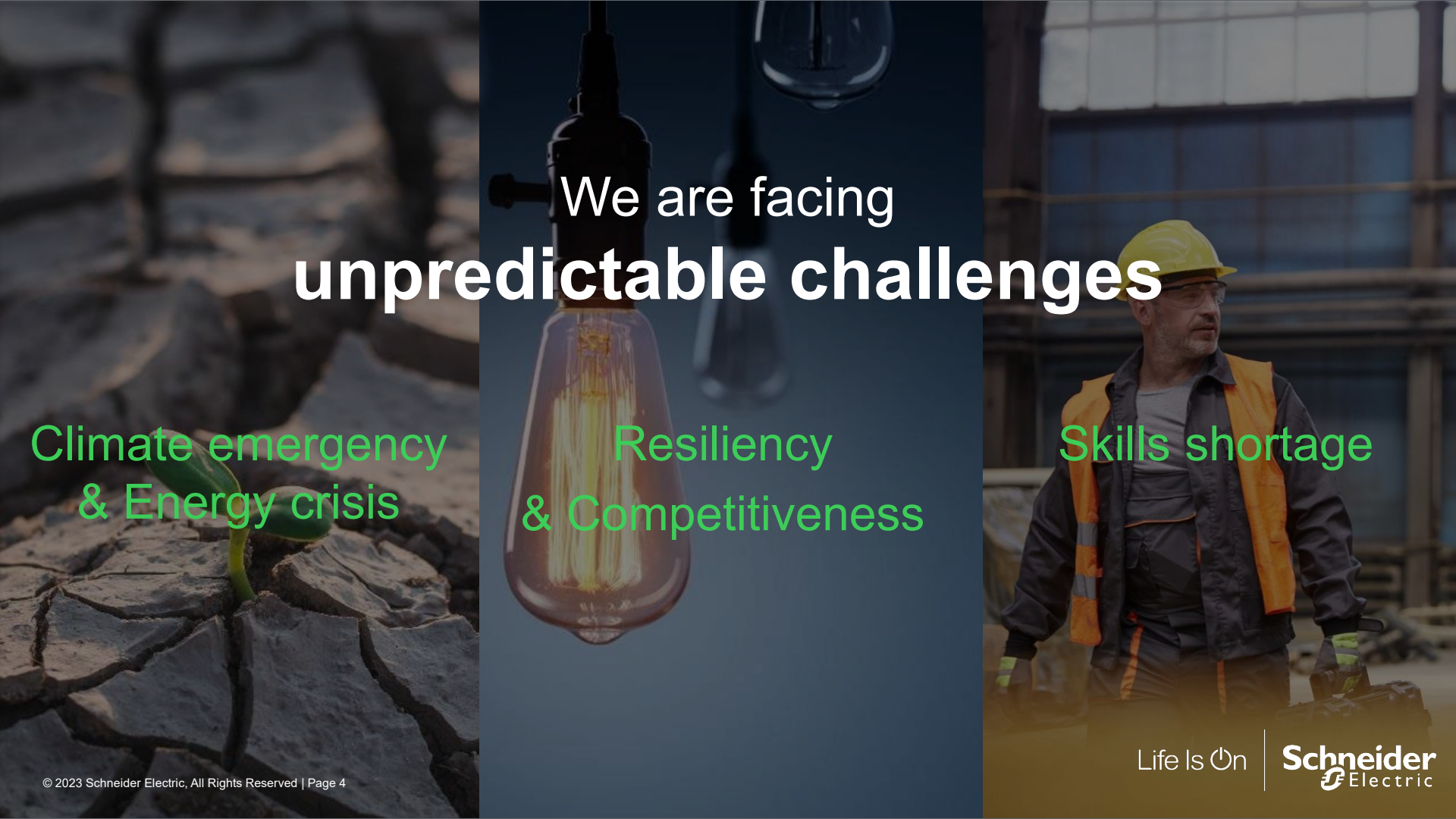




Ecostruxure Service Plan

Breath Life into Your Installed Base

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Digital Services Solution Architect
for South - East Europe



We are facing
unpredictable challenges

Climate emergency
& Energy crisis

Resiliency
& Competitiveness

Skills shortage



But we can now
predict events

**High performance
sensors**

Protect your most critical
asset

**Analytics &
AI reality**

Empower your workforce

**Condition-Based
Maintenance**

Prevent catastrophic
failures



EcoStruxure Service Plan (ESP)

The plan

Food for thought

Some questions for self-reflection

How old are your assets & systems?

