

Renewable Energy in the EU

Status and outlook following the reform

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EU rules on support for renewable energy sources (RES) have been comprehensively reformed for the period 2021–2030. cep gives the following assessment of the reform:

- ▶ By contrast with emissions trading, state support for RES (RES-support) is not a targeted or cost-effective way of reducing greenhouse gas emissions.
- ▶ Even after 2020, Member States are allowed too much scope for developing inefficient RES-support schemes which work purely at national level, thereby stifling EU-wide competition for the best locations and technologies for generating RES-electricity.
- ▶ EU-wide targets on RES-deployment in the transport sector are a barrier to ensuring that RES-development takes place principally in the sector where it is cheapest.
- ▶ The fact that most conventional biofuels will continue to count towards RES-targets will also ensure that a cheap form of RES-development is facilitated in the transport sector post-2021.

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1 Introduction

Since the entry into force of the Lisbon Treaty on 1 December 2009, the European Union has had the power under Art. 194 (1) (c) TFEU to promote the development of renewable energy sources (RES). Greater use of RES will reduce greenhouse gas emissions (GHG emissions), increase security of supply and strengthen the competitiveness of the European industry by way of technological innovation.¹

In March 2007, the European Council agreed on the target of increasing the share of renewable energies (RES-share) in overall EU energy consumption to at least 20% by 2020 (“2020 RES-development target”).² In addition, every EU Member State must achieve a minimum share of bio-fuels in fuel consumption of 10% by 2020. In October 2014, the European Council decided on a RES-development target of 27% for 2030, which is binding at EU level.³ Unlike the 2020 RES-development target, however, it is expressly stated that this will not be translated into any binding RES-development targets for the Member States.

Implementation of the 2020 RES-development target is governed by the Renewable Energy Directive [2009/28/EC]⁴. This was comprehensively reformed between 2016 and 2018 for the period post-2021. The subsequently recast Renewable Energy Directive [2018/2001/EU]⁵ regulates RES-support in the EU between 2021 and 2030. In addition, in 2014, the EU Commission published “Guidelines on State aid for environmental protection and energy 2014-2020”⁶ which inter alia also established criteria by which the EU Commission assesses the compatibility of national rules on RES-support with EU law on state aid.

This **cepInput** aims to provide a survey of the EU rules on support for energy from renewable sources as applicable up until 2020 and the reformed rules applicable post-2021 (Section 2). It will look at the RES Directive before and after the reform (Section 2.1) as well as the Guidelines on State aid for the environment and energy 2014-2020 (Section 2.2). The subsequent assessment (Section 3) deals first with the basic question of whether a separate RES-development target should be pursued at all (Section 3.1). Based on this, we provide a detailed analysis of the main rules on RES-support after the reform (Section 3.2).

¹ EU Commission, Communication COM(2006) 848 of 10 January 2007 Renewable Energy Road Map Renewable energies in the 21st century: building a more sustainable future, p. 3.

² European Council of 8/9 March 2007, Conclusions, Doc. 7224/1/07 REV 1, Annex I, p. 21, para. 7.

³ European Council of 23/24 October 2014, Conclusions, Doc. EUCO 169/14, para. 3; on this Bonn, M. / Heitmann, N. / Reichert, G. / Voßwinkel, J. (2015), EU Climate and Energy Policy 2030 Comments on an Evolving Framework, [cepInput 02/2015](#).

⁴ 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 [hereinafter: “RES Directive (2020)”]; for a comprehensive analysis of this see Bonn, M. / Nader, N. / Heitmann, N. / Reichert, G. / Voßwinkel, J. (2014), Climate and Energy Policy of the EU – Status and Outlook, [cepCompass](#), p. 90 et seq.

⁵ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources [hereinafter: “RES Directive (2030)”], see [cepPolicyBrief 2017-07](#).

