Annex 1

Consumer harm from the GD17 proposals

9 May 2016, Reckon LLP

Overview

1. This note seeks to identify aspects of the Utility Regulator’s proposals for gas distribution price controls from 2017 that might be most harmful to the interests of consumers.

2. Table 1 lists some specific potential technical issues with the regulator’s proposals. The purpose of this overview section is to highlight ways in which consumers might be harmed by these issues.

3. The main area of concern is about the potential impact on customers of lower-than-hoped-for take-up of mains gas in Northern Ireland. The probability of low take up is high since domestic heating oil is currently cheaper per kWh than mains gas, and there is political and environmental pressure towards energy efficiency improvements and the use of biomass.

4. Under the regulator’s proposals for FE and PNGL, if take-up of mains gas is less than expected, then consumers suffer:

   (a) The use of a total revenue control means that prices will be higher than expected, since the regulator would allow the companies to collect a fixed amount of revenue independent of how many customers they have or how much gas these customers use. The effect is that existing mains gas consumers are being made to bear the risk that few new customers switch to mains gas; investors in the gas distribution companies do not bear that risk. An average price control would have allocated that risk in a fairer way between consumers and investors.

   (b) One of the consequences of low take-up in the past has been under-recovery against the price control formula. All the regulator’s options in respect of the treatment of FE’s past under-recovery amount to prioritising the protection of investors’ interests at the expense of consumers. Whilst the proposal to reduce the interest paid to investors in respect of under-recoveries to LIBOR+2 is clearly...
an improvement over the previous arrangements in this area, the regulator has failed to consider whether and how part of the shortfall in revenue could be transferred to investors, or to control or explain the impact on consumers of a rapid elimination of the historical under-recovery.

(c) The regulator’s proposal to retain the profile adjustment mechanism amounts to embedding in its regulatory regime the protection of investors from risk, at the expense of the interest of consumers. The regulator’s proposal to extend the profile adjustment period for FE has two implications: it amounts to a recognition of the likelihood of a significant and sustained shortfall for that network; and it exposes consumers to the high risk of errors in very long term forecasts. There is nothing in the mechanism to ensure that investors in gas companies are exposed to a fair share of the risk of low take-up of mains gas.

5. In summary, a major strategic risk that the regulator’s proposals fail to address is that of a death spiral for gas distribution in Northern Ireland, whereby the price advantages of oil and/or the environmental advantages of insulation and biomass would lead to low mains gas take-up, which (because of the regulator’s unbalanced approach to allocating take-up risks between consumers and investors) would lead to higher gas prices, feeding the low take-up.

6. The regulator’s proposal for a partial pass-through of the cost of debt amount to a further transfer of risk from investors to consumers and compounds the harms to consumers outlined above. Whilst it might have been acceptable to follow Ofgem in linking the allowed return on capital to some economy-wide measure of borrowing costs, it is not in the interests of Northern Ireland mains gas consumers to be exposed to the specific borrowing costs incurred by Northern Ireland gas distribution companies. This proposal harms consumers in two ways:

(a) It exposes consumers to the cost of financing decisions by the gas distribution companies, and thereby encourages investors to choose financing structures that transfer residual risk from equity (where investors would bear all of it) to debt (where investors would only bear 20 per cent of it).
It exposes consumers to company-specific risks such as fluctuations in investors’ perceptions about future mains gas take-up and about the stability of the Northern Ireland gas regulation system. Given the regulator’s failure to date to establish a regime that gives a fair, sustainable and credible balance of risks between consumers and investors, and the regulator’s failure to prevent the risk of a death spiral in the Northern Ireland gas sector, there is a risk that investors will demand a regulatory risk premium for lending to these companies.

