

UKPN RIIO-ED1 business plan

London infrastructure investment update

28 March 2013

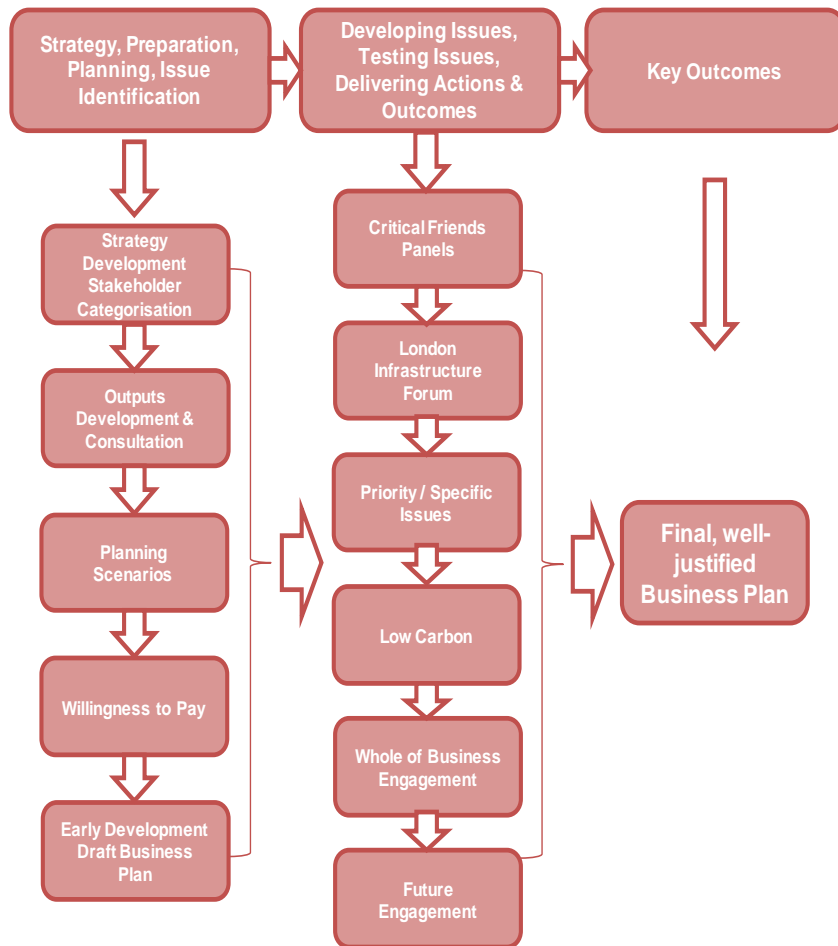
Agenda

- Executive summary
- Results of stakeholder engagement
- LPN network capacity
- LPN network resilience
- Next steps

Executive summary

- Stakeholder feedback focuses on electrical capacity and resilience for Central London
- We have reviewed our plans for a central London specific investment programme against seven potential options:
 - 1 project (Calshott) has commenced, and another project (White City) is awaiting quotation acceptance
 - 2 projects (West End and VNEB) can already be justified through general network resilience improvements and customer enquiries, we are still reviewing a third in the City
 - the remaining 2 projects (Earls Court and Westferry Circus) will go ahead only if sufficient capacity requirements can be identified and therefore will not be included in our RIIO-ED1 plan as it now stands
- To improve resilience we propose a package of operational improvements and increased automation and control
- Steps to achieve a well-justified UKPN business plan:
 - Stakeholder consultation including willingness to pay
 - Cost-benefit analysis for London quality of supply strategy
 - External consultant's report

Stakeholder engagement & feedback – key points



- Economic and low-carbon forecasts – uncertainty over take-up of LCTs
- Smart metering – support for networks taking advantage of the functionality especially last gasp
- Perceived capacity constraints for connections – not just a London issue
- Improvements required in the connections process
- Transient (sub 3 minute) faults
- Support for vulnerable customers
- Charges for first 2 years of RIIO-ED1 and ongoing volatility in charging

We have received very positive feedback on our engagement – our plan is much improved following stakeholder involvement

Outcomes of UKPN willingness to pay survey would justify c.£28m of QoS expenditure in LPN

- This table presents the financial value of the Willingness to Pay (WtP) findings for businesses in the CBD & LPN across RIIO-ED1

Service level	WTP in 2023 LPN (£m) in RIIO-ED1
Urban customers: for power cuts longer than 3 minutes, time to restore 80% of affected customers: within 3 minutes (currently it is 75% in London)	27.7
Investment in infrastructure required to enable UKPN to detect loss of supply from individual or small groups of premises (smart metering)	28.0
Timescale for provision of quotations for high voltage new connections work: by date agreed with customer	13.1
Frequency of power cuts over 3 mins - average number: reduction to 1 every 48 months	5.7
Timescale for provision of quotations for high voltage new connections work: within 25 working days	0
Timing of any new connections work: work is undertaken within a banded time ie morning, afternoon or evening in normal business hours, evenings or at weekends	10.0

- It shows that customers generally are prepared to pay for an improvement in the overall level of quality of supply up to c£28m in RIIO-ED1.

