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COMPETITION COMMITTEE**

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Working Party No. 2 on Competition and Regulation

Competition in Energy Markets – Note by Spain

28 November 2022

This document reproduces a written contribution from Spain submitted for Item 3 of the 74th OECD Working Party 2 meeting on 28 November 2022.

More documents related to this discussion can be found at
www.oecd.org/competition/competition-in-energy-markets.htm

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*Spain**

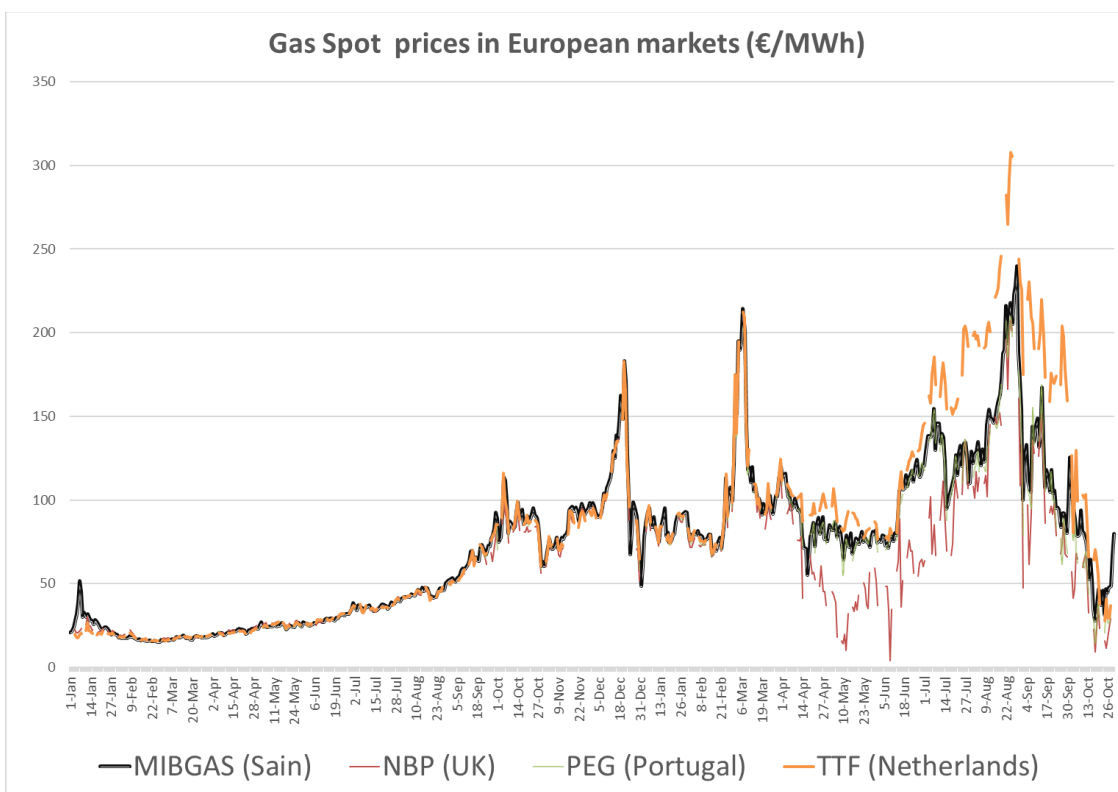
1. This contribution describes some of the new challenges to competition arising from the energy crisis.
2. We describe some of the urgent measures undertaken by the Spanish Government addressed to deter energy costs hike impact on businesses and consumers.
3. We also describe some of the preliminary evidence that these measures have had on market from the competition perspective and the potential reinforcement of incumbents' market position.

1. Precedents

4. Certification of Nord Stream 2, the second high-capacity gas pipeline connecting Germany to Russia, triggered the first energy convulsions in the summer of 2021. German regulator showed reluctance to give the green light to this pipeline when Russia claimed its intentions to bypass the Yazof-brotherhood Ukrainian pipeline. That would endanger the security of gas supply for Europe and put Ukraine in political weakness in the face of Russia.¹
5. As the disagreement aggravated with the real warlike intentions of Russia over Ukraine, gas prices heated in the Title Transfer Facility - more commonly known as TTF - , a virtual trading point for natural gas operating in the Netherlands and the reference for gas prices across Europe. Even if in the early stages of the war, no shots of gas flows occurred, fear of gas shortages in the coming weeks induced severe volatility in the spot and forward prices at the TTF.
6. As a recall, gas prices rose from 20 €/MWh in May 2021 to over 70 €/MWh in September, more than 100 €/MWh in November 2021, reaching never experienced maximum of 140 €/MWh. During the first weeks of 2022, the markets suffered high volatility and a jump in price levels that consolidated after the war and spiked to 300 €/MWh last summer. Price spikes were always related to Russia's actions to cut the gas flow to Europe.
7. Progressively, other gas marketplaces with lower expositions to Russian gas supplies, such as MIBGAS in Spain or NBP in the UK, decoupled from the TTF on spreads up to 50€/MWh or 70€/MWh. Recently, markets relying on LNG supplies fell below 30 €/MWh, at pre-crisis levels. Filled storage rates over Europe and uncommon warm autumn temperatures have depressed demand and have induced gas quotes to unexpectedly low levels. Likewise, the EC announcements on gas price interventions would have contributed to higher volatility and unpredictability of market prices.

* This contribution has been prepared by the staff of the CNMC and shall not be regarded as the official position of the CNMC unless it refers to CNMC approved documents.

¹ [ACER's Final Assessment of the EU Wholesale Electricity Market Design](#)

