

Submission

**To the Norwegian Ministry of Petroleum and Energy
on its consultation paper dated 15 January 2013
proposing amendments to Gassled capital tariffs**

15 March 2013

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1 BACKGROUND

1.1 Preamble

We own 8% of Gassled. We acquired it from ExxonMobil on 16 June 2011. Our sole purpose is to invest in the long-term development and cost-efficient operation of Gassled. Here we express our views on the Ministry of Petroleum and Energy's proposal to cut Gassled capital tariffs (the Gassled K-element) by 90% on new bookings from Spring 2013 onwards (the "**Proposal**") as described in the consultation paper dated 15 January 2013 (the "**Consultation Paper**").

Gassled enjoyed almost a decade of stable ownership and tariffs from its formation on 1 January 2003. In 2010, the unique benefits of Gassled ownership for the gas shippers were abolished. Until then the owners had preferential access rights in the primary market. Consequently, since 2011, we and companies like us have together acquired 45% of Gassled from gas shippers (including about 1% held through Norse Gas AS). This was possible because gas shippers Statoil, ExxonMobil, Shell, Total and Eni decided that they had better uses for their capital: to invest in their core businesses of petroleum exploration, development and production. Our initial investments alone made about NOK 35 billion available for investment by these companies on the Norwegian continental shelf.

We retained several experts to advise us in preparing this submission and we hereby adopt the appended reports:

- NERA Economic Consulting, a world leader in regulatory economics (Appendix A).
- Pöyry Management Consulting, a global engineering consultancy specialising in energy and infrastructure (Appendix B).
- THEMA Consulting Group analysed socio-economic effects (Appendix C).
- Selmer and Professor Eivind Smith of the Faculty of Law at the University of Oslo provided legal advice.

For convenience, we append an unofficial Norwegian translation of the submission excluding appendices (Appendix D). The above appended reports are referenced in this submission by the author's name and the year 2013.

In this submission, we assess the Proposal in the context of the policy objectives outlined in the Consultation Paper and its wider implications. We propose wider consultation to develop a more targeted solution and outline some elements of such a solution.

1.2 Our understanding when we invested in Gassled

Our bondholders and shareholders comprise Norwegian and international pension funds, sovereign wealth funds and insurance companies including Oslo Pensjonsforsikring, Folketrygdfondet and Statens Pensjonskasse. We were pleased to invest in Gassled and Norway because of Norway's reputation for stability, transparency, sound petroleum policy and respect for the rule of law. The Proposal is inconsistent with that reputation.

We conducted extensive due diligence before deciding to invest in Gassled. This included many meetings with senior Ministry civil servants. We understood from this work that the Ministry had established a long tradition of consensus-based decision-making with the Gassled owners. The Proposal is inconsistent with that tradition.

The Ministry mentioned in our 1 February 2011 Petroleum Act Section 10-12 approval that tariffs could be changed (and we observe below that this was simply a statement of Norwegian law and subject to constraints within that law). This approval, however, followed numerous discussions with the Ministry during 2010 and 2011 and, in those where we discussed tariff changes, it was *always* in the context of a consensus-based change with an offsetting licence extension beyond 2028. This is not reflected in the Proposal.

1.3 Regulatory system

Two principal forms of economic regulation are applied to network monopolies like Gassled around the world:

- **Rate of return regulation** where prices are periodically set to allow a fair return. In this form, the owner bears little or no demand risk as prices are periodically re-set to allow the regulated return. This creates a floor and a cap on returns. This system of regulation is supported by the regulator publishing methodology papers setting out the regulatory rules for establishing costs, such as the basis for the regulated asset value, the rules on how such costs are translated into a revenue requirement and the rules of conduct for future reviews. Annual regulatory accounts are maintained from the outset, audited and published. No such rules or accounts exist for Gassled.
- **Price cap regulation** where prices are set at the outset and the owner bears demand risk. By contrast, price cap regulation does not provide for a “true up” after the fact to allow for below or above forecast demand. It means that the owner bears significant risk and, in return, potential reward if demand is ultimately greater than was forecast at the outset.

To date, the Ministry has price cap regulated Gassled K-elements. We invested on the basis of this regulatory system. The Proposal is inconsistent with price cap regulation. NERA provides more detail in Appendix A.

1.4 Legal principles

Before issuing the Consultation Paper, the Ministry received a legal report prepared by the law firms Kluge and Arntzen de Besche discussing the Ministry’s authority to reduce Gassled tariffs. Immediately after receiving the Consultation Paper, Silex Gas Norway AS on behalf of itself, Solveig Gas Norway AS, Infragas Norge AS and ourselves requested the Ministry to give us access to the report. Such access was denied by the Ministry. A request for access was thereafter presented to the Parliamentary Ombudsman. As late as 11 March 2013, four days before the end of the consultation period, the Ministry sent a heavily black-lined version of the report. The Ministry’s lack of transparency in a matter having such drastic consequences for those affected by the Proposal is inconsistent with good government practice.

Our legal comments are based on the limited arguments presented in the Consultation Paper only and may thus be supplemented.

The Ministry may, in prescribed circumstances, amend the Tariff Regulations. The Consultation Paper emphasises that the proposed amendments to the Tariff Regulations will apply to new transportation contracts only. The Ministry seems to allege that the proposed amendment will not interfere with established legal rights and thus that the Proposal does not constitute a “change” pursuant to the Petroleum Act Section 4-8 second paragraph. Although we disagree with the Ministry, the Consultation Paper does not establish the circumstances required even if based only on the Ministry’s assumed view. The Proposal would, if implemented, thus breach applicable law, including the Petroleum Act Section 4-8.

Further, the Consultation Paper does not take into account that the Tariff Regulations represent individual decisions towards the Gassled participants. This not only further restricts the Ministry’s authority to amend the Tariff Regulations. It also implies that the process so far does not meet the applicable requirements under the Public Administration Act.

Petroleum Act Section 4-8

Predictability, for investment of this size, is worthy of strong legal protection.

Ensure implementation of socio-economically profitable projects

The first condition under Section 4-8 second paragraph refers to the need to ensure implementation of socio-economically profitable projects. First, the Resource Management Objectives (defined in Section

2.1 below) are too broadly formulated to meet this criterion. Second, the Consultation Paper does not demonstrate that the proposed tariff cuts will ensure the implementation of such objectives. Analyses carried out by Pöyry rather indicate that the impact will be marginal, see Section 5 below and Appendix B.

Reasonable profit for the owner

The second condition under Section 4-8 second paragraph is that tariffs must provide a reasonable profit for the owner. Using historical returns as a rationale for amending the tariffs is not valid in relation to Section 4-8. When investing in Gassled, historical returns were not even available to us (as only arbitrary, unaudited and incomplete data existed, as is also the case today). We thus reasonably based our price assumptions and our expected profits on the fixed tariffs set out in the Tariff Regulations – with the comfort of knowing that Section 4-8 precluded changes except in prescribed circumstances.

Our assumptions regarding a stable regime with fixed tariffs were also clearly conveyed to the Ministry during our almost 10 month approval process in 2010-2011 when it vetted our financial resources and stability.

The Ministry suggests a 90% tariff cut. The Consultation Paper does not at all discuss whether this tariff cut has been minimised in order to ensure reasonable profits for the owner. We find that unjustifiable and the fact that the Proposal would shift about NOK 40 billion in net present value (Pöyry, 2013) from Gassled owners to gas shippers, many of which recently sold their Gassled stakes, shows the unreasonableness of the Proposal.

The Proposal represents a reduction of already stipulated tariffs

The Consultation Paper fails to take into account the Gassled standard gas transportation contract and tariff regime which was established by the Ministry and has lasted for many years. The establishment of Gassled was based upon the Tariff Regulations which, since 2003, have applied to all gas transportation contracts – existing and new. Also, the Ministry, instead of approving new contracts, decided that all new gas transportation contracts should be entered into in the form of a pre-approved standard contract.

The Proposal must be deemed as a change in the already stipulated tariffs pursuant to the Petroleum Act Section 4-8 second paragraph. The 2003 amendment to the Petroleum Act Section 4-8 codified the applicable non-statutory administrative law. The threshold for exercising the authority to reduce the tariffs under the non-statutory administrative law is very high. The Ministry's authority to make tariff cuts is thus limited accordingly. The considerations in favour of changes must considerably outweigh the considerations against such changes. The Proposal does not fulfil this condition. Nor does the Consultation Paper assess the negative impacts of the Proposal as outlined in this submission or, for that matter, discuss alternative measures for increasing future gas production.

2 JUSTIFICATIONS AND EFFECTS OF THE PROPOSAL

2.1 Two justifications

The Ministry gives two justifications for the Proposal in the Consultation Paper.

First, the Ministry asserts that the historical capital element of tariff income has generated a real pre-tax *average return* on historical investments of 10% from 1975 to 2012 and the future capital element of tariff income from existing gas transportation contracts will generate a 10.5% return to 2028. The Ministry also asserts that the present value of net cash flows from the transportation contracts entered into as of today exceeds the level that was used as a basis when the Tariff Regulations were adopted on forming Gassled. The Proposal seems based on the proposition that minimal further future revenues are necessary.

Second, the Ministry states that the purpose of the Proposal is “to facilitate optimum resource management” and asserts that:

“One main goal of the resource management is to ensure that as much of the socio-economically profitable petroleum resources as possible are recovered. Low tariffs in Gassled will contribute to attaining this goal”.

The Ministry argues that Gassled tariff levels and structure will affect incentives for: exploration; field development; and, increased recovery from producing fields (the “**Resource Management Objectives**”). The Ministry asserts that:

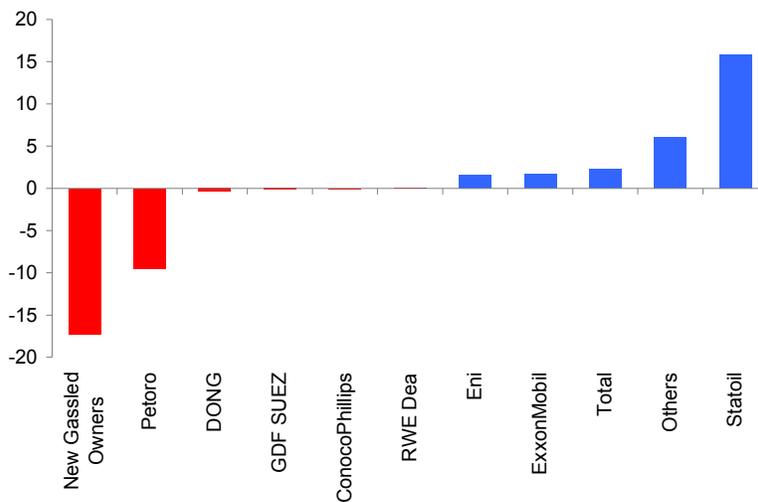
“Lower tariffs in Gassled will increase the incentives to explore in the Far North by better facilitating the development of the gas transportation system northwards and thereby establishing increased transportation capacity from the area.”

2.2 Headline effects of the Proposal

The Proposal would reduce the Gassled owners’ revenues to 2028 by about NOK 40 billion in net present value (Pöyry, 2013). This entire value transfer would flow to the gas shippers with most going to Statoil, Total, ExxonMobil and Eni (Pöyry, 2013). These are the very same petroleum companies who just received a fair price for their Gassled stakes assuming no change to Gassled capital tariffs.

Net impact of the Proposal (NOK billions)

Source: Pöyry, 2013

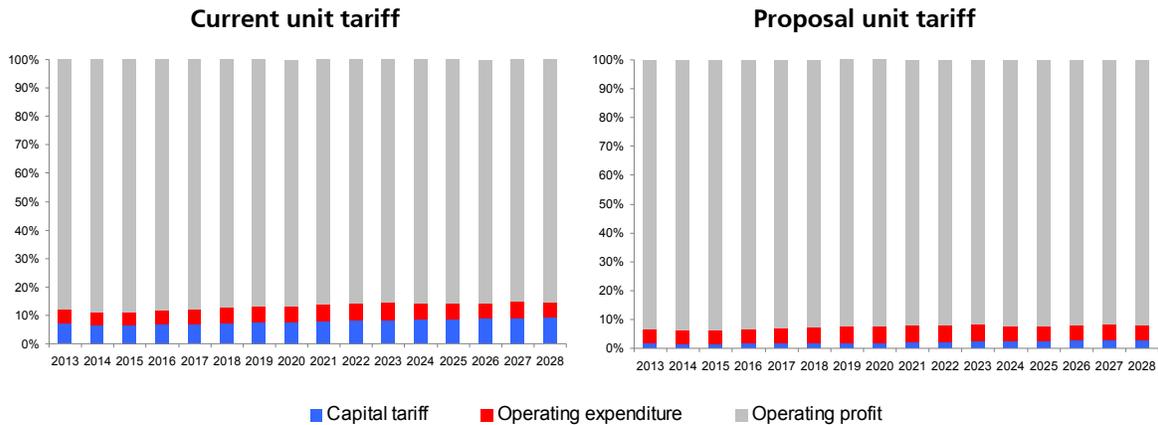


Note: Net impact accounts for Petro and Statoil’s dual roles as Gassled owners and shippers. *New Gassled Owners* means Solveig Gas Norway AS, Silex Gas Norway AS, Infragas Norge AS and ourselves who acquired 45% of Gassled in 2011 and 2012. All data net present value.

Over 50% of this value transfer to gas shippers, mostly Statoil, will flow to operating profitable fields, especially Troll. That transfer would not promote the Resource Management Objectives. The following chart shows the current and post-Proposal cost structure of Troll for un-booked gas and demonstrates that the Proposal, in this respect, is simply a value transfer to gas shippers without targeting the Resource Management Objectives.

Troll marginal unit production economics

Source: Pöyry, 2013



We conclude from these headline effects that the Proposal is suboptimal because it:

- Creates unjustified and substantial value transfers, the *majority* of which flow, over the course of our licence until 2028, to already profitable fields.
- Only the *minority* of the value transfer *may* promote the Resource Management Objectives.

3. BASIS FOR OUR SUBMISSION

We analysed the Proposal against the above justifications. In preparing this submission we considered the common interests of the Gassled stakeholders, being the gas shippers, the Ministry and Gassco, and the owners. In our view, those common interests are to:

- Promote Gassled efficiency, integrity and reliability.
- Fill Gassled beyond 2020 by promoting the Resource Management Objectives.
- Extend Gassled life through efficient capital investments.
- Improve Norwegian gas competitiveness.

We further considered the aims of the gas shippers which, from our discussions, are threefold.

- First, as a general proposition, gas shippers like low tariffs, just like any reasonable service user seeks the lowest price *without compromising quality*.
- Second, gas shippers want Gassled owners like us to be incentivized to promote efficient development and to invest in system integrity and reliability through to 2028 and beyond.
- Third, gas shippers want a regulatory system which continues to encourage non-shippers like us to own the Norwegian continental shelf gas infrastructure instead of shippers. Otherwise, investing in Norway in the future will be more capital intensive for them than they had planned when so recently exiting Gassled.

Below, we consider historical returns as a justification (Section 4) and whether the Proposal best promotes the Resource Management Objectives (Section 5) and its wider implications (Section 6).

4. HISTORICAL RETURNS

The Ministry asserts that the historical capital element of tariff income has generated a real pre-tax *average return* on historical investments of 10% from 1975 to 2012 and the future capital element of tariff income from existing gas transportation contracts will generate a 10.5% return to 2028. The Ministry also asserts that the present value of net cash flows from the transportation contracts entered into as of today exceeds the level that was used as a basis when the Tariff Regulations were adopted on forming Gassled.

Gassled commenced on 1 January 2003. We cannot see how returns before this date could form any sound justification for changing tariffs now.

As noted in Section 1.3, to date, the Ministry has price cap regulated Gassled K-elements. Gassled owners have always borne the risk on future bookings (transportation contracts). While we must assume good faith in the assumptions used on forming Gassled, the mere fact that the present value of net cash flows from the transportation contracts entered into as of today exceeds the level that was used as a basis when the Tariff Regulations were adopted on forming Gassled also cannot form any sound justification for changing tariffs now. Otherwise, Gassled owners would have a reciprocal right to demand that they be increased if the present value was now lower than the level that was used as a basis when the Tariff Regulations were adopted. No such right exists.

Even so, the detailed data for these assertions have not been made available to the Gassled owners and Gassco has never before published any return data. These calculations are highly problematic:

- There are no regulatory accounts for Gassled. The calculations cannot be verified and the base data are arbitrary and unaudited.
- Statpipe and Norpipe were unregulated before 2003 and used different return levels to set tariffs. When the Tariff Regulations were adopted on forming Gassled, the owners of Statpipe and Norpipe were kept whole in respect of future cash flows by their participating interest in the new Gassled. Statpipe revenues alone comprised about 64% of the total pre-Gassled revenues before 2003. This means the *average returns* cited by the Ministry are meaningless. The higher tariffs negotiated between commercial parties for shipments, especially through Statpipe, distort average pre-tax return calculations. Using data provided by Gassco, the returns on Statpipe to 2002 were about 14%, meaning that the returns on the remainder of the components now comprising Gassled were *substantially* below 10%.

Further, during our extensive 2009 and 2010 due diligence on whether to acquire ExxonMobil's stake in Gassled, we asked ExxonMobil and Gassco for the various value reference cases applied, from time to time, by the Ministry and Gassled owners in valuing Gassled. This included those applied in: (a) establishing Gassled in 2002; and, (b) merging Langeded into Gassled in 2006. We were denied those value reference cases. Both ExxonMobil and Gassco explained that they were "commercially sensitive". Now, it is necessary and customary in transactions of this scale to disclose to the buyer *all relevant confidential information* that might affect the long-term value of the asset being acquired. Historical returns cannot now be a justification for the Proposal when both the vendor and Norwegian Government through Gassco made clear that the Gassled value reference cases were confidential and would not be made available for our consideration. Historical returns must be irrelevant as, we as buyer, were not given the reference cases.

Finally, using these historical returns as a justification seems to imply that Gassled has paid out a notionally promised return and, for that reason, reduced tariffs are now justified. This is not the case because, except in relation to ongoing maintenance capital expenditure (the Gassled I-element), the Ministry *regulated Gassled prices and not Gassled returns*. We refer to Section 1.3 above and Appendix A.

5. DOES THE PROPOSAL BEST PROMOTE THE RESOURCE MANAGEMENT OBJECTIVES?

Less than half of the value transfer of the Proposal *could* have an impact upon promoting the Resource Management Objectives. In many respects, that impact is marginal. We provide greater detail in Appendix B (Pöyry, 2013).

5.1 Exploration

The Proposal will only have a very minor impact upon the decision to drill (Pöyry, 2013). In particular, it will only incentivise drilling which is close to existing gas infrastructure. It will not create an incentive for potential resources further away.

Petroleum companies primarily explore for oil as it is the petroleum resource with the highest value. The Proposal will have no effect upon oil exploration.

