ENSURING ADEQUATE INVESTMENT IN TRANSMISSION TO ACHIEVE EUROPE'S ENERGY GOALS

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TRANSMISSION INFRASTRUCTURE IS A PRECONDITION TO ACHIEVING THE EU'S ENERGY POLICY GOALS

Electricity transmission infrastructure investments are a precondition to attaining European energy and climate policy goals of sustainability, security of supply and competiveness. As acknowledged by European policy-makers, unlocking the socio-economic welfare pursued by these policy goals will require massive transmission infrastructure investments. These investments are identified through ENTSO-E's TYNDP. The 2016 edition has recently been published at the Infrastructure Forum for public consultation.

THE TYNDP IDENTIFIES AN INVESTMENT NEED OF € 150 bn

The TYNDP 2016 identifies an investment need of about € 150 billion until 2030. However, this represents only a subset of the total TSOs' investment needs as the TYNDP only accounts for projects of European significance. Yet, all TSO projects need to be implemented in order to achieve Europe's energy and climate policy objectives in a timely and efficient manner.

SHIFT THE FOCUS OF REGULATORY FRAMEWORKS TO INCENTIVISING INVESTMENTS

Today's regulatory frameworks are mostly backward-looking and focus on efficiency incentives, with no (or little) attention to the challenges that lie ahead (i. e., incentivising investments). Such a regulatory framework considers the overall context and the expected future as 'business as usual'. As such, a TSO's cash-inflows, provided by network tariffs, are mostly determined by the depreciation of existing investments. Today's investment challenge clearly requires investment levels (i. e., cash outflows) that are significantly higher than the depreciation of existing investments.

This results in a discrepancy between the cash outflows of the TSO, as a result of investments, and current cash inflows, resulting from tariff income. In other words, a problem of financeability arises. Therefore, backward-looking regulatory frameworks are ineffective at meeting the existing investment challenge and result in increasing pressure on TSOs' financial sustainability.

This situation should trigger a careful assessment of the mechanisms by which TSOs are financed and address the question as to whether those mechanisms can ensure the 'financeability' of the investment challenge. In such a context, regulatory frameworks should shift their focus to a forward-looking one to incentive investments.

THE EU'S AMBITIOUS ENERGY AND CLIMATE POLICY GOALS NEED TO BE REFLECTED IN GRID TARIFFS

A political commitment to reach EU policy goals also implies a financial commitment – meaning that grid tariffs will need to increase to implement the needed investments. A continuous mismatch between cash-in and cash-out flows would put the ability of TSOs to be financed at risk, thus increasing the cost of capital, in turn increasing costs for society. Ignoring this challenge would put TSOs' investments – and Europe's energy policy goals – at stake.