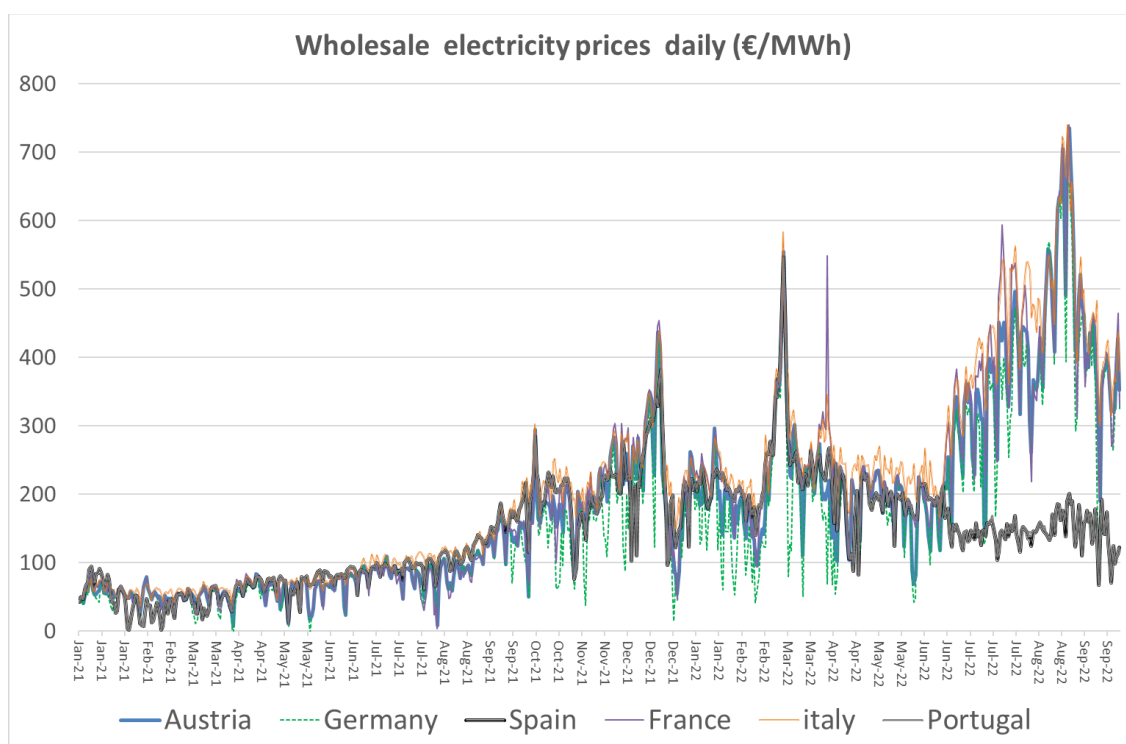


Source: CNMC

8. Gas shock also dramatically impacted the electricity spot price because combined-cycle gas turbine (CCGT) plants usually are the marginal technology to cover power demand in most European wholesale markets. The price of gas - mostly referred to TTF quotations—fixes these plants' variable costs. In the months following the beginning of the conflict, European electricity marketplaces doubled or tripled spot and forward prices.

9. As per the electricity market design, the highest marginal cost supplier sets the marginal price for all energy produced. Thus, any generation plant production in the market, regardless of their variable costs, such as nuclear, solar, hydro, wind, or other renewables, gets compensation at the same marginal price.

10. Inframarginal plant production on bilateral contracts at fixed prices initially protected some consumers from higher spot electricity prices. Nonetheless, high prices are progressively being transmitted to electricity bills as the high-level prices episode continues and bilateral contracts expire and the cost of coverages increases.



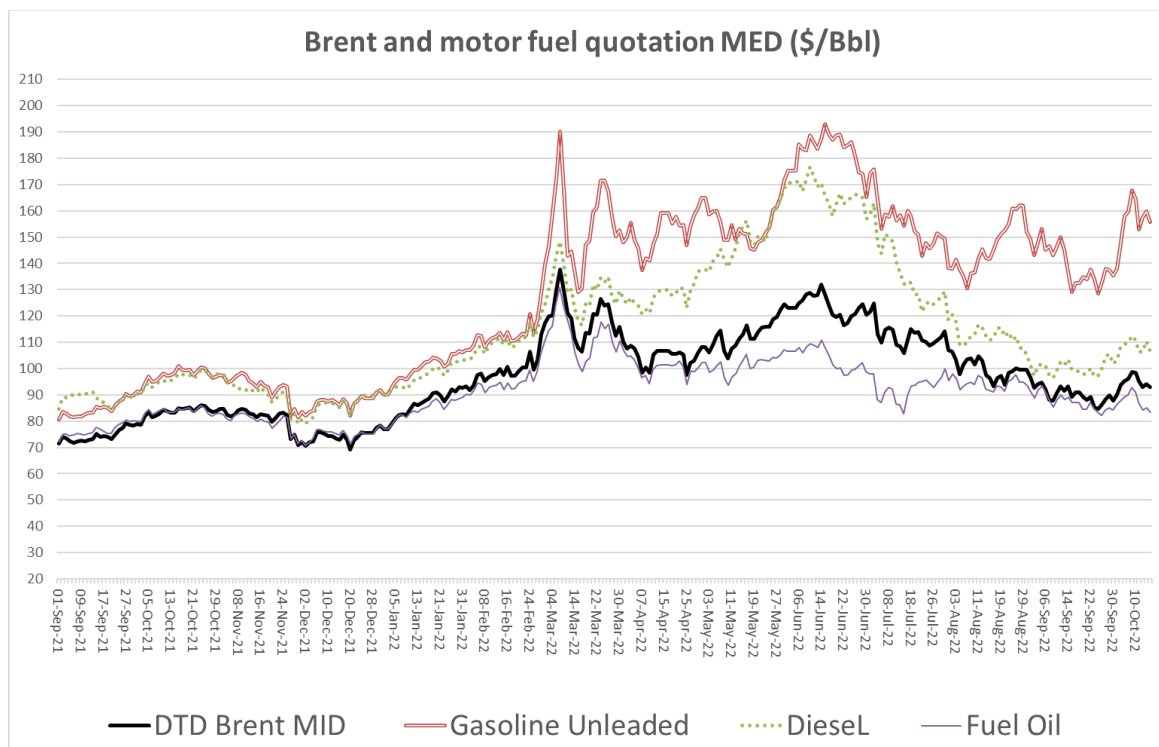
Source: [Ember](#)²

11. Together with the gas prices, global oil prices started increasing too, as Russia is one of the biggest oil world producers; the Brent reference doubled during the first quarter of 2022.

12. Additionally, sanctions on Russian products pushed diesel prices to extremely high levels, uncoupled from its oil reference price. Probably, markets have never experienced neither the 2022 spread diesel - brent and high refiners' margins, nor such great earnings in the midstream oil activities.³

² This dataset contains average hourly, daily and monthly wholesale day-ahead electricity prices for European countries. Hourly data is provided as a .zip file to reduce download size. Prices generators receive for selling electricity on the spot market. They are not the same as the prices paid by electricity consumers, which can also include taxes, levies, network charges, subsidies, and some supplier profits. They also do not account for hedging. For an explanation of how spot prices are formed,

³ Russia refineries produced most diesel for European consumption before the war.

