Stakeholder Workshop on the ACER Assessment on Electricity Market Design

Thursday, 10 February 2022

09:00 – 13:00

ACER
European Union Agency for the Cooperation of Energy Regulators

Agenda

Workshop is divided into 3 Sessions:

- Session 1: Investments (09:15 -10:30)
  - Case studies 10’
  - Panel discussion 30’
  - Participants discussion 35’

- Session 2: Electricity volatility as a driver for flexibility (10:40 - 11:40)
  - Panel discussion 30’
  - Participants discussion 30’

- Session 3: Electricity volatility, suppliers and consumers (11:40 - 12:50)
  - Case studies 10’
  - Panel discussion 30’
  - Participants discussion 30’

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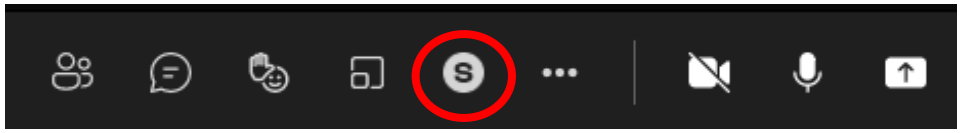
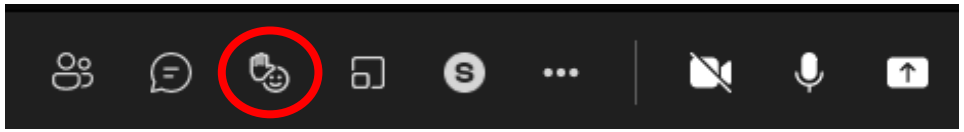
For an interactive workshop

- **To ask questions and to participate in the polls**
  - Use Slido
  - Either within MS Teams, or www.slido.com with #MarketDesign2022
  - Q&A, polls and word clouds
  - Do not use chat to pose a question



- **To intervene during the participants open discussion**
  - Max. 1 intervention per organisation and per session
  - Raise hand to ask for the floor (plus feel free to signal to the moderator your topic in Slido Q&A)
  - Come in when invited to (max. 2 min)
  - Lower hand after intervention



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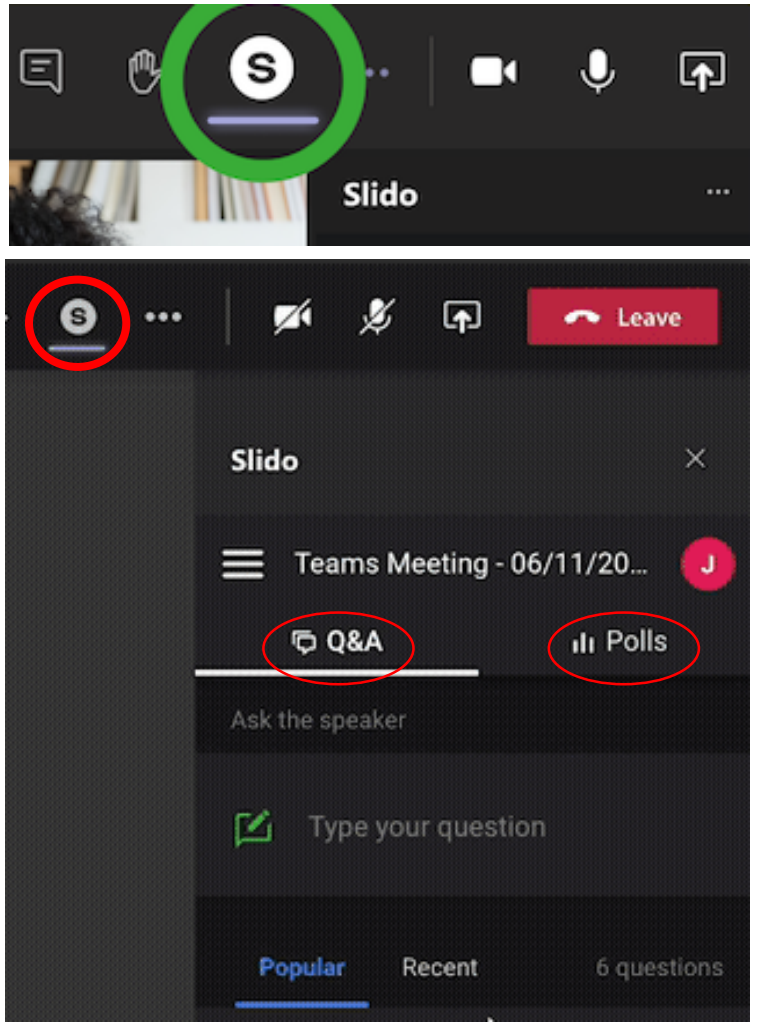
Connecting to Slido via MS Teams

