



Europe Economics



Responses to Comments

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1 Response to questions

The ACM requested Europe Economics to respond to comments and questions risen by the ACM and some of the stakeholders (this follows from the consultation period closed on 22nd of October).

Two types of comments have been received. Points made by the ACM and points made by Ecorys. Our summary and understanding of the points is presented below.

Points made by the ACM.

- **Taxes:** The ACM has provided the correct taxes to be applied to the WACC (preliminary estimates were used in our report due to the fact that these were not available at the time of writing the report).
- **Single A or BBB investment grade.** The ACM is very interested in the view of EE when it comes to applying single A or BBB+.

Points made by Ecorys

The comments by Ecorys have been translated as accurately as possible by the ACM. Our reply is based on the translation provided by the ACM. We have grouped the main points into the following headings:

- **Risk profile dependent on old vs new networks:** Ecorys claims that there is a need to differentiate the WACC for old and new heat networks (“further analysis is needed of the difference in risk profile of stable heat networks on the one hand and expanding or new heat networks on the other”).
- **Regulatory risk:** Ecorys claims that we ignore other risks for heat suppliers: those “not only a consequence of the NMDA system, but also of other measures to prevent tariff increases”.
- **Other uncertainties.** Ecorys notes the regulatory risks have increased in many respects in recent years.
- **Peer group:** Ecorys claims that the companies in the peer group do not provide a clear picture of the underlying risks. These result in an underestimation of the beta of an average heat company, according to Ecorys. Ecorys produces a comparator group which excludes companies that only focus on electricity, gas or water networks, and those that only produce or supply energy (ERG and Drax).
- **Beta:** Ecorys finds the median beta estimate of 0.39 too low in comparison with the estimate provided by the ACM for the regional network operators of gas and electricity networks. Ecorys also noticed that a Blume correction or Vasicek correction was not applied.
- **Cost of Debt – A rating:** The ACM method is based on the cost of companies with an A rating, and Ecorys claims that this choice is not explained further.
- **Cost of Debt – heat companies.** In Ecorys’ opinion, the cost of debt should be used on the (average) interest that heat companies actually have.

Responses to ACM Points

Taxes: The ACM has provided the correct taxes to be applied to the WACC.

Our answer: The ACM has been provided with an update report that uses the correct taxes for the WACC (preliminary estimates were used in our report due to the fact that these were not available at the time of writing the report).

Single A or BBB investment grade: The ACM is very interested in the view of EE when it comes to applying single A or BBB+.

Our answer: Our usual advice is that the regulatory standard when adopting a notional entity approach is “comfortably within investment grade”, whilst the standard when adopting an actual entity approach is either the actual entity’s credit rating or some specific change to that actual rating if that is required (eg if the entity is required to achieve some higher rating in order to maintain its licence).

The notional entity approach might include, for example, the use of some assigned gearing level (as opposed to the actual gearing) or some accepted set of debt instruments (as opposed to the debt instruments the firm actually uses). It should also be borne in mind that the use of a higher credit rating may make financeability assessments more demanding (so increasing the chance of some financeability adjustment to the WACC). Therefore our general advice is for regulators to look at the sector and decide what an appropriate and achievable notional level of gearing would be for a reasonably efficient company operating in that sector.

Furthermore, it should be borne in mind that firms that have had relatively generous WACC assignments in the past may have thereby acquired comfort to their debts resulting in higher credit ratings. That means, for example, that if the previous price control had (either ex ante or ex post) provided a rate of return to the regulated entity that was above its WACC, the actual credit ratings of that firm’s debt (and also perhaps its actual gearing, as a consequence) might rise. If the previous price control was generous, it would be perverse, from a regulatory perspective to offer an excessive return at the next price control as well.

One other consideration is that in periods of financial turmoil regulators sometimes prefer higher credit ratings to reduce any sense of endorsing risks that could lead to regulated entities ceasing trading, with all the disruption that can create. So, for example, Ofwat adopted a A- rating in its 2009 Price Review. In later reviews Ofwat has assumed a mix of BBB-rated bonds and above – including, but not restricted to, A-rated bonds.

Our inclination here would be to consider the actual ratings of the entities and inform the assumed credit rating (or rating combination) with that, possibly modifying the result by one notch up to reflect differences between heat exchangers and heat networks.