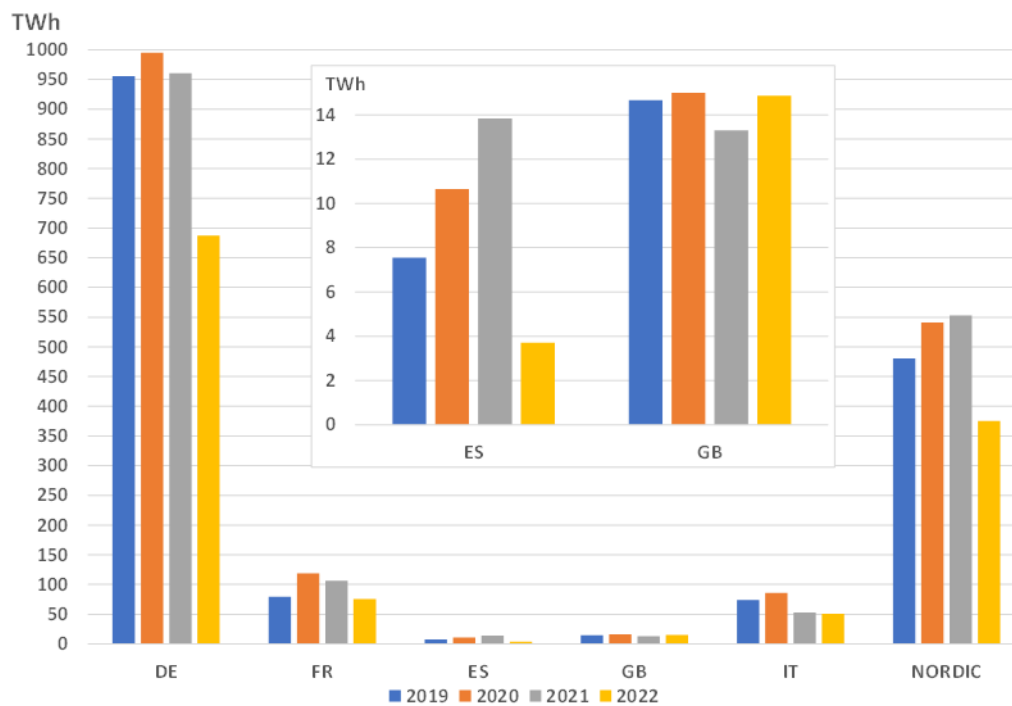


Source: CNMC elaborated from Platts reports.

13. In short, since the beginning of the Russian conflict, most organized energy markets in Europe have experienced extreme volatility in the short, medium, or long term. Particularly in gas and electricity, there is a severe concern about energy affordability. These electricity high price signals are being questioned.

14. Medium and smaller traders' viability is at risk as volatility around much higher average price ranges has also increased the costs of deposits required to trade in forward markets. Moreover, no collateral options exist to constitute the compulsory warranties. Just big companies can financially afford such a raise of provisions to keep operating in this context. Furthermore, liquidity in forward markets has shrunk since the beginning of the crisis. Fast market situations in gas markets show that not even market makers could anticipate such volatility and present quotations on particular days.

Cumulative volume of trading in the European electricity futures markets (January to august)



Source : ACER

2. Energy Crisis and Competition in Spain

15. The energy sector is open to competition in oil and gas supply, electricity generation, and retailing. Incumbent operators coexist with new entrants, holding strong market positions in most of these activities. They retain the property of distribution grids too on a third party access basis. Thus, traditional energy companies have an integrated property structure in supply, retail, and distribution activities.

- In the electricity sector, the three larger incumbent operators own most non-replicable generation plants – nuclear and hydro – and have invested in renewable and CCGT plants. They collectively hold a high market share of gas and electricity retailing, as they initially invested too in the gas supply chain. They hold electricity distribution grids but have no transport activities.
- In the gas sector, the first incumbent operator has a strong position as regards long-term gas contracts, electricity assets and distribution networks. Other smaller distributors sold their assets to new stakeholders. Some big energy suppliers, among them electricity incumbents' operators, participated in the gas interconnection with Algeria and signed long-term LNG supply contracts with producers. No integrated company retained property over high-pressure pipelines or regasification plants, unbundled by law from suppliers.
- In the oil sector, the refinery activity was split into three companies: a large national incumbent operator and two other oil companies. The three resulting companies

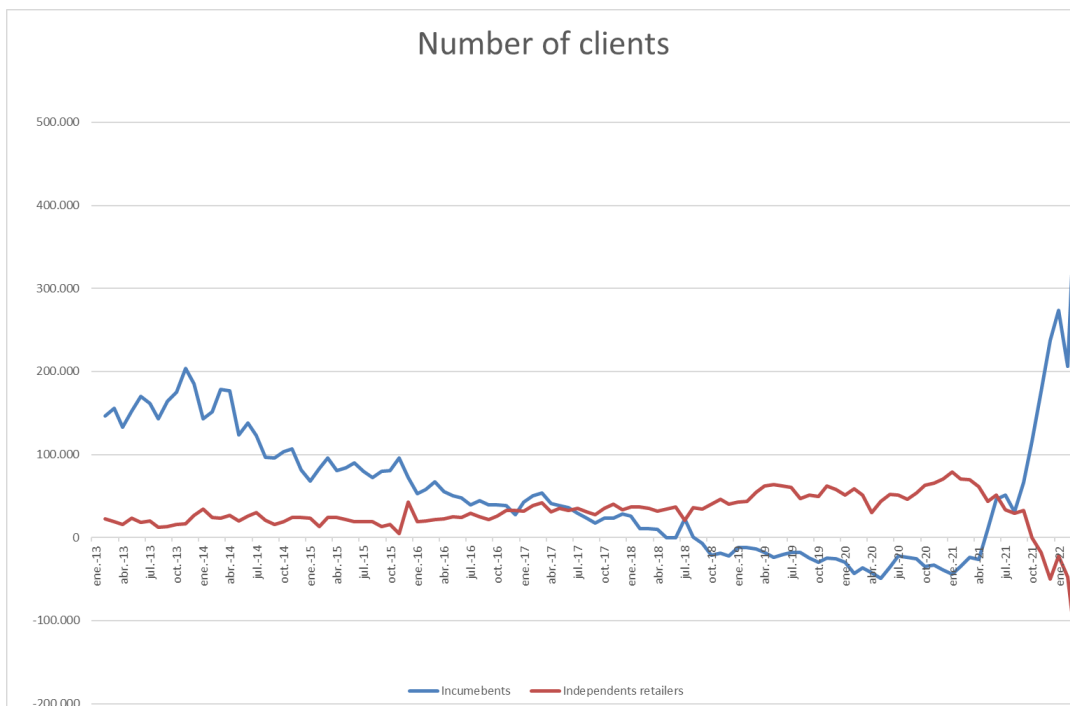
have their network of brand gas pump stations and make both exports and wholesale of oil derivatives to other operators and large consumers.

16. The energy crisis would not have affected all energy business models equally. The incumbents' operators integrating the supply/production and retail activities have a natural coverage and are better protected from market disturbances.

17. On the contrary, small independent electricity retailers fell exposed to the high market disturbances. They had traditionally based their business model on trading portfolio opportunities offered by organized markets and mainly operated in the spot market. They were rarely using the peer-to-peer figure. Few of them had financial coverage instruments, as marginal prices had been historically low, offering a good scope for competitive retailing. As the predictability of markets failed, so did this sort of retailing activity.

