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Consultation on MRP - comments by Danish Energy Association

The Danish Energy Association (DEA) appreciates the invitation from the Danish Business Authority (DBA) to comment on the proposed Model Reference Paper (MRP) defining the principles and methodology that will drive the definition of the LRAIC model for fixed networks.

The MRP has been prepared on the existing methodological guidelines from the latest major update in 2013, with a small update in 2017 that made the model capable of excluding geographical areas from the cost calculation to allow the model to exclude areas where price regulation has been lifted.

One of the main regulatory inputs of the revised model will be the European Electronic Communications Code (EECC) which will be the regulatory framework for the upcoming market analysis and market decision by the DBA (Markets 3a and 3b).

The new objectives of the EECC include the promotion of investments in 'very high capacity networks' (VHCN), such as optical fibre and 5G, requiring national regulatory authorities to take appropriate account of the risk incurred by the investing companies in VHCN.

In addition, DBA finds that the new MRP should be aligned with the EC Recommendation on consistent non-discriminatory obligations and costing methodologies to promote competition and enhance the broadband investment, dated September 2013. The document was published shortly after the old MRP was finalized and stipulate the recommended costing methodology to promote investment in 'next generation access networks' (NGA) – which has been updated and concretized by the concept of VHCN in the EECC.

According to the 2013 Recommendation, cost recovery is a key principle in a costing methodology ensuring that operators can cover costs that are efficiently incurred and receive an appropriate return on invested capital.

The fibre network companies are in general relatively new players on the Danish market and are still expanding their network in new areas and growing the customer base. The situation for the fibre companies is in stark contrast to the incumbent operator, TDC, that has expanded the major part of their network over a very long historic period, covering more than 100 years and where the customer base has reached saturation.

DEA is very concerned that the way DBA is contemplating adapting the LRAIC model and subsequently using the LRAIC model in setting maximum regulated wholesale prices for the fibre network companies, will lead to wholesale prices that does not allow the fibre network companies to recover their efficiently incurred costs. DEA will meet with the European Commission and European Parliament in the near future to discuss this issue on an overall matter but strongly suggest that the model is adapted in consideration of the above-mentioned concern.

The comments from DEA below addresses the specific areas that could very well lead to under-recovery of costs, if the model is to be used in setting regulated maximum prices for the fibre network companies.

DEA has the following comments to relevant questions in the MRP:

We find the headings in the illustration 2.3 confusing. We believe that *Valuation should account for fully depreciated assets*, means *Valuation should exclude fully depreciated assets*. And we believe that *Valuation should not account for fully depreciated assets*, means that *Valuation should include fully depreciated assets*. If this interpretation is correct, we will suggest changing the wording in the headers.

Question 1

We understand that DBA must take the EU recommendation into account. Excluding fully depreciated asset will lead to lower regulated prices. The consequence is, that it will be even harder for DEA's members to compete in areas where the regulated prices become unnatural low. Therefore, DBA should be careful when excluding fully depreciated assets in the cost base, as the consequence can be a slower roll out of fiber networks, if the price competition becomes too tough.

Furthermore, the existence of fully depreciated assets does not necessarily mean that the costs of these assets are recovered through prices. For instance, some of the fibre network companies have seen significant losses during the long period, where the companies have built up their organization and network. Given the uncertainty about the future, it has at the same time been necessary to make extraordinary write-offs of the assets. Therefore, DEA recommends that fully depreciated assets are not excluded when considering the relatively newer fibre network companies.

Main criteria 1, and question 2

DEA would like to state, that transparency is important when calculating the cost base of the reusable assets. It shall be possible to trace the calculation down to the specific assets, i.e. the calculation shall not be based on assumptions, average factors, etc. It is important, that the reusable assets are reusable in reality and not just in theory.

Can DBA please confirm, that the use of reusable legacy assets is only relevant for operators who transform their copper and coax networks to NGA networks, i.e. not relevant for operators deploying fiber from the beginning.

Main Criteria 2

No comments.