Finally, petroleum companies seek large gas fields. In the best possible case, the Proposal could add 7.5% to the expected monetary value of a new large gas field (Pöyry, 2013). This is certainly a benefit worth promoting and could still be achieved if the tariff reduction was applied only to new fields. Of course, the benefit would be smaller in respect of an associated gas field.

5.2 Proposal does not make unprofitable fields profitable

The Proposal aims to make fields profitable through reducing gas transportation cost. In order to assess the effectiveness of the Proposal against this aim, we analysed its impact on marginal fields to see how many fields would become profitable if implemented. Our benchmark for “profitability” was a 10% hurdle rate.

Our analysis shows that *no* marginal fields turn profitable by implementing the Proposal (Pöyry, 2013). This is because:

- Gas transportation costs are a small proportion of the total cost of gas delivered over the lifecycle of a project.
- Most marginal fields that are close to being profitable have high oil content meaning that gas transportation costs are even less significant.
- Most Norwegian Sea discoveries, where the impact of gas transportation cost has the most meaningful impact, are currently too far from being profitable for the Proposal to make them so.

We recognise, however, that the Ministry is concerned to minimise *all* costs on the Norwegian continental shelf to improve Norwegian gas competitiveness. In this context, all costs savings should be considered and not ignored simply because each on its own may not make unprofitable fields profitable. Equally, however, the overall implications of any particular cost saving should be taken into account when deciding whether it is in the best interests of promoting the Resource Management Objectives. In the case of the Proposal, we find that direct savings are offset by larger indirect costs.

5.3 Tail-end production

Our analysis shows that the Proposal is not effective in substantially extending the life of tail-end production from existing fields. Rather, it provides large value transfers that do not impact production decisions. This reflects the economics of additional capital expenditure in a field. If additional production wells or other significant capital expenditure are required, the Proposal is not sufficient to offset this investment cost. In addition, operating expenditure for tail-end production increases significantly. Since the K-element is fixed in real terms it becomes economically insignificant relative to escalating operating expenditure. Pöyry concludes that a better policy for tail-end production would target costs in the last two years of a field’s production.

6. WIDER IMPLICATIONS

The Proposal would *generate higher indirect costs* on the Norwegian continental shelf for petroleum companies and in the Norwegian utility sector.

6.1 Benefits of infrastructure investors financing infrastructure development

Since June 2011, infrastructure investors have acquired 45% of Gassled from gas shippers Statoil, ExxonMobil, Total, Shell and Eni. This was only possible because of the Ministry's work to establish Gassled as an integrated transportation system with an independent operator and stable regulated tariffs. This radical ownership transformation could, in the absence of the Proposal, bring material costs benefits to gas exploitation on the Norwegian continental shelf including:

- **Infrastructure capital.** Four new Gassled owners with access to *infrastructure* capital seeking post tax risk adjusted returns consistent with regulated infrastructure assets, unlike petroleum companies which seek higher risk adjusted returns, were ready to invest in the future of Gassled and the northward development of the Norwegian continental shelf.
- **Reduced capital intensity for petroleum companies.** Our arrival meant that petroleum companies could invest on the Norwegian continental shelf without having to allocate capital to gas transportation infrastructure alongside exploration and production. In a world where capital is scarce it means that for any given petroleum company producing gas on the shelf, less capital is required. This makes individual investments less capital intensive and Norway a more attractive investment destination for petroleum companies.
- **Efficient exit from mid-stream.** Our arrival meant that petroleum companies could implement their global policies of selling mid-stream assets where open access rights and national legal and regulatory regimes were sufficiently robust that ownership is no longer necessary. This allowed petroleum companies to focus on their core expertise and Gassco to continue its evolution as a world-class independent transportation system operator.

In our case, we established a NOK 10 billion bond programme under which we have so far issued only NOK 3.8 billion in bonds. The remainder, subject to the Proposal, was intended to allow us to continue to grow with the expansion of Gassled. For example, we would have sought to acquire part or all of Polarled, offering its developers (including Statoil, OMV, Shell, Total, RWE Dea and ConocoPhillips) a smooth exit to recycle capital and therefore lower their capital intensity. If the Proposal is implemented, the developers are likely to become Gassled participants (in most cases, again) *as we will not acquire their stakes*.

The Ministry succeeded in introducing new capital – after carefully and thoroughly vetting our financial resources and stability – to the Norwegian continental shelf, making it a more attractive investment prospect for the world's petroleum companies. The Proposal would reverse this success.

6.2 Higher future financing costs due to asymmetric return profile

The Proposal introduces an asymmetric return profile. Gassled has been price cap regulated and owners carry volume risk on future bookings. But reducing tariffs now, on the rationale that a certain return has been achieved by investors, retrospectively introduces a return cap. Investors will rightly interpret this as an asymmetric return where, for any investment to construct new infrastructure, the downside volume risk is carried by the investors, while the upside potential may later be withdrawn by the regulator. This means that, in future, infrastructure investors would expect a *higher* return to compensate for this negative asymmetry.

6.3 Regulatory uncertainty would increase future financing cost

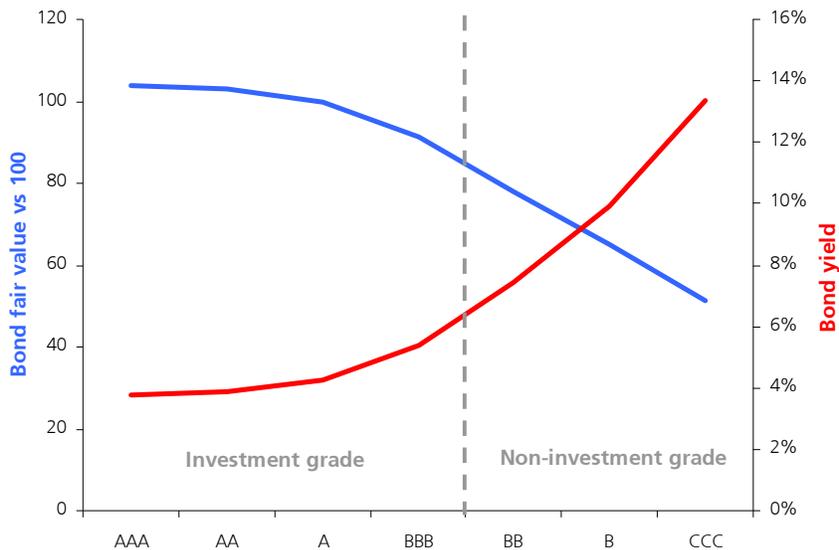
Equity and debt investors and international credit rating agencies like Standard & Poor's and Moody's regard the Proposal as an adverse change to a previously stable regulatory system. This change increases the cost of capital for Gassled (THEMA, 2013) and other utilities regulated by the Ministry and the

Norwegian Government, including in the power and telecommunication sectors. We provide greater detail in Appendix C (THEMA, 2013).

Responding to the Proposal, Standard & Poor’s placed our investment grade A- rating on negative credit watch. They signalled a downgrade of more than one notch, maybe even to non-investment grade or *junk*, if the Proposal is implemented. This will have a negative mark-to-market impact on bond prices. This means that the accounts of bondholders may have to show a loss or reduction in fair value. Some bondholders may be forced to sell at a significant discount to par.

The following chart shows: (a) on the left hand axis, the impact on fair value of an A rated bond issued at par as its rating varies over time; and, (b) on the right hand axis, indicative bond yields (debt interest rates) compared to credit rating: yields rise as credit ratings fall from AAA to CCC. By way of example, our A- bonds pay interest of around 5%. This price reflected market conditions in May 2011. If we were to issue new bonds at BB, on a like-for-like basis, the interest rate would probably be at least 9% (if any buyers could be found) and clearly uneconomic in the context of Gassled.

Bond fair value and yield (cost) versus rating
as at 31 December 2012 compared to A rated bonds
Source: European Central Bank and Barclays Capital



Considerable capital expenditure is planned over the next decade to augment Norway's electricity network. An increased market cost of debt would have a significant impact. Using the utility companies' forecast expenditure and THEMA forecasts, we calculate that the effect of the Proposal on electricity networks regulated by the Ministry would be to increase *annual* interest costs by about NOK 2 billion (assuming 75% of capital expenditure is funded by new debt and a 3% increase in debt costs). These increased costs would ultimately be borne by Norwegian consumers.

The Proposal has already affected Norwegian borrowing. In late January 2013, our largest bondholder – a leading global insurer serving over 90 million customers in 60 countries – declined to invest in a Statnett bond issuance. In their view, the Proposal indicated unacceptable regulatory risk.

7 A WAY FORWARD

Good solutions on the Norwegian continental shelf have always been developed through consensus-based decision-making. We ask for that long tradition to continue.

We think that a better solution could be developed efficiently by undertaking a wider consultation than the very limited one undertaken in respect of the Proposal. For example, some adaptations could materially improve the Proposal to target the Resource Management Objectives, such as:

- ***Promote exploration and new field development.*** Lower Gassled tariffs could apply to *new projects*. This incentivises exploration and new field development.
- ***Promote increased recovery from existing fields.*** Existing fields could be granted *free transportation* (zero K-element capital tariffs) for the *last two years* of operation. This would incentivise increased recovery from existing fields and ensure that the incentive is delivered when it will best promote marginal recovery.

In a wider consultation, the Ministry could use these elements and the range of other tools at its disposal to develop better outcomes for *all* stakeholders.

We understand that there is no *urgent* need to implement the Proposal and thus it would benefit all stakeholders to develop an improved solution, through consensus, which minimises the adverse aspects we have identified in this submission. We think that the Ministry could undertake such a wider consultation over the course of this year, concluding the entire process and implementing it well before year end. This would involve, among others, the Ministry, Gassco, gas shippers and Gassled owners to resolve how best to incorporate elements like those we list above into Gassled operations. We think it would gain broad support.

We would support the Ministry in developing, through wider consultation, an improved solution incorporating the above elements. We would support the Ministry in implementing it. This approach would best minimise conflict, share burdens, be consistent with Norwegian traditions of consensus-based decision-making and better promote the Resource Management Objectives.

We look forward to working with the Ministry in the months ahead.

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Appendix A

NERA Economic Consulting



MPE Consultation on Gassled Tariffs
For Njord Gas Infrastructure
March 2013

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Executive Summary

NERA Economic Consulting (“NERA”) was retained by Njord Gas Infrastructure AS to review the Norwegian Ministry of Petroleum and Energy’s (“MPE”) consultation paper dated 15 January 2013 (the “Consultation Paper”) which proposes to cut Gassled K-element tariffs on new bookings with effect from May 2013 (the “Proposal”). Specifically, we were asked to provide advice on the following two issues:

I. The form of regulation applying to Gassled, and the consistency of MPE’s Proposal with this form of regulation

There are two broad forms of economic regulation in use around the world: rate of return (or cost of service) regulation, where prices are set to allow companies to earn a fair rate of return *ex post* through the frequent updating of allowed prices. This is a common form of regulation in the US. The alternative form is price cap (or incentive based) regulation where prices are set to allow the regulated entity to have the reasonable prospect of earning a fair return on an *ex ante* basis. This is the dominant form of regulation in European regulatory models, and outside of the US.

The main difference between the two models is that under rate of return regulation the regulated entity bears little or no risk in relation to demand (or other risks) for the regulated services as prices are set to ensure a fair rate of return *ex post*. By contrast, price cap regulation does not involve an *ex post* true-up, and some risks are borne by investors.

The MPE’s 2002 Tariff Regulations set out that the capital element of the tariff – K – is fixed over the licence period with no correction for actual capacity bookings relative to forecast bookings made at the time of setting K. The Gassled arrangements can be characterised as a form of long-term price cap in relation to the K component where demand risk lies with the regulated entity, in this case, over the licence period to 2028.

By contrast, the MPE’s Proposal involves the retroactive imposition of a rate of return regulation, where the MPE proposes to re-set K to ensure a 7% pre-tax return to Gassled’s assets *ex post*. Thus, the MPE’s proposed regulation of returns is entirely at odds with the long term price cap established at Gassled’s inception in 2002, and the publication of the 2002 Tariff Regulations.

As we explain below, the MPE’s Proposal is inconsistent with good regulatory principles of consistency and predictability, thus raising the cost to investing and deterring investment, in the Norwegian offshore sector and the Norwegian economy more widely.

II. The consistency of the MPE’s Proposal with good regulatory practice

▪ Inconsistency with principles of regulatory governance

As described above, the MPE’s proposed introduction of a rate of return regulatory regime is inconsistent with the 2002 Tariff Regulations, which prescribes a long-term price cap, as well as the MPE’s recent White Paper on the petroleum sector. The MPE has also not sought in the past to revise K to regulate returns *ex post*. For these reasons, investors have formed a legitimate expectation that the Gassled regulatory regime was a long term price cap regime.

The corollary is that no reasonable investor could have anticipated the MPE's Proposal, and its Proposal is at odds with core regulatory principles of consistency and predictability as set out in good practice guidelines (as we cite in this paper).

Why is predictability (or limits on regulators' discretion) important for both investors and consumers? Unpredictable or discretionary actions by regulators tend to result in the expropriation of high returns without commensurately putting a floor under low returns (as is the case with the MPE's Proposal). The effect of asymmetric regulatory interventions produces an expected return which is less than the benchmark allowed rate of return. If the Proposal is implemented, the MPE's opportunistic behavior will undermine investor confidence, and will lead to higher required rates of return for new pipeline capacity to compensate investors for asymmetric risk, as well as higher costs of capital for investing in Norway in general.

As we set out in this paper, rating agencies' methodologies make it clear that the predictability of the regulatory regime is an important consideration in assessing credit risk, with unpredictable regimes leading to poorer ratings, and higher financing costs.

- **Inconsistency with efficient system use and development**

The MPE's Proposal to reduce K to below cost is inconsistent with established practice for setting gas transportation charges for physical capacity, which is the market supplied by Gassled, based on long run marginal cost (LRMC) approach.

Setting the tariffs for physical capacity based on LRMC helps ensure the efficient development of the transportation system by providing a signal to shippers about the forward-looking costs of different transportation options, e.g. such as continued use (and eventual replacement) of existing pipelines, the use or development of alternative pipelines, as well as the development of Liquefied Natural Gas (LNG) infrastructure. Setting tariffs based on LRMC helps shippers select the least cost transportation option and provides a signal for investment in incremental capacity.

By contrast, setting transportation charges for physical capacity below LRMC will undermine the efficient development of the transportation sector and by implication increase the costs associated with oil and gas production, contrary to the MPE's stated objective.

1. Introduction

NERA Economic Consulting (“NERA”) was retained by Njord Gas Infrastructure AS to review the Norwegian Ministry of Petroleum and Energy’s (“MPE”) consultation paper dated 15 January 2013 (the “Consultation Paper”) which proposes to cut Gassled K-element tariffs on new bookings with effect from May 2013 (the “Proposal”).¹

We were asked, if we considered it appropriate, to make a submission on the Consultation Paper taking into account our expertise in regulatory economics with regard to:

- The form of economic regulation applied to Gassled to date, and consistency of the MPE’s Proposal with this form of regulation; and,
- The consistency of the MPE’s Proposal with good regulatory practice.

This report sets out our views in relation to these two issues.

The rest of this document is organised as follows:

- Section 2 briefly explains our experience in relation to the issues we were asked to advise on (as set out above);
- Section 3 then characterises the form of economic regulation applying to Gassled; and,
- Section 4 discusses the MPE Proposal’s consistency with established regulatory principles, and ensuring efficient system use and development.

¹ MPE (15 January 2013) Proposed amendments to the Regulations of 20 December 2002 No 1724, p. 2 [English translation.]

2. About NERA and Our Relevant Experience

2.1. About NERA

NERA was established in New York in 1961, and now comprises more than 20 offices across North America, Europe and Asia, and employs around 500 professional staff.

We are consistently ranked as one of the leading global consultancies in economics and competition issues, and a leading consultancy in energy economic consulting.²

We are a wholly owned subsidiary of Oliver Wyman Group which in turn is one of the Marsh and McLennan Companies (NYSE: MMC), a global professional services companies employing over 50,000 professional staff and with an annual revenue of around US\$ 12 billion.³

2.2. Relevant Experience

We have substantive experience in relation to the issues we have been asked to advise upon in this report.⁴

In relation to different regulatory forms, we have advised clients, including governments, regulators, regulated utilities and investors, on the development of different forms of regulation, including rate of return (or cost of service) regulation and price cap (or incentive based) regulatory forms. For example, in the US, we have been at the forefront of the regulation (and de-regulation) of network and transport markets since the 1960s, and continue to advise both regulators and regulated entities on rate of return regulation including providing expert testimony in rate case hearings. In Europe, we have advised clients on the development of price cap or incentive based regulation since the outset of structural and regulatory reform in the UK in the 1980s.

We have also advised clients on the development of regulatory regimes and developed guidance on good regulatory practice. For example, the project authors have undertaken a number of projects advising governments and international financial institutions on the creation of regulatory frameworks. We have also advised clients on tariff structures, including the application of long run marginal cost (LRMC) methods to ensure optimal network use and development.

² For example, Vault Rankings place NERA first for Economic Consulting. See: <http://www.vault.com/wps/portal/usa/rankings/individual?rankingId1=237&rankingId2=78&rankings=1®ionId=0&rankingYear=2013>

³ Marsh and McLennan Companies, Annual Report, Part 11, Item 6. Link: <http://irnews.mmc.com/phoenix.zhtml?c=113872&p=irol-reportsAnnual>

⁴ We publish our most recent case histories and our general corporate experience on our website. See: www.nera.com

3. The Form of Economic Regulation Applying to Gassled

In this section, we first present a short description of the development of the offshore gas transportation system, the Tariff Regulations, and the MPE's Proposal (see Section 3.1).

We then discuss the principal forms of economic regulation, and characterise the form of economic regulation applying to Gassled as a long term price cap regime which is inconsistent with the MPE's proposed imposition of rate of return regulation (see Section 3.2).

3.1. Background

3.1.1. Development of the offshore system

The development of the Norwegian offshore gas transport system started in 1975 and today consists of a network of pipelines with a total length of about 8,000 km, six landing points in four countries (the UK, Germany, Belgium and France), as well as four Norwegian onshore gas treatment facilities.⁵

Up to 2002, the development of the gas transportation system on the Norwegian shelf was based on a system of bilateral agreements between the gas developers and transportation owners who were almost always part of the same vertically integrated group. The transportation system was thus financed and owned by the gas producers, and the gas producers' capital shares in the transportation system were in proportion to their expected shipments. The agreements between gas producers and transporters were subject to approval by the Authorities but there was no common framework for the regulation of tariffs.⁶

In December 2002, almost all of the separate pipelines were integrated into Gassled, a joint venture established to own and develop the offshore network.⁷ At its inception, the Gassled owners comprised the companies that produce gas on the Norwegian Shelf, i.e. the effective vertical integration of gas production and transportation was retained.

