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Exploring the Legal Side of Polycentricity

Institute of European Law

Working Papers

Paper: 04/2017

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Giuseppe Bellantuono[1]

ABSTRACT

Which legal changes could steer the low-carbon transition ? This article argues that one key factor is the management of the interplay among different legal regimes. Conflicts among EU climate law, State aid law and international investment law are a case in point. These three legal regimes affect investments in renewable energy sources, but they cannot be coordinated unless each of them shares the goals pursued by the other ones. This approach, grounded on the idea of polycentric governance, could spur investments and avoid the frictions stemming from attempts at imposing a hierarchical order. The article advances several proposals, clustered around the redundancy principle and the safety net principle, to exploit the benefits of polycentricity in the current legal frameworks.

1. Introduction: managing the interplay among legal regimes

Which legal changes could steer the low-carbon transition ? This article argues that one key factor is the management of the interplay among different legal regimes. Conflicts among EU climate law, State aid law and international investment law are a case in point. These three legal regimes affect investments in renewable energy sources, but they cannot be coordinated unless each of them shares the goals pursued by the other ones. This approach, grounded on the idea of polycentric governance, could spur investments and avoid the frictions stemming from attempts at imposing a hierarchical order.

The benefits of a successful coordination of legal regimes become clear when considering the breadth of the changes entailed by the low-carbon transition. Switching to a new fuel or a new

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technology is not enough. Historically, energy transitions have required systemic transformations in technologies, infrastructures, markets, consumer behaviour, institutions, and culture.[2] The current transition is likely to prompt the same types of transformations, but on a larger scale. This is because we entered the Anthropocene, a new geological epoch in which the main Earth system processes are altered by humans.[3] Moreover, to keep global temperature below 2°C the transition has to be completed in a shorter timespan.[4]

May be the mobilization of so many actors and resources at world level will help fast-track the transition.[5] But which policies will be needed ? And how should such policies modify the existing legal regimes ? It has been suggested that, in the Anthropocene era, traditional legal concepts moulded by several decades of environmental legislation have to be completely replaced. The energy transition calls for institutional changes 'of gargantuan dimensions'. More specifically, the 'legal organization' of the transition should address the legal means aimed at promoting or hindering the process, as well as the distribution of benefits and losses across groups and countries.[6] A different stream of literature is trying to lay down the conceptual foundations for the transition through a new paradigm of energy justice, in which decision-making about energy problems takes place according to sound moral principles. In this case, too, the explicit premise is that an overhaul of current legal systems is needed.[7]

This article focuses on one aspect of these legal transformations, that is the coordination among legal regimes. Given the scale of the transition, facing a multiplicity of regimes is unavoidable. At the same time, their interplay often leads to conflicts which hamper or delay the transition.

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[2] See e.g. F.W. Geels et al., *Bridging Analytical Approaches for Low-Carbon Transitions*, 6 *Nature Climate Change* 576 (2016).

[3] See e.g. F. Biermann et al., *Down to Earth: Contextualizing the Anthropocene*, 39 *Global Env. Change* 341 (2016) (discussing the transformations of the Anthropocene and the related governance issues).

[4] In 2015 concentration of carbon dioxide in the atmosphere hit 400 parts per million (ppm) (World Meteorological Organization, *The Global Climate in 2011-2015*, 2016), thus coming close to the 450 ppm threshold which is assumed to be compatible with the goal of limiting the increase of average global temperature to 2°C above pre-industrial levels in 2100 (International Energy Agency, *World Energy Model Documentation – 2016 Version*, available at www.worldenergyoutlook.org).

[5] For optimist views on the pace of the transition see e.g. B.K. Sovacool, *How Long Will It Take ? Conceptualizing the Temporal Dynamics of Energy Transitions*, 13 *Energy Research & Social Science* 202 (2016); F. Kern and K.S. Rogge, *The Pace of Governed Energy Transitions: Agency, International Dynamics and the Global Paris Agreement Accelerating Decarbonisation Processes?*, 22 *Energy Research & Social Science* 13 (2016). For some criticisms see R. Fouquet, *Historical Energy Transitions: Speed, Prices, and System Transformation*, 22 *Energy Research & Social Science* 7 (2016); A. Grubler et al., *Apples, Oranges, and Consistent Comparisons of the Temporal Dynamics of Energy Transitions*, 22 *Energy Research & Social Science* 18 (2016); V. Smil, *Examining Energy Transitions: A Dozen Insights Based on Performance*, 22 *Energy Research & Social Science* 194 (2016).

[6] J.E. Viñuales, *Law and the Anthropocene*, C-EENRG Working Papers, 2016-4, September 2016, 57 ff..

[7] See e.g. B.K. Sovacool and M.H. Dworkin, *Global Energy Justice*, Cambridge University Press, 2014; R.J. Heffron et al., *Resolving Society's Energy Trilemma Through the Energy Justice Metric*, 87 *Energy Policy* 168 (2015); K. Jenkins et al., *Energy Justice: A Conceptual Review*, 11 *Energy Research & Social Science* 174 (2016).

The legal regimes on generation of energy from RES are a case in point. In the last few years, the national and international litigation on RES support schemes in the EU has made investors and policymakers acutely aware that coordination is missing. EU climate law, EU State aid law and international investment law are at cross-purpose because each of them pursues different goals and employs different legal tools. Most importantly, the application of each legal regime entails a different distribution of benefits and losses among investors, energy users, producers, suppliers and network operators. This means that just invoking more coordination will not allow to make any progress. What I shall argue instead is that each legal regime has to modify its goals and legal tools in order to balance the conflicting interests at stake. This approach is required both because the interplay among legal regimes reveals the polycentric nature of energy governance and because the policy choices made within each regime will invariably affect the other ones. To put it differently, the main issue is how to foster RES investments in an institutional environment which lacks a hierarchical structure to manage interdependencies among decision-making levels, goals and tools. So far each regime seems to assume that a hierarchical solution can be found. This wrong premise prompts the adoption of measures and interpretative practices that enhance frictions among legal regimes and do not help reduce investors' risks.

Section 2 describes the investment problem in EU RES policy. The next two sections explain why the RES investment problem cannot be solved without addressing interdependencies with other legal regimes. More specifically, section 3 explains how EU State aid law shapes RES policy. Section 4 discusses the (real or supposed) frictions between the two EU regimes on one hand and international investment law on the other hand. Section 5 suggests that a polycentric approach could inspire a range of measures and interpretative practices aimed at reducing frictions and exploiting the strengths of each decision-making level. Section 6 summarizes the analysis.

2. *The RES investment problem*

Under many respects, EU RES policy can be considered a success story: it created a new market for renewable sources, strengthened EU companies' position in the global competition for innovation[8] and clarified the area of shared competence between the EU and national levels. In

[8] Indicators on R&D investments for low-carbon technologies in the EU and other countries can be found in European Commission, *Monitoring Progress Towards the Energy Union Objectives – Key Indicators*,

2015 OECD Europe had the highest share of primary energy supply from RES (14.0%). It also was the OECD area that had experienced the largest increase (from 5.8%) in its RES share since 1990.[9]

Though, the development of EU RES policy has been much less straightforward than this data suggests. The performance of the earlier EU interventions was below expectations. The 2010 indicative targets set up by Directive 2001/77/EC (22,1% RES electricity) and Directive 2003/30/EC (5,75% of RES fuels in the transport sector) were not achieved by most Member States.[10] The second RES Directive 2009/28/EC set up binding national targets for each Member State, contributing to the EU target of 20% of RES energy in 2020. A RES share of 16.7% in gross final consumption (and 28.8% in RES electricity) was reached in 2015. Thus, the EU as a whole is on track to the 2020 target, even though the sub-target of 10% for the transport sector will probably be missed (only 6.7% in 2015).[11]

Nobody denies that the EU legal framework catalysed national efforts and fostered investments in the RES sector. However, several studies document the strong differences that had to be overcome during the negotiation of climate measures. The negotiation of the RES Directives made no exception. Several conflicting problem frames were proposed. Support for RES could be justified according to the internal market frame, the energy security frame or the sustainability frame.[12] Each perspective was connected to a different understanding of the measures that were or were not acceptable, as well as the legitimacy of action at EU level. The indicative or binding nature of the targets, the criteria to share burdens among Member States, as well as the degree of harmonization of support schemes were the most contentious issues. Moreover, the measures adopted in the RES sector reflected compromises achieved in the negotiation of other parts of EU climate law, most importantly the emission trading system. The possibility to link the different climate measures provided the Commission with the

SWD(2017)32 of 1 February 2017, 97 ff. (observing that the EU is losing its leadership for certain areas of RES patents to China). Also see I-COM, *Rapporto Osservatorio Innov-E 2017*, June 2017, 15-19 (China increased by 58.4% its energy patents in 2015 compared to the previous year, and holds 20% of world energy patents in the period 2005-2015).

