RES DIRECTIVE REVIEW: ENTSO-E VIEWS ON RES SUPPORT SCHEMES

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Contents

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1. Introduction

In view of the Renewable Energy Directive (2009/28/EC) recast, ENTSO-E has reviewed the main types of current European renewables support schemes and provides with this paper recommendations on how RES development should be further incentivised to reach the EU's 27% target for 2030. The 2030 target is binding at the EU level, but does not impose binding targets upon Member States. Member States can thus set their own (more ambitious) guided by the need to collectively deliver the 27% EU target, in line with the state aid guidelines, as well as taking into account their degree of integration in the internal energy market.

The relevant legal and policy environment is described in Table 1 as follows.

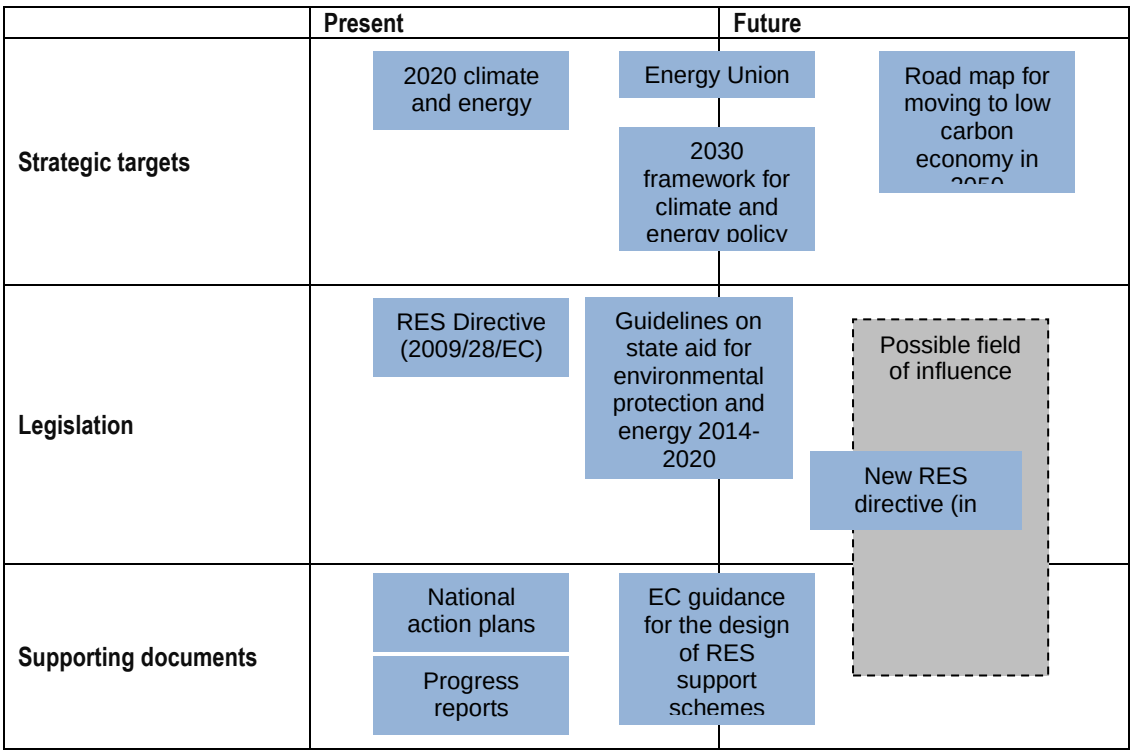

Table 1—Relevant legal environment

The EU's efforts are set in the context of the historical Paris COP21 agreement to keep the global temperature rise during this century well below 2°C compared to pre-industrial levels and to strengthen the ability of countries to deal with the impacts of climate change. Equally relevant in this context is *Europe 2020*, the EU's growth strategy.

The Europe 2020 strategy focuses on creating the conditions for smart, sustainable and inclusive growth. To that end, several headline targets have been set, including targets for climate change and energy sustainability: (i) a 20% reduction in Union greenhouse gas emissions compared to 1990 levels; (ii) raising the share of Union energy consumption produced from renewable resources to 20%; and (iii) a 20% improvement in the EU's energy efficiency compared to 1990 levels. The first two of these nationally binding targets were implemented by 'The climate and energy package'.