The MPE's stated objective of the reform was to ensure co-ordinated development of the offshore network, and the development of a common regulatory regime. At the same time, MPE published the 2002 Tariff Regulations which set out a common framework for setting transportation charges for the entry and exit points, and for other services such as gas treatment, on the Gassled system.⁸

During 2011 and 2012, there was a significant change in the ownership structure of Gassled. A number of the gas producers – namely ExxonMobil, Shell, Total and Statoil – elected to

⁵ These are: Kårstø, Kollsnes, Nyhamna and Melkøya. Gas export in the form of liquefied natural gas (LNG) on ships from Melkøya enables Norwegian dry gas to reach markets outside Europe.

⁶ We understand that the current formulae set out in the 2002 Tariff Regulations applied to certain pipelines but not all pipelines prior to the introduction of the Tariff Regulations.

⁷ <http://www.gassco.no/wps/wcm/connect/Gassco-EN/Gassco/Home/om-gassco/gassled/>

⁸ In addition, the access and licensing arrangements for gas transportation are set out in 1996 Petroleum Activities Act. See Petroleum Activities Act, November 1996, No 72. <http://www.npd.no/en/Regulations/Acts/Petroleum-activities-act>

sell their stakes in Gassled to specialised infrastructure investors and owners. The infrastructure owners now own 44% of Gassled. Petoro AS, a Norwegian state-owned company, retains the largest single shareholding in Gassled with a 45% stake.⁹ The separation of ownership of production and transportation of the offshore sector contributed to the MPE's objective to develop an open non-discriminatory third party access (TPA) regime for the gas transportation network, and the introduction of new sources of capital to support the development of the offshore network.^{10,11}

The transportation system is operated by Gassco, a limited company wholly owned by the Norwegian Government. Gassco also prepares an annual transport plan which sets out a forecast for gas transportation capacity for a period of 15 years.¹²

In terms of gas production, according to MPE future production is uncertain. Gassco has forecast a decline in gas production for the first time, as new discoveries are not replacing declining production in existing fields.¹³ The least cost resources (i.e. in the North Sea) have been developed, and production is moving north, with increased development in the Norwegian and Barents Sea.¹⁴

3.1.2. The Tariff Regulations

At the inception of Gassled in 2002, the MPE also published new tariff regulations for the offshore network (Tariff Regulations).¹⁵ The tariffs apply to a series of designated entry and exit points to different geographic zones within the Gassled system, and other services such as gas treatment, and are paid by shippers via ship-or-pay capacity contracts. As set out in the Tariff Regulations, the tariff for each entry and exit point and other services is governed by the following formula:

$$t = \left[K + \frac{I}{Q} + U \right] * E + \frac{O}{Q}$$

Where: t is the rate per unit for the right to use network capacity and other services; K is an annuity value associated with the initial capital investment in the pipeline; Q is the estimated

⁹ <http://www.gassco.no/wps/wcm/connect/Gassco-EN/Gassco/Home/om-gassco/gassled/>

¹⁰ The MPE considers that the TPA regime and regulated access led to a reduced interest in the participation of the gas reserve owners in Gassled, as ownership no longer conferred privileged access terms. In addition, it also notes that different qualifications are required for owners in a transport system such as Gassled than for owners in production licenses. See MPE (2011) An industry for the future – Norway's petroleum activities, pp.67-70

¹¹ In 2008, MPE initiated a review of the pipeline access regime. One outcome of the review was to revoke pipeline owners' pre-emptive rights to reserve capacity, and thus facility TPA. The MPE's stated goal for the development of the offshore network is for TPA based on tariffs and conditions stipulated by MPE and set out in the Tariff Regulations. Source: MPE (2011) op. cit., p.67

¹² MPE (2011) op. cit., p.67

¹³ MPE (2011) op. cit., p.68

¹⁴ MPE (15 January 2013) op. cit., p.6

¹⁵ There are: Regulations relating to the stipulation of tariffs, MPE, 20 December 2002

total reserved capacity for the year; I is the annual investment cost for the maintenance of the system; U relates to costs for extending the system; E is the escalation factor; and O is the expected operating costs.

The initial capital element of the tariff – K – comprises the majority of Gassled’s revenues. K is calculated as a unit annuity over the period of the licence where the annuity is based on: (i) an estimate of capital investment costs made around 6 months prior to the operation of the asset, and (ii) forecast capacity bookings made prior to the entry into operation of the asset. Thus, Gassled assumes risk in relation to the deviation in actual relative to forecast capacity bookings made at the time of setting K, and to a lesser degree, risk in relation to the amount of capital expenditure.

The MPE states in its Consultation Paper that K is calculated based on a 7% pre-tax WACC. However, there have also been a number of exceptions to the allowed rate of return, including for Statpipe and Norpipe, where the pipeline owners were permitted to earn a higher return. (According to MPE, Statpipe and Norpipe constitute more than 60% of all Gassled revenues.)¹⁶

In relation to other elements, the “I” element of the tariff is set by MPE as an annuity to allow the owners to recover large scale maintenance expenditure and levied per unit of actual booked capacity (“Q” element). In contrast to K, Gassled does not take volume risk on the I element, as there is a true-up in the subsequent year for the variation in actual relative to assumed booked capacity. Operating costs (the O element) are also recovered in year as a charge per unit of capacity booked, which is also subject to a true-up for the variation in actual relative to assumed capacity bookings.

3.1.3. MPE’s Proposal

As set out in its Consultation Paper, the MPE proposes a dramatic cut of 90% in the K element of the transportation tariffs for most new agreements entered into from spring 2013.¹⁷

The MPE considers that a reduction in tariffs for new capacity bookings will facilitate optimum resource management by supporting the development of higher cost gas fields and recovery rates from existing fields.¹⁸ In particular, it considers that lower tariffs will provide incentives to use the transportation system to develop high cost fields in the Norwegian/Barents Sea.

The MPE considers that the proposed reduction in K will result in historical and future returns (i.e. to previous and current Gassled owners) that exceed the MPE’s benchmark return of 7% real pre-tax.¹⁹ However, none of these statements appear to be supported by any published quantitative analysis or analytical work.

¹⁶ Source: Excel file provided by Gassco to Gassled members. Excel file name: “*Investments and capital tariff income in Gassled.xlsx*”. Worksheet, “*Cash-flows*”.

¹⁷ See: <http://www.njordgasinfra.no/media.html> and MPE (15 January 2013) op. cit., p. 10

¹⁸ MPE (15 January 2013) op. cit., p. 2

¹⁹ MPE (15 January 2013) op. cit., p. 8

3.2. The Gassled Regulatory Regime and Inconsistency with MPE's Proposal

3.2.1. Two principal forms of regulation: rate of return and price cap

There are two principal forms of economic regulation of network companies in use around the world:

- Rate of return (or cost of service) regulation, where prices are set to allow companies to earn a fair rate of return *ex post* through frequent updating of allowed prices. This is a common form of regulation in the US.
- Price cap regulation (also referred to as RPI-X or incentive based regulation), where prices are set to allow the regulated entity a reasonable prospect of earning a fair return, i.e. prices are set to allow a reasonable rate of return *ex ante*. Price cap regulation was first applied to the regulation of UK telecommunications sector in the 1980s, and has since been adopted as the principal form of economic regulation in the UK, Europe and elsewhere in the world.²⁰

The main difference between these two forms of regulation is that under rate of return regulation the regulated entity bears little or no risk in relation to demand for the regulated services or indeed other risks as prices are set to ensure a fair rate of return *ex post*. The regulated entity faces both a floor and cap on regulated returns. By contrast, price cap regulation does not involve an *ex post* “true-up”, and therefore assigns significant demand and other risks to the regulated entity (for at least the period of the price cap). The advantage of price cap regulation is that it provides incentives for the regulated entity to manage the risks it faces as it faces the prospect (or threat) of earning a higher (or lower) return than the benchmark return.

Within the price cap regulation model, there are a number of variants. For example, under a revenue-cap, the regulated entity's exposure to demand risk is limited as it is allowed to recover a given revenue irrespective of actual demand. (The regulated entity will face other risks for the period of the price control.) As an example, a revenue cap is applied to the UK gas distribution sector.²¹ By contrast, the regulated airport sector is subject to a price cap, where regulated entities face revenue and demand risk for a period of five years, prior to a reset at each periodic review of prices (but not involving a retrospective true-up).²² There are also examples of longer-term price caps. For example, the UK's offshore electricity transmission operators (known as OFTOs) are subject to a 20 year price cap regime.²³

²⁰ The introduction of price cap regulation followed from recommendations of report b Stephen Littlechild (1983) Regulation of British Telecommunications' Profitability, A report for Department of Industry

²¹ See Special Licence Condition E2 (“Restriction of revenue in respect of the Distribution Network Transportation Activity”). Link: http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/Stat_con_modifications_special_conditions_gastransporter_licence_GDNs.pdf

²² See for example: Heathrow Airport (2010) Airport charges for 2011/12. Link: http://www.heathrowairport.com/static/Heathrow/Downloads/PDF/Conditions_of_Use/Airport_Charges_Consultation_Document-2011_12.pdf

²³ See: Department for Energy and Climate Change (2009), Overview of Great Britain's Offshore Electricity Transmission Regulatory Regime, p.10 <http://www.ofgem.gov.uk/Networks/offtrans/pdc/cdr/cons2009/Documents1/Main.pdf>

3.2.2. MPE's Proposal is inconsistent with Gassled's long term price cap regime

As we set out above, under the Tariff Regulations the capital element of the tariffs – K – is fixed over the licence period with no correction for actual relative to forecast capacity bookings made at the time of setting K in contrast to the treatment of capital maintenance (I) and operating costs (O). The Tariff Regulations feature no mechanism for resetting K at periodic intervals. The Gassled arrangements in respect of K can therefore be characterised as a form of a long-term price cap where demand risk lies with the regulated entity (in this case, over the licence period).

By contrast, the MPE's Proposal involves the retroactive imposition of a form of rate of return regulation on Gassled, as the MPE proposes to re-set K to ensure a 7% pre-tax rate of return on Gassled's assets ex post. The MPE's proposed regulation of returns (through the effective imposition of rate of return regulation) is entirely at odds with the long term price cap established at Gassled's inception in 2002, and the publication of the Tariff Regulations.

As we set out in section 4.1.1, the MPE's Proposal is inconsistent with established principles of good regulation of consistency and predictability. As a result, the retrospective introduction of a rate of return regime will have negative effects on the future financing costs of the Norwegian off shore gas sector and more widely across the Norwegian economy. The MPE's Proposal effectively expropriates the upside return enjoyed by Gassled's investors, without putting a floor on returns (as would be the case under a true rate of return regulatory regime). The effect of such asymmetric regulatory interventions is to produce an expected return that is less than the benchmark 7% pre-tax real benchmark, thus deterring future investment in the Gassled system.

We also note that the introduction of a rate of return regulatory regime requires methodology papers setting out how such reviews will be conducted, e.g. rules establishing the basis for regulatory asset value (RAV), the rules on how such costs are translated into a revenue requirement, and rules for updating revenues in subsequent years. No such methodologies have been published by the MPE further highlighting the inconsistency of the MPE's Proposal with the current form of regulation.

3.3. Conclusions

The MPE's proposed regulation of returns is entirely at odds with the long term price cap established at Gassled's inception in 2002, and with the publication of the 2002 Tariff Regulations. The MPE's Proposal is inconsistent with established principles of good regulation of consistency and predictability, thus raising the cost of finance and deterring investment, as we explain below.

4. Inconsistency with Good Regulatory Practice

First, we consider that the MPE's Proposal is inconsistent with good regulatory governance (see Section 4.1), and will act as a disincentive to investment in the Norwegian offshore sector, and Norway more widely. Second, the proposed reduction in K is inconsistent with established rules for setting transportation tariffs and could lead to inefficient system use and development (see Section 4.2).

4.1. Inconsistency with Good Regulatory Principles

4.1.1. Why consistency is important in economic regulation

Consistency or predictability is an established principle of good economic regulation. For example, a recent publication by the OECD (of which Norway is a member) identified predictability in order "to curb opportunistic behavior" as a core principle. The OECD elaborates on the principles of consistency and predictability as follows:²⁴

- *"Consistency, reducing the risk that returns on sunk investments might be expropriated through lower than optimal charges for their use by third parties;*
- *Stability and predictability, reducing the risk that plans for infrastructure maintenance and development or for transport services will be changed to reflect short term political pressures (rather than staying with long term political objectives), raising costs or confiscating value;"*

The UK Government has also recently published core principles for the development of the UK economic regulators which identify predictability as a key principle:²⁵

- *"the framework for economic regulation should provide a stable and objective environment enabling all those affected to anticipate the context for future decisions and to make long term investment decisions with confidence*
- *the framework of economic regulation should not unreasonably unravel past decisions, and should allow efficient and necessary investments to receive a reasonable return, subject to the normal risks inherent in markets"*

The principle of regulatory consistency or stability has also been the focus of a recent competition authority case in the UK. Phoenix Natural Gas Ltd (PNGL) appealed a decision by the economic regulator (the Northern Ireland Authority for Utility Regulation (NIAUR)) to expropriate the cost outperformance PNGL had achieved in the development of gas networks in its licensed area. NIAUR proposed to share PNGL's outperformance with customers, although such sharing was inconsistent with the regulatory rules. The UK's Competition Commission upheld the appeal by PNGL noting that regulatory instability can

²⁴ OECD (2011) Better Economic Regulation: The role of the regulator, p. 12

<http://www.internationaltransportforum.org/jtrc/DiscussionPapers/DP201103.pdf>

²⁵ UK Department for Business and Skills (April 2011) Principles for Economic Regulation, p.5

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/31623/11-795-principles-for-economic-regulation.pdf

undermine investor confidence, increase the cost of capital, and result in higher prices for network users, and that “*any revision to previous regulatory determinations should be: well-reasoned, properly signaled, subject to fair and effective consultation, clear and understood, and normally, forward-looking.*”²⁶

Why is predictability (or limits on regulators’ discretion) important for both consumers and investors? As we noted in Section 3.2.2, unpredictable or discretionary actions by regulators tend to result in the expropriation of high returns without commensurately putting a floor under low returns. The effect of asymmetric regulatory interventions produces an expected return which is less than the actual cost of capital. In regimes where regulators exercise discretion, investors may be reluctant to invest or will add a premium to their required rate of return to compensate them for bearing such asymmetric risk, raising the cost of service to users.

4.1.2. No reasonable investor could have predicted the MPE’s Proposal

As we set out above, the Tariff Regulations propose that K is fixed over the licence period with no correction for actual capacity bookings relative to forecast bookings made at the time of setting K. In addition to the Tariff Regulations, the MPE’s recent White Paper also acknowledges that capacity utilisation risk lies with the pipeline owners.²⁷ The White Paper also sets out a number of policy objectives for the transportation sector, but none of those listed by the MPE indicate any fundamental reform of the regulatory regime.²⁸ Furthermore, the MPE has not sought in the past to revise K to correct for the deviation in outturn capacity bookings relative to forecast. The only previous revisions to K have been in relation to the introduction of Langed, and the inclusion of ERS� capital rights.²⁹

In addition, the market’s surprised reaction to the MPE’s Proposal provides clear evidence that the MPE’s actions were unexpected by the investor community.³⁰

For these reasons, it is clear that investors had formed the legitimate expectation that the Gassled regulatory regime was a long term price cap regime. The corollary is that no reasonable investor could have anticipated MPE’s proposed retrospective imposition of a regulated rate of return and the associated change to K, i.e. MPE has not acted in a consistent or predictable way. The MPE’s proposed reduction in K appears to be an opportunistic attempt to expropriate the revenues associated with higher capacity bookings (relative to the capacity bookings agreed between the parties at the time of setting K).

²⁶ Competition Commission (28 November 2012) Phoenix Natural Gas Limited price determination, pp. 9-10.

²⁷ The White Paper states: *Tariffs in newer pipelines are stipulated so the owners can expect real returns of about seven per cent before tax on the total capital, with a possibility of minor additional income to stimulate increased utilisation and cost effective operations.* See: MPE (2011) An industry for the future – Norway’s petroleum activities, p.68

²⁸ MPE (15 January 2013) op. cit., pp. 10-11

²⁹ ERS� stands for Ethane Refraction, Storage and Loading.

³⁰ For example, see: Moody’s (19 February 2013) Moody’s places Solveig’s A3 ratings on review for downgrade. The rating states that the downgrade reflects “*the perceived weakening of the previously supportive and predictable regulatory regime.*” http://www.moody.com/research/Moodys-places-Solveigs-A3-ratings-on-review-for-downgrade-PR_266564

4.1.3. Evidence on the higher financing costs associated with unpredictable regulatory regimes

Rating agencies methodologies provide evidence on the higher financing costs associated with unpredictable regulatory regimes. For example Moody's states in its methodology for rating European regulated energy networks:

“the predictability and supportiveness of the regulatory framework in which a network operates is a key credit consideration and the one that differentiates this sector from most other corporate sectors.”³¹

Specifically Moody's writes:

“We consider the characteristics of the regulatory environment in which a network operates. These include how developed and transparent the regulatory framework is; the regulator's track record for predictability and stability in terms of decision making; and its independence vis-à-vis politicians.”³²

The definition of the lowest rating grade “B” in this category is given by Moody's to systems where the “*regulatory framework is unclear, untested or undergoing significant change, with a history of political interference*”. (Emphasis added.) Similarly Fitch notes that “*the erosion of regulatory predictability accounted for one notch of the August 2012 two-notch downgrade*” when assessing Energias de Portugal.³³

In relation to the aforementioned UK Competition Commission's upholding of the appeal by PNGL the Commission noted:

“both Fitch and Moody's take the predictability of the regulatory regime into account when setting credit ratings, hence we consider that there is clear effect on the cost of debt [of the regulators' proposed retroactive actions]. The effect on the cost of equity is harder to establish, but it is our view that unpredictability increases risk for equity investors and that this may increase beta and may also increase any asset stranding premium.”³⁴

The Competition Commission goes even further in stating that the effect will not be limited to the sector directly concerned but may also deter investment in other regulated sectors, which in the case of Norway would cover electricity networks and others:

“[it is] our understanding that if marginal investment is deterred and/or takes place at a higher cost due to regulatory uncertainty, then this would not only impact on the gas industry but on other regulated utilities in Northern Ireland and on future greenfield investments. Whilst we cannot forecast the size or

³¹ Moody's (2009) Rating Methodology - Regulated Electric and Gas Networks, p.8.

³² Moody's (2009) *ibid*, p.9.

³³ Thai News Service (2012): Fitch Assigns EDP-Energias de Portugal's Notes 'BBB-(EXP)' Rating

³⁴ UK Competition Commission (November 2012): Phoenix Natural Gas Limited price determination, p.158.

duration with accuracy, it is our judgement that these effects could be significant."³⁵

4.2. Inconsistency With Efficient System Use and Development

The MPE's proposal to reduce K to below cost (i.e. below the associated annuity based on a reasonable rate of return) is inconsistent with standard regulatory practice for setting transportation charges to ensure efficient system use and development.

