

LDZ Exit Capacity NTS (ECN) Charges March 2017

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Purpose and scope

- Continuation of GND ambition to add more value to DNCMF with a series of 'deep dives'
- Previous topics:
 - DN Entry Pricing (Sep-16) led by Wales and West
 - Nexus Impact on Charge Setting (Jan-17) led by SGN
- Mar-17 looks at ECN charges
 - NTS exit capacity cost recovery, not the incentive element
 - No particular agenda apart from stimulation of discussion and thinking ahead to RIIO GD-2



UNC Charging Methodology

- ECN charging methodology covered in Section Y Part B (9)
- Came into effect Oct-12
- Unlike most of the other main GDN charge elements, ECN charges are locational, based on NTS Exit zone
- There is no banding by size of load
- The UNC states:
 - “The level of the LDZ ECN charges for any Exit Zone is set each year to reflect the forecast average unit NTS charges for capacity at the NTS/LDZ Offtakes which make up that Exit Zone”*
- The next slides cover what that this means in practice

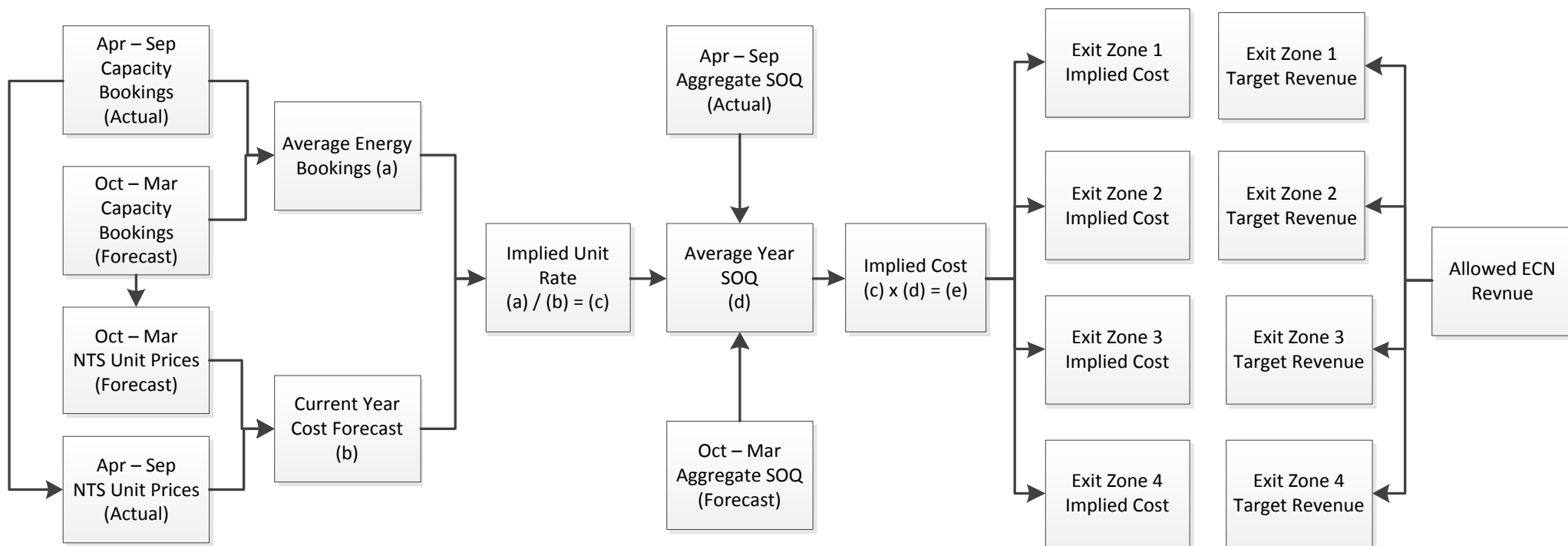


ECN “Allowed Revenue”

