



CONVERTERS FOR SMART GRID REINFORCEMENT

Supporting DNOs with their Low Carbon Initiative

TPS' offer a unique range of converters that enable the Soft Open Points on a Low Voltage Distribution Network, achieve your need for a low carbon future.

BENEFITS

- ✓ Maximise the capacity of existing distribution assets
- ✓ Simple addition to the existing network
- ✓ Flexible to manage changing consumer demands
- ✓ Improved quality and surety of supply
- ✓ Reduced network disruption
- ✓ Faster Distributed Generator connection offers

FEATURES

- ✓ Connection of two or more sub-station supplies
- ✓ Balances power in each sub-station feed
- ✓ Balances power in each individual phase
- ✓ Maintains supply voltage within statutory limits
- ✓ Power Factor Correction to reduce loading
- ✓ Reactive power support of the network

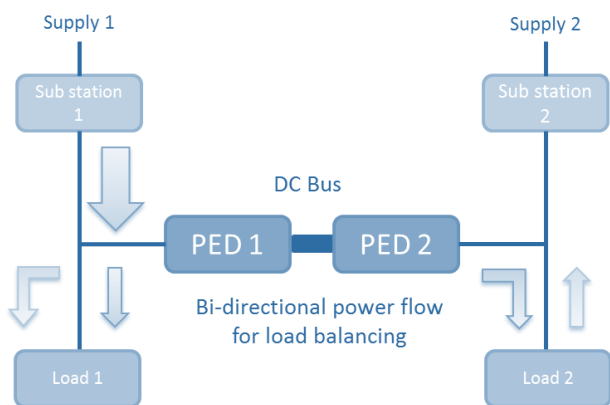
2015 UK Energy Innovation Centre award winner for
"Best Electricity Network Improvement"



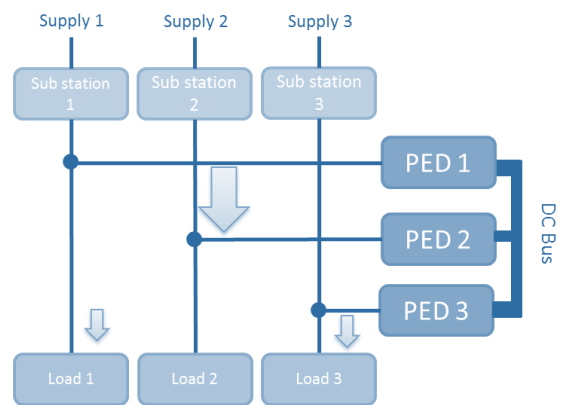
Power Electronic Devices (PEDs) enable the creation of Soft Open Points (SOPs) between distribution substations for capacity sharing which, like a valve, can be fully open, fully closed, or at a setting between these limits. The proposed PEDs come in two formats, allowing power flows of up to 240kVA between 2 street furnished substations and 400 kVA between 3 substations, thus making use of spare network capacity at existing substations rather than building new capacity to facilitate Distributed Generation and Low Carbon Technologies. The bi-directional PED achieves transfer of power both from supply to consumer and consumer to supply, enabling power sharing between consumer loads. Thus the resultant network becomes 'smart' with the reduction of load on transformers and a faster response to changes in Low Voltage demand.



	Dual-PED	Tri-PED
Installation	Street Mounted	Sub-Station
Power Rating	240 kVA	400 kVA
Number of feeds	2	3
Connection voltage	415V / 3 Phase	
Disconnection Regime	To Engineering Recommendation G59/3	
Total Harmonic Distortion	To Engineering Recommendation G5/4-1	
EMC Compliance	To EN 61000-4 parts 2,4,5,6 and 11 & EN 61000-6-4	
Dimensions	800 mm (W) x 1450 mm (H) x 1200mm (D)	2400 mm (W) x 2000 mm (H) x 600mm (D)
Weight	1010 kg	2000 kg



Dual-PED Soft Operating Point for Street Mounting



Tri-PED Soft Operating Point for Sub-Station Mounting



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