The established practice for setting gas transportation charges in the primary market for physical capacity, i.e. which is the market supplied by Gassled, is to use a long run marginal cost (LRMC) approach. LRMC can be considered as the cost consequence of a marginal increase in output when capacity is variable. Under LRMC pricing, prices reflect the short run factor costs of making the supply plus the long run marginal capacity expansion costs caused by meeting that supply. For Gassled, a LRMC tariff implies the recovery of the I and O elements of the tariff (the short run costs), as well as the K element of the tariff based on an annuity value and a reasonable rate of return to reflect long run capacity costs.

4.2.1. Economic efficiency of LRMC pricing

Setting the tariffs for physical capacity in the primary market based on LRMC helps ensure the efficient development of the transportation system by providing a signal to shippers about the forward-looking costs of different transportation options, e.g. such as continued use (and eventual replacement) of existing pipelines, the use or development of alternative pipelines, as well as the development of LNG infrastructure. Setting tariffs based on LRMC helps shippers select the least cost long-term transportation option and provides a signal for investment in incremental capacity.

Secondary markets for the trading of capacity rights can then help ensure that short term transportation charges reflect short-term supply and demand conditions for shipping gas or short-run marginal cost (SRMC).³⁶ The price in the secondary market (or SRMC) will increase above LRMC at times of tight or insufficient capacity, and fall below LRMC at times where there is excess capacity. Secondary markets thus help ensure current network capacity is allocated to those users who value it the most. For the Gassled system, Gassco facilitates a secondary market in contractual rights aimed at ensuring efficient allocation of capacity.³⁷

Taken together, transportation charges for physical capacity based on LRMC combined with secondary markets for the trading of capacity rights, ensure the efficient use and development of the transportation system.

³⁵ UK Competition Commission (November 2012) op. cit.

³⁶ Short run marginal cost (SRMC) refers to the cost consequence of a small increase in price when capacity is fixed. When capacity is close to full utilisation, SRMC prices must also include the expected "congestion" costs incurred and can rise above LRMC.

³⁷ Gassco (2010) Secondary market for capacity in Gassled. See: http://www.energy-regulators.eu/portal/page/portal/EER_HOME/EER_ACTIVITIES/EER_INITIATIVES/GRI/North_West/Priorities1/Capacity/Secondary%20markets/Tab/2nd%20meeting%20-%202022%20Jan.%202010

4.2.2. Regulatory precedent on the use of LRMC

In the European energy sector, the Agency for the Cooperation of Energy Regulators (ACER) discusses the importance of LRMC in its draft framework guidelines on harmonised transmission tariff structures for European natural gas networks.³⁸ ACER states that LRMC tariffs provide effective signals about the impact additional flows of gas would have on the system as a whole, creating incentives for efficient use and development of gas networks. Our review of European regulators' approaches to setting transportation charges in other sectors also demonstrates the wide application of LRMC. We summarise such experience in Appendix A.

The use of LRMC is also an established principle in the application of competition law. The EU guidance on the application of Article 82 (Exclusionary abuse) sets out long-run incremental cost (LRIC) as a relevant cost benchmark (where a dominant firm that sets prices below LRIC could foreclose the market for equally efficient competitors).³⁹ Within this framework, the MPE's Proposal could result in the foreclosure of the market to LNG infrastructure development, for example, which would distort competition and run counter to the development of a least cost transportation network and optimal resource management objectives.

4.3. Conclusions

We consider that the MPE's Proposal is inconsistent with good regulatory practice, and thus will not achieve its stated objective to promote optimal resource development.

First, we do not consider that MPE's proposed change to the capital element of the tariff (K) is consistent with principles for good economic regulation. The MPE's proposed reduction in K results in the expropriation of investor returns associated with higher capacity bookings. This upside (as well as downside) risk is a risk borne by the transportation owners (as defined by the Tariff Regulations). If the Proposal is implemented, the MPE's opportunistic behavior will undermine investor confidence, and will lead to higher required rates of return for new pipeline capacity to compensate investors for asymmetric risk, as well as higher costs of capital for investing in Norway in general. Rating agencies' methodologies make it clear that the predictability of the regulatory regime is an important consideration in debt ratings and therefore investors' financing costs.

Second, the proposed reduction in K, by setting transportation charges for primary capacity below LRMC, will undermine the efficient use and development of the transportation sector (and by implication the production of oil and gas), contrary to the MPE's stated objective.

³⁸ Agency for the Cooperation of Energy Regulators (September 2012): "Framework Guidelines on Harmonised Transmission Tariff Structures (for European natural gas networks), Initial Impact Assessment"

³⁹ EU (February 2009): "Guidance on the Commission's enforcement priorities in applying Article 82 of the EC Treaty to the abusive exclusionary conduct of dominant undertakings", paragraph 26 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:045:0007:0020:EN:PDF>

Appendix A. Use of LRMC In Tariff Setting

This appendix sets out examples of the use of long run marginal cost (LRMC) as the basis for setting transportation charges.

A.1. GB Gas Transportation

In GB, gas transportation charges are set on the basis of long run marginal cost. For example, the Statement of Gas Transmission Transportation Charges published by National Grid, the TSO, states that “both entry and exit capacity charges “reflect the estimated long run marginal cost of developing the system to meet a sustained increase in demand and supplies”^{40,41}.

A.2. GB Electricity Distribution

The electricity distribution sector in the UK has a common distribution charging methodology which is based on long run incremental costs (or forward pricing methodology) for extra high voltage.⁴² The LRIC model calculates nodal incremental costs on the network, which represent the brought forward reinforcement costs resulting from additional incremental demand or generation at each node.

A.3. GB and European Telecoms

Ofcom, the British telecoms regulator, states its view on the regulation of wholesale mobile voice call termination that the “most appropriate and economically efficient basis for regulatory charge controls is forward-looking LRIC. The LRIC of voice termination is the additional cost a mobile network owner (MNO) incurs to provide termination. This can also be seen as the cost that the firm would avoid if it decided not to provide voice termination, taking a long-run perspective.” Ofcom argues that LRIC based charges correspond more closely to charges that would prevail in competitive market conditions, compared to accounting based cost measures.⁴³

Also the European Commission in its 1998 Recommendation on Interconnection (Recommendation 98/195/EC 8 January 1998) considers LRIC as the most appropriate methodology to use for setting interconnection charges. Furthermore, the Competition

⁴⁰ National Grid (October 2012): “The Statement of Gas Transmission Transportation Charges”

⁴¹ National Grid (April 2010): “The Statement of the Gas Transmission Transportation Charging Methodology”
<http://www.nationalgrid.com/NR/rdonlyres/E9EF3139-8793-490E-B08A-E8ADFDA33EBC/40920/chargingtransmethApril2010v70.pdf>

⁴² See: Energy Networks (April 2011) Common EHV Distribution Charging methodology. Source:
<http://www.energynetworks.org/modx/assets/files/electricity/regulation/EDCM/7%20EDCM%20Deliverables/EDCM%20report%201April2011.pdf>. See also: Ofgem (2008) Delivering the electricity distribution structure of charges project, ref 135/080. Source: [APPENDIX 2 \(B\) Schedule 19 - Draft EDCM LRIC Methodology Statement.pdf \(1.3M\)](#)

⁴³ Ofcom: Proposed Charge Control (Consultation Document). See:
http://stakeholders.ofcom.org.uk/binaries/consultations/mobile_call_termination/summary/chapter6.pdf

Commission (CC) identified LRIC as the appropriate costing methodology for setting termination charges.

A.4. English and Welsh Water Sector

Ofwat, the economic regulator for the English and Welsh water sector, requires companies to use LRMC as a basis for setting bulk supply tariffs (i.e. sales to other licensed water companies), and tariffs to large user and special agreements (i.e. bespoke tariffs).⁴⁴

⁴⁴ See: Ofwat (February 2000): “MD 159 LRMC and the regulatory framework”. Link: http://www.ofwat.gov.uk/regulating/reporting/ltr_md159_lrmc. See also: Ofwat (February 2000): “MD 159 LRMC and the regulatory framework”. Link: http://www.ofwat.gov.uk/regulating/reporting/ltr_md159_lrmc. See also: Ofwat (May 2001) The role of long run marginal costs in the provision and regulation of water services, Report A. Link: http://www.ofwat.gov.uk/regulating/reporting/pap_tec_lmca.pdf

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Appendix B

Pöyry Management Consulting



THE PROPOSED GASSLED K-TARIFF CUTS – A RESOURCE MANAGEMENT PERSPECTIVE

Commissioned by:

Njord Gas Infrastructure AS

14. March 2013



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Introduction

The MPE's hearing document argues that tariff cuts are necessary to secure optimal resource management, hereunder the development of new gas infrastructure. The hearing document argues that three key areas would be improved by reducing the tariffs:

- Incentives for exploring marginal prospects in mature areas and developing new infrastructure from new exploration areas
- Incentives for developing marginal resources
- Extraction in the tail-end phase

The MPE is of the opinion that lowering the K-tariff in existing gas infrastructure will lead to the development of projects attractive to the state, but currently considered uneconomic by oil and gas companies. The argument is that lower tariffs will increase their attractiveness for companies to such an extent that projects will be explored and developed and production maintained.

It is obvious that making oil and gas companies pay less will increase their profits. The question is whether this will lead to the ultimately desired change in the oil and gas companies' decisions related to exploration, development and production.

As demonstrated by the long-awaited second pipeline from the Norwegian Sea, it is not the existing pipeline system or the tariffs there that locks in gas resources in less mature areas, but rather the fact that a large booking base is needed to build new infrastructure linking into existing gas infrastructure.

Impact of K-tariffs on exploration decisions

Oil and gas companies are normally exploring for oil, as this is the petroleum resource with highest value and less problematic market access. A tariff cut in gas infrastructure does not impact this exploration at all.

To the extent they are exploring for gas, they are exploring for larger gas fields – as these are the only ones able to lift new infrastructure – or for gas fields close to existing infrastructure, preferably with available capacity in the near future for both gas processing and transport. When exploring for gas close to existing gas infrastructure, the critical point is to have available infrastructure in place – not the tariff level – and thus a tariff cut does not materially affect this exploration either. This can be exemplified with the activity around the Åsgard Transport System (ÅTS) in the Norwegian Sea. During the last decade quite a few wells have been drilled in this area and many fields containing gas have been discovered, and this has happened without any proposed reduction in the K-tariff, having led to ÅTS operating at full capacity way beyond 2020 with the current resource estimate. This kind of exploration is mostly affected by gas prices, drilling costs, field development costs, prospect size and liquid content. The effect of lower K-tariffs will at most be marginal and the analyses do not show that this will have any impact on near-infrastructure exploration decisions.

We are thus left with analyzing exploration decisions involving exploring for larger gas fields that are able to lift new infrastructure. The analysis shows that even with as low a discovery probability as 3% for finding a large gas field, a tariff cut in existing gas infrastructure is far from influencing an exploration decision. The fact that the infrastructure is there in the first place is again the part that counts when exploring for gas.

Below is an illustration of the decision to explore for a large gas field. In the first illustration this is calculated using current K-tariffs and in the second illustration using the new proposal from the MPE. These illustrations show that the EMV (expected monetary value) is NOK 1407 million with current tariffs and NOK 1512 million with the new proposed

tariffs. The total difference is NOK 105 million or 7.5%, but both have a very high EMV and this difference will not have any effect on the decision. The discovery size would have to be lowered below “large” in order to get an EMV where cutting tariffs in existing infrastructure will impact decision to drill.

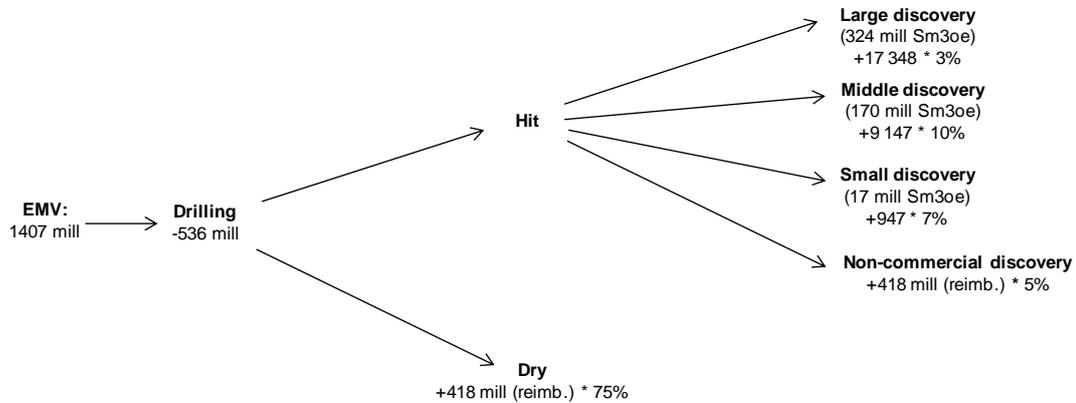


Figure 1: Exploration with current tariffs

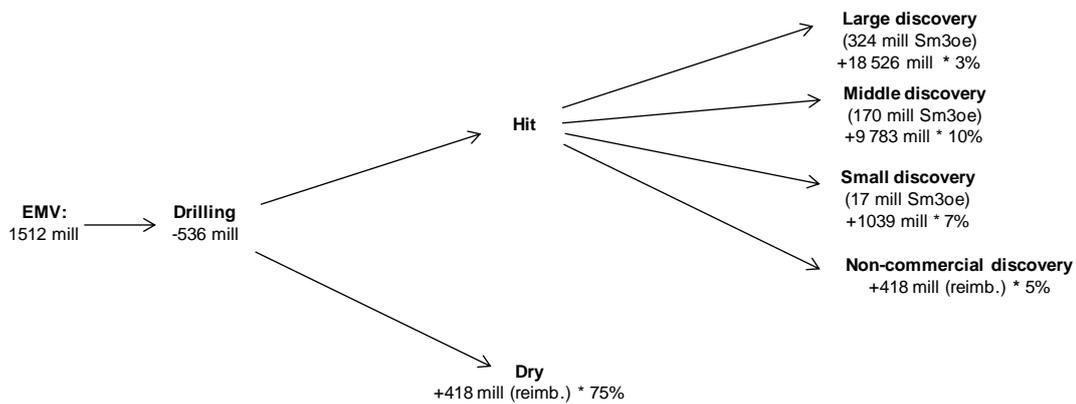


Figure 2: Exploration with proposed tariffs

Drilling an exploration well can cost NOK 500-1000 million. Even doubling the cost of exploration will not make the tariff cut have any impact on the drilling decision when exploring for large gas fields. If the field size is reduced, the drilling decision may be influenced by the well cost.

What about investing in new gas infrastructure? This is what actually underpins why oil and gas companies almost never explore for gas. The 482 kilometer long Polarled pipeline is estimated to cost NOK 25 billion. Assuming that 50% of this is process plant and 50% is pipeline, it means that a pipeline the length of only 60 km would result in a pipeline cost in the range of NOK 1.5 billion (without the processing plant), i.e. above the EMV when including the tariff cut.

Exploring for a gas field more than 100 km from existing infrastructure, essentially 100 km north of Åsgard, is thus a non-starter in the first place. The point being, oil and gas companies explore for oil (where a gas tariff is irrelevant), and sometimes discover gas (where pipeline availability is the critical factor, not the tariff levels).

Impact of K-tariffs on developing marginal resources

Let us look at an example where a discovery has actually been made. A marginal discovery is a resource which is challenging to develop under the current economic conditions (prices, cost, etc.) and given the current status of infrastructure in the area of the discovery. A marginal discovery may turn economically viable with higher oil and gas prices, with lower costs or if the area is further developed.

We will investigate this by turning to the discoveries classified by the NPD as resource class 6 – resources not likely to be developed. All other resources are estimated by the NPD likely to be developed under the current economic conditions, and we will thus see whether any of the resources in resource class 6 can go from uneconomic to economic with the proposed tariff cut.

Pöyry has calculated the IRR for all discoveries classified in this category with current and proposed new K-tariffs. Our analysis shows that the current investment threshold on the NCS is approximately 10% - 11% (10.7%) as no investments have been done on the shelf since 2003 with less than 10.7% IRR. All of the

discoveries in resource class 6 have an IRR below 10% with current tariffs. With the proposal from MPE on new tariffs some of these will get a higher IRR, but no field will move from being non-commercial to commercial. Reducing the K-tariff will not lead to fields crossing the 10% IRR threshold. Many of these, and in particular the ones with highest gas content, have negative IRR, which will become slightly less negative with lower tariffs, but these projects are still far from being sanctioned.

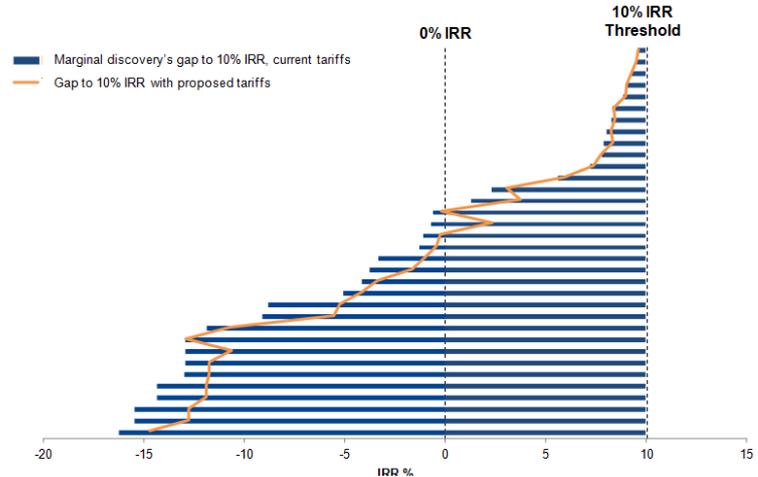


Figure 3: IRR change in marginal fields

Pöyry has also analyzed the effect on project IRR for projects that today are considered to be marginally economic. For the purpose of this analysis Pöyry has shown the effect on project IRR if the oil and gas companies have to finance the infrastructure investment themselves, or if this is being financed by infrastructure investors and the oil and gas

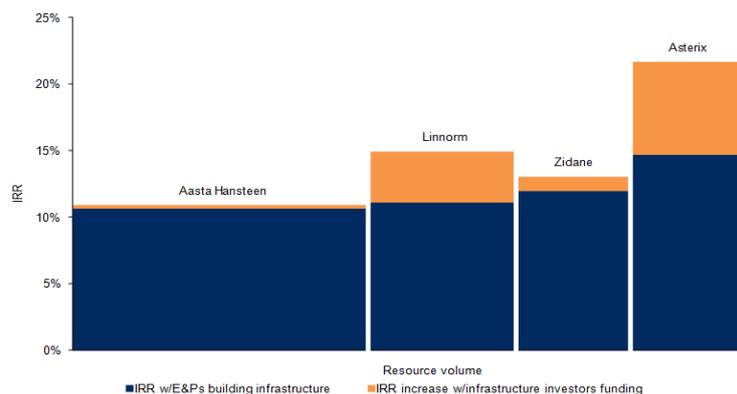


Figure 4: IRR increase from infrastructure investor funding

companies paying tariffs only. The effect of external financing of infrastructure for these resources is quite decisive, and in particular for the smaller and medium sized discoveries. See Figure 4 that illustrates this for Aasta Hansen, Linnorm, Zidane and Asterix.

