

Materials presented at the meetings are for the purpose of stimulating discussion only and do not represent the views of Ofgem, individual gas networks or the group as a whole

RIIO-GD2 MEAV

Jeremy Thomson
13 March 2019

Cadent
Your Gas Network

MEAV background

What is it?

Modern Equivalent Asset Value (MEAV): Gross Replacement Cost of existing assets with their modern equivalent e.g. holders assumed replaced by contracted linepack

What did Ofgem use it for?

*“...as a **scale driver** for various cost activities. This not only reflects size, asset base and complexity of a network, but also captures the three variables (number of customers, network length and throughput) which were used as scale variables during GDPCR1 and DPCR4.”*

Initial Proposals, Cost efficiency para 1.14

When did Ofgem use it?

GD1

Totex regression: for costs where no workload driver (42% weight)
Work Management regression
Maintenance regression: removing Mains and Services - Ofgem believed Maintenance costs largely on above ground assets

ED1

Top Down Totex regression: (88% weight, 12% customer numbers)
Bottom Up Totex regression: aggregation approach (68% weight)
Bottom Up Business Support driver

MEAV calculation and composition

How did Ofgem calculate MEAV?

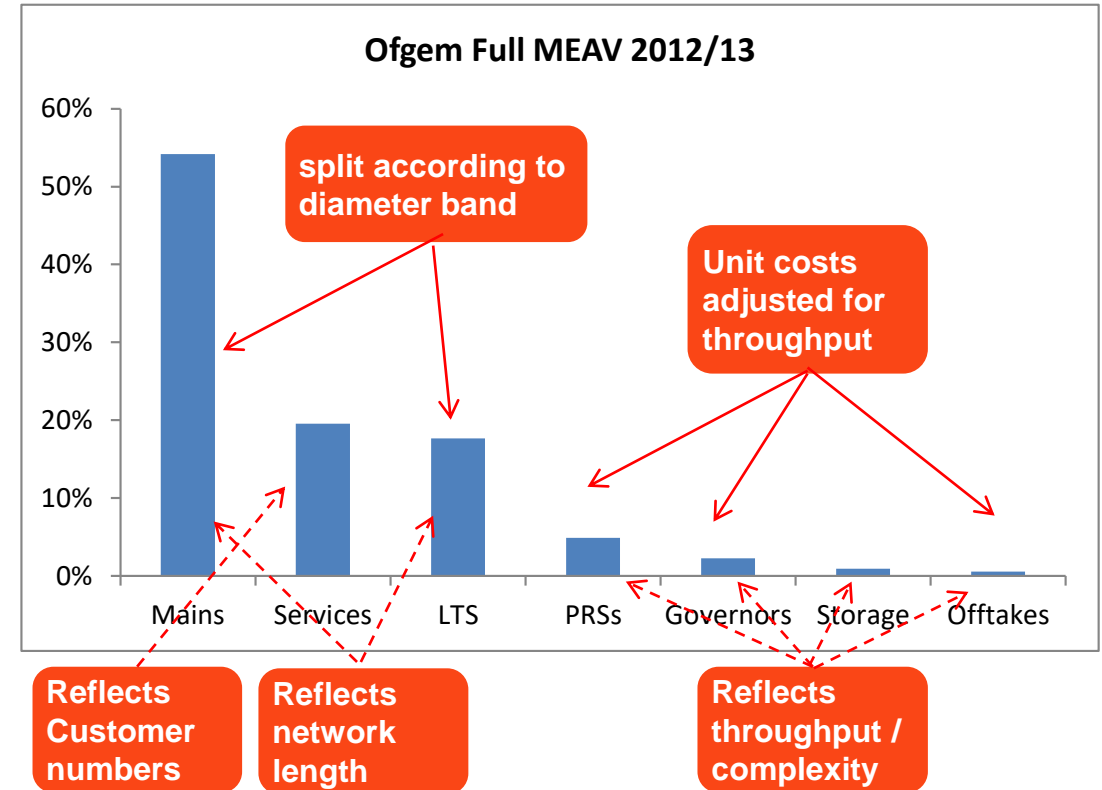
- Collected network asset data from each GDN
- Calculated standard unit costs for each type of asset
- Unit costs reflected for Mains / LTS diameter bands
- Unit costs for PRSs, Offtakes, District governors reflected size, using GDN throughput per asset

What are the key elements of full MEAV?

