



## **Financing Options for Utility Networks – A Discussion paper**

**A response by EirGrid**

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## **I Introduction and Background**

1. In December 2010 the Utility Regulator published a discussion paper by First Economics examining alternative means of financing network infrastructure. The First Economics paper raised a number of interesting issues concerning the method of financing, delivery, the risks faced and the level of regulatory commitment.
2. Remuneration of utility infrastructure is a significant component of household bills. It is therefore important customers pay no more for the financing of utility infrastructure than is necessary. EirGrid welcomes the opportunity to comment on this paper with a view to advancing thinking in this important area. EirGrid does so as a licensee in both the Republic of Ireland, and in Northern Ireland through its SONI business, as well as in its capacity of the operator of the Single Electricity Market across the island.
3. Northern Ireland has interesting experience in models of alternative ownership and funding structures in the form of the mutualised Mutual Energy Limited (MEL) and as a GoCo (NIW); both bring different dimensions to their regulation relative to a privatised utility; both may be appropriate in certain instances and not in others. EirGrid also has experience of developing a highly leveraged regulatory backed asset at low financing cost through its investment in the East West interconnector. Through this first-hand experience, EirGrid is well placed to contribute to this debate.
4. The First Economics paper raises two propositions to explore and asks whether either of these might ultimately result in lower overall costs:
  - a. Separating out major investments from network infrastructure companies so that third parties might play a greater role in delivering and financing these; and
  - b. Separating out the ownership of the RAB so that it can be financed separately from other parts of the business – the RABCo idea.
5. In exploring the issues we follow the structure of the paper. In the following sections:
  - a. we set out the tenets of the First Economics paper and discuss the degree to which risks are shared between regulated utilities and customers;
  - b. we explore whether the regulatory toolbox is already well equipped to incentivise outsourcing where it is economical to do so;
  - c. we then look at whether or not such separation, on a Design, Build and Finance basis has the potential to lower overall financing costs; and
  - d. finally we explore the need for risk bearing capital in the model and discuss the extent to which it is possible to unlock a lower overall cost of finance through alterations to the regulatory model.

## **II The Tenets of the First Economics paper – the degree to which risks are shared between customers and utilities**

6. At its heart the First Economics paper is concerned both with the level of risk bearing capital required by network utilities and the remuneration of capital for activities, particularly sunk investments, which it perceives to be very low risk.

In relation to the first it notes that there is a significant amount of risk bearing equity on the balance sheets of the network businesses; while this is true it is nonetheless also true, and perhaps more significant, that the underlying gearing Net Debt: RAB for such businesses has generally been increasing over time.

In relation to the second the First Economics paper separates out the risk of the utility into:

- Operational Activities – Medium Risk
- Project Activities – High(er) Risk
- Recovery of Past Investments – Low Risk

This represents a useful lens for thinking about these issues.

7. Yet, as the paper notes, the regulatory model largely rewards all risks through a single and relatively blunt instrument: return on equity, or risk bearing capital, present in the Regulatory Asset Base. The paper asks the question, that if the risks were somehow parcelled differently would they result in a subsequently lower overall cost to consumers.
8. Many of the ideas in the First Economics paper, and indeed the premise behind alternative ownership models such as those adopted in the case of Mutual Energy Limited and Network Rail, concern themselves with the balance of risk sharing between the network utility and consumers.
9. We believe that where the industry is a consumer necessity and the utility consequently “too big to fail” *all* risks are ultimately paid for by consumers. The assumed risk sharing between the business and consumers is therefore primarily a question of the degree to which the consumer pays an insurance premium (through WACC return which means equity holders absorb and benefit from some of the risks in the first instance) as opposed to consumers bearing the entire adjustment necessary if, and when, the risk crystallises.
10. Therefore repackaging of risk through ownership structure with potential changes in leverage cannot eliminate the risk; simply reallocate between parties (i.e. between utilities and consumers) and over time (i.e. between consumers today and consumers in the future). To the extent most risk is allocated directly to consumers there is a consequential loss of power in any incentive directly to the party i.e. the utility who manages that risk. EirGrid believes this is an important consideration.
11. Nonetheless we are interested in exploring whether there are particular facets of the regulatory model which lead the market to demand a greater return than might otherwise be the case. We explore the first proposition – can further outsourcing reduce costs – in the next section.

### **III Separating Out and Third Party Contracting of Major Investments**

#### *III.1 Outsourcing – when is it appropriate and when not?*

12. The First Economics paper considers the impact of third party contracting out of major investments both from the perspective of overall efficiency of delivery, and on the impact on financing costs. In relation to when it is most appropriate to contract out delivery we would note the following points.