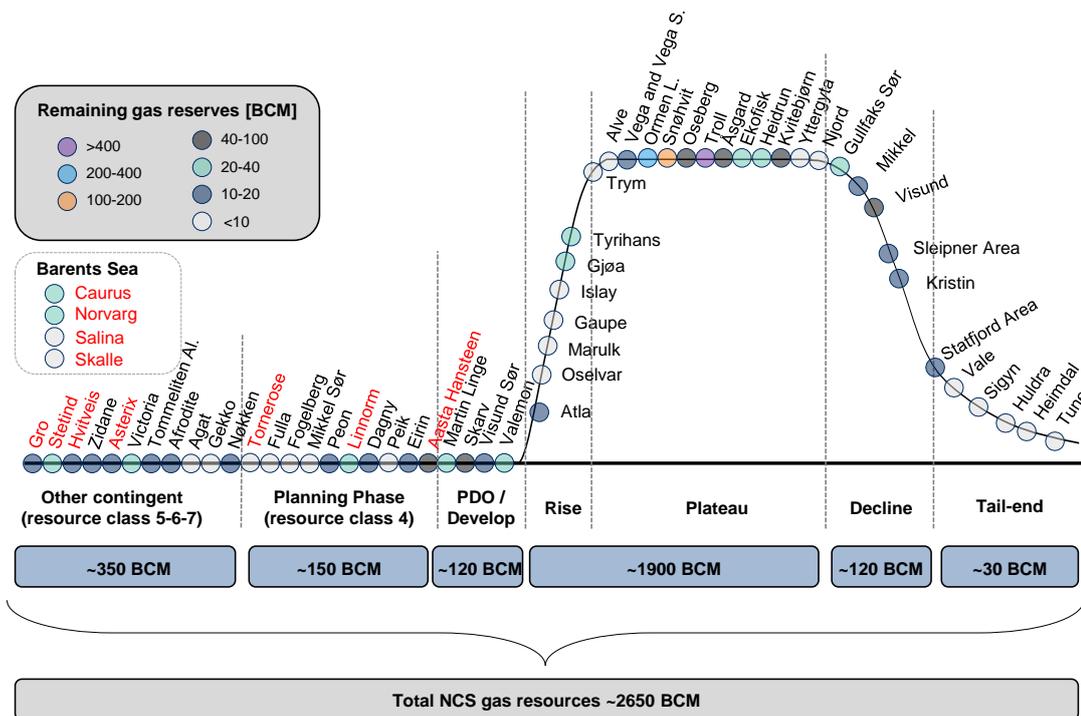
This shows that oil and gas companies benefit from having gas infrastructure investors taking care of pipeline investments. To the extent that the proposed tariff cuts leads to less appetite for gas infrastructure investors to invest, this will decrease business opportunities for oil and gas companies, a fact that works in the opposite direction of the MPE’s arguments.

Impact of K-tariffs on tail-end decisions

Are there cases where oil and gas companies’ decisions to keep fields in production are likely to be positively impacted by the proposed tariff cuts? If so, is a tariff cut in 2013 a good mechanism for resource management?

Fields entering the tail end phase often have problems with high and inflexible operational expenses that are not easily cut because most of them are fixed. Here it needs to be noted that the K-tariffs may be a flexible operational expense, as it can be paid on produced (booked) volumes, and it stays at the same level relative to the gas price while all other opex tend to increase exponentially relative to gas price as production decreases.

The K-tariffs can, as any cost, impact the timing of ceasing production on a field in the tail end phase. Figure 5 shows all but the smallest gas resources on the NCS, and where they are in the life cycle.



* Red labelled discoveries indicates lack of evacuation option
 **Source: NPD, WoodMac, Pöyry – Indicative figure including most, but not all gas assets in Norway

Figure 5: Gas fields on the NCS

Pöyry has analyzed the likely effect of lower K-tariffs on three fields that are getting into the tail end phase. The fields that have been modeled are rather sizable fields like Sleipner Vest, Kristin and Statfjord (Statfjord under the assumption that it had flowed through Kårstø instead of going through Tampen Link to UK where there is no significant tariff cut). The analysis shows that the effect of reduced tariffs can prolong the life for these fields from 1 to 9 months, given that no additional investments have to be made.

The effect from lower tariffs is therefore positive for tail end fields. However, this applies only for the last year, or two years at most. We thus need to investigate whether the proposed tariff cuts are targeted enough by looking at the economic effect of the increased tail-end versus the size of the tariff cuts. This is done by comparing the proposed tariff cuts in 2013 with (1) the value of postponing the abandonment decision by one year and (2) a tariff cut designed specifically for the last 2 years of production. As shown in Figure 6, postponing the abandonment decision can lead to many more months of production than cutting the tariffs, and a 1 – 9 month increase thus becomes irrelevant in the bigger picture for 2 of the three fields investigated (Sleipner Vest and Statfjord). The abandonment effect is smaller on Kristin, as it is a floating installation.

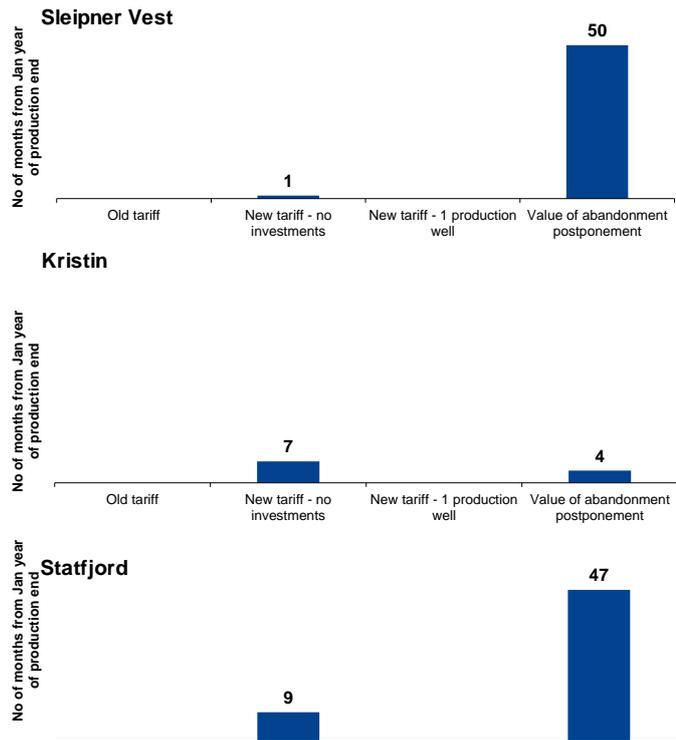


Figure 6: Effect of tariff cut vs effect of postponing abandonment

Looking at the tariff cuts and tail-end production in isolation begs the question whether it is necessary from a resource perspective to cut the tariffs in 2013 in order to lift the tail-end production by 1 or possibly 2 years somewhere in the future. An adequate mechanism that would incentivize the production from tail-end fields could be a guaranteed two year refund of the K-tariffs, reimbursed after the field has actually been shut down and based upon the production for the last 24 months. Such a refund would ensure that no fields will be closed prematurely due to the financial burden of a K-tariff. This would at the same time secure that gas infrastructure owners are left with financial resources so that they can lift new gas infrastructure investments, thus relieving oil and gas companies from new pipeline investments. Our analysis shows that this improves the IRR of oil and gas companies' developments. Such a refund needs to be structured such that all fields are catered for to avoid discrimination between fields. Figure 7 illustrates the effect lower K-tariffs will have on the Åsgard field.

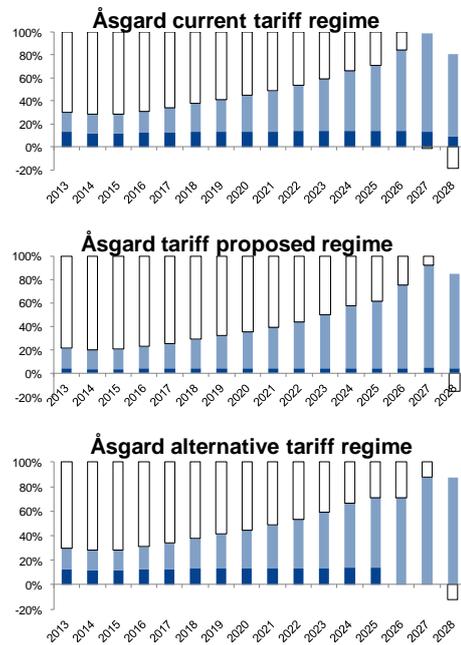


Figure 7: Effect of a tail-end rebate on Åsgard

Tariffs are a small share of the gas price regardless of tariff cuts, and the tariffs decrease as a proportion of opex as the tail-end phase approaches and the opex per unit increases. This is in real terms. In nominal terms the K-tariff will actually be reduced over time

because the inflation in other opex is demonstrably higher than the CPI that the K-tariff is adjusted with each year. Similar analyses have been done on many different fields, and the pattern remains the same. Either (1) the proposed tariff cut does not have any effect but transferring profits from gas infrastructure investors to oil and gas companies as gas production goes beyond license expiry in 2028 or (2) the tail-end effect is 1, maximum 2, years and a targeted tail-end mechanism for the last 2 actually has better effects.

The alternative mechanism compared and contrasted with the proposed tariff cuts, a reimbursement of K-tariffs the last 2 production years (24 months), demonstrably lifts the tail-end profits of the oil and gas company more than the proposed tariff cuts. This also requires a smaller economic stimulus, ensuring a better cost-benefit balance than cutting tariffs in 2013 to stimulate tail-end production at an uncertain future point.

Effect of proposed tariff cuts on new infrastructure investments

The proposed tariff cuts are likely to impact new infrastructure investments in a negative way. Firstly, there is the issue regarding regulatory stability. The proposed changes from the MPE were not anticipated by the oil and gas companies nor by the owners of Gassled or by the international investment community that believed the current tariffs would prevail until the end of the license period for Gassled in 2028. This has put an extra risk premium on investing in these kinds of assets in Norway, and going forward this in itself will lead to higher need for return, actually making new investments more costly, and a much larger need for actual bookings for paying the investment back. This will lead to less capital available for infrastructure investments and make it more difficult to dispose of these assets, and if there are buyers they will likely pay less with the increased perceived risk.

Secondly, there is the issue with regard to differences in tariffs for new pipelines and existing Gassled pipelines that will have much lower costs for transport. One example is the case regarding the Polarled pipeline. The Polarled pipeline will have a new and much higher tariff compared to using the ÅTS system that is part of Gassled. This can lead to that fields will not want to connect to Polarled, but will rather wait for available capacity in ÅTS, that have much lower tariff costs. This can from a socioeconomic point of view lead to suboptimal decisions on field developments and use of the entire gas transport system. For a Barents pipeline the costs to tie into ÅTS will be significantly lower compared to tying into Polarled. As it looks now there will be more capacity available in Polarled than in ÅTS going forward, but the big difference in tariff costs can lead to the Barents pipeline tying into ÅTS at a later stage, rather than tying into Polarled earlier.

A large part of savings flow to profitable fields already in production

Figure 8 shows estimated K-tariff revenues in Gassled given the current tariff levels split by resource category. Figure 9 shows how the lost tariff revenue is distributed among the different resource classes. Note that more than 40% of the lost revenues will come from resources that are already producing or approved. Including contingent resources in fields this figure increases to above 60%.

Should the proposed tariff reductions be implemented, these already profitable volumes will benefit most from the reduction. Only a relatively small share of the value transfer will benefit the volumes the MPE argues are at risk. As such, the proposed tariff cuts constitute a large and unnecessary value transfer from infrastructure owners to profitable fields.

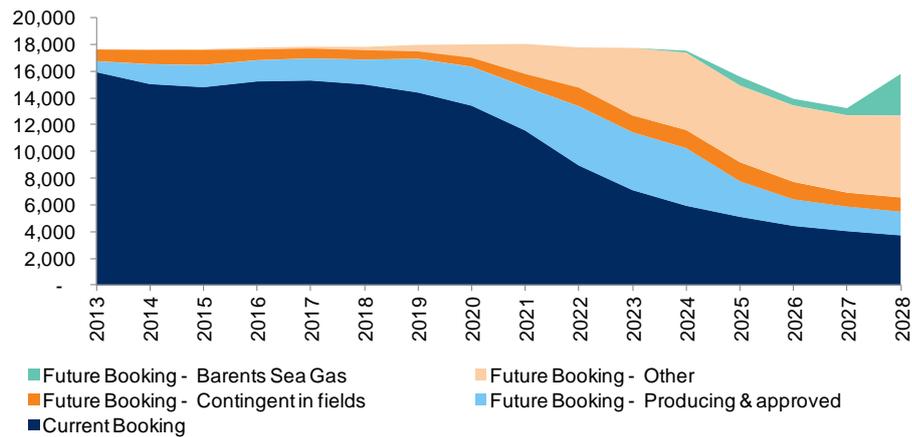


Figure 8: K-tariff revenues by resource category, current tariffs

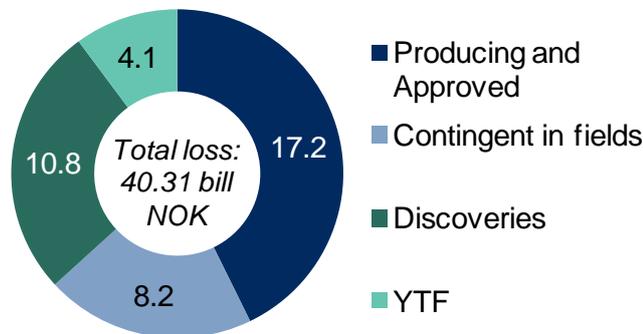


Figure 9: Lost tariff revenues by resource category

Summary

The proposed tariff cuts will lead to a large redistribution of value from infrastructure owners, mainly to owners of fields that are already economical with the current K-tariff levels. Our analyses show that the proposed cuts in K-tariffs do not have any other positive impact on resource management on the NCS but for the very last 1-2 years of production.

We have found no benefit of the tariff cuts in the analyses with regard to exploration decisions or development decisions for marginal fields and discoveries. However, we do see that for fields in the tail-end phase, lower K-tariffs *can* have a positive impact on the timing of shut-downs, but the effect of postponing abandonment has a much larger impact. To ensure that no fields are closed down in the tail-end phase due to K-tariffs, a reimbursement mechanism targeted towards the last 2 years of all producing fields will give the same effect on the economic lifetime of fields as the proposed tariff cuts, and at the same time will the mere transfer of value from infrastructure owners to oil and gas companies be reduced.

Access to infrastructure capital is valuable both for oil and gas companies and for the Norwegian state. Infrastructure financing by infrastructure investors will demonstrably lead

to higher project IRR for new developments and also increases the overall amount of capital available for investments on the NCS. No oil and gas company will invest in infrastructure at 7% return before tax, if it can be financed by someone else. The proposed changes to the K-tariff will therefore increase the risk of investing in infrastructure on the NCS and decrease willingness to invest. Disposing of the assets will be more difficult, and any transactions will certainly happen at lower values. Thus, the proposed tariff cuts may do more harm than good.

Based on our analysis, the current K-tariff level is not a hindrance for sound resource management on the NCS in general. Therefore, the current regulatory framework does not need be changed as dramatically as proposed. Emphasis must also be placed on maintaining NCS as a predictable and attractive investment opportunity for both oil and gas companies and infrastructure investors. We believe that a targeted approach towards projects' tail-end production will achieve both.

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Appendix C

THEMA Consulting Group

Gassled tariff cuts – effects on regulation risk and cost of capital

1 INTRODUCTION

The Ministry of Petroleum and Energy (MPE) submitted a consultation document on tariff changes in Gassled 15 January 2013. THEMA Consulting Group has been commissioned by the financial investors who recently became owners in Gassled, Infragas Norge AS, Solveig Gas Norway AS, Njord Gas Infrastructure AS and Silex Gas Norway AS to analyse how and to what extent the proposal could have adverse socioeconomic implications.

The consultation paper's argument in favour of the proposal is that lowering the tariffs for future volumes in Gassled will stimulate the incentives to explore, develop new projects and invest in enhanced recovery from existing fields. The paper states that lowering tariffs could be decisive for marginal projects and that the trend on the NCS is that more and more resources will be marginal to develop.

The question discussed in this paper is whether the proposal could have adverse effects on resource management objectives due to higher regulation risk and subsequently higher cost of capital.

2 UNEXPECTED CHANGES IN FRAMEWORK CONDITIONS COULD GIVE HIGHER REGULATION RISK¹

In order to fully understand the implications of the proposal from MPE, it is useful to consider the development of the gas transport system in the context of the classical models of monopoly regulation.

2.1 The period before the Gassled merger

Until Zeepipe was approved in the middle of 1980's, the gas pipelines including Statpipe and Norpipe were not regulated. The initial period from 1977 to around 1985 can thus be considered a form of *self-regulation*. Tariffs were negotiated on a case-by-case basis, and approved by the MPE. There was no evident government intervention in the business dealings of the gas transport system. As the gas shippers and infrastructure owners were mostly the same, this model ensured cost recovery for the owners, and also gave incentives for cost-efficiency.

MPE's guidelines on reasonable return on infrastructure were first introduced in a White Paper presented in the middle of the 1980s² and a form of *light-handed regulation* started. Light-handed regulation gives the infrastructure owner freedom and flexibility in setting tariffs, but there is a risk that the regulator may intervene if he finds the tariffs excessive according to some predefined criteria, or if infrastructure users complain. An important criterion was that a reasonable rate of return on infrastructure investments was assessed by MPE to be 7 % real before tax.

By 2002, just before the Gassled merger, the rate of return on historical investments in Statpipe was 13.8 %. Statpipe's tariff was never modified to comply with the White Paper in the period up to 2002.

2.2 The Gassled merger

The initial Gassled ownership structure and the current tariff regulation from 2003 were established in two stages. In the first stage a new ownership structure was established which was primarily based on net present value (after tax) of future expected cash flows for each pipeline up to the end of the individual concession periods.

¹ All rate of return values are taken from IRR calculations Powerpoint presentation by Infragas Norge AS, Solveig Gas Norway AS,

² St. meld. nr. 46 (1987-88).

In the second stage, new tariff regulations were developed and adopted in which the consolidated Gassled tariffs for third parties were adjusted to fit the new system of areas and input/exit points and to reflect extensions of the licence periods. So it was the expected future cash flow which by and large defined the ownership structure while the new regulated tariffs were recalculated and restructured to adapt to a new system. One implication of this process was that the initial owners in Statpipe got large stakes in the new Gassled joint venture. According to the Gassled Establishment Agreement, Statpipe represented 49.6% of Gassled's post-tax value in 2003. So the Statpipe owners which already had received a rate of return of close to 14 % could capitalise on a continuation of a high tariff income into the future.