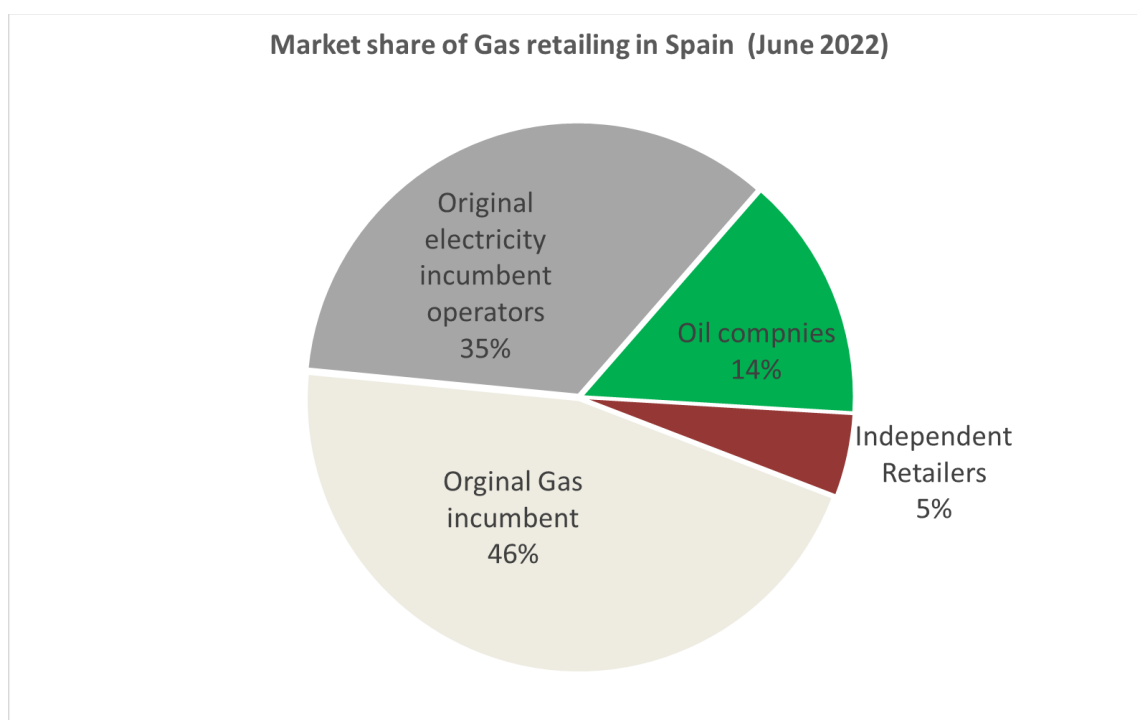
18. Unfortunately, more cautious traders, as the crisis prolonged, exhausted their coverages too, and their renewal became extremely difficult. Most importantly, their financial costs and warranties volumes raised with prices and risk prime downgrades.

19. In the first quarter of 2022 the three incumbents' operators reached a 80% of sales/consumers in electricity retailing; they gained 400.000 new customers from independent retailers, a 7% share. According to an independent retailers' association, this evolution has intensified and around 2 million consumers have switched to the three traditional incumbents.



Source: ACIE (Association of independent retailers)

20. Retailers in gas have also struggled as problems with gas imports from Russia have undermined the price reference in the TTF and increased the volatility of spot prices. Vertical integrated and larger companies hold a strong market position in gas supply and retailing, which allows them to bypass disturbances.



Source: CNMC

21. Higher prices of Brent and posterior shortages in diesel supply from Russia have severely impacted motor fuel independent distributors' competitiveness, as fuel markets don't deliver such good supply opportunities to compete on low margins basis.

22. Oil operators with refineries assets current enjoy a privileged position, as they have secured a supply of diesel and refining margins are unusually high due to the crisis. The integration of fuel production and distribution puts them in a better position to compete in the domestic market.

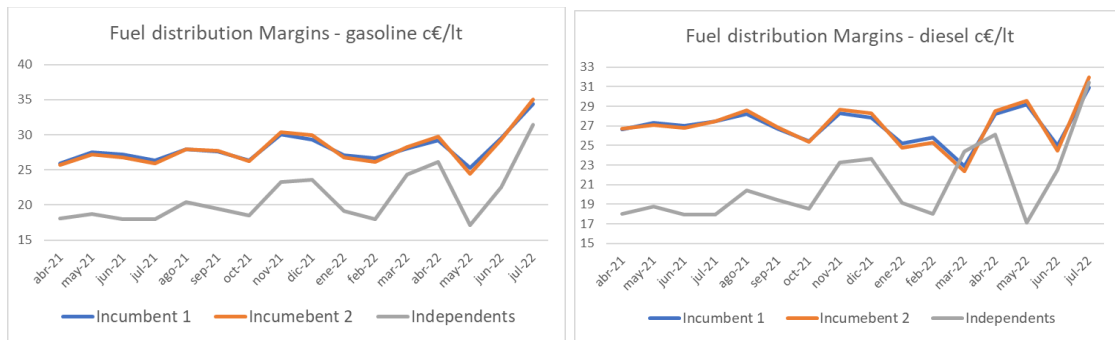
23. Oil markets liquidity is coming back and independent operators continue offering lower final prices, likely they reducing their retailing margins to stay competitive compared to traditional incumbent brands.

Average Price Sale of fuels in pump stations by operator July 2022 (€/lt)

	Gasoline	Diesel
Incumbent operators	2,033	2,003
Independent operators	1,992	1,950
Shopping centres	1,977	1,946

Source: CNMC

24. Gross margins between independent and integrated companies seem to have converged since mid-February 2022. Nowadays, no information on sales per brand is available to determine the impact on fuel-market competition.