13. Risks should, as always, be allocated to those who can best manage them. The utility is likely to be better able to manage the risks to the extent there is a significant requirement for consistent inter-operability with the network more generally and the degree to which the expertise is more present in the utility than in the external marketplace. Thus, where interfaces between the infrastructure project are relatively few, and where the level of expertise within the utility is less than that within the general marketplace in relation to managing the risks involved, it is likely the most appropriate outcome is one which involves the packaged outsourcing of the project. Conversely when the work is more concerned with the interoperability of networks, or where the specialist skills and experience in relation to design, stakeholder management and consenting best lie within the utility then it remains the appropriate choice that such works are carried out within the utility itself.
14. Transactions costs and hold up issues in the overall contracting out model may not be inconsiderable and should not be overlooked; these issues are at the heart of the very nature of the firm itself and help determine which activities ought to be outsourced and which carried out in house<sup>1</sup>. It is important in considering the outsourcing of projects that not only construction costs but also total lifetime costs are considered.
15. There are many successful outsourced turnkey projects and EirGrid itself has some experience in relation to these; EirGrid is a largely outsourced company retaining in house only the core skills; EirGrid believes it is precisely the sort of model advanced by EirGrid, subject to full open market public procurement and unburdened by any legacy arrangements, which delivers for customer. Nonetheless, completely outsourced projects are not suitable in every instance and may be particularly suited to large scale discrete projects, such as was the case for the East West interconnector.
16. In general we believe the regulatory toolbox is already well equipped with the tools to help ensure appropriate decisions are made through the traditional regulatory incentive of rewarding companies for efficient delivery, and penalising them for over-run. Particularly if these incentives are structured such as to be more attractive than simple RAB growth for the utility then this should assist in determining the most efficient outcome. It is not clear to us that any additional actions therefore need to be taken in terms of the development of the regulatory model to encourage greater outsourcing.

### III.2 Outsourcing - the Impact on Risks and the Cost of Finance

17. Allied to the dimension of the efficiency of the outsourcing decision is its impact on the allocation of risk and cost of finance. Where work is outsourced third parties will require remuneration both for any risks they take on, including potentially higher construction risk, as well as reward for the co-ordination which they bring. This is likely to lead to an overall higher capital cost of delivery by a third party than would otherwise be the case were the utility to carry out the work<sup>2</sup>.
18. In relation to the financing costs the paper itself recognises that if the activity is separated out that there may be higher financing costs in the construction phase.

*Our experience of standalone PFI/PPP projects suggests that the financing costs of the third party are likely to be greater than the headline WACC awarded by regulators to most, if not all, regulated companies (First Economics Discussion paper: page 17)*

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<sup>1</sup> Coase (1937) – *The Nature of the Firm* and many subsequent contributions.

<sup>2</sup> This assuming a similar level of efficiency in the carrying out of the work by the 3<sup>rd</sup> party and the utility.

And goes on to ascribe this to the greater risk in this phase.

*This is principally because the risks relating to the new assets in the construction phase are likely to be higher than they are on average across the network's existing assets* (First Economics Discussion paper: page 17)

19. This means that the costs of the outsourced projects added to the RAB will, *ceteris paribus*, be higher than were the utility to carry out the work itself as the higher risks are remunerated in a higher capital or acquisition cost up front. The potential prize of lower cost of finance going forward may, of course, compensate for this to some extent. We, however, would concur with the First Economics analysis that the overall net effect is indeterminate and would have to be assessed on a case by case basis.

20. The paper itself supports this conclusion:

*Taking an average of the whole life financing costs for the assets, including both construction and operational phases, may give us a figure close to the WACC of the network* (First Economics Discussion Paper: page 17)

21. However, EirGrid believes that rather than easing financeability as is suggested in the paper, issues of financeability may in fact be exacerbated due to the need to "reward" up front the higher crystallised capital cost when the asset is purchased rather than over time in a cost of capital which blends together higher risk construction activities with lower risk remuneration of past investments. This means a potentially greater "cash requirement" earlier in the lifetime remuneration of the asset with associated impact on financeability.
22. We turn our attention to the second First Economics proposition – that of refinancing through a RABco in the next section.

