RPI-X@20 Updated Project Documents

Feedback from Electricity North West Limited

1. Executive Summary

This document summarises ENW's feedback on three reports published as part of Ofgem's emerging thinking of their RPI-X@20 review of regulatory framework:

- Ofgem working paper: The Length of the Price Control Period. We outline our concerns that Ofgem's proposal to increase the duration of price controls to eight years with a four year small scale review will introduce greater regulatory and operational risk to network operators with minimal (and possibly adverse) effect on the incentives on network operators to innovate.

- Frontier Economics: Output Measures in the Future Regulatory Framework. We welcome the publication of the Frontier paper and consider that it represents an important and helpful contribution to the ongoing discussions regarding the role of outputs in future price reviews. We suggest some refinements to proposed output measures.

- Frontier Economics: The Future Role of Benchmarking in Regulatory Reviews. We welcome many of the principles included within Frontier's proposals for future benchmarking. We highlight a number of issues with the proposed benchmarking methodologies and suggest improvements to the approach.

The overall acceptability of a price control developed under an RPI-X@20 framework to customers, stakeholders and network operators will depend on the combined effect of the total package of proposals. Whilst we can see arguments for and against many of the different proposals now included in Ofgem's RPI-X@20 project, we can only really review each element of the whole in isolation as the "big picture" formed by all the elements together is still far from being fully clear. Our response considers how each of these components might interact within the overall RPI-X@20 regulatory framework.

We document a number of areas where the components of Ofgem's emerging thinking fail to gel to form an obviously cohesive package. These inconsistencies are most apparent in those aspects of emerging thinking that propose changes above and beyond those implemented at DPCR5.

The absence of a clear view of how the components of RPI-X@20 emerging thinking could combine into one package makes it impossible at this stage to determine whether the consequential risk/ reward balance is appropriate or whether the proposals represent more or less value to current or future customers. It is disappointing that the first opportunity we will get to see these proposals being implemented will be GDPCR2 and TPCR5. It may be too late by that time to recognise that the overall implication of the emerging thinking could be net increases to charges to customers.

To reduce the regulatory uncertainty associated with the current proposals, it would be helpful if Ofgem's RPI-X@20 team:

- Publish further details of how they expect the individual components of an RPI-X@20 regime to interact within one overall package; and

- Undertake and publish analysis to quantify the affect of their proposals on the cost of equity.

2. Ofgem Working Paper: The Length Of The Price Control Period

2.1. The importance of regular price control resets

Network operators are facing the greatest level of uncertainty in their history. Factors such as the low carbon future, unit cost volatility driven by market turmoil and the availability of finance along with a significant increase in investment and changes to the regulatory structure are increasing the risks for networks and their stakeholders. To ensure that these risks are efficiently priced into a price control, regular resets are required.

The straw man proposal would increase energy network operators' exposure in a rather blanket way to the sort of changes in the economic environment (including changes in input costs) which have seen substantial swings over the last few years and which are largely outside the control of companies. Network operators would have limited confidence that there would be an adequate offsetting adjustment in WACC to compensate for this increased risk.

The underlying issue with longer-term price controls is that, as with any price control, the environment in which network companies operate changes. With longer-term controls, the chance of significant change is much greater. Eight years is a long time to expect a stable environment and, on Ofgem's own admission, the price of longer-term controls is likely to be the de-tuning of incentives, more elaborate uncertainty mechanisms and a higher WACC.

It is true that extending the length of the price control and therefore the time over which incentive schemes can be allowed to work may allow investment in longer term improvements to become NPV positive. However, if incentive rates are adjusted to have the same power over eight years as they previously had in five, there will be no change to the NPV properties of an investment proposal. Therefore, this shows that incentives can be weakened or strengthened without the need for longer or shorter term price reviews. Indeed, the creation of the efficiency roller has already separated the strength of efficiency incentives from the length of the price control. The key effect of lengthening price review periods is that the probability of an adverse event occurring rises. This effect will increase the cost of capital for customers.