- Mains 54%
- Services 20%
- LTS 19%

What are the key elements of Maintenance MEAV?

- LTS 67%
- PRSs 19%



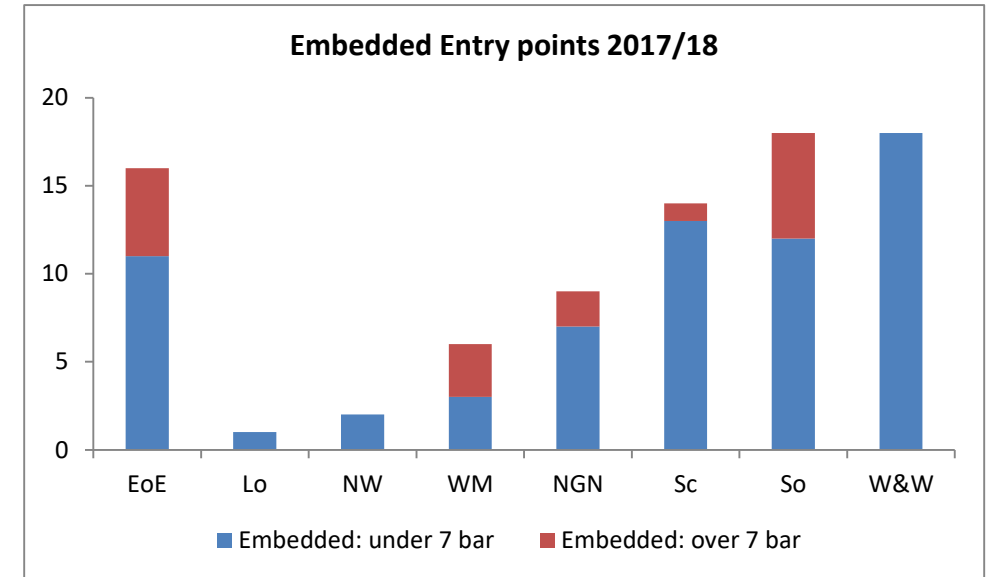
Potential Changes to MEAV

Potential change	Accept?	Comments
Update replacement unit costs from 2009/10 to present	Yes	Consistent with logic of Modern Equivalent Assets, rather than those from 2009/10
Recalculate mains unit costs by diameter band because RRP split of diameter bands is different from the GD1 split	Yes	Logical to do as the RRP split is driven by the HSE's diameter band approach, and so reverting back to an old split appears unhelpful. Can be done as part of the Unit cost update above.
Update throughput figures so size related scaling of pressure reduction equipment can be updated	Yes	More stable to use a run of years, or the highest year of the last 5 for example, rather than throughput for a single year
Include Embedded Entry point assets	Yes	New (adopted) network assets, inclusion is consistent with logic of Modern Equivalent Assets
Inclusion of MOB's / Risers	Yes	Network assets that were not included at GD1 as data quality was poor. Spotlight on this area has significantly improved data quality of volumes, and several years of replacement cost data means unit costs are well grounded.
Amend replacement cost for asset condition	No	MEAV is a scale driver and asset condition has nothing to do with scale. Workload drivers should be used where relevant and scale where not.
Weight value according to estimated workload	No	MEAV is a scale driver, for use where no sensible workload driver is available. If a workload driver is available, use it.

