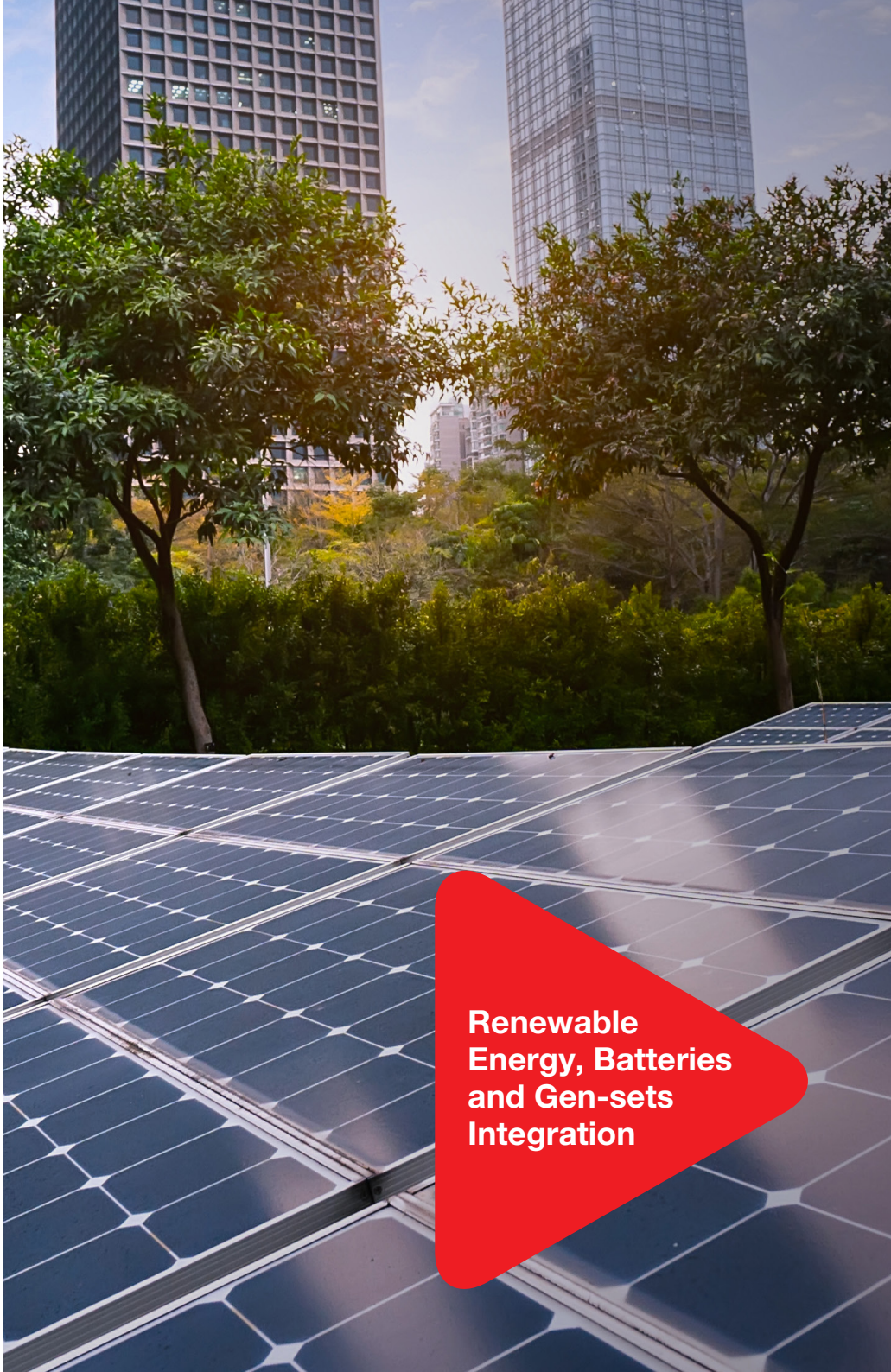
ComAp
The heart of smart control

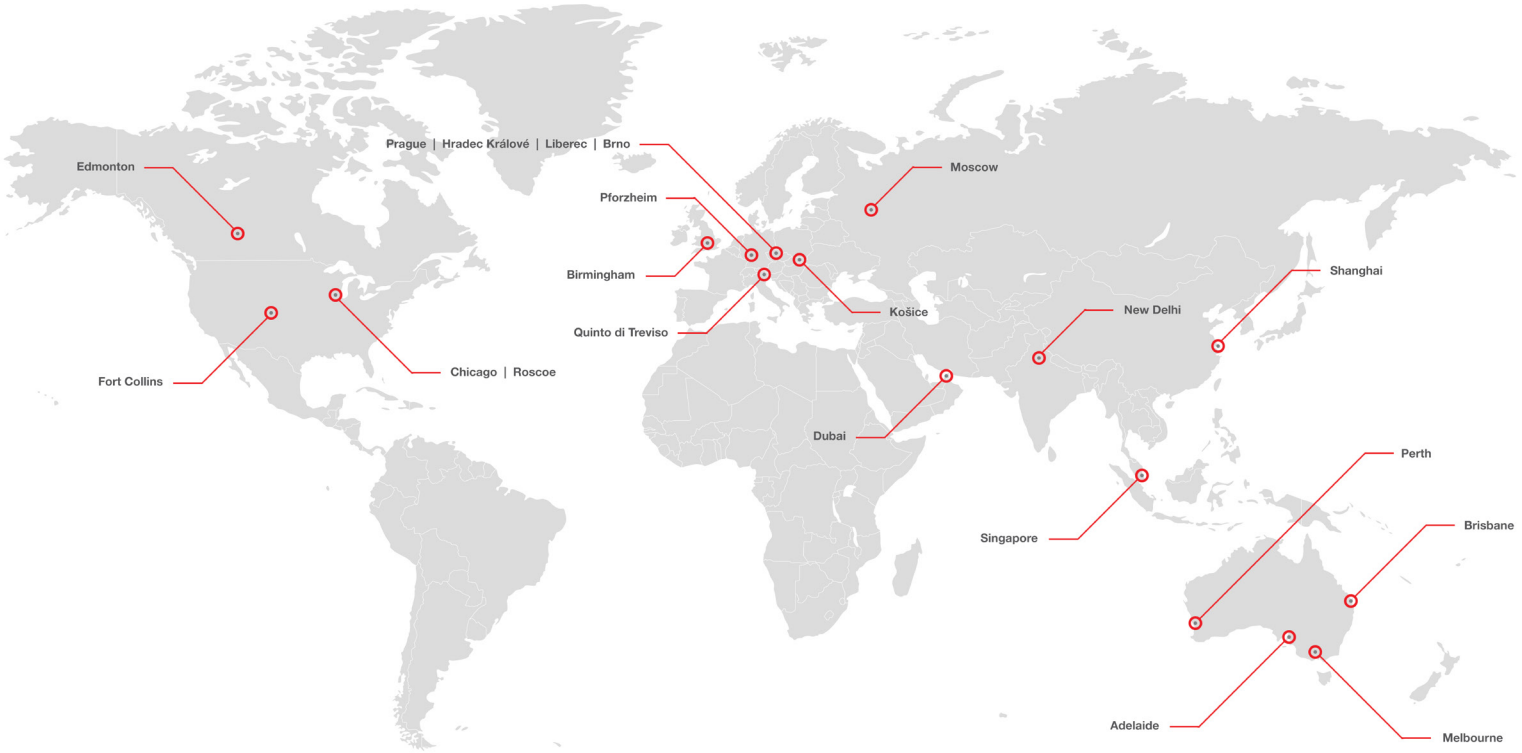


Renewable Energy, Batteries and Gen-sets Integration

Renewable Power and Hybrid Microgrid Control Solutions

ComAp specialises in creating electronic control and management solutions for use in the power generation industries and drive power markets. Our portfolio of products, software and accessories is designed to support emergency power, standby power generation, renewable and hybrid microgrids and engine driven applications all over the world.

