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Private Remedies in Public Utility Regulation: Effectiveness of Restructuring and Insolvency Frameworks in Energy Risk Hedging

LAW AND ECONOMICS MASTERS THESIS
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Chapter 1 Introduction to Research Problem: Insolvency and Restructuring Frameworks in Times of Crisis?

1 Research Problem and Context

The liberalization of the energy market has introduced profound changes both to the structure and efficiency of energy supply, bringing the underpinnings of a competitive market with it.¹ At the same time, while open to the benefits of competition in some parts of the supply chain, the new energy market has become more prone to shock in relation to price fluctuations, its structure and assurance of demand.² The 2021-2023 energy crisis has demonstrated the risks of a liberalized energy market in emergency circumstances, where as a result of unprecedentedly high energy prices substantial number of energy suppliers became insolvent and were unable to supply the market sufficiently.³ Due to the risks demonstrated, measures in relation to energy risk hedging have been introduced by the EU in the Electricity Market Design Directive (EMD).⁴ The Directive aims to hedge the financial risk of energy suppliers through prudential regulation, provision of varied options of contracts for consumers, extension of regulated retail prices and promotion

¹ Paul L Joskow, 'Lessons Learned from Electricity Market Liberalization' (2008) 29 *The Energy Journal* 9 <https://www.jstor.org/stable/27085628> accessed 20 February 2025.

² Sherzod Tashpulatov, 'Estimating the Volatility of Electricity Prices: The Case of the England and Wales Wholesale Electricity Market' (2011) 60 *Energy Policy*

Serhan Cevik and Yueshu Zhao, 'Shocked: Electricity Price Volatility Spillovers in Europe' (2025) IMF Working Papers 2025/007 <https://doi.org/10.5089/9798400296901.001> accessed 20 February 2025.

³ Michael G Pollitt, *Energy Markets Under Stress: Some Reflections on Lessons From the Energy Crisis in Europe* (Energy Policy Research Group, University of Cambridge 2023) <http://www.jstor.org/stable/resrep52152> accessed 20 February 2025.

⁴ Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024 amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the Union's electricity market design [2024] OJ L1711/1 Art. 18a

Michael G Pollitt, Nils-Henrik M von der Fehr, Bert Willems, Catherine Banet, Chloé Le Coq, Chi Kong Chyong, 'Recommendations for a Future-Proof Electricity Market Design in Europe in Light of the 2021-23 Energy Crisis' (2024) 188 *Energy Policy* 114051 <https://doi.org/10.1016/j.enpol.2024.114051> accessed 20 February 2025.

of power purchase agreements for stable pricing.⁵ In addition to aforementioned tools, the Directive requires for designation of Supplier of Last Resort (SoLR) for cases of potential or actual insolvency of an energy supplier for maintenance of supply to consumers.

Although the EMD directly addresses the risks posed by inadequate risk hedging of energy suppliers and arguably mitigates the effects of energy supplier insolvency, many of the solutions introduced have faced criticism, specifically in relation to their potential impact on competition, effectiveness in maintaining lower prices for consumers in the long term and feasibility of the proposed prudential regulation.⁶ Pertinent criticism has also been levied against SoLR designation and its priority of orderly market exit over maintenance of energy suppliers on the market. Although maintaining steady supply of energy to consumers in times of crisis and providing adequate compensation to the supplier of last resort, it has been noted that most of the costs were borne by the consumer who after switching were appointed higher prices than with the original supplier.⁷ The more germane aspect of the criticism of SoLR framework was posed in relation to its preference of bigger suppliers by its design and its potential effects of entrenching existing market consolidation by prioritizing orderly market exit, potentially reducing the competitiveness of the market.⁸

In this context the regulatory framework imposed by EMD has been questioned regarding its ability to balance the principles of competition and security of supply which at times can come at the expense of another. Specifically, the criticism points to the ability of the proposed tools under EMD to adequately balance such principles in theory and practice.⁹

⁵ Council of European Energy Regulators, 'Use of Prudential Regulation Mechanisms to Promote Effective Supplier Risk Management in the Energy Sector' (2023) <https://www.ceer.eu/publication/use-of-prudential-regulation-mechanisms-to-promote-effective-supplier-risk-management-in-the-energy-sector/?utm> accessed 21 February 2025.

⁶ Council of European Energy Regulators, 'Use of Prudential Regulation Mechanisms to Promote Effective Supplier Risk Management in the Energy Sector' (2023) <https://www.ceer.eu/publication/use-of-prudential-regulation-mechanisms-to-promote-effective-supplier-risk-management-in-the-energy-sector/?utm> accessed 21 February 2025 p.48

Council of European Energy Regulators, *Beyond the Crisis: Consumer Protection and Market Measures for Better Functioning Markets* (CEER 2024) <https://www.ceer.eu/publication/beyond-the-crisis-consumer-protection-and-market-measures-for-better-functioning-markets/> accessed 21 February 2025 p.38.39

⁷ House of Commons Business, Energy and Industrial Strategy Committee, "Energy pricing and the future of the energy market" (3rd Report, Session 2022–23, HC 23255, 8 December 2022) para. 82

⁸ Michael Fiddy and Fatema Begum, "Supplier of Last Resort" as a solution to Energy Supply Company Administrations' (Mayer Brown, 26 February 2021) <https://www.mayerbrown.com/en/pdf/insights/publications/2021/02/supplier-of-last-resort-as-a-solution-to-energy-supply-company-administrations> accessed 21 June 2025.

⁹ Ambec S and others, *Policy Insight 120: Electricity Market Design: Views from European Economists*, CEPR Policy Insight No 120 (CEPR Press 2023) <https://cepr-org.utrechtuniversity.idm.oclc.org/publications/policy-insight-120-electricity-market-design-views-european-economists> accessed 21 February 2025.

1.1 Research Question and Aim of Research

Aim:

The aim of this research is to examine the role insolvency and restructuring frameworks currently play and potentially could play in supplier risk hedging within the energy market in EU. Specifically, the thesis attempts to understand whether such frameworks could step in as an alternative or an additional tool in tackling the volatility of the liberalized energy market and aid it effectively in times of crisis. The research further delineates the current state of the art of insolvency and restructuring frameworks and their relation to energy suppliers and if such frameworks could benefit from being tailored to the needs of the market to become a more adequate tool for the task. The research posits the normative analysis within the identified gaps of the Electricity Market Design Directive, specifically in their potential inadequacy in balancing principles of security of supply and maintenance of competition. Through this lens the thesis will labor to analyze the role of insolvency and restructuring laws in case of theoretical energy supplier default and if such laws are equipped to aid in closing gaps identified within the EMD in terms of balancing principles.

In this context, the proposed research aims to answer the following main question: To what extent are the current supranational insolvency and restructuring frameworks equipped to tackle challenges in energy supplier risk hedging within the EU and should they be reformed to balance principles of EU energy law?

Sub-questions:

- 1) What are the existing insolvency and restructuring frameworks in relation to energy suppliers in the EU?

Council of European Energy Regulators, 'Use of Prudential Regulation Mechanisms to Promote Effective Supplier Risk Management in the Energy Sector' (2023) <https://www.ceer.eu/publication/use-of-prudential-regulation-mechanisms-to-promote-effective-supplier-risk-management-in-the-energy-sector/?utm> accessed 21 February 2025 p.47,48

Leigh Hancher, Guillaume Dezobry, Jean-Michel Glachant and Emma Menegatti, *Leveraging the Energy Transition: The Role of Long-Term Contracts* (2024) RSCAS Policy Report, European University Institute <https://cadmus.eui.eu/handle/1814/76880> accessed on 21 February 2025

Anna-Alexandra Marhold, 'Towards a "Security-Centred" Energy Transition: Balancing the European Union's Ambitions and Geopolitical Realities' (2023) 26(4) *J Intl Econ L* 756 <https://doi.org/10.1093/jiel/jgad043> accessed 21 February 2025 p.758

- 2) What are the current and future challenges facing risk hedging in the energy market and how does the EMD tackle them?
- 3) What are EU energy law principles, how do they interact and how does the EMD balance them?
- 4) How does the current insolvency and restructuring framework interact with the energy hedging obligations and supplier of last resort obligations under the EMD?
- 5) How do the insolvency and restructuring frameworks interact with principles of energy law and confidence in energy suppliers in the context of energy risk hedging?
- 6) To what extent should the insolvency and restructuring frameworks be reformed to align with the needs of risk hedging in energy supply, principles of energy law?

1.2 Academic and Societal Relevance of the Research

The current academic discourse acknowledges the risk of unhedged liberalized energy markets; however, it is simultaneously both skeptical of tools such as PPA's¹⁰ and prudential requirements and is in accord with them when discourse touches upon renewable energy producers.¹¹ The debate further delineates the potential trade-offs of the proposed tools, prioritizing energy transition over market access and competitiveness.¹² Additionally, the discourse further delineates the importance of consumer and investor confidence in energy suppliers for any effective future energy policy especially in renewables.¹³

¹⁰ Kapral K, Soetaert K and Castro R, 'An Off-Site Power Purchase Agreement (PPA) as a Tool to Protect against Electricity Price Spikes: Developing a Framework for Risk Assessment and Mitigation' (2024) 17(9) *Energies* 2161 <https://doi.org/10.3390/en17092161> accessed 22 February 2025

¹¹ Beiter, P., Guillet, J., Jansen, M. et al., *The Enduring Role of Contracts for Difference in Risk Management and Market Creation for Renewables* (2024) 9 *Nature Energy* 20-26 <https://doi.org/10.1038/s41560-023-01401-w> accessed on 22 February

¹² Leigh Hancher, Guillaume Dezobry, Jean-Michel Glachant and Emma Menegatti, *Leveraging the Energy Transition: The Role of Long-Term Contracts* (2024) RSCAS Policy Report, European University Institute <https://cadmus.eui.eu/handle/1814/76880> accessed on 22 February 2025 p.3,27,29

¹³ Przepiorka W and Horne C, 'How Can Consumer Trust in Energy Utilities be Increased? The Effectiveness of Prosocial, Proenvironmental, and Service-Oriented Investments as Signals of Trustworthiness' (2020) 33(2) *Organization & Environment* 262 <https://doi-org.utrechtuniversity.idm.oclc.org/10.1177/1086026618803729>. accessed 26 February 2025

Columbia Center on Sustainable Investment, *Financing Pathways for the Energy Transition: A Regional Approach* (2023) <https://ccsi.columbia.edu/sites/default/files/content/docs/publications/ccsi-financing-pathways-energy-transition.pdf> accessed 26 February 2025. p.38

Hence, fleshing out these tensions and dynamics is imperative in understanding the role of insolvency and restructuring frameworks in energy risk hedging, what relevance they might have to the debate and what tensions they could aid in resolving.

Discourse on the role of insolvency and restructuring frameworks and their importance or redundancy in mitigating crisis repercussions or prevention of damage is abundant,¹⁴ however, the discourse on their effects specifically on energy suppliers and its role in energy risk hedging is rather limited.¹⁵ The discussion on the topic touches upon the matter peripherally and suggests that alone, insolvency and restructuring laws could potentially be insufficient to tackle crises such as energy crises among others independently.¹⁶ Other perspectives present insolvency and restructuring laws as a valuable opportunity to mobilize existing tools in a current problem, drawing the line of comparison between financial and energy markets¹⁷ and proposing that it play a first line of defense¹⁸ in mitigating risk. Given that research consistently acknowledges that

¹⁴ Leora Klapper, 'Saving Viable Businesses: The Effect of Insolvency Reform' (2011) *Viewpoint: Public Policy for the Private Sector*; Note No. 328, World Bank <http://hdl.handle.net/10986/11056> accessed 23 February 2025.

Paul Varul, 'Economic Crisis and the Effectiveness of Insolvency Regulation' (2010) XVII *Juridica International* 207 https://www.juridicainternational.eu/article_full.php?uri=2010_XVII_207_economic-crisis-and-the-effectiveness-of-insolvency-regulation&utm accessed 23 February 2025.

Gurrea-Martínez A, 'Insolvency Law as a Catalyst for Growth' in Aurelio Gurrea-Martínez, *Reinventing Insolvency Law in Emerging Economies* (Cambridge University Press 2024) 3–22 https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5106805 accessed 23 February 2025 p.17,18

¹⁵ H Eidenmüller, 'What Can Restructuring Laws Do? Geopolitical Shocks, the New German Restructuring Regime, and the Limits of Restructuring Laws' (2023) 24 *Eur Bus Org Law Rev* 231 <https://doi-org.utrechtuniversity.idm.oclc.org/10.1007/s40804-023-00271-9> accessed 23 February 2025.

Chris Simard, Kristos Iatridis, Keely Cameron & Adam Williams, 'Restructuring and Insolvency Deals in the Oil Patch: Recent Trends and Developments' (2022) 60 *Alta L Rev* 363 p.396

¹⁶ H Eidenmüller, 'What Can Restructuring Laws Do? Geopolitical Shocks, the New German Restructuring Regime, and the Limits of Restructuring Laws' (2023) 24 *Eur Bus Org Law Rev* 231 <https://doi-org.utrechtuniversity.idm.oclc.org/10.1007/s40804-023-00271-9> accessed 23 February 2025 p.248

¹⁷ Council of European Energy Regulators, 'Use of Prudential Regulation Mechanisms to Promote Effective Supplier Risk Management in the Energy Sector' (2023) <https://www.ceer.eu/publication/use-of-prudential-regulation-mechanisms-to-promote-effective-supplier-risk-management-in-the-energy-sector/?utm> accessed 21 February 2025 p.19,20,21,22,23,24

¹⁸ Council of European Energy Regulators, 'Use of Prudential Regulation Mechanisms to Promote Effective Supplier Risk Management in the Energy Sector' (2023) <https://www.ceer.eu/publication/use-of-prudential-regulation-mechanisms-to-promote-effective-supplier-risk-management-in-the-energy-sector/?utm> accessed 21 February 2025 p.73

the intersection of insolvency and energy is potentially uncertain and complicated,¹⁹ this thesis sets out to further unpack this relationship

Hence, building on the existing discourse the thesis will attempt to tackle the gap in research regarding the role of insolvency and restructuring frameworks as a tool in mitigating energy risk hedging, through which it will examine the interaction of the frameworks with current obligations in energy risk hedging – an issue that has not yet been tackled in scholarship in an in-depth fashion. The research would contribute to the academic discourse with a novel perspective, exploring how an existing tool such as the Restructuring Directive or the Insolvency Regulation for example could apply to the delineated tensions in energy risk hedging and if such existing tools should be tailored in order to be more adequate for the task.