#### **IV Separating out and Refinancing Past Investments– the RABco Concept**

23. The second proposition in the First Economics Paper is concerned with the idea that the cost of the risk when activities are separated is somehow less than the cost of risk when considered as a whole. They therefore suggest a transaction with a RABco to parcel out the historical sunk investment which they propose be re-financed at a lower cost of capital. They also propose the removal of regulatory risk from the model; effectively substituting the implicit guarantee provided by customers through the regulator with a more cast iron, potentially legally enforceable, guarantee.
24. We believe one must start from the premise that the market is the best judge of pricing risks; the question is why then is the market demanding the sort of premia which are observed?
25. EirGrid believes that the cost of capital being sought by debt holders in particular is driven by Credit Rating agencies assessment of the risk that such debt holders will be repaid. While the agencies take into account qualitative factors they are nonetheless also heavily influenced by a series of "standard" quantitative metrics (Gearing, Interest Cover, Funds From Operations etc..)
26. The regulatory model provides an income stream through tariffs consistent with a real rate of return with inflation being compensated through an indexed RAB; this despite the fact that the utility faces a nominal cost of borrowing. This gives rise to a "cash squeeze" in the regulatory

model and means that greater amounts of risk bearing capital must be held, and remunerated, than would otherwise be the case.

27. This means that in meeting any given credit rating test, it is rarely the level of gearing of the regulated utility which “bites” first in terms of financeability, but more generally interest cover. The *strain* on interest cover means the company can only achieve a lower credit rating than would otherwise be the case were a nominal return applied; correspondingly the market demands higher compensation consistent with the credit rating assessment. Effectively debt holders bear a liquidity risk that they will not, as a result of poorer cashflow ratios, be remunerated in a timely fashion. A simple stylised illustrative example of the effect of this cash squeeze is provided in the box below.

#### **Box 1 – The Effect of the Real/ Nominal “Cash Squeeze”**

This box provides an example of the effect of the real/ nominal cash squeeze on interest cover. It is based upon not atypical assessments by regulators of the regulated cost of finance for network utilities.

##### Example 1: Applying a real WACC return

Real Cost of Debt = 3.5%  
Real Cost of Equity = 6.9%  
Gearing = 65%  
Inflation = 2%

Real WACC (Tariff income stream) = 5% of RAB

Nominal Interest Repayments = 5.57% of Debt Principal  
Nominal Interest Payments = 5.57%\*65% (Nominal Debt \* Gearing) = 3.62% of RAB  
**Interest Cover = Tariff Income Stream/ Nominal Interest Payments = 1.4 times**

While Credit Ratings agencies take into account many qualitative factor nonetheless on Interest Cover alone a business facing these parameters would struggle to be assessed appropriate for an ‘A’ Credit Rating and could be assessed BBB+. BBB+ is not atypical in a regulatory assessment for regulated utilities.

##### Example 2: The same parameters applying a Nominal Return (this is an NPV neutral adjustment)

Nominal Cost of Debt = 5.57%  
Nominal Cost of Equity = 9.03%  
Gearing = 65%  
Inflation = 2%

Nominal WACC (Tariff Income Stream) = 7.1% of RAB

Nominal Interest Repayments = 5.57% of Debt Principal  
Nominal Interest Payments = 5.57%\*65% (Nominal Debt \* Gearing) = 3.62% of RAB  
**Interest Cover = Tariff Income Stream/ Nominal Interest Payments = 1.95 times**

While Credit Ratings agencies take into account many qualitative factor nonetheless on interest cover alone this regulated business would easily achieve a solid investment grade or ‘A’ rating and possibly better.

Moreover, the equilibrium position would be better still as the debt premium would be expected to fall as a result thus further increasing interest cover and this has not specifically been taken into account in the stylised example above.

28. However, while to address the real/ nominal cashflow mismatch is NPV neutral, and potentially NPV positive if a lower cost of debt can be achieved it is likely to have a negative up front tariff impact to provide for the cost of compensating for inflation in repayments. While this can be offset to some extent, through debt re-profiling, there is nonetheless a change in balance between the costs to consumers today and to consumers in the future. There would also be further drawbacks from restructuring such as that proposed in RABco which are outlined in the box below.
29. In certain circumstances, of course, it is possible to structure such an approach. The EirGrid EWIC investment represents largely such an example – with debt re-profiling and annuitising loans mitigating the upfront tariff impact – from project inception, while MEL represents an example for assets already constructed. It is nonetheless not appropriate in every instance and works better for large scale discrete and strongly regulatory backed projects where the consumer is effectively prepared to shoulder the risk.

**Box 2 - Drawbacks of Highly levered Restructuring such as RABco**

- A. **The Need to Separately Remunerate other risks:** To the degree a debt pass through model is employed with limited equity returns it is necessary to remunerate the other aspects of the business separately (project risk, operational risk etc.). It is not clear therefore that the overall risk, and therefore cost, would necessarily be lower.
- B. **Reduced Incentives:** Furthermore, very highly levered businesses see reduced power of incentive through limited or “thin” equity; this leads to a requirement for increased regulatory oversight and limited ability to incentivise efficient delivery, or financing. Incentive based regulation where consumers pass some risk to equity holders who exercise discipline upon the utility through normal corporate governance arrangements has generally been shown to deliver for consumers.
- C. **Tying the Hands of Policy Makers:** As identified in the First Economics paper the necessary guarantees to enable a company to leverage to extent proposed in RABco, and to still achieve a low overall cost of finance would require the customer to enter into binding guarantees for repayment, thus tying the hands of future policy makers.