Following ACM’s decision to use BBB+ as the rating for cost of debt and gearing, we have made the relevant changes to the report.

Responses to Ecorys

In the following paragraphs we provide a response to the points made by Ecorys.

Risk profile dependent on old vs new networks: Ecorys claims that there is a need to differentiate the WACC for old and new heat networks (“further analysis is needed of the difference in risk profile of stable heat networks on the one hand and expanding or new heat networks on the other”).

Our answer: We have found some general confusion in the comments made by Ecorys. Ecorys makes reference to different aspects affecting “heat networks” and “heat companies” when the WACC presented is in fact for “heat exchangers”. We understand the similarity and link between exchangers and networks but the points made by Ecorys should carefully reflect this. In particular, if any systematic risk is described for “heat networks” we would like to see the reasons why this is ultimately affecting the “exchangers”. Without such explanation, the criticisms provided by Ecorys do not stand at any ground simply because they are aimed at a different subject of analysis (“networks” and not “exchangers”). In our report, we have showed our reasoning which allows us to conclude that the risks identified for “exchangers” can be also found in “networks”. However, we have not implied anywhere in the report that the reverse causality also holds. Hence, there is no proof that the risks found in “networks” should be found in “exchangers”. Ecorys does not seem to be aware of the difference in causality and hence provides no reasoning that allows a reader to believe a symmetric relationship in the risks between the two different components of the supply chain (“networks” and “exchangers”).

Hence, when Ecorys claims for a difference between old and new heat networks we need to know how this is related to exchangers. But furthermore, we would also like to understand the extent to which this is something specific to the heat and not other industries. We would envisage that differences between “new” and “old” networks happen in many industries and, to the extent that these are also included in our comparators, the risks related to the age of the network should already be included in our assessment of risk (this is, the asset betas).

Regulatory risk: Ecorys acknowledges some of the risks identified in the report, especially the “No More Than Otherwise” principle (in Dutch, Niet-Meer-Dan-Anders or NMDA). However, Ecorys claims that we ignore other risks for heat suppliers: those “not only a consequence of the NMDA system, but also of other measures to prevent tariff increases”.

Ecorys explain how both the NMDA price and the so-called “reasonable price” limit the allowed returns of heat suppliers.

- The “reasonable price” indicates provisions in the Heat Act that have not entered into force bringing the rates to a “reasonable” level can be reduced with a “reasonable” return. This results in an asymmetrical risk for heat suppliers.
- The NMDA can result in a return that is lower than its reasonable return, but it is not possible for heat suppliers to achieve a return that is higher than the reasonable return.

This means that “the expected value of the return in a statistical sense is always lower than the reasonable return determined by the ACM”, according to Ecorys (Ecorys refer to Oxera’s 2009 report which suggests adjustments and applying a real-options approach to take into account of such asymmetrical risks).

Our answer: We understand the risks discussed by Ecorys relating to the regulatory risks. We have addressed these risks in our report. In section 2.3 we describe the maximum price and the “No More than Otherwise” regulatory regimes.

Further, in section 4.4 under “What about the regulatory risk?” we identify the two situations in which the price cap can affect the profitability of heat services, namely when prices of gas delivery drop and heating remains the same, and when prices of heating services increase and gas remains the same. In the report, we explain that these risks are not significant as they are likely to account in “rare” situations.

In general, we would expect the price delivery of both to move in the same direction (heating and gas services are not too dissimilar and any impact in the prices of gas delivery might also be generally reflected in the prices of delivery of heat). In other words we would expect that the price delivery of both is correlated and hence we would expect that the maximum price bound is hardly binding (i.e. does not constraint the revenues for heat services). Therefore, we believe this risk is not relevant (another way to see this is that any risks derived from fluctuations in the price of gas is already accounted for in the comparators we have supplied as the peer group, as these are also likely to be affected by any fluctuations).

Other uncertainties: Ecorys note that heat transition in the Netherlands is still in its infancy. They mention that our report also indicates that there are still major uncertainties about the way in which the transition is going to take. For example, the obligations that heat suppliers will have, the rights of customers, technological developments around alternatives or the future structure of the market (and its organization). All these risks have an impact on the risk profile of investments in heat networks (both old and new networks). Compared to the research of Oxera (2009), regulatory risks have increased in many respects in recent years.