⁶ EU Commission (2014), Guidelines on State aid for environmental protection and energy 2014-2020, in: OJEU C 200 of 28 June 2014, p. 1 et seq. [hereinafter: “E&E State Aid Guidelines”], on this Bonn, M. / Heitmann, N. / Reichert, G. / Voßwinkel, J. (2014), Draft Guidelines of the European Commission on State Aid for Environmental Protection and Energy 2014–2020 – Legal and economic assessment of the test criteria for promoting energy from renewable sources, [cepAnalysis](#).

2 EU legislation on support for energy from renewable sources

2.1 Renewable Energy Directives

2.1.1 Scope and objectives

The RES Directive (2020) constitutes the central piece of legislation on RES-support in the EU up to 2020. It contains requirements on the implementation of the EU-wide RES-development target of 20% by 2020 and covers all RES-types in the sectors of power generation, heating and cooling and transport. The EU-wide 2020 RES-development target is divided into binding national 2020 RES-development targets for each Member State which take account of the individual potential for RES-use and the energy mix in a Member State that has evolved over time.⁷ Thus national 2020 RES-development targets range from 10% for Malta, 18% for Germany right up to 49% for Sweden.⁸ Member States also receive non-binding interim targets for RES-development every two years until 2020.⁹

Whilst national 2020 RES-development targets are binding, Member States must themselves adopt “national action plans” to determine how high the RES-share will be in the electricity sector, the heating and cooling sector and in the transport sector, and set out the measures for achieving these targets.¹⁰ Only in the transport sector does every Member State have to show they have an RES-share of 10% by 2020.¹¹

As the RES-share of gross overall consumption of energy in the EU was already 17% in 2016, it is likely that the EU-wide 2020 RES-development target of 20% will be achieved. Furthermore, in 2016, eleven Member States already achieved their national 2020 RES-development target. In 2016, Germany had a RES-share of 14.8% and is also expected to achieve its RES-development target of 18%.¹²

The recast RES Directive (2030) regulates RES-support in the EU between 2021 and 2030. It establishes a RES-development target of 32% (2030 RES-development target) which is more ambitious than the target of 27% originally set by the European Council. In 2023 it will be assessed by the Commission and may be tightened. The 2030 RES-development target is only binding at EU level so Member States have to achieve it collectively.¹³ In future, it will therefore not be divided into binding national RES-development targets. Member States must however comply with their existing 2020 RES-development targets beyond 2020.¹⁴

In addition, by 31 December 2019, each Member State must establish its own national RES-development target pursuant to the new Regulation on Energy Union Governance [EU] 2018/1999¹⁵,

⁷ RES Directive (2020), Art. 3 (1).

⁸ Ibid., Annex I Part A.

⁹ Ibid., Annex I Part B.

¹⁰ Ibid., Art. 4 (1) and (2).

¹¹ Ibid., Art. 3. (4).

¹² [Eurostat \(2018\), Share of energy from renewable sources in gross final consumption of energy 2004–2016](#) (this and all other links were last accessed on 7 March 2019).

¹³ RES Directive (2030), Art. 3 (1).

¹⁴ Ibid., Art. 3. (4).

¹⁵ Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action [hereinafter: “Governance Regulation”].

as part of an “integrated national energy and climate plan” (INEC Plan). All States had to submit the draft INEC Plan to the Commission for assessment by 31 December 2018.¹⁶

2.1.2 General Principles applicable to Support

Member States may adopt support schemes to achieve their RES-development targets.¹⁷ In this regard, they have the possibility of working together with other Member States or third countries, by way of various “cooperation mechanisms”.¹⁸ Thus, in return for a compensation payment, they can set off renewably sourced energy from other EU countries against their own national RES-development target (“statistical transfers”).¹⁹ A pro-rata set-off of RES-quantities that have been supported by way of joint RES-development projects with other Member States²⁰ or third countries²¹ is also possible. In addition, they can coordinate their RES-support schemes or join them up.²²