- No licence definition of specific ECN allowed revenue, but a construct for the purposes of charge setting
- Comprised of:
 - (1) NTS exit cost allowance per licence uplifted to current prices
 - (2) 2 year lagged variance of actual cost to allowance (uplifted to current prices and inclusive of WACC adjustment)
 - (3) 2 year lagged over / under collection of ECN revenue (uplifted to current prices and inclusive of interest adjustment)
- Important to remember that GDNs are price takers for the exit capacity costs born. Given that GDNs operate on long volume lead times to secure 1 in 20 obligations, means that fluctuations in (2) above are driven by NTS price variations



Target Revenue by Exit Zone

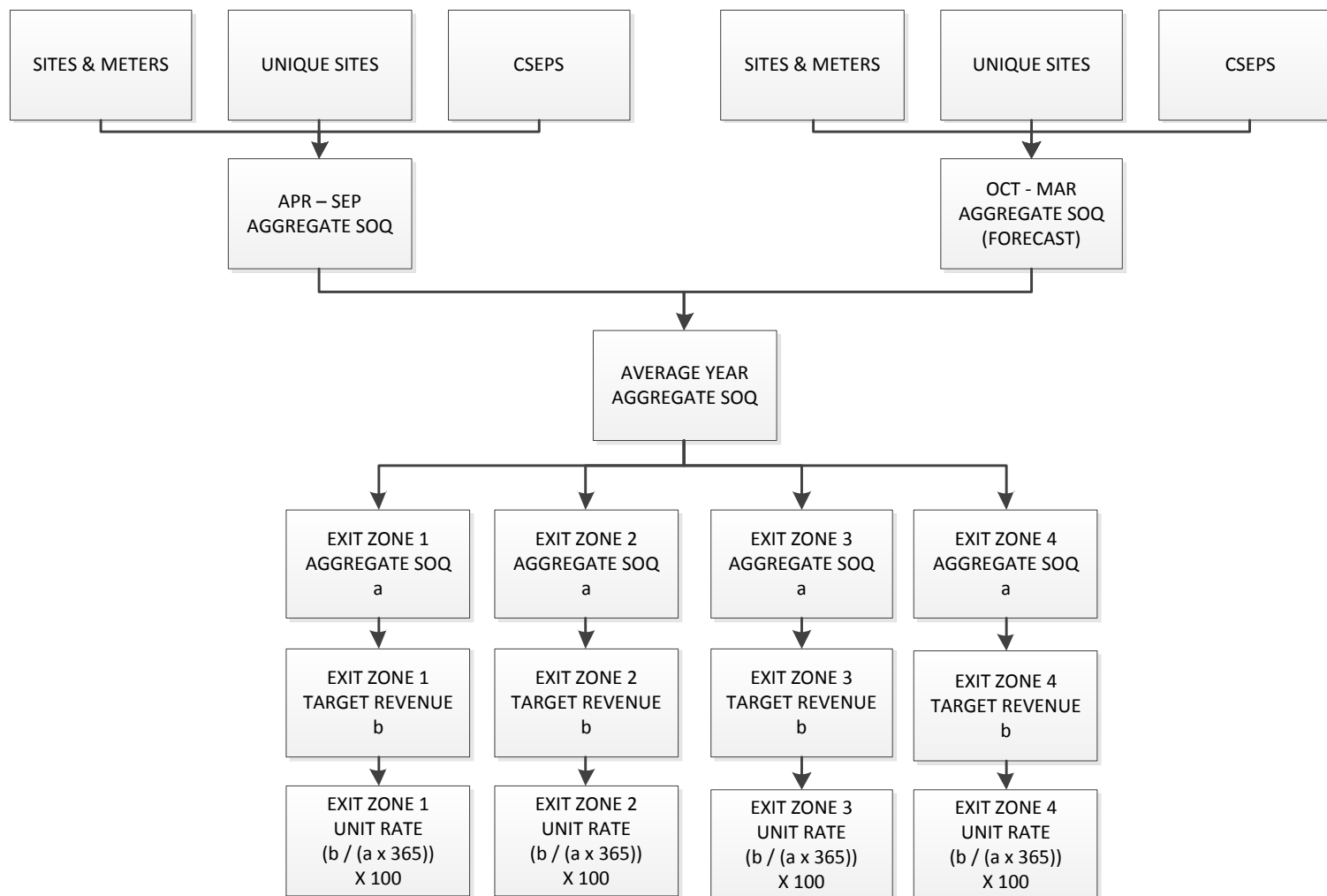


$$\begin{aligned} \text{EXIT ZONE TARGET REVENUE} &= \\ &(\Sigma \text{ NETWORK ALLOWED REVENUE} / \Sigma \text{ NETWORK IMPLIED COST}) \\ &\times \\ &\text{EXIT ZONE IMPLIED COST} \end{aligned}$$



Establishing unit rates

- Calculation of unit rates is then essentially...





Observations

- Because of unit price decimalisation restriction (4 dp), can create revenue collection “lumpiness” with swings in over / under recovery at exit zone level with a network
- Target revenue by exit zone is established based on current cost forecast...however network level allowed revenue includes 2 year lagged adjustments driven by historical price & volume conditions
- Allowed revenue calculated at network level...then apportioned to exit zones. Means adjustments are smeared regardless of which exit zone was the driver
- But are these really material issues...?