- **Open Slido in MS Teams**
- **Q&A**
  - To ask a question, use Q&A
  - “Like” other questions
  - Reply to/comment on others’ question
- **Polls**
  - To vote on the Opinion Polls, use Polls
  - You must vote to see the poll results!



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Connecting to Slido via web browser

- Through www.slido.com with #MarketDesign2022
- Use direct link: https://app.sli.do/event/8n68cRcT5VWqLfi1ips1Uw/live/questions
- Or scan the QR code with your mobile phone

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Session 1: Investments

09:15 - 10:30

Rafael Muruais-Garcia, ACER

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Session 1 - Introduction

- Session 1: Investments (09:15 -10:30)
  - Case studies 10’
  - Panel discussion 30’
  - Participants discussion 35’

To ask questions to the panellists and to participate in the polls → **Use Slido**

To intervene during the Open Participants Discussion → **Raise your hand (plus signal to the moderator your topic in Slido Q&A)**

Session 1 - Case studies

Should the EU consider additional elements to increase revenue-certainty in the EU electricity sector?

a) No need for further elements, let the market work and evolve on its own.

b) Need for additional elements to support the rollout of renewable energy sources.

c) Need for additional elements to support other technologies to back-up and complement renewables.

d) Both b (additional way to support RES) and c (additional ways to support other technologies).

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The role of electricity markets in the energy transition

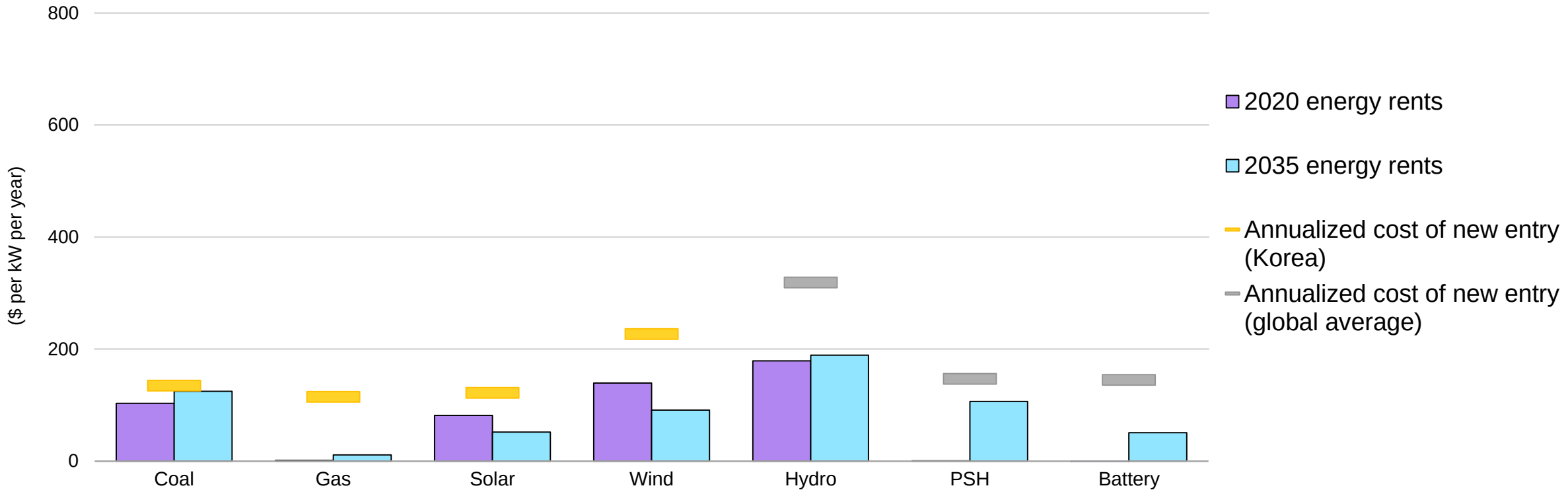
Preparting Market designs for net zero objectives– Case study for Korea