Until now, contrary to the wishes of the EU Commission, cooperation mechanisms have only been used by Member States in a very few cases. Thus, in 2017, Luxembourg concluded agreements with Estonia and Lithuania on a statistical transfer of RES-quantities from both countries to Luxembourg in the period 2018-2020, enabling Luxembourg to achieve its 2020 RES-development target. In addition, in 2012, Sweden and Norway cooperated on RES-development by way of joint support schemes as did Denmark and Germany in 2016.²³

As of 2021, there is to be more competition for RES-support and distortions in the EU internal market are to be avoided. The associated changes to RES-support should not, however, be allowed to have a detrimental effect on the profitability of plants that have already received support.²⁴

2.1.3 Support in the electricity sector

Until 2020, Member States can basically decide for themselves how they support RES-electricity. In addition to investment subsidies and tax exemptions, the possible support tools include quotas, which require a specific RES-share in electricity generation, and feed-in tariffs (FITs) under which electricity producers receive a fixed remuneration for the RES-electricity which they produce.²⁵ Member States can, in this regard, make the level of RES-support dependent on technology (“technology-specific RES-support”) or location (“location-specific RES-support”). Member States are encouraged to work together on support for RES-electricity by using cooperation mechanisms (see above Section 2.1.2) but are not obliged to do so. Thus, they can limit their RES-support scheme to RES-electricity in their own territory and also do not have to support RES-electricity imported from other Member States.²⁶ The operators of RES-electricity plants are also not obliged to sell their RES-electricity on the wholesale

¹⁶ RES Directive (2030), Art. 3 (2) in conjunction with Governance Regulation, Art. 3 and 9.

¹⁷ RES Directive (2020), Art. 3 (3) (a); RES Directive (2030), Art. 4 (1).

¹⁸ RES Directive (2020), Art. 3 (3) (b); RES Directive (2030), Art. 8-13.

¹⁹ RES Directive (2020), Art. 6; RES Directive (2030) Art. 8.

²⁰ RES Directive (2020), Art. 7 and Art. 8; RES Directive (2030), Art. 9 and Art. 10.

²¹ RES Directive (2020), Art. 9 and Art. 10; RES Directive (2030), Art. 11 and Art. 12.

²² RES Directive (2020), Art. 11; RES Directive (2030) Art. 13.

²³ Caldés, N. / Lechón, Y. / Rodríguez, I. / del Río, P. (2018), Analysis of the barriers to the use of the cooperation mechanisms for renewable energy in the EU, A report compiled within the H2020 project MUSTEC, p. 19 et seq.

²⁴ RES Directive (2030), Art. 6.

²⁵ RES Directive (2020), Art. 2 (k).

²⁶ Ibid., Recitals 36 and 37.

market. On the other hand, transmission and distribution system operators must give suppliers of RES-electricity in their own territory priority access over other electricity producers (“priority access”).²⁷

As from 2021, Member States must ensure that RES-electricity from new plants is supported “in an open, transparent, competitive, non-discriminatory and cost-effective manner”.²⁸ Such market-based support aims to reduce distortions of competition and make RES-electricity more responsive to price signals on the electricity market.²⁹ Member States are not obliged to determine the amount of RES-support in tendering procedures. Member States can also exempt small-scale installations and demonstration projects from having to take part in tendering procedures and provide different amounts of support for RES-technologies by e.g. limiting tendering procedures to certain technologies – such as photovoltaics or wind power.³⁰ Member States can still decide for themselves whether their support schemes are also open to RES-electricity from other Member States. For opening up to plants from other Member States, they only receive the non-binding target of 5% between 2023 and 2026, and 10% between 2027 and 2030, of the “allocated budget” for RES-electricity.³¹ By 2023, the Commission will assess whether and to what extent Member States have to grant access to their RES-support schemes to RES-producers from other Member States.³² Compulsory “priority access” for new RES-electricity providers ceases to apply as of 2021. It will only continue to apply to existing installations, demonstration projects or plants with a capacity of up to 400 KW in the period 2021–2025 and up to 200 KW as from 2026.³³

2.1.4 Support in the heating and cooling sector

The heating and cooling sector covers energy used for the heating and cooling of buildings. It makes up approx. half of the final energy consumption of the EU.³⁴ There is no specific target to 2020 for the use of renewably sourced energy in the heating and cooling sector.