Offices



400+ Employees

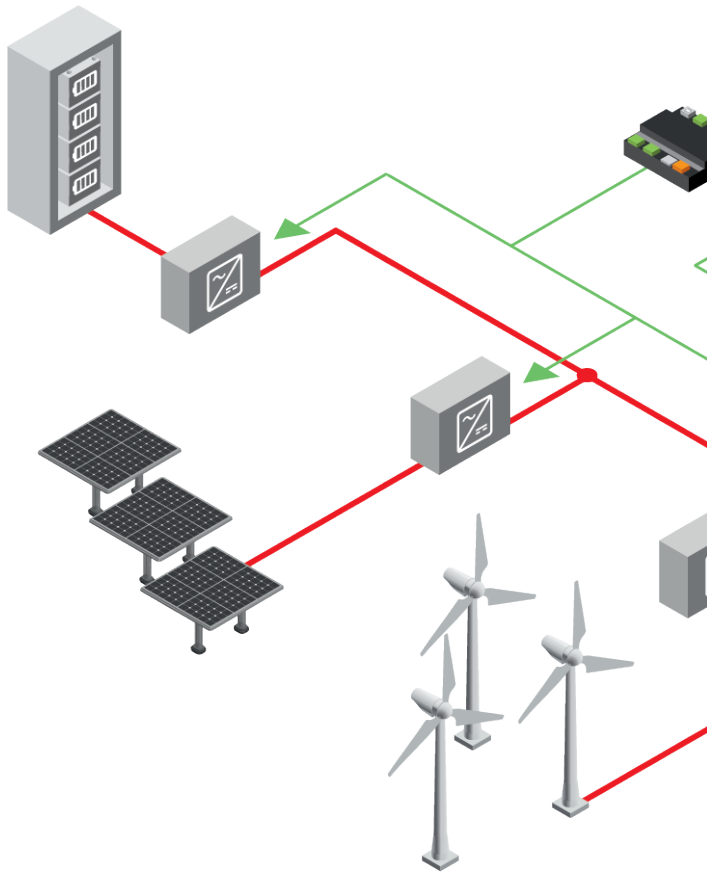
21 Offices

60+ Distributors

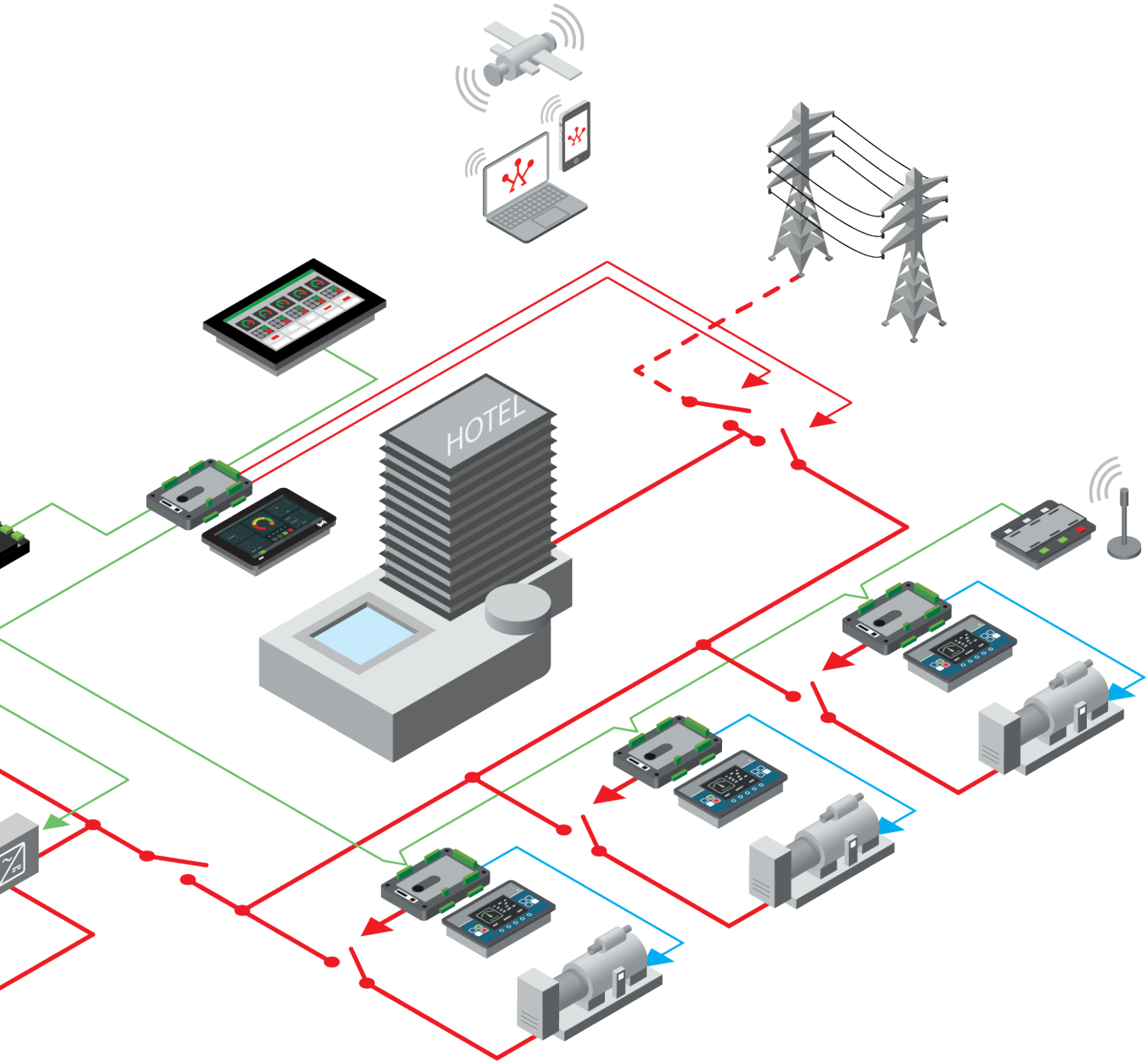
The Hybrid Power Generation

The Future of Microgrids

Renewable energy and battery energy storage systems are quickly transforming traditional power systems from fossil-fueled generation to a hybrid mix of resources. ComAp's hybrid microgrid control solutions integrate generators, renewables, and energy storage to provide the reliability of traditional systems with a much lower carbon footprint and cost of operation. Remote locations without connection to a utility grid utilize renewables to reduce energy costs, extend fuel supplies, and reduce environmental impact. Grid-connected commercial or industrial sites choose their energy mix to achieve corporate sustainability goals, increase reliability, and reduce utility bills. Communities can meet their climate goals and provide energy resilience in the face of severe weather and wildfires.



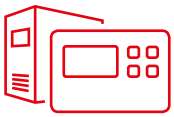
The usage of renewables significantly reduces the consumption of fuel and the amount of CO2 emissions released into the atmosphere.


HOTEL

Key Features of ComAp System

Power management

Starts and stops the gen-sets based not only on the load demand, but also on the requested load reserve regardless of the size (rated nominal power) output and manufacturer.

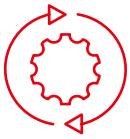


Full Generator Control

ComAp controllers feature fully automatic genset control and protections. They also providefull ECU support. This allows user friendly communication with ECU-equipped engines

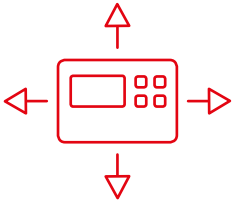
Load sharing

ComAp load sharing of active and reactive power works seamlessly with any renewable energy source including all frequency and voltage regulations.



Dynamic Spinning Reserve

ComAp controllers only keep the necessary spinning reserve that can be dynamically changed according to the actual site requirements. This achieves the highest level of fuel consumption efficiency without threatening the power supply delivery.

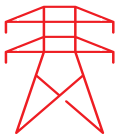


Demand Side Management

In order to assure security of the power supply, ComAp controllers provide controlled disconnection of various load circuits based on their priority and pre-set side-demand logic.

Advanced BESS management

Battery energy storage systems work by converting the DC energy being produced by your solar panels and storing it as AC power for later use. A fully automated digital system with user-friendly interface.