The establishment of Gassled in 2003 essentially created a regulatory model which could be considered as a combination of a cost plus/rate of return regulation with limited risk and a price regulation where the regulated companies carry volume risk:

- The O, I and U elements are based on actual costs for operations, investments that maintain the integrity of the existing transport system and capacity expansions respectively. These tariff elements are based on full cost recovery including a reasonable return on invested capital. As such, these tariff elements are an example of a classic rate-of-return-regulation where cost recovery is guaranteed. In practice Gassled owners carry little or no volume risk related to these tariff elements.
- The K element remunerates historical investments made prior to the establishment of Gassled. The K element levels are set based on expected cash flows at the time of establishing Gassled. This tariff element therefore involves a volume risk for Gassled owners. It is also not easily suited for assessing actual revenues compared to historic costs of Gassled assets. However, as long as the K element is not changed (or changes are proposed) the model is transparent and predictable for both owners and users.

2.3 Post Gassled merger

After 2003 several transportation systems have been merged into Gassled: Langeled (2006), Tampen Link (2007), ETANOR og Norne Gas Transport, Kvitebjørn Gas transport (2008), Gjøa Gas Pipeline (2010).

The Langeled and Gjøa Gas Pipeline inclusions were based on the actual tariff levels in the merging transport systems at the time of the mergers. The implications of the proposed tariff cuts are that the rate of return on the investments in these transport system will be far below 7 %. For Langeled the rate of return will fall down to around 3 %, for Gjøa transport system close to 0%. They will not be able to achieve the 7 % target, if the proposal is implemented.

The rate of return in the Gassled system is still heavily influenced by Statpipe economics. Even though it is an integrated system from 2003, it is possible to make reasonable allocation of the tariff income between the various pipelines and process facilities even for the period after 2003. Doing that, the rate of return in Statpipe alone for the whole period 1975 to 2028 is calculated to be approximately 15 %.

2.4 Reflections on the regulation model

In a regulatory perspective it is important to note the following:

- a. The proposal from MPE indicates an intention to limit what the Ministry considers to be excessive profits, while at the same time failing to establish safeguards against lower profits. As such, the proposed regulation on Gassled tariffs introduces an element of asymmetric risk.
- b. Even though payback on Statpipe investments was achieved long before the merger in 2003, the K-element in the Statpipe tariff was not reduced to zero or close to zero, neither in the ownership calculation nor in the new consolidated regulated K-element in the Gassled tariffs which was established in 2003.
- c. The investors in Langeled transport system and Gjøa gas transport will never achieve a reasonable rate of return. So the infrastructure investments have not in general achieved a reasonable rate of return.
- d. MPE's proposal introduces a system with different prices at the same point of time for the same service. Shippers of gas from same fields that have booked before May 1st 2013 will pay a higher tariff than companies which have not.
- e. MPE as regulator has not published data or made data available to the public or to the regulated companies. Prior to the tariff cut proposal, the government has not to our knowledge actively monitored or published returns of the gas infrastructure. Publication of relevant data is normally done by regulators in connection with monopoly regulation and is a way to limit regulation risks. For example, in the so called RAB-model (Regulatory Asset Base) the capital base is normally published at least once a year. One could therefore have expected that MPE, as regulator, regularly had published data on historical investments costs, operating costs, tariff income and other relevant data. Lack of transparency is particularly an issue, when the regulatory interventions have large economic implications for the regulated companies.

When comparing the regulation principles of 2003 with the proposal of 2013, inconsistencies in the tariff regulation model appear. The inconsistencies have three dimensions: (i) various owners are treated differently, (ii) the regulatory interventions are not consistent over time and (iii) the proposal introduces different prices for the same service at the same time for various shippers. In addition, low transparency contributes to the unexpected features profile of the tariff cut proposal.

3 REGULATORY RISK AND COST OF CAPITAL

3.1 Impact on the cost of capital from MPE's proposal

As stated above, the proposal indicates that Gassled owners are subject to asymmetric risk in the sense that excessive profits are clawed back by the regulator without compensation for downside risk. Furthermore, the change in regulation is unexpected and leads to less transparency and predictability of the system. The overall effect is to introduce a significant element of regulatory risk. Regulatory risk may in turn affect the cost of capital and project profitability through several channels:

The expected cash flows from Gassled activities will be reduced. This will influence the financial rating of the debt of Gassled owners, particularly the financial investors who do not own gas resources, and increase the cost of borrowing. Rating companies have already signalled a downgrading of Gassled owners' debt if MPE's proposal is implemented^{3,4}. Furthermore, Moody's states in their March 2013 Credit Opinion the following: "*The rating action also reflects the perceived weakening of the previously supportive and predictable regulatory regime*". A downgrading will immediately hit the bondholders, including Norwegian and International pension funds. This is a direct effect of the proposal which can be observed in the financial markets. In the next phase, a lower credit rating will increase future borrowing costs.

There may also be indirect effects on borrowing costs on the NCS. There is a risk that higher cost of capital spreads to the rest of the oil and gas industry active on the NCS, which means that at least some oil and gas companies could have to pay a higher premium on future financing. This would happen if MPE's proposal leads to a perceived higher regulatory risk not just for Gassled, but for other NCS activities also. A point to mention in this connection is that a lower credit rating is in particular a challenge for financing marginal projects, which are often developed by small companies. For these companies, NCS activities constitute a significant share of their activities, and hence they are mainly subject to the particular regulatory risks on the NCS from a rating perspective (unlike larger and more global companies whose debt rating does depend on NCS risks to a lesser extent).

Also one may argue that the regulatory risk will lead to an increased risk premium on the total cost of capital (WACC, weighted average cost of capital), not just through increased borrowing costs. Theoretically, this effect should be accounted for through adjusting the cash flows when analysing NCS projects, but in practice analysts will typically add a risk premium to the cost of capital. The outcome with regard to project profitability will basically be the same whether the risk adjustment is done via the cash flows or the cost of capital.

Finally, unstable regulation creates larger volatility in expected cash flows, even in the case of symmetric regulatory risk (where shortfalls and excess profits relative to the target rate of return are treated equally, unlike MPE's proposal as we have interpreted it above). This increases the cost of capital directly. For a given systematic risk or correlation between project returns and a reference portfolio, increased volatility implies higher cost of capital (this follows mathematically from standard financial models for estimating the cost of capital). This effect is perhaps more difficult to observe directly in the Gassled case, but cannot be excluded entirely.

The links between regulation, risk and the cost of capital has been the topic of a number of studies over the last 30 years.⁵ Based on these studies, there seems to be a clear general link between the type of regulation and the risk exposure of regulated companies. Furthermore, the presence of asymmetric risks due to unexpected regulatory intervention is shown to have a potentially significant impact on the cost of capital in specific cases.

3.2 Conclusion on regulatory risk

We consider the evidence for MPE's proposal increasing the regulatory risk compelling both from theory and available empirical data. Hence, we expect that the cost of capital will increase particularly for infrastructure investments on the NCS. The severe economic implications for the gas infrastructure companies are likely to be perceived as a radical and unexpected change in the framework conditions. The economic implication and potential economic loss to the Norwegian society is related to what is perceived in the market. As yet, such effects have not been observed apart from the Gassled debt downgrade risk, but there is a positive probability that the wider impact on cost of capital is real. It should therefore be taken into account when considering changes in the Gassled tariff regulation. However, it is not possible to use the results from the literature to estimate the impact on Gassled cost of capital as the empirical evidence is case-specific. Furthermore, the reference point with regard to such parameters such as the risk-free interest rate may differ significantly between different studies and infrastructure sectors.

³ Moody's Solveig Credit Opinion March 2013.

⁴ Standard & Poor press release of January 21th 2013 putting Njord bonds at Credit Watch.

⁵ A list of relevant journal articles and reports can be found in the reference list at the end of the memo.

4 A COMMENT ON VOLUME RISK AND OPTION VALUE OF SPARE CAPACITY

The incentives to take on volume risk by pre-investing in spare capacity will likely be weakened by the proposal. The economic value of infrastructure investments consists of two elements:

- The discounted value of future income from initial committed volumes.
- The option value of future volumes not committed, i.e. the value of spare capacity

Now the gas infrastructure investors with no gas will have little or no incentive to take on a volume risk by investing in spare capacity, unless the initial committed capacity gives them the required rate of return. On the other hand, if the investor could keep part of the option value they may have been willing to accept a lower rate of return (and lower tariff) for initial committed capacity through the system. The proposal reduces the option value of spare capacity for private investors in Gassled. Now, a potential investor in new infrastructure will refer to the tariff reduction that eventually will result from this proposed tariff revision. Therefore he will probably be more than reluctant to take on volume risk by pre-investing in capacity above initial committed capacity, unless he will get the allowed rate of return from transporting the initial volumes. The reason is that the investor will fear a tariff revision similar to the present MPE proposal when the rate of return reaches the regulated rate of return. If, on the other hand, the investor was confident that he would be allowed to keep (part of) the option value, he would have been willing to carry more volume risk at the outset and accept a lower tariff (and rate of return) for initial volumes.

Spare capacities in infrastructure have a socio-economic value which is not reflected in private investors' cash flow. Hence the MPE proposal increases the wedge between the public and private profitability of new gas pipeline investments.

5 QUANTITATIVE ILLUSTRATIONS

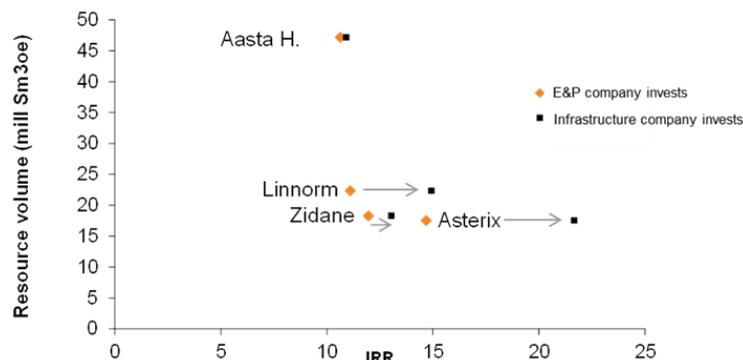
In this section we present quantitative illustrations of effects of increased cost of capital. All quantifications are done by Pöyry Management Consulting.⁶

5.1 The effect on marginal gas field economics

As discussed above there is a risk that the market for cheap infrastructure capital dries up implying that oil and gas companies must invest in infrastructure themselves. The oil and gas companies will require the same rate of return from the infrastructure project as they do from the upstream part of the investment. This will increase the break-even price for gas in new gas projects. Another way to put it is that the average cost of capital for new projects will increase since access to low risk infrastructure capital is not available any more.

Pöyry Management Consulting has analysed the effects on marginal gas field economics in the Norwegian Sea. Åsgard Transport is full until late 2020s so in the next 10-15 years new gas from this province must be shipped through the new Polarled pipeline to Nyhamna and then into Area D of Gassled and down to the market. The issue is then, how would the internal rate of return of new gas projects be affected if oil and gas companies invest and own Polarled compared to a situation where the oil and gas companies pay tariffs reflecting a rate of return of 7 % real before tax? Figure 1 shows that small gas projects are particularly sensitive to increased cost of capital, since infrastructure costs often constitutes a larger part of the total costs. Note that since Polarled already is decided, this example illustrates the impact on field economics if the oil and gas companies were to divest the pipeline to infrastructure companies (which might disappear, if the proposal is implemented).

Figure 1. IRR of selected gas developments comparing E&P companies investing and owning Polarled pipeline compared with infrastructure companies investing and owning Polarled pipeline



Source: Pöyry Management Consulting

⁶ K-tariff Current vs Proposed, Powerpoint presentation by Pöyry Management Consulting, March 2013

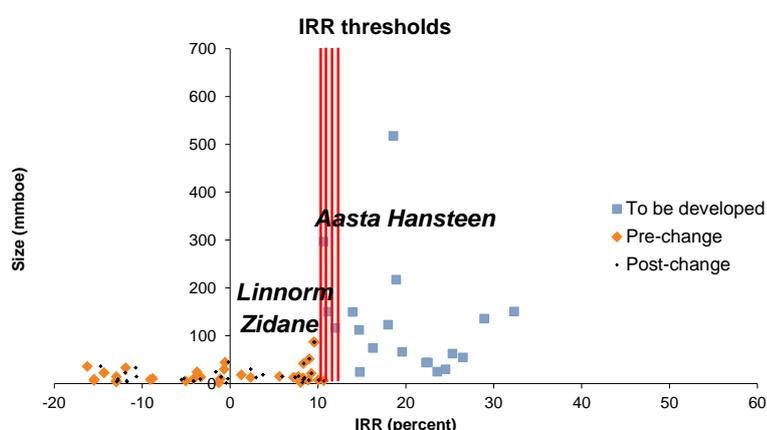
5.2 Barents Sea pipeline

Pöyry Management Consulting has analysed the impact of MPE's proposal on the incentives to develop Barents Sea pipeline. Pöyry's main conclusion is that the proposed tariff cut will not influence the incentives to develop Barents pipe. Increased cost of capital makes Pöyry's conclusion even more robust; The effect on the K-tariff in a Barents Sea pipeline is calculated to be in the order of 0.02 – 0.03 NOK/Sm³ for each per cent the cost of capital increases. So, if the oil and gas companies has +/- 5 per cent higher discount rate than the infrastructure companies, the implicit increase in the Barents Sea tariff would be in the order of 0.1 to 0.15 NOK/Sm³ given that the oil and gas companies have to invest and own the pipeline.

5.3 Aggregated effects on commercial reserves

Pöyry Management Consulting has analysed effects on commercial reserves if the cost of capital increases by 2 per cent from 11 to 13 per cent. Gas fields in the Norwegian Sea are used as an example to illustrate a generic issue. The examples, illustrated in Figure 2 show that fields as Aasta Hansteen, Linnorm and Zidane will change from being marginal to sub-marginal, when the threshold discount rate increases from 11 to 13 per cent.

Figure 2. Effect on commercial reserves if cost of capital increases from 11 to 13 per cent



Source: Pöyry Management Consulting

REFERENCES

Alexander, I., Mayer C. and Weeds H. (1996): *Regulatory structure and risk: An international comparison*, Prepared for PSD/PPI, World Bank, London Economics and Oxford Economic Research Associates

Alexander, I., Estache, A. and Oliveri, A. (1999): *A few things transport regulators should know about risk and the cost of capital*, World Bank and London Economics.

Alexander, I. and Harris, C. (2005): *The regulation of investment in utilities; concepts and applications*, World Bank working paper no. 52

Bazon, C. (2011): *Cost of regulatory risk for wireless spectrum values*, The Brattle Group, Inc.

Copper, I. and Currie, D. (1999): *The cost of capital for the UK water sector*, Regulation initiative discussion paper series number 28, London Business School

Gaggero, A. (2007) "Regulatory risk in the utilities industry: An empirical study of the English-speaking countries", Utilities policy

Johnsen, T. (2006): *Kapitalkostnad for norske mobilselskaper*, rapport til Post- og teletilsynet, oktober 2006.

Johnsen, T. (2009): *Kapitalkostnad for norske mobilselskaper, oppdatert pr oktober 2009*; rapport til Post- og teletilsynet.

Johnsen, T. (2012): *Vurdering av forslag til endring av NVE-renten fra 2013*. Rapport for Norges vassdrags- og energidirektorat.

Meyers, S. (1970): *Applicability of finance theory to public utility rate cases*, Working paper Sloan School of Management (MIT)

Norton, S. (1985): *Regulation and systematic risk: The case of electric utilities*, Journal of Law and Economics Vol. 28, No. 3 (Oct., 1985), pp. 671-686

Ofcom (2005): *Ofcom's approach to risk in the assessment of the cost of capital*, Final statement 18 August 2005

Skjeret, F. (2001): *Normalavkastning og effektiv drift for nettmonopolene*, SNF-prosjekt nr. 7140 «Risikoforhold og normalavkastning for effektiv nettvirksomhet»

Solchaga Recio & asociados (2011): *Regulatory risk and its effect on investment in NGA networks*, A study for Telefónica S.A.

Appendix D

Unofficial Norwegian Translation

Høringsuttalelse

**Til Olje- og Energidepartementet
vedrørende høringsnotat av 15. januar 2013
som foreslår endringer i tariffene for Gassled**

15. mars 2013

Njord Gas Infrastructure AS
Næringslivets Hus
Haakon VII's Gate 8
4005 Stavanger

1 BAKGRUNN

1.1 Innledning

Vi eier 8 % av Gassled. Andelen ble kjøpt fra ExxonMobil 16. juni 2011. Vårt eneste formål er å investere i langsiktig utvikling og kostnadseffektiv drift av Gassled. I denne uttalelsen gir vi våre synspunkter på forslaget fra Olje- og Energidepartementet ("OED") om å kutte 90 % i kapitaltariffene for Gassled (K-elementet i tariffen) for nye avtaler fra og med våren 2013 ("Forslaget") som beskrevet i høringsnotatet datert 15. januar 2013 ("Høringsnotatet").

Etter etableringen av Gassled 1. januar 2003 har det fulgt nesten et tiår med stabilt eierskap og stabile tariffene. Fra 2010 bortfalt fordelene ved eget eierskap i Gassled for skiperne. Frem til da hadde eierne fortrinnsrett ved ledig kapasitet i førstehåndsmarkedet. Følgelig har vi og andre selskaper med oss siden 2011 samlet kjøpt 45 % av Gassled fra skiperne (inkludert ca. 1 % eid gjennom Norse Gas AS). Dette var mulig fordi gasskiperne Statoil, ExxonMobil, Shell, Total og Eni bestemte seg for at de kunne anvende sin kapital bedre ved å investere i deres kjernevirksomhet, nemlig leting etter, utvikling og produksjon av petroleum. Våre første investeringer alene gjorde om lag NOK 35 milliarder tilgjengelig for disse selskapene for investeringer på norsk kontinentalsokkel.

Vi har rådført oss med flere eksperter i arbeidet med denne høringsuttalelsen og vi viser til vedlagte rapporter:

- NERA Economic Consulting, verdensledende innen reguleringsøkonomi (Vedlegg A).
- Pöyry Management Consulting, et globalt konsulentmiljø spesialisert på energi og infrastruktur (Vedlegg B).
- THEMA Consulting Group, konsultentselskap rettet mot energisektoren (Vedlegg C).
- Advokatfirmaet Selmer og prof. dr. juris Eivind Smith ved det juridiske fakultet ved Universitetet i Oslo har bistått med juridisk rådgivning.

For enkelhets skyld vedlegges en uoffisiell norsk oversettelse av selve høringsuttalelsen (Vedlegg D). De ovennevnte vedlagte rapportene er henvist til nedenfor ved forfatterens navn og året 2013.

I denne høringsuttalelsen vurderer vi Forslaget sett opp mot de politiske målene som er angitt i Høringsutkastet samt de videre virkningene av Forslaget. Vi foreslår en mer omfattende dialog for å utvikle en mer målrettet løsning, og vi skisserer noen elementer som kan inngå i en slik løsning.