2.2. Could a mid-point review mitigate the risks associated with a longer price control?

The document proposes the introduction of a small scale mid-point review to allow price controls to be re-opened in certain specific circumstances. There are a significant number of reasons why a mid-point review process would expose network operators to more risk rather than mitigate risks associated with longer term price controls.

If longer payback periods make new innovations cost beneficial there is a risk that future regulators use the small scale review to claw back any perceived windfall gains but would hide behind the limited stated scope of the small review to avoid equivalent adjustments for financial losses. Such behaviours would reduce the incentive for network operators to innovate within the overall package.

The limited scope of the mid-point review seems at odds with the proposal of encouraging network operators to engage in ongoing debate with their stakeholders. There is a risk that the creation of longer price controls may result in stakeholders becoming frustrated that investment that they fully support cannot be included within outputs for many years. Such a mechanism would be more consistent with one-off discussions with stakeholders at each price control review.

It is unclear what processes would be introduced to allow network operators to challenge the decisions made by Ofgem at the mid-point review. It is equally unclear whether, if an appeal were

allowed, third parties would be permitted to trigger a review, and also whether the Competition Commission's remit would be limited to the defined scope of the mid point review or whether they might use the opportunity to review all aspects of the price control. The absence of a referral process would expose network operators to the risk that the regulator makes unacceptable decisions at the mid-point review. Additionally, if there is a possibility that third parties could challenge the mid-point review, or a likelihood that any referral to the Competition Commission would result in the full scope of the price control being reviewed, then network operators would effectively behave as if they are subject to four year price controls.

It is unclear how outputs would be costed at the mid-point review. It is hard to see how it would be efficient to cost the changed outputs at the prices which were anticipated four years previously. This, in turn, could create incentives for companies to push for changes in required outputs as a means to having a more general revision of allowed input costs. This would create different incentives on those outputs set at different points in time.

All these factors may result in any mid-point review being far from "small scale", incurring additional costs for both companies and regulators. The small scale review is unlikely to provide a tool to keep these risks to an appropriate level. Indeed, it is likely that the mid-point review will actually introduce further regulatory risk for network operators and would remove any increased incentive to invest in longer term innovation.

2.3. Impact of proposals for consumers

We do not think the introduction of longer term price controls is in consumers' interests:

- Longer price controls expose network operators to the increased risk that events will occur that were not foreseen within their price control. They increase operational risk, increase the carry period of logged-up expenditure and increase the impact of error in setting allowances and calculating the WACC. Mid-point reviews expose network operators to further material regulatory risk, which would require compensation via a higher WACC.

- There is a risk that the processes described in the document would effectively lead to four year price controls and introduce more work rather than less for both Ofgem and companies. This will result in extra costs being incurred by both network operators and Ofgem.

- Increasing the length of the price control will not lead to longer term thinking. It is likely to encourage greater risk aversion in investment planning.

- Detuning of incentive mechanisms would reduce investment in improving performance.

The cost of all of these factors would need to be borne by consumers, hence we fail to see how this could be the most appropriate outcome for customers.

2.4. An alternative approach

Given the likely pace of change and developments in the sector, and the desire to retain flexibility in the framework, the five year period remains an appropriate baseline.

Whilst resets are likely to deliver short term cost savings for customers, they may sometimes do so at the expense of investment certainty. This effect could be mitigated by increasing investors' certainty

of return by the development of robust, long term principles as to how investment will be remunerated. We suggest that;

- Any longer-term price control framework should be focused on particular projects and incentive mechanisms where the likelihood is that benefits will accrue over significantly longer periods than five years. Where appropriate, specific terms should be implemented for specific investments, particularly where the benefits of investment may occur in a different regulatory period from the costs - such as the 15 year return period already in place for the Distributed Generation incentive mechanism;

- Large-scale, long-term projects and programmes are protected, particularly where the costs span multiple reviews;

- Principles established in relation to the treatment of Pensions are adhered to; and

- Specific low carbon investment enablers attract guaranteed returns.