The first part of this paper recaps the "EU guidelines on state aid for environmental protection and energy (EEAG) 2014-2020" and the "EU 2030 Energy Policy and Energy Union" communication including 15 concrete actions expected to be taken by the European Commission. The EEAG should be

the basis for future RES support schemes, while the Energy Union Strategy is setting the policy framework.

2. EU guidelines on state aid for environmental protection and energy (EEAG) 2014-2020

Market instruments should normally ensure that subsidies are reduced to a minimum in view of their complete phase-out. However, given the different stages of technological development of renewable energy technologies, the guidelines allow technology specific tenders to be carried out by Member States, on the basis of the longer-term potential of a given new and innovative technology, the need to achieve diversification; network constraints and grid stability and system (integration) costs.

To allow Member States to achieve their targets in line with the EU 2020 objectives, the commission presumes the appropriateness of aid and the limited distortive effects of the aid, provided all other conditions are met.

Aid to electricity from renewable energy sources should in principle contribute to integrate renewable electricity in the market. The commission will authorise aid schemes for a maximum period of 10 years. If maintained, such measures should be re-notified after such period.

The following cumulative conditions apply **from 1 January 2016** to all **new aid schemes** and measures:
(a) aid is granted as a **premium in addition to the market price** (premium) whereby the generators sell their electricity directly in the market;
(b) beneficiaries are subject to **standard balancing responsibilities**, unless no liquid intra-day markets exist; and
(c) measures are put in place to ensure that **generators have no incentive to generate electricity under negative prices.**

3. EU 2030 Energy Policy and Energy Union Communication

Presently, the European Union has energy rules set at the European level, but in practice, it has 28 national regulatory frameworks. An integrated energy market is needed to create more competition, lead to greater market efficiency through better use of energy generation facilities across the EU and produce affordable prices for consumers.

The retail market needs to be improved. Many household consumers have too little choice of energy suppliers and too little control over their energy costs. An unacceptably high percentage of European households cannot afford to pay their energy bills.

The goal of a resilient Energy Union with an ambitious climate policy at its core is to give EU consumers—households and businesses—secure, sustainable, competitive and affordable energy. Achieving this goal will require a fundamental transformation of Europe's energy system.

On 25 February 2015, the Commission adopted "A Framework Strategy for a Resilient Energy Union with a Forward-looking Climate Change Policy". The RES and market-related identified action points are as follows.

1. Full implementation and strict enforcement of existing energy and related legislation are the first priorities to establish the Energy Union.
2. The right infrastructure is a precondition for completing the energy market, integrating renewables and security of supply.
3. Creating a seamless internal energy market that benefits citizens, ensuring security of supply, integrating renewables in the market and remedying the currently uncoordinated development of capacity mechanisms by which Member States call for a review of the current market design.
4. The regulatory framework set up by the Third Internal Energy Market Package has to be further developed to deliver a seamless internal energy market to citizens and companies.
5. Regional approaches to market integration are an important part of the move towards a fully integrated EU-wide energy market.
6. Greater transparency on energy costs and prices and the level of public support will enhance market integration and identify actions that distort the internal market.
7. The EU has set itself the target of reaching at least 27% energy savings by 2030.
8. The EU has agreed the target of at least 27% at EU level for renewable energy by 2030.
9. The EU needs to develop a forward-looking, energy and climate-related R&I strategy to maintain European technological leadership and expand export opportunities.
10. The EU will use all external policy instruments to ensure that a strong, united EU engages constructively with its partners and speaks with one voice on energy and climate.

4. The need to review the Renewable Energy Directive

As part of the Commission's better regulation agenda, the current Renewable Energy Directive[1] (RED) was included in the Commission's 2013 REFIT programme, and a comprehensive evaluation study of the RED was carried out in 2014 to assess its effectiveness, efficiency, relevance, coherence and EU-added value and to obtain stakeholders' views on the impacts and benefits of the directive[2]. The main findings were included in the 2015 Renewable Energy Progress Report[3]. This public consultation builds on the REFIT evaluation and aims at obtaining additional information on impacts and benefits of RED.