From 2021, Member States have the non-binding target of increasing the RES-share in the heating and cooling sector by at least 1.3 percentage points per year. Up to 40% of waste heat and cold can be counted towards this. The target is reduced to 1.1 percentage points for Member States in which no waste heat or cold can be used.³⁵ Member States must ensure that the RES-share in district heating and cooling systems increases annually by at least one percentage point as of 2020. Alternatively, they may oblige operators of district heating and cooling systems to allow RES-suppliers, as well as suppliers of waste heat and cold, to have access to their grid.³⁶

²⁷ Ibid., Art. 16. (2).

²⁸ RES Directive (2030), Art. 4 (4).

²⁹ Ibid., Recital 16.

³⁰ Ibid., Art. 4 (4) and (5).

³¹ Ibid., Art. 5 (1) and (2).

³² Ibid., Art. 5. (5).

³³ Art. 11 (2) – (4) Regulation on the internal electricity market [hereinafter: Internal Electricity Market Regulation] as amended by the document on the Trialogue agreement of 11 January 2019. As at the editorial deadline (27.03.2019) only the formal acceptance of the Council was still required.

³⁴ RES Directive (2030), Recital 73.

³⁵ Ibid., Art. 23 (1) and (2).

³⁶ Ibid., Art. 24. (4).

2.1.5 Support in the transport sector

Every Member State must show a RES-share of 10% in the transport sector by 2020.³⁷ Biofuels and bioliquids may only be used to meet national RES-development targets where they comply with certain sustainability criteria. In particular, they should not be made from plants that are cultivated by converting land with high carbon stock (e.g. forests, wetlands) into farmland (“land-use changes”).³⁸

Since the RES Directive (2020) was amended in 2015,³⁹ “indirect land-use changes” (ILUC) due to RES-support in the transport sector must also now be avoided. This means that the use of land for cultivating plants for producing biofuels must not result in the displacement of plants used for the production of foodstuffs, animal feeds and textiles. Thus, areas that were not previously used for agricultural purposes – both inside and outside the EU – must not be converted into farmland for biofuels. For this reason, only 70% of the 10% RES-transport target – i.e. 7% of overall energy consumption in the transport sector – can be achieved by using biofuels that are made from cereals, sugar or oil plants (“conventional biofuels”).⁴⁰ On the other hand, biofuels made from raw materials, that otherwise have a low economic value – such as algae, sewage sludge or used cooking oil – (“advanced biofuels”), are allocated twice their energy content.⁴¹ Every Member State must also set itself a non-binding target for 2020 on the use of the twenty advanced biofuels listed in Annex IX Part A of the RES Directive (2020)⁴² in final energy consumption in the transport sector, a guide value of 0.5% having been provided.⁴³

As of 2021, Member States must require fuel suppliers to show a RES-share of at least 14% in the transport sector by 2030.⁴⁴ The share of conventional biofuels in overall energy consumption in the transport sector may still not exceed 7%, and the share of biofuels with a particularly high ILUC risk – such as palm oil – may not exceed the 2019 level and must be reduced linearly to 0% from 2023 to 2030.⁴⁵ In determining the RES-share in the transport sector, advanced biofuels may continue to be counted at twice their energy content and RES-electricity at four times its energy content for road vehicles and one and a half times for rolling stock.⁴⁶ In all Member States, the share in final energy consumption in the transport sector, provided by the advanced biofuels listed in Annex IX Part A of the RES Directive (2030), must be at least 0.2% in 2022 and be increased to 1% by 2025 and to 3.5% by 2030.⁴⁷

³⁷ RES Directive (2020), Art. 3 (4).

³⁸ Ibid., Art. 17-19.

³⁹ Directive (EU) 2015/1513 of 9 September 2015 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources, see [cepPolicyBrief2013-01](#).

