Assessment of Potential Financing Options for Utility Networks

Discussion Paper December 2010

Introduction

Phoenix Natural Gas (PNG) is pleased to respond to the First Economics (FE) paper "Financing Networks"[1]. We agree that the debate about how regulated networks should be financed in Northern Ireland is extremely important, particularly for those that have already made a substantial investment in Northern Ireland.

Our response sets out a number of concerns we have with FE's paper, both with the analysis undertaken and the proposals it has reached. In summary, we believe it falls a long way short of the "price control best practice" that Utility Regulator (UR) is seeking.

- We believe there are fundamental flaws in the FE analysis that leads them to identify a problem where it is unclear one exists.
- Regulatory stability would be sacrificed and financial markets may struggle to understand a financing model that would be unique to Northern Ireland and differed from understood "price control best practice". As a consequence, FE's proposals could be expected to increase the cost of raising finance in Northern Ireland.

We are therefore pleased that UR has put this paper out for discussion and are encouraged that UR has made clear that the views expressed are those of FE, and not UR. We would have grave concerns if UR were to follow the suggestions described in FE's paper.

Our response is structured as follows. We start by looking at FE's proposition that there is a problem in the way regulated networks are financed. We then consider the two options FE puts forward to fix this perceived problem.

The current model – is there a problem?

FE reviews the current model of regulated network finance and concludes that it results in sub-optimal financing. It tackles this from two fronts: first that there are *a priori* reasons to think it would result in a sub-optimal outcome and second that is has found evidence to substantiate such a proposition. We have concerns about

[1] First Economics, 30 November 2010, *Financing Networks – A Report Prepared for the Utility Regulator.*

both aspects of the paper.

The first point we would make is that the prevailing UK model for utilities (of private sector ownership and financing) is widely acknowledged to have developed significant benefits to customers over the last 25 years. For example, Ofwat noted:

> "The existing investor owned, equity financed model has led to greater efficiency of the water companies and has brought big gains to customers and to the environment since privatisation in 1989"[2]

Since stability in regulatory policy is an extremely important part of achieving efficient financing, for the regime to be changed (as FE is proposing) the onus of proof that there is something that needs to be fixed must be high. We do not think FE comes close to meeting such a hurdle as:

- there are no obvious reasons to believe that financial markets would mis-price the level of risk involved in utility business operations, so it is not clear why sub-optimal financing decisions would result; and
- the evidence of sub-optimal financing presented by FE is not robust and can not be used to support a call for change.

We set out further details supporting each of these points below.

The operation of financial markets

FE's basic proposition is that regulated networks undertake different and distinct business activities that result in markets misjudging the overall risk of the business. We do not think this is the case.

FE identifies utility networks as being composed of three businesses (operating, projects and capital recovery) that undertake distinct activities, with potentially differing risk characteristics. We would observe that it is a rather outdated view. The distinction between the operating and project activities has increasingly become blurred as networks become smarter and management must make efficient choices between operational decisions and investment.

FE then suggests that the grouping of these activities within a single entity could lead to sub-optimal financing decisions as markets misjudge the overall risk of a regulated network. However, we think there are strong reasons to believe that this is not the case.

First, many businesses could be characterised as being comprised of several distinct activities, with different risk characteristics. For example, a house building company would typically be involved in investment activities (the purchase of parcels of land), construction activities, and then a retail business to sell the completed homes. This is the norm and financial markets are experienced in dealing with businesses which

[2] Ofwat, 2000, *The proposed restructuring of the Kelda Group, a preliminary assessment*, page 4.

combine several activities. Indeed, if such separation resulted in a benefit then commercial companies would be expected to change their structure to take advantage of it.

Second, the debt and equity financial markets that utilities are part of are large, sophisticated, liquid and mature. Financial markets can be expected to address any arbitrage opportunities resulting from sub-optimal financing decisions.