Main Criteria 3

The model will calculate costs from 2018 to 2028. Can DBA be more specific about how to understand this? Will the model results be the regulated prices for the whole period 2021 to 2028? Or will the model be re-calculated every year, so that only the 2021 result will be used for setting regulated prices, while 2022-2028 results are only indicative?

Question 3

DEA does not agree with the suggested time frame. It seems like DBA only had TDC in consideration when writing main criteria 3, and the supporting text:

Fixed networks have been well-established in Denmark for many years, covering the vast majority of the population. In order to take into consideration the existing roll-out of fixed networks, obtain a precise valuation of civil infrastructure assets, and to be able to calibrate the model, it is deemed necessary that the time frame considered shall begin in the past. Nevertheless, DBA does not consider it essential to go back to the take-up stages of fixed networks, as it would add complexity to the modelling process. On the contrary, DBA considers that a time frame starting in the year 2018 would suffice to achieve the objectives previously described.

It is true that TDC has been well-established in Denmark for many years, covering the vast majority of the population. But it is another case for the members of the DEA. They started deploying fiber in the noughties. They are still deploying fiber to achieve a broader coverage in their geographical areas. So, they are still struggling to be well-established covering the vast majority of the population in their area. This means that DEA finds it essential to include the take-up stages in the model. Building a new network is extremely expensive, especially until a “critical mass” customer base has been achieved. The investment per active customer is really high in the initial of a network’s lifetime. It is important that the model is able to take the initial years into consideration, so that the model can calculate prices that ensures that operators achieve a normal profit and normal return over the lifetime of their investments.

If DEA members fiber networks shall be modelled in the LRAIC model, the model shall include the initial years, i.e. the time frame shall begin approx. year 2005.

It is DBA’s intension that the model shall produce results for the period 2018-2028. DEA would like to stress that results for future years will be highly dependent on forecasts. Especially for the DEA members the future demand is highly uncertain, as the saturation curve for new players is more uncertain than for established operators that have reached peak in customer take-up. Therefore, there is a high risk that possible regulated wholesale prices for the new fibre networks based on this method will lead to under-recovery of costs, if

the demand forecast is too high. Therefore, DBA should apply a principle of caution when forecasting demand for new players.

Question 4

DEA find it difficult to answer this question, before we see the model and its assumptions about forecast, etc. As we understand, the model will be based on 2028 volumes from 2029 – 2070. It is our understanding, that if the demand from 2029-2070 will be lower than the 2028 demand, then the model result for the years 2020-2028 was set so low that the expected return of the investment will not be achieved.

At the workshop held in week 33, it was argued that 2029-2070 wouldn't have much impact on the 2018-2028 results because of discounted values. Despite of that, DEA suggest that the model will be constructed, so that the model can calculate and show the impact of a yearly decrease in demand from 2029 – 2070 of e.g. 5 percent per year.

Main criteria 4, and question 5

DEA do agree that cost of ancillary services can be calculated as stand alone. It is difficult to judge the impact of going to a model with a single increment, but we do not believe that it will have major impact.

Question 6

No comments.

Supporting criteria 1, and question 7

No comments.

Main criteria 5, and question 8

DEA agree that the modelled operator shall be TDC. If other operators should be modelled in the future (because they become SMP), it is important to take into account their economy of scale, scorched node, bargaining power, etc. And as mentioned above; it is important to include the initial years in the calculation.

Main criteria 6 and 7

No comments.

Supporting criteria 4

There is not always enough room for supplying an unbundled product at the splitter in PON networks. The model will have to take this into account. E.g. by adding equipment that can allow the unbundling, such as extra fibres and cabinets. Lack of space at the ODF can also be an issue for PTP networks. In general, the model should take the space requirements with regard to unbundling and BSA products into consideration.

Question 9 and 10

DEA find a contradiction in the two questions – all relevant services should be included, except from the ones that shouldn't be included. Despite the contradiction we can accept the proposal.

Supporting criteria 10

DEA suggest clarifying SC10, by write it as:

The model should include both PTP and PON network architectures for FTTH networks, reflecting the actual modelled operator.

