DCode

DCRP_16_03_05

Distribution Code Review Panel

Meeting 61 – Thursday 8 September 2016

ER P2 Revision – Progress update

Paper by Secretary

Context

ER P2 – Security of Supply has been in place since the 1950s and has played a major role in the development of secure, reliable distribution networks. P2 mandates the levels of security of supply DNOs are obliged to provide by specifying required levels of capacity and redundancy and is commonly referred to as a deterministic or minimum standard. DNOs can self-derogate from the requirements or exceed the standard.

P2 is a DCode annex 1 qualifying standard and is governed by the Distribution Code Review Panel P2/6, is a DNO licence condition.

Smart Grid Forum recognised that Smart technologies and more flexible demand and generation necessitate a review of the standard.

In 2014 the DCRP set up a working group to undertake a review of the existing standard.
Of the nine work streams (and sub WS) associated with the revision of P2 seven of the WS have now completed their work. Details of the progress of the two remaining WS can be found below.

Progress of Work Streams

Work stream/sub-work stream	Deliverable	Activity Status
Work Stream 1-Project Initiation	Issue of initiation paper	Complete.
Work Stream 2 - Assessment of P2/6 and Identifying Options for Reform	Summary reports that fed into the WS3 'options' milestone report.	Complete
Work Stream 3 - P2/6 Options Report	P2/6 Options for reform report	Complete
Work Stream 5 Stakeholder Engagement Workshop	Stakeholder Workshop on WS3 options for reform report.	Complete
Work Stream 6 - Formal Strategy Consultation for P2/6	Formal Strategy Consultation Paper for P2/6	Complete
Work Stream 7 – Detailed review and analysis	Tabulated view of all question responses and actions to be taken with regards to final Phase 1 Report.	Complete
Work Stream 8 - Phase 1 report	Phase 1 final report	Ongoing
Work Stream 9 - Programme work for Phase 2	Work programme for Phase 2 – project plan and supporting documentation	Ongoing

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WS 8 Update – The work associated with this WS is 30% completed. The first draft WS8 recommendations report was issued to the WG on 9 August 2016 for review. From initial feedback a meeting is being held on 22 August to discuss amending the report. The WG will discuss this report at its meeting on 26 August. The latest draft is included as DCRP-16_03-05a.

WS 8 is programmed for completion Friday 2 Sept 2016.

P2 Working Group Key Conclusions

As load grows, it is economically inefficient to reinforce networks to n-1.

- This means that 'capacity' derived security of supply will reduce and Customers on reliable networks may move to n – 0.25
- Customers connected to less reliable networks stay at n – 1.
- Reduces Totex by £ several billion by 2035
- Increased interruptions (valued at VoLL) of £1.8- 2.8 billions
- Full network roll out of automation justified
- Investment in marginal High Impact Low Probability justified
- Increased investment to reduce losses justified
- Outage risk management justified
- All DG to connect at n – 0 standard

Additional sources of potential savings identified

- Non-essential load management ~ £2 billion
- Review of statutory voltage standards could save around £5 billion.

- A revised standard would reduce the number of load related interventions and allow rationalisation of HI driven investments
- The unit cost of interventions would rise significantly driven by losses

- Impact on Resilience (CIs and CML's)
    - Adverse due reduction in capacity
    - Favorable due to roll out of automation, HILP and outage risk investment
    - Net favorable (QoS investment more beneficial versus capacity)
    - Requires appropriate resetting of IIS, GS, exempt and exceptional events etc

Further stakeholder engagement is planned. The savings look politically attractive but will require sign on to the resilience issues by industry stakeholders and Regulators. It is expected that Phase 2 will add detail to the proposals.

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WS 9 Update – An early draft WS9 Phase 2 plan report has been prepared. Consortium awaiting further discussion on the WS8 recommendations report with the WG before completing and issuing the WS9.

Objectives	Review CBA for security N-1 > N-0.25	Incorporate new technology eg battery	Include losses in intervention standard	Engage stakeholders
Status at August 2016	Economic and technical analysis shows that capacity based resilience in current standard is inefficient. Resilience = capacity, automation, operational standards, operational response and HILP Stakeholder consultation shows they do not support the economically rational outcome ie reduce capacity resilience. Next stage will stress the benefits delivered by inclusion of automation, HILP, outages and losses. Phase 2 – standard drafting pending			
Risks and opportunities	P2/6 unaffordable, P2/7 needs a whole system approach. Connection costs and NLRE unit costs would increase. LR would decline in volume but increase in unit cost. Additional allowances for HILP, losses and automation Resilience risk and opportunity			