Source: CNMC

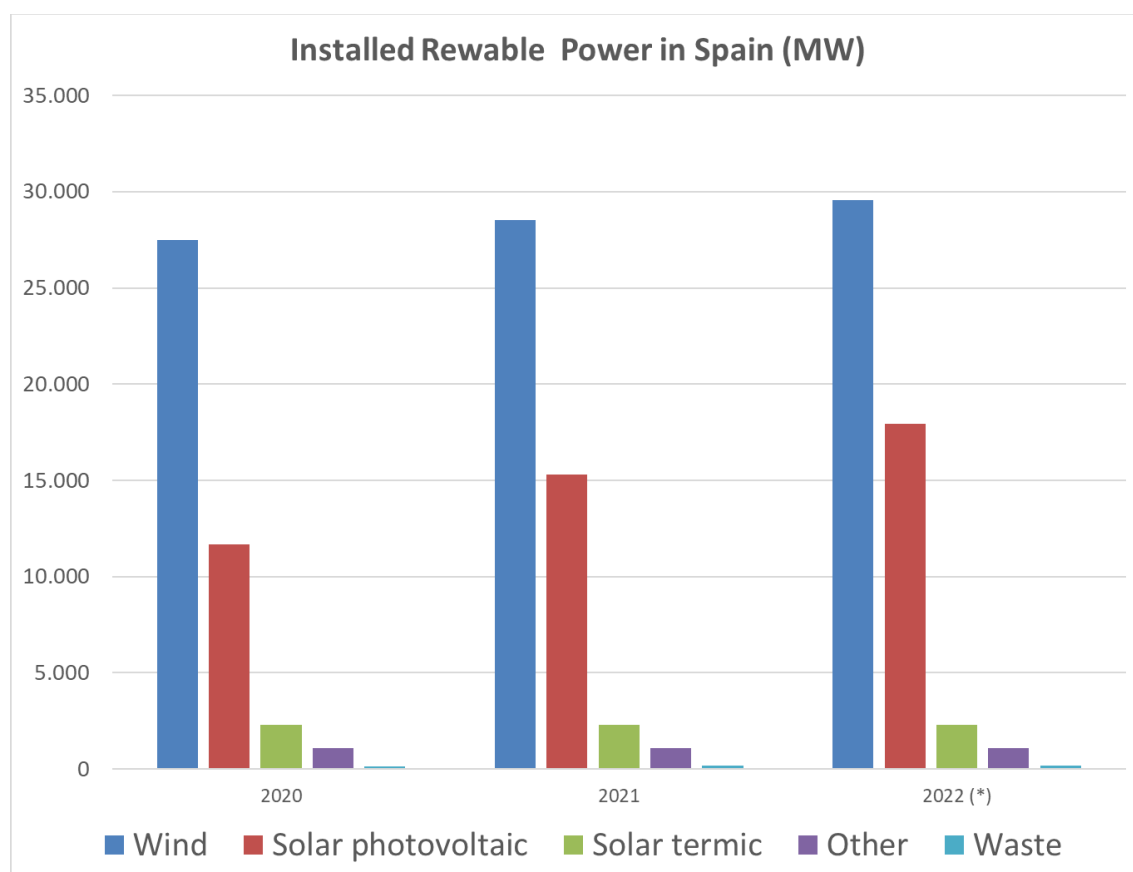
25. Small renewable plants and self-consumption is developing quickly, so they are expected to contribute to affordable energy prices for consumers in the electricity sector in the future.

26. Many renewable production companies are integrated with retailing activity and have shown better resilience to the energy crisis. Some plants held historical commitments with big retailers or traders and did not benefit from price raises; a large portion of the regulated regime also had fixed margins.

27. Nowadays, 44% of installed power, aside from hydroelectric plants, are new renewable plants – mainly wind, solar, and waste -. There is a tremendous solar energy progression linked to self-consumption deployment; solar photovoltaics grew in 2021 by 37%, and according to the distributor companies, the installations will go from 62,000 in 2021 to 215,000 in 2022.

28. Costs of renewable have gone very competitive in recent years. The 2021 renewable power auction had a remarkable result, which awarded 3,124 MW at a weighted average price of €30.59/MWh. The cheapest technology was onshore wind technology, at €30.18/MWh weighted average price, followed by photovoltaic, at €31.60/MWh weighted average price.⁴

⁴ [CNMC Press Release](#)



(*) Until October 2022

Source: Redeia

29. The energy crisis has encouraged renewable deployment and appeal in other electricity supply models, such as energy communities. Severe regulatory barriers, technical issues, consumption habits, and access to distribution networks are the main challenges to speeding up new renewable projects.

30. In this context, distribution grid ownership of incumbent electricity operators may lead to a conflict of interest. Releasing the distribution grid capacity to a broad alternative of distributed generation and self-consumption may hamper their market position in electricity generation and retail.

31. The financial statement of the three incumbents in gas and electricity show an extraordinary performance since the beginning of the crisis. They declared better results in incomes and benefits than expected for 2021 and the first quarter of 2022.

32. Companies linked to the renewable business, either in engineering, promotion, or electricity production, delivered excellent performances in 2021 and the first quarter of 2022. Their perspectives on growth and order book have improved their economic value.⁵

33. World oil integrated operators declared very good results. The first oil Spanish company, Repsol, reached its highest benefits in 10 years in 2021 and has announced the first-semester performance of 2022 has doubled the previous year's.

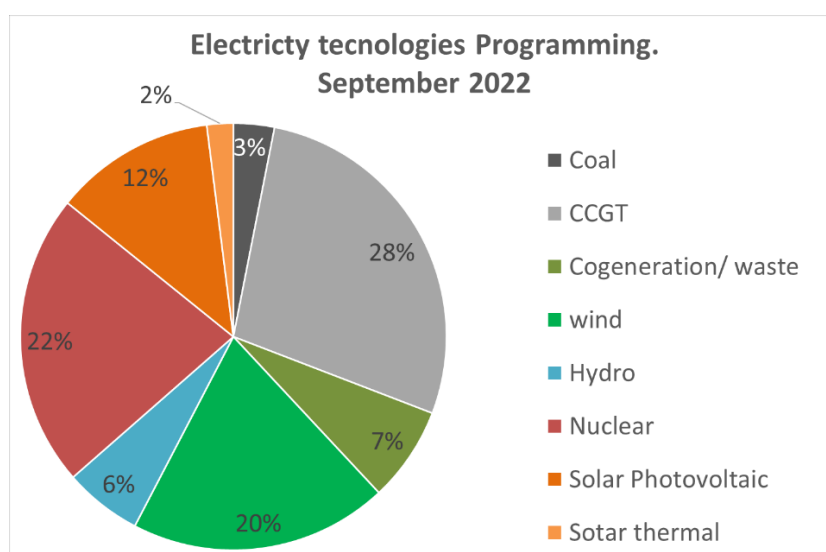
⁵ Several press releases and consulting reports confirm high interest in the renewable sector as well as the stock value of the biggest companies.

34. On the other hand, small retailers, with no coverage in production, have gone out of business or are struggling to stay afloat. They claim measures to solve the lack of own-generation plants, public endorsement to compensate for their credit downgrade, and the removal of some intervention measures.⁶

3. Measures undertaken in Spain and Competition Impact

35. Energy shock has been particularly harmful for Spain, which is high fossil energy dependent, road transport intensive, and a major food industry.