The core objectives of the EU Energy Union Framework Strategy[4] are to develop a long-term, secure, sustainable and competitive energy system in the EU. Europe should also be a leader in renewable energy. To achieve this, it is important to continue to increase the share of renewable energy sources in

[1] Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing directives 2001/77/EC and 2003/30/EC.
[2] REFIT Evaluation of the Renewable Energy Directive (CE DELFT, 2014), available on: https://ec.europa.eu/energy/sites/ener/files/documents/CE_Delft_3D59_Mid_term_evaluation_of_The_RED_DEF.PDF.
[3] COM (2015) 293, available at: https://ec.europa.eu/energy/en/topics/renewable-energy/progress-reports.
[4] Commission Communication: A Framework Strategy for a Resilient Energy Union with a Forward-looking Climate Change Policy (COM/2015/080 final) of 25 February 2015.

the EU[5]. RED ensures that all Member States will contribute to reaching 20% renewables at EU level by 2020. In October 2014, the European Council agreed that at least 27% share of renewables by 2030 would reflect a cost-optimal way of building a secure, sustainable and competitive energy system (alongside a domestic GHG emissions reduction target of at least 40% and the energy efficiency target of at least 27%, which is to be reviewed by 2020, having in mind an EU level of 30%).

Because the current legislation will not be sufficient for this purpose[6], there is a need to modify the legislative framework to ensure a timely and cost effective achievement of the EU level binding target on renewables by 2030. A combination of different factors will need to be addressed.

- **General approach:** The existing policy framework does not address uncertainties with regard to national policies, governance and regional cooperation to ensure a timely and cost effective target achievement for the period after 2020.

- **Empowering consumers:** Lack of consumer empowerment and incomplete information on renewable energy solutions can hinder cost-optimal deployment of renewable energy at city and community level.

- **Decarbonising the heating and cooling sector:** In the heating and cooling sector, which represents almost half of the EU energy consumption, the current regulatory environment combined with a lack of information does not incentivise cost-optimal deployment of renewables in heating, cooling and hot water use. The sector remains dominated by fossil fuels and therefore dependent on imports.

- **Adapting the market design and removing barriers:** The current regulatory environment does not properly reflect externalities of energy production in market prices, including environmental, social, innovation and economic externalities. Together with persistent and distortive fossil fuel subsidies[7], this leads to high capital costs that hinder cost-optimal renewable energy deployment. In addition, a lack of market integration, infrastructure (storage, interconnections) and smart solutions, including demand-response, also hinder cost-optimal deployment of renewable energy. Finally, complex administrative procedures for renewable energy deployment at national and local levels have not yet been eliminated. This covers, inter alia, permitting and grid connection procedures[8].

Enhancing renewable energy use in the transport sector: A policy fostering the use of sustainable alternative renewable fuels would contribute to decarbonising the transport sector and reducing risks related to its fossil fuel dependency and could eliminate current market distortions and fragmentations observed in particular in the internal market for biofuels. Despite the progress made in developing alternative renewable fuels such as advanced biofuels and renewable fuels of

[5] As highlighted in the 2030 climate and energy framework (COM(2014) 15 final).
[6] As highlighted in the baseline scenario of the 2030 climate and energy framework (COM(2014) 15 final).
[7] Estimated by IMF to be 330 Billion Euro in 2015, source:
http://www.imf.org/external/pubs/ft/survey/so/2015/new070215a.htm.
[8] Without prejudice to international and Union law, including provisions to protect environment and human health.

non-organic origin, commercial deployment of such products in the EU is lagging behind. The main reason is the perceived uncertainty about the policy framework after 2020. Only a few Member States have adopted dedicated support measures for advanced biofuels, while most have focused on more traditional biofuels. The potential for electric transport using renewable electricity deployment is still untapped due to high technology costs of deployment and lack of necessary infrastructure.