- The current utility financing model has been in operation for almost 25 years. In this time, the investment industry has developed a good understanding of the activities utilities undertake, and their risk characteristics.
- The sector is large, with the total regulatory asset base in excess of £130 billion for the UK.[3] There have also been frequent acquisitions and capital restructurings. For example, the English water and electricity sectors have been through almost 10 acquisitions within the last decade.
- There have been repeated financial innovations specifically designed to exploit arbitrage opportunities as they arose. For instance:
    - the water sector in England and Wales has seen a number of companies choose to operate under a thin-equity model;
    - a number of mutual or not-for-profit business models have been proposed by private sector owners at various points in time;
    - private equity has been an active investor in the sector, looking to exploit opportunities to improve performance (financing or otherwise); and
    - several companies exploited the opportunity to purchase competitively priced credit wrapping during the mid-2000s, when this allowed cheaper overall debt financing compared with un-wrapped issuance.

Given all of these factors, there is no strong reason to believe that the financial sector has allowed sub-optimal financing structures for utilities to persist.

The evidence presented on utility financing

Given the radical nature of some of the proposals put forward by FE and the evidence of active and innovative financial markets, the evidence to support the view that utility financing may be sub-optimal must be compelling and robust. The evidence presented by FE is neither.

FE considers that it is hard to rationalise the scale of equity (in particular its growth) with the rising cost of debt. To justify this, FE looks at the ratio of equity capital in

[3] Based on figures in the latest Ofwat, Ofgem, CAA, ORR and Competition Commission decision documents for a range of regulated utilities in the UK.

regulated utilities' financing structure to the operating and capital cost allowances of those businesses. The fact that this metric has increased since privatisation for the companies that it analyses is a central part of their reasoning for concluding that current utility financing structures are sub-optimal.

We do not consider this measure is fit for purpose.

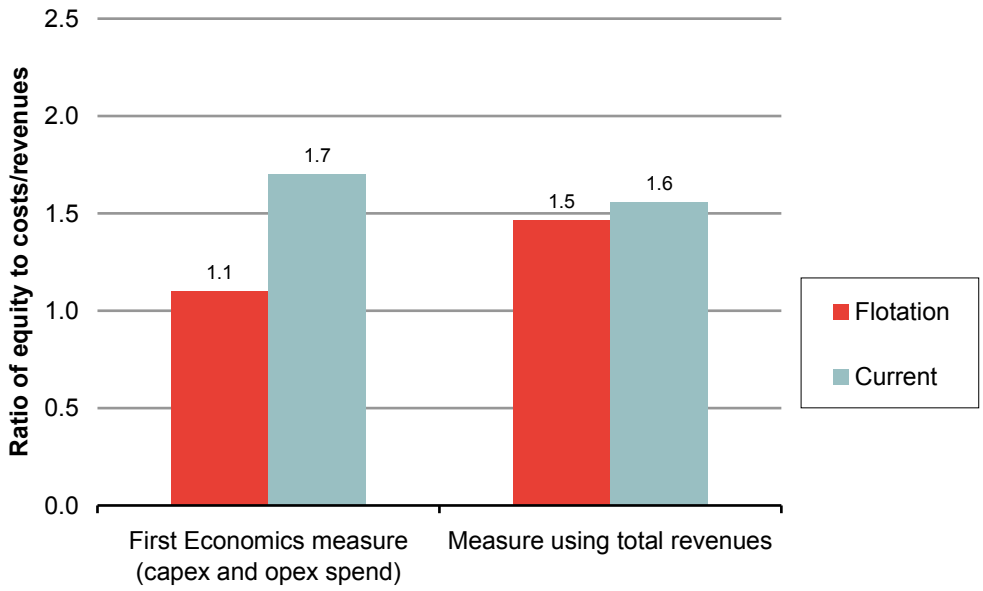
First, it ignores other explanations for the change in risk associated with managing these costs over time. For example, as firms have taken out the inefficiencies present at flotation and moved to the efficiency frontier, the risks associated with cost management will be expected to increase. This is because costs will be more likely now to be driven by factors outside of the management's control.

Second, it simply looks at two points in time and therefore fails to capture how the sector has actually evolved during the period. Further, the starting point is privatisation, a time where significant legacy issues associated with state ownership were yet to be unwound. Therefore, if you look at the trend in equity growth for the England and Wales water and sewerage companies, you will see that although it increased in the period immediately following privatisation, it has largely been in decline for more than a decade. FE's analysis fails to capture this change in trend.