Our answer: We recognise the comments made by Ecorys regarding the risks with other uncertainties. We have acknowledged these risks in our report under section 4.3 where we identify several risks such as the transition towards renewables and digitalisation-related disruption. Insofar as such risks are firm-specific, a significant component of them is likely to be idiosyncratic and hence should not affect the WACC. On the other hand, to the extent that they are systematic in nature, they are likely to be shared by other network utilities and therefore are accounted for when selecting the peer group. In particular, our peer group consciously included energy generation and distribution firms even though the characteristics of heat exchangers might be argued to be closer to those of purer (lower-beta) network utilities. That results in an asset beta estimate that, at 0.38, is higher than we might have considered appropriate for a more mature heat exchangers sector.

Peer group: Ecorys recognises the complexity of defining a peer group (“there is no heat company” and “this makes it complex to compile a peer group with companies that give a good reflection of Dutch risks heat supply activities”). Our choice to include network companies and companies operating in electricity and gas is also understood (“we therefore understand the choice that EE has made to include in the peer group to include both network companies and companies operating in electricity and gas”). In fact, Ecorys says it used a similar approach on “the “indicative” bandwidth for the WACC” (Rendementsmonitor warmteleveranciers 2017 en 2018, prepared for the ACM).

However, Ecorys claims that the companies in the peer group do not provide a clear picture of the underlying risks (the regulatory risks and “age” of the heat networks, as mentioned previously)¹. These result in an underestimation of the beta of an average heat company, according to Ecorys.

- **Distribution:** Companies that focus on managing electricity and gas networks have, compared to heat companies, stable cash flows with limited risks. Regulatory risks are also different than those for heat companies. Following this argument, Severn Trent PLC (a UK water distribution company) should not be included in the peer group because of its highly regulated activity and very limited risks.
- **Production:** Companies that focus on electricity production and supply are exposed to similar risks as heat companies, with the exception of the regulatory risk. Some of the companies included under production and delivery also have networks, which lower the average risk profile.
- **Multiline utilities:** EE has included companies that deal with all sorts of activities such as natural gas distribution, electricity distribution, electricity generation electricity and water distribution and waste collection and processing. Because these companies perform various activities it is difficult to

¹ (1) “EE makes an incorrect assessment the risks associated with the NMDA system in combination with the requirement of reasonable rates” (2) “EE makes no distinction between heat networks (further) developed and adult networks”.

determine whether risks occur to the same extent as with heat companies. The regulatory risks are in any case incomparable with those of heat companies.

The table below summarizes the differences between the risks of heat companies and the peer group, identified by Ecorys.

Comparison of risks between heat companies and companies in the comparison group:

Risk of heat operation	Transport / distribution	Product / delivery	Multi-utility
Sales risk	√/×	√	√
Purchasing risk	×	√	√
Investor risk	√/×	√/×	√
Regulatory risk	√/×	×	√/×
NMDA risk	×	×	×

Our answer: We note that Ecorys’ comparison eliminates all possible comparators (each group does not compare perfectly with heat companies, according to Ecorys). However, the criticism to such selection should clearly specify why this applies to the exchanger part of the distribution (and not the heat company overall); without such explanation the criticisms are not valid. We are mindful that there is no perfect comparator sector and therefore base our peer group on a mixture of companies such that our peer group completely reflects the risk profile of the heat exchangers. This is the standard approach in regulatory work on WACC. Finally, some of the criticism are not properly justified. For example, Ecorys says that Severn Trent PLC should not be included as a peer group because of its highly regulated activity and very limited risks, however, the supervision and regulation of this company also applies (to one extent or another) to all the other utilities and the claim on “very limited” risks is not supported (in fact, we have identified, in our report, the reasons why such risks are likely to also be common to other network utilities, see section 4.3 and our explanation provided above).

Beta: Ecorys finds surprising the beta median estimate of 0.39. They compare it to a value of 0.42 used by the ACM for the regional network operators of gas and electricity networks. Although betas have been measured over a different period, Ecorys believes that the findings suggest that “heat supply would be less risky than the electricity and gas network management”.

Ecorys also noticed that a Blume correction or Vasicek correction were not applied (these corrections bring beta of individual observations closer to the average of the market or peer group, according to Ecorys).