- **Review of the regional scope of RES support schemes:** A more coordinated approach across Europe for RES support schemes would improve the economic efficiency of the energy transition in Europe by optimizing the development of RES based on states' endowment. This advocates harmonising the type and level of support—at least at the regional level—to achieve the 2030 targets more cost effectively, while raising significant political and economic challenges.

    - **Economic challenges.** Beyond the mere question of resources, if support schemes are to be harmonised, they should be designed to achieve (i) coherence between development of the grid (interconnections in particular) and RES units and (ii) efficient geographic distribution of RES to use the benefits of complementarities between regions (particularly for wind). A proper level of exposure to the wholesale market price is the obvious way to solve both these issues.

    - **Political challenges.** RES regionalisation appears to have many advantages. However, cognizance needs be made of Member States' subsidiarity on fiscal matters as well as natural geographic factors that may make some locations more advantageous for certain technologies.

- Fully harmonised support schemes also mean significant transfers of money between Member States since consumers or taxpayers from poorly endowed countries pay for RES production in countries where the resource is more abundant (possibly also creating jobs and providing cheaper electricity in these countries). Additional fiscal questions (depending on how the RES funds are raised) and, in any case, the redistributive effects of such a harmonisation will have to be dealt with by participating Member States.

5. Analysis of the different mechanisms to support the development of RES

To support the deployment of renewable energy in Member States, the EC has sanctioned state-aid for European governments to adopt financial support measures for the industry. Directive 2009/28/EC allows different schemes of support for RES at a national level.

While ENTSO-E does not want to prescribe a preference for a specific support scheme, support mechanisms do impact the electric system because they influence the operation of RES and hence have implications on system security. Furthermore, they are a main driver for new RES investments and hence have implications on network planning and development.

In addition to financial support measures promoted by the EU, RES generators also benefit from a range of non-financial support mechanisms. **The most important non-financial supports include priority or guaranteed access and priority dispatch for RES.** These measures impact the system in different

ways: Providing for priority or guaranteed access for RES generation impacts network development and influences grid construction costs. Ensuring RES generators are given priority dispatch has a significant impact on the operation of the electric system because it changes the way units are dispatched. In particular, due to the technical challenges of operating a power system with increasing variable RES penetration, the efficiency of employing priority dispatch should be reconsidered.

The use of different support schemes and various levels of support throughout Europe can have a direct impact on European power system operations and planning. One consequence is national clustering of RES. Countries with high support attract in general more investments than countries with low support. Because the support mechanism and the level of support are important decision criteria for the location of new RES investments, they also influence grid planning and development. A second consequence of support measures is that high penetration of RES influences spot market prices. Different amounts of RES in different countries provide incentives for increased cross-border trading.

Support mechanisms have an important role in deploying increasing amounts of renewable generation around Europe. From an operational point of view, we favour support mechanisms that incentivise RES producers to adjust their output according to the needs of the system, making it easier to accommodate more RES power in that system and ultimately making higher levels of RES penetration achievable. However, any such support mechanism may require provisions to deal with the higher investment risk that RES investors are exposed to.

5.1. Description of the main types of RES support schemes

The main financial[9] support mechanisms available in member states throughout the EU include:

- **Feed-in tariffs (FIT)**: A contract between RES producers and authorized buyers allows the former to sell the electricity they actually produce at a predetermined price to the latter. This kind of contract usually lasts a number of years coherent with the economic lifespan of the generation assets (15-25 years). In many countries, FIT do not include balancing responsibilities. At the same time, in some other countries (e.g., Finland), FIT tariffs are called "feed-in-premium support" and do include balancing responsibilities.

- **Feed in premiums (FIP)**: RES producers sell their (expected production) in the wholesale market and are subjected to balancing responsibilities. In addition to this source of revenue, they receive an amount of money, usually for each MWh they actually produce, over a period usually coherent with the lifespan of their assets. This money can be predetermined and fixed for the whole contract duration (*ex ante* premium) or adjusted periodically (*ex post* premium). The premium can be either fixed (i.e., independent of market prices) or variable (i.e., depending on the evolution of market prices, like for Contract for Differences) and complemented with caps or floors.