The research further offers societal contribution by exploring a novel solution to a current issue. Specifically, the insolvency of energy suppliers during the 2021-2023 energy crisis has created a need for solutions in prevention of energy risk, in order to reduce supply disruptions and maintain better prices for consumers. Therefore, research relating to the role of insolvency and restructuring frameworks could allow for future opportunities for mobilization of existing tools to tackle insolvencies of energy suppliers directly, consequently potentially reducing supply disruptions and maintaining stable prices for consumers. Additionally, considering the importance of energy supply in the future competitiveness of the EU and the importance in maintaining prices for consumers and producers alike, the thesis could contribute to development of a more directed regulatory tool by providing the lacking research base on the unexplored interaction. This potential tool could involve insolvency/restructuring for a more rounded approach toward energy supplier default policy. Which could alleviate the current drawbacks of existing tools or aid them in hedging the risk, consequently aiding goals of EU energy supplier competitiveness and security of supply.

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¹⁹ Chris Simard, Kristos Iatridis, Keely Cameron & Adam Williams, 'Restructuring and Insolvency Deals in the Oil Patch: Recent Trends and Developments' (2022) 60 Alta L Rev 363 p.396

²⁰ European Commission, *Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: A Competitiveness Compass for the EU* (COM (2025) 30 final, 29 January 2025)

Conall Heussaff, 'Decarbonising for Competitiveness: Four Ways to Reduce European Energy Prices' (Policy Brief 32/2024, Bruegel, 2024) <https://www.bruegel.org/policy-brief/decarbonising-competitiveness-four-ways-reduce-european-energy-prices?utm> accessed 24 February 2025.

1.3 Methodology and Theory

The thesis will employ doctrinal methodology to assess the current state of energy risk hedging obligations placed upon member states in EU, specifically examining the Electricity Market Design Directive²¹ and relevant academic literature related to the obligations proposed in order to identify the current framework and academic discourse relating to it. In addition, the EU insolvency and restructuring frameworks will be assessed by examining the Insolvency Regulation,²² and the Restructuring Directive²³ alongside with literature on the role of these frameworks in crisis mitigation and their interaction with energy risk hedging. This methodology will aid in analyzing the current needs in energy risk hedging and ascertain to what extent insolvency and restructuring frameworks could be relevant.

Focus of the analysis

Although, the thesis shall tangentially touch upon insolvency legislation, its main focus in both research and normative assessment shall be on the restructuring tools preceding the insolvency which inherently are a part of the insolvency process. Therefore, the thesis will use insolvency regime/laws for contextual background and restructuring laws/frameworks shall be the primary of the analysis.

Normative framework

The thesis shall incorporate a normative framework to examine the adequacy of insolvency and restructuring frameworks as a solution or an added tool in energy risk hedging. The assessment of the normative part of the research question shall pillar itself on EU energy law principles such as security of supply and maintenance of competition and will examine to what extent the insolvency and restructuring frameworks balance them. The choice of these two principles specifically, is mostly rooted in their potential conflict in the context of energy supplier default and the obligations set out under the EMD. The justification for the choice of principles shall be further elaborated upon in Chapter 3.

²¹ Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024 amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the Union's electricity market design [2024] OJ L1711/1

²² Regulation (EU) 2015/848 of the European Parliament and of the Council on insolvency proceedings (recast) [2015] OJ L141/19

²³ Directive (EU) 2019/1023 of the European Parliament and of the Council of 20 June 2019 on preventive restructuring frameworks, on discharge of debt and disqualifications, and on measures to increase the efficiency of procedures concerning restructuring, insolvency and discharge of debt, and amending Directive (EU) 2017/1132 (Directive on restructuring and insolvency) [2019] OJ L172/18.

Case study

The thesis shall further use the Netherlands as a case study to examine the interaction of both regimes in a member state on a more practical level. Such examination would allow for a more realistic assessment of the interaction and its potential effects on the energy suppliers, providing the backbone for more substantial analysis and policy recommendation.

Methodological approach

The thesis will discover relevant literature through sources like Google Scholar, SSRN and World Cat, specifically searching for key words such as “insolvency in energy suppliers” or “energy risk hedging and principle of efficiency” to flesh out the current literature on the interaction.

Moreover, the role of the thesis could be seen as a bridge between the domains of energy and insolvency law, therefore research shall not only be limited to literature exploring the pertinent but sparse interaction but also labor to synthesize any pertinent future interaction in between the two domains in the context of energy supplier default and EMD obligations. Such shall be done for example by exploring the prudential regulation and SoLR designation under the EMD and examine how they balance principles of security of supply and maintenance of competition. On the insolvency side, the research shall aim to understand, where and when does the process of insolvency happen in for example the circumstance of SoLR and how does the current insolvency procedure/process affect the delineated principles.

By exploring both domains, the thesis will elaborate on the unexplored relationship and interaction of these laws using EU energy law principles as a normative lens to assess first the importance of the interaction between the domains and second the current and future role of insolvency and restructuring laws under the EMD framework. This will allow it to understand whether restructuring tools can play as an aiding mechanism in balancing the principles potentially not adequately addressed under the EMD framework. Acknowledging the limitations in scarce real-life examples of the interaction between the domains, the thesis at its core is an exercise in logic and theoretical mapping of interaction between a private law remedy and public utility regulation.

1.4 Thesis Structure

The document consists of six chapters in total. First three chapters provide the theoretical background for assessment of the interaction between the two regimes. The assessment of the interaction and employment of the normative framework shall be done in Chapters 4 and 5. The last chapter will be reserved for a discussion on the findings and any potential policy suggestions.

More specifically, Chapter 1 shall delineate the general research context, methodology employed, and the research questions asked by the thesis. Chapter 2 will provide the theoretical background in relation to insolvency and restructuring frameworks, their economic underpinnings and the relevant restructuring tools for the thesis. Chapter 3 shall dwell into the current hedging obligations under the EMD and examine their gaps in relation to balancing the energy law principles. Chapter 4 shall examine the interaction and relationship between the EMD hedging obligations (such as PPA's, SoLR and Prudential Regulation) and the restructuring tools under the Restructuring Directive. Through such examination Chapter 4 will identify the effects of restructuring tools on balancing the energy law principles within the gaps of the EMD. Subsequently Chapter 5 will use the identified relationship and interaction between the two regimes in Chapter 4 and examine them in the context of the Netherlands for more practical insights. Finally, Chapter 6 shall discuss the findings, categorize the role and ability of identified restructuring tools in balancing the energy principles, provide policy suggestions and conclude.

Chapter 2 Insolvency and Restructuring: Role in the markets, the EU dimension and Relevant Tools

2.1 Economic Fundamentals of Insolvency and Restructuring in the EU

At the heart of insolvency laws lays a delicate attempt in balancing individual and often diverging interest of parties (creditors, debtors and pertinently stakeholders). In its economic rooted logic, it either helps orderly exit or possibility for reorganization of viable firms, where both aim for efficient allocation of resources in the economy. This link to economic policy, allows for the design of specific insolvency or restructuring laws to influence the desired distribution of resources, specifically in choices between creditor protection and debtor protection, reorganization or liquidation and even in choices over static and dynamic markets.²⁴ Often one of the purposes of insolvency laws is to solve the common pool problem, where in

²⁴ Manfred Balz, 'The European Union Convention on Insolvency Proceedings' (1996) 70 *American Bankruptcy Law Journal* 485 p.486

Gurrea-Martínez A, *Reinventing Insolvency Law in Emerging Economies* (1st edn, Cambridge University Press 2024) <<https://www.cambridge.org/core/product/identifier/9781009431743/type/book>> accessed 21 June 2025 p.3,4

case of bankruptcy individual action by one of the parties might not be efficient and collective action in some capacity is necessary in order to ensure efficient allocation of resources.²⁵

With this context in mind, the EU has labored in harmonizing certain aspects of insolvency and restructuring laws for decades linking such necessity to economic integration, efficient insolvency procedures and consequently efficient allocation of resources, albeit to great resistance from member states. Such reluctance could be traced to the direct link of insolvency law design to economic policy and desired outcome, which in turn logically would base any insolvency regime on economic tradition and goals of the state. Such differentiation was prominent among member states before the introduction of harmonizing legislation by the EU and arguably still today.

Growth in the integration of the internal market and cross-border operation of firms has contributed to adding a cross-border element to insolvency within the EU, creating a Community concern. In addition to the cross-border element, discussions on universality and territoriality principles (whether insolvency should be confined to the location of debtor's assets and where effect of insolvency is present or if it should be confined to effects on the territory of the opened proceedings). In this context, first aim at harmonization was attempted by the EU in the form of the Insolvency Regulation (Regulation)²⁶, attempting to remedy the inefficiency of cross-border insolvency proceedings, while reconciling the debate in universalism and territorialism by integrating both to some degree in the legislative initiative. The Regulation was of procedural nature and pertinently sticks to the traditional role of insolvency laws such as resolution of the common pool problem and ensuring an orderly market exit.²⁷

A shift to a more substantive approach was taken in the Restructuring Directive (Directive)²⁸. The Directive takes its roots in the belief that there was an entrepreneurship deficit in the EU and the conviction that viable businesses should be able to attain a second chance, a key driver in the development of rescue culture in

²⁵ Thomas H Jackson, *The Logic and Limits of Bankruptcy Law* (Harvard University Press 1986) p.12,13

²⁶ Regulation (EU) 2015/848 of the European Parliament and of the Council on insolvency proceedings [2015] OJ L141/19

²⁷ Leandro A, 'Introduction to the European Insolvency Regulation' in Gilles Cuniberti and Antonio Leandro (eds), *The European Insolvency Regulation and Implementing Legislations* (Edward Elgar Publishing 2024) <<https://www.elgaronline.com/view/book/9781802205213/intro.xml>> accessed 21 June 2025 p.3,4,9,10,11,12

²⁸ Directive (EU) 2019/1023 of the European Parliament and of the Council of 20 June 2019 on preventive restructuring frameworks, on discharge of debt and disqualifications, and on measures to increase the efficiency of procedures concerning restructuring, insolvency and discharge of debt, and amending Directive (EU) 2017/1132 (Directive on restructuring and insolvency) [2019] OJ L172/18.

the EU insolvency laws.²⁹ The Directive came as a result of a recommendation³⁰ which stressed the importance of an established preventative restructuring mechanism across member states. Notably existing mechanisms encouraged or allowed restructuring much later in the process which in turn would not allow for sufficient opportunity at restructuring nor the second chance at recovery after debt discharge considering the process took a considerable number of years, therefore discouraging any timely solutions to financial obstacles.

A high-level perspective would yield an understanding that the regime in place (with varying national designs) primarily focused on orderly market exit rather than on rescue, entrepreneurial spirit or reducing bureaucratic burden of the process. Therefore, the Directive through tools such as early-warning mechanism, stay on debts, restriction on termination of commercial contracts and flexible out-of-court restructuring procedures allowed for a preventative approach,³¹ where traditional insolvency laws no longer played first line of defense in company default. In addition to the preventative approach, the Directive appeared to have balanced the interests of both debtor and creditor alike, allowing for court ordered cross-class-cramdowns (providing protection to small creditors) and a moratorium for debtors (providing relief for a more organized restructuring process). The Directive aims to take the goal of efficient resource allocation in protection of value through a preventative approach, aiming to preserve assets and possibilities for future growth on the market.³²

The role of preventative tools became especially relevant with the emergence of COVID-19, where discussions pointed at the potential for the Directive to create “zombie companies” or foster “zombie lending” by rescuing unviable businesses that should have been allowed to take an orderly exit, which in turn would have been a more efficient allocation of resources. Concurrently, others have argued that on a broader policy scale, market exit of firms integrated in complex supply chains could bring more harm than its orderly exit, additionally some have also argued that a significant portion of value is lost through an often-acrimonious insolvency procedure and therefore could be more costly for all parties as opposed to

²⁹ Ionel Didea and Diana Maria Ilie, ‘A New Stage in the Development and Strengthening of a “Rescue Culture and Prevention in Business” in the Spirit of a European Legal Instrument of the Hard Law Type: Transposition at National Level of Directive (EU) 2019/1023’ (2021) 4 *Revista Universul Juridic* 89 <<https://heinonline-org.utrechtuniversity.idm.oclc.org/HOL/Page?handle=hein:journals/univjurid2021&id=701&collection=journals&index=>> accessed on 21 June, 2025 p.89,90,91

³⁰ Commission Recommendation on a new approach to business failure and insolvency (EU) 2014/135 of 12 March 2014 [2014] OJ L 74/65 para. 2,3,4

³¹ José M Garrido, Chanda M DeLong, Amira Rasekh and Anjum Rosha, *Restructuring and Insolvency in Europe: Policy Options in the Implementation of the EU Directive* (IMF Working Paper No 2021/152, May 2021) <https://www.imf.org/en/Publications/WP/Issues/2021/05/27/Restructuring-and-Insolvency-in-Europe-Policy-Options-in-the-Implementation-of-the-EU-50235> accessed 21 June 2025.