3. Frontier Economics: Output Measures In The Future Regulatory Framework

3.1. Summary

We welcome the publication of the Frontier paper and consider that it represents an important and helpful contribution to the ongoing discussions regarding the role of outputs in future price reviews.

We find ourselves agreeing with much of Frontier's view on the use of outputs. We agree in overall terms that controllable outputs are preferable to input-based regulation (which is too prescriptive, stifles innovation, is costly to manage and may not deliver the right outcomes for customers), but we also recognise that outputs are not straightforward as:

- Different stakeholder groups place different values on them,
- They have complex interactions,
- They are often difficult to measure and hence not easily incentivised, and
- They may be only partially under the control of the network operator.

In overall terms, Frontier's proposals look much like the position we have just advocated and agreed with Ofgem as part of the latest distribution price control review. As such, the primary outputs identified in the report are, for the most part, ones which already exist or have been under discussion between networks and Ofgem and balance the use of metrics in a deterministic sense where this is appropriate, and as a way of informing subjective judgements where it is not possible to 'hard-wire' specific outcomes to incentives.

We agree that outputs have different roles at different points of the regulatory cycle and that the use of inputs is unavoidable but their use needs to be confined to those parts of the cycle where they are of greatest value. We also concur that output measures need to be structured differently, depending on the characteristics of the measure, eg through:

- Marginal incentives,
- Guaranteed standards, or
- Ex-post review.

Where we differ in emphasis from Frontier is in the role of DNO-specific measures. The Emerging Thinking paper suggested that price controls would increasingly become a set of bilaterally-agreed arrangements based on regionally-specific, stakeholder-endorsed plans. In this context, the emphasis should be placed on measures specific to each plan that could be used to monitor delivery objectively, rather than being fixated on only using metrics which produce a data set to facilitate 14-DNO benchmarking.

3.2. Output categories

We note that Frontier agree with the six broad output categories selected by Ofgem in the Emerging Thinking paper, however they consider that Safety is met by complying with legal requirements and is incentivised outside of the regulatory regime. To this extent, it should probably

be removed from the output mechanism. It would be particularly difficult to be seen to be making trade-offs of safety against other output categories. We include specific comments on the remaining five categories below.

3.2.1. Environmental measures

We note that the measures proposed under the 'narrow' environmental impact of the operator's activities are effectively those recently agreed as part of DPCR5.

Facilitating improved energy efficiency: the best measure of DNOs' facilitation of energy efficiency is by review of charging methodologies to ensure they are fully cost reflective. The main responsibility for promoting energy efficiency must remain with suppliers.

Frontier's proposal to measure the extent to which DNOs maximise the volume of low-carbon flows on the network via measuring DG MWh would expose DNOs to generator operational risk. We recommend that an output that is more of the form of the current MW incentive would be more appropriate.

3.2.2. Reliability

Frontier agree that 'reliability' is an appropriate category and many of the proposed outputs are ones which either exist or are in the process of being developed, including measures of system performance (CIs, CMLs) and measures of asset health.

We note that Frontier give primacy to the current CI/CML measure as this is what is most relevant to current customers. This also seems to be driven by a fear that other measures may not give an insight into current performance so could lead to deterioration in the short-term with no penalty.

In contrast to Frontier's perception of potential measures allowing short-term 'holidays', we contend that there is a danger that a focus on short-term performance neglects longer-term indicators of risk and hence future performance/costs to customers, suggesting the need for a complementary suite of measures. This could be achieved by using 'Network Risk' as a measure, or considering Reliability in multiple dimensions, ie today/tomorrow, normal/extreme conditions. This would introduce a wider role for leading indicators in the case of the former (which CIs and CMLs are not) and provide a link with climate change adaptation in the latter.

We note that Frontier's concern with leading indicators seems to be that uncertainties in measurement preclude the mechanistic linking to a revenue incentive. We agree that this is currently the case, not insomuch as it can not be measured, but that the complexities of such measurements and the difficulties of comparative data sets preclude direct comparative analysis between companies in the short-term.