[9] Non-financial support mechanisms include priority dispatch, guaranteed access to the grid, priority connection, exemption from balance responsibility, etc.

- **Green certificates:** RES producers sell their expected production in the wholesale market and are subjected to balancing responsibilities. In addition to this source of revenue, they receive a certificate for each MWh they produce that they can sell to market participants (often suppliers). The latter have to buy a predetermined number of certificates, typically each year; the total obligation corresponds to the (increasing) RES target set up legally. Scarcity of the certificates creates a positive price that remunerates RES producers on top of their revenues from the wholesale electricity market.

- **Investment subsidies:** In addition to other sources of revenues from the wholesale market and/or from another support scheme, RES producers receive money either upfront (possibly in the form of tax reductions) or yearly for a predetermined duration, typically proportional to the installed capacity.

- **Tendering schemes**: The amount of money granted through a price-based support scheme can be set administratively, but alternately, the administration can choose a quantitative target and set up a call for tender to allocate the support. In this case, respondents bid on the level of support (typically the price in a FIT or the premium level in a FIP), and the support is granted on a merit order basis.

5.2. Assessment criteria

Depending on their nature, support mechanisms may have implications on system operation and planning and on the quality of the price signal reflected in the wholesale market. They also affect the cost of financing RES projects and their value for society over the long run.

Minimise system operation distortions (short-term): Balancing responsibilities are the basis of efficient management of the production/consumption balance. Having all system players subjected to them is more efficient. In addition, RES may procure the system with flexibility removing barriers for their participation in technical markets (balancing, AS).

Facilitate grid planning (long-term): Most of the time, developing the grid takes longer than building RES projects. To enable TSOs optimizing the amount and location of the network that must be deployed to connect these new units, the support scheme should enable network operators to foresee where and at what pace these units are built (otherwise the requirement of cost effectiveness cannot be met).

Minimise market distortions: Support mechanisms should not hinder the optimisation provided by the exchanges through the market price; otherwise, they imply higher system costs.

Limit the risk for project developers: If projects are risky, investors will ask for higher rates of return, i.e., a higher level of support (hence, a more expensive energy transition).

Limit long-term distortions: The long-term value of RES for producers should be aligned with their social value. In the case of variable RES, it mainly stands in the energy they produce. If, because of how the support scheme is computed, producers do not perceive the value as coming from the amount of energy they produce but something else (e.g., the rated output power of their asset), their investment choice could be suboptimal. This risk must be taken into account when designing investment subsidies.

Transparent and competitive determination of subsidy level: RES capacities have to be constructed in a cost-efficient way involving transparent and competitive procedures (e.g., call for tenders). This would allow the regulator to better assess the potential RES producers and system costs related to large RES deployments in the power system.

ASSESSMENT

Table summarizing the assessment

Types of support mechanisms	Support mechanism	Minimise system operation distortions (short-term)	Facilitate grid planning (long-term)	Minimise market distortions	Limit the risk of project developers	Limit long-term distortions	Transparent determination of the subsidy level
Price-based	FIT	○	○	○	●	◕	◕
	Premiums (FIP)	◕	○	◕	◔---●	◕	◕
	Investment subsidies	●	○	◕	◑-●	○	◑
Quantity-based	Certificates	◕	○	●	○	◕	◑
	Tendering: FIT	○	◑	○	●	◕	●
	Tendering: Premiums (FIP)	◕	◑	◑---◕	◔---●	◕	●
	Tendering: Investment subsidies	●	◑	●	◑-●	○	●

○ Not at all ◔ A little ◑ Partially ◕ Majority ● Fully

5.3. Detail of the analysis

- **Minimise system operation distortions (short-term).**
    - FIT is the less convenient option since producers systematically sell all the energy they feed to the grid. They do not bear any balancing responsibility and may not be able to participate to the balancing mechanism or provide other kinds of system services involving active power.