³² Gerard McCormack, *The European Restructuring Directive* (Elgar 2021) Chapter 1

restructuring.³³ Albeit, the topic is still a matter of debate, it does raise questions as to the appropriateness of restructuring and insolvency laws in times of crisis, the impact of legislative design on desired economic outcome and how far reaching is the rescue trend in the EU in the context of company insolvency? Does such rescue culture extend to heavily regulated public utility markets?

Next chapters shall flesh out these laws, trends and principles in relation to the energy supplier market, how does the design of these laws apply to obligations under the EMD, and more importantly does it act like a potential lever in the context of EU energy law principles?

2.2 Relevant Tools Under the Restructuring Directive: Underlining the Shift in Practice

The previous subchapter elaborated mainly on the theoretical background and underlying shift in the viewed role of insolvency within the EU. This chapter shall outline some of the briefly mentioned tools proposed by the Restructuring Directive which inherently shift the role and understanding of how to handle business distress and winddown within the Union. These further outlined tools will become of consequence for future chapters, which will explore the interactions between the two regimes and allow for both theoretical and practical observation of how restructuring tools and energy supplier regulation interact and understanding as to how both could interplay within a specific member state (with its own implementation of both Electricity Market Design and Restructuring Directives).³⁴

Early Warning Mechanism

Article 3 of the Directive sets out the obligation that member states must provide access to early warning systems to firms which would aid in detecting risk of insolvency early on. Although the Directive does not

³³ Simeon Djankov and Eva (Yiwen) Zhang, 'When Zombie Firms Become a Worry, Revise Bankruptcy Laws' (Financial Markets Group Special Paper SP 262, London School of Economics, October 2021) p.3,4

Luc Laeven, Glenn Schepens and Isabel Schnabel, 'Zombification in Europe in Times of Pandemic' (ECONtribute Policy Brief No 011, University of Bonn and University of Cologne Reinhard Selten Institute, October 2020) <https://hdl.handle.net/10419/268564> accessed 21 June 2025.

Philipp Hartmann and Glenn Schepens, 'Corporate Indebtedness, Insolvency Frameworks and the Recovery from the COVID Crisis' in *ECB Forum on Central Banking, September 2021* (European Central Bank 2021) 6 p. 32,33,34,35

³⁴ José M Garrido, Chanda M DeLong, Amira Rasekh and Anjum Rosha, *Restructuring and Insolvency in Europe: Policy Options in the Implementation of the EU Directive* (IMF Working Paper No 2021/152, May 2021)

Gert-Jan M G J Boon, *Mapping Preventive Restructuring Frameworks and the EU Preventive Restructuring Directive for the JCOERE Project: Country Report: The Netherlands* (JCOERE Consortium, 2020)

Jennifer Gant, Gert-Jan Boon, David Ehmke, Emilie Ghio, Eugenio Vaccari, Paul Omar, and Line Langkjaer, 'The EU Preventive Restructuring Framework: in Extra Time?' (2022) 2–3 https://www.researchgate.net/publication/359579592_The_EU_Preventive_Restructuring_Framework_in_Extra_Time accessed 21 June 2025

provide ample elaboration on the definition of such tool, it does provide that a system could alert to risk by implementing certain financial thresholds, advisory services and incentives for disclosure of relevant financial information by third parties (such as accountants or auditors for example). The purpose of a system of this sort is in early detection and subsequent prevention of insolvency, where either through self-assessment or third-party involvement, financial distress can be mitigated much earlier than it would have been otherwise.³⁵

Bottom-up model

In its varied examples of a potential early warning system, the Directive allows for a wide choice in the level of coerciveness, this in turn leaves strong discretion on the member states in implementation. However generally two main models can be discerned in the different implementation of the Directive, where the choice mainly bases itself in the willingness of the state to intervene and to what extent. The first model interprets the early warning system as a purely bottom-up tool, where distressed firms can self-assess their financial predicament and insolvency risk through a publicly available online tool on a website arranged by the state. This model of an early warning mechanism works on different levels. First it provides a convenient tool for smaller firms who might not possess the resources to hire an auditor for an in-depth assessment. Second, it provides for a more discrete way of self-assessment for firms with ample resources but obligations to disclose any financial risk. Working on both these levels, such tools on top of information on financial health can also be paired with advice as to potential next steps in tackling the insolvency risk.³⁶

This approach can foster a more aware debtor who, using the right tool can detect and handle insolvency risk in advance of any actual insolvency proceeding. The model also provides for more trust in the ability and willingness of debtors to engage in self-reflection and works mainly as a form of self-regulation requiring minimal state intervention. A clear advantage of this model is that if such self-reflection is successful on behalf of the debtor, the detection of any distress can be done in the most transparent way, where without direct repercussions of the self-assessment result, the debtors are incentivized in disclosing the most accurate information for the best result. This sensitive financial information, although potentially available to the state under a more coercive approach, can come at a higher strain of resources and if such resources are stretched, may not yield the most accurate assessment of insolvency risk even if information is available.

³⁵ Marco Speranzin and Francesco Marotta, 'Early Warning Tools and Preventive Restructuring Following the Transposition of the EU Insolvency Directive in Italy' (2022) *Revista General de Insolvencias & Reestructuraciones* (2022) No 83/2022

³⁶ José M Garrido, Chanda M DeLong, Amira Rasekh and Anjum Rosha, *Restructuring and Insolvency in Europe: Policy Options in the Implementation of the EU Directive* (IMF Working Paper No 2021/152, May 2021) p. 5,6,7

Congruently to its benefits, the first model also poses risks of underenforcement if debtors are unwilling to engage with the available tools or if they are not sufficiently aware of their existence. Additionally, the result of any self-assessment incentivizes the debtor to be transparent but still hinges on the analytical abilities of the debtor in the formulation of the input data which can have errors depending on the resources of the firm in question. Finally, even with available tools and identification of risk, the debtor might still be unwilling to perform early mitigation if such steps could create loss of confidence among existing or potential investors.

Top-down model

The second model provides for an early warning system that is potentially more coercive and goes beyond just detection, where any online self-assessment tools would be complemented by an external intervention mechanism. Specifically, where third parties such as auditors, trade unions and pertinently public creditors can all act as part of the intervening mechanism in detection and mitigation of insolvency risk. Such intervention can come in the form of a reporting obligation placed upon auditors to communicate not only to the management of the firm but also to shareholders and or board of directors which in turn could elicit outside intervention for further mitigation. Additionally, some public creditors can be aware of any financial difficulty if payment of taxes are delayed (a sign of potential insolvency risk) and therefore engage in mitigation or detection prior to any insolvency proceeding by demanding adequate reaction from the management. This model poses a more top-down approach where self-assessment is only part of the equation and obligations of disclosure are placed upon relevant third parties. Such could be seen as a potentially more effective solution in mitigating insolvency risk, where detection is conducted by parties with expertise in the matter (such as auditors) or by parties with privileged information (such as public creditors), providing for a system which is less dependent on the participation of the debtor. Congruently, this system does pose other hazards, such as disincentivizing debtors from using auditors for preventative measures/self-assessment more readily out of fear of disclosure which in turn counterproductively can reduce success of the early warning mechanism.³⁷

Both the self-assessment and intervention-based models have veritable argument for their implementation, displaying the potential for an early warning mechanism depending on the needs/expectations of a particular member state and more pertinently the needs/expectations of specific sectors. Although implementation is

³⁷ José M Garrido, Chanda M DeLong, Amira Rasekh and Anjum Roshia, *Restructuring and Insolvency in Europe: Policy Options in the Implementation of the EU Directive* (IMF Working Paper No 2021/152, May 2021) p.5,6,7

mainly completed in most member states, a germane example of how the needs of the economy shift the adapted model is in the Netherlands, where the original implementation of the early warning mechanism was limited to the first model, however new legislation has introduced elements of the second model as of recent. The Directive allows for significant interpretation by member states in coerciveness and interestingly applicability (which parties it applies to and in which sector), which can allow for future tailoring of the restructuring regime to the needs of different sectors, including the energy supplier one.

Debtor in Possession and Stay on Enforcement Action

The Directive further introduces two imperative tools to a smooth restructuring process, namely the debtor in possession and stay on enforcement action.³⁸ Specifically, debtor in possession allows for the distressed firm to remain in control of their assets throughout the restructuring process. Such is necessary to maintain the operational capacity of the firm and ensure best chances at a successful return to the market. In addition to ensuring that debtors remain in possession of their assets, the Directive further provides a stay on enforcement action by creditors. Concretely, the tool shields the distressed firm entering a restructuring process from acts by creditors which might jeopardize the restructuring negotiation/process (i.e., a creditor undermines a collective restructuring agreement by enforcing their contractual rights by calling for the debt to be repaid immediately, consequently jeopardizing the successful execution of the plan). Both tools of debtor in possession and stay on enforcement action of creditors are discussed together in this part due to their complementary nature, where both aim to achieve a similar goal and complement each other in doing so.³⁹

Under the Directive, the distressed firm once accessing the restructuring scheme can ensure that legally its assets would be kept in its possession for the duration of the restructuring negotiation and process, such guarantees not only business continuity but also maximum recovery rate for creditors in case of potential liquidation. In addition to the protection of its assets, the distressed firm when accessing the restructuring scheme can be allowed protection against creditors enforcing their rights (demanding immediate full repayment of debt), this in turn allows for the negotiation and potential implementation of an agreed upon restructuring plan to be done in good faith and to remain outside of risk of derailment.

³⁸ Directive (EU) 2019/1023 of the European Parliament and of the Council of 20 June 2019 on preventive restructuring frameworks, on discharge of debt and disqualifications, and on measures to increase the efficiency of procedures concerning restructuring, insolvency and discharge of debt, and amending Directive (EU) 2017/1132 (Directive on restructuring and insolvency) [2019] OJ L172/18 Articles 5,6

³⁹ José M Garrido, Chanda M DeLong, Amira Rasekh and Anjum Rosha, *Restructuring and Insolvency in Europe: Policy Options in the Implementation of the EU Directive* (IMF Working Paper No 2021/152, May 2021) p.12-16

At their core, both tools although allowed to vary in intensity and applicability under the Directive have the central role of protecting a good faith negotiation between the debtor and creditors, while ensuring that the debtor is provided the best chance at recovery by requiring their financial integrity during such process. This in turn allows at best prevention of an insolvency or at worst most advantageous loan recovery for creditors. This explicit protection of debtors can be viewed as a stark departure from the orderly market exit philosophy in place before the Directive, mitigating the potential for destructive dispute often characterized in insolvency procedures. Although the balance in creditors' rights and debtors' protections is still a matter of debate, especially depending on the scope and depth in protections adopted by the member state, the shift toward rescue over exit is present in these tools.

Protection of New Financing

In addition to maintenance of financial integrity, the Directive further acknowledges the importance of new financing in ensuring that the distressed firm has the best chance at recovery. Such new financing can ensure that the business is able to cover its operating costs or ensure reinvestment for potential to generate new streams of revenue.

In theory any distressed firm can attract new investment (cases of angel investors), however the reasoning within the Directive points to the fact that most investors would be unwilling to invest in a distressed firm unless they can be assured that their investment is protected from any enforcement action by incumbent creditors. Article 17 of the Directive⁴⁰ acknowledges this point by requiring that member states provide adequate protection for new and interim financing provided to the firm accessing a restructuring scheme. In addition to protection of the new investment made into the distressed firm, member states may provide further incentive to potential creditors by ensuring that their claim has priority over other creditors (over other unsecured creditors or even secured ones depending on the implementation of the Directive otherwise referred to as "super priority"). Akin to other tools, the Directive allows for significant room in implementation of this protection, with the ability to exclude certain kinds of new financing from such protection, varying on the intensity of the new financing protection and intensity in priority of the new finance claim. In essence, the protection of new financing under the Directive provides certainty and more importantly clear incentives for any potential creditors, which might otherwise lack them given the context of financial distress and involvement of other competing creditors. This in turn allows for a more realistic

⁴⁰ Directive (EU) 2019/1023 of the European Parliament and of the Council of 20 June 2019 on preventive restructuring frameworks, on discharge of debt and disqualifications, and on measures to increase the efficiency of procedures concerning restructuring, insolvency and discharge of debt, and amending Directive (EU) 2017/1132 (Directive on restructuring and insolvency) [2019] OJ L172/18 Article 17

chance for the distressed firm not only to cover its ongoing operational costs through interim financing but also receive funding for future growth.

This tool together with the others outlined in this sub-chapter provide for a system which detects and encourages mitigation of insolvency risk; however, this mitigation comes at the cost of creditors rights (which in turn might have ramifications on their willingness in investing into any firm where the exit strategy is potentially untenable).

Pertinently to this thesis, the tools outlined above allow for rescue, where the current regime under energy supplier regulation tilts toward orderly market exit as opposed to rescue. Therefore, the interaction of these restructuring tools with existing energy risk hedging obligations will yield insight into whether the overarching trends within the two regimes are opposed in practice, where nuanced interaction can either display opportunities for collaboration or points of potential tension between the two. It is important to note that as outlined previously the implementation of these tools can be varied, therefore the thesis will examine these tools and their practical interaction with energy supplier regulation within the vacuum of a single member state (The Netherlands) in Chapter 5 to produce a more practical insight as opposed to a purely theoretical one.

