

# Typical examples for network powering with Safecom's products

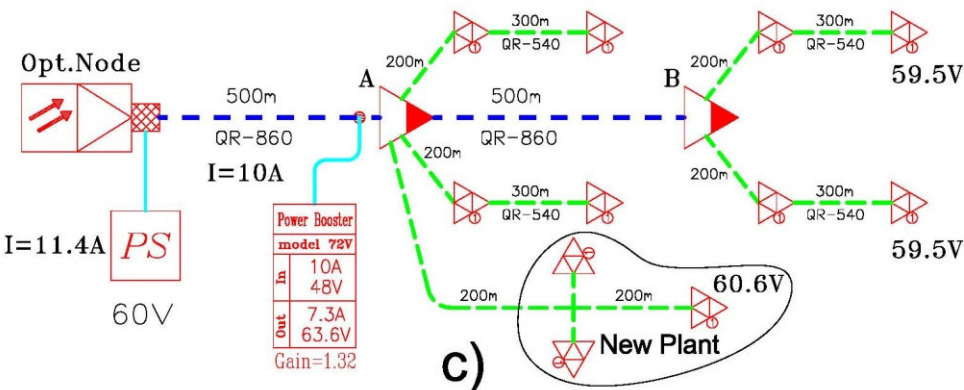
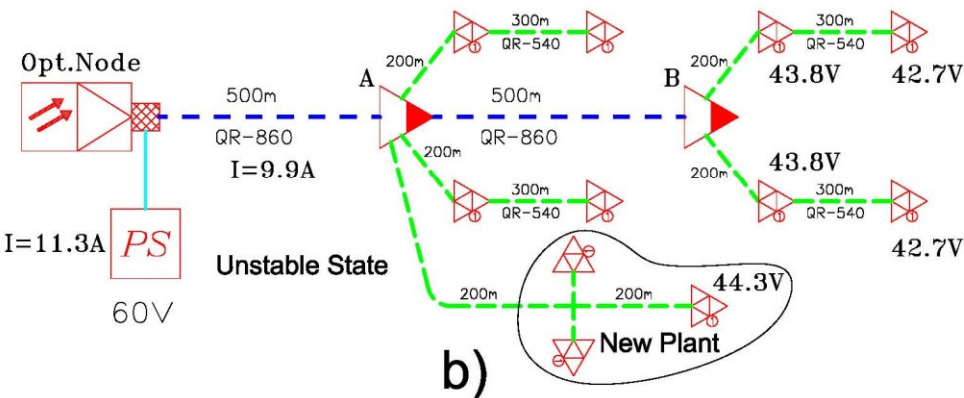
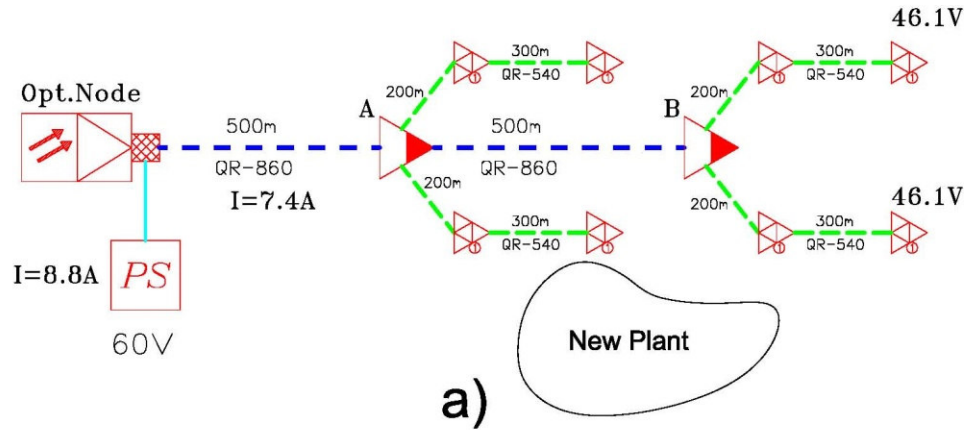
# Challenges of CATV network powering system