[9] IEA, *Key Renewable Trends*, excerpt from *Renewable Information* (2016 Edition), 7, 9. Renewable electricity production in OECD Europe grew 3.8% per annum since 1990, a growth rate higher than other OECD regions.

[10] European Commission, *Renewable Energy Progress Report*, COM (2013) 175 of 27 March 2013.

[11] See Eurostat statistics at http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_from_renewable_sources (last visited 2 July 2017).

[12] See e.g. R. Hildingsson et al., *Renewable Energies: A Continuing Balancing Act ?*, in A. Jordan et al. (eds.), *Climate Change Policy in the European Union: Confronting the Dilemmas of Mitigation and Adaptation ?*, Cambridge University Press, 2010, 103 ff.; D. Jacobs, *Designing Financing Mechanisms for Electricity from Renewable Energy Sources: The Role of the European Commission as an Agenda Shaper*, in J. Tosun et al. (eds.), *Energy Policy Making in the EU: Building the Agenda*, Springer, 2015, 107 ff.. An in-depth field study on the preparation of the second RES Directive was carried out by J. Dreger, *The European Commission's Energy and Climate Policy: A Climate for Expertise ?*, Palgrave Macmillan, 2014, 110 ff..

leverage it needed in the negotiation with the co-legislators and the Member States. Moreover, additional flexibility and side payments had to be granted to the Member States facing higher costs of adaptation to the energy transition.[13]

That political compromises have to be accepted is not surprising. The most worrisome aspect is that the EU decision-making process might have reduced the effectiveness of the RES legal framework. At the end of 2016, the Commission submitted a proposal for a third RES Directive. Following the conclusions of the European Council in October 2014, the EU target to 2030 for RES was set up at 27% of gross final consumption. This target means that by 2030 half of EU electricity should be generated from RES. Though, the explanatory memorandum attached to the proposal noted that RES investments in the EU have fallen some 60% since 2011. At the same time, the memorandum explained that to achieve the 2030 target €1 trillion investments will be required. [14] This means that the EU will have to compete with other markets, mainly the Asian ones, to attract a large share of the investments it needs in the coming years.[15] This observation already suggests that the internal dimension of the EU RES policy will be inextricably linked to the dynamics of global RES markets, the RES strategies employed in other regions and the ensuing investment flows. But the range of interdependencies becomes clearer when we focus on the causes of the investment shortfall in the current legal framework. Two of such causes are worth discussing in detail.

To begin with, the 2009 RES Directive did little to promote the integration of support schemes across the Member States. The heated debate about the adoption of an EU-wide certificate trading system, both within the Commission and with the Member States, is well documented. Attempts at furthering the harmonization of support schemes were defeated. For several years, the Commission engaged in a futile battle against feed-in tariffs, undoubtedly the most effective support scheme for early-stage RES technologies. However, the Commission was right in fearing that purely national support schemes would increase the costs of the energy transition. Cross-country collaboration schemes made available by the 2009 RES Directive have been used to a very limited extent.[16] The Court of Justice reinforced this position by accepting that patent discriminations against foreign RES producers could be built into national support schemes in

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[13] See e.g. J.B. Skjærseth et al. (eds.), *Linking EU Climate and Energy Policies*, Elgar Pub., 2016 for a detailed analysis of the negotiations on climate measures.

[14] European Commission, *Proposal for a directive on the promotion of the use of energy from renewable sources (recast)*, COM (2016)767 of 30 November 2016, 3.

[15] Projections on RES investments to 2040 can be found in IEA, *World Energy Outlook 2016*, 397 ff..

[16] See B. Kampman et al., *Mid-Term Evaluation of the Renewable Energy Directive* (CE Delft, April 2015), 107 ff., as well as the studies published at http://res-cooperation.eu/ .

the name of environmental protection.[17] A recent judgement seems to suggest a revision of such approach,[18] but most Member States are still unshaken in their belief that support schemes should be a purely national affair.[19] The proposal for a recast RES Directive leaves to Member States the choice to undertake joint projects and joint support schemes. Moreover, national support schemes shall be opened to generators from other Member States for only 10% (until 2025) and 15% (until 2030) of newly-supported capacity (Article 5 proposal for recast RES Directive).

Both the drop of investments and the retrospective cuts to national support schemes which took place in several Member States around the middle of the current decade (see section 4) seem to suggest that the EU legal framework did not lead Member States to design long-term strategies. From the point of view of the interplay among legal regimes, it is worth adding that the Commission itself exploited the leeway afforded by the international trade regime to shield the EU RES industry from Chinese competition on solar panels and to reduce imports of biofuels from third countries.[20] Both strategies hardly contributed to decrease the costs of the energy transition for EU citizens. Even though the Commission is trying to pursue wide-ranging collaborations on clean energy in several bilateral and multilateral trade negotiations, its main stance is still driven by the goal of exporting EU standards instead of exploiting comparative advantages.[21]

The second cause of the investment shortfall can be identified in the lack of a market design allowing to integrate the different types of RES generation technologies. Several interventions are needed: cross-border network infrastructures which fully exploit the geographically-bound

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[17] Court of Justice of the European Union, Case C-573/12, judgement of 1 July 2014, *Ålands vindkraft AB v Energimyndigheten*; Court of Justice of the European Union, Case C-91/13, judgement of 11 September 2014, *Essent Energie Productie BV v Minister van Sociale Zaken en Werkgelegenheid*. See the analysis by G. Van Calster, *Climate Change and Renewable Energy as a Super Trump for EU Trade Law*, 5(1) *Renewable Energy L. and Policy Rev.* 60 (2014); M. Szydlo, *How to Reconcile National Support for Renewable Energy with Internal Market Obligations? The Task for the EU Legislature after Ålands Vindkraft and Essent*, 52(2) *Common Mkt. L. Rev.* 489 (2015); A. Steinbach and R. Bruckman, *Renewable Energy and Free Movement of Goods*, 27 *J. Env. L.* 1 (2015).

[18] Court of Justice of the European Union, Case C-492/14, *Essent Belgium NV v Vlaams Gewest et al.*, confirmed the reasoning of the previous judgements, but found that the Belgian support scheme limiting to national RES producers free distribution of RES electricity did not pass the proportionality test.

[19] The public consultation undertaken by the Commission on the future RES Directive showed little support for EU-wide or regional support schemes: see the assessment at https://ec.europa.eu/energy/en/consultations/preparation-new-renewable-energy-directive-period-after-2020, last visited 2 July 2017.

[20] On the EU-China trade dispute on solar panels see L. Curran, *The Impact of Trade Policy on Global Production Networks: The Solar Panel Case*, 22 *Rev. Int. Pol. Econ.* 1025 (2015); C. Barthelemy and D. Peat, *Trade Remedies in the Renewable Energy Sector: Normal Value and Double Remedies*, 16 *J. World Inv. & Trade* 436 (2015). On EU trade policy limiting import of biofuels see S. Bracco, *The Economics of Biofuels*, Routledge, 2017, 48 ff..

[21] On a "strong Energy Union external dimension" see European Commission, *Second Report on the State of the Energy Union*, COM(2017)53 of 1 February 2017, 11 ff..

renewable sources, market rules which do not penalize RES producers, and the removal of barriers to the development of new business models for RES generation on a decentralized scale. Clearly, all these interventions can affect the pace, amount and direction of investments. At the same time, the regulatory choices on market design lead to a specific distribution of costs and benefits, not only within the EU but also in the context of trade relationships with third countries. Unlike trade of fossil fuels, trade of RES electricity is directly dependent on the legal regimes governing access to infrastructures. Therefore, trade relationships with third countries will depend to a large extent on the acceptance or rejection of the EU regulatory model for the RES sector.[22]

The two causes of the investment shortfall share a common trait, that is the lack of incentives to coordinate RES policies across the EU, national and sub-national levels. Therefore, it is not surprising that the Winter Package proposed by the Commission at the end of 2016 tries to foster integration across levels. Even though national support schemes will be opened to a limited extent and regional cooperation will still be voluntary, the new governance framework proposed in the context of the Energy Union strategy (described in section 4) should provide incentives for regional planning in the RES sector. The lack of national binding RES targets to 2030 should not be deemed a negative signal, but a shift to a broader governance approach.[23] Furthermore, the new rules on wholesale markets should allow to manage RES variability while ensuring security of supply. Their effectiveness will largely depend on how flexibility from several different energy sources and services will be rewarded. The new rules should also give RES producers access to all market segments. Specific provisions on the design of support schemes and on capacity mechanisms aim at reducing investors' uncertainty. Both aspects are linked to the other two legal regimes addressed in this article and will be discussed in the next two sections.

