy and the use
of renewable energy.

smiths detection



smiths
interconnect

smiths medical

SERVER ROOM COOLING



Orwo-Net's server rooms are cooled with green chillers

- chillii®Cooling Kit WFC175adb + chillii®Cooling Kit WFC70adb
- Powered by: Waste heat from a block-type thermal power station
- Chillers: chillii®WFC175(Wasser / Lithiumbromid) + chillii®WFC70 (Wasser / Lithiumbromid), 245kW rated capacity
- Adiabatic recooling system with power-controlled EC motors
- High efficiency pumps with capacity control, energy label A
- System control with the chillii®System Controller

Project experience



We carry out around 90 new construction and renovations on private residential buildings up to large apartment buildings every year. The projects concern all components of buildings.

We carry out around 10 energy consultations in industry and commerce every year. The projects concern:

- Energy audits
- General energy advice
- Concept creation with proof of the savings in energy and CO₂
- Energy management
- Energy monitoring
- Carbon footprint

CONTACT



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Hvala na pažnji

Thank you for your attention