sufficient financial resources, and a new instrument has been proposed. In 2011, the Commission tabled a Proposal on guidelines for trans-European energy infrastructure, which would repeal Decision No 1364/2006/EC. ¹⁸⁰ This proposal is part of the EU infrastructure package from October 2011, and is the latest attempt to provide the missing links in the EU energy markets. The main change to the *status quo ex ante* is the significant increase in direct financing of these projects (up to 70 per cent) in the EU context. The regulation would in many ways follow the TEN-E guidelines and attempt to lay down guidelines for the timely development and interoperability of priority corridors and areas of trans-European energy infrastructure. Many projects had already been identified in the context of the TEN-E guidelines. ¹⁸¹

In addition to these instruments, the EU, following the example of the US, has granted very significant amounts of funding through the European Energy Programme for Recovery¹⁸² with a view to completing 31 gas infrastructure projects at a cost of EUR 1.39 billion, which includes EUR 1.3 billion support for gas interconnectors. If these measures did not significantly boost the European economy, at least they assisted in getting new energy projects off the ground.

3.5.5 Security of Supply in the General Internal Energy Market Directives

Provisions related to security of supply have been included in virtually all legislative instruments in the field of energy. In addition to the directives on energy savings¹⁸³ or those on the promotion of green energy sources or more efficient energy production, ¹⁸⁴ the general internal market directives also include several provisions

180 'Proposal for a Regulation of the European Parliament and of the Council on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC' (COM(2011)658).
181 These were also identified earlier in connection to the energy infrastructure priorities for 2020 and beyond—'A Blueprint for an integrated European energy network' (COM(2010)677 final).

¹⁸⁴ 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, OJ L 140, 5.6.2009, pp. 16–62; and Directive 2004/8/EC of the European Parliament and of the Council of 11 February 2004 on the promotion of cogeneration based on a useful heat demand in the internal energy market and amending Directive 92/42/EEC, OJ L52/50, 21.2.2004.

which are linked to security. Many of these have been examined in this chapter, including PSOs, merchant exemption for new infrastructure, and others. Furthermore, the energy market directives set up a monitoring mechanism which obliges the Commission to examine and report annually to the European Parliament and Council. This report contains information on: the development of the internal energy markets and the obstacles encountered (including dominance, anticompetitive behaviour and concentration levels); various derogations granted; issues relating to system capacity levels and security of supply in the EU, including current and projected supply and demand balance; and a general overview of the bilateral relations between the EU and its natural-gas-supplying countries as well as transit countries.

In addition to the above-mentioned measures, Articles 42 (electricity) and 46 (gas) also include a provision to deal with a 'sudden crisis in the energy market and where the physical safety or security of persons, apparatus or installations or system integrity is threatened'. In such cases, a Member State has the right temporarily to take the necessary safeguard measures. In practice, it might be expected that this possibility would mainly be used in cases involving system integrity, the functioning of certain energy-related installations, or apparatus being endangered. Based on past experience, it could be claimed that the physical safety of persons is rarely at stake in energy market crisis situations.

These measures are subject to strict proportionality requirements and can only be used in very exceptional and short-term emergency situations. ¹⁸⁵ They must be communicated to other Member States and the Commission. The latter has the power to request the Member State to 'amend or abolish such measures, insofar as they distort competition and adversely affect trade in a manner which is at variance with the common interest'.

3.6 Concluding Thoughts: From State to Market and from Monopoly to Competition—How Sector Regulation Created Competitive Markets

The first internal energy market directives were the first constructive and significant steps towards restructuring the EU's energy industries and creating an internal energy market since the Treaty of Rome established the rules on the internal markets and free trade law of the EU. The directives were far from being comprehensive in scope, and it could not have been expected that they would create an internal EU-wide energy market but rather, together with market forces and contemporary attitudes at that time, national energy markets. However, even these markets did not materialize, at least to the extent envisaged. This should not necessarily be considered as a failure of the system. Neither Rome nor the internal European energy market can be created in a day. Energy is a far too 'strategic' and politicized commodity to be amenable to an easy legislative fix. The fact that EU energy

¹⁸² Regulation (EU) No 1233/2010 of the European Parliament and of the Council of 15 December 2010 amending Regulation (EC) No 663/2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy and Regulation (EC) No 663/2009 of the European Parliament and of the Council of 13 July 2009 establishing a programme to aid economic recovery by granting Community financial assistance to projects in the field of energy.