Frontier do not discuss comparability issues in any great depth but note that measures may not be comparable across DNOs (due to non-standard definitions, data sets etc). We contend that this does not invalidate them as appropriate measures or ways of holding network operators to account. Frontier seem to be rather fixated on only having metrics that produce 14 comparable data points. We suggest there is merit in holding a company to account for its actual performance against projections, even if such data may not be strictly comparable across companies.

We note that Frontier's main fear in this area is that Ofgem might try to use measures of asset health and other 'Tier two' measures of network risk in too mechanistic a way. Frontier's suggestion is that there is no objective way of aggregating 'Tier Two' metrics and that any attempt to do so would

probably distort network operator choices in how to manage its network. It also suggests that the calculations which Ofgem envisages can never be so definitive as to enable a mechanistic revenue penalty to be applied in respect of performance against this measure.

Broadly, Frontier suggest that 'Tier Two' measures should be used in a more judgemental way—to inform target and revenue setting and, in the event of an overall deterioration in various reliability measures, to penalise. We consider that this is the case with the current Outputs regime in DPCR5 and that it would be invidious to pre-judge the potential role of 'Tier One' network outputs in informing a more objective assessment of DNO performance. These may take a different form from an aggregation of Tier Two metrics and significant collaborative work is required between Ofgem and the network operators over the next few years to explore the potential of this approach.

3.2.3. Connections

The main primary output promoted under connections is, not surprisingly, 'time to connect' (Frontier's keenness on discriminating in favour of low carbon connections may be running ahead of the current statutory and regulatory framework). It is a moot point whether Frontier gives adequate recognition to the effects of planning constraints in its treatment of this area.

3.2.4. Customer satisfaction

The core of the approach to customer satisfaction, in so far as it is not covered by delivery of outputs under other headings, is the 'broad measure of customer satisfaction' which has been foreshadowed by DPCR5.

The new incentive recognises that there are outputs affecting customers wider than just CIs and CMLs. Ofgem have adopted the new incentive as part of the future framework and the reference to connections has been captured by the new GSs for connections being implemented in October. Ofgem have not implemented the new incentive in such a way that there is a direct overlap between the elements of the incentive and any of the Guaranteed standards and so the Broad measure and the GSs will operate as distinct entities. There will be indirect overlaps however in that repeated failures on the GSs will lead presumably to lower levels of customer satisfaction, as will operate through the incentive. As such, the DPCR5 regime already seems to mirror Frontier's proposals in this area.

3.2.5. Social obligations

We would be wary of entering a debate on targets for vulnerable customers. There remains a difficult overlap between the responsibilities of suppliers and distributors in this area and we consider that the current responsibilities are sufficient. The frontline responsibility for dealing with vulnerable customers must remain with suppliers. Vulnerable customers remain a category under the Customer Reward Scheme for DNOs and so there is an incentive to improve our relationship with vulnerable customers.

3.3. Incentivisation of investment

We note that Ofgem's clear historical preference has been for network operators to only invest when network users make a firm financial commitment.

However, this preference may prove at odds with the need to ensure that network connections do not prove a bottle-neck in the delivery of projects designed to meet wider societal needs.

We support Frontier's proposal that circumstances exist where investment in advance of anticipated need can be justified in order to facilitate delivery against wider societal targets. We support their proposal requiring network companies to present 'investment ahead of need' scenarios as part of the business planning process at each price control review.

4. Frontier Economics: The Future Role Of Benchmarking In Regulatory Reviews

4.1. Summary

We agree with most of the principles on which Frontier have based their work, in particular:

- We agree that decarbonisation and an ageing network mean that use of networks will change and that therefore historical spend is an increasingly poor indicator of future spend,

- We agree that equalisation of opex and capex means that historical disaggregated approaches will be less relevant in the future, and

- We agree that future schemes need to encourage innovation and agree that ex-post adjustments introduce a perception of regulatory risk that may discourage it.