Third, the measure itself is flawed. This is because, as FE acknowledges, operating and capital costs do not account for the full range of risks faced by a regulated network. Financing risk, revenue risk and regulatory risk will also all play a part. An alternative measure to test the robustness of the FE findings would therefore to be to compare the revenue allowances of the companies (which include the cost of financing) with the absolute level of equity. We present a comparison of this measure, with the more restrictive FE measure, for the England and Wales water and sewerage companies[4] in Figure 1.

[4] Analysing single company statistics (such as FE has done for NIE) is particularly problematic as it is hard to draw any generic conclusions given the noise created by company specific factors.

Figure 1. The ratio of equity finance relative to costs and revenues for water and sewerage companies



Source: Figures on value of equity taken from the First Economics report. Figures on total revenues calculated from: Centre for the study of regulated industries statistics series, 1992, *Water services and costs 1990/91;* Ofwat, 2010, *Financial performance and expenditure of the water companies in England and Wales 2009-10;* and National Statistics data on RPI.

The revenue allowance metric (including the cost of finance) shows a smaller change compared with the more restrictive metric presented by FE. The ratio has risen only slightly over the period: these companies have broadly the same equity in their corporate structure, relative to the potential scale of risk they face, compared with when they were first privatised. Just as FE does not claim that the measure it uses is perfect, we also make no such claims for our measure. But it does show that it would be exceptionally bad policy to base any change to the way regulated networks are financed on a single measure that you know to be an imperfect approximation.

Another way of looking at the issue is to consider the financing risk faced by investors separately from other forms of risk they face. The FE paper recognises that, at the time of privatisation, utilities typically had relatively little debt finance. However, this has now changed, with it being common for a significant proportion of the asset base to be financed by debt.

While this may reflect efficient financing decisions, it still means that both equity and debt investors face greater refinancing risk than if the proportion of debt was lower. The scale of the change can be seen by looking at how the gearing ratios (i.e.

debt to total asset) have evolved over time. For the water and sewerage companies this has gone from about 3% debt shortly after flotation to around 69% by 2010[5]. This tells you there will have been a large increase in the financing risk of the companies since flotation and it would be inappropriate not to take this into account. Worsening credit ratings, and an increase in the cost of debt financing, are entirely consistent with this large increase in gearing. FE fail to consider what has happened to the overall weighted average cost of capital during this period.

We would therefore challenge FE's "suspicion that regulated networks are not being financed in an optimal way"[6] and suggest that it has failed to make a convincing case that reform is required. Further, we would be concerned that the proposals it puts forward for reform could result in an increase in costs to the industry. With the proviso that we remain unconvinced of the need for change, in the remainder of our response we look at the two options FE presents for reform of the utility financing structure. These are for:

- the existing RAB to be restructured, and refinanced; and
- third parties to be involved in delivering major projects.

Creation and separation of RABco

FE proposes a model that would create, and then clearly separate, an entity that would hold the "post-privatisation RAB additions". It characterises this proposal as an evolution of Dieter Helm's idea for a split cost of capital, where the innovation is that the RABco would be repackaged as an entirely separate business. The benefit it sees to this is that the financial obligations of RABco would be entirely separate from the remaining regulated network business.

We have a number of concerns with this proposal. In particular, we think it would challenge regulatory commitment to legitimate property rights of investors, raising future financing costs. Further, putting Northern Ireland on a different model to other international precedent is also likely to raise the cost of raising finance here. We discuss these concerns, and other potential downsides of this proposal, below.

Regulatory stability

It is recognised that regulatory stability keeps financing costs down: markets value consistency. Of particular importance is anything that calls into question the recovery of the RAB. This is something that Ofgem clearly recognised during its recent RPI-X@20 review.

> "The RIIO model is designed to provide certainty and transparency about

[5] Figures for 2010 taken from the First Economics report. 1990/91 figure for water taken from: Ofwat, *1994 report on the financial performance and capital investment of water companies in England and Wales.*

[6] FE, 2010, *Financing Networks*, page 12.

> how the framework will work in the future. As part of this, we will seek to avoid any retrospective/ex post adjustments to the package agreed in final proposals and licence modifications as this could undermine regulatory commitment."[7]

Ofgem also stresses the importance of maintaining regulatory commitment to legitimate property rights.