- **Reducing OPEX and CAPEX** on maintenance of existing power systems as well as cost of network expansion
- **Saving energy** by optimizing the number and efficiency of power supplies in the network
- **Increasing reliability** of network powering for extended periods of time

# Safecom's solution

Safecom meets the above challenges by offering a combined approach that includes:

- **Proven Double Power Source backup solution (DPS)**
- **High- efficiency AC/AC transformation** – Safecom's non-Ferro PS enables over 95% efficiency compared with less than 90% on most PS
- **Increasing efficiency of power transmission** over coax by exploiting effective Power Booster technology



## Example 1: Cable plant expansion

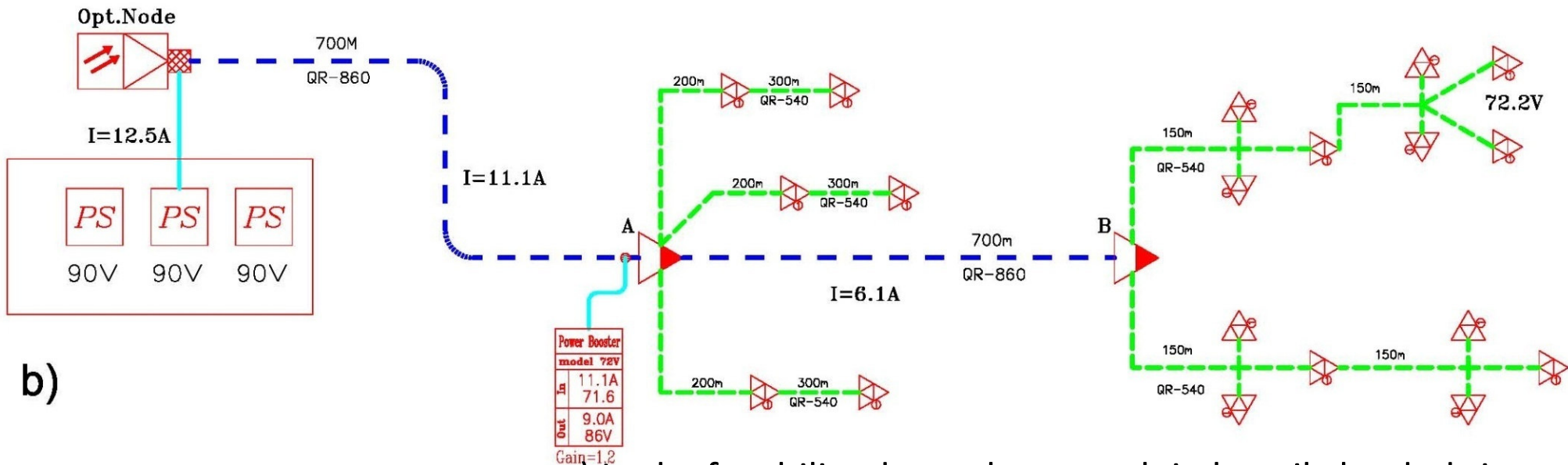
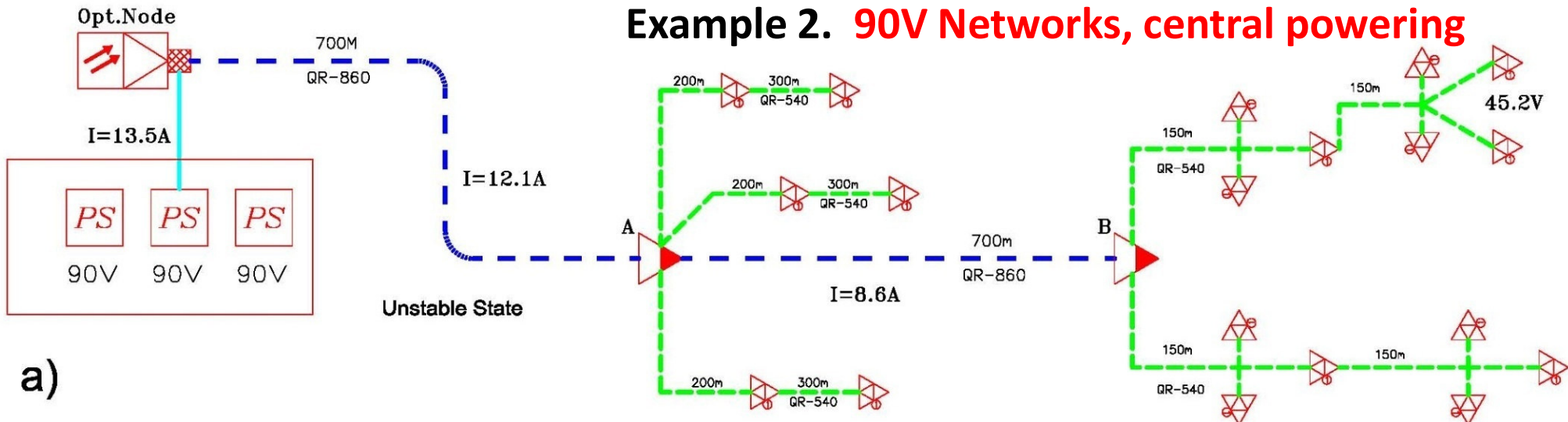
### a) Initial network