The RES investment problem has been a consequence of the constraints that the EU decision-making process imposed on the governance of the sector. While national interests pushed against a higher degree of market integration across the EU, the increasing RES share in the

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[22] See T. Casier, *The Geopolitics of the EU's Decarbonization Strategy: A Bird's Eye Perspective*, in C. Dupont and S. Oberthür (eds.), *Decarbonization in the European Union: Internal Policies and External Strategies*, Palgrave Macmillan, 2015, 159 ff..

[23] A. Bürgin, *National Binding Renewable Energy Targets for 2020, but not for 2030 Anymore: Why the European Commission Developed from a Supporter to a Brakeman*, 22(5) J. Eur. Pub. Policy 670 (2015) traces the shift to an EU-wide target to changes in the international climate negotiations, market conditions for fossil fuel generation, divisions within the Commission and preferences of Member States. But it can also be observed that binding targets did not make much difference under the current RES framework because enforcement mechanisms were not effective or faced many hurdles: see A. Johnston and E. Van Der Marel, *How Binding Are the EU's 'Binding' Renewables Targets?*, 18 *Cambridge Yearbook of Eur. Legal Stud.* 176 (2016).

energy mix has made purely national approaches untenable. This means that the main task for the next decade is to build new coordination mechanisms within the RES legal framework. However, focusing exclusively on the reform of that framework risks to be fruitless. No less important are the coordination mechanisms with other legal regimes affecting RES investments. The next two sections explain why this class of interdependencies cannot be overlooked.

3. RES investments and State aid law

State aid law is often considered a peculiar feature of the EU legal system. The only other legal regime directly concerned with subsidies is WTO law. However, energy subsidies for fossil fuels and RES are widespread in both developed and developing countries. After the 2009 G20 committed to phase out and rationalize over the medium term inefficient fossil fuels subsidies, the international debate on their definition and on possible avenues for reform brought to light their size and clarified their direct and indirect effects.[24]

State aid law should be considered one of the institutional components that contribute to shape the energy transition. However, its links to energy and climate policies are often difficult to discern. Apparently, State aid law pursues a different goal, namely to avoid distortions of competition in the internal market. But the modernization process which started in 2012 has clearly shown that State aid law will directly impact on both the timing and the path of the energy transition. Two factors, one substantial and one procedural, explain the influence of State aid law on energy and climate policies.

The substantial factor has to do with the long battle that the Commission fought to expand the notion of aid and reduce the number of cases in which Member States can freely provide non-market support. This aspect is clearly visible in the energy field. When the Court of Justice stated that the German feed-in tariffs did not qualify as aid because no public authority was involved,[25] the Commission embarked for almost a decade in detailed analyses of support schemes notified by the Member States. With a few exceptions, all support schemes were qualified as State aid. The Court lent support to Commission's practice in a stream of cases that

[24] See the overview in H. Van Asselt and J. Skovgaard, *The Politics and Governance of Energy Subsidies*, in T. Van de Graaf et al. (eds.), *The Palgrave Handbook of the International Political Economy of Energy*, Palgrave, 2016, 269 ff..
[25] European Court of Justice, Case C-379/98, judgement of 13 March 2001, *PreussenElektra AG v Schleswag AG*, 2001 I-02099.

narrowed down the scope of the *PreussenElektra* judgement.[26] Eventually, the 2016 notice on the notion of State aid presented the assessment in *PreussenElektra* as exceptionally justified by the specific features of the German support scheme.[27]

Even though the Commission has always shown a strong determination to close any escape route from the centralized monitoring of State aid, its assessment of compatibility requirements for RES support schemes has been quite relaxed. Under the 2001 and 2008 Environmental Guidelines, all support schemes have been approved, in a few cases after asking for modifications, but usually with generous rates of return.[28] The approach to compatibility assessments was probably influenced by the political negotiation which preceded the approval of the first and second RES Directives and the adoption of the two Guidelines. The co-legislators accepted some degree of harmonization, but rejected any attempt to tighten control on national support schemes.[29]

In 2014, the adoption of the new General Block Exemption Regulation 651/2014 (GBER) and of the Environmental and Energy Aid Guidelines (EEAG) represented a step change in Commission's practice. Even though many aid schemes were exempted from notification obligations, both the GBER and the EEAG made it clear that only some types of support schemes could be deemed compatible with the internal market. The general principle was to forbid support schemes that were not market-based. But the EEAG did not stop to RES support schemes. It also extended State aid scrutiny to other three crucial aspects of energy policy, namely capacity mechanisms, exemptions from RES charges for energy-intensive consumers and aid to cross-border energy infrastructures. The impact of this reform became visible when DG Competition adopted a more restrictive approach to capacity mechanisms and managed to get it included in Articles 18-24 of the proposed Regulation on the internal market for electricity.[30] All these developments follow from the broad interpretation of the notion of aid established in the previous decade. Such developments prevent interpretations that try to

[26] See T. Maxian Rusche, *EU Renewable Electricity Law and Policy*, Cambridge University Press, 2015, 79 ff.; D. Pérez Rodriguez, *Electricity Generation and State Aid: Compatibility is the Question*, 15 *Eur. State Aid L. Q.* 207 (2016).

[27] European Commission, *Notice on the notion of State aid as referred to in Article 107(1) of the Treaty on the Functioning of the European Union*, OJ C 262/1 of 19 July 2016, par. 61-65.

[28] Commission's practice since the 1990s is analyzed by Maxian Rusche, cit., 125 ff..

[29] Maxian Rusche, cit., 26 ff., 122.

[30] European Commission, *Final Report of the Sector Inquiry on Capacity Mechanisms*, COM(2016)752 of 30 November 2016; European Commission, *Proposal for a Regulation on the internal market for electricity (recast)*, COM(2016)861 of 30 November 2016. For a critical assessment see G. Anstey and S. Christian, *When Sisyphus Gave Up: Capacity Markets and State Aid in the EU*, 16(1) *Eur. State Aid Q.* 46 (2017).

exclude RES markets from the scope of State aid law.[31] Thus, climate law and State aid law had to evolve together.

The second factor explaining the influence of State aid law on energy and climate policy is of a procedural nature. Compared to the enforcement mechanisms available to the Commission in case of infringement of EU law, State aid law provides a leaner procedure and more dissuasive options. For aid deemed unlawful, recovery can be ordered to the Member State without the need for a Court's judgement (Art. 16 Reg. 1589/15). Defences available to Member States to avoid recovery are limited. Moreover, aid beneficiaries may invoke the protection of legitimate expectations only under restrictive conditions. All sums awarded in the previous 10 years, starting from the day on which unlawful aid is awarded, can be recovered, with the addition of compound interest (Art. 17 Reg. 1589/15). Non-notified aid which is subsequently declared to be compatible with the internal market does not exempt Member States from the duty to recover the sums awarded until Commission's decision.[32] Of particular relevance to RES support schemes is the possibility for users to claim back the charges they had to pay to finance those schemes once they are declared unlawful.[33] This means that a finding of incompatibility with the internal market after many years of implementation of the support scheme can open the floodgates of litigation.

Taken together, the substantial and procedural factors suggest that for investors the application of State aid law entails a much higher risk of suffering losses than any other case of non-compliance with EU law. Therefore, the extension of the scope of State aid control under the EEAG calls for a better coordination between the goal of protecting investors and the goal of avoiding market distortions. For several reasons, the EEAG hamper such coordination.

[31] See e.g. J. Nowag, *Environmental Integration in Competition and Free-Movement Laws,* Oxford University Press, 2016, 114 (suggesting that Article 107(1) should not apply when the aid is directed at creating a market, which could be the case for RES).

[32] Court of Justice of the European Union, Case C-199/06, judgement of 12 February 2008, *Centre d'exportation du livre français (CELF) and Ministre de la Culture et de la Communication v Société internationale de diffusion et d'édition (SIDE)*, 2008 I-00469, states that the national court must order the recipient to pay interest during the period of unlawfulness and, if appropriate within the framework of its domestic law, also order the recovery of the unlawful aid. Also see Court of Justice of the European Union, Case C-389/07, Judgment of 18 December 2008, *Wienstrom GmbH v Bundesminister für Wirtschaft und Arbeit*, 2008 I-10393.