Description of technical issues

Table 1 Technical issues in the GD17 draft determinations

<table>
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<tr>
<th>Issue number</th>
<th>Description of the issue</th>
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| 1            | **Title:** Form of control for firmus energy  
**Summary:**  
The Utility Regulator has proposed to move from a tariff control for firmus energy to a revenue control. This would transfer the risk of non-productive or under-utilised assets from the company onto customers.  
**Full description:**  
In its draft determination for firmus energy (FE), the regulator has stated its intention to move from a tariff control to a revenue control. Under a tariff control approach, the regulator restricts tariffs, i.e. the amount of money that can be recovered from each consumer or for unit volumes. Under a revenue control approach, the regulator restricts the amount of revenue the company can raise from customers through charges.  
Under a tariff control approach, company revenues depend on customer numbers or volumes of gas delivered. That is, the more customers use the network, the greater the revenue for the company. Under a revenue control approach, company revenues do not depend on the number of customers or volumes of gas delivered.  
A tariff control could therefore offer an incentive for the company to
expand its network and get more customers to connect and use its network - but it also means that the company bears the risk associated with under-productive assets (i.e. newly built assets that are under-utilised). The company would only earn a reasonable return on investment in the network if it can generate sufficient revenue by getting new customers to connect (and existing ones to consume more gas).

The draft determinations say that “as the [FE] business grows and matures, it may be more appropriate to switch to a revenue cap form of price control as new volumes become less important and external factors, such as temperatures, can have a bigger impact on overall volumes.”

We don’t think that FE’s business is mature enough to justify a switch to revenue control. We note that, by the end of 2015, FE’s penetration rate remains at 19 per cent (10,200 connected properties out of almost 54 thousand properties passed). In comparison, PNGL’s penetration rate at the end of 2015 is 48 per cent (95 thousand connected properties out of 201 thousand properties passed).

As FE’s network expands – the regulator expects it to pass an additional 68 thousand properties by the end of the GD17 period – retaining the tariff control approach would be a strong incentive for FE to connect new customers and increase its penetration and asset utilisation rates. Better utilisation rates would allow FE to recover reasonably incurred costs across a larger number of customers (and volumes) and mitigate the risk of excessive charges to customers.

Document reference:
GD17 Draft determinations, page 47

2 Title: Treatment of the cost of debt for FE and PNGL
Summary:
The Utility Regulator has proposed a pass-through mechanism for the cost of debt of FE and PNGL. This mechanism transfers risk from the company to customers and might encourage inefficient financing arrangements, thereby making customers worse off.

Full description:
The Utility Regulator’s draft determinations set out the allowed cost of debt for Phoenix Natural Gas (PNGL) (2.26 per cent) and FE (2.33 per cent) within the overall weighted average cost of capital (WACC).

The draft determinations say that both PNGL and FE are due to refinance existing debt in 2017 and 2019 respectively. In addition, both companies could raise additional debt over the period to finance their activities. The document notes that there is uncertainty about the actual costs at which these companies would be able to borrow.

This uncertainty about the actual costs of borrowing in the future does create some risks. The regulator has proposed a mechanism for sharing the cost of debt risk between customers and shareholders, whereby customers would pay 80 per cent of any debt cost under- and over-runs, and shareholders would pay the remaining 20 per cent. The regulator says that this risk-sharing mechanism provides strong incentives for the company to keep costs low.

The details of the mechanism are not adequately specified in the draft determination.

If the mechanism was to apply to interest costs as a £ number, then it would give rise to an undue loss to consumers if gearing is increased: customers would pay 80 per cent of the interest cost for the additional debt, but receive no credit in respect of the lower amount of equity employed in the business.

If the mechanism applies to the cost of debt expressed as a percentage rate, then there is still a significant risk that customers could lose out unjustifiably. This would occur, for example, if the company was to refinance itself using a structured debt approach whereby part of the debt is low-risk, low-rate as the debt assumed in the determination; and a further tier of debt is higher risk, higher rate, and carries some of the risks that are attributed to equity in the regulator’s determination. This could be a reasonable structure to adopt because it has some advantages in terms of corporate control (it can give debt holders powers to control management, which might be considered more effective than control through equity) and has some tax advantages.

If such a structure is adopted in the context of a regulatory partial
pass-through of the cost of debt, then customers could end up paying twice for part of the remuneration that investors receive in respect of risk: the passed-through cost of debt would now reflect some financial risks that were included in the determination’s cost of equity, but the cost of equity would not have been reduced.

