

# ClimaCheck online - services

# Reduce energy cost and extend equipment life of Air Conditioning, Refrigeration and Heat pumps

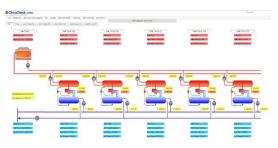
ClimaCheck online provides property owners and partners with state-of-the-art energy reporting and experts with hard facts on performance for plant optimisation, troubleshooting and benchmarking.



## **Performance Dashboard and Energy Reporting**



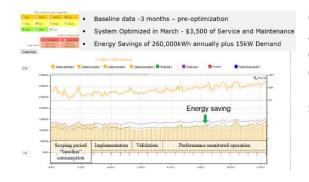
ClimaCheck online offer state of the art visualisation of performance as well as it enables early warning if the energy consumption deviates. Thanks to the performance analysis it also validates if optimisation measures give desired savings. ClimaCheck online will pinpoint any problems as System Efficiency Index (SEI) and Sub efficiencies highlight deviation from optimal performance.



Users can allow access for manufacturers, performance inspectors and experts for plant optimisation and plan measures regardless of where on earth they are located.

ClimaCheck online can also be configured for "indirect leak detection" to reduce on site leak visits.

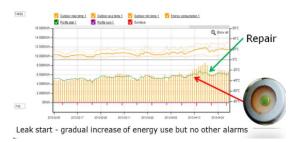
## **Energy Statistics and Energy Signatures**



ClimaCheck *online* builds energy signatures that allow owners to benchmark energy consumption of their plants. Technicians can troubleshoot any deviation from expected or historical performance. Knowing the baseline is the first step in optimisation and it enable benchmarking between sites or equipment configurations.



#### Early warnings and Alerts on SMS or E-mail



Early warnings are available through ClimaCheck online. They can be set up on all measured or calculated parameters and sent through SMS and/or E-mail to multiple users according to desired schedule. Complex alarm with several parameters can be used to ensure early warning without triggering unnecessary alarms. Early detection of leaks is possible to reduce emissions and onsite leak detection, high energy use and increased wear on compressors.

#### **Auto-diagnostics**



ClimaCheck offers auto-diagnostics features where many plants can be compared in one view.

#### Connectivity - Share data/information between platforms

Interface to third party systems can be done to use existing sensors and enhance BMS with ClimaCheck capability. ClimaCheck offer the **ClimaCheck Gateway** and direct data exchange server to server capability. Data can be sent to the cloud through integrated modem, LAN or WiFi. Please contact ClimaCheck to define requirements.

# The following information and much more is available in real time at ClimaCheck *online*:

- COP EER kW/RT (Coefficient of Performance).
- SEI System efficiency index = total system efficiency
- Cooling and heating capacity as well as heat recovery capacity
- Flow on secondary media (water/air/brine)
- Compressor efficiency (inlet/outlet temperatures, power input)
- Condenser/Evaporator efficiency (inlet/outlet temperatures temperature differences)
- **Total energy consumption** over time for the compressor(s)
- Building's energy signature for heating and/or cooling
- Control Functions (at different loads without expensive travel/data collection)
- Expansion Valve function (superheat values)
- Refrigerant charge/Leakage
- Alarms for Pressure, Temperature, Power, etc.