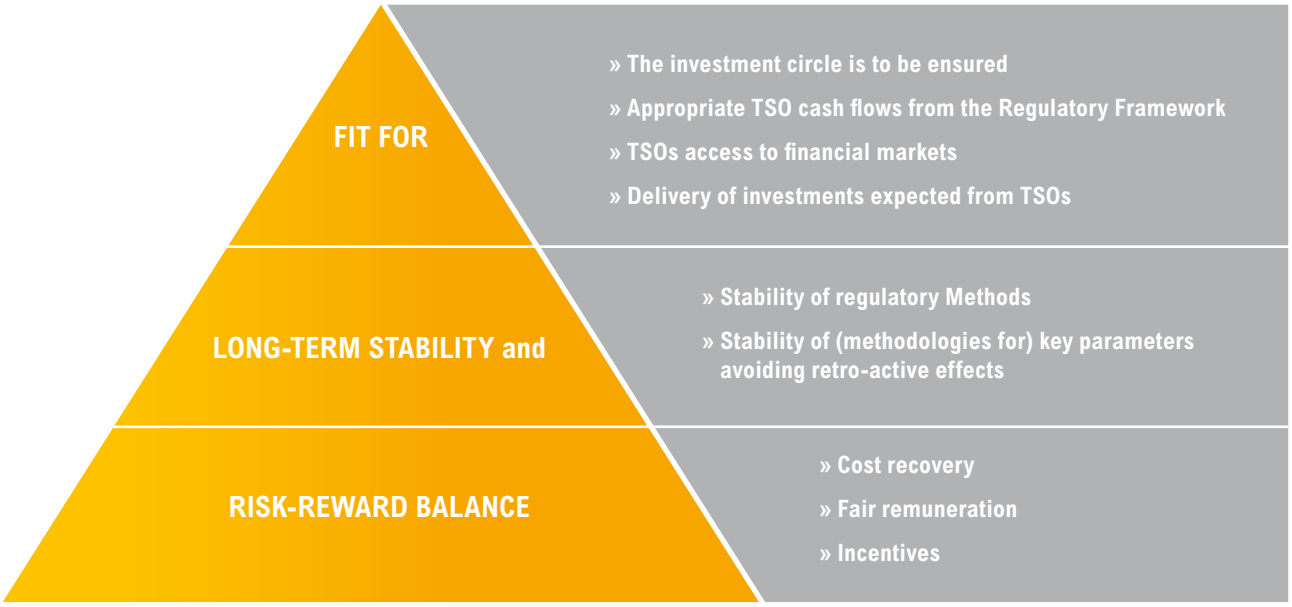

Fig. 1:The package of regulatory (TQ1) principles

INVESTMENTS IN THE POWER GRID PROVIDE A SOCIO-ECONOMIC RETURN FOR EUROPE'S ECONOMY

The resulting increase in transmission tariffs is moderate compared to the size of the investment challenge. Additionally, grid infrastructure is macro-economically more cost effective than investments in generation or storage. In return for increases in network tariffs, Europe's economy benefits from larger net increases in socio-economic welfare (reduction of congestion, increase in market efficiency, better integrated cross-border markets, etc.).

AN ENTSO-E PROPOSAL FOR A REGULATORY TOOLKIT TO AVOID A REGRET SCENARIO

ENTSO-E believes that in order for the long-term European energy policy goals to be achieved, a new holistic approach for regulating transmission businesses is required. Given the present energy scenario and the investment challenge ahead, TSO regulation should move from the narrow focus on cost-efficiency toward an innovative regulatory approach focused on global efficiency that has a better trade-off between efficiency incentives and investment incentives. In this context the following principles are important:

- **Provide a fair risk-reward balance to TSOs: The trade-off between risks borne by investors and those borne by society should result in fair remuneration for TSOs. TSO regulatory frameworks should provide clear rules on cost recovery and, where considered appropriate, be complemented with incentives steering TSOs toward a desired outcome.**
- **Grant long-term stability and commitment to the regulatory arrangements: For long-lasting investments, the risk-reward balance should be stable and predictable for investors during the entire lifetime of the asset.**
- **Ensure that the regulatory framework is fit for its purpose (appropriate TSO cash flows to invest in the context of Europe's energy and climate policy goals): Regulatory frameworks should fit with existing policy goals, which require massive investments from the TSOs.**

All three key principles should be used in any redesign of the regulatory framework and should be treated as a package. They do not suggest that all regulatory frameworks should become identical. The principles can be met in different ways and leave sufficient freedom to be tailored to the context of national regulatory frameworks. At the same time, initiatives at the European level to promote these principles are not excluded.

It is also important to note that in considering the measures and the range of their applicability (i. e., does the measure apply to the entire investment portfolio or to a specific subset such as PCIs?), a distinction should be made between prioritisation and 'financeability'. Prioritisation ensures that projects entailing a higher direct benefit for Europe are given precedence.

REGULATORY TOOLKIT

ENTSO-E suggests a toolkit of possible measures to help address the funding gap:

- reimbursement of capital expenses during construction
- no time lag for remuneration
- investor-attractive rate of return (general)
- rate of return (priority premium)
- predictable returns
- regulatory approval of transmission investments
- stable efficiency incentives
- remuneration of depreciated assets
- regulatory treatment of investments funded by grants
- OPEX allocation.