In both cases, customers would end up paying more – not because market conditions have changed but because of the particular way in which the company has chosen to structure its finances. This is not consistent with the stated objective of the scheme.

**Document reference:**
GD17 Draft determinations, pages 224 and 225

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| 3 | **Title:** The inclusion of a “collar” in the connections incentive mechanism  
**Summary:**  
The Utility Regulator has included a connections incentive mechanism in its draft determinations. The mechanism involves a reward for each new owner occupied domestic property connected during the GD17 period. The design of the mechanism includes a “collar”, which could expose customers to the risk of paying excessive rewards for connections in the event that the company fails to meet its target by more than 50 per cent.  
**Full description:**  
The Utility Regulator’s draft determinations for the three companies include a connections incentive scheme for owner occupied (OO) domestic properties. This incentive is meant to encourage the company to connect as many passed properties as feasible. The regulator has set a target for the number of OO properties to be connected in each year of the price control period. If the company achieves the target, it will receive a fixed amount per connected property (for FE and PNGL, this is £550 in 2017 and for SGN this is £520 in 2018, and this reduces for all three companies to £420 by 2022).  
The incentive is not payable on the first 25 per cent of the target in the FE area and 33 per cent of the target in the PNGL area, because the regulator believes that these would happen anyway without any
marketing effort by the company.

If the company fails to achieve the target, it will receive a progressively lower amount per property. For instance, the incentive amount per property would be reduced by 20 per cent if the company fails to meet its target by 20 per cent (and achieves 80 per cent), and by 30 per cent if it fails its target by 30 per cent, and so on. However, the maximum reduction in the incentive amount is set at 50 per cent (the “collar”). For instance, if the company fails to meet its target by 60 per cent (i.e. it achieves 40 per cent of its target), the incentive payment per property would not be reduced by more than 50 per cent.

We see no rationale for the collar of 50 per cent to be applied. If the purpose of the scheme is to encourage as many new connections as feasible, the scheme should be recalibrated such that the amount is progressively reduced to zero up to the minimum number of connections (zero for SGN, 25 per cent of the target for FE, and 33 per cent for PNGL).

**Document reference:**
GD17 Draft determinations, pages 75 and 76 (FE), 105 (PNGL) and 142 (SGN)

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4 **Title:** Treatment of under-recoveries of revenue accumulated by FE  
**Summary:**

The Utility Regulator has proposed a reduction in the rate of interest charged by FE in relation to accumulated under-recoveries. While this is an improvement, the regulator has not explained the possible near-term impact on customer charges nor does it appear to have considered measures to soften the blow to customers.

**Full description:**

FE has been applying charges that have recovered less than their allowed revenues in the past. This means that, by the end of 2016, FE is expected to have accumulated an amount of £13 million (in 2014 prices) that it could recover through charges to customers. For any amount that remains unrecovered, customers are liable to pay interest every year, either through their charges in that year or through additional liabilities in the future due to decisions made at
previous price control reviews.
Within the context of revenue controls, some under- or over-recoveries may be inevitable, because it is difficult to accurately forecast consumption volumes and customer numbers at the time of setting tariffs. In the event of an under-recovery, the company would need to set aside some capital to finance the shortfall until it can be made up through higher charges in the future (if that is permitted).

The regulator had previously allowed FE to charge interest of 7.5 per cent plus RPI inflation (the WACC) on accumulated under-recoveries. This is likely to be higher than the short-term borrowing cost for a typical regulated network utility. The regulator now proposes to apply a rate of LIBOR plus 2 per cent for any new under- or over-recoveries in the GD17 period, which is likely to be less than 7.5 per cent plus RPI inflation.

In relation to the historical accumulated under-recovery of £13 million, the draft determination has put forward two options.

**Option a** would allow FE to continue earning a rate of return on the old accumulated under-recovery until it is fully recovered. Although the draft determination document does not explicitly say so, we assume that the applicable rate of return would be LIBOR plus per cent.

