

*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*

# SGN Benchmarking Review

## CAWG – 17<sup>th</sup> October 2018



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# Background

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- Consultants have worked with SGN to:
  - Thoroughly recreate GD1 models from Final Proposals
  - Alignment of the models with GD1 actuals
    - Used data submitted in RRP
    - Normalisation adjustments based on actual labour mix but retaining regional labour indices used in FPs
    - Challenge and evaluation of data anomalies
- Analysed potential enhancements to the models:
  - quality
  - alternative drivers
  - synthetic unit costs
  - overheads
  - cost groupings
  - alternative smoothing
- Also looked at alternative benchmarking techniques



# Key Findings - Opex

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- Concerns over repair regressions in terms of drivers
  - Need to take account of specific trends in diameter mix
- Differential between
  - Mains Report:Repair Ratio and Services Report:Repair Ratio
  - Regression not capturing this
- Combining process regressions may improve correlation
  - E.g. Emergency and Repair
- Business Models
  - Reallocating overheads across categories will impact on individual BU results
  - Effect is minimal when BU models are aggregated
- Business Support
  - Refresh what the GD1 / ED1 approach was
  - Consider alternative methods to assess Business Support, eg regressions, unit cost approach, ED1 approach, Different Cost Drivers

# Key Findings - Repex

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- Repex efficiency scores are very volatile and companies switch positions over time – suggesting cost driver is not properly explaining Repex well
- Alternative cost drivers could be considered
  - Using mains laid does not recognise companies that optimise design and avoid higher mains workload
  - Need to take account of abandonment ratios
  - Consider use of standardised industry abandonment ratio which is set for GD2
  - Consider impact of higher insertion
  - Recognise broader pipe risk management options e.g. remediation
- Concerns over Synthetic Unit Cost
  - Out dated and may no longer be a good reflection of the relativities between costs of different types of work
  - They do not test if workload levels are efficient

## Key Findings – Capex and Repex

### Smoothing

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- Capex mid level currently smoothed using a 7 year moving average and feeds into Totex
- Capex and Repex bottom up models are currently not smoothed
  - Smoothing Repex is one solution to the volatile efficiency scores but doesn't solve the underlying problem with the cost driver
- Consider smoothing period

## Incorporating Quality Metrics

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- It is not obvious the regressions are missing anything material
- This may be more relevant in setting output targets
- However, the logic of higher quality = higher cost still has intuitive appeal
  - This can be used to make quality normalisation by removing costs pre-regression or incorporating additional cost drivers
  - Can be explored further
- Whilst NOM's are not recommended as a mechanistic cost driver, they may have a role in quality (though significant further work required here)

## Alternative Modelling Techniques

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- Number of alternative statistical and non statistical cost assessment techniques are available
- Stochastic Frontier Analysis (SFA), unlikely to be feasible due to sample size
- DEA is a possibility
  - Precedent across Europe
  - Benefit of DEA is it allows use of multiple outputs, but the sample is not really big enough to facilitate this for GDNs
- Other non statistical techniques can also be considered although we have not assessed the pros / cons or relative weighting at this stage:
  - Unit cost analysis
  - Survivor modelling (maintenance investment)
  - Expert scrutiny / engineering assessments
  - TFP (total factor productivity)

## Alternative Drivers

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- Reviewing cost drivers:
  - There may be potential to develop GD1 cost drivers further to meet the principles of what makes a good cost driver
    - Where efficiencies are not been picked up
    - Recognising differences in condition
    - Being outside of companies control
- MEAV (is there an alternative, can it be refined ?)

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## Key Conclusions

- Need a consistent starting point for GD1 Model
- Address known anomalies
- Quality needs further evaluation across GDNs to apply to regressions
- Repex regressions needs to be revisited
- Need further evaluation of Overheads / Business Models on regressions – current finding suggest it can be addressed
- Capex and Repex smoothing may address volatility but will not address potential weaknesses in cost drivers
- Some updates to Bottom up drivers / groupings should be considered as well as MEAV
- Analysis supports the continuation of regional adjustments which provide better regression fits

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