

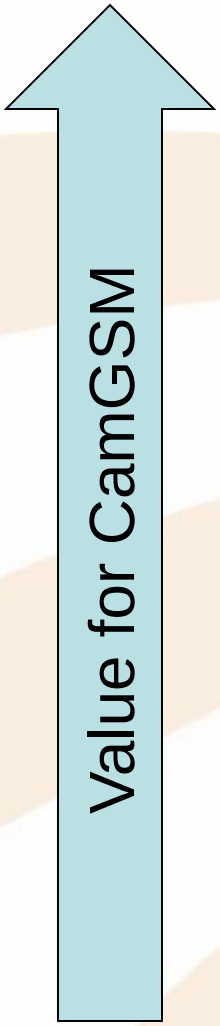
CAMGSM CONTRIBUTES TO GREENER ENVIRONMENT

About Us

CamGSM Co. Ltd. has been Cambodia's leading telecommunications provider since 1997.
Catering to a society that is embracing technological development

www.cellcard.com.kh





Green incentive
A desire to contribute on environmental protection and reduce Carbon Footprint

Smart procurement

Smart energy procurement and usage analytics to optimise business value

Production/consumption management

Managed Services, asset optimisation, energy sourcing to reduce OPEX

A major push to wrap potential markets particularly in rural & far-flung areas where grid power is not available

Transforming CamGSM To Sustainable Energy Alternatives

CamGSM Initiative	DG Hybrid System in CamGSM Network	Upgrading & Optimizing Telecom Equipments	Summary



Energy efficiency OPEX efficiency

Solar energy used by CamGSM Network



Lack of electricity supply

CamGSM targets to accomplish 80% off-grid sites in the future



Environmental sustainability

CamGSM is vigorously aiming to achieve environmental compliance

Reducing energy consumption by maximizing the use of Solar-DG Hybrid Power

Reduce CO2 emission by enhancing centralize monitoring & operational functionality



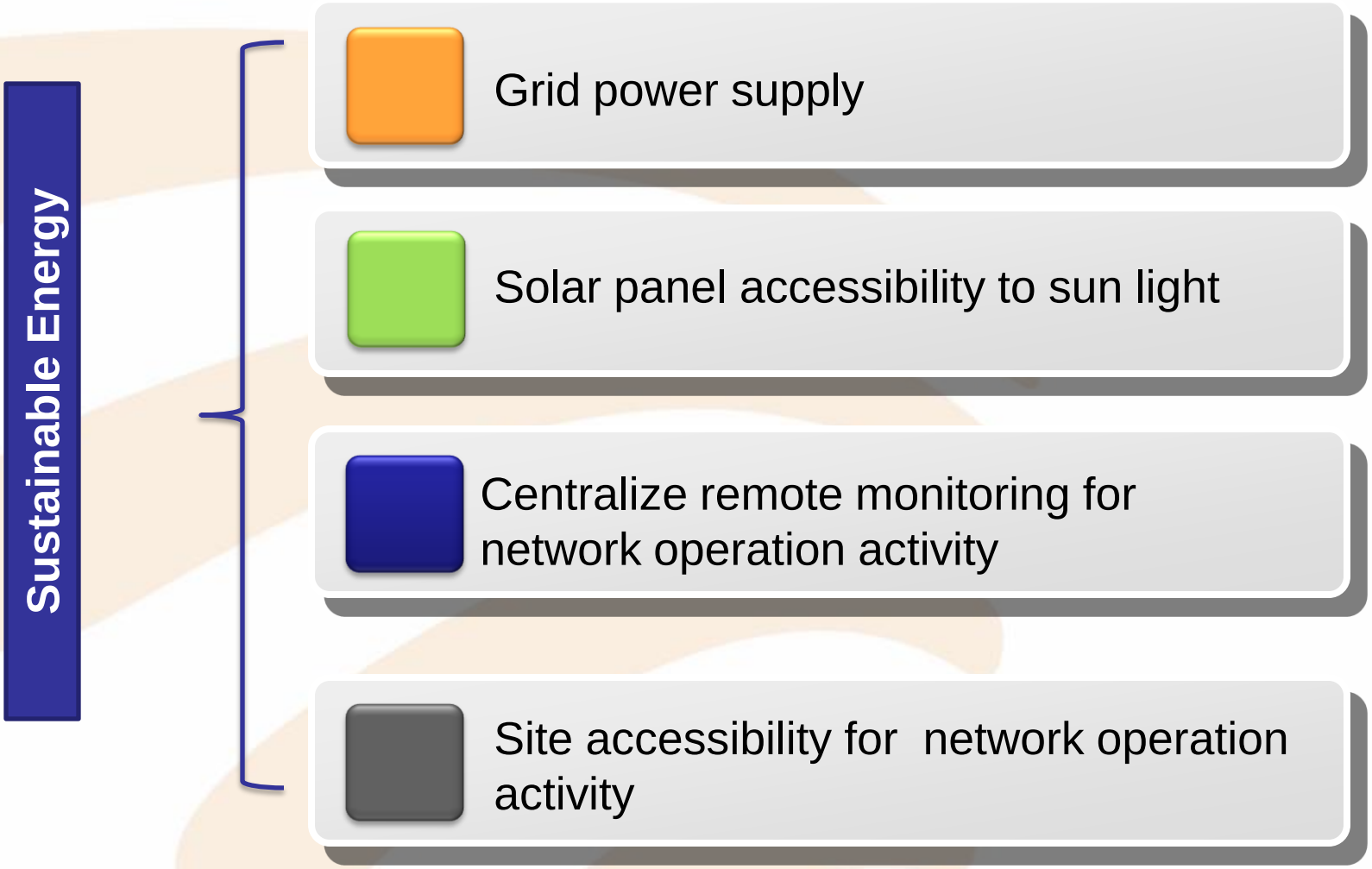
Reducing power consumption by upgrading & optimizing existing Telecom equipments to sustainable energy compliant equipments

