



EURELECTRIC Survey on PQM

**EURELECTRIC – CEER
Joint Workshop**

18 November 2009, Brussels



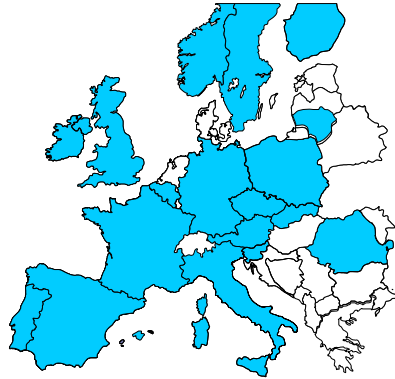
Survey on PQ Monitoring : Key Facts

- **Timing : Summer 2008**
- **Background :**
 - CEER work on supply quality
 - CEER–Eurelectric dialogue on PQ
- **Scope :**
 - Extent of Monitoring
 - Views on PQ monitoring & related issues



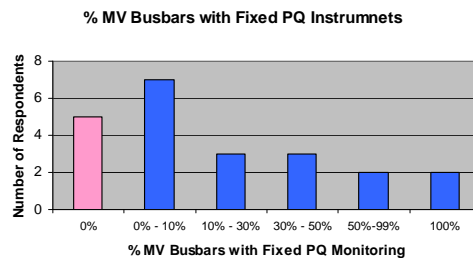
Participation

- 23 DSOs Participated
– 120 M Customers
- 2 National Associations
- 16 Countries represented



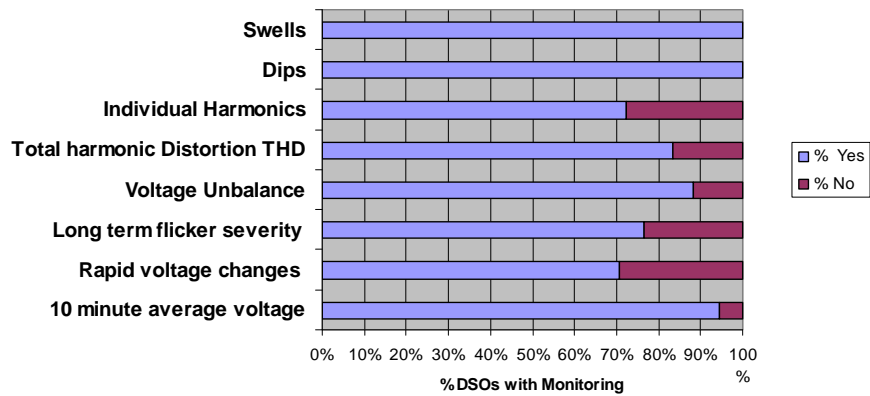
Power Quality instruments on MV Busbars in HV/MV Substations

- 82% DSOs have PQ Monitoring at some HV/MV substations



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- Approx 50% of DSOs monitor between 0% and 30% of MV Busbars

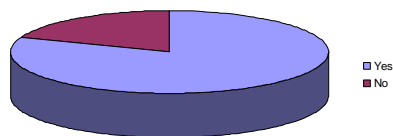
PQ Parameters Monitored (DSOs with PQ Monitoring at MV Busbars)



PQ Data stored on a central Computer ?

Yes : 17

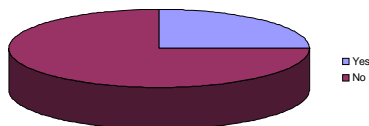
No : 4



PQ Data available to Organisations other than the DSO ?

Yes : 5

No : 15



NB - Significant extra costs in summarising PQ data and publishing reports



Objectives of Fixed PQ Monitoring

- Monitor PQ trends over time
- Confirm that PQ is within planning limits
- Provide information to DSOs to :-
 - Validate customers complaints of PQ disturbances
 - Assist customers with mitigation measures
 - Assist customers with location decisions for sensitive processes
- Monitoring performance where a PQ contract has been agreed



Extent of Monitoring

- Not necessary to monitor all HV/MV substations
- Representative sample
 - Urban / Rural
 - Geographic Spread
- Strategic Locations
 - Concentration of sensitive/important customers
 - Concentration of embedded generation
- Portable Instruments
 - Necessary to investigate customer complaints



Voltage DIPS

- **Some customers sensitive to voltage dips**
 - Economically important customers
- **Economic solution is often on customers side**
- **DSOs generally not in favour of revenue incentive**
 - All customer would pay
 - Small number of customers would perceive benefit



Conclusion

- **DSOs view PQ as important**
 - Many DSOs have some monitoring already
- **Costs can be significant**
 - Important to keep in mind objectives
 - Important to allow for costs in revenue/price controls