Export Control for grid connected systems

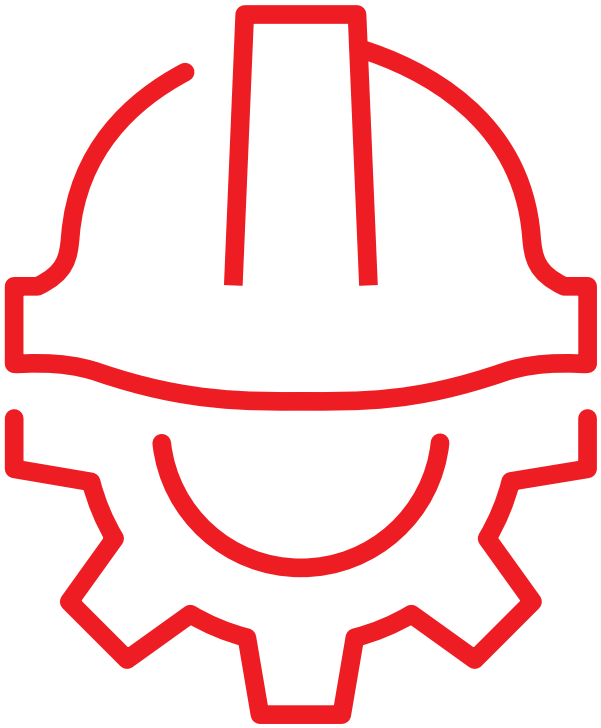
Rules for power export differ globally for various reasons. Utility grids have have limitations with regards to how much PV or renewable energy penetration they can handle without affecting power quality or resulting in a transformer blowout.

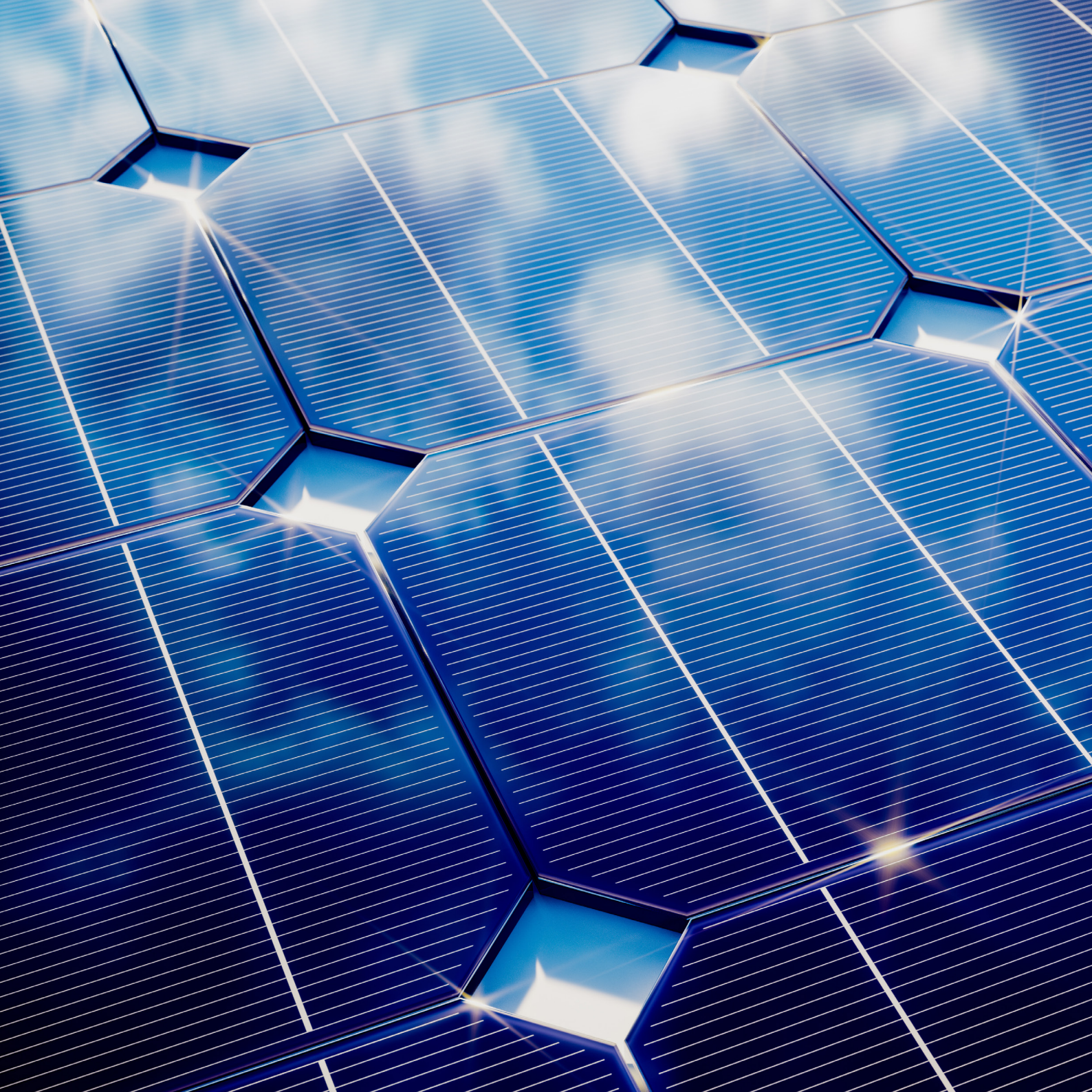
Full Support of Your Projects

At ComAp, we closely cooperate with you to fulfil your existing requirements. It is our knowledge of focused markets, which we gain through unrivalled local expertise, that allows us to deliver intelligent, electronic control solutions that anticipate your needs.