Embedded entry points and MOBs / Risers

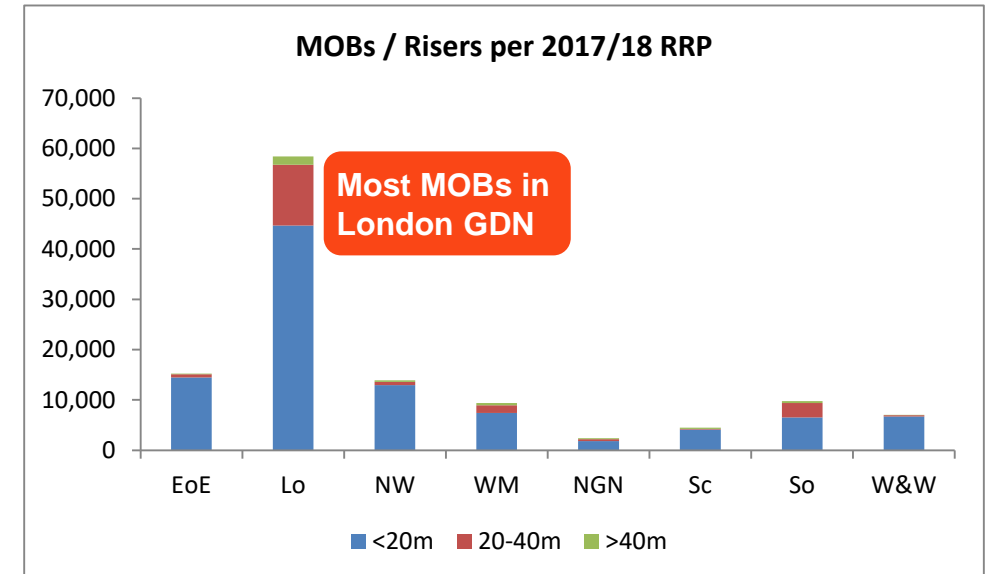
Embedded entry points

- Tend to be in more rural parts of GDNs, hence high numbers in WWU, Sc and EoE
- Unit costs may need to be estimated as these assets are adopted – Cadent have an estimator that could be used.



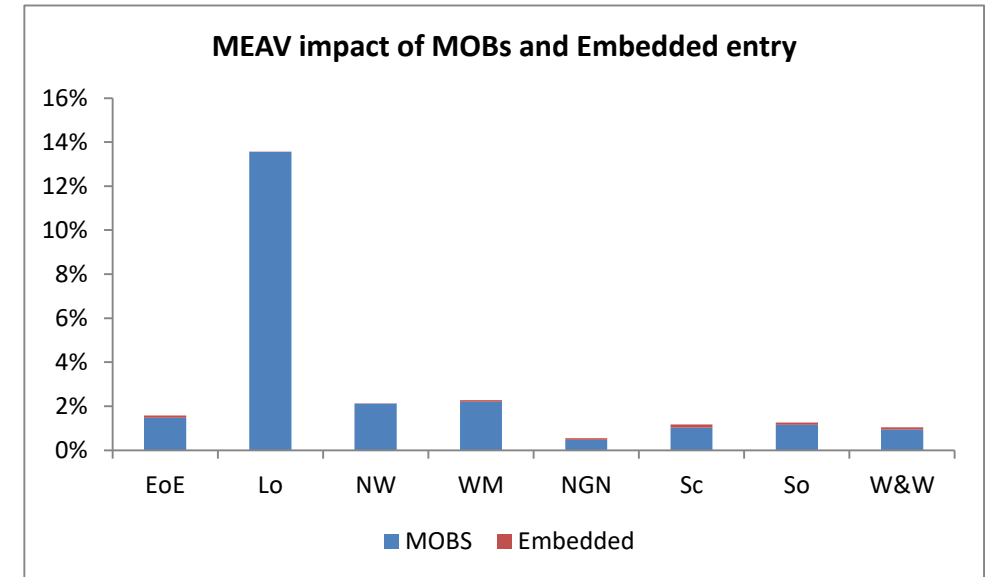
MOBs / Risers

- Most heavily concentrated in London GDN
- Replacement unit costs appear robust as workload spread across GDNs, significant level of activity in GD1



