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## **Treatment of Losses by Network Operators; ERGEG Position Paper for public consultation - comments by Finnish Energy Industries**

Finnish Energy Industries appreciate the possibility to participate in this public consultation and we wish to provide our contribution in preparing ERGEG's Position Paper of Treatment of Losses by Network Operators. We hope that these comments are taken into consideration by ERGEG.

In Finland, 5,2 million people or approximately 3,1 million customers are served by approximately 90 distribution system operators. The total length of distribution network (0,4 – 45 kV) is 360 000 km. The amount of distributed energy in low and medium voltage network is 35 TWh per annum.

Based on these facts the level of network losses in the Finnish distribution that is mentioned in the position paper can be considered very low. The average percentage of losses by individual Finnish DSO is only 4,0 %.

To our way of thinking a lot of development work has already been done in Finland to minimize network losses. So we feel that the significance of network losses must not be overemphasized in regulation.

It should also be emphasized that in Finland network losses are purely technical in nature. Theft of electricity is not a problem. Non-metered consumption can and should always be estimated by calculations.

Finally one must bear in mind that smart metering will soon improve significantly the accuracy of the quantification of network losses. Taking this into consideration too heavy procedures to improve the evaluation of losses during the transition period should be avoided

The views of the Finnish Energy Industries on the questions raised in ERGEG position paper are set out below:

### **1. What is considered an acceptable definition of losses?**

Losses can be divided in two main categories: technical and non-technical, as described in the position paper. Non-technical losses includes both theft and non-metered consumption.

### **2. Should power losses refer only to technical losses or is it acceptable to include also nontechnical losses?**

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Both types of losses should be taken into consideration. All kind of losses should be minimized. The DSOs should have regulatory incentives to minimize all kind of losses. The tools used vary between different types of losses.

### **3. Which are the key components for defining losses?**

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### **4. What ways exist to improve the evaluation of losses in distribution networks?**

To promote smart metering is by far the most effective way to improve the evaluation of losses in distribution networks.

### **5. What should be a reasonable and acceptable level of power losses at the distribution level and the transmission level?**

The level of power losses depends on amount of distributed energy, the location of consumption and the distance between production and consumption. Therefore a reasonable and acceptable level of power losses should not be determined. The DSO/TSO should have the incentive to minimize losses in all situations. The acceptable level of power losses should be based on circumstances that vary between DSOs.

### **6a. Which types of losses could be most easily reduced?**

Non-technical losses could be reduced by better measuring and more intensive surveillance. Technical losses can be reduced only to certain limit. An economical optimum should always be a goal.

### **6b. Who should be responsible for procuring electric energy to cover losses?**

The net operator (DSO/TSO) should be responsible for procuring electric energy to cover network losses.

### **7. How should electric energy to cover losses be procured in a market-oriented way? Which solution is the most efficient?**

Today when the level of losses is based on ballpark estimation purposeless bureaucracy should be avoided. Especially in Scandinavia where there are numerous small DSOs this is very important. We think that in many cases the most efficient way to procure the electric energy to cover losses is to procure it as a part of energy procurement of the local energy supplier. The price of energy should be based on official price e.g. the pool price. The supplier may add reasonable compensation according to his costs. The level of the compensation is regulated by the regulator.

To our way of thinking this procedure fulfils the requirements set in the directive. This procedure is also the most economical one from the customers' point of view.

More sophisticated procedures should be introduced only when smart metering becomes more general.

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**8. Should the costs of losses be covered by a special tariff?**

No, the costs of losses should be included in the distribution tariff.

**9. What are the advantages and disadvantages of the aforementioned incentive mechanisms?**

When considering regulatory incentives different cost factors must not be handled separately. The costs related to network losses should be treated within the regulation like any other cost. Otherwise we run into severe problems caused by partially optimization.

The total cost of network losses is the best key figure because this can be affected by both optimizing the technical structure of the network and procuring the energy from the market by the most economical way.

**10. Which key elements should be considered when assessing different regulatory incentive mechanisms?**

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**11. Are there advantages in setting separate mechanisms for technical and non-technical losses?**

Yes, when considering regulatory incentives, technical and non-technical losses should be treated separately, because they can be affected by different measures. This should, however, be done only to certain limit. The risk of partially optimization should be avoided.

**12. Are there advantages in setting separate mechanisms for transmission and distribution losses?**

Yes, because the structure of transmission and distribution networks differs significantly from each other. In certain amount same measures can be used, but the differences must be taking into account.

Finally, we welcome the work done by ERGEG. We are in favour of harmonisation to certain level. Purposeless bureaucracy should, however, be avoided. This relates especially the definition of acceptable procurement methods. More sophisticated procedures should be introduced only when smart metering becomes more general.

Yours sincerely,

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