[33] The condition for the restitution of the charge is that it is specifically intended to finance the unlawful aid. This is usually the case for RES support schemes. See e.g. Court of Justice of the European Union, Joined Cases C-261/01 and 262/01, judgement of 21 October 2003, *Belgische Staat v Eugène van Calster*. The Court can limit the temporal effects of its judgements to exclude full recovery of the charges: see e.g. Court of Justice of the European Union, Case C-333/07, judgement of 22 December 2008, *Société Régie Networks v Direction de contrôle fiscal Rhône-Alpes Bourgogne*, 2008 I-10807.

Consider first the overall purpose of the EEAG. They tried to achieve a balance between the need to reduce the costs of RES support and the costs to be borne by energy-intensive industries during the energy transition. One drawback of this approach is that competition will be distorted in favour of more resourceful Member States willing to grant exemptions to their energy-intensive industries.[34] Another unintended effect of the EEAG might have been to provide Member States an escape route from costly support schemes. On one hand, the Commission invited Member States to avoid retrospective cuts, on the other hand gave them a justification for such cuts. [35] The obligations stemming from the EEAG could be exploited opportunistically to prevent legal challenges from the investors. Furthermore, the attempt to restrict Member States' choices to market-based support schemes is driven by the same purpose of limiting the overall amount of aid. But whether this strategy was a sound one on economic grounds is heavily debated.[36]

A broader objection to the current State aid regime for the energy sector is that the Commission is not making any distinction between aid directed at RES and aid directed at fossil fuels. Indeed, in the past State aid law has been used to authorize compensation granted to fossil fuel producers for stranded costs resulting from the liberalization process, as well as in the framework of regional aid and rescue and restructuring aid. Guidelines were issued in 2012 to compensate with free allowances industries at risk of 'carbon leakage' within the EU emission trading system. The aid regime for public services can also be used to authorize support to fossil fuels. A special regime, still in force until the end of 2027, also applied to aid for the coal industry.[37]

[34] See J.L. Buendia Sierra and J.M. Panero, *Energy and State Aids: An Overview of EU and National Case Law*, *e-Competitions Bulletin*, 8 January 2015, 8 f..

[35] See Maxian Rusche, cit., 226.

[36] For criticisms see e.g. Maxian Rusche, cit., 195 (the new rules could reduce the cost efficiency of the support schemes); R.M. Mott, *New State Aid Guidelines for Renewable Energy Discourage Competition, Green Energy and Energy Security*, 5(2) *Eur. Energy J.* 22 (2015) (auctions required by EEAG do not decrease the cost of support schemes and give advantages to utilities over small producers). M. Afman et al., *EU Energy Market Policy: Local and Regional Experience and Policy Recommendations*, European Committee of the Regions, 2017 (experience in Germany shows that small producers could not be able to bear the risks of the auction system); C. Klessman and S. Tiedemann, *Germany's First Renewable Auctions Are a Success, but New Rules Are Upsetting the Market*, June 27, 2017 (www.energypost.eu) (special auction rules for energy communities do not foster community involvement).

[37] See L. Hancher and F. Salerno, *State Aid*, in C. Jones (ed.), *EU Energy Law – EU Competition Law and Energy Markets*, 4th ed., Claeys & Casteels, 2016, 631 ff. (coal industry), 741 ff. (regional aid), 749 ff. (rescue and restructuring aid), 758 ff. (stranded costs in the energy sector); 812 f. (free allowances in the ETS); L. Hancher, *Article 106 TFEU*, *ibid.*, 887 ff. (services of general economic interest in the energy sector). According to Pérez Rodriguez, *Electricity Generation*, cit., 224 f., out of 39 Commission's decisions on aids for coal only one turned out to be negative and without recovery.

It could be argued that support to fossil fuels producers is the price to be paid to smooth out the low-carbon transition. But it cannot be denied that resources devoted to fossil fuels are not made available to low-carbon technologies. This is acknowledged by the Commission as well. In its analysis of energy costs and prices, published together with the Winter Package, it reported that fossil fuels subsidies stood at around €41.9 billion in 2012. If environmental externalities are taken into account, the total amount jumps to €300 billion. The same analysis reports that RES subsidies amounted to €41 billion.[38] Interestingly, the State Aid Scoreboard, which collects information on State aid submitted by Member States, only partially reflects the total size of the energy subsidies. In 2012 the Scoreboard reported about €14 billion of aid directed to environmental protection including energy saving. For the same category, aids jumped to €45 billion in 2015, thus representing 46% of total aid. This increase was a consequence of the new requirements the EEAG imposed on RES support schemes.[39] However, the Scoreboard hides the fundamental distinction between high-carbon and low-carbon subsidies. The Commission is planning to address the phase out of fossil fuels subsidies in the revision of the energy taxation Directive, but it also suggested that this issue could be taken up in the revision of the EEAG and other State aid rules for R&D investments.[40]

Distortions across Member States, across RES technologies and across low-carbon and high-carbon subsidies seem to be the consequence of a lack of coordination between climate policy and State aid policy. The deepest roots of the current situation can be identified in the reliance on the concept of market failure in order to justify State intervention. But a broader market-making and market-shaping role of the State is needed to foster the investments which will allow to move toward the low-carbon economy.[41] Policy coordination implies the adoption of a larger set of tools in the next EEAG revision. Proposals on how to accomplish such revision are advanced in section 5. The next section turns to the interplay between EU law and international investment law.

[38] European Commission, *Energy Prices and Costs in Europe*, SWD(2016)420 of 30 November 2016, 223 ff..
[39] European Commission, *State Aid Scoreboard 2016: Results, Trends and Observations Regarding EU28 State Expenditure Reports for 2015*, 16 November 2016, 75.
[40] See Annex 2 to European Commission, *Clean Energy for all Europeans*, COM(2016)860 of 30 November 2016, 6 f..
[41] On the concept of market failure in the field of environmental protection see EEAG, par. 3.2.2. On the need to go beyond the idea that the State is at best a fixer of markets see M. Mazzucato and G. Semieniuk, *Public Financing of Innovation: New Questions*, 33 *Ox. Rev. Econ. Pol.* 24, 27 ff. (2017).

4. Is there a conflict between EU law and international investment law ?

In the last few years, the two hottest areas of confrontation between EU law and international investment law have been the frontal attack the Commission launched against intra-EU bilateral investment agreements (BITs) and the proposal to replace decentralized investment arbitration with a multilateral investment court. In this article I leave aside both issues, the first one because it could be soon clarified by the Court,[42] the second one because the proposal is still at an early stage. [43] I will instead address a more general issue, namely to what extent is it possible to coordinate EU law and international investment law to ensure an adequate level of investment protection in the energy sector.

Fears that EU law could not ensure such a level were fuelled by international litigation on retrospective cuts to RES support schemes. Starting from 2014, the Energy Charter Treaty became the most frequently invoked legal basis in arbitral proceedings against EU Member States. A significant outbreak of litigation on retrospective cuts also took place before national courts.[44] How arbitral tribunals and national courts dealt with two legal issues allows to measure the distance between the EU and international regimes, as well as to identify the barriers to be overcome to achieve a better coordination. The first legal issue is the relationship between investors' protection and states' right to regulate. The second legal issue has to do with the priority that State aid law grants to the avoidance of market distortions, thus downplaying investors' protection.

To begin with, the extent of Member States' right to revise their support schemes is at stake. The disputes often turn on the interpretation of the fair and equitable treatment (FET) clauses in BITs (or the equivalent provisions in the Energy Charter Treaty), as well as on the assessment of investors' legitimate expectations. Differences between arbitral tribunals and EU courts in the interpretation of these concepts should not be overemphasized. The threshold for a finding

[42] The BGH asked the Court of Justice (Case C-284/16) whether investment arbitration clauses in intra-EU BITs are compatible with EU law. On 19 September 2017 Advocate General Wathelet concluded that they are because no discrimination on grounds of nationality can be identified and BITs provide wider protection to investors. The judgement of the Court will affect the pending infringement proceedings against Austria, the Netherlands, Romania, Slovakia and Sweden, who declined to terminate their intra-EU BITs (see MEMO-16-3125).

[43] See DG Trade's consultation at http://trade.ec.europa.eu/consultations/index.cfm?consul_id=233 , last visited 22 June 2017. The holding of the ECJ on the EU-Singapore Free Trade Agreement, which classified investor-state dispute settlement as a shared competence (Opinion 2/15 of 16.5.2017, ECLI:EU:C:2017:376) will undoubtedly affect the fate of the proposal.