¹⁸³ For example, Directive 2002/91/EC of the European Parliament and of the Council of 16 December 2002 on the energy performance of buildings, OJ L 1, 4.1.2003, pp. 65–71; Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC, OJ L 114, 27.4.2006, pp. 64–85; Directive 2005/32/EC of the European Parliament and of the Council of 6 July 2005 establishing a framework for the setting of eco-design requirements for energy-using products and amending Council Directive 92/42/EEC and Directives 96/57/EC and 2000/55/EC of the European Parliament and of the Council, OJ L 191, 22.7.2005, pp. 29–58 and Commission Directive 2003/66/EC of 3 July 2003 amending Directive 94/2/EC implementing Council Directive 92/75/EEC with regard to energy labelling of household electric refrigerators, freezers and their combinations, OJ 9.7.2003, L 170, pp. 10–14. For the re-cast plans, see Energy Efficiency Plan 2011 (COM/2011/0109 final).

¹⁸⁵ C. Jones, EU Energy Law, Volume 1—The Internal Energy Market (Leuven: Claeys & Casteels 2004), p. 125.

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liberalization has proceeded much more slowly—particularly at the level of cross-border, intra-EU trade, by comparison with the UK after privatization or US states, for example—is due to the fact that, as distinct from the UK, the EU is not a unitary state (or a 'European super-state') but a new type of confederation of states, all of which have very different conditions and types of energy industry. It also has much to do with the different market structures in place, and import dependency. It is difficult to create competitive downstream markets when the upstream supply market is marked by monopoly and state ownership. The Anglo-Saxon model, with its rapid creation of competitive markets, contrasts with the French state-run model (including powerful political constituencies and cultural expectations for the state to deliver energy on egalitarian terms) and the Germanic corporativist model of private, but state-supported cartels and monopolies. The criticism that the EU proceeds too slowly, too ponderously, and in an overly complex way, is therefore based on incorrect assumptions as to how a continent-wide, state-like entity should proceed, which do not take account the federated reality of the EU.

But changes have occurred. As a result of both market forces and the facilitative force and signal effect of new energy regulation, the national markets are moving towards competition in both electricity (more rapidly) and gas (more slowly), and the self-propelling dynamic now created is likely to further that movement, meaning that an internal EU energy market is on the horizon. But this is not likely to happen over night and not with the model that the first engineers of the plan for an internal energy market had in mind.

Energy regulation, with its tension between a free market of autonomous actors and the political expectations for proper energy supply still directed at government, is a complicated matter where regulatory engineering is fraught with uncertainties—as the California energy crisis, where both regulation and policy went awry—illustrates. Avoiding a California scenario will therefore be—and has to be—at the forefront of the minds of the architects of the next phases of national and EU-wide energy reforms. In this context, investment needs over the coming years are significant, both within the EU and outside it. Markets alone are not going to provide for this investment and, after a long period of denial, the EU has come to accept this fact. Significant investment requires regulatory certainty and the ability to predict market conditions with some degree of confidence, together with contractual or other arrangements which match the depreciation periods for energy investment and state support.

In the first years of the new millennium, there was excessive optimism over the ability of an internal energy market to resolve all current energy problems: security of supply, the environment, and competitiveness. The creation of an EU-wide market may mean that localized supply crises can be managed through cross-border supplies from countries with excess capacity. But, on the other hand, a larger system also means that hitherto localized shortages can lead to greater volatility throughout the system. If US refinery shortages can drive up the price of petrol in Europe way beyond the oil price relationship, and if open trade in animals and other agricultural products can easily internationalize otherwise localized risk factors, then a larger market also means larger and more widespread risks and volatilities.

This is the more so as the EU Commission is a monitor, initiator, and to some extent enforcer of EU-wide policies, but does not have the power, trust, or legitimacy to be more than one actor in a field populated by a multitude of actors with limited and narrowed political responsibility and attention. A sudden supply crisis in a Member State, multiplied through free trade can, therefore, irrespective of its true origin and probably diluted responsibility, easily discredit EU-wide energy liberalization policies and the Commission, which can be made a most suitable scapegoat for such crises anyway. It is therefore justifiable to move carefully along the inevitable path towards the creation of an internal European energy market, expanding both eastwards, southwards, and westwards towards a truly global energy market, and developing experience in replacing the reasonably functioning national instruments of regulation, thereby providing this strategic and politicized service to people using a not yet well-known and tested international equivalent.