b) Adding new plant. Network becomes unstable due to low AC voltage at the inputs of five line extenders

### c) Power Booster added :

- **No need to add new power site** :PS, Cabinet, municipal license, labor expenses, logistics, electricity connection etc.
- **Optional future network expansion** - With the Power Booster, the entire site gets higher voltages at the amplifiers input, which makes future network expansion – possible.

## Example 2. 90V Networks, central powering



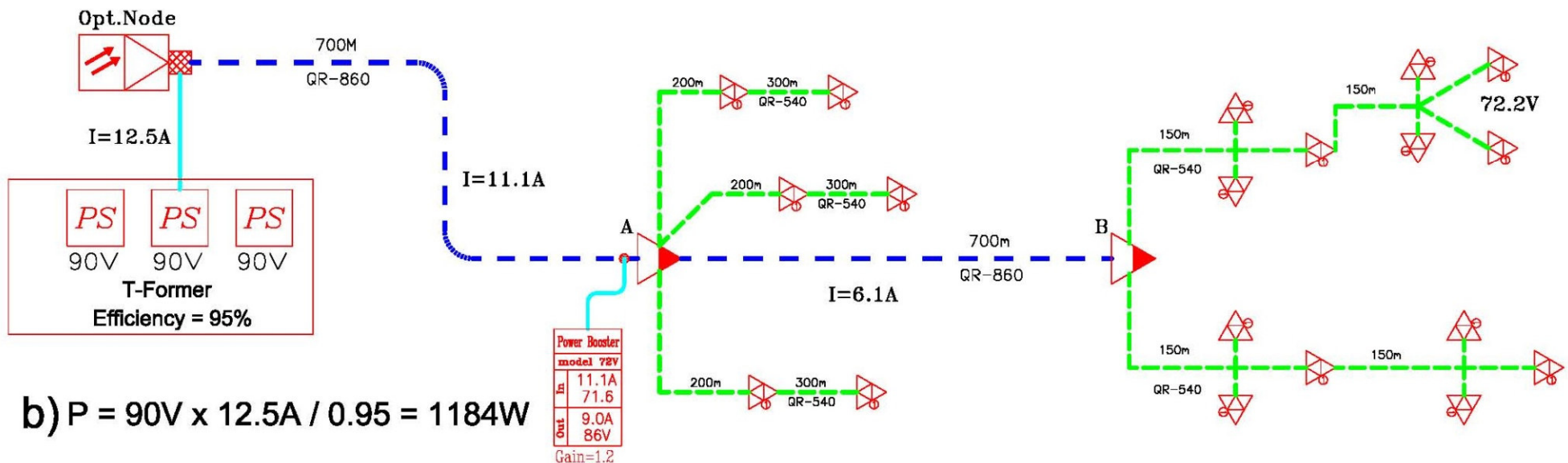
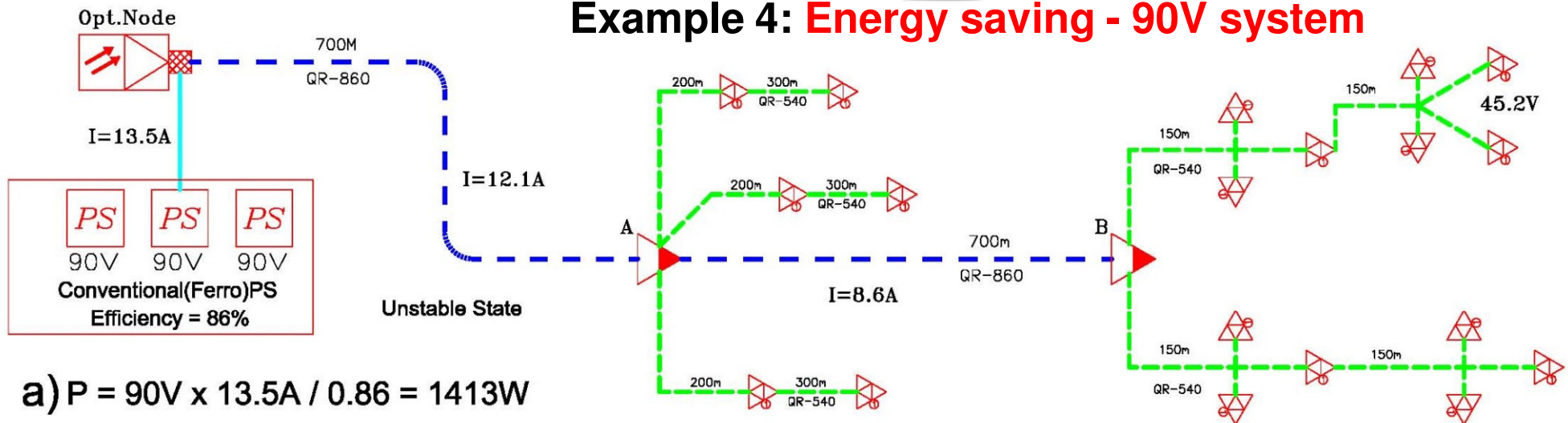
a) Lack of stability due to long reach in heavily loaded sites