What is more, we are able to assist you at every stage of your project. We can help you **design** the system, along with wiring and **installation**, **commissioning** and **programming** the controller and other settings. We deliver all of this through our specialist network of local experts operating across the world.

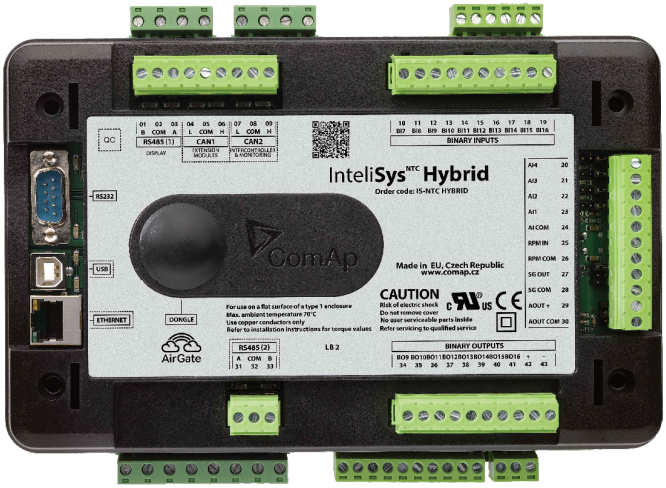
Please contact your local distributor for more information regarding this services.





InteliSys^{NTC} Hybrid

PV-Diesel hybrid system controller



- InteliSys^{NTC} Hybrid is a standalone controller for PV-Diesel hybrid applications that combine reciprocating gen-sets with renewable sources of power. It is suitable for off-grid (microgrids) as well as on-grid installations.
- Continuous monitoring and control of all sources of energy including solar, wind, hydro, energy storage and gen-sets
- Interface to PV inverters via Modbus RTU or TCP*
- Interface to ComAp InteliGen and InteliSys gen-set controllers** via CAN
- Optimized system efficiency by minimizing the necessary dynamic spinning reserve while keeping reliability during the PV output drops; the InteliSys^{NTC} Hybrid controller calculates and distributes the dynamic spinning reserve to the gen-set controllers
- Extensive flexibility due to built-in PLC to cover complex sites control and various operating scenarios
- Synchronization of gen-sets with the mains and export/import limitation control to fulfill the utilities needs in on-grid application
- AirGate connection and WebSupervisor offer remote monitoring and full control of the whole site
- Data acquisition from all power sources provides detailed statistics about energy yield in selected interval (day, week, month) and gen-set fuel consumption

* the Modbus master ability is achieved via additional PLC module (Product name: UC-7112-LX Plus, order code: CM17112LBGB)

** IGS-NT-Hybrid 1.2.0 fw and Hybrid sw key must be used for compatibility and to ensure prevention from gen-set underloading

InteliPro

Utility Protection Relay

- InteliPro is a highly flexible mains decoupling relay with extensive range of protective functions to meet the strictest utility interconnection requirements. It can be used in various distributed generation applications, next to cogeneration units, renewable energy sources or as a back-up protection for gen-sets
- Extensive frequency, voltage and current protections
- Optional features enable to meet particular requirements of utilities
- Compliant with G59/3, G10, G83, IEEE 1547 and VDE-AR-N 4105
- Certified according to IEC 60255, VDE 0126-1-1 and BDEW
- Applicable for requirements of G59/3, G10, G83 and IEEE1547 and VDE-AR-N 4105