1.2 Vår forståelse ved investeringen i Gassled

Våre obligasjonseiere og aksjonærer omfatter norske og internasjonale pensjonsfond, statlige fond og forsikringsselskaper, inkludert Oslo Pensjonsforsikring, Folketrygdfondet og Statens Pensjonskasse. Vi var fornøyd med å investere i Gassled og Norge, fordi Norge har et renommé for stabilitet, åpenhet, langsiktig petroleumspolitik og høy grad av rettssikkerhet. Forslaget stemmer ikke overens med dette.

Vi gjennomførte omfattende due diligence undersøkelser før vi besluttet oss for å investere i Gassled, herunder en rekke møter med ledende embetsmenn i OED. Vi satt igjen med et tydelig inntrykk av at departementet hadde en lang tradisjon for konsensusbaserte beslutninger i samarbeid med eierne av Gassled. Forslaget er i strid med denne tradisjonen.

I sin godkjenning av 1. februar 2011 i henhold til Petroleumsløven § 10-12 til vårt kjøp av eierandelen i Gassled, nevner departementet at tariffene kan endres. Vi forsto dette utelukkende som en konstatering av norsk rett, underlagt begrensninger i lovgivningen. Godkjennelsen kom etterfølgende omfattende diskusjoner med departementet i løpet av 2010 og 2011. De gangene tariffendringer ble tatt opp i disse

diskusjonene skjedde dette *alltid* i en kontekst av konsensusbaserte endringer med korresponderende lisensforlengelser utover 2028. Dette gjenspeiles ikke i Forslaget.

1.3 Regulatorisk rammeverk

To ulike hovedtyper av økonomisk regulering for infrastrukturmonopoler, slik som Gassled, benyttes:

- **Avkastningsregulering** hvor prisene fastsettes for nærmere angitte perioder for å sikre eieren en rimelig avkastning. Ved denne type regulering bærer eieren liten eller ingen risiko for den faktiske etterspørselen. Dette fordi prisene justeres jevnlig slik at den regulerte avkastning skal oppnås. Dette etablerer en nedre og øvre grense på den faktiske avkastningen. Avkastningsreguleringen understøttes av at regulatoren offentliggjør metodikken for fastsettelse av kostnader, herunder grunnlaget for den til enhver tid regulerte kapitalverdien av investeringen, reglene for hvordan kostnadene omgjøres til et inntektsnivå, samt reglene for fremtidig justeringer. Årlige finansielle rapporteringer revideres og offentliggjøres fra oppstart. Ingen slike regler eller rapporteringer eksisterer for Gassled.
- **Prisregulering** hvor prisene er fastsatt fra oppstart og hvor eieren bærer risikoen for etterspørselen (volumrisikoen). I motsetning til ved avkastningsregulering innebærer prisregulering at prisene ikke justeres for å kompensere for at faktiske volumer blir høyere eller lavere enn opprinnelig antatt. Dette innebærer at eieren bærer en vesentlig risiko, men også den potensielle oppsiden dersom den faktiske etterspørselen viser seg å være høyere enn det som var antatt ved fastsettelsen av prisene.

Til dags dato har departementet prisregulert kapitalelementet i Gassled. Vi investerte i Gassled på bakgrunn av dette regulatoriske rammeverket. Forslaget er ikke i samsvar med en slik prisregulering. NERA Economic Consulting behandler denne problemstillingen mer i detalj i Vedlegg A.

1.4 Juridiske vurderinger

I forkant av utsendelsen av Høringsnotatet mottok departementet en juridisk vurdering fra advokatfirmaene Kluge og Arntzen de Besche som behandler departementets kompetanse til å redusere tariffene i Gassled. Umiddelbart etter at vi mottok Høringsnotatet, anmodet Silex Gas Norway AS, også på vegne av Solveig Gas Norway AS, Infragas Norge AS og oss, om offentliggjøring av den juridiske vurderingen. Denne anmodningen ble avslått av departementet. Anmodning om offentliggjøring ble deretter oversendt til Sivilombudsmannen. Så sent som 11. mars 2013, fire dager før utløpet av høringsfristen, sendte departementet ut en versjon av den juridiske vurderingen, hvor det vesentlige av innholdet var sladdet. Departementets manglende vilje til åpenhet i en sak som har så dramatiske konsekvenser for de som blir berørt av Forslaget er ikke i overensstemmelse med god offentlig saksbehandling.

Våre kommentarer av juridisk karakter er således basert på den begrensede juridiske argumentasjonen i Høringsnotatet, og kan derfor bli supplert.

Departementet kan i visse tilfeller endre tariffene som er fastsatt i tarifforskriften. Det presiseres i Høringsnotatet at de foreslåtte endringene i tarifforskriften kun vil komme til anvendelse for fremtidige transportavtaler. Departementet synes å legge til grunn at de foreslåtte endringene ikke vil gripe inn i etablerte rettsforhold, og at Forslaget derfor ikke vil innebære en "endring" etter petroleumsloven § 4-8 andre ledd. Selv om vi ikke er enige med departementet i dette synet, oppfyller ikke Høringsnotatet lovens vilkår selv om man legger departementets syn til grunn. Forslaget vil derfor, om det vedtas som foreslått, være i strid med den gjeldende lovgivningen, herunder petroleumsloven § 4-8.

Videre tas det i Høringsnotatet ikke høyde for at tarifforskriften innebærer enkeltvedtak overfor eierne i Gassled. Ikke bare begrenser dette departementets kompetanse til å endre tarifforskriften; det innebærer også at prosessen så langt ikke oppfyller de saksbehandlingsregler som gjelder for enkeltvedtak i henhold til forvaltningsloven.

Petroleumsloven § 4-8

Omfattende investeringer av denne størrelsen har behov for forutberegnelighet og krav på en betydelig rettslig beskyttelse.

Sikre gjennomføring av prosjekter ut fra hensynet til ressursforvaltning

Det første vilkåret i § 4-8 annet ledd viser til behovet for å sikre at prosjekter blir gjennomført ut fra hensynet til ressursforvaltning. For det første er Ressursforvaltningshensynene (definert i punkt 2.1 under)er for generelt formulert til å oppfylle dette kriteriet. For det andre er det i Høringsnotatet ikke godtgjort at de foreslåtte tariffreduksjonene vil sikre gjennomføringen av de hensynene som departementet har angitt. Analyser foretatt av Pöyry viser snarere at virkningene vil bli marginale, se punkt 5 nedenfor og Vedlegg B.

Rimelig fortjeneste for eieren

Det andre vilkåret i § 4-8 annet ledd er at tariffene må innebære at eieren gis en rimelig fortjeneste. Historisk avkastning som begrunnelse for å endre tariffene er ikke holdbart etter § 4-8. Da vi investerte i Gassled var historisk avkastning ikke engang tilgjengelig for oss (siden det kun fantes vilkårlige, ureviderte og ufullstendige data, slik denne informasjonen også fremstår i dag). Våre verddivurderinger av Gassled og forventet fremtidig fortjeneste var derfor rimeligvis basert på de fastsatte tariffene i tarifforskriften – med den komfort som lå i kunnskapen om at § 4-8 utelukket endringer i tariffene utenom i foreskrevne tilfeller.

Våre forutsetninger om et stabilt system med fastsatte tariffen ble også tydelig kommunisert til departementet gjennom vår nesten 10 måneder lange godkjennelsesprosess i 2010-2011 da vår finansielle kapasitet og stabilitet ble vurdert av departementet.

Departementet foreslår et kutt i tariffene på 90 %. Det er overhodet ikke nevnt i Høringsnotatet hvorvidt den foreslåtte tariffreduksjonen har vært vurdert begrenset for å sikre rimelig fortjeneste for eieren. Dette er etter vår oppfatning ikke en akseptabel fremgangsmåte. Det faktum at Forslaget innebærer en overføring av verdier på omlag NOK 40 milliarder i nåverdi (Pöyry, 2013) fra eierne i Gassled til skiperne, der mange av skiperne nylig har solgt sine eierandeler i Gassled, viser også urimeligheten i Forslaget.

Forslaget representerer en reduksjon av allerede fastsatte tariffen

Høringsnotatet tar ikke i betraktning at standardkontrakten for transport i Gassled og tariffene er begge fastsatt av departementet og har vært gjeldende i mange år. Reguleringen med fastsatte tariffen i tarifforskriften var en forutsetning for etableringen av Gassled, og de fastsatte tariffene har siden 2003 vært anvendt på samtlige transportkontrakter – eksisterende og nye. Når det gjelder transportavtalene, bestemte departementet nye avtaler skulle inngås basert på en forhåndsgodkjent standardkontrakt.

Forslaget må anses som en endring i fastsatte tariffen etter Petroleumsloven § 4-8 andre ledd. Endringen i § 4-8 andre ledd fra 2003 innebar en kodifisering av den forvaltningsrettslige ulovfestede omgjøringslæren. Terskelen for utøvelse av kompetansen til å redusere tariffene under den ulovfestede omgjøringslæren er meget høy. Departementets kompetanse til å vedta tariffreduksjoner er således tilsvarende begrenset. Hensynene som taler for en endring må veie vesentlig tyngre enn hensynene som taler mot endringen. Forslaget oppfyller ikke dette kravet. De negative konsekvensene av Forslaget som beskrevet i denne høringsuttalelsen diskuteres heller ikke i Høringsnotatet. Alternative tiltak for å øke den fremtidige gassproduksjonen diskuteres heller ikke.

2 FORSLAGETS BEGRUNNELSER OG EFFEKTER

2.1 To begrunnelser

Departementet oppstiller to begrunnelser for Forslaget i Høringsnotatet.

For det første hevder departementet at de historiske kapitaltariffinntektene har gitt en *gjennomsnittlig realavkastning* før skatt på historiske investeringer på 10 % i årene 1975 til 2012, og at fremtidige kapitaltariffinntekter fra inngåtte gasstransportkontrakter vil gi en avkastning på 10,5 % frem til 2028.

Departementet anslår også at nåverdien av kontantstrømmene under allerede inngåtte transportavtaler overstiger det nivået som ble lagt til grunn den gang tariffene ble fastsatt ved etableringen av Gassled. Forslaget må forstås slik at departementet anser at minimale fremtidige inntekter er nødvendig.

For det andre hevder departementet at hensikten med Forslaget er "å legge til rette for at best mulig ressursforvaltning fremmes" og fastslår at:

"Et hovedmål i ressursforvaltningen er at mest mulig av de samfunnsøkonomisk lønnsomme petroleumsressursene blir utvunnet. Lave tariffer i Gassled vil bidra til å realisere dette målet. "

Departementet argumenterer med at nivået og strukturen på Gassledtariffene kommer til å få effekt på insentivene for leting etter petroleum, utbygging av felt og utvinningsgrad og økt produksjon fra eksisterende felt (sammen heretter kalt "**Ressursforvaltnings hensynene**"). Departementet påstår at:

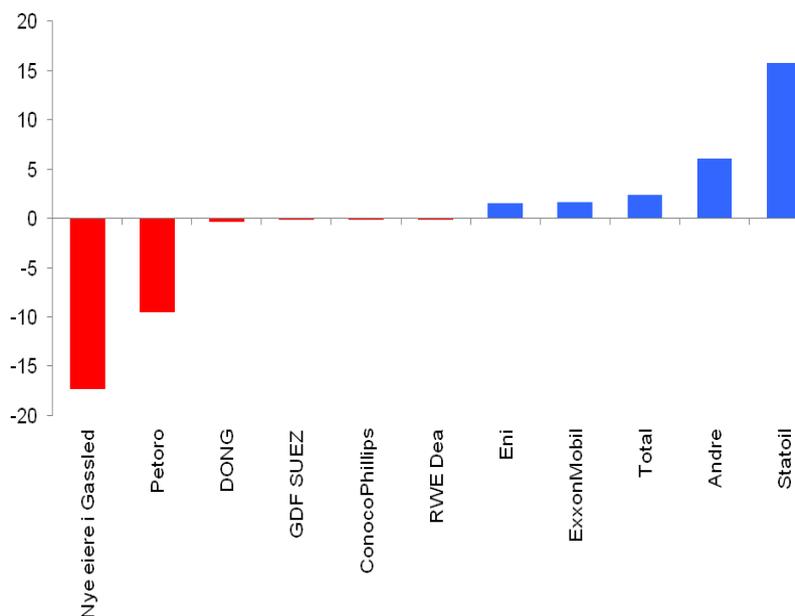
"Lavere tariffer i Gassled vil styrke insentivene til å lete i nordområdene ved at det legges bedre til rette for å få bygget ut gasstransportsystemet nordover og derigjennom få etablert økt transportkapasitet fra området."

2.2 Forslagets hovedeffekter

Forslaget vil komme til å redusere inntektene til eierne i Gassled frem til 2028 med om lag NOK 40 milliarder i nåverdi (Pöyry, 2013). Hele denne verdien vil overføres til gasskiperne, hvor mesteparten går til Statoil, Total, ExxonMobil og Eni (Pöyry, 2013). Dette er de samme olje- og gasselskapene som nylig solgte sine andeler i Gassled til en markedspris som var rimelig under forutsetning av uendrede kapitaltariffer.

Forslagets nettoeffekt (NOK milliarder)

Kilde: Pöyry, 2013



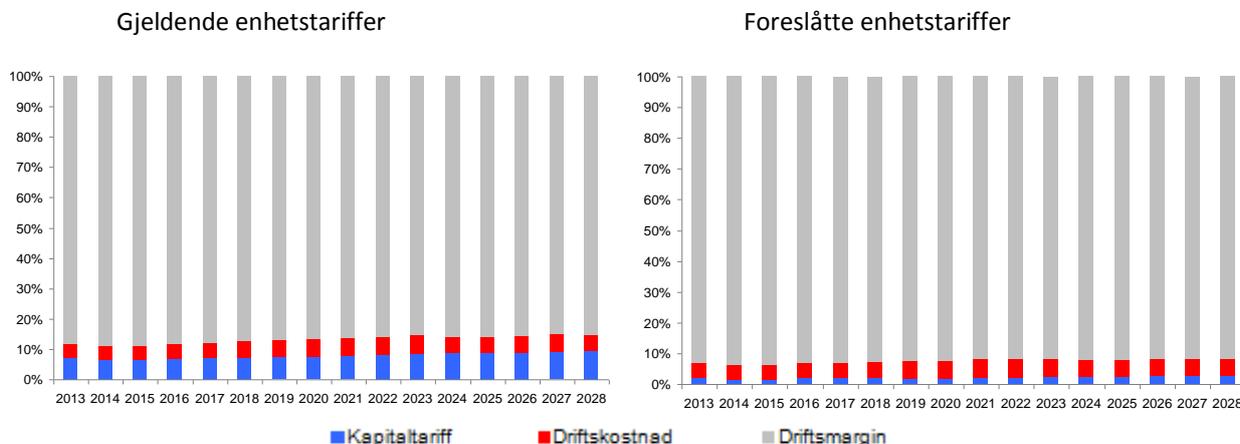
Note: Nettoeffekt tar hensyn til Petoro og Statoils roller som både eiere i Gassled og skipere. *Nye eiere i Gassled* utgjøres av Solveig Gas Norway AS, Silex Gas Norway AS, Infragas Norge AS og oss selv som kjøpte 45 % av Gassled i 2011 og 2012. Alle tall er angitt i nåverdi.

Over 50 % av denne verdioverføringen til skiperne, hvorav Statoil mottar mest, vil tilflyte drift av lønnsomme felt, spesielt Trollfeltet. Denne overføringen fremmer ikke Ressursforvaltnings hensynene.

Diagrammet under viser nåværende kostnadsstruktur for Trollfeltet for ikke kapasitetsreservert gass, samt kostnadsstruktur etter vedtakelse av Forslaget. Det viser med tydelighet at Forslaget i dette henseende kun medfører en verdioverføring til skiperne uten å være rettet mot Ressursforvaltnings hensynene.

Troll marginal produksjonsøkonomi

Kilde: Pöyry, 2013



De ovennevnte hovedeffektene viser at Forslaget ikke er optimalt fordi:

- Det skaper uberettigede og betydelige verdioverføringer som i løpet av vår lisensperiode frem til 2028 i hovedsak tilflyter allerede lønnsomme felt.
- Kun en *mindre del* av verdioverføringen vil *kunne* fremme Ressursforvaltningshensynene.

3. GRUNNLAGET FOR VÅR HØRINGSUTTALELSE

Vi har analysert Forslaget i forhold til de begrunnelser som er angitt i punkt 2 ovenfor. I utarbeidelsen av denne høringsuttalelsen har vi vurdert hva som kan anses å være sammenfallende interessene blant interessentene i Gassled; det vil si skiperne, OED, Gassco og eierne av Gassled. Etter vår vurdering har vi følgende sammenfallende interessene:

- Fremme integriteten, effektiviteten og påliteligheten til Gassled.
- Utnytte kapasiteten i Gassled også etter 2020 ved å fremme Ressursforvaltningshensynene.
- Forlenge varigheten av Gassled gjennom effektive kapitalinvesteringer.
- Øke konkurransevnen til norsk gass.

Videre har vi vurdert målsettingene til skiperne, som – basert på våre diskusjoner med dem – kan inndeles i tre:

- For det første, som et generelt ønske, foretrekker også skipere av gass lave tariffer – på samme måte som at alle rasjonelle brukere av tjenester ønsker lav pris – uten å *kompromisse på kvaliteten av tjenestene*.
- For det andre ønsker skiperne at eierne av Gassled gis incentiver til å fremme effektiv utvikling, samt til å investere i integriteten og påliteligheten til systemet frem til 2028 og deretter.
- For det tredje ønsker skiperne regulatoriske rammebetingelser som fortsatt legger til rette for at også andre enn skiperne ønsker å være eiere av gassinfrastrukturen på norsk kontinentalsokkel. Hvis ikke vil fremtidige investeringer i Norge bli mer kapitalintensive for skiperne enn det de planla da de nylig solgte seg ut av Gassled.

Nedenfor vil vi vurdere historisk avkastning som begrunnelse for tariffreduksjonene (kapittel 4), hvorvidt Forslaget best fremmer Ressursforvaltningshensynene (kapittel 5) og de videre konsekvensene av Forslaget (kapittel 6).

4. HISTORISK AVKASTNING

Departementet hevder i Høringsnotatet at de historiske kapitaltariffinntektene har gitt en *gjennomsnittlig realavkastning* før skatt på 10 % fra 1975 til 2012, og at de fremtidige kapitaltariffinntektene fra allerede inngåtte gasstransportkontrakter vil gi en realavkastning på 10,5 % frem til 2028. Departementet hevder også at nåverdien av kontantstrømmene fra allerede inngåtte transportavtaler overstiger det nivået som ble lagt til grunn da tarifforskriften ble fastsatt ved etableringen av Gassled.

Gassled ble etablert med virkning fra 1. januar 2003. Vi kan ikke se hvordan avkastning forut for dette tidspunkt kan etablere et rimelig grunnlag for endring av tariffene i dag.

