

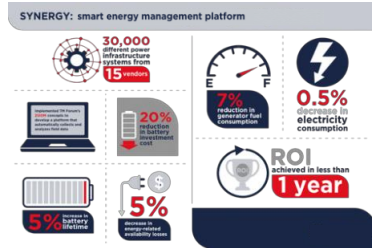
## Use Case Energy Management to Next Step with SYNERGY

EXCELLENCE AWARDS 2021  
FINALIST



### Summary

Due to regulation needs and customer experience risks, an MNO was over dimensioning the power infrastructure they managed. While 5G was at their doorsteps, efficient and effective decision making was paramount for future rollouts as the new carrier technology required considerable number of extra stations. TTG Int. 's SYNERGY™, helped to resolve the issue.



### Actor

Mobile network operator.

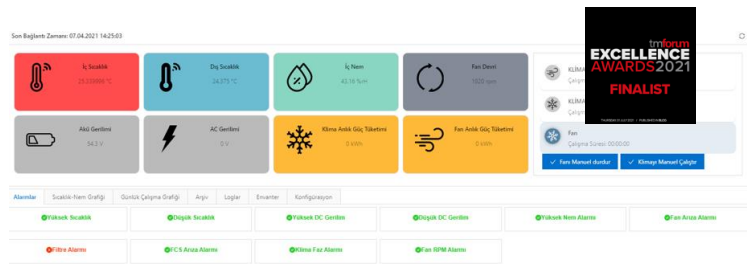
### Situation

Energy is one of the biggest OPEX items in the balance sheet. Reducing it by even small fraction makes big difference. However, every base station cabinet comes with multi-vendor rectifiers, batteries, wiring systems, backup energy providers, (diesel, solar panel etc.), cooling systems and safety/security controllers. Seasonal climate changes are predictable to some extent, but frequent spikes make it difficult to fine tune environmental parameters in the cabinets. Moreover, frequent re-chargeable battery control and check is mandatory, should the life of them be extended, which becomes a very arduous task for field personnel to maintain them effectively.

### Solution and Benefit

SYNERGY™, the Smart Energy Infrastructure Management Tool developed by TTG Int., collects and monitors information from all intelligent power elements and helps planning and operations team to assist their decision making through data visualization and ML algorithms.

Configuration management, reports and critical alarms are sorted out through the hierarchical tree structure the distributed nodes. Through the tool's capabilities, it became possible to remotely control the generators and other devices for proper fine-tuned operation automatically during weather spikes. Long lasting battery checks extending



their operational lives was automated without any need of human intervention through its zero-touch management capabilities.

SYNERGY™, not only addressed the repeated human intervention to the power systems but also decreased the carbon-footprint of the operator and energy costs, bringing in a ROI in 1 year alone. For its breakthrough approach of management of power systems, SYNERGY™ was being nominated by TMForum as “Excellence Award 2021” finalist.

### By SYNERGY You Can

Automate energy management: With SYNERGY™, the operator **automates** many of the energy infrastructure tasks, including battery checks, generator control, and configuration management. This can reduce the burden on field personnel and improve efficiency.

Use data visualization and machine learning algorithms: By collecting and analyzing data from intelligent power elements, the operator makes informed decisions about energy management. Machine learning algorithms help identifying patterns and predict future demand, allowing the operator to **fine-tune** operations in advance.

Implement zero-touch management: By automating tasks like battery checks and generator control, the operator **reduces** the need for human intervention while **improving** the reliability of the energy infrastructure.

Improve energy efficiency: By optimizing the energy infrastructure and reducing waste, the operator **lowers energy costs and reduce its carbon footprint**.

**Overall**, implementing SYNERGY™ and automating energy management can help the operator improve efficiency, reduce costs, and improve the reliability of its energy infrastructure.