⁴⁰ RES Directive (2020), Art. 3 (4) (d).

⁴¹ Ibid., Art. 3 (4) (f) in conjunction with Annex IX.

⁴² Thus “used cooking oil” and “animal fats” cannot be included.

⁴³ Ibid., Art. 3 (4) (e) in conjunction with Annex IX Part A.

⁴⁴ RES Directive (2030), Art. 25 (1).

⁴⁵ Ibid., Art. 26 (1) and (2).

⁴⁶ Ibid., Art. 27. (2).

⁴⁷ Ibid., Art. 25 (1) in conjunction with Annex IX Part A.

2.2 Guidelines on State aid for environmental protection and energy 2014-2020

The basic ability of Member States to decide for themselves on the structure of their RES-support schemes has resulted in a very diverse system of support in the EU with support instruments that are purely national and non-market-based.⁴⁸ The “Guidelines on State aid for environmental protection and energy 2014–2020”⁴⁹, submitted by the EU-Commission in 2014, are also therefore relevant with regard to the design of the RES-support schemes in the EU. They set out the criteria under which the EU Commission considers national RES-support schemes to be compatible with the internal market⁵⁰ under state aid law. They also regulate the extent to which Member States may exempt energy-intensive industrial companies from the cost of support for RES-electricity.⁵¹

The E&E State Aid Guidelines do not completely call into question the need for RES-support in the EU but they do indicate that the costs caused by GHG emissions are already internalised by the EU Emission Trading System (EU ETS)⁵² and national CO₂-levies.⁵³ Compliance with the E&E State Aid Guidelines will at least prevent national RES-support schemes from obstructing the convergence of the internal energy market and distorting competition.⁵⁴ They provide that support for RES-technologies, which become competitive between 2020 and 2030, will expire gradually.⁵⁵ Guaranteed feed-in tariffs for RES-electricity will, in future, only support small-scale plants or technologies that are under development and otherwise will be replaced by feed-in premiums under which producers must sell their RES-electricity directly via the wholesale market and will receive a premium in addition to the market price.⁵⁶ As of 2017, the level of the premium has primarily had to be determined by transparent and non-discriminatory tendering procedures.⁵⁷

The State aid guidelines have helped Member States to revise their national RES-support schemes – such as the “Renewable Energy Act” (EEG) in Germany – and these now contain more competitive elements for RES-support.⁵⁸ In addition, the RES Directive (2030) has been brought into line with the E&E State Aid guidelines in order to ensure conformity.⁵⁹ The EU Commission’s Directorate General for Competition has announced that it will extend the State aid guidelines due to expire at the end of 2020 until at least the end of 2022.⁶⁰

⁴⁸ Council of European Energy Regulators CEER (2017), Status Review of Renewable Support Schemes in Europe, 11 April 2017.

⁴⁹ EU Commission (2014), Guidelines on State aid for environmental protection and energy 2014-2020, in: OJEU C 200 of 28 June 2014, p. 1 et seq. [hereinafter: “E&E State Aid Guidelines”].

⁵⁰ Art. 107 (3) (c) TFEU.

⁵¹ E&E State Aid Guidelines, para. 181–200.

⁵² For detailed information on the functioning of the EU Emission Trading System: Bonn, M. / Reichert, G. (2018), Climate Protection by way of the EU ETS – Status and outlook following the reform, [ceplInput 03/2018](#).

⁵³ E&E State Aid Guidelines, para. 115.

⁵⁴ Ibid., para. 108.

⁵⁵ Ibid., para. 108.

⁵⁶ Ibid., para. 124.

⁵⁷ Ibid., para. 126.

⁵⁸ EU Commission (2014), State aid: Commission approves German renewable energy law EEG 2014, Press Release of 23 July 2014, http://europa.eu/rapid/press-release_IP-14-867_en.htm.

⁵⁹ RES Directive (2030), Recital 19.