b) **Power Booster** solves problem and even saves energy





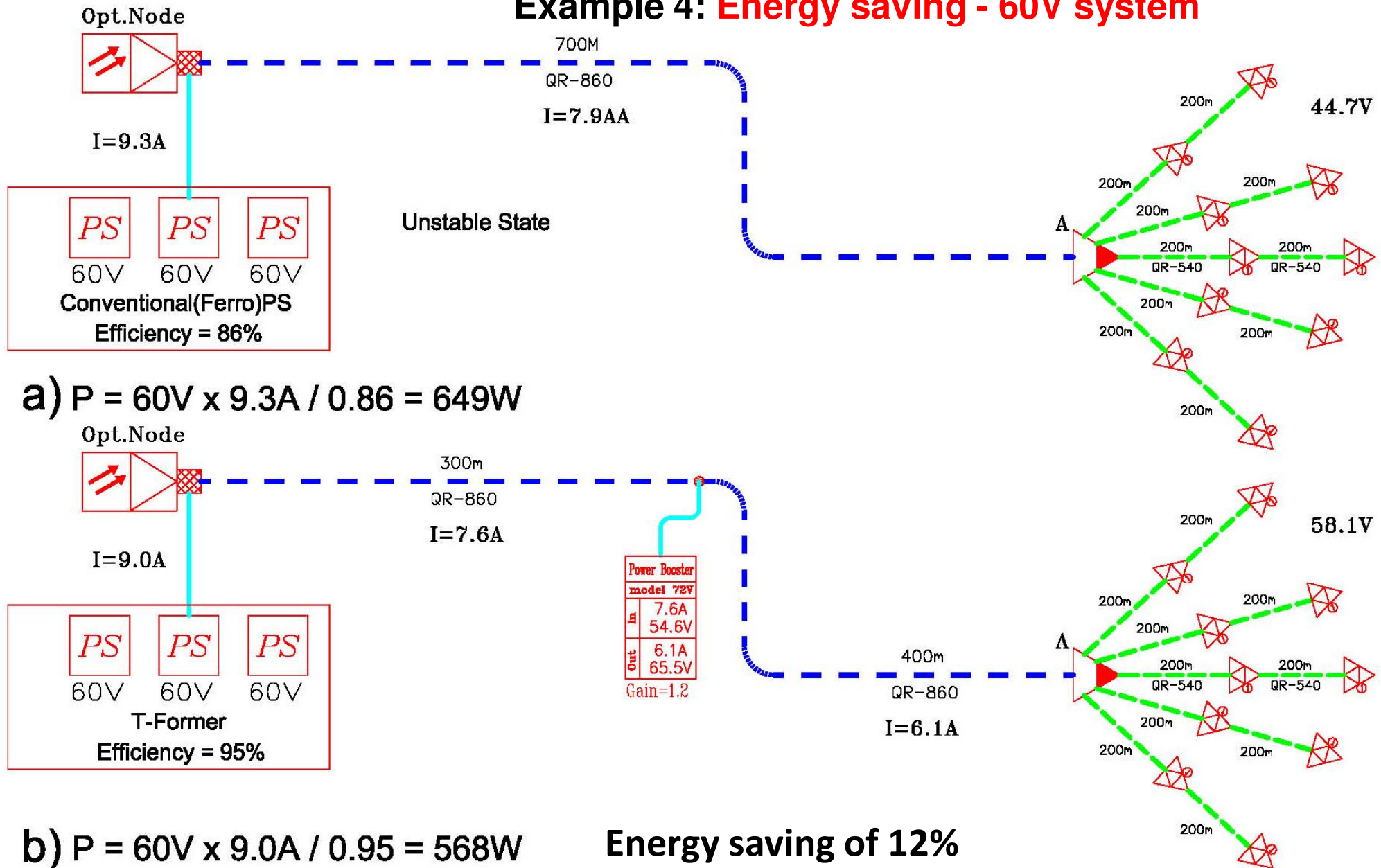
## Example 4: Energy saving - 90V system



Combined effect of using Safecom' Power Booster and highly efficient PS T-Former

In addition to extended reach and network stabilizing **Energy saving of 16% in this example**