We have some concerns about some of the detail of Frontier's proposed comparative models, in particular:

- The current proposals only suggest using a subset of outputs as cost drivers and omit some of the most significant drivers of expenditure, particularly outputs to be delivered to maintain medium and long term reliability indicators. Changes in medium and long term forecast reliability indicators are much more important drivers of future cost than units distributed, losses performance and current CI/ CML performance.

- Some of the drivers suggested by Frontier are not exogenous measures and hence results may be distorted by a DNO's assessment of future activity. Where measures of work to be undertaken are to be used as cost drivers, it will always be necessary to assess the volume of work to be undertaken separately and then assess the efficiency of that work.

- The simple nature of the proposed model will not allow some of the value adding features desired by other aspects of the Emerging Thinking framework. For example, it is not easy to see how the model could recognise leadership in stakeholder engagement or correctly adjust for levels of innovation. It is also increasingly apparent that the concept of "light touch" regulation for better performing DNOs would be impracticable in a context where all DNOs' data points are included within a comparative model; even the better performing DNOs would be subject to detailed data collection requirements to allow the models to be populated.

- Whilst we agree that total cost models should form a key component of future regulatory benchmarking, measures of total cost are notoriously difficult to achieve without introducing distortions as a consequence of differences in timing of respective investment cycles. It will always be necessary to use a range of models to inform assessing comparative efficiency assessment to avoid undue reliance on one model.

4.2. What future comparative models must achieve

We agree with most of the principles on which Frontier have based their work, in particular that historical spend is an increasingly poor indicator of future spend as a consequence of changing future network use. We also agree that the introduction of equalised incentives on opex and capex means that historical disaggregated approaches will be less relevant in the future. We strongly support Frontier's view that the future regulatory regime should set ex-ante allowances and agree

sharing factors for any under/over performance. Any ex-post adjustments to revenues in response to perceived supernormal benefits would introduce a perception of regulatory risk that may discourage innovation.

We are pleased that Frontier have recognised many of the flaws in DPCR5 approach that we highlighted during the review, such as penalising DNOs who have efficient direct costs by using actual direct costs as a driver; penalising DNOs who spend indirects to save directs by using direct costs as a driver of indirect activity; failing to normalise for levels of innovative asset management and data quality and cherry picking across activity areas by failing to recognise trade-offs between opex and capex and between direct and indirect activities.

Other shortcomings of the DPCR5 modelling approach that must be remedied in the introduction of new models include ensuring impartiality to business structure and correctly recognising the fixed costs of running networks.

4.3. Frontier's detailed approach

Whilst we agree with the majority of the principles that Frontier outline, we have concerns with some of the detail of their proposed approach. Our issues arise in a number of areas; broadly categorised as:

- cost drivers chosen;
- costs to be modelled; and
- the functional form of the model.

We outline our concerns in the following paragraphs.

4.3.1. Cost drivers

It is important that the drivers used in benchmarking represent the real drivers of expenditure. Some of the drivers Frontier suggest, for example units distributed, are not drivers of expenditure and should not be included within models. A lot of work was undertaken in the lead-up to DPCR5 to identify the drivers of expenditure; whilst the detailed measurement of those drivers was not always correctly applied at DPCR5, this piece of work went some way towards identifying appropriate drivers for use in comparative modelling.

In contrast, the Frontier proposals only suggest using a subset of outputs as cost drivers and omit some of the most significant drivers of expenditure, particularly medium and long term reliability indicators. Changes to medium and long term forecast reliability indicators are much more important drivers of future cost than some of the drivers suggested. For example, units distributed and performance against the current losses incentive do not drive the level of investment required in the future in any material way, whereas the extent to which network operators need to improve the condition of the assets on their network or respond to network loading constraints has a much stronger correlation to the amount of spend required.