> "We recognise that there are limits on the extent to which we can require network companies to transfer assets that they have invested in particularly where there was a legitimate expectation, when they invested, that they would retain ownership of these assets for the foreseeable future."[8]

Ofgem explicitly considered the split cost of capital approach in its RPI-X@20 consultation. However, it decided that it was appropriate to maintain the existing approach to setting the cost of capital based on the whole RAB being financed using a mixture of debt and equity, with a notional regulatory assumption on the level of gearing. In explaining its reasoning for adopting this approach rather than a split cost of capital, it stated that

> "We appreciate a number of the concerns that this model is aimed at addressing. However, we think that Sustainable Network Regulation[9] addresses the issues raised without the disadvantages associated with creating new boundaries between RAV and new investment, or between RAV and price control expenditure."[10]

If anything, the evolution of the split cost of capital proposed by First Economics would make the disadvantages that Ofgem cite even more pronounced.

In this context, it is also important to keep in mind the relative size of Northern Ireland, and the costs that could emerge if the regulatory model in Northern Ireland differed from international precedent.

As we have set out earlier in our response, financial markets have gained experience of dealing with the standard utility financing model. This reduces the chance that they misprice the risk of these companies. Change the model for only a small subset of companies (i.e. those in Northern Ireland) in isolation of other regulatory jurisdictions and you increase the risk that the model would not be understood and, as a consequence, the cost of finance for regulated companies in Northern Ireland would increase. Our experience in dealing with capital markets certainly supports

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7 Ofgem, 2010, *Handbook for implementing the RIIO model*, page 29, para 5.6.

8 Ofgem, 2010, *Handbook for implementing the RIIO model*, page 118, para 13.13.

9 Sustainable Network Regulation has been defined by Ofgem to include a transparent contract with network companies that sets out what they are expected to deliver and provides clear financial incentives for them to deliver long-term value for money for existing and future consumers.

10 Ofgem, 2010, *RPI-X@20 Recommendations: Implementing Sustainable Network Regulation*, page 125, para 12.7.

the view that they show most caution about the non-standard features of the regulatory model in Northern Ireland.

The role of debt finance

FE claims that "shareholders and customers should – financially at least – be indifferent to the changes we are applying to the network."[11] This is not the case. The debt financed portion of the RAB plays an important role in bearing some of the risk associated with utility financing, and also in the governance arrangements of utilities. By removing a large part of the existing RAB, the resilience of the industry's financing structure would be reduced.

- Under the current model, if a company were to face a severe shock that stretched capacity of its equity financing, the company's debt financing would typically be restructured so that the company could continue operating. If this portion of finance was removed from the business, and the business was then hit by a shock that exceeds the available equity, no such financial restructuring could occur. Instead the taxpayer or customer would need to meet the difference.
- Debt investors also typically play an important role in the governance of utilities, given their prominent role in financing the business. Bond issues are typically accompanied by a long list of restrictions that are placed on the business. In addition credit rating agencies are currently very active in researching the companies and this would also be substantially reduced if FE's proposals were adopted.

The role of incentives to minimise debt costs

Under the existing regulatory framework, investors have an incentive to minimise the cost of debt finance. This is achieved through the fact that the RAB is financed by the private sector under the structure of its choice, but remunerated by the regulator using a separately estimated benchmark for the cost of finance.

However, the value of these incentives would be weakened under the proposed refinancing. Under the FE proposal, the debt portion of the existing RAB would be refinanced and the costs of repaying this refinanced debt passed directly thorough to customers, potentially with a government guarantee in the event of any interruptions in revenue collection. This refinancing would presumably involve a debt instrument and maturity chosen by the regulator (or government). The proposal therefore implicitly transfers the risk associated with making a poor financing decision onto customers. Depending on the instrument chosen, the proposal could involve being tied into a particular financing structure for a long period of time, which could prevent customers from benefitting from potential reductions in financing cost that may arise thanks to future innovations.

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[11] FE, 2010, *Financing Networks*, page 24.

Transaction costs

FE implicitly assumes that existing debt could be repaid by utilities at face value. Whether this is possible will depend on the conditions put in place when the debt was issued. If there is no option to repay the debt early, then utilities could only buy it back on the open market. In this case, they may not be able to re-purchase it at face value if:

- the investors who hold the debt would prefer to continue holding the debt as part of their portfolio, and therefore require a premium over market values; or
- market values of the debt have risen above its face value, which will be the case if interest rates have fallen since the debt was issued.