These drawbacks have been seen in real life experience through the need to provide for substantial debt buffers, or to introduce Management Incentive Plans where no underlying equity return exists. Moreover there is a need for a greater level of regulatory oversight and higher regulatory burden. It is not clear the benefits therefore necessarily outweigh the costs.

30. EirGrid believes it is the “cash squeeze” effect: the liquidity risk which debt holders are demanding through the assessment by credit ratings agencies of cashflow ratios, which is a significant driver of the cost of debt seen today. While we do not believe the potential savings are of the order suggested by First Economics in its paper, nonetheless, we believe addressing the cashflow mismatch – implicit in the RABco model – is the key to unlocking a lower overall cost of finance.
31. In particular we think the savings in the proposed RABco model may be overstated as all risks in the current model are largely remunerated through the relatively blunt instrument of equity return

on risk bearing physical capital; thus, any change to the model would require separate remuneration streams for other risk, such as operational risk<sup>3</sup>. It is important not to overlook this.

32. We believe this addressing of the real/ nominal cashflow mismatch to be at least as significant and probably more so than the removal of regulatory risk<sup>4</sup>. Moreover it can be designed to be compatible with a model which can continue to retain an equity stake and therefore incentive based regulation. Thus the primary benefit of the RABco model – lower cost of debt finance and higher leverage – is achievable without the requirement for a number of the drawbacks – limited incentives, tied hands for policy makers and the need to provide debt buffer provisions.

## Conclusion

33. The ideas within the paper are interesting. They are not however a panacea; this is recognised by First Economics. EirGrid's own experience of EWIC is closely aligned to some of the ideas and concepts – EirGrid would welcome the opportunity to explore the issues further with the Utility Regulator.
34. Further outsourcing may provide benefits in some instances although we concur with the First Economics conclusion that the overall effect on the cost of finance is indeterminate. Moreover, the regulatory toolbox is in our view already well equipped to ensure the business is incentivised to deliver the most efficient approach.
35. It is not clear that the re-packaging of risks in any way reduces the cost of them overall or that the market is not capable of pricing them appropriately in their totality; in particular there are a number of risks/ factors not specifically remunerated in the regulatory building block model (operational risk, reward to innovation etc..) and for which the equity return on RAB currently acts as a blunt instrument; however, to the extent that equity return is altered, and perhaps in any event, these must be provided for separately. Nonetheless there may be inherent characteristics in the regulatory model which mean the market requires higher levels of compensation.
36. The application of real as opposed to nominal returns means regulated companies are constrained to lower leverage, or destined to lower credit rating, than would otherwise be the case were nominal returns applied; regulators must take this into account in periodic price reviews and provide either a higher cost of capital or financeability “fixes” more often as a result. While this was the subject of some debate a number of years ago in the context of the Ofgem/ Ofwat work on Financing Networks EirGrid believes that this should be looked at again as something that has the potential to unlock longer term NPV benefits to customers. Such a change in the model specifically underpins models such as EWIC financing and that for Mutual Energy Limited, as well as any future RABco It is also something First Economics has itself advocated in its other work<sup>5</sup>.

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<sup>3</sup> Such operational activity is particularly important for asset light businesses such as EirGrid TSO, SONI TSO, SEMO. It leads the regulator to need to provide either explicitly for the operational risk through a margin or working capital provision or to seek to address it through an adjustment in the cost of capital for operational gearing or an uplift to the revenue cap; neither has traditionally been the case in Northern Ireland and, while not the core subject of the First Economics paper, the First Economics paper highlights why this must be addressed going forward.

<sup>4</sup> While there remains regulatory risk with the ongoing periodic setting of the cost of capital we would concur with First Economics that the regulatory risk of not providing for sunk investments tends to be relatively low.

<sup>5</sup> E.g. see <http://www.first-economics.com/financeability2010.pdf>; <http://www.first-economics.com/financeability2.pdf>



37. Whether having unlocked the potential for lower costs overall through the closer matching of cashflow requirements further measures remain necessary, or would add additional benefit, is something which would merit further debate in our view only at that point. EirGrid believes that most of the benefits of RABco, with few of the drawbacks, which would otherwise be present, can be achieved by giving effect to this simple measure alone.