**Option b** would incorporate the accumulate under-recovery into the regulatory asset value, effectively allowing FE to recover the under-recovery over an extended period (of 29 years), while earning the WACC applicable in each year on any outstanding amounts.

Option a is the regulator’s preferred approach. The draft determination says that the regulator expects the under-recovery to be fully cleared by 2019 (in three years).

Clearing the accumulated under-recovery of £13 million over three years would add over £4.3 million a year to charges (on top of allowed revenues) up to 2019. This would increase FE’s allowed revenue (and prices) in each of these years significantly compared to the headline numbers reported in the draft determination.

Although we support the proposed reduction in the interest charged by FE, we do not think that the regulator has properly explained the possible adverse short-term consequences of this proposal for
Title: The profile adjustment mechanism

Summary:
The profile adjustment mechanism transfers revenue from current customers to future customers. The mechanism, along with the revenue control approach, leaves future customers unduly exposed to the risk of high charges if customer numbers in the future are lower than they are predicted.

Full description:
The Utility Regulator’s draft determinations include a profile adjustment mechanism.

This mechanism uses forecasts of various parameters (customer numbers, gas consumption volumes, capital expenditure, operating expenditure, depreciation and RPI inflation) up to 2045 for FE, 2046 for PNGL and 2057 for SGN to determine their allowed revenues for the current price control period. An effect of the mechanism is that future customers would pay a greater share of the cost of expenditure incurred by the companies today.

As a consequence of this mechanism, prices at the start of the GD17 period would be lower than they would have been otherwise and prices in the future would be higher than they would have been otherwise.

Lower prices today might encourage more customers to connect to the network, and increase consumption – spreading the costs associated with expanding the network across a greater number of (future) customers.

This is fine as long as the forecasts of customer numbers and volumes are reasonably accurate. If actual customers numbers and volumes in the period between in the later years of the forecast horizon turn out to be lower than currently predicted, things could go wrong (as it has done in the past with PNGL).

If actual connection numbers and volumes turn out to be lower than expected, deferred revenues will have to be recovered from a
smaller pool of customers and volumes – making prices higher than they are predicted now (and they are already predicted to be higher than current prices). Higher prices might discourage connections and volumes, making the problem worse. In the worst case scenario, the mechanism would lead to a vicious spiral of increasing prices and lower volumes until the company is unable to recover its costs.

We do not think that the profile adjustment acts in the interests of customers.

We think that a tariff control (instead of a revenue control) approach would move some of the connection and volume risk from customers to the company – and provide sufficient incentive for companies to increase connections and volumes (but only when it is efficient and commercially viable to do so).

**Document reference:**
GD17 Draft determinations, Section 10 - Financial aspects

| 6 | **Title:** The extension of the forecasting horizon for FE from 2035 to 2045  
**Summary:**  
The draft determinations include a proposal to extend the profile adjustment period for FE by changing its forecasting horizon from 2035 to 2045. This increases the risk to customers from forecasting errors.  
**Full description:**  
The Utility Regulator proposes to extend the forecasting horizon for FE from 2035 to 2045. Under the profile adjustment mechanism, this has the effect of deferring FE’s revenues over a longer period.

The profile adjustment mechanism could encourage the take-up of gas today by shifting revenues into the future, thereby keeping prices today lower than they would have been otherwise.

The profile adjustment mechanism is inherently risky because it relies on forecasts of customer numbers and volumes a long way into the future. If these forecasts turn out to have been too optimistic (too high), there is a risk that prices in the latter years of the forecast horizon would have to go up to unsustainable levels.

As noted in the draft determinations, extending the forecasting
horizon for FE reduces prices today compared to what they might have been otherwise. However this also increases the risk in the future to customers and the company from forecasts that turn out to have been too optimistic. It is hard enough to make good forecasts of volumes to 2035. Extending the period to 2045 increases the uncertainty around the forecast and exposes customers to additional risks.

**Document reference:**
GD17 Draft determinations, Section 10 Financial aspects