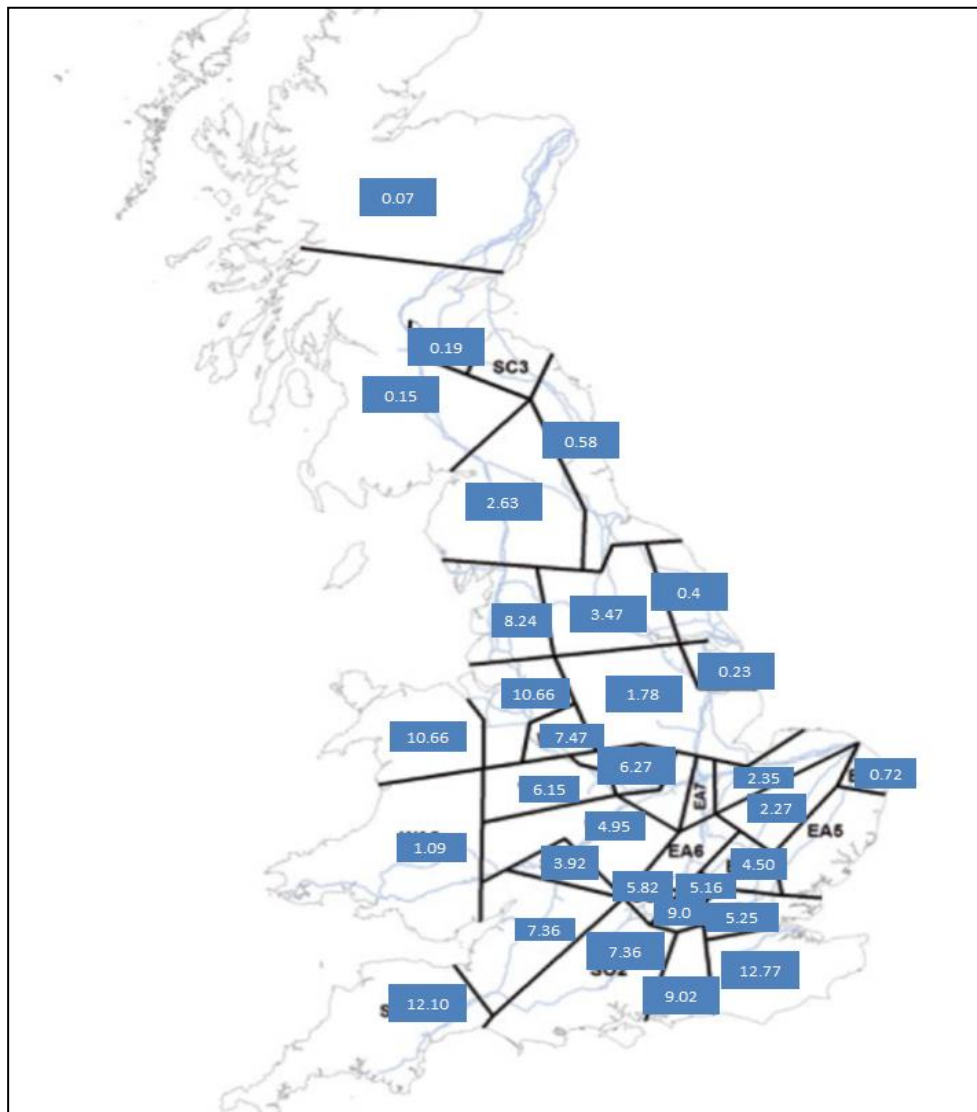
Observations

	EE	LO	NW	WM	NO	SC	SO	WWU
4 YEAR AVERAGE ALLOWED REVENUE (£M)	28.0	20.0	37.8	20.7	9.2	0.4	55.2	23.3
4 YEAR AVERAGE COLLECTED REVENUE (£M)	28.4	20.1	38.5	20.7	9.3	0.4	55.7	24.3
AVERAGE OVER / UNDER COLLECTION %	+1.4%	+0.4%	+1.7%	+0.2%	+1.2%	+8.6%	+0.8%	+4.3%
ECN AS % TOTAL ALLOWED REVENUE	4.6%	4.7%	8.4%	6.4%	2.2%	0.1%	7.7%	3.8%

- On average ECN represents < 5% of total DN revenue
- Levels of over / under recovery are low in £ and % terms, and should reduce further after Nexus implementation
- Addressing these issues wouldn't appear to be fixing particularly big problems



Exit Capacity in 2016/17



- Thank you to Rob at Wales & West for use of this graphic
- Shows the spread of average end consumer charges across the exit zones, using an assumed typical annual consumption of 12,500 kwh per annum
- Lowest annual charge is £0.07
- Highest annual charge is £12.77
- Average annual charge is £4.77
- Therefore represents less than 1% of total annual domestic bill



Suitability of ECN Charging Methodology

- ✓ Flat charging (as opposed to scaled by load band) appropriate because exit capacity cost is attributable to all loads regardless of size, and extent of network utilised (exception being DN Entry)
- ✓ Locational charging is reflective of the way NTS charge, and the way DNs experience the cost, albeit at a more aggregated level (going to a lower level would only add complexity for little to no gain)
- ? Given average bill impact, could raising the level of aggregation (e.g. to network level) reduce some complexity / downstream volatility?
- ? Recovering historical overs and unders on current cost forecast ok where prices and volumes are stable, but may misallocate to exit zones where there are locational price swings in NTS unit prices in the intervening period



NTS Charging Methodology Review

- Direction of travel seems to be increased emphasis on capacity charging away from commodity for both entry and exit regimes
- Given that NTS commodity charges don't currently hit GDNs, would be reasonable to assume NTS offtake prices might pick up some of the allocation
- At the same time, one would hope that capacity based charging drives a more stable platform
- Impact of NTS charging methodology changes from 2018/19, but at this stage an unquantified risk...many moving parts to consider
- GDNs will work with NTS to understand the impact at the earliest opportunity. Shipper engagement in the UNC modification process encouraged.



Risks and opportunities

- The most significant potential issues come from NTS price swings
- Where there is geographical offsetting, could result in some networks having a deficiency in allowance with others having a surplus
- Present regime has exit capacity allowance imbedded in Licence, but with an elective mechanism to apply for adjustment for price driven factors
- Could this become an auto adjusting item through AIP? This could keep allowances in parity across the networks.