A conclusion that can be made from Chapter 2 is that the current insolvency/restructuring regime aims at prevention of insolvency through prudential detection and facilitation of natural negotiation. An important thing to note here is that the obligations under the EMD although *prima facie* separate and unmarried to the tools and regime described under Chapter 2, still inherently share the same goal of prevention of insolvency on the market. Therefore, the next chapter shall elaborate on that goal of prevention employed by the EMD and the tools and methods employed to achieve such, providing the groundwork to examine the relationship between the regime and more concretely compare the methods and tools employed by each regime to achieve the same goal of insolvency prevention.

Chapter 3: EMD Directive Obligations, Energy Risk Hedging and Principles of EU Energy Law

3.1 EU Energy Law Principles: Balancing tensions

Academic discourse on energy law although defining the body of legislation belonging to it has not put the line in the sand as to where energy law ends and where other categories of law such as climate change or environmental laws begin. Rather the breadth of energy law legislation in the EU seems to take an interdisciplinary angle, evolving with the needs and realities of the present. This approach reveals itself in the principles of EU energy law, where they are not explicitly delineated but rather configured into overarching objectives solidified in primary union legislation and fleshed out in accordance with the needs of the present through secondary union legislation.⁴¹

The objectives set within primary union law mainly focus on security of supply, and ensuring the efficient functioning of the energy market among other objectives such as interconnection and development of energy saving and renewable technologies.⁴² Secondary legislation seemingly links the well-functioning electricity market to a liberalized competitive market and stresses the importance of designing the market in a way which would provide security of supply to retail consumers, especially in times of crisis.⁴³

The regulation of the electricity market cannot in its essence be limited to pure economic regulation of natural monopolies and access obligations. Although the liberalization of the electricity market since the 1990's has brought significant levels of competition into the downstream supply of electricity, it cannot be extricated from the fact that the product at hand is an essential public utility. This in turn refrained the regulators from treating the market in an ordinary fashion but rather maintenance of such liberalization has been done carefully and rarely at the cost of security of supply.

There is active discourse on the balancing of security-oriented and competition-oriented electricity market design. Specifically, regarding the ability of liberalized markets to independently generate enough infrastructure development and maintenance, which inherently further extends the debate to the desired focus of security of supply (long-term vs short-term). The benefits of a liberalized energy market are veritable, competition has ensured more options for consumers in terms of price and quality, however this has made the market prone to external shocks in a way which a private or state-owned vertically integrated monopolist would have been less susceptible to. The inherent tension between maintaining secure supply in the energy market and ensuring sufficient competition has recently come into further discourse with the reform to the Electricity Market Design Directive, where in light of the external price shocks resulting from

⁴¹ Raphael J. Heffron, *Energy Law: An Introduction* (Springer International Publishing AG 2015) <http://ndl.ethernet.edu.et/bitstream/123456789/60163/1/Raphael%20J.%20Heffron.pdf> accessed 20 June 2025

Heffron RJ and others, 'A Treatise for Energy Law' (2018) 11 *The Journal of World Energy Law & Business* 34

⁴² Treaty on the Functioning of the European Union (TFEU) (Consolidated version 2012) OJ C 326/47 Articles 114, 194

⁴³ Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024 amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the Union's electricity market design [2024] OJ L1711/1
Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency (REMIT), OJ L 326/1

the Russian war of aggression against Ukraine, the Commission enacted several ways to mitigate and hedge the default risk of energy suppliers. Although accepted as a necessary reactionary move to a time of crisis, some criticism has been levied as to the long-term effects such legislation would have on the market competitiveness and if improvements in security of supply could limit the benefits conferred to consumers by the liberalized energy market.⁴⁴

Considering these principles and their inherent tension, the thesis aims to use them as a guiding light and a normative framework in assessing how the new obligations under the EMD balance them if not in practice, then in theory. Analyzing the tension between the principles in light of these new obligations will allow for identification of potential gaps which would be left unaddressed by the EMD in terms of balancing the two principles. The subsequent discussion would be focused on the ability of any proposed risk hedging tool in balancing principles, rather than on an overarching discussion on the efficiency of liberalized markets. This will allow for a framework to be derived for further assessment of the theoretical and practical role of insolvency and restructuring laws in energy risk hedging, where any evaluation of their potential benefit in mitigating energy supplier default would be done through the lens of their ability to balance the tension between the two principles within the gaps of proposed tools in the EMD. Consequently, where the principles of maintenance of competition through a liberalized market and security of supply would be the weighing scale for any potential solution, the gaps within the EMD in balancing such principles would be the lens through which any subsequent role of insolvency and restructuring laws would be observed through.

The remainder of this chapter shall directly tackle the EMD and its proposed energy risk hedging tools such as promotion of power purchase agreements, prudential regulation of energy suppliers and supplier of last resort in detail, depicting the academically delineated tension between the principles within the proposed tools, consequently identifying the “gaps” in the EMD in terms of its ability to adequately reduce supplier default risk while not distorting the competitive market dynamics to a great extent.

3.2 The Electricity Market Design Directive and Energy Supplier Risk: Stable or Stale?

This sub-chapter will explore the three outlined tools in which the EMD addressed supplier default risk, examining the reasoning behind their use, academic discourse on their potential choice and most pertinently

⁴⁴ Heffron RJ and others, ‘A Treatise for Energy Law’ (2018) 11 The Journal of World Energy Law & Business 34
Talus K, *Introduction to EU Energy Law* (Oxford University Press 2016)

how do these tools fit in between the two outlined principles of EU energy law. Specifically, the chapter will zoom in on Article 18a and 27a of the EMD,⁴⁵ where several tools are proposed in dealing with energy supplier default, although the implementation of the proposed tools are left to the member states in most part, the solutions proposed allow for a wider theoretical discussion on what the union believes to be a well-functioning electricity market and where potential gaps could be identified, specifically in terms of maintenance of competition, in fact the EMD itself acknowledges the potential effect on competition in unbalanced implementation, where all chosen tools must be employed with union competition law in mind. At its core, the EMD and its chosen tools are both a reflection of mitigating consequences of external shocks and more pertinently an opportunity to promote goals and objectives of the union through such crisis. The volatility in terms of price post Russian war of aggression against Ukraine at its core has displayed veritable argument against the multi-decade trend of energy market liberalization in the EU, posing an important question: what is the importance of downstream supplier competition in an ever-unstable political environment and the pressing energy transition goals? I shall pre-face this chapter with the supposition that although shifting to some extent away from the previous zeitgeist of liberalization, the union still considers any shift away from a very competitive market with strong apprehension. This apprehension was seen nowhere more prominently as with the sectoral inquiry in 2007⁴⁶ in relation to power purchase agreements.

Nonetheless the readiness to implement power purchase agreements so readily in the EMD does display some change in priority in principles and Commissions evaluation of the electricity market, albeit still with some apprehension and arguably such change in policy is more associated with promotion of renewables than security of supply.⁴⁷ This posits a further question as to the ability of the new tools to adequately maintain both competition in a liberalized market and long and short term security of supply for consumers and whether there is a desire to maintain both exhibited by the Commission in the EMD. Although the analysis of this thesis is inextricably linked with the overarching policy change, any in-depth inquiry into such policy could render the attention of the thesis too broad and even more theoretical and therefore will be mainly avoided.

⁴⁵ Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024 amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the Union's electricity market design [2024] OJ L1711/1 Articles 18,27

⁴⁶ European Commission, 'Energy Sector Competition Inquiry – Final Report – Frequently Asked Questions and Graphics' (Press Memo MEMO/07/15, 10 January 2007) https://ec.europa.eu/commission/presscorner/detail/fr/memo_07_15 accessed 20 June 2025

⁴⁷ Leigh Hancher, Guillaume Dezobry, Jean-Michel Glachant and Emma Menegatti, *Leveraging the Energy Transition: The Role of Long-Term Contracts* (Report, Florence School of Regulation, Robert Schuman Centre for Advanced Studies, European University Institute, 22 May 2024) <https://cadmus.eui.eu/server/api/core/bitstreams/55c6d255-a013-5b60-8fde-c7999c4bc0ac/content> accessed 19 June 2025

3.3 Power Purchase Agreements

Article 18a of the EMD⁴⁸ outlines that member states should promote Power Purchase Agreements (PPA's) in sufficiently developed markets to hedge the risk related to price volatility and subsequent supplier default while implementing any such framework for agreements in a way which would allow for effective competition. These obligations although superficially in congruence could be seen as opposites to some extent.

PPA's have come into strong prominence as of recent in both public and private spheres especially in the context of renewable energy sources. In a nutshell a PPA is an agreement between buyer and seller of energy typically for the duration of ten to twenty years, which sets a predetermined price for the sale of the energy for the duration of the contract. Generally, such agreements have been preferred for their ability to shield buyers from any price volatility, where any external shocks to energy prices would leave their input unaffected and in the same breath provide a stable price and customer for sellers for a considerable duration. This type of agreement has seen increase in its utility in renewable energy generation, where often after the high upfront cost, the marginal cost of renewable energy generation is prohibitively cheap for sufficient profits on the spot market, where competition shrinks the margins of renewable energy producers. In that context, many renewable energy producers found it more profitable to enter a more stable arrangement with a predetermined price, which would be higher than on the spot market. These types of stable arrangements were particularly enticing to large business consumers who depended on stable flow of electricity and were interested in greening their energy sourcing.⁴⁹

In its initial assessment of the sector and the trend of PPA's uptake, the Commission expressed strong apprehension toward utility of PPA's in relation to its ability to sequester demand to only a few energy producers. Although this criticism centers mainly in its effects upstream in the generation part of the energy supply chain, it must be noted that the effects of PPA's are akin to a vertically integrated monopolist, where although supplier downstream is shielded from price volatility, it also misses out on the benefits conferred by the breakup of vertically integrated monopolists or otherwise liberalization. Specifically, where the decrease in price of energy especially prominent in renewables, simply would not be passed on to suppliers and consequently consumers. This in turn opens the window to a discussion on the ability of energy

⁴⁸ Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024 amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the Union's electricity market design [2024] OJ L1711/1 Article 18

⁴⁹ Leigh Hancher, Guillaume Dezobry, Jean-Michel Glachant and Emma Menegatti, *Leveraging the Energy Transition: The Role of Long-Term Contracts (2024) RSCAS Policy Report*, European University Institute p.1,2,3,12,13,14,26,27,29,32,35,39,50 <https://hdl.handle.net/1814/76880> accessed 18 June 2025

producers to invest in infrastructure expansion for future competition in a liberalized market, however more pertinently to our discussion the adoption of PPA's demonstrates how a proposed energy risk hedging tool designed to ensure the principle of security of supply can in turn compromise well-functioning of liberalized energy market and limit its inherent benefits.⁵⁰ Admittedly, the extent to which PPA's limit competition is still up for debate, where the Commissions approach so far in several prominent cases⁵¹ has been hawkish, harking back to the negative vertical effects of PPA's both downstream and upstream of the energy supply chain, especially in case where demand is stagnant or grid capacity limits the rate at which any demand expansion could be supplied. Some have argued that the reduction in competition would mostly be limited to intra-supply competition and increase inter-supply competition which would be potentially less abrasive on the liberalized market, others have argued that the expansion in capacity through infrastructure roll out is possible only through PPA's and the stability they bring would in turn allow for more competition to foster as a result of increased capacity and demand.⁵² Nonetheless, it must be noted that acknowledgment of the need to balance PPA implementation in a least distortive way for competition and in line with union competition law within the EMD itself, allows for the subsequent supposition that an exercise in balancing must be performed between the two principles in implementing this tool after all. Besides the policy angle, the implementation of PPA's in relation to union competition laws further posits concerns, considering legal certainty and guidance is rather limited in this area (less focus on vertical sustainability agreements compared to horizontal agreements). During a potential energy crisis or in a case of financial distress, PPA's could provide protection for the firm (stable income for the firm) and incentive for investors (long-term stable contracts can be an attractive attribute for investors). Concretely for existing investors to remain invested or potential creditors to consider investing. This is a goal shared with the restructuring tools under the Directive which aim to provide a similar protection for the firm during financial distress and ensure sufficient incentive for potential investors. This allows for a potential thread of complementarity between the tools employed by both regimes toward a similar goal.