⁶⁰ EU Commission (2019), State aid: EU Commission to prolong EU State aid rules and launch evaluation, Press Release of 7 January 2019, http://europa.eu/rapid/press-release_IP-19-182_en.htm.

3 Assessment

3.1 General assessment of the State aid for renewable energy

It is argued that State RES-support in the EU, firstly, reduces GHG emissions and thus helps to combat global climate change; secondly, it reduces the demand for fossil fuels and thus the EU's dependence on energy imports from third countries.

When assessing the impact of state RES-support on combating climate change, we must, however, take into account that regulation of GHG emissions already exists for all the affected sectors – electricity generation, heating and cooling and transport. Thus – as the Commission has itself found⁶¹ – GHGs emitted during electricity production are already regulated by the EU Emissions Trading System (EU ETS).⁶² In the EU ETS, the total amount of permitted GHG emissions – irrespective of the RES-share – is fixed by way of a cap on emission rights (“allowances”) which is reduced annually in accordance with a fixed long-term reduction plan. The ability to trade the allowances means that participating companies can decide for themselves where and how they reduce GHG emissions. Since the total amount of allowances is limited, RES-development ordered by the Member States does not result in an additional reduction in GHG emissions but simply in GHG emissions being relocated within the EU ETS. As compulsory RES-development already determines where and how GHG emissions will be reduced, cheaper methods of GHG reduction are prevented.⁶³

Although heating and cooling and the transport sector do not participate in the EU ETS, GHG emissions in these sectors are already restricted by way of national GHG reduction targets that have been laid down at EU level irrespective of the RES-share.⁶⁴ Thus Germany must reduce GHG emissions in the sectors outside the EU ETS by 38% by 2030 as compared with 2005 levels.⁶⁵ How and in what sectors GHG emissions are reduced is decided by the Member States themselves. Here too, RES-development represents just one method of GHG avoidance, and not necessarily the cheapest.⁶⁶

State support for RES-development is not validly justified by the need to diversify available sources of energy in order thereby to reduce dependence on energy imports because the need to import energy is only a problem where there is a limited number of suppliers, giving rise to monopolistic structures which in turn results in excessive pricing and political dependence. However, Member States in which there is a problem of over-dependence on energy imports from third countries have sufficient incentive to free themselves from this economic and political dependence. RES-development is one possibility but not necessarily the cheapest. Thus, by developing energy infrastructure – particularly gas and electricity lines –, Member States can diversify their energy mix and thereby reduce the dependence on energy suppliers in third countries. Member States should therefore decide for

⁶¹ E&E State Aid Guidelines, para. 115; see above Section 2.2.

⁶² Directive 2003/87/EC of the European Parliament and of the Council to enhance cost-effective emission reductions and low-carbon investments.

⁶³ For detailed information on this: Bonn, M. / Reichert, G. (2018), Climate Protection by way of the EU ETS – status and outlook following the reform, [ceplInput 03/2018](#).

⁶⁴ Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement.

⁶⁵ Ibid., Annex I.

⁶⁶ For detailed information on this: Bonn, M. / Reichert, G. (2018), Climate Protection outside the EU ETS – status and outlook following the reform, [ceplInput 04/2018](#).

themselves, in line with EU law on state aid, how they want to safeguard security of the energy supply in their sovereign territory.⁶⁷

3.2 Assessment of EU legislation on support for renewable energy

In principle, the RES-share in the Member States and the EU as a whole should not be determined by political decision but by competition, taking account of the EU ETS and, where applicable, other climate policy instruments. However, since a politically-defined target for the RES-share at EU level already exists for 2030, we should at least make sure that it will be achieved at the lowest possible cost to citizens and companies.⁶⁸

3.2.1 EU rules on support for renewable energy in the electricity sector

The electricity sector in particular shows that instruments for achieving the envisaged RES-development are inefficient and anti-competitive. Instead of developing a competitive and location-neutral European support scheme, a confusing and inconsistent system of support has established itself in the EU which runs counter to the idea of a level playing field in the internal electricity market. In addition, as regards RES-electricity production, most Member States are aiming to establish a mix of various technologies which means that a plethora of different support rates apply. This prevents EU-wide competition for the cheapest technologies for RES-electricity production.⁶⁹