How do you make sure that your system is up to date and operating properly ?

Which features are you looking for in a service plan?

What is your maintenance strategy to reduce cost & improve uptime ?

How do you ensure the continuity of your business ?

Are your assets connected to the cloud?



EcoStruxure Service Plan for Power & Asset Management

| | | EcoStruxure Service Plan Power & Asset Management |
|--|--|--|
| Features | | |
| • 24/7 or 5/8 technical remote support | | ✓ |
| • On-site emergency dispatch | | ✓ |
| • Annual consultative meeting with experts to improve Asset & Power Management | | ✓ |
| Electrical Assets | • 24/7 Monitoring & Alarming | ✓ |
| | • Asset Data Analytics, Environmental Monitoring, Electrical fire index | ✓ |
| | • On-site Corrective Maintenance • Labor & travel included | ✓ |
| | • On-Site Condition-Based Maintenance: • Dynamic scheduling triggered by Maintenance Index | +2 year |
| | • Monitoring, alarming & control with EcoStruxure™ Power Monitoring Expert or Power Operation • Power Management System health monitoring | ✓ |
| Power Management System | • Data quality consultancy • Electrical health consultancy • Alarm health consultancy | 2 per year |
| | • On-site Preventive Maintenance | 2 per year |
| | • Software assurance | Optional |

Products & System covered

Low & Medium Voltage Equipments such as:

- ✓ Transformers
- ✓ Circuit Breakers
- ✓ Switchgear
- ✓ Protection Relays



Energy Management Systems:

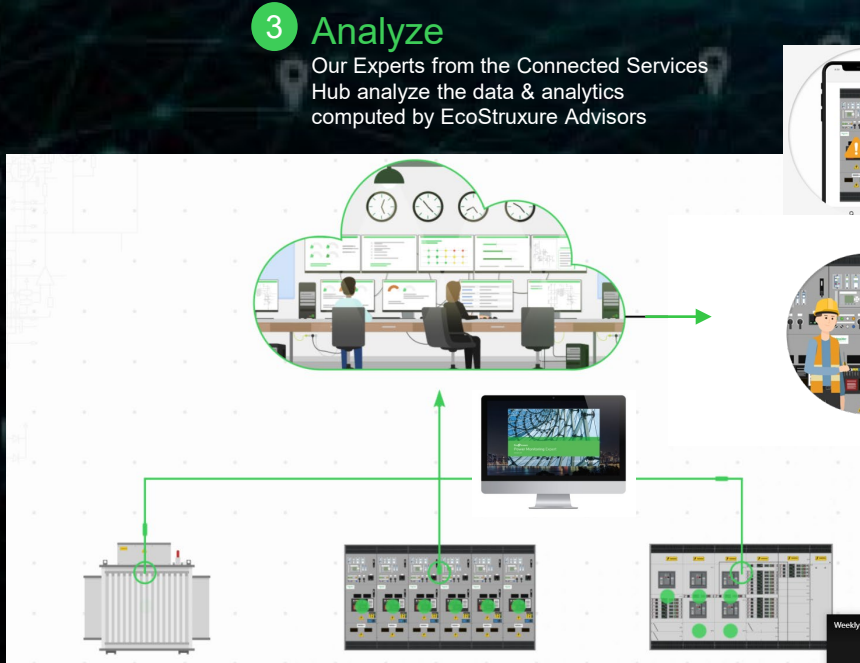
- ✓ EcoStruxure Power Monitoring Expert
- ✓ EcoStruxure Power Operation



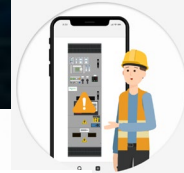
How does it actually work?