## Example 4: Energy saving - 60V system

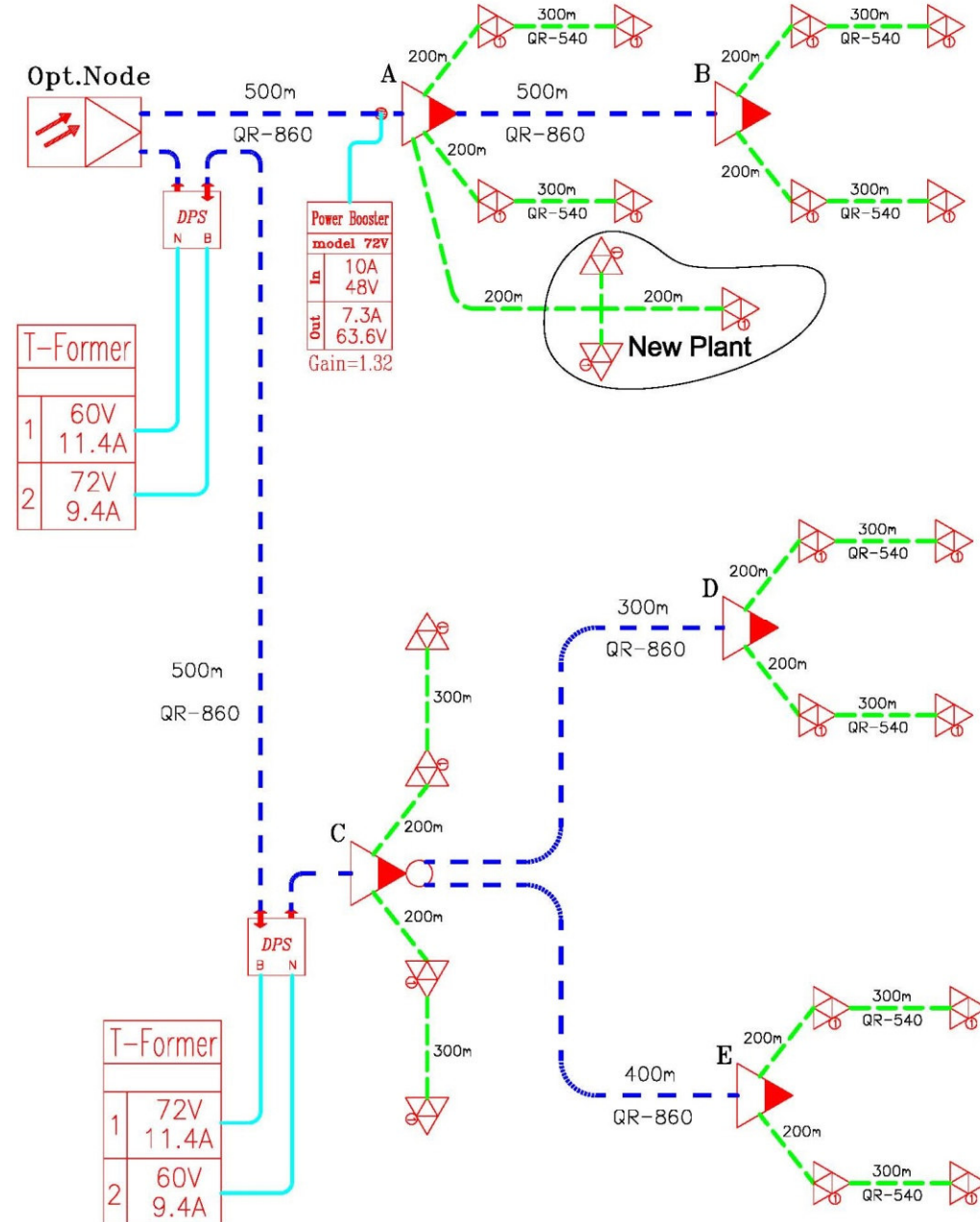




## Example 6 : Combined solution

The combined solution enables:

- **Reliable network power backup** without the drawbacks of legacy UPS/battery based schemes
- **Reduce operational cost**, labor and logistics on powering maintenance and energy expenses
- **Reducing Capital cost**, by optimizing power sites locations and minimizing the number of PS in the network
- **Saving electricity expenses** by upgrading old installed base of UPS to highly efficient power supplies
- **Reduce environmental damage** by reducing carbon footprint and acids



# Safecom value proposition

- Safecom's technology enables energy and cost saving in few levels:
- **Reducing network OPEX and CAPEX**– by reducing the number of batteries, UPS units and maintenance cost
- **High- efficiency AC/AC transformation** – Safecom's non-Ferro PS enables over 95% efficiency compared with less than 90% on most PS
- **Increasing efficiency of power transmission** over coax that enables:
  - Energy saving and reducing network electricity cost
  - Less PS in the network