[44] See the overview of the cases in D. Behn et al., *Promoting Renewable Energy in the EU: Shifting Trends in Member State Policy Space*, 28 *Eur. Bus. L. Rev.* 217 (2017).

of liability seems generally quite high in both regimes.[45] For example, the Italian Constitutional Court rejected the legal challenges against the retrospective cuts to the Italian RES support schemes by arguing that they were neither irrational nor unforeseeable. The Court also argued that its interpretation was in line with the case law of the ECJ and the ECtHR.[46] This approach may be criticized on the ground that it does not clarify when state intervention crosses the irrationality threshold. The Italian judges seem to have in mind a quantitative criterion when they observe that the retrospective cuts did not significantly affect the profitability of RES producers. Indeed, most of them experienced a 6-8% reduction of the support. Evidence that the quantitative impact matters can also be found in the arbitration awards on the Spanish retrospective cuts. Whereas in the *Charanne* case a 10% reduction of the RES plants profitability was not deemed to represent a breach of international obligations toward investors, in the *Eiser* case a reduction of profitability in the range between 48% and 75% led the panel to conclude that Spain had infringed Article 10(1) ECT.[47]

It is unlikely that litigation scattered among different fora will completely dispel uncertainty about the quantitative threshold to be crossed. Moreover, a qualitative aspect seems to matter as well. The right to regulate could depend on the features and the goals of the intervention, not only on its financial impact. Whether investment arbitration can provide a balanced assessment of these aspects is still debated. The empirical analysis carried out by Gus Van Harten shows that in most cases investment arbitrators are not willing to balance collective priorities with investors' rights.[48] Conversely, a later empirical analysis by Alec Stone Sweet and Florian Grisel suggests that over the years a consistent interpretation of the FET clause has emerged. According to the authors, arbitrators are usually willing to engage in an assessment of the factors which justify states' right to regulate and to balance it with investors' entitlements.[49]

Perhaps this disagreement simply reflects the decentralized character of investment arbitration. But it could also suggest that arbitration alone cannot be relied upon to enhance coordination

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[45] See e.g. C. Saavedra Pinto, *The 'Narrow' Meaning of the Legitimate Expectations Principle in State Aid Law Versus the Foreign Investor's Legitimate Expectations: A Hopeless Clash or an Opportunity for Convergence?*, 15(2) *Eur. State Aid L. Q.* 270 (2016).

[46] Italian Constitutional Court, judgement of 24 January 2017, n. 16, Official Journal of 1 Feb. 2017, available at www.cortecostituzionale.it . For a broader discussion see G. Bellantuono, *The Misguided Quest for Regulatory Stability in the Renewable Energy Sector*, forthcoming 10 *J. World Energy L. & Bus.* (2017).

[47] *Charanne BV and Construction Investments SARL v Kingdom of Spain*, Stockholm Chamber of Commerce, 21.1.2016 (https://www.italaw.com/cases/2082); *Eiser Infrastructure Limited and Energía Solar Luxembourg SARL v Kingdom of Spain*, ICSID Case No. ARB/13/36 (https://www.italaw.com/cases/5721).

[48] G. Van Harten, *Sovereign Choices and Sovereign Constraints*, Oxford University Press, 2013.

[49] A. Stone Sweet and F. Grisel, *The Evolution of International Arbitration: Judicialization, Governance, Legitimacy*, Oxford University Press, 2017, 186 ff..

between EU climate law and international investment law. Even though investment arbitration is not biased against states, something more than a lack of bias is needed. More specifically, the interplay between the two regimes should be addressed at an earlier stage, that is when governance choices are made. Four proposals leaning towards this direction can be identified. They differ from the point of view of feasibility, effectiveness and role to be played by investment arbitration.

The first proposal is the drafting of more detailed trade and investment agreements, in which specific policy objectives are clearly spelled out together with a definition of the scope and procedures of intervention available to the host state.[50] These new provisions could help broaden the arbitrators' assessment to environmental protection goals. However, they might not contribute to address conflicts with other EU legal regimes (see the comments on CETA in section 5).

A second, more long-term proposal is the revision of the Energy Charter Treaty in which both climate goals and the treatment of energy subsidies are explicitly addressed. However, the International Energy Charter signed in May 2015 does not grant any priority to the low-carbon transition. More generally, the preferences of the EU and Asian countries about regulatory models are too divergent for the prospect of a new treaty to be credible in the near future.[51]

A third solution could be found in the 2016 proposal for a recast RES Directive, which included some provisions clearly aimed at reducing investors' risks. Article 6 of the proposal reads:

"Without prejudice to adaptations necessary to comply with State aid rules, Member States shall ensure that the level of, and conditions attached to, the support granted to renewable energy projects are not revised in a way that negatively impacts the rights conferred thereunder and the economics of supported projects."

[50] For a survey of provisions related to RES investments in EU and US agreements see E. Cima, *Promoting Renewables Through Free Trade Agreements ? An Assessment of the Relevant Provisions*, C-EENRG Working Papers 2016-7, November 2016. The EU also employs Trade Sustainability Impact Assessments to include provisions on environmental protection in trade agreements, but so far their contribution has been modest: see W.T. Douma, *The Promotion of Sustainable Development through EU Trade Instruments*, 28 *Eur. Bus. L. Rev.* 197 (2017).

[51] As of early 2017 the International Energy Charter has been signed by 90 countries. On likely developments see P. Aalto, *The New International Energy Charter: Instrumental or Incremental Progress in Governance?*, 11 *Energy Research & Social Science* 92 (2016); A. Herranz-Surallés, *An Upstream Battle: The EU and the Reform of the Energy Charter Treaty*, in E. Barbé et al. (eds.), *EU Policy Responses to a Shifting Multilateral System*, Palgrave Macmillan, 2016, 49; F. Montanaro, "*Ain't No Sunshine": Photovoltaic Energy Policy in Europe at the Crossroads Between EU Law and Energy Charter Treaty Obligations*, in G. Adinolfi et al. (ed.), *International Economic Law*, Springer and Giappichelli, 2017, 211.

Article 15(3) of the proposal adds:

"Member States shall ensure that investors have sufficient predictability of the planned support for energy from renewable sources. To this aim, Member States shall define and publish a long-term schedule in relation to expected allocation for support, covering at least the following 3 years and including for each scheme the indicative timing, the capacity, the budget expected to be allocated, as well as a consultation of stakeholders on the design of the support."

Both provisions are clearly influenced by national and international litigation on retrospective cuts. Whether they might reduce investors' risks is doubtful. Their immediate effect is to shift to the EU level the task of establishing the level of protection, thus reducing the role of national courts. However, they do no contribute to solve the conflicts between State aid law and international investment law. Moreover, no clear parameters are chosen to balance Member States' right to regulate and investor protection. From this point of view, one might wonder whether these provisions are coherent with the much more explicit acknowledgement of the right to regulate included in recent EU investment agreements.[52]

The fourth proposal exploits the strengths of the planning obligations enshrined in the new EU energy governance. Art. 3 of the proposed Regulation on Energy Union governance asks Member States to submit integrated national energy and climate plan for the period 2021-2030, but with projections to 2050.[53] These plans give Member States the chance to increase the credibility of their commitments toward investors. The long-term perspective adopted by the plans, together with the enhanced transparency they should ensure about financial resources and decision-making procedures, could turn them into the new reference point for the interpretation of the principle of legitimate expectations. Any revision which damages investors and is not compatible with the plans should prompt liability. This means that the plans should include detailed provisions on the procedures and reasons for revisions. From a legal point of view, the best option is to adopt legislative measures both with regard to the planning procedures and to the plans themselves. Binding rules are the clearest signal of Member States' commitment.

[52] For a discussion of investment protection provisions in the EU-Canada Comprehensive Economic and Trade Agreement, the EU-Singapore Free Trade Agreement and the Transatlantic Trade and Investment Partnership see G. Coop and B. Maier, *The External Relations of EU Energy Regulation*, in P.D. Cameron and R.J. Heffron (eds.), *Legal Aspects of EU Energy Regulation*, 2nd ed., Oxford University Press, 2016, 80 ff..

[53] European Commission, *Proposal for a Regulation on the Governance of the Energy Union,* COM(2016)759.

