

RADIO- LINK ENERGY SAVING

A Green Idea

In a world focusing more and more on the green agenda, and with operators focusing on OPEX reduction, it is important to reduce energy consumption as much as possible, without affecting customers. R-LES (Radio-Link Energy Saving) is a software tool, which is built for Ericsson MINI-LINK. R-LES controls the number of transmitters turned on, by tracking the traffic patterns. R-LES is especially valuable on remote sites, without access to the energy grid, which depends on periodically getting diesel from truck or helicopter. R-LES has also shown great value on redundant links, where R-LES can give a constant high energy saving.



Customer Case

TELE-POST is a mobile and fixed operator, who has the challenging task of providing telecommunication on the worlds largest island, Greenland. Greenland has some of the most extreme weather conditions, and coverage requirements in the world.

In order to provide the needed coverage, radio stations with Ericsson MINI-LINK are located remotely on mountain tops linking together the various parts of the country. Often these radio stations do not have access

to the power grid, but rely on diesel, delivered by helicopter.

In order to save diesel, and to increase the time that a station can run without a visit from a helicopter, TELE-POST has installed R-LES on more than 40 radio stations.

The Return Of Investment was less than one year.

How Does R-LES Work?

R-LES works together with existing management tools, such as Ericsson SOEM (ServiceOn Element Manager) and MINI-LINK Craft. The co-operation between SOEM and R-LES ensures that only intended alarms are generated to the NOC. R-LES monitors traffic demand on the individual radio stations, and continuously predicts the number of transceivers needed to support the traffic level. Depending on the prediction, R-LES turns on or off transmitters as shown in the graph below.

The blue line in the graph illustrates a typical traffic pattern over a week. The thick yellow line indicates the radio line capacity. R-LES monitors and predicts the needed number of transceivers continuously.



Server Specifications

Server for 100 radio stations:

Linux

CPU with minimum 8 cores

Minimum 16GB RAM

Minimum 100GB HDD

Carrier grade with high availability

Management network access