Ecorys produces a comparator group which exclude companies that only focus on electricity, gas or water networks, and those that only produce or supply energy (ERG and Drax). This produces an asset beta of 0.45 (Ecorys emphasises that this beta is based on an imperfect peer group because no company completely runs similar risks to Dutch heat companies). The median based on Vasicek-corrected betas gives the same result.

Our answer: Our work has been to estimate a WACC for heat exchangers. If “heat supply” is less risky than the electricity and gas network management, we would like to know how this is in fact affecting the risk of heat exchangers. In terms of the median beta comparator, Ecorys have specified that companies focussing on electricity, gas or water networks should be excluded from the analysis. However, when looking into their proposed selection, it is evident that they have only chosen to exclude some of these companies. For example, they have chosen to exclude two electric power generation companies, namely ERG SpA and Drax Group PLC, while they have included two other electric power generation companies, A2A SpA and Endesa SA. Similar analysis can be seen when looking at their decision of selection of power distribution companies where they have included EVN AG and Verbund AG, but excluded Terna Rete Elettrica Nazionale SpA and

Ren Redes Energeticas Nacionais SGPS SA. Their criterion seems purely arbitrary not based on a consistent approach and we see no reason to change our approach.

Engie SA	Multiline Utilities	YES	0.68
Acea SpA	Multiline Utilities	YES	0.32
Hera SpA	Multiline Utilities	YES	0.29
Centrica PLC	Multiline Utilities	YES	0.67
National Grid PLC	Multiline Utilities		0.36
Ascopiave SpA	Natural Gas Distribution	YES	0.54 [D]
Severn Trent PLC	Water Utilities		0.32
ERG SpA	Electric Power Generation		0.38
A2A SpA	Electric Power Generation	YES	0.45
Endesa SA	Electric Power Generation	YES	0.47
Drax Group PLC	Electric Power Generation		1.24 [D]
EVN AG	Power Distribution*	YES	0.30 [D]
Verbund AG	Power Distribution*	YES	0.44
Terna Rete Elettrica Nazionale SpA	Power Distribution*		0.37 [D]
Ren Redes Energeticas Nacionais SGPS SA	Power Distribution*		0.24

While in principle we accept that Vasicek adjustments can be correct, their magnitude is typically very low (often affecting betas only at the 4th or 5th decimal place) for entities with equity betas of the order of 0.5-1.5, meaning that it is not proportionate to deploy them, and we did not apply this correction here on the ACM's guidance. Ecorys median with Vasicek-corrected betas provides the same result.

Cost of Debt: The ACM method is based on the cost of companies with an A rating, and Ecorys claims that this choice is not explained further. That is important because it is unclear whether the resulting interest rate is a good approximation of the interest rates actually charged by heat companies. Ecorys impression is that "many heat companies would have a lower rating (if they had a rating)", and that "many heat companies also have a size that is much smaller than those of the companies included in the Bloomberg index". Even if the interest is based on an "efficient" heat company, it is questionable whether an A-rating in that case is appropriate.

Finally, in Ecorys' opinion, it is not necessary to base the cost of debt on an estimate because there is a better source: the (average) interest that heat companies actually have. This can be taken from various stand-alone heat companies in the Netherlands (Ecorys exclude companies which are part of a holding) or companies' costs of projects (and projected level debt). Ecorys made an initial inventory and using data from four companies, estimated a bandwidth of 2.5% to 3.5% for the cost of debt.

Our answer: This point can be divided into two points:

- ACM method currently uses A rated companies for heat exchangers. Ecorys believes the ACM should use a lower rating.
- Ecorys believes that the cost of debt should be based on actual cost of debt of the four companies.

We have given our suggestion to the first point above (in our discussion of the target credit rating) but ultimately ACM's decision on what credit rating it wants to use will require a broader survey of its regulatory policy, including matters that lie outside our scope as analysts of the WACC.

Regarding the second point, we believe that the actual debt could be used for heat exchangers but only if data for companies that have a significant share in the heat exchangers sector is available. We note that Ecorys does not name the four companies and does not provide the source of the bandwidth it calculated.

We are sceptical that basing the cost of debt on just four companies, amongst the many providers of heat exchangers, would provide a good basis for estimating the cost of debt of the heat exchangers sector, without evidence substantiating their representativeness.