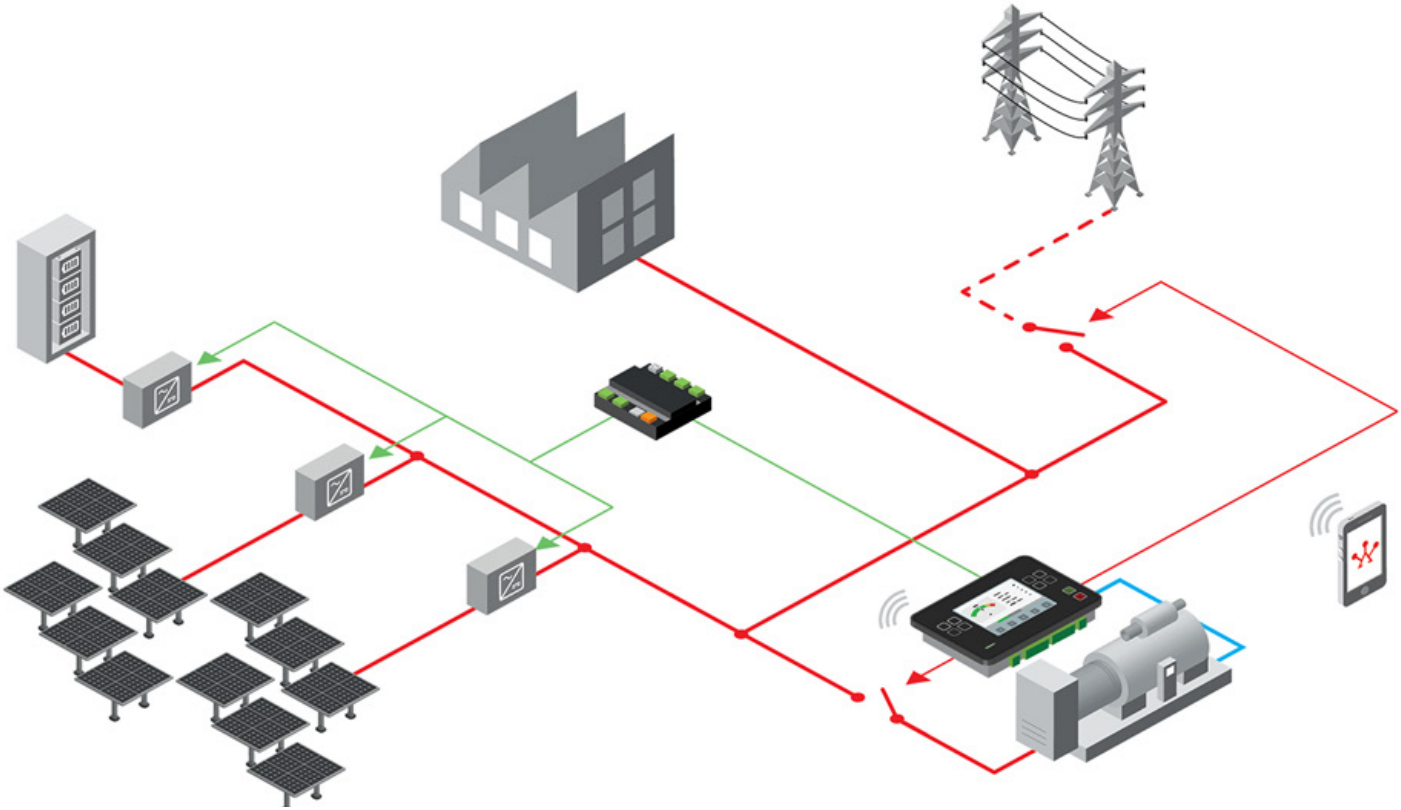
MainsPro

Mains Decoupling Relay

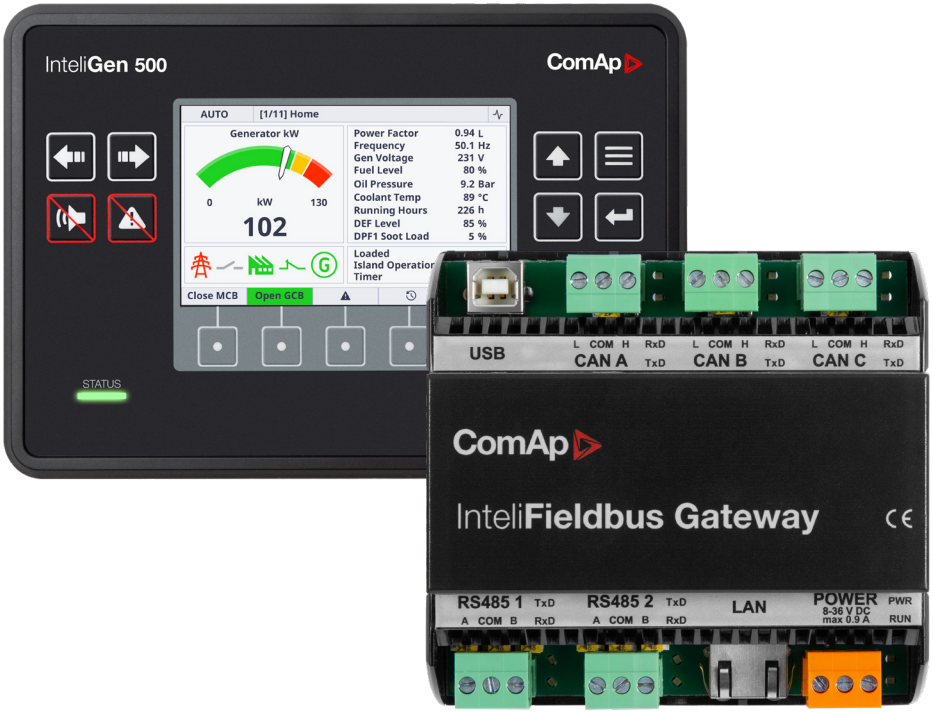
- MainsPro is a protection relay for parallel-to-mains applications including generator sets, cogeneration units, micro turbines or renewable energy sources such as photovoltaic plants or wind turbines. It provides adjustable voltage, frequency and loss of mains protections to safeguard both the distribution network and the generators.
- User friendly interface with easy settings (no SW tool needed)
- Simple wiring with detachable connectors
- Integrated mechanical lock, history track and watchdog protection
- Compliant with G59/3, G83, UL508
- Certified according to IEC 60255, CEI 0-21, IEn NR 005/2012, VDE V 0126-1-1 and VDE-AR-N 4105

InteliGen 500 Microgrid

New software solution for total microgrid control and energy management



The InteliGen 500 Microgrid solution consists of the InteliGen 500 (genset controller), a custom microgrid firmware upgrade activated by a software key and an InteliFieldbus Gateway for interaction with third party products including solar inverters.

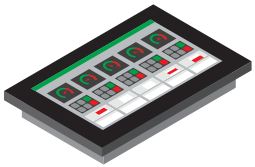


Find out more

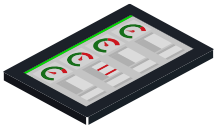
- Seamless integration
- Renewable energy preferrence
- Site reliability (AMF on battery, cyclical battery charging)
- Flexible design
- Wide range of supported devices
- Easy configuration and commissioning

Remote Touch Displays

Control breakers and much more using just your finger.