Transforming CamGSM To Sustainable Energy Alternatives

CamGSM Initiative	**DG Hybrid System in CamGSM Network**	Upgrading & Optimizing Telecom Equipments	Summary

Planning a greener Network

While doing site selection and networking planning, we consider some of the below points which contribute to greener network:



Planning a greener Network





Planning a greener Network

Traditional Monitoring System



Centralized Monitoring System



Intelligent detection and comprehensive analysis, keep the system healthy actively and timely

Capable to monitor & configure parameters:

1. LLVD/BLVD
2. Fuel Monitoring
3. Temperature Setting (Battery)
4. Genset start setting (auto/manual)
5. Genset on/off setting
6. Solar charge setting
7. Solar monitoring (environmental)

Planning a greener Network



Planning a greener Network







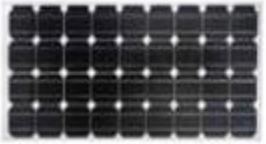
Planning a green Network

High Advance Solar Controller





High performance solar PV panel





Customized Solution

High reliability backup battery

Maintenace free AGM type battery



Uni-platform O&M system





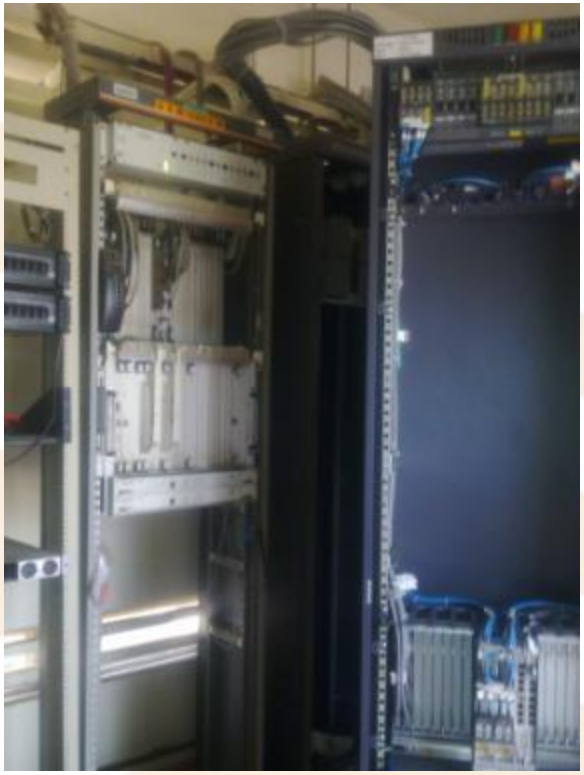
Transforming CamGSM To Sustainable Energy Alternatives