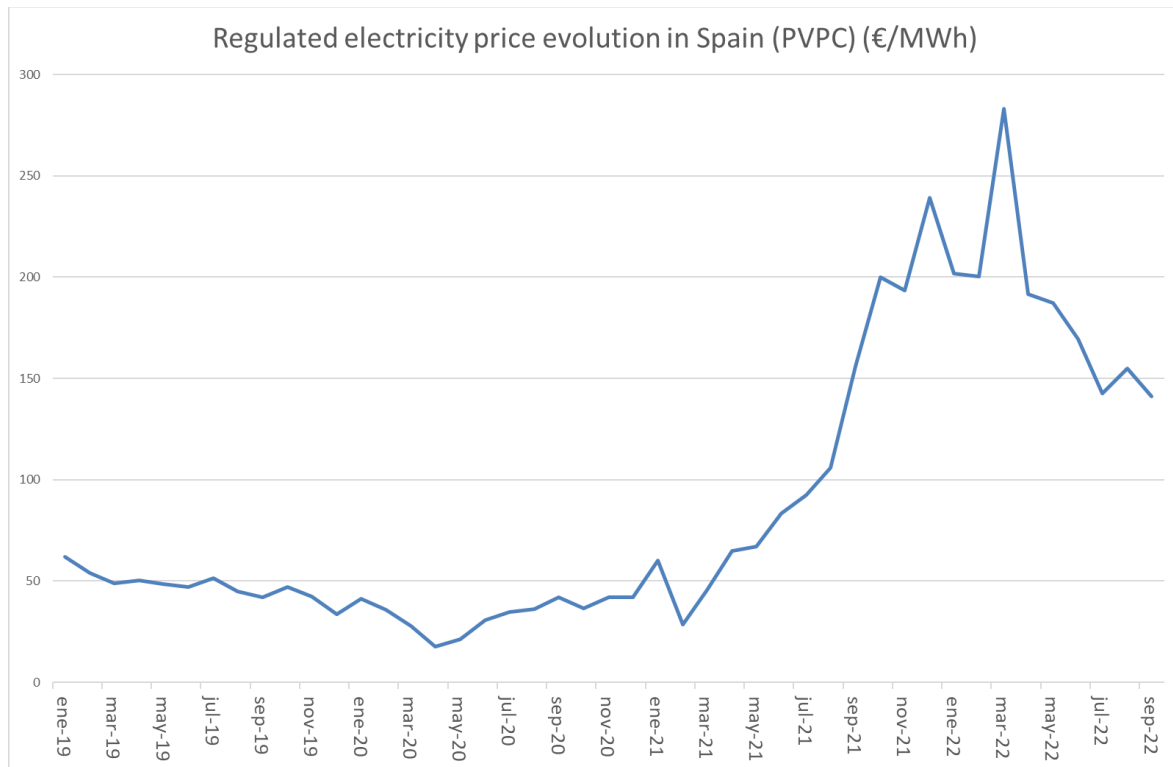
36. Moreover, Spain suffers from a high exposition to gas prices through the electricity market; on the one hand, CCGTs' bids often mark marginal electricity prices; on the other hand, marginal electricity prices fix the household and SME regulated price.



Source: OMIE

37. Thus, from the early stages of the energy shock, the electricity bill for domestic or SME consumers sharply increased resulting in a higher inflation rate. Fuel and food higher prices contributed too to further inflation pressures.

⁶ [ACIE](#)



Source: OMIE

38. The threats of permanent damage to the Spanish economy and the affordable energy objective for consumers and companies urged the authorities and the parliament to adopt measures over energy markets since June 2021. As energy market perturbances increased, the Government intensified actions.

39. Not aiming to be exhaustive, the most important or decisive measures implemented in Spain and their impact are described in following headings:

3.1. Measures to protect most vulnerable consumers and industries

40. These measures include aid to low-income consumers, autonomous carriers, small farmers, or fishing communities. The government has progressively extended bonifications on the electricity price, reduced electricity tolls, or implemented tax reductions or new subsidies with no clear deadline. Some of these measures are:

- Electricity taxes reduction: VAT reduction in electricity from 21% to 10% for small consumers, reduction of the Special tax on electricity from 7% to 0,5%, suspension on taxation of electricity production.⁷
- Discounts for vulnerable consumers ranged from 25% to 80%. Progressively income thresholds and particular circumstances have been adapting to new economic scenarios, from COVID to the energy crisis. The finance sources of the bonification changed to ensure the cost is split among the rest of electricity consumers.⁸

⁷ Real Decreto-ley 12/2021 and Real Decreto-ley 23/2021

⁸ <https://www.bonosocial.gob.es/> Real Decreto-ley 6/2022

- 80% discount on electricity transmission and distribution networks tolls for electro-intensive industries.⁹
- Direct aids to gas intensive industries, such as paper and cardboard, glass, and ceramics.¹⁰
- Aid package specific measures for the agricultural and fishing sector.¹¹
- Direct aid for transport companies, particularly impacted by fuel prices raise (taxis and chauffeured cars, buses, autonomous carriers)¹²
- Public transport bonification on urban and train intraurban multiticket.¹³

3.2. Capping the regulated household gas price increase to a quarterly maximum of 5%.

41. In September 2021, the Government established a new method to determine the gas-regulated price for small consumers to prevent raises in the heating bill. The new methodology limits the regulated gas tariff quarterly increase to a 5%.

42. The Government has recently extended this gas tariff cap to December 2023, additionally extending subscription options to gas central heating buildings of apartments that share a boiler (popular in Spanish cities) under some energy efficiency conditions.¹⁴

43. Initially, the difference between the effective market price and the regulated maximum was computed as a debt with regulated retailers, to be recovered through posterior decreases of gas cost applied to the tariff. At that time, the scenario of high prices was expected to be short. After the extension to higher threshold consumers, the cost of the cap is going to be financed by 3,000 million euros of a budgetary credit and monthly settled with each regulated trader.

44. Four gas and electricity incumbents' operators are in charge of regulated supply, an activity for which they receive regulated compensation.

45. Independent retailers cannot replicate such low regulated prices and are abandoning the activity for smaller consumers switching to the regulated market, which has increased a 20% in the first semester. One of the largest independent energy retailers has recently quitted this activity. The impact of recent changes is expected to intensify the consumer drain of the free market.

⁹ Real Decreto-ley 6/2022

¹⁰ [Ministerio de Industria, Comercio y Turismo - Ayudas directas a empresas gas intensivas](#). Real Decreto-ley 6/2022

¹¹ Real Decreto-ley 6/2022

¹² Real Decreto-ley 14/2022. [Agencia Tributaria](#)

¹³ Real Decreto-ley 14/2022

¹⁴ Real Decreto 18/2022

3.3. Windfall profits detraction

46. In September 2021,¹⁵ the government established a mechanism to reduce the remuneration of non-emitting inframarginal plants, proportional to the Iberian gas market (MIBGAS) quotations. The amount detracted will fund a cut in electricity tolls.