Inteli**Vision 18Touch** is an industrial grade display equipped with a 18.5 inch multi-touch screen for use with compatible ComAp controllers to monitor and control many different applications. From the screen, you can monitor one gen-set, or an entire site.



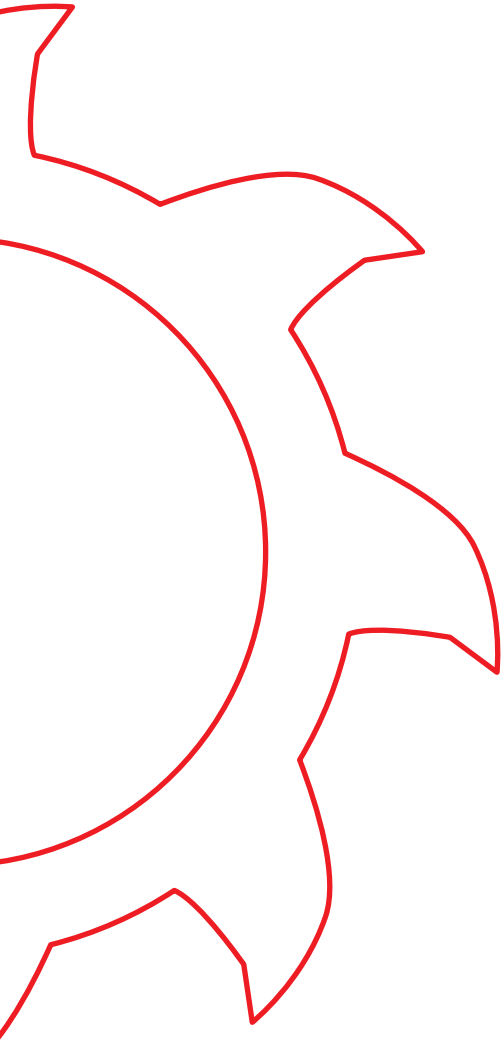
Inteli**Vision 13Touch** is a high-quality easy-to-use 13.3” Marine certified Panel PC with multi-controller support and buttons for brightness change on its front face.

Inteli**Vision 12Touch** is an industrial grade display equipped with a 12.1 inch multi-touch screen for use with compatible ComAp controllers to monitor and control many different applications.

From one device you can configure setpoints of your controllers, control breakers and much more using just your finger. Fast response combined with projected capacitive touch technology ensure pleasant user experience.


InteliVision 15Touch
ComAp
OFF
MAN
AUTO
TEST
ALARM LIST
no alarm
50.0 Hz
Engine state
Loaded
Breaker state
MainsRet
Binary Inputs
Binary Outputs
Genset kVArh
146.0 kVArh
1.0 kVArh

Typical Hybrid System Application



Mining

Mines are often located out of reach of the electricity grid. Up to 30% of operating costs are spent on power generation through diesel power.

Off-Grid Agriculture

Off-grid agricultural sites can get most renewable sources by combining biogas and other renewable sources of energy.

Remote Hotels and Resorts

People like to get far away from civilization, but they don't want to give up the technology and comforts of home. Remote resorts can use hybrid systems to lower their bills for diesel.

Island and Village Electrification

Islands pay amongst the highest prices for electricity in the world. Island nations are also concerned about global warming and rising sea levels. Adopting renewables is a must for them.

Remote Industrial Facilities

Industrial and manufacturing facilities in remote locations with weak or no grid rely heavily on diesel generators. A hybrid system can significantly cut electricity costs.

Defence

Temporary or permanent military bases in remote locations and war zones have to rely on diesel transports. They can lower this reliance by using renewables along side the diesel gen-sets.

Telecom

ComAp telecom solutions have been designed in a way to comply with requirements of both mobile operators and tower companies, as well as OEMs and gen-set packagers.

Oil & Gas

The Oil & Gas market services the power generation market in which electrical power is generated by gas engine gen-sets running on natural or renewable gas types, including all other gas derivatives.

Case Studies

We’re always proud to showcase the innovative ways that our customers and staff utilize the full potential of our products, keeping ComAp at **the heart of smart control**.

98

case studies via **comap-control.com**

Don’t forget to subscribe to our YouTube Channel to see our latest reference videos.

WebSupervisor

A Cloud-based application that enables remote monitoring, management and analyses of a gen-set fleet and 3rd party devices from anywhere.

Main Features

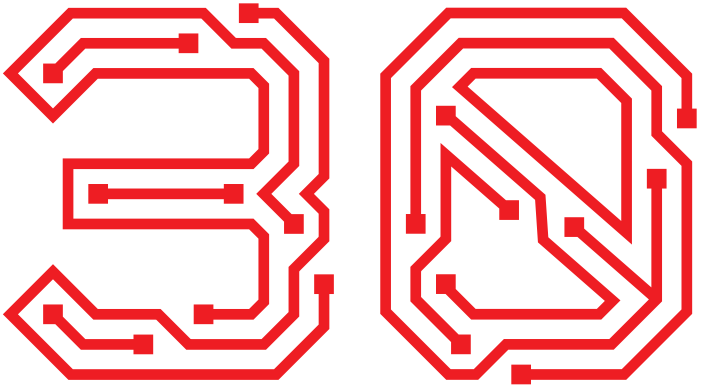
- List and map views of devices and alerts on one screen
- Device tracking and geofencing*
- Dashboard with fleet and group of devices statistics
- Automatic reports for each device, or a group of devices, with customization options.
- Alarm Analyser which can help reduce maintenance costs
- Advanced trend representation (bar graphs, heat maps and more)
- 3rd party device monitoring
- API: able to download data and integrate in CRM, ERP, PowerBI or other third party software
- Screen Editor: modify the data that is displayed according to your needs
- Web camera support
- User activity logger: logs all user activity for a device or fleet
- Download controller's history files (event-based history)
- Customizable look with your logo and URL
- User management with several levels of permission

*Tracking and geofencing requires purchasing an additional GPS card.