The recast RES Directive (2030) also still grants Member States too much scope for developing inefficient and anti-competitive RES-support schemes. Furthermore, it falls far short of the targets already set by the E&E State Aid guidelines in 2014 since it does not require the level of support to be determined in tendering procedures nor that support schemes be open to new technology. The aim of opening up RES-electricity support to foreign suppliers post-2021, at least to a limited extent, is not binding upon Member States either. Thus, foreign RES-suppliers will still be largely excluded from national support schemes post-2021 thereby preventing economically meaningful competition for the best locations for RES-electricity production in the EU.

3.2.2 EU rules on support for renewable energy outside the electricity sector

RES-development should primarily take place in places where it is cheapest taking account of all ecological and economic costs. RES-development targets for individual sectors should therefore simply be indicative – as in the case of RES-development in the heating and cooling sector under the RES Directive (2030). For the same reason, it is misguided to have binding targets for RES-deployment in the transport sector beyond 2020 because requiring fuel producers to achieve a RES-share of at least 14% in the transport sector by 2030 and additionally to show a minimum share of advanced biofuels, will distort competition between the sectors for the best RES-technology.

The deployment of conventional biofuels may, on the one hand, be a relatively cheap way of increasing the RES-share in the transport sector. On the other hand, the increased cultivation of plants for the production of conventional biofuels may result in a global displacement of forests by farmland leading to a rise in global GHG emissions because, unlike farmland, forests absorb more GHGs than they emit

⁶⁷ Bonn, M. / Reichert, G. (2016), Renewable Energy in Europe – Four key requirements for the forthcoming reform of the Renewable Energy Directive, [cepInput 05/2016](#).

⁶⁸ Bonn, M. / Reichert, G. (2014), Support for Renewable Energy, [cepPolicyBrief 2014-13](#), p. 3.

⁶⁹ Bonn, M. / Nader, N. / Heitmann, N. / Reichert, G. / Voßwinkel, J. (2014), Climate and Energy Policy of the EU – Status and Outlook, [cepCompass](#), p. 101.

and also act as a major carbon reservoir. For this reason, the share of conventional biofuels permitted to contribute to the RES-development target in the transport sector, is rightly limited. In order to continue to guarantee a cost-effective deployment of renewable energy in the transport sector, in deciding what counts towards the RES-development target, a more far-reaching restriction should only apply – if at all – to those biofuels which are proven to pose a high ILUC risk.

However, additional rules – such as the detailed provisions on support for “advanced biofuels” – are not required. These result in unnecessary bureaucracy and prevent Member States from supporting RES in the transport sector in areas where it is cheapest to do so.

3.2.3 Guidelines on State aid for environmental protection and energy

The E&E State Aid guidelines have helped to reduce the costs of RES-support in the Member States and to remove distortions of competition in the EU internal market but, as a result of the generous scope for discretion which the RES Directive (2020) allows the Member States regarding RES-support, RES-development continues to take place primarily in areas where it is highly subsidised by Member States rather than where it would be more economically worthwhile due to the climatic and geographical conditions. This is still resulting in a huge waste of resources and preventing the convergence of cross-border electricity markets in the EU.

As the recast RES Directive (2030) only marginally limits the permitted scope for discretion regarding RES-support, impetus for market-oriented, technology-neutral and location-neutral RES-support in the EU is still dependent on the EU law on state aid. The reform of the E&E State Aid Guidelines for the period up to 2030, that is expected to take place in 2022, should aim to address to a greater extent the competitive distortions of RES-support policy. In particular, only those RES-support schemes that – irrespective of the country of origin – strengthen competition for the cheapest RES-plants in the EU internal market should be regarded by the Commission as compatible with the law on aid.

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