For the time being, the directives still leave a margin of discretion to Member States in shaping their energy industry, a fact that inevitably causes problems for the internal energy market target: interconnection, interoperability, a level playing field for competition, much higher costs for cross-border trade than at greater distance and—technical—cost within a country. The Commission has not turned into or spawned a European energy regulator. ACER has limited powers, and even the regulatory powers of the Commission are modest, and mainly focused on monitoring proper compliance with directives full of political compromises and leaving much room for national variation, with more significant powers related to all that is an exception from the general regime: derogations, transitional arrangements, the public services, stranded investment, and take-or-pay contract situations. It is logical that the EU machinery seeks larger powers, but to increase their acceptability such powers are constrained by committees, which is not a recipe for rapid insight and action, but rather a way to hide responsibility. The Anglo-Saxon model of an 'independent regulator'—independent from the industry, but also the government—at EU level has also been dropped from the directives and even the 2009 amendments with the creation of ACER. The reason for this is that most EU Member States are not yet ready to cede a large degree of political control to an independent EU-level regulator, which is likely to be less (and certainly not totally) sensitive to ad hoc political pressures.

The directives do not impose the break-up of existing energy monopolies, although that is in the logic of liberalization and seems to be occurring anyway through the strategic use of EU competition law. Currently, at most legal unbundling is required, although the Commission has been pushing towards mandatory ownership unbundling, which would be the logical next step. The issue of energy tax has not been confronted comprehensively as yet, even though different taxation regimes create significant competitive distortions for energy markets. Similarly, while the Commission has discovered the political value of PSOs and environmental references with the European Parliament, unions, and NGOs, there is as yet no EU-wide concept of public service obligations and full harmonization of environmental, energy-related rules is still to emerge. As such, national variations exist and are accepted, even though these may also offer camouflage for protectionism.

Treaty Law and the Energy Sector

In keeping with the approach taken in this book, this chapter does not purport to be a general guide to the application of rules on free movement, state aid, or EU competition law as it applies to the energy sector. Several excellent textbook-style works are already available on the market and it is not the intention here to write another book of such general scope.1 Nor is the intention to describe basic competition law concepts or write an overview of the case law on state aid or free movement. This has been done often enough in both general economic EU law literature and in books focusing on the EU energy markets and their regulation. Instead, this chapter focuses on some central and current issues relating to the enforcement of competition law in energy: access to facilities, long-term energy agreements, destination clauses, external application and the effect of external energy dependency on the application of competition law, and so on. Similarly, the treatment of state aid cases is limited to the most important cases and to areas that are most crucial from an energy perspective. Finally, the chapter also discusses specific issues relating to free movement: the effect of the environmental factors and security of supply.

4.1 EU Competition Law and the Energy Markets

The core of EU competition law is found in Articles 101 TFEU (dealing with anticompetitive agreements and collusion) and 102 TFEU (abuse of a dominant position). EU competition law is closely linked to the evolution of US antitrust law,² for reasons of origin, of a similar (though not identical) philosophy, of natural

¹ For competition law, for example see C. Jones, EU Energy Law—Volume II—EU Competition Law and Energy Markets (Leuven: Claeys & Casteels 2005–2011 editions), P. Cameron, Competition in Energy Markets: Law and Regulation in the European Union (Oxford: OUP 2007). Among the older studies, see F. Kriegelstein, The Application of EC Competition Rules to Liberalised Electricity Markets (Baden Baden: Nomos 2000).

² With an American focus: R. Bolze, S. Peirce, and J. Walsh, 'Antitrust Regulation: A New Focus for a Competitive Energy Industry', *Energy Law Journal* (2000), pp. 79–112, R. Cudahy, 'PURPA: The Intersection of Competition and Regulatory Policy', *Energy Law Journal* (1995), pp. 419–39, R. Pierce Jr 'Antitrust Policy in the new electricity industry', *Energy Law Journal* (1996), pp. 29–58, M. Maedicke, 'Competitive-based Contracts for the New Power Business', *Energy Law Journal* (1996), pp. 103–35.