⁵⁰ European Commission, 'Energy Sector Competition Inquiry – Final Report – Frequently Asked Questions and Graphics' (Press Memo MEMO/07/15, 10 January 2007) https://ec.europa.eu/commission/presscorner/detail/fr/memo_07_15 accessed 20 June 2025

⁵¹ Case C-124/10 P *European Commission v Électricité de France (EDF)* [2012] ECR I-0000
Case C-377/20 *Servizio Elettrico Nazionale SpA and Others v Autorità Garante della Concorrenza e del Mercato and Others* [2022] ECLI:EU:C:2022:367
Case COMP/B-1/37966 *Distrigaz* [2007]

⁵² M Stanitsas and K Kiriopoulou, 'Sustainable Energy Strategies for Power Purchase Agreements (PPAs)' (2023) 15(8) *Sustainability* 6638 <https://doi.org/10.3390/su15086638> accessed 19 June 2025

3.4 Prudential Regulation of Energy Suppliers

Both Recital 18⁵³ and Article 18a of the EMD allow for another tool in ensuring that if hedging is not possible through promotion of PPA's, the financial state and ability to hedge risk are assessed by the competent authorities when either admitting suppliers on the market or ensuring the continuation of operation for existing suppliers. In addition to supervision of liquidity and stress-testing of hedging strategies of the supplier the competent authority must take all reasonable steps to limit the risk of supply failure. In essence most of these measures can be put under the umbrella of prudential regulation of energy suppliers, where the national competent authority not only regulates the licensing of suppliers in accordance with their liquidity but also performs a supervisory role in monitoring their risk. A pertinent example of such could be seen in the Dutch national competent authority (ACM), where they employed a more stringent entry requirements for suppliers in terms of liquidity projections, solvency levels and positive equity alongside with delineated plans being demanded of suppliers in case of financial distress and ensuring that qualified risk managers are employed. Additionally, such assessments would be performed on a biannual basis by the ACM to ensure compliance with the new regulatory regime.⁵⁴ On its face, these requirements seem only reasonable considering the price volatility and inadequate risk hedging displayed by suppliers before the energy crisis. At its core these new restrictive licensing rules are only a reflection of the principle of security of supply. Akin to the PPA's, any implementation of prudential regulation must be performed with the specific characteristics of the market in mind, among which the level of competition and vertical integration of parties play a significant role. This yet again displays the importance of balancing the principle of security of supply exhibited through prudential regulation with competition, in this instance not specifically related to existing competition but rather potential competition. A pertinent criticism was levied in relation to the prudential regulation implemented by the German legislator, where the significant liquidity licensing requirements imposed on suppliers could potentially act as market access barriers, reducing competition and enforcing consolidation by imposing a regulatory system which inherently only prefers suppliers with strong liquidity and extensive recovery plans to be able to access the market. Such a system has the potential to exclude smaller and more innovative suppliers which could reduce incentive to innovate for the big players. In addition to financial requirements, the prudential regulation was further criticized for potentially further excluding smaller suppliers through the administrative burden imposed in the form of extensive plans and readiness which would require significant resources, resources which mainly would be

⁵³ Directive (EU) 2024/1711 of the European Parliament and of the Council of 13 June 2024 amending Directives (EU) 2018/2001 and (EU) 2019/944 as regards improving the Union's electricity market design [2024] OJ L1711/1 Recital 18

⁵⁴ *Council of European Energy Regulators*, 'Use of Prudential Regulation Mechanisms to Promote Effective Supplier Risk Management in the Energy Sector' (2023) <https://www.ceer.eu/publication/use-of-prudential-regulation-mechanisms-to-promote-effective-supplier-risk-management-in-the-energy-sector/?utm> accessed 21 February 2025 p.30-36

available for bigger supplier inherently. Finally, it must be said that any such prudential regulation although ambitious puts a strain on resources of national competent authorities in the form of constant supervision. A question also could be posed in relation to the ability of national competent authorities to check the provided information for validity, proper calculation and would such stringent requirements incentivize the potential suppliers in entering the market and would existing suppliers be forced into diverting more resources on bureaucratic compliance rather than on investment into much needed infrastructure development. In essence prudential regulation sets out yet another point of tension within the EMD in between the two principles, where security of supply could come at a cost of market access.⁵⁵

3.5 Supplier of Last Resort

Article 27a of the EMD requires that if not already imposed within the existing regime the member states must ensure that a supplier of last resort be appointed in a fair, transparent and non-discriminatory way, where the role of such supplier would be to ensure continuity of supply of energy to consumers in case of default of an existing supplier. In essence at point of default or at its imminency, suppliers' license would be revoked and customers transferred to the appointed to SoLR. The integral role of this mechanism was observed in the EU for over a decade, where SoLR out of all default risk solutions tackled security of supply most concretely. This essential tool provided a safety net to consumers in times of crisis, where continuity in energy would be guaranteed.⁵⁶ Although integral to a liberalized market and a solution to ensuring safety of supply for consumers without resorting to a vertically integrated players, the risk toward competition posed by SoLR regime is most systemic and potentially most riddled in blind spots caused by the crisis response lens employed by the EMD. Specifically, recent discussion in the UK centered around the inherent prioritization of big suppliers by the SoLR regime and thus enforcing further consolidation on the market for existing big suppliers. Where the process of customer transfer occurs with the revocation of the operational license of supplier in default or at risk of it, meaning that not only does the process result in consolidation of a bigger supplier but also in actual and tangible reduction in competition, notably at the same time. Moreover, the choice for immediate revocation of license and loss of customers inherently removes any realistic possibility for reentry of the supplier through a restructuring process. Although this might not appear tangibly negative considering consumers are ensured with continuous supply, such

⁵⁵ Council of European Energy Regulators, 'Use of Prudential Regulation Mechanisms to Promote Effective Supplier Risk Management in the Energy Sector' (2023) <https://www.ceer.eu/publication/use-of-prudential-regulation-mechanisms-to-promote-effective-supplier-risk-management-in-the-energy-sector/?utm> accessed 21 February 2025 p.47,48

⁵⁶ Pierce Atwood LLP, *Supplier of Last Resort: An Overview of Its Implementation in ERRA Member States and Representative Countries in the EU* (Energy Regulators Regional Association, 2021) <https://erranet.org/download/supplier-last-resort-overview-implementation-erra-member-states-representative-countries-eu/> accessed 20 June 2025

continuity and security often come at a cost, where renegotiated prices in light of extraneous circumstances are significantly higher when consumers are transferred to SoLR. Although consumers are urged to switch to a more market-based offer, often by inertia switching by consumers can be limited, which in turn passes on the reduction in competition directly to consumers through less choice and higher prices. Admittedly, the exceptional circumstances under which SoLR is utilized does require for decisive action to ensure continuity of supply, however such could come with long-term implications on the competitiveness of the energy supplier market. In sum the SoLR plays the most direct role in ensuring security of supply principles is upheld but congruently poses the most demonstrable long-term harm to a well-functioning competitive energy market.⁵⁷

Finally, the choice in revoking the license, displays an observed priority toward an orderly market exit over rescue in energy regulation, where the opposite trend is observed in insolvency through adoption of restructuring frameworks. These trends, underpin the two legal regimes and put them at odds. Congruently both regimes labor toward the same goal of insolvency prevention. Chapters 2 and 3 have elaborated on the tools employed by both regimes and outlined the thread of commonality. The next chapter shall examine whether such commonality in the overarching goal translates to complementarity. Specifically, Chapter 4 will examine where the specific interaction points are between the outlined tools in both regimes. Through such it will identify the nature of the relationship between the tools and whether such interaction could be conducive to achieving a common goal more successfully. This analysis in turn will allow us for the final examination of what is the exact role of restructuring tools in balancing the two energy law principles within the balancing gaps of the EMD tools.

Chapter 4: Interaction Points, Restructuring Directive and Gaps in the EMD

4.1 Where rubber meets the road

The previous chapter outlined the potential gaps within the EMD in terms of balancing the principles of competition and security of supply, specifically using the three main tools employed by the EMD to tackle energy supplier default risk. This chapter will use the outlined tools and their gaps as a building block in assessing where the Restructuring Directive could come into play in aiding those in terms of balancing the

⁵⁷ Michael Fiddy and Fatema Begum, ““Supplier of Last Resort” as a solution to Energy Supply Company Administrations’ (Mayer Brown, 26 February 2021)

two principles. Although delineating the interaction, this chapter will only be limited to exploring how restructuring frameworks could interact with the outlined tools in theory.

As outlined in Chapter 2, the traditional leniency toward an orderly exit in insolvency/restructuring law has been replaced with a degree of rescue culture and a different approach to best allocation of resources in times of company distress within insolvency and restructuring law. This shift in trend best exemplified by the Restructuring Directive is in contrast with the leniency toward an orderly market exit in the energy market regulation, starkly demonstrated through the process of SoLR, where rescue places low on the list of priority when security of supply is in question. This at its core boils down to the question of, is there more competition to be stimulated by rescue and maintenance of these suppliers or is an orderly market exit only necessary for a more efficient distribution of limited grid capacity and profits to firms which are able to compete? Admittedly, the examination in this chapter although tangentially relevant the question above shall zero in not necessarily on comparison of trends and philosophy within the two regimes (rescue v. orderly exit) but rather on the relationship between the regimes on a more practical level (the interaction between their employed tools). This in turn will allow for this chapter to provide a more conclusive and feasible summary on the nature of the relationship between the two regimes and whether such interaction can be fruitful.

4.2 Power Purchase Agreements

Role of restructuring tools in relation to PPA's

PPA's at their heart operate in a way which provides stability in terms of prices for suppliers and stability in term of profits for the upstream of the energy sector. However, as discussed earlier in the previous chapter, its long-term nature can sequester demand to only a certain number of producers and supply to only a certain number of downstream suppliers. In terms of effects on downstream competition, the previous chapter mentioned that the shielding could limit benefits of a competitive market by freezing prices and in essence providing stability at the cost of future lower prices, this loss in opportunity is then passed along to consumers. However, in congruence with this criticism it must be noted that since only a limited number of suppliers can enter PPA's, where these types of agreements are generally preferential towards bigger suppliers and can also not be offered to all suppliers because of capacity constraints. This in turn leaves some suppliers outside of possibility of utilizing PPA's.

It must be noted that at their core PPA's aim to not only shield suppliers from price volatility but also ensure sufficient ability to rollout further infrastructure through stable prices, albeit at the cost of future opportunities. Such ability hinges on factors beyond only profits but also investor and consumer confidence/sentiment. In this context restructuring tools can provide the stability and confidence which PPA's aim to provide to suppliers unable to access PPA's for various reasons, displaying further complementarity and alignment between the tools. Specifically, through insolvency prevention mechanisms provided by the tools under the Directive, the smaller energy suppliers will be able to access stronger chance at recovery from financial distress and insolvency. This in turn could directly influence investor confidence when weighing the risk of the investment in a small supplier. In a sense plugging a gap left by PPA's in providing a level competitive playing field. The exact way in which restructuring tools could provide such better chance at recovery will be elaborated further in this sub-chapter.

It must be further mentioned that the shift towards rescue from orderly market exit within the Unions law on insolvency and restructuring must primarily be attributed to the belief that viable businesses deserve a second chance and from an economic lens that preservation of assets on the market is much less wasteful than proceeding with regular insolvency proceedings which tend to distribute resources in an acrimonious way and where further consolidation could be a potential concerns when it comes to actual assets of firms being bought up by competitors. In this belief the Restructuring Directive introduced tools such as the early warning mechanism, automatic stay on debts once the framework is accessed and special protection on new financing. Fundamentally the tools employed by Directive in the context of the energy supply market can labor in preservation of the security of supply principles, albeit through different means than the current regime. Specifically, where PPA's form a preventative approach adopted by the EMD, so do the tools under the Directive. Where the restructuring framework would not necessarily replace the function of PPA's, it could aid in its purpose, especially in relation to smaller suppliers unable to enter PPA's due to financial restrictions.

Early warning mechanism and PPA's

Self-assessment tools made available by the Directive (early warning mechanism) signal to the company in circumstances of illiquidity a warning and possible avenues for mitigation, all on a voluntary and anonymous basis. In accordance with the Directive these tools are to be widely available online for firms to employ for self-assessment, which allows for a more responsible and self-reflective approach toward financial prudence. One could argue that the reporting requirements under the EMD (ACM imposing biannual reporting requirements for liquidity) satisfy this need, however the early warning mechanism already in place in most EU jurisdictions under the Directive can allow for a more bottom-up approach,

stimulating culture of compliance through aware self-assessment as opposed to a more top-down approach employed currently.

Stay on enforcement action and PPA's

In addition to the early warning mechanism the automatic stay on debts and enforcement action by the creditors for several months under the Directive provides a further support to the long-term if not short-term security of supply, where possibility of recovery as opposed to fast track to insolvency could ensure continuous supply for consumers if not immediately then in the future and with possibility to return to previous prices. Finally, consumer and investor confidence are vital to continuous profitability and liquidity of a supplier and therefore imperative to security of supply principle.

Complementarity of PPA's and restructuring tools

Therefore, the net which is provided by the tools under the Directive allow for stronger consumer and investor confidence in terms of supplier resilience, especially for smaller suppliers unable to attain PPA's. Where the current regime under the EMD struggles in providing security benefits of PPA's to smaller suppliers, the possibility to restructure with clear legal protections for the supplier and possibility for self-assessment could influence an investor or customer to be less apprehensive in investing into or contracting the supplier therefore ensuring the liquidity and solvency of the firm, securing supply where PPA's are unavailable. In terms of effects on competition, the tools under the Directive would not impose similar concerns associated with PPA's in terms of market consolidation and reduction in price competition (the protection/confidence is not limited to bigger suppliers unlike with PPA's). Rather on the contrary, by preserving suppliers and allowing for opportunity to restructure and return to the market, they provide maintenance of existing competition.

In sum the tools provided under the Directive cannot necessarily fully replace the function of PPA's, especially relating to bigger suppliers who demand a stable input, however the regime could plug the gaps in relation to smaller suppliers who could have difficulty in accessing PPA's as a risk hedging tool and provide them with a level of security and investor/consumer confidence while at the same time not fostering market consolidation and reduction in price competition linked to the use of PPA's. Pertinently to this research, the relationship identified between the PPA's and restructuring tools is not at odds. Rather the two regimes in the context of PPA's do not intersect directly, however possess similar goals and at their core similar functions. In essence the contractual obligations under the PPA's could coincide with the restructuring tools in case a party of a PPA is at risk of insolvency. In a contractual predicament of this sort, two regimes could coincide to some degree. More importantly the relationship between PPA's and

restructuring tools (especially the early warning mechanism) is complementary and potentially more conducive to a rounded regulatory approach.