We combine a field & digital services plan to provide you an innovative service plan

- 1 Collect**
Data is collected from sensors and sent to our Schneider Electric Cloud
- 2 Monitor**
We monitor continuously the environmental & health status of the assets and systems



- 3 Analyze**
Our Experts from the Connected Services Hub analyze the data & analytics computed by EcoStruxure Advisors



- 4 Notify**
In case we detect abnormal behaviour, we'll notify you and propose a mitigation plan if needed

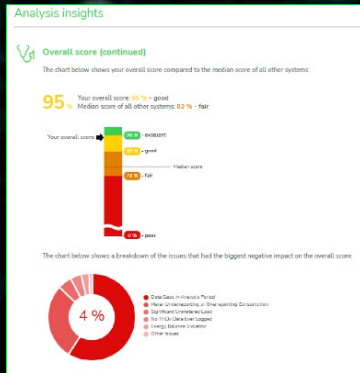
- 5 Maintain**
If the issue is critical, we'll dispatch a Field Services Representative whenever needed

- 6 Advice**
You will get insights and recommendations during a consultative call with our experts

ESP - Power Management

Powerful analytics to improve your Power Management of your facility

1. Data Quality



2. System Health monitoring

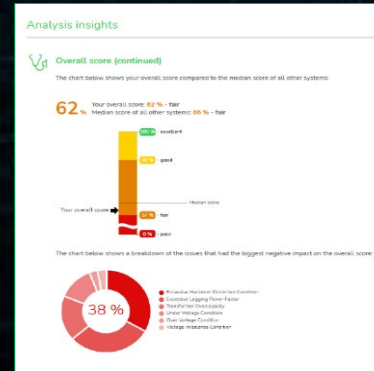


On screen & On phone,
Notification of critical issues with
corrective actions

Establish a trustful data foundation
Make informed decision

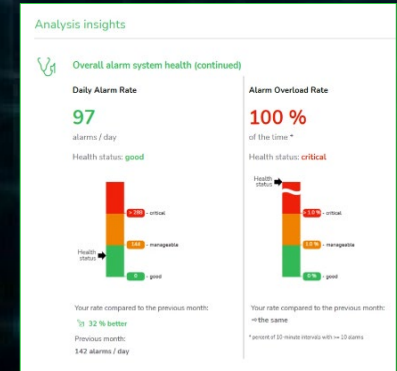
Ensure uptime of your system
We help fix issues rapidly

3. Electrical network Health



Avoid unscheduled downtime
Reduce Power Factor penalties

4. Alarm System Health

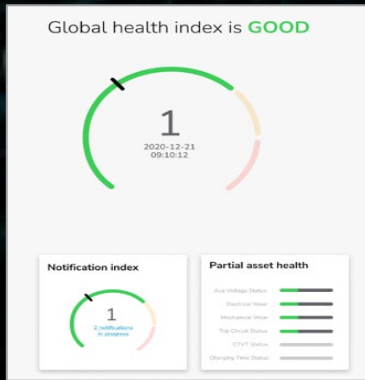


Remove excessive alarms
Improve your operator's efficiency

ESP - Asset Management

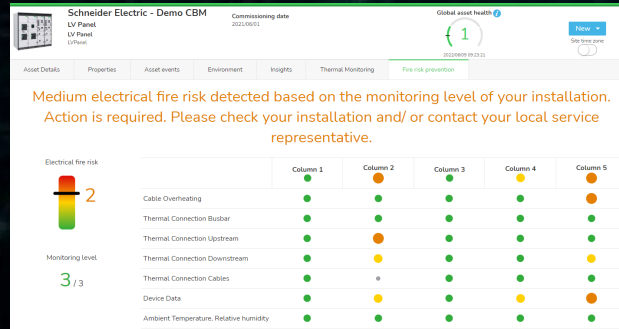
Powerful analytics to improve your Asset Management of your facility

1. Asset Health index



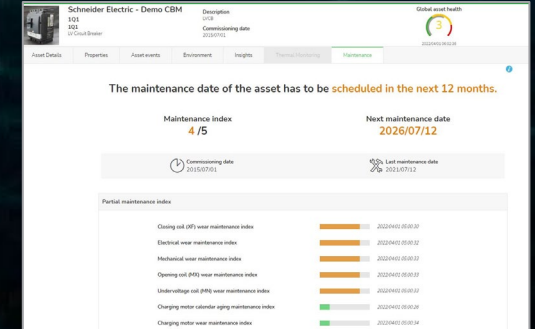
Monitor health status of your assets

2. Fire Prevention index



Mitigate the electrical fire risk in your installation

3. Maintenance index



Move from calendar to condition-based maintenance

Condition-Based Maintenance

Enhance your maintenance strategy through actionable data



1 No EcoStruxure Service Plan

Calendar-Based maintenance activities



2 With EcoStruxure Service Plan

Maintenance cycle extension **by up to 2 years** compared to a traditional maintenance contract.



