UNIBERG

UB-SMART

UNIBERG's solution for Mobile Cell Energy Management

- Energy costs reduction
- Reduced carbon footprint
- Optimal usage of green energy

Network operators are faced with constantly raising energy costs for operating mobile cells. 5G rollout requires a higher density of mobile cells, which increases the power consumption per cell considerably. Furthermore, mobile operators are forced to compensate their carbon footprint by certificates. Rural installations of mobile cell sites require independence from public power grids. There is a growing demand from socially responsible investors, mobile operators and the public for green mobile cell sites that are environmentally sustainable. The time to act is now.

UNIBERG's Energy Management solution UB-SMART is based on modern and innovative Data Analytics, Automation and System Decision Intelligence.

Made for Mobile Network Operators, Smart Industries and Private 5G Networking to reduce power consumption and achieve sustainability goals.

Key Insights

- Made to scale to meet the demands of Network Operators to process mobile infrastructure
- Intelligent decision-making based on AI to optimize which power source to be used at what time
- Highly efficient stream data processing with integrated anomaly detection
- Independence and autarky by edge computing and decentral processing
- MML / CLI to steer ORAN and proprietary equipment, including various vendors for power operations, batteries, microwave systems and IP router systems

Key Use-Cases of UB-SMART

- Reduce power consumption for gNodeB within one cell site
- Reduce power consumption for gNodeB within a region
- Optimize the costs of power consumption on mobile cells
- Reduce the carbon footprint to a minimum
- Provide highest possible use of green energy
- Extend the lifetime of batteries
- Independence from power grids
- Eliminate the use of diesel generators while operating mobile cell sites

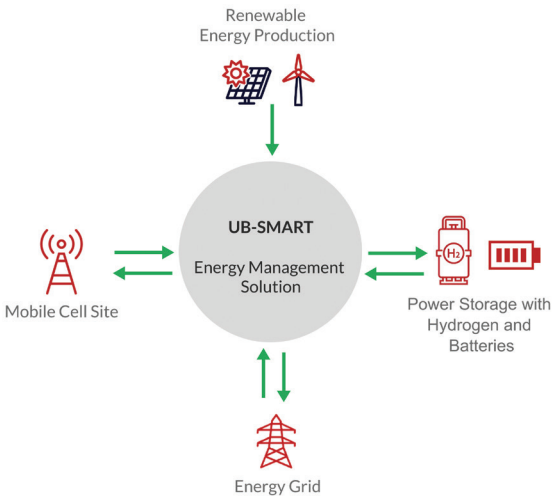

Fig. 1 Improved Energy Management decisions optimized by UB-SMART

Based on AI, UB-SMART intelligently determines the most optimal source for power with regards to costs and ensures green technology source at all times.

UB-SMART is a highly flexible tool to optimize the power consumption and provide green energy.

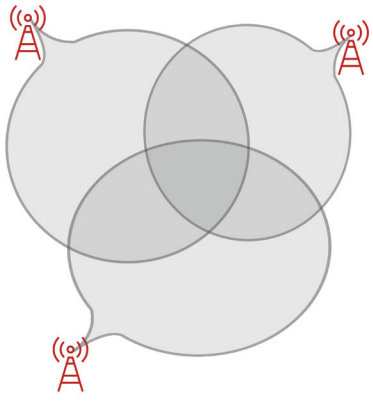

Fig. 2 Overlapping coverage areas of mobile antennas

UB-SMART reduces the power consumption based on the predicted usage while also ensuring maximum possible coverage. Our solution is based on AI, Data Analytics with high performance computing and radio intelligent controlling technologies.

With the help of UB-SMART, mobile operators can be more sustainable and effortlessly reduce OPEX. It also enables independence from power grids or non-green power sources.

- Optimal usage of green energy
- Autarky from power grid
- Avoid the dependence on diesel generators operating mobile cell sites
- Maximum possible coverage at all times
- Intelligent selection of the most cost-effective power source
- Efficient battery usage to prolong its lifetime

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