Results of MEAV updates

- Embedded Entry points have little impact on total MEAV
- MOBs have a much more significant impact, especially for London
- Reduces, but does not eliminate the Totex regression gap for London GDN – still significantly off the pace



Potential alternatives to full MEAV

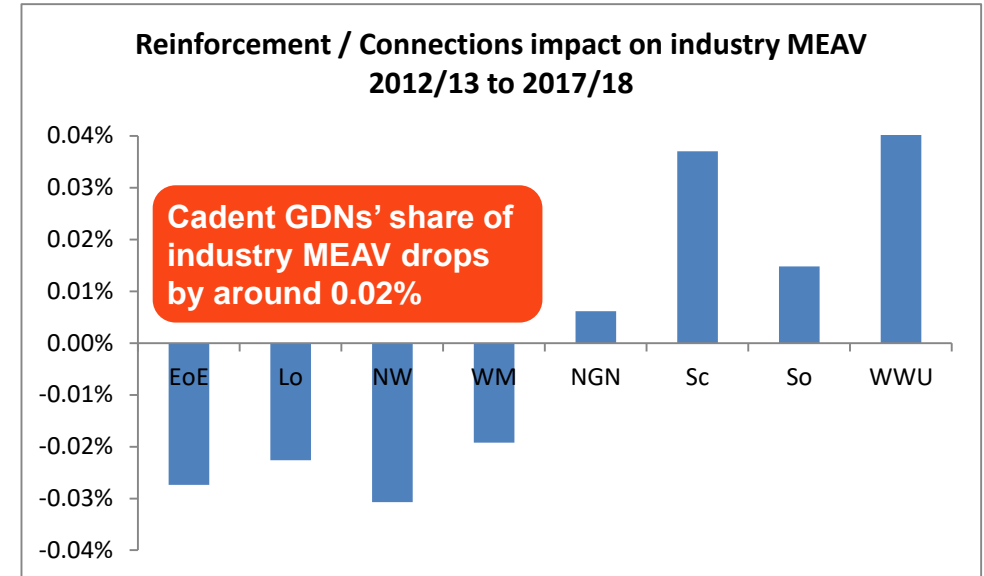
Three potential alternative high level scale drivers identified, assessed against Ofgem's driver criteria

Potential high level drivers	Makes sense	Accurately, consistently measurable	Stable over time	Beyond control of GDN
Customer numbers	Partial			
Network length	Partial			
Throughput	Partial		Partial	
MEAV				See following slide

Difficult to see what could be a better *scale* variable than MEAV, for use where no workload driver is reasonable

Beyond control of GDNs – incentive to invest in capital solutions?

- Is a logic that GDNs might invest more in capital solutions than opex to maximise MEAV
- BUT** any impact is far exceeded by a totex incentive rate of over 60% in GD1
- BUT** the differential impact on GDNs is very small
 - Under 10% of investment adds to the MEAV – only growth related spend – Reinforcement & Connections (repex actually reduces MEAV)
 - Growth related spend is very small in relation to the MEAV – adds under 0.5% to industry MEAV from 2012/13 to 2017/18
 - All GDNs experience growth related spend – so the differential impact is very small



MEAV proportion	2012/13	2017/18	Delta
EoE	18.06%	18.04%	-0.03%
Lo	8.99%	8.97%	-0.02%
NW	11.91%	11.88%	-0.03%
WM	8.92%	8.90%	-0.02%
NGN	11.31%	11.32%	0.01%
Sc	8.55%	8.59%	0.04%
So	19.07%	19.09%	0.01%
WWU	13.18%	13.22%	0.04%
	100.00%	100.00%	0.00%

Overall, it appears highly unlikely that a GDN would invest in capital solutions rather than opex to maximise MEAV