4.3 Prudential Regulation

Briefly touched upon in the previous paragraph, prudential regulation could be seen as most coercive top-down tool employed by the EMD, where reporting obligations and stringent licensing requirements play a significant role in keeping prudentially unsatisfactory suppliers out and existing ones compliant with liquidity requirements. These requirements although imperative in a time of crisis as a correctional measure for risky behavior by suppliers could lack long-term benefit that a bottom-up approach offered by the Directive could yield. Where the tools under the Directive lack potential competition concerns, it is yet again imperative to put more emphasis on its role in security of supply rather than on its effects on competition, although those can be veritable. Specifically, the top-down approach while compromising market access to some degree offers a high degree of security of supply to consumers, where prudentially unsatisfactory suppliers would not be allowed to participate in the market. This top-down approach although on its face effective could render long-term enforcement challenging and provide signals of mistrust to the market. Specifically, in terms bureaucratic burden placed upon both the national competent authority in supervising every supplier both in terms of accounting, crisis-proof planning and stress-testing and imposing an administrative burden on suppliers in terms of providing all the documents and constructing highly speculative recovery plans. This bureaucratic burden on both sides could render compliance and enforcement of the prudential regulation both burdensome and ineffective, where the suppliers would be apprehensive toward providing any negative information in terms of liquidity and the national competent authority could lack the resources to effectively supervise the accounting heavy task of prudential regulation and considering the speculative nature of financial distress plans underestimate or overestimate the plans effectiveness. Additionally, the temporal frequency of such prudential checks on existing suppliers could play a pivotal role in the effectiveness of regulation considering the high volatility of the energy prices, where the Dutch competent authority performs such checks on a biannual basis, however this leaves significant gaps in terms of liquidity in the energy market, where often price spikes are highly external, unpredictable and most importantly sudden. Congruently all these factors put a strain on the enforcement effectiveness of a top-down approach and additionally fosters culture of distrust, which could potentially be less productive in a liberalized market. These factors dampen the effectiveness of prudential regulation not only in relation to maintenance of market access which it poses a threat to but also in its ability to provide adequate security of supply in the long-term and its true ability to shield consumers from high prices.

On the other hand, the Directive puts emphasis on prevention through a more bottom-up approach, where market actors are signaled to help themselves through self-assessment and offered expertise or other possible options at their discretion. Albeit separate of other regulatory measures this level of independence in public utility regulation could be considered uncomfortable at best (dealing with an essential product such as energy and with the principle of security of supply in mind, complete independence from the regulator could be risky), the existing tools under the Directive could work congruently with the prudential requirements in order to ease the bureaucratic burden on the national competent authority and evade the negative connotation associated with a top-down approach, where market actors would be hesitant to pursue a preventative measure in between regulatory reporting checks until the very last moment. In addition to the liquidity checks, the licensing requirements can include obligation to provide a financial recovery plan in case of insolvency risk. These kinds of plans, although a veritable way to ensure that the supplier is ready for a potential crisis, do not resemble actual restructuring plans which often involve multi-party participation in order to come to an arrangement, therefore any independent strategy in terms of financial restructuring would be highly theoretical without concrete input from different classes of creditors. Additionally, such plans without access to necessary legal protections such as stay on enforcement and debts could be less effective in coordinating common interest in time of crisis. Therefore, the role of restructuring laws would not be that of an alternative to prudential regulation but rather an aiding framework which could allow for less restrictive licensing requirements, remedying the competition concerns and still providing a level of security supply through self-assessment by easing the resource burden on the national competent authorities and fostering a bottom-up approach in suppliers risk regulation. In addition, the restructuring framework under the Directive could provide a more concrete path to any potential financial recovery plan with its integrated protections and mechanisms once the framework is accessed.

Consequently, the underpinning role the restructuring laws could play in relation to prudential regulation would allow the tool under the EMD to balance the two principles more effectively. Specifically, the role of restructuring tools in relation to PPA's was complementary and had a low level of intersection and aided in plugging the gaps not tackled by the PPA's. On the other hand, the observed role of restructuring tools in relation to prudential regulation is supplementary rather than purely complementary. This is due to the intersection between the tools being higher in this instance, where the early warning mechanism not only acts as prudential regulation but in a sense is a form of prudential regulation. This close intersection in role and function allows for restructuring tools to reinforce and supplement current prudential regulation under the EMD, where it lacks in enforcement.

4.4 Supplier of Last Resort

The framework related to SoLR is arguably in highest contrast to the delineated rescue trend in insolvency and restructuring law, where upon impending insolvency or inability to supply consumers, orderly market exit is facilitated quite quickly as opposed to maintenance of supplier. This tool is most demonstrable of the principle of security of supply and most exemplary of a crisis reactionary measure. In turn, the nature of this measure compromises long-term competition the most out of all the delineated tools, this of course is not to say that the intensity of SoLR is unwarranted but rather the tool out of all proposed by the EMD in mitigating supplier default repercussions poses least emphasis on maintain the principle of competition in a liberalized energy market. The restructuring framework could yet again step in not as a replacing mechanism considering its generality but rather as an additional tool for better regulation of a very complex sector.

Specifically, where the previous tools tackled security of supply to some extent, which is why the role of restructuring frameworks was explored in how it can strengthen that principle, SoLR lacks gaps in its maintenance of secure supply but rather most of its concerns are in its potentially unbalanced approach toward long-term competition in a liberalized energy supply market. Therefore, a potential contributory role of the Directive could be in reducing the negative effect on competition by the SoLR regime. Specifically, when the SoLR is enacted, the default supplier license is revoked and consequently limits its ability in returning to the market, where effectively its customer ship is lost permanently even in case of successful restructuring, although continuous supply would most probably be impossible even with stay on debts with the urgency of the matter in mind, it can be argued that the restructuring framework could provide a way in which suppliers could eventually return to the market with either fresh financing (new financing protection under the Directive) or haircuts on debts, this in turn would remedy the permanent reduction in number of competitors and make it only temporary.

Additionally, a big concern of the SoLR regime is that it provides uncompetitive prices to switching consumers post supplier default due to extraneous circumstance and without the return of the distressed supplier customers could incur further switching costs or not switch at all due to inertia. Conversely, the return of the previously contracted supplier could provide customers with a familiar option, reducing switching costs and aid the returned supplier in recovery towards a more competitive position on the market. The role of restructuring laws and their effectiveness in this context is not discussed in this chapter, however

it must be borne in mind that the benefits specifically associated in relation to SoLR can be quite speculative and highly dependent on market player and customer behavior patterns.

The relationship between the SoLR regime and restructuring tools *prima facie* be seen as being at odds to some degree. However, as pointed out by this sub-chapter, the intersection although potentially contentious provide the most fertile ground for potential collaboration in tackling an EMD tools which is most problematic in relation to competitiveness. This in turn defines the relationship as potentially complementary and remedial. Restructuring tools could step in as a way for potentially countering or limiting the after-effects of the SoLR regime.

Remarks on the Interaction

In sum this chapter outlines that the interaction between restructuring tools and energy risk hedging obligations intersect to a varying degree, depending on the tool in question. Additionally, the nature of the relationship between the restructuring tools and each of the EMD obligations varies considerably. Specifically, where the relationship with the PPA's is complementary, supplementary in prudential regulation and remedial in SoLR.

Chapter 5 Interactions in Practice: A Case Study of the Netherlands

5.1 Reasoning for the Necessity of a Case Study and its Justification

Previous chapters have outlined a theoretical background against which a practical assessment of these delineated interactions can be examined more tangibly. This chapter shall use the Netherlands and its ongoing transposition of the EMD and the Restructuring Directive to outline the areas of interaction, interplay and conflict between the two regimes. The reasoning for such a case study is two-fold. First such practical on the ground analysis in a member state shall allow for a more concrete assessment of the theoretical standpoint elaborated in Chapter 4. Second, the contribution of this thesis can be more valuable in relation to any subsequent policy recommendation.

The chapter will divide itself in the three tools employed by the EMD to hedge energy risk and explore the role of restructuring tools within them, akin to the structure adopted in Chapter 4. Such is done for the purposes of consistency and clear framing of the analysis.

The Netherlands specifically is chosen as a case study for its early and relatively harmonious implementation of the Directive and its pronounced response in the form of energy supplier regulation post the energy crisis, yielding alignment with the goals and requirements of the EMD even if transposition is still ongoing. In addition, some aspects of the EMD-aligned regulation in the Netherlands have provided strong points of tension in relation to the two principles of competitiveness and security of supply in the eyes of the author, which in turn would provide for ample opportunity to examine the role of robustly transposed restructuring tools under the Directive to show their utility or redundancy in helping to balance the two principles in practice.

Although the final transposition of the EMD within the Netherlands is still in process, elements already in place (especially in relation to prudential regulation and supplier of last resort) are roughly representative of a nascent regime under the EMD. The supposition mainly situates itself within the available secondary sources which acknowledge Dutch adherence to the EMD as a basis for its assessment and subsequent conclusion.⁵⁸ Finally, this case study will aim to be the base of the final chapter on the role of restructuring tools in energy risk hedging and whether they can aid not only in balancing of energy law principles but also ensure a more stable and competitive energy supplier market and if such tools have a place in any potential future policy amid the ongoing transposition of the EMD.

5.2 Dutch Transposition of the Restructuring Directive

The Dutch transposition of the Restructuring Directive in most of its elements has been in adherence with its content, however certain elements especially regarding the choice in the early warning mechanism must be borne in mind. The Directive was mainly transposed through a legislative proposal in 2019, which in turn was named *Wet Homologatie Onderhands Akkoord* (WHOA).⁵⁹ The transposition occurred in two parts, first in 2019 and second part in 2023. The Dutch restructuring legislation options were available to some extent before the Directive albeit not in the same intensity of legal protection, specifically the goal of any restructuring scheme and stay on enforcement before the Directive was mainly to ensure orderly exit from the market, avoiding unnecessary loss of assets. It is important to note that the initial transposition chose the bottom-up model of an early warning mechanism described in Chapter 2.2 and has followed up with the addition of the elements of the top-down model in 2023 in relation to work councils. Pertinently for this discussion most of the other elements under WHOA mainly match the description provided for the tools

⁵⁸ Council of European Energy Regulators, 'Use of Prudential Regulation Mechanisms to Promote Effective Supplier Risk Management in the Energy Sector' (2023) <https://www.ceer.eu/publication/use-of-prudential-regulation-mechanisms-to-promote-effective-supplier-risk-management-in-the-energy-sector/?utm> accessed 21 February 2025

⁵⁹ *Wet homologatie onderlinge akkoorden ter voorkoming van faillissement* (WHOA), Stb. 2020, 240. Art. 371,376,42a used for this chapter

under the Directive in Chapter 2.2, therefore any further specification or detail in relation to WHOA shall only be discussed if deviation is present between WHOA and the Directive.⁶⁰

5.3 Power Purchase Agreements

Article 18a of the EMD acknowledges that PPA's could be one of the ways in which risk of an energy supplier is hedged, in line with such strategy the EMD requires that member states facilitate or ensure that risk is hedged through various ways including PPA's. Although the EMD is still in the process of transposition in the Netherlands, reflection of this strategy is mirrored in the Dutch approach toward energy risk hedging (any analysis conducted on the current regime would most probably not significantly differ from the final transposition of the EMD considering its current uniformity with it). As delineated in Chapter 3, PPA's tend to create seclusion of demand on the market, congruently the need for renewable entry was seen as important as facilitating a competitive market, therefore PPA's and their drawbacks were generally framed in the context of mitigating renewable energy risk, rather than in the context of regular suppliers who are less susceptible to external factors unlike renewable suppliers. This line of thought is displayed by the recent decisions taken by the Dutch competent authority. Specifically, in relation to potential conflict with competition law in relation to Article 101 of TFEU, where VEMW (an association of business users of energy) entered a collective PPA with an energy producer.⁶¹ The ACM, although acknowledging the potential effect on competition of such collaboration, did allow for the PPA to commence, citing its beneficial effect on users in the form of CO2 reduction.⁶² Although the principle of sustainability and the general role alongside appropriateness of PPA's in the goals of sustainability are outside of the scope of this thesis, the central point of this decision alongside with strong and unopposed uptake of PPA's (A great example of such is recent Dutch Railway PPA⁶³) displays that the ACM views PPAs as one of the adequate ways energy risk can be hedged, inherently adhering to the sentiment and content of Article 18a of the

⁶⁰ Boon GJ, Koster H and Vriesendorp RD (eds), *Implementation of the EU Preventive Restructuring Directive* (Eleven International Publishing 2024)

⁶¹ T Beetstra, D van de Vijver and P Willis, 'Dutch regulator actively facilitating sustainability developments' (Kluwer Competition Law Blog, 10 March 2022) <https://competitionlawblog.kluwercompetitionlaw.com/2022/03/10/dutch-regulator-actively-facilitating-sustainability-developments/> accessed 24 June 2025.

⁶² 3Degrees, 'The EU Electricity Market Design is Taking Shape' (3Degrees, 9 September 2023) <https://3degreesinc.com/resources/the-eu-electricity-market-design-is-taking-shape/> accessed 22 June 2025.

⁶³ WindpowerNL, 'Dutch railway operator NS signs provisional short-term green energy contract with PZEM and Shell' (WindpowerNL, 9 September 2023) <https://windpowernl.com/2023/09/09/dutch-railway-operator-ns-signs-provisional-short-term-green-energy-contract-with-pzem-and-shell/> accessed 27 June 2025.

EMD. In addition to the point of congruence with the EMD it must be noted that the principle of competitiveness can be seen as subordinate in the context of renewable PPA's, which raises further question as to the current balance of the two examined principles within the regulatory regime.