Supporting criteria 11

DEA find it important to stress, that the scorched node assumption should reflect the actual modelled operator, and that the modelled equipment is placed at the actual node locations. This also applies to other operators, if these are to be modelled in the future.

Main criteria 8, and question 11

DEA suggest a rewording of the criteria to make it more specific, and it should reflect that an efficient operator will have more premises connected than premises with active subscriptions. This will be in line with supporting criteria 12. The model should also reflect, that DEA's members networks are built to meet the futures demand, e.g. technical houses are dimensioned to be able to cover the expected demand in the future. Furthermore, it should be clear, that it is the demand that the SMP operator face in the specific geographic area. The criteria could be changed to:

The LRAIC model should assume that each access network technology supports the SMP operators actual demand. The model should reflect, that an efficient operator will have more premises connected than the number of active subscriptions. The model should reflect that many networks are built to meet the futures demand, when the network is fully deployed.

Supporting criteria 12

The model shall reflect that an operator will have a share of unused drop wires. All operators will face the fact, that an amount of connections will remain unused now and then, e.g. if the customer who ordered the connection moves to another location, and the new owner doesn't demand services based on that specific technology. This means that DEA supports the supporting criteria 12

DEA believes, that the LRAIC model should reflect the common approach taken by the local and regional fibre operators on preparing the connections of future customers to full penetration in the passive part of the access network. This approach is considered to be the most cost-efficient method in the longer term. The approach increases the initial investments, but subsequently lower the costs for connecting future customers. Nevertheless, the approach leads to a higher overall risk if expected demand fails.

Supporting criteria 14

DEA agree in SC14, but we would like to add, that the indirect costs categories should be shown separately in the model.

Main criteria 9

DEA supports a capacity-based allocation for joint and common network costs.

Main criteria 10

DEA supports that corporate overhead costs should be allocated by using the EPMU approach. But it is important that the mark-up factor reflects that smaller operators face a relatively higher share of OPEX than bigger operators.

Main criteria 11

In the supporting text related to MC 11, DBA writes that the model should take into account, that the operators bargaining power can depend on their scale. DEA fully agrees with this statement. It is an important issue, so DEA would like MC 11 to reflect this, e.g. *“Prices used in the model should reflect those that an efficient operator would face, taking the operators scale into account”*.

Furthermore, DEA would like to stress, that equipment prices should be based on brands and qualities, that actually is used in Danish networks. There have for example been a lot of debate about security issues related to Huawei. If operators choose not to use Huawei equipment, or other low-priced brands, then the equipment prices in the model shouldn't be based on Huawei equipment.

Main criteria 12, and question 12

DBA suggest calculating the operating cost by using a bottom-up assessment, based on a percentage of capital costs. DBA suggest using suppliers estimates of the annual operating costs.

Bottom-up models tends to show less costs than top-down models. The main reason for that is probably that the bottom-up approach is too optimistic and forget or neglect some costs. As operating cost is a competitive factor, suppliers also have an interest in showing optimistic operating costs.

The suggested approach can be a starting point for the calculation of operating costs, but in DEAs' opinion it cannot be a stand-alone approach. DEA suggest that a thorough top down reconciliation shall be performed, where the reasons for the difference in the figures will be identified. If the reason for the difference is inefficiencies it is fair enough to adjust the top down figures. But where the difference is caused by too optimistic figures, forgotten, or neglected costs, then the model should reflect the top down figures.

It is also important to take into account that operating costs is not fully scalable with the capital costs. It may be reasonable to assume full scalability “locally” when considering smaller changes with regard to the scale of an operator. This however is not very likely to be the case “globally” because of economies of scale and scope (elements of fixed costs, different organization setups etc.). Therefore, when considering fundamentally different sizes of operators, the opex/capex ratios is not likely to be the same. If the model is to model the fibre companies, the opex/capex ratios should be recalculated, based on figures for these operators.