In section 5 we will come back to these proposals to put them in the broader context of polycentric governance. Let us now turn to the second legal issue, that is the divergent goals of State aid law and investment law. The *Micula* case awaked the international community to the impact of such divergence. The arbitral tribunal granted compensation to investors, but the Commission held that the award re-introduced state aid incompatible with the internal market and ordered recovery of compensation already paid.[54] It has been observed that, when a state has been ordered to pay damages by an arbitral award, such compensation should not qualify as State aid because of the lack of the imputability requirement or, more in line with the ECJ's case law, the lack of the advantage requirement.[55] However, compensation leading to the re-installment of unlawful aid would clearly infringe Article 107 TFEU. This is the situation in the *Micula* case according to the Commission.[56] The only possibility to avoid a conflict with EU law seems to consider the aid unlawful only when the Commission has made a decision. Conversely, in case of Commission's inaction enforcement of the award could be possible even though the lawfulness of the aid is doubtful.[57]

Two additional considerations may help understand the broader context in which the conflict arises. Firstly, most RES support schemes have been deemed compatible with the internal market. Therefore, the support schemes involved in international arbitrations are likely to be deemed unlawful only because they were not notified. They could also be deemed incompatible because of overcompensation, but in that case the Commission could simply ask for modifications. These observations suggest that recovery of the aid already granted could be limited to the interest accrued before the Commission's decision or to only a part of the

[54] *Ioan Micula et al. v. Romania*, ICSID Case No. ARB/05/20 (http://www.italaw.com/cases/697); Commission Decision (EU) 2015/1470 of 30 March 2015, OJ L232/43 of 4 April 2015. Appeals against this decision are pending before the EU General Court (Cases T-624/15, T-694/15 and T-704/15). The investors obtained recognition of the award in the US (Micula et al. v Romania, S.D. N.Y., September 3, 2015, 2015 U.S. Dist. Lexis 102907, dismissing Romania's motion to vacate or stay the recognition judgement of 21 April 2015). An appeal is pending before the US Court of Appeals for the Second Circuit. But it seems already clear that enforcement of ICSID awards outside the EU prevents any discussion about the supremacy of EU law: see H. Wehland, *The Enforcement of Intra-EU BIT Awards: Micula v Romania and Beyond*, 17 *J. World Invest. & Trade* 942 (2016).

[55] See P. Ortolani, *Intra-EU Arbitral Awards vis-à-vis Article 107 TFEU: State Aid Law as a Limit to Compliance*, 6 *J. Int. Dispute Settlement* 118 (2015). According to K. Struckmann et al., *Investor-State Arbitration and EU State Aid Rules: Conflict or Co-Existence?*, 15(2) *Eur. State Aid L. Q.* 258, 264-268 (2016), payment of damages ordered by a court cannot be considered State aid because of the lack of imputability (courts are bound to apply the enforcement procedures of the ICSID Convention), lack of selectivity (any judgement debts have to be satisfied) and lack of economic advantage (damages do not re-install withdrawn State aid).

[56] A different view in Struckmann et al., cit., 267, who observe that the arbitral tribunal awarded damages to the investors because Romania maintained some obligations after withdrawing incentives and made false representations).

[57] Ortolani, cit., 131 ff.. Also see A. Reuter, *Retroactive Reduction of Support for Renewable Energy and Investment Treaty Protection from the Perspective of Shareholders and Lenders*, 13(3) *Oil, Gas & Energy Law* 36 ff. (2015) for the argument that the host state and the EU could be liable under the ECT if they do not clarify whether aid is lawful or not.

subsidies. Should this be the case, the investor winning the arbitration could still be entitled to damages for an amount equivalent to a significant share of the aid.

Secondly, should any compensation be forbidden because the support scheme is deemed totally unlawful, the investor could still avail itself of compensatory remedies at national level. The investor would not claim that the Member State infringed its legitimate expectations, but that the unlawfulness of the aid caused a damage. For example, Member State's liability could depend on having put in place a RES regime which does not comply with EU law. From this point of view, the investor's claim would not be equivalent to the re-installment of the unlawful aid. What the investor complains about are the additional costs it had to bear because of the breach of EU law by the Member State.

Compensatory remedies could belong to the EU legal system (*Francovich* liability) or to the national one. The ECJ case law does not prevent the possibility to claim damages against the Member State after the aid is declared unlawful by the Commission. For example, in *Atzeni* the beneficiaries of the aid claimed damages before Italian courts because the region failed to communicate the start of the proceedings and notified much later the adoption of the aid decision. The Court confirmed the legality of the Commission's decision, but observed (par. 59-60) that the Italian government slowed the notification process and did not provide the information needed to assess the compatibility of the aid.[58] In his Opinion, AG Colomer observed (points 194-198) that the Member State can be held liable for infringing the obligation to provide prior notification to the Commission, but noted that, if an entitlement to compensation is recognised, the damage cannot be regarded as being equal to the sum of the amounts to be repaid, since this would constitute an indirect grant of the aid found to be illegal and incompatible with the common market.[59]

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[58] Court of Justice of the European Union, Joined Cases C-346/03 and C-529/03, judgement of 23 February 2006, *Giuseppe Atzeni and Others v Regione autonoma della Sardegna*, 2006 I-01875.

[59] Similar statements can be found in the Opinion of AG Léger in Case C-197/99P, 2003 I-08461, point 74, and in the Opinion of AG Tesauro in Case C-142/87, 1990 I-00959, 983 ff.. AG Slynn in Joined Cases C-106 to 120/87, 1988 05515, 5527 f., held that Member State liability for incorrect application of Community law was a matter for national law. D. Piccinin, *Enforcement in the National Courts*, in K. Bacon, European Union Law of State Aid, 3rd ed., Oxford University Press, 2017, 563-565, follows the opinion of AG Colomer, but observes that creditors of the beneficiary could be entitled to claim damages from the State. Of relevance here is also the case law that acknowledges the competence of national courts on the assessment of legitimate expectations created by national authorities: see e.g. Court of First Instance, Case T-109/01, judgment of 14 January 2004, *Fleuren Compost BV v Commission of the European Communities*, 2004 II-00127, par. 143. This means that in a Member State's legal system legitimate expectations could be assessed according to criteria that do not follow the case law of the ECJ.

It must be acknowledged that actions for damages brought by beneficiaries have been rare so far. They usually face several hurdles of both a procedural and substantive type.[60] A judgement by the Italian Supreme Court, which rejected damage claims brought by beneficiaries of unlawful aid, provides an illustration of those hurdles.[61] The judges argued that State aid law does not confer individual rights to beneficiaries, but only to their competitors. This means that one of the requirements for *Francovich* liability, that is EU rules conferring individual rights, is not fulfilled. But we have seen above that the *Atzeni* case suggests the opposite to be true.[62] With regard to liability grounded on Italian rules, the Court rejects the damage claim because beneficiaries of unlawful aid are not entitled to legitimate expectations. But we have observed above that beneficiaries should be entitled to claim damages because the unlawfulness of the aid was dependent on Member States' behaviour, thus irrespective of any assessment of legitimate expectations.

The limited availability of compensatory remedies before national courts could suggest that the arbitration system still grants stronger protection to investors. But it should be noted that the latter usually receive a small share of the damages they claim.[63] The interesting question is which adjudicatory system (arbitral, national, EU) is able to work out liability rules which provide incentives for a more transparent and predictable management of support schemes. Compensatory remedies should be focused on encouraging the adoption of good governance practices. It has been observed that in international investment arbitration win rates for investors are correlated to the quality of governance, more specifically to the protection of property rights and the impartiality of national bureaucracies.[64] These two indicators represent rough proxies for the quality of governance and do not suggest how to improve it. The argument made here is that the relationship between adjudicatory systems and governance could be strengthened if assessments of liability take into account how the state made decisions on support schemes. A broader recourse to Member States' liability toward investors for unlawful aid would improve

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[60] See M. Bernat, *Practitioner's (Biased) Diary on What Beneficiaries Complain About (Usually in Conference Rooms)*, 15 *Eur. State Aid Q.* 199 (2016).
[61] See Corte di Cassazione 10.8.2016, n. 16870, available at http://www.italgiure.giustizia.it/sncass/ .
[62] The conferral of individual rights in case of breach of the standstill obligation of Article 108(3) TFEU has been repeatedly affirmed by the ECJ: see references in Commission notice on the enforcement of State aid law by national courts, 2009/C 85/01, OJ C 85/1 of 9.4.2009, par. 46. This case law usually refers to the rights of competitors or other parties affected by unlawful aid, but it does not explicitly exclude beneficiaries of the aid. Whether Article 108(3) confers individual rights to beneficiaries is a matter of EU Treaties interpretation reserved to the ECJ.
[63] According to PricewaterhouseCoopers, *2015 – International Arbitration Damages Research*, claimants receive on average 37% of the requested amount. In *Eiser*, the first damage award on RES retrospective cuts, the claimants received €128 million excluding interest, about 60% of the requested amount.
[64] D. Behn et al., *Poor States or Poor Governance ? Explaining Outcomes in Investment Treaty Arbitration*, forthcoming 37 *Nw. J. Int. L. & Bus.* (2017).

the effectiveness of State aid law because Member States could avoid damage claims by following EU procedures.[65] In international investment arbitration, the ambiguity surrounding the notion of legitimate expectations could be partially dispelled by anchoring liability to the violation of procedures set down in the field of energy and climate planning. From this perspective, the interplay between State aid law and international investment law could be harnessed to prevent conflicts, not to establish hierarchies of values.