PPA's and small energy suppliers

The general trend identified in the EU and the Netherlands is that take up of PPA's mainly driven by large buyers such as big tech companies or rail operators still poses significant challenges in relation to smaller buyers who might not be creditworthy or might pose too high of a risk of insolvency due to their size.⁶⁴ In addition to this the general negotiation of a PPA takes significant resources as well which might not be available to all buyers. This is highly relevant to the supposition made in Chapter 4.2, where due to their nature, PPA's can exclude smaller buyers (energy suppliers) due to strong collateral requirement or general risk of insolvency of smaller suppliers being higher compared to large suppliers. This perceived risk by energy producers of smaller suppliers would only be reinforced by the recent energy crisis, where many energy suppliers defaulted, albeit most not secured by PPA's.⁶⁵ Therefore, a gap emerges in the participation and successful entry of smaller energy suppliers in the Dutch energy market which increasingly is characterized by sustainability driven PPA's. Some attempts have been made in relation to this challenge through multi-party PPA's (VEMW example mentioned above), however this solution although innovative still provided competition concerns under Article 101 in the view of the ACM and required strict limits to be eventually approved. This barrier is correlated to the principle of competitiveness, where new (and even inefficient) entry is precluded as a result of the current PPA dynamics on the market but also the regulatory landscape. Specifically, where such exit could not be temporary due to revocation of license under the SoLR regime, further limiting the willingness to engage with smaller suppliers, who not only would be at higher risk of insolvency but also would have limited possibility of restructuring.

Role of the restructuring laws in PPA's within the Dutch context

In this context the restructuring tools under WHOA, could step in as a form of security for insolvent suppliers to potentially return to the market. This is relevant to the entry barriers since any potential for return and/or lower risk of insolvency that might come as a result of these tools can provide better incentive for energy producers to engage with smaller suppliers who are generally out of scope for PPA's. In turn, such would allow for the benefits of PPA's in relation to energy risk hedging to extend to a group in the

⁶⁴ Z Skidmore, 'Google and Shell sign PPA for repowered offshore wind farm in the Netherlands' (*Data Center Dynamics*, 7 May 2025) <https://www.datacenterdynamics.com/en/news/google-and-shell-sign-ppa-for-repowered-offshore-wind-farm-in-the-netherlands/> accessed 27 June 2025.

⁶⁵ *Energy Price Index*, 'Energy supplier bankruptcy wave across Europe and fewer contract options' (Energy Price Index Blog, 3 December 2024) <https://www.energypriceindex.com/blogs/energy-supplier-bankruptcy-wave-across-europe-and-fewer-contract-options> accessed 27 June 2025.

market which cannot benefit from them due to its size. To be more precise, the early warning mechanism under WHOA, which now possesses both self-assessing and more coercive elements such as reporting obligations on third parties, can be the first step in creating better financial prudence, detection of risk and arguably most importantly for energy producers and investors, mitigation of such risk. In addition to that, the remaining tools which are concrete and legally enforceable such as debtor's ability to remain in possession of their assets and stay on enforcement action by creditors, further solidify the possibility to restructure in good faith, especially if such risk is caught early on due to early warning mechanism. Finally, the new financing protection under WHOA allows for strong protection of any interim or new financing for the supplier which is in turn either allowed for better chance at insolvency risk avoidance or quicker return to the market post restructuring. In essence, the point of this interaction between the two regimes in the Dutch context is highly dependent on the PPA uptake challenges, which in turn WHOA can resolve. Although earlier theoretical discussions on PPA's in Chapter 4 pointed to disadvantages of PPA's and the potential of restructuring tools to plug those gaps, the current examination in the Dutch context yields a different insight. Namely, that the tools under WHOA and hence the Directive are a way of extending the benefits in relation to risk hedging of PPA's to a wider range of market participants. This in turn allows to reduce some of the negative effects PPA's can have on the principle of competitiveness, specifically in relation to its limiting effect on entry and/or on competitiveness of small players against bigger suppliers in an energy market, increasingly pointing at PPA's importance in the future of risk hedging.

5.4 Prudential Regulation

Akin to the PPA's, transposition of the EMD in relation to prudential requirements is still an ongoing process, however the ACM as a result of the energy crisis and consequent investigation imposed decisive prudential regulation on energy suppliers. Specifically, the prudential regulation takes shape in the form of financial and organizational assessment of the supplier, complimented by reporting requirements for supervision of compliance with standards set out in relation to financial health and contingency planning. Concretely, the financial assessment encompasses assuring that the energy supplier has 1) positive equity, 2) positive solvency and 3) robust liquidity projections. In addition, the organizational assessment comprises of requirements for a 1) comprehensive business plan, 2) qualified risk managers and 3) financial recovery plans from the energy supplier. In addition to regulating incumbent energy suppliers the prudential regulation tackles potential suppliers trying to enter the market with further liquidity and capital requirements in order to receive a license for operation on the market. As mentioned in Chapter 3, prudential regulation possesses certain drawbacks in relation to ensuring low market barriers and easy entry for potential competition. Additionally, the proposed measures including the stress-tests and regular monitoring can come at a strain on the limited resources and attention of the ACM, which in turn could provide for

incoherent enforcement or enforcement which comes at a potentially untenable cost. Finally, the prudential regulation imposed by the ACM puts significant bureaucratic burden on energy suppliers in providing not only concrete data but also extrapolative recovery plans and liquidity projections alongside appointment of specific risk management personnel.⁶⁶ All of this puts an asymmetrical strain on smaller suppliers on the market and an even bigger strain on suppliers trying to enter the market. In turn such prudential regulation imposed by the ACM in line with the EMD provides for a good level of security of supply while disproportionately affecting existing smaller suppliers and limiting entry, hence potentially negatively impacting the competitiveness of the market.

Role of restructuring tools in prudential regulation within the Dutch context

In this context WHOA although not providing a concrete replacement for prudential regulation, provides the existing supervision with stronger backbone for enforcement. Specifically, where any reporting requirements in relation to financial health occur on a biannual basis within the current regime imposed by the ACM, the early warning mechanism through a publicly available tool allows for self-assessment in-between the reporting obligations. Moreover, the newly imposed second model of third-party intervention through reporting obligations would add another layer of supervision on liquidity of such suppliers in-between the reporting dates.

In addition to supplementing the supervisory role of prudential regulation the regime under WHOA can reinforce the obligation for a recovery plan to be in place. Specifically, a theoretical plan without the WHOA regime would not have the guarantee of strong legal protections such as debtor in possession or protection of new financing. Therefore, without the legal protections as its backbone any subsequent plans could be rendered purely bureaucratic or unenforceable. This pertinently can affect the chances of any distressed company and/or company not meeting requirements set by the regime to return to financial health radically. Such in turn would benefit long-term competitiveness of the market, making suppliers more resilient and their return to the market more possible, which would provide stronger competitive pressure for bigger suppliers in both quality and quantity of smaller energy suppliers.

Although the WHOA regime cannot tackle the impairment of the principle of competitiveness imposed by higher entry barriers through prudential regulation, it can affect it indirectly by ensuring stronger possibility for detection and recovery within the existing supervisory framework already in force, subsequently

⁶⁶ Council of European Energy Regulators, 'Use of Prudential Regulation Mechanisms to Promote Effective Supplier Risk Management in the Energy Sector' (2023) <https://www.ceer.eu/publication/use-of-prudential-regulation-mechanisms-to-promote-effective-supplier-risk-management-in-the-energy-sector/?utm> accessed 21 February 2025 p. 30-36

creating stronger and or more resilient smaller players to create more effective competitive constraints in the market.

5.5 Supplier of Last Resort

The system employed by the ACM in relation to the supplier of last resort mechanism is generally quite concrete and in line with the requirements set out under the EMD, where in case of risk of insolvency, the license of the distressed supplier is revoked and consumers transferred to a designated supplier of last resort (who has been designated beforehand). In addition to the transfer of consumers, data on consumers is also transferred to the new supplier within the period of twenty days. Considering its role as a last line of defense in preservation of security of supply, the SoLR regime takes decisive action where market forces are unable to guarantee continued supply to a consumer and usually operates as a form of crisis response. As discussed in Chapter 3 and 4, SoLR regime poses distortionary effect not only towards energy suppliers in the form of license revocation and immediate consumer transfer but also toward the consumer itself by providing uncompetitive prices post transfer to the new supplier. This scenario has also occurred within the Netherlands in the aftermath of the energy crisis, where many consumers were left with higher prices as a result of energy supplier insolvencies. Which led to the market being left more concentrated post forced exit of several suppliers under the SoLR regime in place.

The regime imposed under WHOA cannot directly maintain the insolvent suppliers on the market, considering that most of their customer-ship would have been forcefully removed and in any case the specific regulatory regime in place in the form of SoLR would most certainly take precedence over any other general legislation such as WHOA (SoLR regime would be *lex specialis* or *ultimum remedium*). Congruently, the role of WHOA could still be significant in limiting the negative competitive effects to short term rather than long-term. Specifically, where WHOA could play a role is post revocation of the license, where the supplier might still possess possibility of returning to the market. The tools described under WHOA, such as debtor in possession or stay on enforcement action could create room for asset restructuring and good faith negotiation, however more pertinent to any such return would be the protection of new financing guaranteed under WHOA. Where the previous tools help the debtor in maintaining its assets, protection of new financing could create opportunities for returning to the market by ensuring that suppliers could meet the stringent prudential requirements necessary to attain their license. Without such protection under WHOA it would be hard to imagine an investor having the confidence in a supplier where it has no guarantee that any subsequent investment would not go toward the repaying other creditors, as

opposed to restructuring and reinvestment. Therefore, if WHOA is to allow for more chance in return of distressed suppliers, it would support the current SoLR regime in balancing the principle of competitiveness with security of supply, by ensuring that the number of competitors does not decrease or is restored in the long term and more practically on the consumer side, provide lost customer-ship with a familiar option at a previous market price as opposed to the one provided by the SoLR.⁶⁷

Restructuring tools in the context of SoLR acts as a remedial tool, dealing with the consequences of license revocation experienced by many Dutch energy suppliers during the energy crisis. Such would provide an option of realistic rehabilitation of these energy suppliers, a tool which is currently not provided under the current energy supplier regulation. In doing so, WHOA poses a direct way in which gaps in competitiveness can be resolved within the current energy risk obligations under the EMD.

Remarks on the chapter

This chapter has used the theoretical insights developed in Chapter 4 and situated such insights within the context of the Netherlands, incorporating its market specifics (in relation to PPA's) and its legal transposition of both regimes. The case study within this chapter has displayed that the restructuring tools have not only theoretical but also potentially more practical and realistic role to play in aiding an energy supplier market which has been affected by a significant wave of supplier insolvencies post the energy crisis. More importantly it underlined the outlined theory on the nature of the relationship between the two regimes and its tools further, displaying not only interaction but complementarity and potential room for a symbiosis.

Chapter 6 Discussion, Future Policy and Conclusion

6.1 Restructuring Tools' Interaction with EMD Obligations: Aligned or Not?

Ostensibly, the breadth of Chapter 4 and 5 focused on the points of interaction between the restructuring tools under the Directive and the current energy supplier risk related regulation under the EMD. In establishing the points of interaction between the two regimes, the previous chapters define the type of interaction that occurs between the regimes or otherwise the nature of the relationship. A general conclusion

⁶⁷ European Union Agency for the Cooperation of Energy Regulators (ACER) and Council of European Energy Regulators (CEER), *Energy Retail and Consumer Protection Market Monitoring Report 2023* (September 2023) https://www.acer.europa.eu/sites/default/files/documents/Publications/2023_MMR_Energy_Retail_Consumer_Protection.pdf accessed 21 June 2025.

that can be drawn from the conducted analysis is that the regimes are complementary, first on a level of their inherent mission/philosophy (both labor to prevent insolvency on the market and ensure investor confidence in the distressed firms) but also on a more practical level of the tools, albeit to a varying degree of directness, intersection and complementarity depending on the tool in question.

As mentioned above, both regimes by the nature of their design and the identified trends within both, have features which possess a similar philosophy and goals. Concretely, where the trend and or goal of the restructuring currently prioritized rescue, if possible, over orderly market exit, the energy supplier regulation prioritizes orderly market exit. *Prima facie* this would signal a divergence in philosophies between the regimes. However, elements of EMD and energy risk hedging strive towards prevention of insolvency or financial distress of suppliers (with the notable exception of SoLR mechanism). This in turn posits the EMD and its tools in consensus with the Preventative Restructuring Directive, where prevention of insolvency is the goal rather than mitigation of insolvency consequences. Therefore, a throughline that can be identified in the analysis of previous chapters is that both regimes although through different means aim at the same goal.

Roots of both regimes

Both Directives are products of urgency and or crisis, which inherently drives any initiative toward reflection on what went wrong and how to prevent such in the future, hence focus on prevention. This point of interaction cannot be understated, considering it points to both the strengths of such both Directives (prevention) and gaps (short-term crisis led optimism). The criticism of EMD (discussion in Chapter 3) and the Restructuring Directive (discussion in Chapter 2) in essence are in a similar vein, where the drive to reform leaves nuance peripheral to the discussion. For example, under the EMD competitive dynamics are compromised by the drive to ensure security, similarly under the Restructuring Directive the drive to provide distressed firms with security by compromising natural market dynamics (zombie companies stay afloat and resources are unavailable to viable firms). In both cases, security posits as paramount factor at the core of both directives, leaving natural market forces whether that be competition or efficient resource allocation in the market compromised to some degree. This point is not to criticize or demerit intervention by directives but only to point out further similarities between the two in their underpinnings. Beyond their goals, the interaction between the regimes is superficially there, where energy suppliers are firms engaged in a volatile energy market are prone to experiencing financial distress and pertinently insolvency. This in turn positions any energy supplier theoretically engaged in restructuring at the intersection of both regimes. In this scenario, the interaction points delineated in the previous chapters allow for definition of such relationship between the two regimes.

Relationship between the two regimes

What can be concluded is that the relationship superficially is at best contentious and at worst unrelated, however upon closer inspection of actual tools employed by both regimes and their interaction, it can be deduced that the relationship is in fact complicated and varying depending on the tool but also complimentary in several aspects. This complementarity in goal and in certain circumstances function (i.e., supplementary function of prudential regulation) allows us to posit that the role of restructuring tools is potentially significant in aiding the current regime under the EMD in its gaps in relation to coverage of risk hedging (PPA's), enforcement of risk hedging (prudential regulation) or mitigation of its negative effects in relation to competitiveness (SoLR).