47. Most inframarginal plants declared to hold long-term sales commitments undertaken with third parties, so applying such deduction would impose economic losses on their companies.¹⁶

48. In October 2021, the Government adjusted the mechanism to exclude plants in such situations, with long-term financial or physical contracts prior to the norm.

49. Windfall profits detraction did not raise high incomes, as hedging strategies of inframarginal technologies interfered with the rule enforcement.

3.4. Auctions for Electricity Release.

50. To promote liquidity in the forward market and protect competition in retailing, in September 2021¹⁷ the Government planned compulsory auctions of inframarginal plant production. The objective was that 10% of the inframarginal, manageable, and non-CO2 emitting generation owned by integrated dominant companies is released to current retailers or large consumers in long-term contracts.

51. Auctions have still not taken place and are neither scheduled, although independent retailers urgently claim them to alleviate market volatility and incumbent operators' strategies, which are consolidating intra-group long-term contracts, to match their own generation with retailing activity.

52. On the other hand, as we will discuss below, auctions might be inconsistent with incentives to producers to perform bilateral contracts at lower prices.

3.5. Promotion of long-term contracts for inframarginal plants

53. In March 2022, , the government introduced some changes in the mechanism to induce bilateral agreements between producers and consumers unlinked to electricity spot prices around a fixed price of 67 €/MWh. The new method is:

- if the fixed coverage price is lower than 67 €/MWh, inframarginal production will have no windfall detraction.
- If the price of term coverage is higher than 67 €/MWh, the reduction will take that value as a reference for windfall detraction.
- For vertically integrated companies, intra-group contracts of inframarginal generation with their own retailing will be excluded from windfall reduction if the price to end consumers is below 67 €/MWh.

54. The measure seeks to reduce consumers price by inducing integrated companies and inframarginal plants to commit production at fixed and non-gas-linked prices.

¹⁵ Real Decreto 17/2021

¹⁶ Press [Release](#)

¹⁷ Real Decreto 17/2021

However, the measure does not aim to reduce spot and forward prices, which are still linked to gas prices.

55. This measure could encourage the intra-group agreements of the vertically integrated operators but no bilateral contracts with third-party buyers in the energy spot market. Independent retailers have urged the government to launch inframarginal production auctions to reach these sorts of agreements.¹⁸

3.6. The Iberian exception

56. In June 2022, the Spanish Government introduced a temporary intervention, until May 2023, in the Iberian electricity market to alleviate the impact of high gas prices in the spot prices. ____

57. The new rule requires gas power plants to determine their market bids based on a reference gas price of 40 €/MWh. ¹⁹The rest of the inframarginal and non-emitting technologies plants continue bidding as usual. The merit order of technologies does not change.

58. The effective price of gas will be compensated to gas and coal generators as the difference between the intervention price of 40 €/MWh and the MIBGAS daily price. The compensation mechanism only triggers if gas prices are higher than the cap.

59. Consumers pay the cost of the gas price cap compensation. Demand hedged or committed at a fixed price before the entry into force of the mechanism is temporarily exempted, until the revision of contracts or within a maximum of one year.

60. The mechanism does not affect both MIBEL's internal interconnection with Portugal nor the external interconnection with France exchange price.

61. The mechanism is calculated every hour and daily compensated by electricity market buyers. Initially, some adjustments were needed for the agents involved to program their bids..

62. At gas price *ceteribus paribus*, the cost per unit of the mechanism is falling as non-exempt demand grows. On the Spanish side, in September 2022 there was 62% of non-exempted demand. In May 2023 is expected to raise up to 81%. On the Portuguese side, the no-exempt demand is now lower, 36%, and is expected to raise up to 60% in 2023. Different criteria about the fix price contracts renovation may explain such percentage differences.

63. Recently gas prices fell under 40 €/MWh, so the Iberian exception did not apply. The low gas prices in all markets coupled with no demand for heating changed the energy commercial movements with France in a sense contrary to what had been happening since the entry in force of the Iberian exception.

¹⁸ <https://acie.org.es/acie-pendiente-de-la-publicacion-del-acuerdo-que-topa-el-precio-del-gas/>

¹⁹ Real Decreto-ley 10/2022.Daily compensation (Y_i) to gas and coal generators calculation

$$Y_i (\text{€/MWh}) = (P_{GN} - P_{RGN}) / 0,55$$

PGN is the wholesale market price for natural gas (MIBGAS D+1)

PRGN is the reference price (gas cap) set at 40 €/MWh for the first semester since the entry into force of the mechanism. For the next period, the cap will increase 5 €/MWh per month.

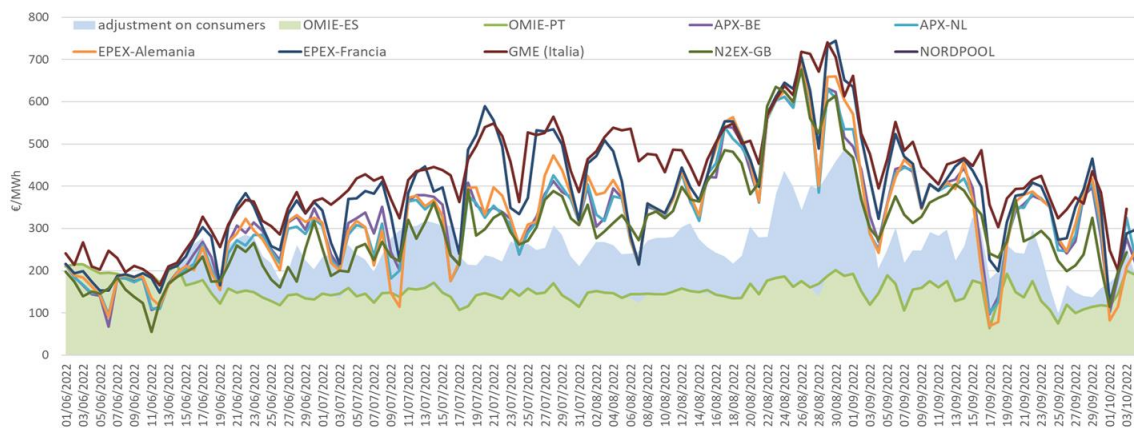
If PGN < PRGN there will be no compensation for that day.

64. Conclusions of the Iberian exception show that:

- After its implementation, the electricity spot price in Spanish wholesale market proved to be lower than the rest of the European spot prices.
- The total cost of electricity (the cost of the gas cap plus the electricity price) is still lower than the rest of the European spot prices.
- Inframarginal technologies are not benefitting from high gas prices: all technologies receive lower revenues, and only gas and coal power generators obtain similar revenue levels.
- No increase in the gas demand for power generation appeared: exceptional lower hydro generation, low wind generation and exports to France justify a raise in gas plants production
- Exports from Spain to France increased: maximum day-ahead use of the interconnection capacity appeared since the mechanism started.
- the Euphemia algorithm and the internal market for electricity are preserved; no restriction on the transit at all interconnections (both internal and external to MIBEL)

65. Thus, the Iberian exception has softened spot and forward electricity prices, with favorable spreads for Spain compared to French or German electricity prices.