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Eco-sustainable compliant equipments



Core Network Equipment



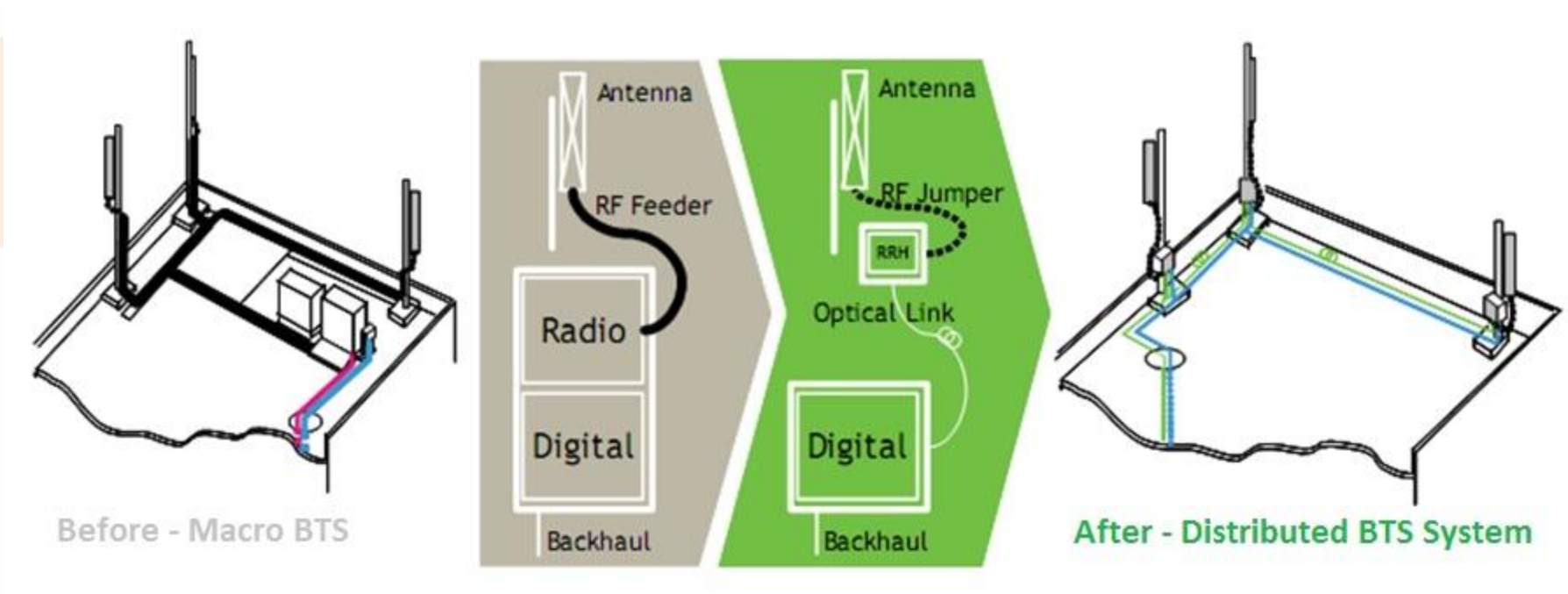
Transport Equipment



Radio Equipment

Considerable power consumption reduction as compare to old equipments

Eco-sustainable compliant equipments



DBS Deployment: Up to 50% power reduction as compare to old equipments

Transforming CamGSM To Sustainable Energy Alternatives

CamGSM Initiative

DG Hybrid System in CamGSM Network

Upgrading & Optimizing Telecom Equipments

Summary

CAMGSM IS FOCUSING ON GREEN ENVIRONMENT:

- CamGSM Power Network:
  - ✓ 66% of sites are using Hybrid Solar – DG System
- 53% of TE already replaced by new equipments

SUMMARY:

Solar and diesel hybrid power solution have minimum environmental impact and low maintenance cost. This power supply system uses solar energy, batteries and backup generator in a complementary manner to provide the required power to our network.

Reduce CO_2 emissions to preserve environment



Optimize the OPEX at telecom sites



Reach new potential markets in rural and remote areas in a sustainable way



Improve network availability where grid is unreliable/unavailable



Thanks

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