Both the debate surrounding the meaning of the right to regulate and the barriers that State aid law raises to investors' compensation confirm the lack of coordination between EU law and international investment law. The proposals discussed in this section could reduce conflicts, but they should be connected to a broader shift of the legal framework toward polycentric governance. The next section shows how this goal should be accomplished.

5. *Polycentric solutions for RES investments*

The previous three sections show that the three legal regimes promote different types of investments with different tools. EU climate law promotes low-carbon investments through support schemes and market design, EU State aid law promotes any kind of investments which can be funded with market mechanisms, and international investment law promotes any kind of foreign investments with bilateral or multi-lateral treaties. Clearly, each regime addresses the investment needs of different categories of market players. Thus, there is no reason to assume that the same types of investments will be encouraged. Conflicts arise not because the three regimes are unwilling to provide investors with an adequate level of protection, but because each regime adopts its own balancing criteria.

Conflicts among legal regimes are a recurring theme in several areas. The dynamics of globalization have multiplied transnational regimes and fuelled the debate about the management of their interactions.[66] EU studies, too, have focused on the need to identify arrangements which link the political and legal dimensions of integration processes.[67] None of these literatures suggests easy answers to coordination problems. Granting priority to the goals of one regime looks deceptively simple. The hierarchical approach is likely to face strong opposition and does not address many trade-offs. For example, if we assume that climate goals

[65] In its Enforcement notice, the Commission only mentions damage claims available to competitors and other third parties against the Member States or the beneficiaries as effective tools to strengthen State aid law.
[66] E.g. G. Teubner, *Constitutional Fragments*, Oxford University Press, 2012, 150 ff..
[67] E.g. C. Joerges and C. Glinski (eds.), *The European Crisis and the Transformation of Transnational Governance*, Hart Pub., 2014.

should be granted priority, what does such choice mean from the point of view of supporting large-scale and small-scale investments ? And how much could we curtail fossil fuel subsidies without putting at risk the low-carbon transition ?

These questions suggest that prioritizing goals in a hierarchical fashion is not enough. Non-hierarchical coordination could be a promising alternative. To be sure, a mix of hierarchical and non-hierarchical governance is often observable in many fields, with the relationships between them ranging from conflictual to synergic. The question here is whether it is possible to design some degree of non-hierarchical cooperation in order to address the conflicts among the three regimes discussed in this article.

The concept of polycentricity provides the broadest approach to non-hierarchical governance. It has been widely discussed in the climate change literature.[68] According to the framework proposed by the late Vincent and Elinor Ostrom, the founders of the Bloomington School of political economy or institutional analysis, the main strength of polycentric approaches is that action can take place at different scales, even though coordination among decision-making levels is needed. Elinor Ostrom was ready to acknowledge that several problems could hamper polycentric solutions, namely leakage, inconsistent policies, inadequate certification, gaming behaviour and free riding.[69] These problems point to the need to understand the conditions under which polycentricity can foster a greater degree of coordination than other governance modes.[70] The argument here is that a shift from hierarchical to polycentric approaches could help address the coordination problems faced by the three legal regimes affecting RES investments. Such a shift could be accomplished through interpretative techniques, but more ambitiously it could be embedded in EU energy governance. An explicit assumption made here is that polycentricity needs to be supported by a 'legal scaffolding', that is a set of legal rules which steer non-hierarchical coordination while at the same time providing a safety net against coordination failures.

[68] See e.g. T. Rayner and A. Jordan, *The European Union: The Polycentric Climate Leader?*, 4 *Wires Climate Change* 75 (2013); D.H. Cole, *Advantages of a Polycentric Approach to Climate Change Policy*, 5 *Nature Climate Change* 114 (Feb. 2015); A. J. Jordan et al. *Emergence of polycentric climate governance and its future prospects*, 5 *Nature Climate Change* 977 (2015); M.J. Dorsch and C. Flachsland, *A Polycentric Approach to Global Climate Governance*, 17 *Global Env. Politics* 45 (2017); K.W. Abbott, *Orchestration: Strategic Ordering in Polycentric Climate Governance*, June 8, 2017 (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2983512).

[69] E. Ostrom, *Polycentric Systems for Coping with Collective Action and Global Environmental Change*, 20 *Global Env. Change* 550 (2010).

[70] See e.g. P.D. Aligica, *Institutional Diversity and Political Economy: The Ostroms and Beyond*, Oxford University Press, 2013, 39 ff..

Two general principles help identify the legal changes which could foster coordination. [71] Firstly, the redundancy principle ensures that each regime pays attention and contributes to the goals pursued in the other ones. Secondly, the safety net principle ensures that each regime is able to replace other regimes when the latter are not effective in achieving their goals. This principle should help avoid inertia or unmanageable fragmentation. Let me provide some examples of modifications to the three regimes which could help implement these two polycentric principles. Table 1 summarizes the proposals.

[71] Both principles can be found, although with different terminology, in the literature on adaptive governance: see e.g. B.A. Cosens et al., *The Role of Law in Adaptive Governance*, *Ecology and Society* 22(1):30 (2017); D.A. DeCaro et al., *Legal and Institutional Foundations of Adaptive Environmental Governance*, *Ecology and Society* 22(1):30 (2017). This literature suggests a broader set of principles, but I focus on the two explained in the text because they are directly relevant to the coordination of legal regimes. Also see M. Groenleer, *Redundancy in Multilevel Energy Governance: Why (and When) Regulatory Overlap Can Be Valuable*, TARN Working Paper 6/2016, November 2016.

Table 1. Polycentric governance for RES investments

Regime interplay	Polycentric governance	
	Redundancy principle	**Safety net principle**
Climate law – State aid law	Stronger obligations on joint support schemes and regional cooperation Reduce aids to fossil fuels	Tailor support schemes to RES technologies
Climate law – Investment law	States accountable through national plans Investment arbitration bound to assess legitimate expectations in light of national plans	
State aid law – Investment law	Ensure compatibility between State aid law and international obligations Arbitrators should apply EU obligations	Beneficiaries of unlawful aid should be entitled to claim damages from Member States

Coordinating climate law and State aid law

In EU climate law, the usual approach is to establish a hierarchical relationship with State aid law. For example, Article 3(3) Directive 2009/28/EC allows Member States to choose RES support schemes, but without prejudice to State aid law. Even more clearly, Article 4 of the proposed recast RES Directive incorporates some principles on market-based support schemes from the EEAG. Polycentric redundancy suggests a different legislative approach, in which climate policy and State aid policy become complementary tools. Such coordination could be accomplished with three revisions to the current legal framework.

Firstly, the variety of RES investment types should be acknowledged and Member States should be encouraged to tailor support schemes to the features of each RES technology. This means that the uniformity promoted by the EEAG should be abandoned.[72] Secondly, the wider

[72] This revision in in line with the idea that polycentricity should foster variety and provide options to groups that face high coordination costs (M.D. McGinnis, *Polycentric Governance in Theory and Practice: Dimensions of Aspirations and Practical Limitations*, draft October 5, 2015, available at http://php.indiana.edu/~mcginnis/vita.htm#Res). This could be the case of small RES producers who face higher costs of participation to RES auctions. See in this vein K. Tews, *Europeanization of Energy and Climate Policy: The Struggle Between Competing Ideas of Coordinating Energy Transitions*, 24(3) *J. Env. & Dev.* 267 (2015)

freedom available to the Member States should be balanced with stronger obligations on joint support schemes and regional cooperation. The main advantage of this approach is that, by exploiting the comparative advantages of each national industry, it could reduce the overall amount devoted to RES subsidies. Therefore, the market distortions State aid law tries to avoid should decrease as well.[73] Thirdly, State aid law should be harnessed to phase out subsidies to fossil fuels, thus reducing market distortions and freeing resources for RES investments. The reform of fossil fuels subsidies is a long-term process which entails both compensatory measures and complementary interventions to ensure its effectiveness.[74] State aid procedures are well positioned to guide the process and set up the right level of support to be allocated to each sector and category of stakeholders affected by the phasing out. At the same time, the Commission should manage the interplay with several other international regimes involved in the reform of fossil fuels subsidies.[75]

These three proposals are expression of a polycentric view because they acknowledge that climate law and State aid law overlap and influence each other. But whereas a hierarchical coordination means that the goals of State aid law have to prevail over the goals of climate law, a polycentric approach allows to modify the goals pursued by each regime in order to reduce coordination costs. Moreover, it was pointed out in section 4 that State aid law is more effective in ensuring compliance as compared to infringement proceedings. If environmental sustainability is considered an important goal, the most effective enforcement tools available in EU law should be deployed.