In case of high maintenance index of the asset, an **expert calls you for further investigation.**

Depending on the maintenance index value, the expert shall **propose to re-schedule the next maintenance date** in order to prevent failures and avoid downtime.

▽ Manufacturer maintenance
▽ Intermediate maintenance



Ecostruxure Transformer Expert (ETE)

The offer

EcoStruxure Transformer Expert (ETE)

All-in-one low cost easy-to-deploy
disruptive IoT sensor
& software analytics
subscription



Innovative patented sensor for oil transformers from all manufacturers

Measuring critical health parameters:

- Discharge via UHF*
- Overheating via Temperature
- Moisture
- Hydrogen



Cloud-based analysis based on the latest research providing operating and aging insights with risk assessment on customized reports

EcoStruxure Dry Transformer Thermal Monitoring

All-in-one sensors bundle,
low cost easy-to-deploy
& software analytics
subscription



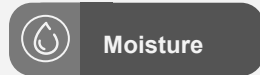
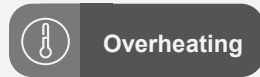
Innovative solution for dry transformers from all manufacturers

Measuring critical health parameters:

- TF surface Temperature
- TF winding Temperature
- Ambient Humidity & Temperature



Cloud-based analysis based on the latest research providing operating and aging insights with risk assessment on customized reports



Power Monitoring Expert & Energy HUB

Best Practice Use



End User
Value Streams



Commercial, Institutional,
& Industrial Buildings

- Multi-Site Retailer
- Retail Store
- Restaurant / Café
- Offices
- Warehouse
- Education
- Hotels
- Shopping Centers
- Sport / Event venue
- Residential Towers



Mission Critical
Facilities

- Data Center
- Healthcare
- Transportation
- Industrial Manufacturing
- Semiconductor
- Gov't & Defense



Electro-
Intensive

- Oil, Gas & Petrochem
- Mining, Minerals, Metals
- WWW



Power &
Grid

- Renewables
- Thermal Power
- Electric Utilities



SOFTWARE



ENERGY
HUB



Power Monitoring
Expert



Power Operation (SCADA)



Services

Field Services

EcoStruxure Service Plans (Power Advisor, Asset Advisor) & Cybersecurity Services



Architecture Examples

How we do it

3 Layers of Ecostruxure

Ecostruxure[™] Power
Innovation At Every Level

EcoStruxure[™] Architecture



Flexible

to address the key challenges from safety, reliability, sustainability and cybersecurity

Scalable

from small facilities to the largest electro-intensive facilities

Open

to 3rd party devices and to integration with other operational systems

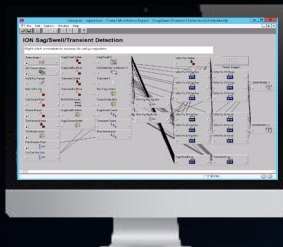
EcoStruxure Architecture

Simple and Centralized

Server:
Application + Database



Thick Clients:
Engineering Tools



Thin Clients:
Main User Interface (Web based)



IP Backbone

Modbus,
and ION
Protocols



Power
Meters



Protection
Relays



Breakers,
Trip
Units,
Gateways



UPSs



PQ
Correction
Equipment



Variable
Speed
Drives



Final
Distribution
Breakers,
Sensors,
Gateways



RTUs,
PLCs



Water,
Air,
Gas,
Steam





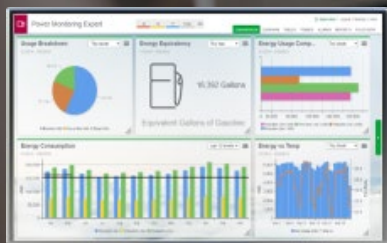
EcoConsult Audit

The way to go



EcoConsult Audit for Power Quality

Maximize power system efficiency



reduced energy losses

Optimize your power consumption and reduce total process energy consumption by reducing CO₂ emissions

reduced utility billing

penalties and lower operating expenses. Good power factor can lower power bills and reduce power losses in transformers and conductors

improved power systems

Boost power quality to improve your business performance by reducing unplanned outages and the reliability of electrical devices across your entire power infrastructure

Your Install Base is **OFF**
Turn it **ON!**

THANK YOU

Life Is On

Schneider
Electric