Some of the drivers suggested are not exogenous measures, for example outputs to be delivered, and hence results can be distorted by a DNO's assessment of future activity. Where measures of work to be undertaken are to be used as cost drivers, it will always be necessary to assess the volume of work to be undertaken separately and then to assess the efficiency of that work. The

identification of required output volumes via a common methodology and using required outputs as a cost driver will also recognise and compensate more correctly those network operators who spend indirect costs to avoid direct expenditure on outputs.

In contrast, Frontier overestimate the extent to which network length is materially within the control of network operators. In reality there is very little practical scope to increase network length sufficiently to influence the outcome of modelling. Indeed we cannot foresee any circumstance where the benefit gained through improved modelled performance would more than offset the cost of building extra network.

We agree that if any regional cost variations are to be modelled it should be as cost driver rather than adjustment to cost. We believe that this analysis would show minimal differences outside of central London.

4.3.2. Costs to be modelled

a. Costs included

It is fundamentally important that costs included within comparative models are analysed on a consistent basis and that differences between companies are appropriately normalised. We note, in particular, that Frontier's proposal makes no reference to the need to normalise pension costs between companies with different actuarial valuation dates, nor does it suggest how differences in pension deficit value and deficit recovery periods would be treated. Pension cost recovery rate variations can represent material divergence in network operator cost base, generally because of valuation timing differences rather than underlying differences in long run cost, and these must be adjusted for.

It is not clear how variations in activities undertaken by DNOs will be taken into account, particularly in activities for which no output count exists. For example, it is unclear how best practice in stakeholder engagement would be rewarded. Nor is it clear how the future model would differentiate between differences in the rate of progress of individual DNOs' innovation journeys. As no obvious measure exists for these activities this may instead require a separate reward to be made and an adjustment in modelled cost base to normalise for activity levels.

In suggesting that Business Support costs would be modelled separately from network costs, Frontier have ignored the significant scope that exists to save network spend by investing in business support activities. For example, investing in network policy and innovative asset management concepts has great potential to reduce direct costs. Similarly, investing in IT solutions can allow modelling of scenarios and production of detailed risk models that can be used to optimise network spend and network risk. Maintaining the incentive boundary that was introduced at DPCR5 would further discourage innovation in these areas.

b. Data comparability

Frontier suggest that there is no statistical noise in forecasts. Whilst this may be theoretically true, we believe that differences in interpretation of cost reporting rules, combined with differences in forecasting assumptions and tactics would continue to mean that costs are not reported on a consistent basis and that this lack of consistency would introduce noise into comparative models.

Differences in reporting basis are particularly acute when comparing costs reported by DNOs with costs reported by GDNs; the current cost reporting rules for gas and electricity distribution are very different, even for activities such as HR and Finance that superficially might be expected to be very

similar. Any suggestion that these companies can be combined to give pool of 14 + 8 companies needs to be very carefully considered. Even if changes were made to the gas reporting basis for GDPCR2 there could only be two years of comparable data available by the time of the DPCR6 decision.

We agree that international comparisons are difficult due to differences in reporting bases, different regulatory regimes and levels of vertical integration. We support Frontier's suggestion that international comparisons should not be used.

c. Total cost measure

Whilst we agree that total cost models should form a key component of future regulatory benchmarking, measures of total cost are notoriously difficult to achieve without introducing distortions as a consequence of differences in investment cycle. It will always be necessary to use a range of models to inform comparative efficiency assessment.

We agree that it is sensible to seek to develop a capital consumption model to use alongside opex plus capex in an attempt to normalise for historical differences in capital expenditure. The proposed measure of capital consumption is oversimplified however, for example:

- How will the suggested measure of capital consumption work if DNOs have different costs of capital and capitalisation rates?

- How will differences in depreciation of vesting assets for some DNOs be taken into account?

- How will the measure take into account the impact of high or low historical capex (now fully depreciated) on volumes of spend now needed?

- How will historical rewards be removed, eg IQI reward for forecasting close to Ofgem's forecast?

- It is unclear whether the "opex" term referred to in the capital consumption construct is actually meant to refer to "fast money". If the term "opex" was meant then this measure will double count opex added to RAV and will miss the proportion of capex funded as fast money.

