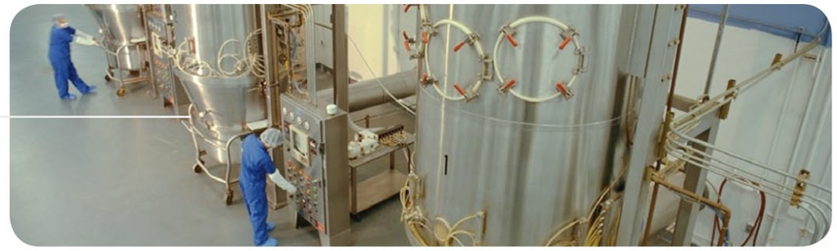
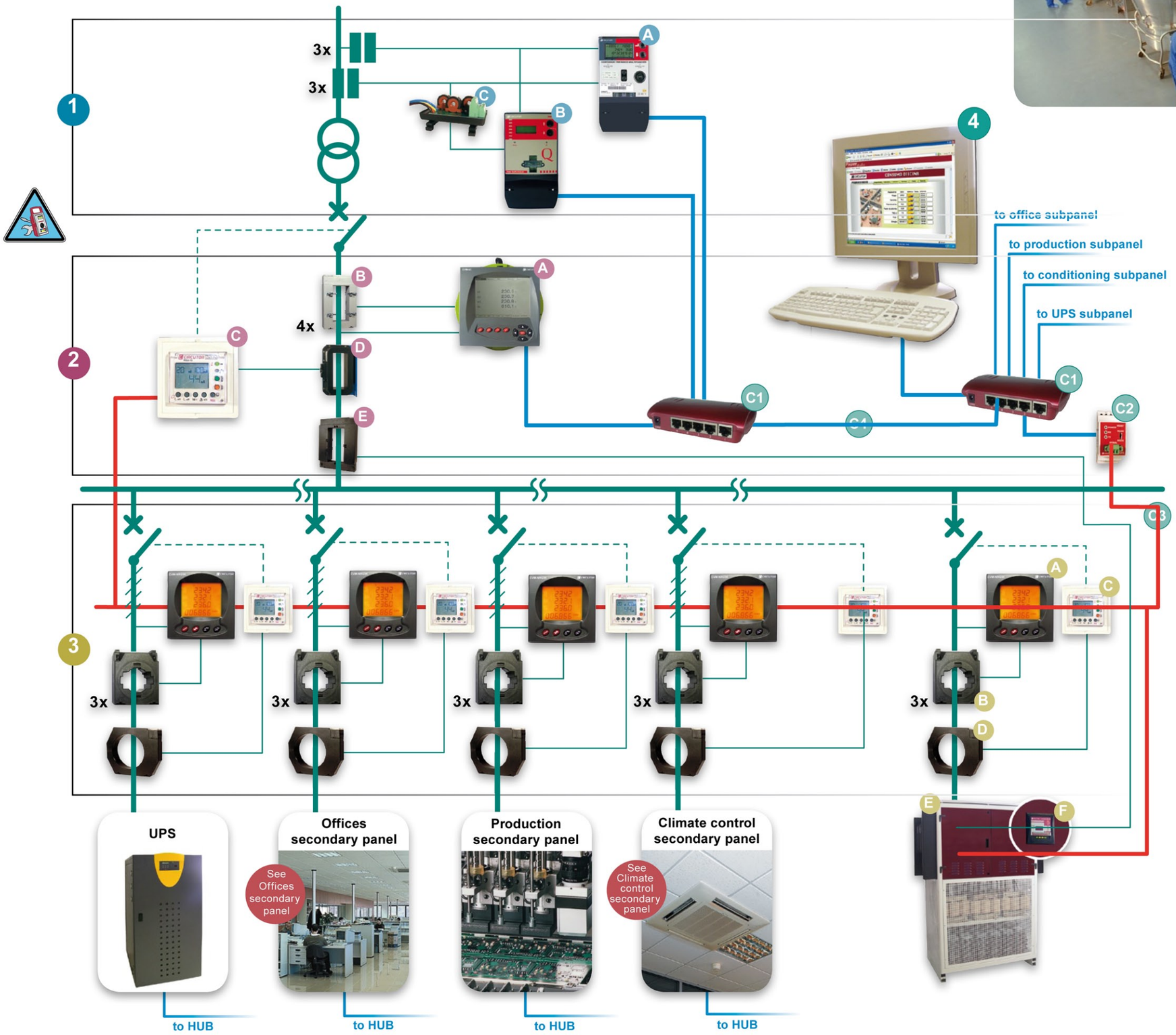
INDUSTRIAL APPLICATIONS

Coupling point and LV general panel. Components & equipped panels





Design objectives

Energy billing control

- Active/reactive power and energy
- Demand charts
- Power quality

Electrical parameter control and alarms setting for preventive maintenance

- Voltage and current
- THD
- Leakage to ground
- Insulation control

Control of electrical energy costs by power line

MATERIALS LIST

Coupling point

1	A	1	**CIRWATT** meter
	B	1	**QNA 412** network analyzer
	C	1	external **ITF** module

Income to the general panel

2	A	1	**CVMk2** network analyzer
	B	4	**TA** bus-bar current transformers
	C	1	**RGU-10 C** smart earth-leakage protection relay
	D	1	**WG** toroidal transformer
	E	1	split core **TP** transformer for capacitor bank

Output from general panel

3	A	1	**CVM-NRG96** network analyzer
	B	3	**TC** current transformers, cable output
	C	1	**RGU-10 C** smart earth-leakage protection relay
	D	1	**WG** toroidal transformer
	E	1	**FRE** Static capacitor bank with detuned filters
	F	1	**computer 14-df** power factor relay

Communications

4		**PowerStudio Scada** application
C1	2	HUB
C2	1	RS-485 / **TCP2RS** Ethernet converter
C3		RS-485 bus
C4		Ethernet bus

See energy transmission and distribution

Applications diagram