Coordinating climate law and international investment law

The new energy and climate plans could foster polycentric governance in two ways. Firstly, they could provide a shared understanding of the goals to be pursued, both at national and at regional level. Indeed, the low-carbon transition requires a long-term vision in which the state does not only reduce the risks for private investors, but directly contributes to reduce the

(arguing that harmonization of support schemes should be limited to large-scale and cross-border projects, while more room for experimentation should be left to the subnational levels).

[73] Contrary to the observations made by C. Glinski, *External Effects and Legal Constraints of the German 'Energiewende': A Search for Sound Responses to European Conflict Constellations*, in C. Joerges and C. Glinski, cit., 157 ff., opening national support schemes to competition is not a shift to market liberalism, but a way to balance the legitimate concerns of EU integration and Member States' energy policies.

[74] See J. Rentschler and M. Bazilian, *Principles for Designing Effective Fossil Fuel Subsidy Reforms*, 11 *Rev. Env. Econ. & Policy* 138 (2017).

[75] On the regime complex for energy subsidies see T. Van de Graaf and H. van Asselt, *Introduction to the Special Issue: Energy Subsidies at the Intersection of Climate, Energy, and Trade Governance*, 17 *Int. Env. Agreements* 313 (2017).

uncertainty of the innovation process. [76] The plans are one of the best available tools to ensure that public interventions adopt such vision. Secondly, they could become the reference point to establish the level of protection to be granted to investors. By performing these two functions, the plans would help reduce investment risks in two ways. Firstly, states should be held accountable for regulatory choices that do not comply with the criteria and procedures laid down in the plans. Actions for damages could be one option, but it can be expected that other remedial actions would be available, for example delegation to independent third parties of monitoring and implementation tasks. Secondly, arbitral tribunals should adapt the notion of legitimate expectations to the content of the plans. Infringement of investors' rights would not depend on changes to the regulatory framework, but on compliance with the plans. Compared to the current uncertainty about the meaning of legitimate expectations, a reference to specific procedures would clarify where the threshold lies. Moreover, the right to regulate would be fully safeguarded. States could be held liable only for breaching procedures and criteria they chose by themselves. Of course, states choosing too vague criteria or procedures would not be able to make credible commitments, would be penalized by investors and face a higher risk of liability in arbitration. Note that for the purpose of investors' protection only compliance with the procedures should be required. Not achieving the targets set up in the plans should not trigger liability toward investors, even though it could lead to legal consequences from the point of view of compliance with EU targets.

Coordinating State aid law and international investment law

A polycentric approach would require three revisions to the current legal framework. To begin with, EU trade agreements should not carve out State aid law from the obligations toward investors. For example, Article 8.9.4 of the EU-Canada Comprehensive Economic and Trade Agreement (CETA) includes the right to discontinue a subsidy or to request its reimbursement within the meaning of the right to regulate. This approach does not allow to avoid frictions between State aid law and international investment law. An alternative approach would be to include an assessment of the impact of the subsidy on trade relationships. This is already foreseen for WTO-relevant subsidies in Chapter 7 CETA. The different treatment of the two types of subsidies is obviously aimed at avoiding any external scrutiny on State aids. But it has been observed that in many cases the WTO notion of subsidy could include Member States' subsidies (including RES support schemes) that have already been deemed compatible with the

[76] See Mazzucato and Semieniuk, *Public Financing*, cit., 34 ff..

internal market.[77] This means that conflicts are by no means excluded. Therefore, it should be possible for the Commission to include in its compatibility assessment the impact of the aid on international obligations toward investors. Even though the definition of State aid in Article 107(1) only refers to trade among Member States, it could be argued that the assessment of the impact on extra-EU trade is justified by the general principles on EU's external action (Article 21 TEU) and EU's competence to conclude international agreements (Article 216 TFEU). These provisions could support and interpretation of free trade agreements which requires all EU policies to comply with, and take into account their impact on, international obligations. With specific reference to climate policies, further support for this interpretation comes from the EU's duty to promote international cooperation in order to ensure sustainable development (Article 21(2)(f) TEU).[78] The regulatory cooperation bodies envisaged by CETA and other free trade agreements could help collect evidence about such impact and may be identify solutions which could reduce frictions with commercial partners.

Should the Commission become more sensitive to international investment obligations, the second polycentric revision should come from arbitrators. They should be more willing to undertake a detailed assessment of the compatibility between EU law and investors' protection.[79] In some cases, they should come to the conclusion that compliance with EU law does not entail an infringement of investors' rights, notwithstanding the losses the latter could avoid were EU law not to apply. This suggestion is in line with the proposal made above about the link between the contents of the energy and climate plans and the principle of legitimate expectations. If both EU institutions and arbitral tribunals pay attention to each other's concerns, the interplay among multiple decision-making centres could be managed effectively. A link with the proportionality debate in international investment law can also be identified. It has been proposed to address the interplay between the right to regulate and investors' protection through a proportionality assessment, in some cases coupled with some degree of

[77] See L. Rubini, *WTO Subsidy Laws: The International Regulation of State Aid*, in H. Hofmann and C. Micheau (eds.), *State Aid Law of the European Union*, Oxford University Press, 2016, 469 ff., who observes that in general it is more difficult to prove that subsidies had adverse effects under WTO law.

[78] The ECJ case law already asks the Commission to take into account other Treaty provisions when assessing the compatibility of State aid, but adds that those provisions shall be closely linked to the object of the aid (see references in A. Bates, *Compatibility of Aid – General Principles*, in K. Bacon, *European Union Law of State Aid*, cit., 95). The position argued in the text is that finding such close link between State aid law and Treaty provisions on EU' international obligations could foster coordination between the two regimes.

[79] See, in this vein, J. Kokott and C. Sobotta, *Investment Arbitration and EU Law*, 18 *Cambridge Y. Eur. Legal Stud.* 3, 8 (2016); F. Munari and C. Cellerino, *General Principles of EU Law and International Investment Arbitration*, *Diritto del commercio internazionale*, 2016, 115, 126.

deference to states' regulatory autonomy.[80] Taking into account the polycentric nature of governance means to include in the proportionality assessment, and more specifically in the evaluation of the relationship between the ends pursued and the means chosen, the entire range of regulatory choices made with regard to RES investments.

The third revision was already discussed in section 4. Clarifying the scope of Member States' liability toward beneficiaries of unlawful aid would help reduce the distance between the two regimes. To the extent that a *Francovich* type liability can be identified, the ECJ is in charge of the clarification task. The Commission could contribute on its own initiative by asking for studies on this subject or taking a position on liability toward beneficiaries in a new version of the Enforcement notice. Both measures could prompt Member States to reflect on possible amendments to their national legal framework.

6. *Conclusions*

Amidst the legal changes required by the low-carbon transition, the coordination of goals and tools across legal regimes is one of the most demanding. Interdependencies cannot be ignored. At the same time, they cannot be easily managed with hierarchical approaches. RES investments will be affected to a similar extent by the three regimes discussed in this article. However, each of them could impose higher or lower costs on different types of RES investments. This means that achieving the EU 2030 and 2050 targets will depend on the combined effects of all the legal regimes.

Adopting a polycentric approach does not immediately solve all governance problems. But it provides a framework to assess the coherence and the impact of governance choices. Two general principles, redundancy and safety net, provide useful insights on the legal reforms that are needed to coordinate independent legal regimes. Six of the proposed revisions aim at implementing the redundancy principle, two at implementing the safety net principle. State aid law is the legal regime most in need of reform, probably because it has so far adopted a hierarchical approach. Fewer changes are required to investment arbitration, thus suggesting it

[80] Divergent opinions have been expressed on the content of the proportionality assessment and the suitability of deference: compare C. Henckels, *Proportionality and Deference in Investor-State Arbitration: Balancing Investment Protection and Regulatory Autonomy*, Cambridge University Press, 2015 (arguing for a more limited proportionality assessment and a measure of deference) with Stone Sweet and Grisel, *The Evolution*, cit., 243 ff. (arguing that a broader proportionality assessment is required and no deference should be allowed).

can usefully contribute to the low-carbon transition even without the more sweeping reforms currently being debated.

All the proposed revisions focus on the interplay among legal regimes. This perspective is often overlooked in the legal literature. Each of the three regimes discussed here has its own specialized debates. But specialists in each field tend to focus on one legal regime at a time. The interdependencies highlighted in this article call for broader assessments of goals and tools across legal regimes. With specific reference to RES investments, it is likely that other regimes should be considered, for example WTO law, some parts of EU and international environmental law and land planning. Each of them involves decision-making processes at multiple scales. In all these cases, the polycentric principles of redundancy and safety net might help identify coordination mechanisms to be embedded in legal frameworks.