    - At the other extreme, in the case of investment subsidies, producers have to sell their electricity to the wholesale market and thus have full balancing responsibilities. They can sell their electricity to whoever they want, and thus they can participate in the balancing mechanism and ancillary services in which there is no reason associated with the support scheme for their bids not to reflect their marginal cost of providing these services.

    - In between, in market premium systems or green certificates, producers have to market their production and have therefore full balancing responsibilities as well as the opportunity to participate in the balancing mechanism. However, if they are not compensated for the premium or the value of the certificate when they are activated in the balancing mechanism, it may alter the merit order in this mechanism.

- **Facilitate grid planning (long-term)**: None of the support mechanisms ranks better than the others in this respect. Tendering procedures that are designed in collaboration with network operators may help them forecast development of new generation.

- **Minimise market distortions.**

    - FIT is the less convenient option since the producers have no other incentive than to produce regardless of the market price, leading the market to reflect constraints (RES production is must-run) that have no technical ground.

    - With FIP/green certificates, producers have to market their production. Therefore, if the market price is below their marginal cost minus the premium they get for production, their best option is to stop producing. Market distortions therefore have a much lower magnitude than of a FIT, but still exist. They can however be largely minimised for RES, as in the case of a premium if this premium is only paid in proportion to the MWh injected when the price is positive or zero.

    - Well-designed investment subsidies let the producers' variable revenues come from the market. Their best option is therefore to bid at their marginal cost, implying minimum short-term market distortions.

- **Limit the risk taken by project developers.**

- FITs and CFDs significantly limit the risk for project developers since there is no risk on the unit revenue of projects (only on the produced volume and other industrial risks).

- FIP from CFD to fixed and to "dynamic": From full price risk mitigation (variable FIP, periodically recomputed to recreate the conditions of a FIT except that production is marketed (i.e., a CFD, based on the installation's production profile or on an exogenous profile, for instance, that of the whole technology) to less or no risk mitigation compared to the market (e.g., fixed premiums).

- Investment subsidies reduce risk since they constitute a sure part of the projects' future revenues (only revenues from the market are subjected to risks of volume and price). According to the share of the project's cost to which the subsidy amounts, the risk can be more or less eliminated (in extreme cases, the project is fully financed by the subsidy or not at all).

- Green certificates do not mitigate the projects' risk, and they could even aggravate them, depending on how the market price and the price of green certificates are correlated.

- **Limit long-term distortions.**

  - Support mechanisms consisting of money paid in proportion to the installed capacity (investment support) reward investors choosing generating machines with high-rated output. On the contrary, they tend to change nothing to the value (to investors) of the sizing of the apparatus responsible to reap the primary energy and convert it to mechanical energy (e.g., the diameter of the rotor in a wind turbine). As a consequence, investors might consider machines with higher rated output to the detriment of the amount of the actual energy they produce (e.g., less efficient conversion, smaller rotor, etc.). This risk must be assessed when designing investment subsidies, taking into account that the best way to address this distortion would be to guarantee that the internal return rate of the installation would be highly dependent on market revenues. This could be achieved if these kinds of supports are implemented through competitive mechanisms (tendering schemes) that can include specific technological requirements, or through adjustments of the payments based on historical production figures.

  - This long-term distortion may be less relevant to dispatchable technologies with high marginal costs. Indeed, such technologies could serve as peaking units. Therefore, it makes sense to incentivise generators to give significant weight to the capacity component of the value of their power plant project. They may not generate at full capacity all the time, but the fact that this capacity is available to the system helps to ensure security of supply. Therefore, the bias on investment decision introduced by a support proportional to the capacity is much lower than for non-dispatchable RES technologies.

- **Involves a transparent determination of subsidy level**

- This is the case in volume-based mechanisms in which the price is determined as the result of a tendering process or by the matching demand (proceeding from an obligation) and supply

(following a certification through which RES producers receive green certificates). On the other hand, when the administration determines the level of support, the criteria are less objective and robust. However, tendering procedures may disqualify small businesses and therefore may be less relevant to small projects.

5.4. Conclusions

ENTSO-E believes that the least distortive and best harmonised way for effective RES support lies in higher CO_2 prices and the progressive reduction of all subsidies to mature RES and other technologies. Therefore, the support level should be progressively reduced to allow market prices to drive dispatch and investment as much as possible.