European spot price evolution



Source: CNMC

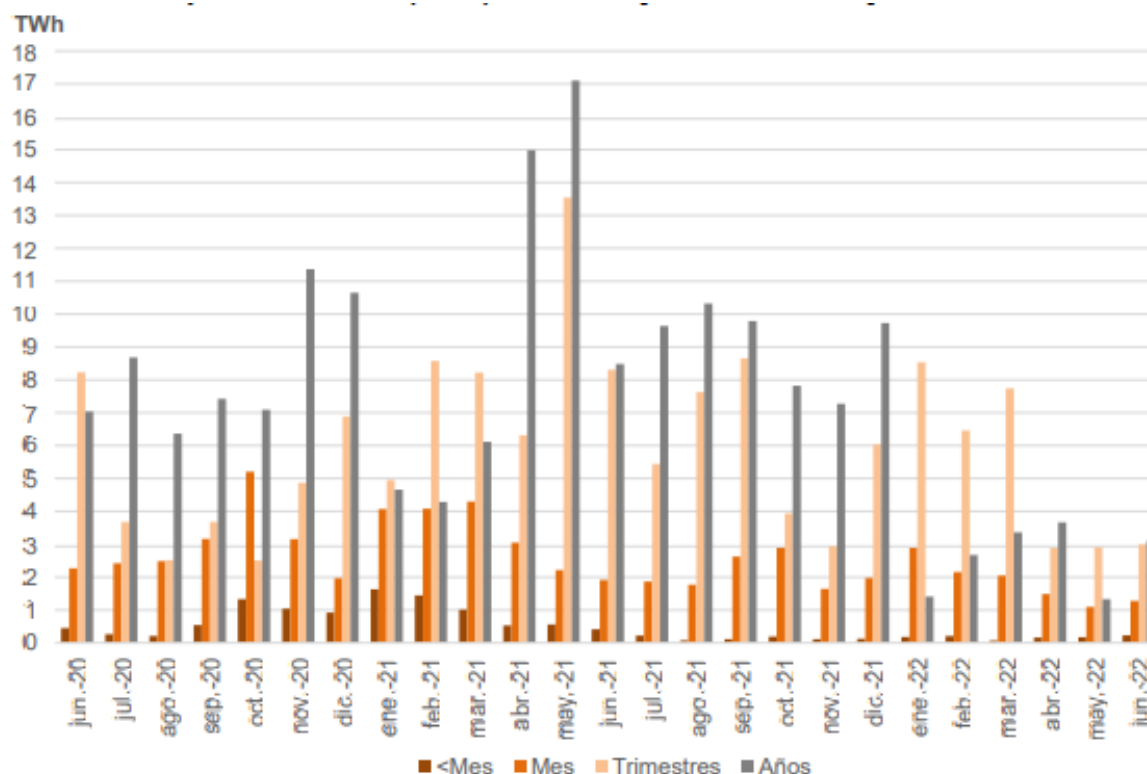
66. Moreover, as the cap of gas is linked to the MIBGAS marketplace, Spain has avoided, at least for the electricity sector, the TTF price references, which no longer represent the supply gas basket of the Iberian market, which enjoys lower prices since June 2022 thanks to national regasification capacity.

3.7. Flexibility on traders' warranties.

67. The CNMC and Spanish Market Operator (OMIE) and System Operator have relaxed the warranties schemes to favor independent retailers, as prices increased, so was the volume of deposits needed to operate in the power market.

68. However, some retailers could keep suffering from an increasing liquidity problem aggravated by a risk premium downgrade.

Monthly volume traded in electricity forward markets (OTC, OMIP and EEX markets). January 2014 to June 2022



Source: OMIP OMIE Clear

3.8. Regulatory provisions to remove barriers to new entrants

69. The CNMC and the government have taken several actions to encourage new renewable plants and self-consumption, such as removing barriers for connection to the grid or improving regulation for balance services. The CNMC recently also launched a sand box to relax restrictions in the transmission network. However, regulatory challenges remain in markets for flexibility and balance services, which are crucial to exploit big data technologies in the energy field.

70. Vertically integrated distributors having interest in the traditional activities of retailing and generation together with high demand for new generation sites, have triggered a huge number of access conflicts. This also fostered several changes and developments in access and connection regulation that are serving to speed up renewable deployment.

3.9. Motor fuel bonifications

71. Gas Pump stations must make a 20 c€/lt discount on all fuel sales prices, which later will be reimbursed by the State. Furthermore, the three incumbents with refining

infrastructures in Spain must add, at their own expense, at least an extra 5 c€/lt discount on sales of their brand gas stations.²⁰

72. Simultaneously with the obligation incumbents' operators announced a 10 c€/lt final discount on their gas station brands at their own expense.

73. Independent brands claimed, on the one hand, a lack of liquidity to offer the discount to final clients until they receive the public transfer and, on the other hand, price coordination by the integrated oil companies. They accused them of squeezing margins to drive them out of the market. As international supply options have almost disappeared, independent brands find increasing difficulties in negotiating with national suppliers. Some still show the ability to compete as they had previous long-term supply contracts.²¹

74. Motor fuel bonifications were initially announced to last three months but have been extended until the end of 2022.

4. Final Remarks

75. Spanish high exposition to the energy prices moved the authorities, from the early stages of the crisis, to undertake several temporary measures to contain energy costs and spot electricity and gas prices, which appear to have reduced costs and energy prices in the short run. In particular, the Iberian exception addressed to relax the increase of gas prices impact on the electricity sector has successfully contained Spanish spot and forward electricity prices compared to other northern marketplaces.

76. The energy crisis has not equally affected all competitors. Independent retailers fail to survive in such volatile markets and find it tough to stand competitive in this new context, as the financial cost of long-term coverages has increased, along with prime risk downgrade.

77. On the other side, integrated supply, production, and retail companies, such as incumbent operators, are increasing their market shares as they enjoy natural coverage from market instability. They have delivered growing benefits since the beginning of the crisis.

78. Independent retailers claim that temporary measures undertaken by the government have undermined their competitive position and failed to protect their business model. The renewable sector is quickly progressing. New deployments of plants and self-consumption have increased, although distribution grid capacity and conflicts of interest with integrated operators might delay further improvements. Nevertheless, the renewable sector benefits from the crisis and will be one of the future runs to gain stability in the energy field.

²⁰ Real Decreto Ley 6/2022 and Real Decreto-Ley 18/2022

²¹ Lokoil was the most importer of diesel before the sanctions