Main criteria 13, and question 13

DEA does agree, that both tilted annuities and full economic depreciation should be implemented in the model, if it reflects how the deployment of the network is done from the beginning. The use of economic depreciation shall be seen in connection with our answer to question 3. As written in the EC 2013 Recommendation, cost recovery is a key principle in a costing methodology ensuring that operators can cover costs that are efficiently incurred and receive an appropriate return on invested capital. This means that the economic depreciation method will have to reflect the initial years, where the utilization of some assets is low. If the first year in economic depreciation is 2018, as suggested by DBA, it will not give DEA’s members cost recovery.

After the workshop held August 14, 2019, Axon made an Excel example illustrating this issue. Axons scenario called option 2, shows the economic depreciation for a network operator starting to deploy its network in 2005, where the utilization (or output per asset) was low in the initial years. The result of this scenario clearly shows, that this will affect the cost of unit output in the entire lifetime of the network. This means that if the operator shall get cost recovery of its investment, the initial years must be considered.

If the LRAIC model should be used to model new operators, such as DEA’s members, the model necessarily must cover the entire lifetime of the network. I.e. the economic depreciation should be calculated from 2005 and forwards, reflecting, that the utilization is lower in the take-up stages.

Main criteria 14, and supporting criteria 15

DEA accept that the WACC will be based on DBA’s up to date decisions, and we find it important that there will be a possibility of including a risk premium for NGA/VHCN networks.

Supporting criteria 16 and question 14

DEA recommend that the model include working capital. It seems like the decision about not including working capital is based on an analysis of TDC’s financial data. If the model will be used for other operators than TDC, then it should have the possibility to reflect that specific operator regarding working capital. A thorough investigation of all potential SMP operators working capital should be performed by DBA.

Supporting criteria 17

DEA does not agree in supporting criteria 17. The demand in the model will have to be based on the demand and market shares in the relevant geographical area covered by the modelled SMP operator.

Supporting criteria 18 and question 15

DBA suggest the model calculation to be based on demand forecasts until 2028. With the suggested economic depreciation method, the demand in future years, will have an impact on the calculated regulatory prices in 2021. i.e. if the demand in 2028 increases, the regulated price in 2021 will decrease. The impact of wrong forecast can be very serious for the SMP operators. DEA does not support the idea of a model that is totally dependent on forecast until 2028. No one can predict the demand in 2028. If DBA insists in economic depreciations based on forecasts until 2028, then they must be extremely conservative in their demand forecasts.

Supporting criteria 28

It is important that the database calculations will be performed in commonly known database software, which can be accessed by the operators, without buying a license for a specific database tool. It is important that the database calculations are well documented, to avoid that the database calculations will be a black box for the operators.

Main criteria 15

DEA fully agree in MC 15

Main criteria 16

DEA fully agree in MC 16

Supporting criteria 35

The header 5.4.3 is called Core and transmission networks. The text in section 5.4.3.2 is changed from "core" to "transmission" network. Please describe your definition of "core" versus "transmission" network.

Main criteria 17, and question 16

The criteria suggest that cost of shared assets should be split based on *the surface (area) occupied by the cables*. Our interpretation of the criteria is that the cost should be split based on the volume of the cables. Please specify if that is correct. The amount of shared assets between access and core should be based on actual figures related to the modelled operator.

Supporting criteria 40

DEA suggest specifying the criteria by changing “...number of present active lines” to “...number of present active lines in the modelled operators network”

Main criteria 18, and question 17

DEA support that the model will provide results at different levels of disaggregation. We find it important that the model can be used even in smaller coverage areas, were an operator can be SMP.

Supporting criteria 44

DEA supports SC 44. One of the drawbacks of Bottom-up models is that they often forget or neglect costs. Furthermore, there is a risk that the assumptions are too optimistic. Therefore, we support that a detailed top down reconciliation will be performed on both CAPEX and OPEX, as well as on the dimensioning of the network (e.g. trench kilometers, number of nodes, equipment, etc.)

Please don't hesitate to contact us if you have any questions to our comments.

Yours sincerely
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