- We agree that it is not possible to translate capital consumption models into future allowances and that they can only be used to inform a view of the efficiency of plans in the context of recent spend. It is not clear, however, how this translation would be undertaken.

4.3.3. Functional form of model

We agree that it is important that companies can intuitively understand and replicate results and support the use of modelling techniques that can be replicated on commonly available software.

We are concerned that Frontier's proposal largely rules out modelling costs at operating group level, preferring licensee based analysis. Their suggestion that group based analysis would only provide visibility of the distorting affect of allocation of costs between licensees ignores the benefit that is also gained in observed the level of fixed costs that can be shared between licensees within the same operating group. It is our experience that many companies can share fixed costs such as IT,

Finance, HR, control room and call centre between licensees within the same group. Failure to recognise this will penalise singleton and small licensees.

4.4. Compatibility with other aspects of Emerging Thinking

The simple nature of the proposed model will not allow some of the value adding features desired by other aspects of the Emerging Thinking framework to be correctly recognised in comparative modelling. For example, it is not easy to see how the model could recognise leadership in stakeholder engagement or correctly adjust for levels of innovation.

Frontier introduce the concept of "option value" where the models can be used to differentiate between alternative forecasts presented by network operators. It is unclear how "option value" would be measured to allow different scenarios to be compared. This concept requires further explanation before network operators can fully understand the implications of this suggestion.

It is also increasingly apparent that the concept of "light touch" regulation for better performing DNOs would be impracticable in a context where all DNOs' data points are included within a comparative model; even the better performing DNOs would be subject to detailed data collection requirements to allow the models to be populated.

4.5. Other models considered

Frontier have discounted use of model network analysis based on the complexity of work required to develop a model. Whilst we agree that complexity is a valid reason to discount such models a further, a more significant justification to reject such models is the fact that model network analysis cannot properly take account of the effect of the historical location of generation and load on current network design. Networks are often configured in their current way because of the historical location of power stations and load. The cost of re-constructing networks based on current load and generation sources would indeed result in networks that look different, however this fact is not evidence of network operator inefficiency but of the significant and often prohibitive cost of building materially new networks and securing land over which to build them. Network operators should not be penalised for the difference between the ideal network for customers and the legacy network; it is rarely in customers' interest to re-construct a whole network to an "ideal" state.

4.6. Implications for DPCR5 cost and activity reporting

It is noteworthy that the modelling basis suggested by Frontier bears very little resemblance to the basis that is currently being captured in the recently issued DPCR5 RIGs. We urge Ofgem to review the reporting requirements on DNOs to avoid capturing data that is not going to be used. In particular, the requirement for complex absorption of indirects into directs should be removed to allow DNOs more time to concentrate on recording prime costs consistently.

5. Interactions Between Elements Of The Emerging Thinking Components

5.1. The importance of understanding the overall "package"

The overall acceptability of a price control developed under an RPI-X@20 framework to customers, stakeholders and network operators, will depend on the combined effect of the total package of proposals. Whilst we can see arguments for and against many of the different proposals now included in Ofgem's RPI-X@20 project, we can only really review each element of the whole in the context of the limited "big picture" created by all the elements and this is still far from being fully clear.

Many of the components of Ofgem's Emerging Thinking documents are familiar to electricity distribution businesses, being based upon the work recently completed in the DPCR5 distribution price control review. In some respects therefore, it is hard to see how many of Ofgem's proposals are materially different from the price control we are currently operating under.

In contrast, where more significant changes are proposed it is often quite difficult to understand the detail of the proposals or how they interact with other components of the proposed framework to create a regulatory package. The absence of a clear view of how the components could combine into one package makes it impossible at this stage to determine whether the consequential risk/ reward balance is appropriate or whether the proposals represent more or less value to current or future customers. We explain some of the areas where we cannot fully understand the implications of the overall RPI-X@20 package in the following paragraphs.

5.2. Inconsistencies between components of Emerging Thinking

We have identified a number of apparent contradictions in the components of the documents that merit consideration.

