

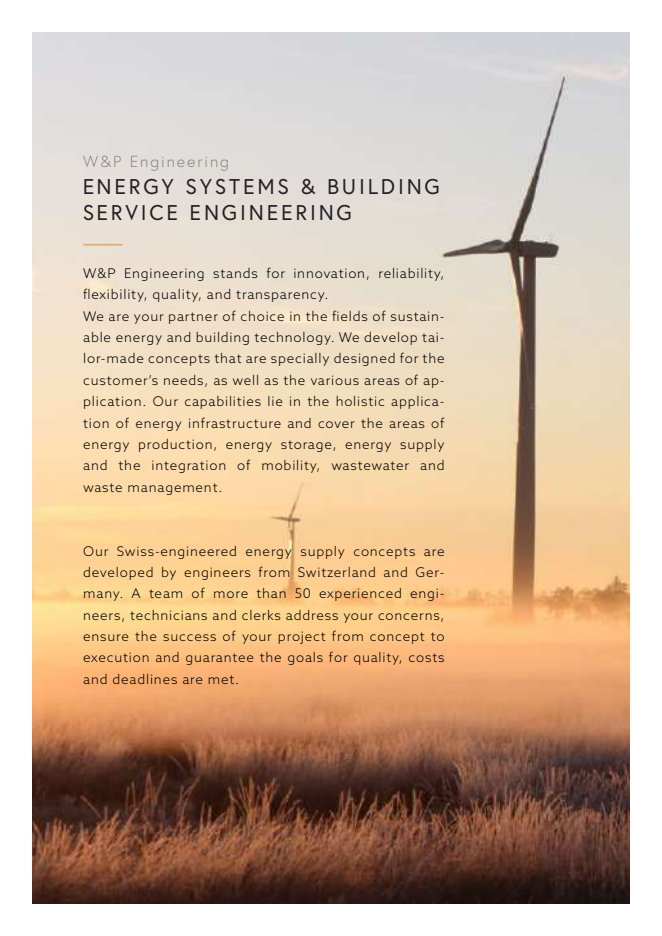


W&P ENGINEERING

ENERGY SYSTEMS

WE POWER THE FUTURE WITH
SMART, RENEWABLE & SUSTAINABLE
ENERGY SOLUTIONS

Engineered in Switzerland & Germany



W&P Engineering

ENERGY SYSTEMS & BUILDING SERVICE ENGINEERING

W&P Engineering stands for innovation, reliability, flexibility, quality, and transparency.

We are your partner of choice in the fields of sustainable energy and building technology. We develop tailor-made concepts that are specially designed for the customer's needs, as well as the various areas of application. Our capabilities lie in the holistic application of energy infrastructure and cover the areas of energy production, energy storage, energy supply and the integration of mobility, wastewater and waste management.

Our Swiss-engineered energy supply concepts are developed by engineers from Switzerland and Germany. A team of more than 50 experienced engineers, technicians and clerks address your concerns, ensure the success of your project from concept to execution and guarantee the goals for quality, costs and deadlines are met.

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SUSTAINABILITY

Our Approach

W&P Engineering is committed to building a sustainable future. Thanks to our vast network and technological partners, we have access to the latest innovations and the expertise on when and where to use them. In doing so, we don't lose sight of costs and ensure the best possible cost-benefit ratio. Another vital factor is to develop a sustainable concept for operation, maintenance, and servicing.

We evaluate the options to find the best fit for the overall concept. For example, we check whether or not to use photovoltaics or wind turbines and which storage types are most suitable. We gauge whether it is profitable to connect buildings through an energy grid to transfer the energy to the appropriate place. In many places, the energy from waste and wastewater remains unused. We assess the potential to use it in our concepts and activate it where it is best to do so.

Depending on the region and location, there is a high demand for independent, self-sufficient and reliable infrastructure concepts. We customize the right dose of hydrogen or methanol with our simulation tools and prevent the overpowering of the micro gas turbines and fuel cells.

Speak with one of our many energy engineers in a live consultation and say goodbye to your worries about high energy levels and downtimes.

OUR EXPERTISE

Sustainable, Innovative & Profitable

Like our concepts, our label will deliver a holistic assessment of a project. The various modules can be acquired successively by implementing sustainable, innovative, profitable and reliable systems.



COMPONENT: LIFE CYCLE

The life cycle component assesses the sustainability of the materials used in the building. The recycling of the generated waste in the company is also assessed.



COMPONENT: RENEWABLE ENERGY GENERATION

This component takes into account the production as well as the quality of the renewable energy supply. In the fight against global climate change, renewable energy is essential to minimize CO2 emissions.



COMPONENT: WATER USE AND SANITATION

In addition to rising temperatures, the environment and biodiversity are currently under threat due to pesticides, chemicals and toxic waste. In this component, wastewater treatment, water consumption and rainwa-



COMPONENT: MOBILITY

In addition to sustainable drive technology and sustainable mobility, we also include concepts that can be used more efficiently.