There would also be additional transaction costs (such as investment bank fees) associated with this refinancing that FE does not appear to have taken into account.

Involvement of third parties in project delivery

FE's other proposal is about increasing third party involvement in the financing and delivery of major projects. This proposal envisages a situation where the regulator identifies specific network requirements, and then runs a procurement process for the design and delivery of those projects. As FE itself acknowledges, this proposal is less about a solution to address any particular financing issues and is more about project procurement and delivery. FE note that any potential financing benefits would depend on:

- the third party being contracted to develop the assets being better placed to manage the risks associated with that construction[12]; and
- the project being adequately separable from the risks associated with existing assets, either naturally or through arrangements that can be put in place with the main network asset owner.

We do not dispute the principle that benefits can be delivered from third party procurement. However, its usefulness as a policy depends on finding projects of a sufficient scale to cover the additional costs of such an approach that are also sufficiently separate from the existing network activities. Indeed, this was the blueprint for the development of the gas industry in Northern Ireland. However, this strategy was based on tendering whole activities that were clearly separable on both functional and geographic lines, and were of sufficient scale to cover the costs associated with separate tendering. If these conditions cannot be met then the

[12] We also note that FE's Figure 3.2 gives the mistaken impression that "low financing costs" are necessarily associated with the operational phase immediately following construction. The risks associated with the operation of the gas distribution network in Northern Ireland will continue until a sustainable market has developed that is of a sufficient size to allow recovery of the RAB.

policy should be more of a backstop in the event that the regulator has sufficient reason to suspect a company is not undertaking its investment efficiently.

Scale of projects

FE recognises the significant transactional costs and difficulties associated with the third party procurement option. Incurring such costs only becomes worthwhile when the transaction is large. The potential threshold for third party delivery suggested by FE of £50m is far lower than the size of projects involved in third party procurement examples currently being tendered in GB.

- Ofwat did not require tendering of the recent £256m of expenditure associated with development of the Lee Tunnel by Thames Water. However, it is looking at alternative delivery options for the Thames Gateway Tunnel project which is expected to take until 2020 to complete, and involve up to £590m in capital expenditure by 2015.[13]
- Ofgem is using a process of competitive tendering for the offshore transmission lines. The winners will own and operate the lines for a 20 year period. Although the size of the schemes vary, they are generally in the order of £300m and above.

There may also be higher debt transaction costs associated with thresholds of the level suggested by FE.

Given the scale of the gas distribution sector in Northern Ireland, we do not see scope for further use of competitive tenders. However, we acknowledge that the scale of investment required in the electricity sector may be more conducive to third party tendering.

Separability of projects

The FE proposal does not give any guidance about how projects could be identified for third party involvement. The need for the regulator to identify, and separate, particular projects might introduce additional inefficiencies in design and delivery, since trade-offs with other network management decisions could no longer be made.

The loss of co-ordination benefits is likely to be more significant for projects that interact with other network decisions. For many network projects, network requirements can be delivered through a range of different options. For instance, if a water company needs to increase the volume of water available to the network, it could either:

- build new reservoirs;
- invest in addressing network leakage; or

[13] Ofwat, 2009, *Future water and sewerage charges 2010-15: Final determinations*, pages 63 & 71

- purchase water from a neighbouring network, if available.

Once a decision is taken to separate a project from the rest of the network and procure it to a particular specification, the possibility of reducing costs by changing the chosen approach to delivering network requirements is likely to be lost. Unless the requirements the project addresses are entirely separable from other potential network decisions, then involving third parties directly may rule out other potential innovations in delivery which could reduce costs. As we noted earlier, it is increasingly the case that energy networks should be encouraged to make efficient choices between investment and network operation, which will make effective separation harder.

Other tools of Incentive regulation to encourage efficient design and delivery

Incentive regulation already provides UR with a set of tools that can be used to encourage the efficient delivery of major capital investment projects, including innovation in design. It is therefore already in the interests of utility companies to involve third parties wherever efficiencies can be delivered through such an approach.

Instead the option to require competitive tendering for smaller schemes should be applied only as a back-stop where a regulator has sufficient reason to believe that a network is failing to make best use of tendering. This is the approach Ofgem has taken in RIIO.