Proposed options for enhancing LPN infrastructure

Option description	UKPN Preliminary conclusions
1. Reduce the level of utilisation in central London e.g. towards upper quartile of industry	Evidence suggests that our networks are better utilised than all other DNOs
2. Share benefits with DUoS customers of a strategic approach to investment., including some additional benefits for the increased risk DUoS customers are taking.	This will make the cost benefit analysis for strategic investment clearer for DNOs
3. Invest ahead of need in specific locations funded through the RAV but refund RAV when new connections are made	Requires legislative change and would apply uniformly across the UK
4. UKPN to fund investment either through existing licensee or new IDNO	Asset stranding risk is with UKPN with no mechanism to charge for this risk
5. A lead developer/consortium applies for the connection through section 22 connection application	Customers can already do this but is outside of UKPN direct control
6. Shallow connection charges for large new developments	Can be accommodated in existing legislation but would apply uniformly across the UK
7. Vintageing of connection applications in an agreed geographical location	UKPN will use this approach within existing quotation timescales but will require co-operation of connection customers

UKPN is proposing a combination of options 1, 2, 5 and 7

Capacity – UKPN’s original proposal

Project Name	Planned Capacity	Firm capacity (n-1)	Identified Demand	Total Cost (incl Land)
Vauxhall Nine Elms	2x66MVA	66MVA	77MVA [^]	£38m
White City	3x33MVA	66MVA	50MVA	£18m
West End	3x30MVA	60MVA	45MVA	£50m*
City of London	2x33MVA	33MVA	50MVA	£16m+
West Ferry Rd	2x66MVA	66MVA	45MVA	£41m
Calshot Street	2x66MVA	66MVA	60MVA	£9m
Total	651MVA	357MVA	327MVA	c.£170m
Earls Court	3x33MVA	66MVA	47MVA	£20m

*Assuming lease can be secured

+ land cost TBC

[^] Load is now expected to be higher potentially 130MVA

Capacity – revised proposal

Project Name	Latest status	Cost to DUoS customers	Cost to Connection customer(s)	Comments
Vauxhall Nine Elms	Enduring solution likely, supported by connection application	TBC	TBC	Proposed to use a combination of option 1 & 2
White City	Connection application received and quotation issued	£15m	£2.5m	Likely to start in DPCR5
West End	To be funded through general reinforcement	£50m*	£0m	Proposed to use option 1
City of London	Still under assessment	N/A	N/A	Reviewing option 1, 2, 5 & 7
West Ferry Rd	Waiting for initial customer enquiry	N/A	N/A	UKPN will apply a capacity vintaging
Calshot Street	Funded through general reinforcement (DPCR5)	£9m	£0m	Already underway in DPCR5
Earls Court	Waiting for initial customer enquiry	N/A	N/A	UKPN will apply a capacity vintaging
Total		c£74m	£2.5m	

Resilience – UKPN proposal

	Total Costs
Dedicated interconnected network maintenance team - 30 year period (OPEX)	£0.9m p.a.
Provision of remote control facilities on 1 in 3 RTU & ACB remote coverage – RIIO-ED1	£9.7m
Provision of Leicester Sq West Group 'Unit' protection - DPCR 5	£6.2m
Four further interconnected Groups convert to 'Unit' protections – RIIO-ED1	£24.8m

Total LPN proposed resilience expenditure in ED1 is £34.5m CAPEX and £7.2m OPEX

Next Steps

- In April UKPN is publishing an update to its business plan incorporating stakeholder feedback
 - including the revised position for LPN
- UKPN is holding further stakeholder workshops in May
 - LPN critical friends panel
 - Central London update
 - continued engagement with the London Electricity Stakeholder Panel (LESP)
- UKPN will review further feedback and submit a final business plan to Ofgem at the end of June
 - Ofgem will review the plan, publishing their final view in October 2013