COMPONENT: SELF-SUFFICIENCY

The label rounds off with the building block of self-sufficiency. To use the locally produced energy directly on-site, and not feed it into the grid when there is already a surplus, precise design is required. In this way, power plant and network expansion is minimized and will prove to be an important component for a sustainable future. Furthermore, a high degree of self-sufficiency entails the efficient use of a wide variety of energy sources.

THE PROCESS

Complementary Systems

By combining different technologies and scaling the individual components, sustainable and partly independent systems are designed.



WORK OUT THE BASICS

The project and customer specific concerns must be included, as each project is unique and comes with its requirements. In this phase, it is important to define the well-founded principles and requirements as stated by the customer.



POTENTIAL ANALYSIS

To design successful economic and ecological project concepts, networked thinking and an open perspective are a must. With years of experience and in depth technical knowledge, our specialists can find a range of possible solutions with high potential.



CONCEPT ELABORATION

Based on the knowledge gained, options are compared, concepts are drafted and overall feasibility is checked



SIMULATION AND ADJUSTMENT OF CONCEPTS

Complex dependencies of different technologies are checked for their interaction using simulations. The individual modules are optimally dimensioned and coordinated with one another through iterations. When using renewable energy sources combined with storage technology, a simulation over a longer period is essential for the system dimensioning.

The system's stability will be optimized using this procedure. The profitability of the system can also be assessed and optimized in this way.



PLANNING, IMPLEMENTATION AND COMMISSIONING

Once you have decided on a concept, we can start planning. During implementation and commissioning, our specialists will oversee the professional implementation so that the agreed quality and agreed goals are reached.



SYSTEM OPTIMIZATION

System optimization is required to ensure that the systems function optimally during operation. A larger effect can often be achieved with small changes in the parameters. Our specialists in control and hydraulics do this with the highest level of competence.

DEFINING TECHNOLOGIES

A Summary



EXTRACTION



Photovoltaic



Wind Power



Waste To Energy



Wastewater Treatment



Geothermal Power

PRODUCTION



Electricity



Hydrogen



Methanol



Biogas

STORAGE



Electricity



Hydrogen



Methanol



Biogas

CONVERSION



Heat Pump



Micro Gas Turbine



Fuel Cell

USAGE



Biogas



Hydrogen



Electric Vehicle



Buildings

DEFINING TECHNOLOGIES

Power to Liquid

EXTRACTION



Photovoltaic



Wind Power

PRODUCTION



Electrolysis



Power To Liquid

STORAGE



Hydrogen



Methanol

CONVERSION



Micro Gas Turbine



Fuel Cell

USAGE



Heat



Electricity



Heating



Cooling

DEFINING TECHNOLOGIES

Power to Gas

EXTRACTION



Photovoltaic



Wind Power



Waste To Energy



Wastewater Treatment

PRODUCTION



Power To Liquid

STORAGE



Biogas

CONVERSION



Micro Gas Turbine

USAGE



Electricity



Heating



Cooling



Biogas

DEFINING TECHNOLOGIES

Renewable Power Production

EXTRACTION



Photovoltaic



Wind Power

PRODUCTION



Incinerators



Industry

STORAGE



Electricity

CONVERSION



Heat Pump



Waste Heat

USAGE



Electric Vehicle



Ventilation



Cooling



Heating

DEFINING TECHNOLOGIES

Water Technologies

EXTRACTION



Rainwater



Ground Water



Sea Water
Desalinated

PRODUCTION
& STORAGE



Water Treatment



Reservoir

CONVERSION



Drinking Water



Service Water

USAGE



Lavatory



Shower



Innovative
Water System



Industry



Cleaning



Lavatory



Irrigation



Wastewater Treatment

REFERENCES

Selected Projects



Mandarin Oriental Hotel Palace, Lucerne

HVAC planning with specialist coordination
Complex renovation in the luxury segment with bivalent heat generation
CO2 reduction processes



Housing Development Neugr n, Switzerland

HVAC planning with specialist coordination
200 residential units,
Minergie-P-Eco + Minergie-A
Energy design



Federal Research Institute WSL Birmensdorf

Study, concept and implementation planning for hydraulics, MSRL, LRV, operational optimization of heating, cooling, and heat recovery.

REFERENCES

Selected Projects



Supply Concept Platinum Mines South Africa

Safe and sustainable power supply for mines, mine cooling with absorption cooling



Vertical Farming Conception & Feasibility Study

Development of a Vertical Farming concept & feasibility study in cooperation with an ETH-Zurich Spin-off

More than 3000 successfully executed Projects



W&P ENGINEERING

CONTACT US TODAY
FOR A FREE CONSULTATION

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