At its core, this thesis is examination of regimes which intersect but so far do not substantially interact in practice and a question which is pertinent to ask is if such lack of interaction is a result of regulatory omission or inadequacy of restructuring in the energy market? The reasons for such lack of real-life interactions are truly hard to establish without more in-depth concrete research in the area which would be potentially unfeasible for this thesis considering its scoping and focus on energy law principles as its normative framework. However, for the purposes of this chapter, it is important and more feasible to ask, whether the current lack of interaction is a lost opportunity in promoting the same goal of reducing risk of insolvency through regimes outside EMD? The answer to that question would be potentially, dependent on numerous factors related to actual implementation and more unpredictably behavior of energy suppliers in response to the emerging EMD obligations. In addition, it must be pointed out that the regimes although laboring toward the same goal of insolvency risk reduction, go about it at rather differently, specifically where both regimes interact with the risk reduction through a contrasting understanding of the problem. Concretely, the EMD and the regime under it reforms the design of the electricity market to reduce the risk of the market itself and hence change behavior of market players through such design (a top-down approach mainly), on the other hand the Restructuring Directive attempts to reduce risk of insolvency through more tactical steps, where the process of restructuring is simplified and protections are ensured for its successful realization alongside with fostering a more aware debtor through early warning mechanism (a bottom-up approach with some top-down elements). This differing approach toward insolvency risk is not necessarily a problem but rather an opportunity at a more complete strategy in tackling the problem. Specifically, where the top-down regulation under the EMD reduces systemic risk, the tools under the Directive could allow for a realistic way to realize enforcement of such a de-risked system through detection and realistic prevention with legally enforceable tools which have been mainly sufficiently transposed across the Union. This exemplifies yet again that not only that the regimes are complimentary on a theoretical/philosophical level but also potentially on a policy level.

6.2 Summary of Findings: Balancing Principles and the Normative Framework

The implementation of the normative framework has been mainly performed in Chapters 4 and 5 however the point of this subchapter is to structure the main findings of this thesis in relation to the normative framework in a more concrete form. Considering the theoretical nature of this thesis the estimations are mainly based on perceived interactions and their extrapolated effects (see Chapter 4) alongside with contextual background from secondary sources. The table below shall depict three examined tools under the EMD and assess the role of restructuring tools under the Directive in their interaction, nature of their relationship and more pertinently estimate its balancing effect in relation to energy law principles.

Tool	Role	Balancing Effect	Brief Description of the Balancing Effect
<i>Power Purchase Agreements</i>	<u>Complementary role:</u> Extension of Power Purchase Agreement-like effects to smaller energy suppliers unable to access Power Purchase Agreements due to their size or creditworthiness.	Moderate and indirect	Does not directly limit anti-competitive effects of PPA's but does provide the benefits in terms of security of supply by making smaller suppliers more financially prudent and more insolvency proof (therefore more attractive to investors and producers and

			more stable providers of energy for the consumer) increasing their competitiveness as a result (better probability at surviving financial distress). Therefore, promoting both principles to some extent although to a moderate degree due to its indirectness and high dependency on small supplier behavior.
<i>Prudential Regulation</i>	<u>Supplementary role:</u> Supplementing the supervision and enforcement of prudential regulation.	Moderate and indirect	Does not directly diminish the negative effects of prudential regulation on entry barriers, however, does allow for a more thorough and balanced

			supervision and enforcement of prudential regulation. By lightening the asymmetrical bureaucratic load on smaller suppliers through free self-assessment tools (early warning mechanism) which in turn could lead to a supplier who is more shock averse or financially prudent, this in turn not only allows for less disruptions in security of supply but also a more resilient competitor. Therefore, by reinforcing the prudential regulation to become more effective, it
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			fosters more stable supply from smaller players and ensures their competitiveness due to their resilience.
<i>Supplier of Last Resort</i>	<u>Remedial role:</u> Rehabilitation of suppliers post license revocation.	Strong and direct	Unlike other tools the effects on competitiveness both structurally and effects wise are more tangible here. SoLR guarantees security of supply concretely however severely undermines competitiveness. Restructuring tools play a potentially pivotal role in returning suppliers to the market which lost their license post distress. Through its

			toolbox and most importantly through its protection of new financing the Directive can allow for eventual return of distressed supplier on the market post-restructuring and to meet requirements of its licensing yet again. Such in turn would allow for not only structurally more competition (more competitors on the market) but also a more competitive price on the market for consumer (old price before SoLR transfer). This offers the most concrete and direct effect on aiding the
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			balance between the principles within the gaps of the EMD.
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The findings displayed in the table above underline the type of aiding role restructuring tools can play in the context of each energy risk hedging obligation. The complementarity and importance of restructuring tools in aiding the current regime under the EMD in tackling supplier insolvency is prominent. The importance and role of restructuring tools further varies per EMD obligation, where certain restructuring tools are more involved than the rest depending on the context (i.e., early warning mechanism is more important in prudential regulation than other restructuring tools due to its supplementary role in enforcement). However, a wide lens perspective would yield that in sum the role of restructuring tools has a part to play in aiding the current regime in tackling supplier insolvency.

On the other hand, the findings in the table highlight that although the importance of tools is there, its balancing effect in relation to the principles varies more significantly. Specifically, where in relation to PPA's and prudential regulation restructuring tools possess some indirect effect on balancing, the effect itself is rather moderate.

Restructuring tools and PPA's: Balancing effect

More concretely, restructuring tools provide similar effect to PPA's for smaller suppliers and through such promote their competitiveness by reinforcing their resilience toward financial distress and attractiveness for investors. However, such effects although in theory similar to PPA's still would not yield the same stability in price that PPA's fundamentally provide. Moreover, although a reliable and enforceable restructuring process (safety of investment) plays a significant role in decisions of an investor, a PPA might still provide more concrete and direct assurance to investors comparatively. These factors are important criticisms toward the balancing effect (in relation to the principles) of restructuring tools in the context of PPA's. Mainly because these factors would still limit the extent to which smaller suppliers would be rendered more resilient/competitive in the eyes of investors. This in turn could limit the extent to which the negative competitive effects of PPA's (exclusion of smaller suppliers) could be tackled or remedied by restructuring tools. Therefore, although the balancing effect is there, it has its limitations.

Restructuring tools and prudential regulation: Balancing effect

Akin to PPA's the effect of restructuring tools on prudential regulation is also potentially important but also limited in some capacity. Specifically, the restructuring tools and more precisely the early warning mechanism (both its top-down and bottom-up model) could alleviate some of the bureaucratic burden imposed by prudential regulation under the EMD. As mentioned earlier, this bureaucratic burden is asymmetrical in implementation, where smaller suppliers could be burdened much more significantly than larger ones, further precluding their entry on the market. Restructuring tools (specifically early warning mechanism) could aid in the ability of a supplier to meet the bureaucratic burden through publicly available self-assessment tools. Additionally, the bottom-up model employed by the early warning mechanism can foster a more prudentially responsible supplier, further aiding in security of supply. Moreover, the top-down model also adopted by the early warning mechanism could aid the current regime in enforcement. Alerting the appropriate authorities through reporting obligations placed upon auditors and ensuring that the financial health of suppliers is appropriate in-between regulatory checks. All of this has a positive effect on security of supply. However, the limitations of restructuring tools in the terms of their balancing effect are also quite stark. Notably, although ensuring more effective enforcement of prudential regulation (promoting security of supply) restructuring tools do not limit the entry barriers prudential regulation imposes on smaller suppliers through strict financial requirements. In turn not significantly limiting its effects on competitiveness principle. Therefore, although acting as a potentially important supplementary tool in enforcing security of supply through prudential regulation, the balancing effects of restructuring tools is limited considering the factors mentioned above.

Restructuring tools and SoLR: Balancing effect

In contrast to other EMD obligations, restructuring tools could play a more significant and direct role in balancing the two principles within the SoLR regime. Notably, the SoLR regime does not possess significant gaps in relation to its effects on security of supply (unlike with PPA's and prudential regulation), therefore its main gap remains in its direct effect on the principle of competitiveness. Concretely, through its revocation of supplier license and transfer of customer-ship to the appointed (often large supplier) supplier as discussed in Chapter 4.4. In this context, restructuring tools could pose the most direct and strong balancing effect comparatively to the other obligations under the EMD. The restructuring toolkit combined (with the notable role of protection of new financing tools) provides a remedial role. Meaning, where the current regime does not provide a realistic opportunity for suppliers to return to the market, restructuring tools attempt in plugging that gap by providing such an opportunity. In turn this remedial role, does not only tackle the structural competition concerns (number of players does not diminish and or is remedied post return) but also potentially its direct effects on the consumers (SoLR rates often higher than

with the previous supplier, therefore the return of the previous supplier could bring better prices to consumers through either more competition or a previous rate the consumers enjoyed prior to market exit). Therefore, restructuring tools could play a central role in rehabilitation of suppliers who lost their license post financial distress and through such remedial role improve the gaps in the principle of competitiveness and in turn balance the two principles.

6.3 Potential Policy Implications and Recommendation

At the center of this thesis lies the exploration of two regimes which ostensibly do not share significant overlap in literature or expertise. By bridging the two regimes in the context of crisis mitigation, the thesis contributes to first steps towards merging the two silos which do in fact intersect and overlap in competencies, however for varying reasons have not been explored in-depth yet. Through the exploration of this relationship, the thesis concluded that the relationship is in fact complementary and beneficial in varying degrees depending on the tool. The benefit is both in the context of ensuring better supplier risk hedging (security of supply) and in some tools in the context of competitiveness on the electricity market (SoLR).

Recommendation

A potential area in which the findings of the thesis can be helpful are primarily in the relation to the balancing effects of restructuring tools within the gaps of the SoLR regime. Although, the role in other tools such as prudential regulation and PPA's is veritable, the effects in relation to SoLR are most direct and prominent. It is important to note the fact that in theory both regimes intersect and have opportunity for collaboration. However, they have not yet been concretely mixed in practice, which would therefore render the policy recommendation of this thesis rather broad. Specifically, based on its findings the thesis would call for regulators to not only explore in ways which restructuring laws could intersect with supplier risk obligations but also explore more concretely ways in which contractual obligations under the two regimes intersect more concretely (i.e., PPA obligations and stay on enforcement action or creditors contractual rights). In addition to a call for more exploration, a potentially veritable way in which restructuring tools could be more tailored to the needs and specifications of a regulated electricity market would be through stronger involvement of the competent national authority in the process. Considering the importance of security of supply, it would imperative that any restructuring process and its tools not interfere with the stability of electricity to consumers. Therefore, a more active role of the regulator in such matter would ensure that rights afforded by the restructuring regime not impair the security of supply or interfere with the functioning of the electricity market. Congruently, such involvement can run the risk of excessive

intervention into private tools, therefore any such involvement would have to be done only after thorough investigation into the interaction between the tools by the regulator.

The thesis further argues that the current approach taken by the EMD only addresses systemic risk within the electricity market. However, this purely top-down approach does not incorporate the opportunity to address supplier insolvency in a more rounded manner. Insolvency or financial distress is not often a matter of public regulation, rather on the contrary the current developments in the regime within the Union has afforded private tools to tackle it (Restructuring Directive). Therefore, in dealing with energy supplier insolvency/financial distress, omission of restructuring tools as an element in the regulatory formula could be seen as a potential gap in logic. The incorporation of restructuring tools and insolvency law as a whole into current policy of energy supplier risk hedging could provide a more rounded regulatory approach toward the problem. An important departure for such mixes in regulatory approaches is also founded in literature on regulatory theory, furthering the argument for the importance of a more rounded approach.⁶⁸

6.4 Conclusion and Further Areas for Research

The thesis has embarked on a mission to answer the question of:

“To what extent are the current supranational insolvency and restructuring frameworks equipped to tackle challenges in energy supplier risk hedging within the EU and should they be reformed to balance principles of EU energy law?”

The thesis aimed to answer this question through the rigorous exploration of both regimes (Chapters 1,2 and 3) the interactions points between them and the practical application their tools (Chapters 4 and 5), nature of relationship and its effects on balancing the two energy law principles alongside with potential policy implications (Chapter 6).

In doing so the findings of the thesis could highlight the restructuring tools in their current format could have a significant role and application in balancing the principles within the gaps currently left by the EMD. Although some reform might be necessary for a more strategic regulatory approach (mainly stronger energy regulator participation in restructuring) the main conclusion is that the restructuring tools in their current form still can still be considered important in tackling energy supplier insolvency risk. This potential is best exemplified in the SoLR regime and to a lesser extent in prudential regulation and PPA's.

In the eyes of the author the main contribution of the thesis is in bridging the gap between two academic silos which have so far not shared significant overlap in literature however should. This belief pillars on the

⁶⁸ Gunningham N and Sinclair D, 'Smart Regulation' in Drahos P (ed), *Regulatory Theory: Foundations and Applications* (ANU Press 2017) ch 8 <https://press-files.anu.edu.au/downloads/press/n2304/pdf/ch08.pdf> accessed 26 June 2025.

findings of the thesis which reveal that both regimes overlap in the goal of prevention of insolvency and in addition in varying intensity complement one another in tackling the problem. Considering the privatization of the electricity market, private tools such as restructuring could play a significant role in mitigating insolvency, which it already plays in other sectors of the economy. The thesis hopes it has highlighted to the reader that the intersection between the regimes and their tools is there and more pertinently so are the benefits of such intersection. This thesis attempts to be one of the building blocks for future research in exploring the complicated but necessary interplay between private remedies such as restructuring tools in not only the electricity market but also other public utilities which have experienced liberalization.

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