Som allerede nevnt i punkt 1.3 har departementet hittil prisregulert K-elementet i Gassledtariffen. Eierne i Gassled har alltid båret risikoen for fremtidig kapasitetsreservasjon (transportavtaler). Vi må legge til grunn at man etter beste evne etablerte de forutsetningene som ble benyttet ved opprettelsen av Gassled. Det faktum at nåverdien av kontantstrømmene under allerede inngåtte avtaler overstiger det som da ble lagt til grunn kan imidlertid ikke rettferdiggjøre endringer i tariffene på nåværende tidspunkt. Hvis ikke ville eierne i Gassled likeledes ha hatt rett til å kreve at tariffene ble høynet dersom nåverdien av kontantstrømmene skulle vise seg å bli lavere enn det som ble lagt til grunn ved vedtakelsen av tarifforskriften. En slik rett eksisterer ikke.

Uansett har eierne i Gassled aldri fått tilgang tildetaljert informasjon om denne påståtte avkastningen, og Gassco har aldri tidligere publisert informasjon om historisk avkastning. Beregningene er svært problematiske av følgende årsaker:

- Det eksisterer ikke noen form for avkastningsregnskap for Gassled. Beregningene kan ikke verifiseres og foreliggende tallmateriale er vilkårlig og heller ikke revidert.
- Statpipe og Norpipe var uregulert før 2003 og benyttet andre avkastningsnivåer ved fastsettelsen av tariffen. Da tarifforskriften ble vedtatt ved etableringen av Gassled ble kontantstrømmene til Statpipe og Norpipe fullt ut opprettholdt gjennom de eierandelene som eierne av disse to rørledningene ble tildelt i Gassled. Tariffinntektene i Statpipe utgjorde alene om lag 64 % av de totale pre-Gassled inntektene i infrastrukturen før 2003. Dette innebærer at *gjennomsnittsavkastningen* som angitt av departementet ikke gir mening. De høye tariffene fremforhandlet mellom kommersielle parter for transport, særlig gjennom Statpipe, fordreier beregningen av gjennomsnittlig avkastning før skatt. Beregninger basert på data fra Gassco viser at avkastningen for Statpipe frem til 2002 var ca. 14 %, noe som tilsier at avkastningen på øvrig infrastruktur som nå utgjør Gassled var *vesentlig* lavere enn 10 %.

Videre, i forbindelse med våre omfattende due diligence prosedyrer i 2009 og 2010 forut for vårt kjøp av ExxonMobils andel i Gassled, spurte vi ExxonMobil og Gassco om de ulike referansecasene som ble anvendt av departementet og eierne i Gassled for å verdsette Gassled. Dette inkluderte referansecasene benyttet ved (a) etableringen av Gassled i 2002, og (b) innfusjoneringen av Langeled i Gassled i 2006. Vi ble nektet begge disse referansecasene under henvisning både fra ExxonMobil og Gassco til at dette var "kommerisielt sensitivt". Det er nødvendig og vanlig i transaksjoner av denne størrelsesorden å frigi til kjøperen *all relevant konfidensiell informasjon* som kan påvirke den langsiktige verdien av eiendelen som kjøpes. Historisk avkastning kan ikke nå brukes som begrunnelse for Forslaget når både selger og norske myndigheter, ved Gassco, gjorde det klart at referansecasene for verdifastsettelsen av Gassled var konfidensielle og ikke kunne gjøres tilgjengelig for vår vurdering. Historisk avkastning må være irrelevant siden vi som kjøper ikke fikk tilgang til referansecasene.

Til sist synes bruken av beregnet historisk avkastning som begrunnelse for Forslaget å indikere at Gassled har levert en avkastning som forutsatt *a priori*, og at de reduserte tariffene kan forsvares nettopp av den grunn. Dette er ikke tilfelle siden departementet, med unntak av løpende vedlikeholdsinvesteringer (I-elementet i tariffene), har *regulert prisene i Gassled og ikke den faktiske avkastningen*. Vi viser her til punkt 1.3 over og til NERA (Vedlegg A).

5. FREMMER FORSLAGET RESSURSFORVALTNINGSHENSYNE PÅ BESTE MÅTE?

Mindre enn halvparten av verdioverføringene som følger av Forslaget vil *kunne* fremme Ressursforvaltningshensynene. Dette må anses å være marginalt. Se Vedlegg B for mer om dette (Pöyry, 2013).

5.1 Leting

Forslaget vil kun ha en svært marginal innvirkning på beslutninger om boreaktiviteter (Pöyry, 2013). Det vil i så fall kun stimulere boring nær eksisterende gassinfrastruktur. Det vil ikke skape insentiver med tanke på potensielle ressurser lenger unna.

Olje- og gasselskapene leter primært etter olje siden det er den petroleumsressursen som har høyest verdi. Forslaget vil ikke ha noen effekt på oljeleting.

Olje- og gasselskapene leter etter *store* gassfelt. I beste fall kan Forslaget øke den forventede verdien av et nytt stort gassfunn med 7,5 % (Pöyry, 2013). Dette er en fordel som er verdt å fremme, noe som også kan oppnås dersom tariffreduksjonen kun knyttes til nye felt. Fordelen vil naturligvis bli mindre ved assosierte gassfelt.

5.2 Forslaget gjør ikke ulønnsomme felt lønnsomme

Forslaget har som mål å gjøre felt lønnsomme ved å redusere gasstransportkostnadene. Vi har vurdert egnetheten av Forslaget opp mot dette målet, ved å analysere virkningene for marginale felt for å se hvor mange av dem som ville blitt lønnsomme hvis Forslaget trer i kraft. Vår målestokk for "lønnsomhet" har vært et 10 % avkastningskrav.

Vår analyse viser at *ingen* marginale felt vil bli lønnsomme som følge av Forslaget (Pöyry, 2013). Dette fordi:

- Gasstransportkostnader utgjør en liten andel av totalkostnaden for gass levert over livssyklusen til et prosjekt.
- De fleste marginale felt som er nær lønnsomhet har høyt oljeinnhold, noe som betyr at gasstransportkostnader har enda mindre betydning for feltets lønnsomhet.
- De fleste funn i Norskehavet, der gasstransportkostnader har størst påvirkning på feltets lønnsomhet, er på nåværende tidspunkt for langt unna lønnsomhet til at Forslaget kan gjøre dem lønnsomme.

Vi har full forståelse for at departementet er opptatt av å minimere *alle* kostnader på norsk kontinentalsokkel for å forbedre konkurransevnen til norsk gass. I denne sammenheng bør alle besparelser vurderes og ikke avfeies fordi de enkelte tiltakene i seg selv ikke kan gjøre ulønnsomme felt lønnsomme. Likeledes bør de samlede virkningene av en bestemt kostnadsbesparelse tas i betraktning når avgjørelsen skal tas om den på best mulig måte fremmer Ressursforvaltningshensynene. Når det gjelder Forslaget finner vi at direkte besparelser motvirkes av større indirekte kostnader.

5.3 Haleproduksjon

Vår analyse viser at Forslaget ikke vil medføre en vesentlig forlengelse av haleproduksjon fra eksisterende felt. Det gir snarere store verdioverføringer som ikke påvirker produksjonsavgjørelser. Dette gjenspeiler seg ved den økonomiske nytten av ytterligere investeringer i et felt. Dersom ytterligere produksjonsbrønner eller andre betydelige investeringer er nødvendige, er Forslaget ikke tilstrekkelig for å oppveie slike investeringskostnader. Dessuten øker driftskostnadene ved haleproduksjonen betraktelig. Siden K-elementet

reelt sett er fast blir det økonomisk ubetydelig i forhold til økte driftsutgifter. Pöyry konkluderer med at økt haleproduksjon bedre kan skje ved at kostnadsreduksjoner rettes mot de siste to produksjonsårene på et felt.

6. VIDERE IMPLIKASJONER

Forslaget vil *medføre høyere indirekte kostnader* for olje- og gasselskapene på norsk kontinentalsokkel og i den norske kraft- og telesektoren.

6.1 *Fordeler ved at infrastrukturinvestorer finansierer utvikling av infrastruktur*

Siden juni 2011 har infrastrukturinvestorer ervervet 45 % av Gassled fra skiperne Statoil, ExxonMobil, Total, Shell og Eni. Dette ble mulig fordi OED lyktes med å etablere Gassled som et integrert transportsystem med en uavhengig operatør og stabile regulerte tariffer. Forutsatt at Forslaget ikke vedtas, kan denne betydelige eierskapsendringen bidra til vesentlige kostnadsfordeler for gassproduksjonen på norsk kontinentalsokkel, blant annet ved:

- ***Infrastrukturkapital.*** De fire nye eierne i Gassled – med tilgang til *infrastruktur*-kapital og med avkastningskrav etter skatt forenlig med investeringer i regulert infrastruktur, i motsetning til olje- og gasselskapene som generelt krever en høyere risikojustert avkastning – var beredt til å investere i Gassleds fremtid og utviklingen nordover på norsk kontinentalsokkel.
- ***Redusert kapitalintensitet for olje- og gasselskapene.*** Vår inntreden innebar at olje- og gasselskapene kunne investere på norsk kontinentalsokkel uten å måtte allokere kapital til infrastruktur for gasstransport i tillegg til leting og utvinning. I en verden hvor kapitaltilgangen er knapp, er det en betydelig fordel at olje- og gasselskapenes kapitalbehov på denne måten reduseres. Dette gjør enkeltinvesteringer mindre kapitalkrevende og gjør Norge til et mer attraktivt investeringsområde for olje- og gasselskaper.
- ***Kostnadseffektiv uttreden fra midtstrømssektoren.*** Vår inntreden betød også at olje- og gasselskapene kunne implementere sin globale strategi om å selge ut midtstrømsaktiva der tredjepartsadgang og nasjonale regelverk er tilstrekkelig robuste til at eierskap ikke lenger er nødvendig. Dette tillot olje- og gasselskapene å fokusere på sin kjernekompetanse, samt tillot Gassco å fortsette sin utvikling som uavhengig verdensledende transportsystemoperatør.

For vårt vedkommende etablerte vi et obligasjonsprogram på NOK 10 milliarder hvor vi til nå kun har utstedt obligasjoner for NOK 3,8 milliarder. Det gjenstående beløpet var – avhengig av om Forslaget vedtas eller ikke - ment å gi oss anledning til fortsatt vekst i tråd med ekspansjonen av Gassled. Som eksempel kunne vi søkt å erverve deler av, eller hele, Polarled og tilby utbyggerne (inkludert Statoil, OMV, Shell, Total, RWE Dea og ConocoPhillips) en smidig uttreden for å frigjøre kapital og derved redusere deres kapitalbehov. Dersom Forslaget vedtas vil utbyggerne sannsynligvis bli deltakere i Gassled (i de fleste tilfellene; igjen) *ettersom vi ikke vil ønske å erverve deres eierandeler.*

Departementet har lyktes med å tiltrekke ny kapital – etter grundig og kritisk å ha gjennomgått våre finansielle ressurser og stabilitet – til norsk kontinentalsokkel og gjøre den til en mer attraktiv investeringsarena for verdens olje- og gasselskaper. Forslaget vil reversere dette.

6.2 *Høyere fremtidige finansieringskostnader grunnet asymmetrisk avkastningsprofil*

Forslaget innfører en asymmetrisk avkastningsprofil. Gassled har vært prisregulert og eierne bærer volumrisikoen for fremtidige kapasitetsreservasjoner. En reduksjon av tariffene nå, begrunnet med at en angitt avkastning allerede er oppnådd for investorene, vil bety innføring av en tilbakevirkende avkastningsbegrensning. Ved nye investeringer i infrastruktur vil investorer oppfatte dette som en asymmetrisk avkastningsprofil, hvor nedsiden ved volumrisikoen bæres av investorene, mens den potensielle oppsiden senere vil kunne "inndras" av regulatoriske myndigheter. Dette betyr at infrastrukturinvestorer i fremtiden vil forvente en *høyere* avkastning for å kompensere for denne negative asymmetrien.

6.3 *Regulatorisk usikkerhet vil øke fremtidige finansieringskostnader*

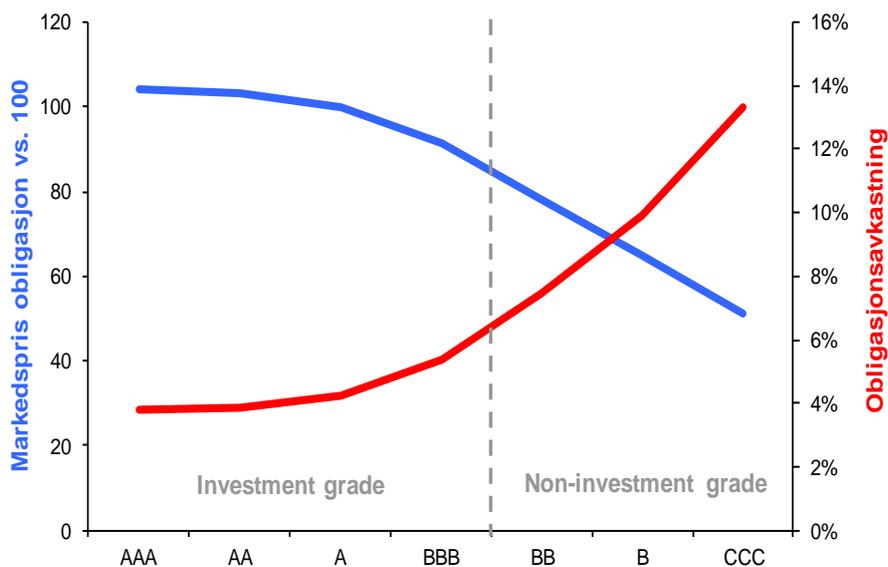
Egen- og fremmedkapitalinvestorer, samt internasjonale kredittvurderingsbyråer som Standard & Poor's og Moody's, anser Forslaget som en negativ endring i det som tidligere har vært ansett som et stabilt

regulatorisk system. Denne endringen øker kapitalkostnadene for Gassled (THEMA, 2013) og andre sektorer som er regulert av OED og norske myndigheter, herunder kraft- og telekommunikasjonssektorene. Vi viser til Vedlegg C (THEMA, 2013) for mer utfyllende behandling.

Standard & Poor's har allerede respondert på Forslaget ved å plassere vår "investment grade" A- rating under observasjon for mulig nedgradering. De har signalisert en nedgradering på mer enn ett nivå, muligens også til såkalt "non-investment grade" eller "junk", dersom Forslaget vedtas. Dette vil påvirke markedsprisen på obligasjonene negativt. Dette betyr at obligasjonseiere vil kunne være tvunget til å regnskapsføre tap eller nedgang i markedsprisen. Enkelte obligasjonseiere vil også bli tvunget til å selge obligasjoner til priser betydelig under pålydende verdi.

Figuren under viser (a) på venstre akse, markedsprisen på en A ratet obligasjon utstedt til pålydende verdi, som en funksjon av endring i kredittvurdering, og (b) på høyre akse, indikativ avkastningskrav på obligasjonen (rentenivå) sammenlignet med kredittvurdering. Avkastningskravet øker ettersom kredittvurderingen synker fra AAA til CCC. Dette kan illustreres med et eksempel: Njord betaler omlag 5 % rente på våre A- ratede obligasjoner. Prisen reflekterte markedsforholdene i mai 2011. Dersom vi skulle utstede nye obligasjoner med BB rating – alle forhold forøvrig like – ville rentenivået antakelig være minst 9 % (dersom det i det hele tatt finnes kjøpere) noe som er klart uøkonomisk i Gassledsammenheng.

Markedsverdi og avkastningskrav (kostnad) på obligasjoner målt mot kredittvurdering
per 31. desember 2012 sammenlignet med A ratede obligasjoner
Kilde: Europeiske Sentralbank og Barclays Capital



Det foreligger betydelige investeringsplaner for utvikling av kraftnettet i Norge det neste tiåret. En økning i markedspris for kreditt vil ha betydelige konsekvenser. Basert på forutsetninger fra nettselskapenes egne prognoser og THEMA sine prognoser, har vi beregnet at for nettselskapene som er regulert av departementet, vil Forslaget innebære økte årlige rentekostnader med om lag NOK 2 milliarder (forutsatt at 75 % av investeringene er finansiert med ny gjeld og 3 % økning i gjeldskostnader). Disse økte kostnadene vil til slutt måtte bæres av norske forbrukere.

Forslaget har allerede påvirket norske låneforhold. I slutten av januar 2013 avsto vår største obligasjonseier – et ledende globalt forsikringsselskap med over 90 millioner kunder i 60 land – å investere i en obligasjonsutstedelse av Statnett. Etter deres syn indikerte Forslaget en uakseptabel regulatorisk risiko.

7 EN VEI VIDERE

Gode løsninger på den norske kontinentalsokkel har alltid foregått ved konsensusbaserte beslutningsprosesser. Vi ber om at denne lange tradisjonen opprettholdes.

Vi mener at en bedre løsning effektivt kan utarbeides ved å gjennomføre en videre konsultasjon enn den meget begrensede som er gjennomført i forbindelse med Forslaget. For eksempel kan noen enkle endringer vesentlig forbedre Forslaget i forhold til å treffe målene bak Ressursforvaltningshensynene, så som:

- **Fremme leting og utvikling av nye felt.** Lavere Gassledtariffer kan gjøres gjeldende for nye prosjekter. Dette vil gi insentiver til leting og utvikling av nye felt.
- **Fremme økt utvinning fra eksisterende felt.** Eksisterende felt kan gis *kostnadsfri transport* (tariffer med K-element på null) i de *siste to produksjonsårene*. Dette vil gi insentiver til økt utvinning fra eksisterende felter og sikre at insentiver gis når det best vil fremme utvinning av marginale ressurser.

Gjennom en videre konsultasjon vil departementet kunne ta i bruk nevnte elementer, samt andre mulige virkemidler som departementet måtte ha til sin rådighet for å komme frem til bedre resultater for *alle* interessenter.

Slik vi forstår det er det ikke noen *hast* med å implementere Forslaget, og derfor ville det være en fordel for alle interessenter gjennom konsensus å arbeide frem en forbedret løsning som minimerer de negative effektene som vi har pekt på i denne høringsuttalelsen. Vi tror at departementet kan gjennomføre en slik bredere konsultasjon inneværende år, konkludere og gjennomføre hele prosessen i god tid før årsskiftet. Dette innebærer at blant andre departementet, Gassco, skiperne og eierne i Gassled sammen finner frem til hvordan man best kan innarbeide de elementene vi har nevnt ovenfor i Gassleds virksomhet. Vi tror en slik fremgangsmåte ville få bred støtte.

Vi vil støtte departementet i utviklingen av et forbedret forslag som inkorporerer elementer som de vi har nevnt ovenfor gjennom videre konsultasjoner. Vi vil støtte departementet i gjennomføringen av et slikt forslag. Denne fremgangsmåten vil på best mulig måte begrense konflikter, fordele byrdene, være i tråd med norske tradisjoner for konsensusbaserte beslutninger og bedre fremme Ressursforvaltningshensynene.

Vi ser frem til å samarbeide med departementet i månedene fremover.

Njord Gas Infrastructure AS
Stavanger



Dan Jarle Flølo
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