However, to the extent that CO_2 prices could remain too low to ensure this energy transition, explicit support schemes may remain the preferred policy tool to deploy RES. A realistic second best option is to implement market-compliant RES support mechanisms, designed to take the following issues into consideration.

- Tenders are needed for new investment; on top of being more cost-effective from a planning perspective, they allow controlling the volumes getting connected to the grid. Given that subsidies may have significant impacts on the system, TSOs should be involved in the design, and possibly in the management, of such calls for tender.

- RES should be involved in the short-term optimization of the power system.
    - Support schemes encouraging RES production when it has the highest social value should be preferred. These are schemes in which RES producers have an interest in producing at times of higher wholesale market prices; in this respect, FIT are not that fit.
    - The support scheme should not prevent RES producers from facing standard balancing responsibilities.
    - Support schemes should encourage RES to offer ancillary services to TSOs (participate in balancing markets, voltage regulation, etc.).
    - Priority of dispatch could only be allowed if it does not increase dispatching costs.

- The investment decisions in renewables under the support scheme should be as close as possible to the ones that would have been taken if the technology was mature and competitive, given its sole wholesale market revenues.

- Taking into account the criteria of the previous section, investment subsidies, FIP and green certificates seem to be the preferable options when allocated through competitive processes, which allow a better determination of the level of support. FIT could remain an option for small-scale installations or demonstration projects (as established in the EEAG).

- Regarding regionalisation of support schemes, new approaches to cross-border cooperation should be analysed. Close dialogue between Member States at the regional level is needed to avoid inconsistent support schemes distorting market functioning, creating security of supply risks or leading to RES development not compatible with existing grid capabilities and planned regional grid investments. In this context, TSOs should be closely consulted to assess which volumes of RES can be integrated into the grid, in which timeframe and at which costs.

Key messages

- Because the next wave of European legislation in electricity will aim at greater efficiency of market design in reaching the policy objectives, ENTSO-E considers an important prerequisite for wholesale prices that send investment signals is to remove market distortions and ensure a level playing field between all generation sources. Renewables, combined heat and power and all other mature or largely deployed technologies should be integrated into the market on an equal footing with other generators to improve market efficiency and wholesale price signals for electricity investments, dispatch and usage. This entails, for instance, the phase-out of mandatory priority dispatch and exemptions from balancing responsibilities for these technologies.

- With regard to financial support schemes, ENTSO-E analysis shows that a single specific type of RES support scheme cannot be recommended for all European countries. However, in comparing them while taking into account their impact on TSOs tasks, we have highlighted pros and cons. Because support schemes influence the way RES operate in response to market conditions, they have implications on system operation and system security. Furthermore, they are a main driver for new RES investments and have thus important implications on network planning and development.

- From a European perspective, ENTSO-E still believes that the least distortive and best harmonised way for effective RES support lies in higher CO_2 prices and the removal of all subsidies to mature RES technologies; therefore, support levels should progressively be reduced to allow market prices to drive dispatch and investment as much as possible.

- FIT is the less convenient option since producers systematically sell all the produced energy to the grid. They do not bear any balancing responsibility and may not be able to participate in the balancing mechanism or provide other kinds of system services involving active power.

- In the case of investment subsidies, green premium systems or green certificates, producers have to market their production and have therefore full balancing responsibilities, as well as the opportunity to participate in the balancing mechanism.
  - Producers should be compensated for the premium or the value of the certificate when they are activated in the balancing mechanism to preserve the merit order in this mechanism.
  - If the main part of the revenues of installations receiving investment payments are directly related to their rated capacity, it could lead to suboptimal investment. Therefore, it would be important to guarantee that market profits represent a reasonable share of their total income. This could be achieved by establishing the level of support through competitive mechanisms (tendering schemes).

- In any case, the level of support must—at least for RES installations above a certain size—be determined via competitive processes (tendering or certificates) to promote efficiency of resources and overall cost-effectiveness rather than being set administratively.