WebSupervisor

From your PC, tablet or mobile phone you can instantly reach the most important and relevant data.

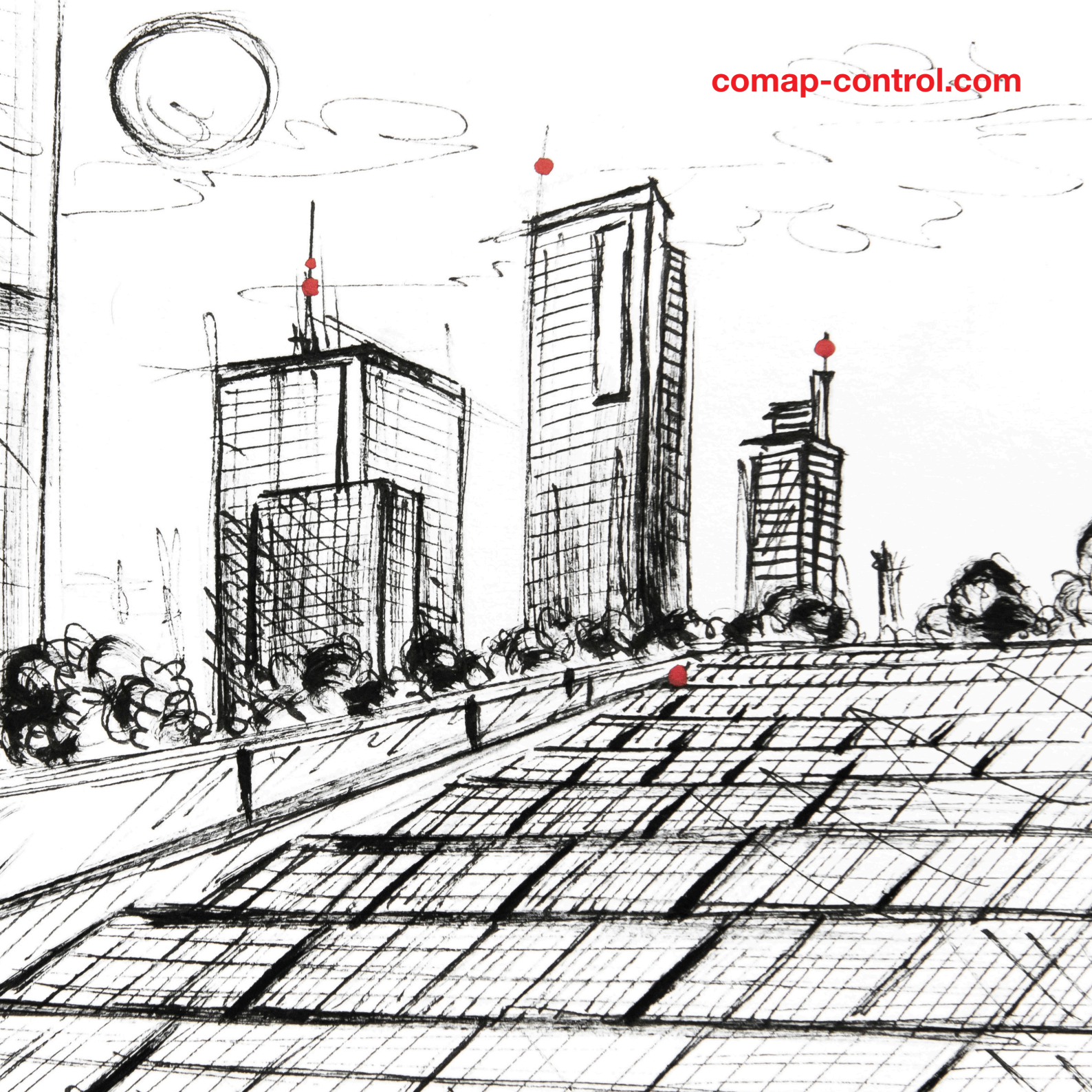
websupervisor.net



30 Years of Smart Control:
ComAp celebrates 3 decades of success through continuous innovation and growth.

Founded in a one-room office in Prague, Czech Republic in 1991 by three friends, ComAp has since become a successful global company with a strong local presence supported by 13 subsidiaries, more than 400 employees, and a network of 60+ distributors. The company is in the hands of its founders who have an ambitious vision for further growth and investment in acquisitions and partnerships. But it is trusted relationships with customers what is the central focus of ComAp. Let´s have a look at the milestones of this astonishing journey starting back in the early 1990s, in the heart of Europe, that has become known as The Heart of Smart Control in the world of independent and backup power generation.


Engine Control
InteliSys | InteliGen
2008
BEST EMPLOYER
ComAp 1991 – NOW
THE HEART OF SMART CONTROL (.EXE)
InteliSys Hybrid
ComAp Cares
We are the heart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