5.2.1. Interactions between the length of price control proposal and other elements

- If longer payback periods make new innovations cost beneficial and hence stimulate significant investment, what assurances can Ofgem give regarding the treatment of significant out-performance of outputs in the first half of a longer review period when these are assessed at mid-point review? There is a risk that future regulators use the small scale review to claw back any perceived windfall gains but would hide behind the limited stated scope of the small review to avoid equivalent adjustments for losses. Such behaviours would reduce the incentive for network operators to innovate within the overall package.

- Would third parties be able to challenge the mid-point review and if so through what process? There is a risk that third parties seek to secure changes at mid-point review that were not within the limited stated scope of the small review. Inappropriate use of the third party right to challenge process may result in this mid-point review being far from "small scale".

- If a mid-point review suggests changes to required outputs, but at a different unit cost, what rate will the true-up at end of the period be measured against and how will such decisions affect the strength of incentives? There is a risk that this process creates different incentives on those outputs set at different points in time.

- The limited scope of the mid-point review seems at odds with the proposal of encouraging network operators to engage in ongoing debate with their stakeholders. There is a risk that the creation of longer price controls may in stakeholders becoming frustrated that investment that they fully support cannot be included within outputs for many years. Such a mechanism would be more consistent with one-off discussions with stakeholders at each price control review.

5.2.2. Interactions between the outputs proposal and other elements

- How will investment endorsed by stakeholders but not included within the wider output framework be reviewed? The outputs proposal lists a number of common outputs. It is possible, however, that regional stakeholders might support specific outputs that are not covered by this generic list and therefore need recognition in allowances and in benchmarking analysis.

5.2.3. Interactions between the benchmarking proposal and other elements

- The current proposals only suggest using a subset of outputs as cost drivers and omit some of the most significant drivers of expenditure, particularly medium and long term reliability indicators. Changes to medium and long term forecast reliability indicators are much more important drivers of future cost than units distributed, losses performance and current CI/ CML performance.

- How will benchmarking differentiate between the rate of progress of individual DNOs' innovation journeys? ie how will Ofgem make sure innovation is rewarded not penalised?

- How will best practice in stakeholder engagement be rewarded? At present no cost driver is included in the proposed benchmarking to recognise differences in stakeholder engagement. As no obvious measure exists this may instead require a separate reward and cost normalisation within the model.

- It is increasingly apparent that the concept of "light touch" regulation for better performing DNOs would be impracticable in a context where all DNOs' data points are included within a comparative model; even the better performing DNOs would be subject to detailed data collection requirements to allow the models to be populated.

5.2.4. Interactions between the financeability proposal and other elements

- What increased cost of equity will be provided to recognise additional risks taken by equity investors? Many of the proposals within the Emerging Thinking document will increase network operators' exposure to risks. Such increases to risk must be compensated by increases in the cost of equity.

- How will potential distortions to the capital consumption measure due to differences capitalisation rate and cost of capital by adjusted for within comparative benchmarking?

5.3. Conclusion

A number of the elements of Ofgem's Emerging Thinking fail to gel to form a clear view of a cohesive regulatory framework. Whilst it is possible to review each aspect of the published documents in isolation it is only when a full "package" is visible that the overall effect of the

proposals for customers, stakeholders and network operators will be clear. We fear that the overall effect of introducing a regulatory package under RPI-X@20 may be to increase overall costs to current and future customers whilst materially increasing the risks that network operators are exposed to.

It is disappointing that the first opportunity we will get to see these proposals being implemented will be GDPCR2 and TPCR5. It may be too late by that time to recognise that the overall implication of the Emerging Thinking could be net positive increases to charges to customers.

To reduce the regulatory uncertainty associated with the current proposals, it would be helpful if Ofgem's RPI-X@20 team:

- Publish further details of how they expect the individual components of an RPI-X@20 regime to interact within one overall package; and

- Undertake and publish analysis to quantify the affect of their proposals on the cost of equity.