Alejandro Hernandez – Head of Unit Renewable Integration and Secure Electricity

International Energy Agency

The current wholesale market price signals need to evolve to attract and keep the right type of new assets

Estimate of profitability* for new plant by type, 2020 and 2035 APS

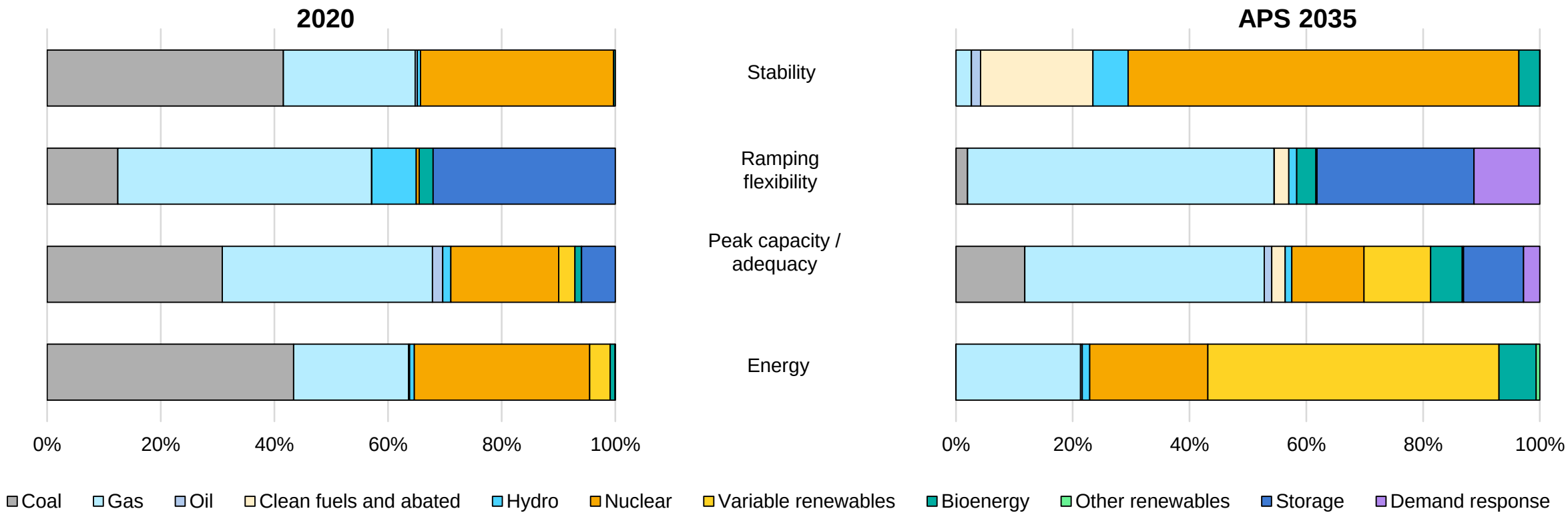


*Comparison of energy rents to fixed O&M and annualised capital cost; WACC = 7%;
Notes: Using system reference marginal price (SRMC) with no carbon price.

With the current market design, only coal plants can recover their investment cost- making the market forces to work against the policy objectives - security of supply and a fast decarbonisation

Decarbonisation will drastically change how different system needs are served

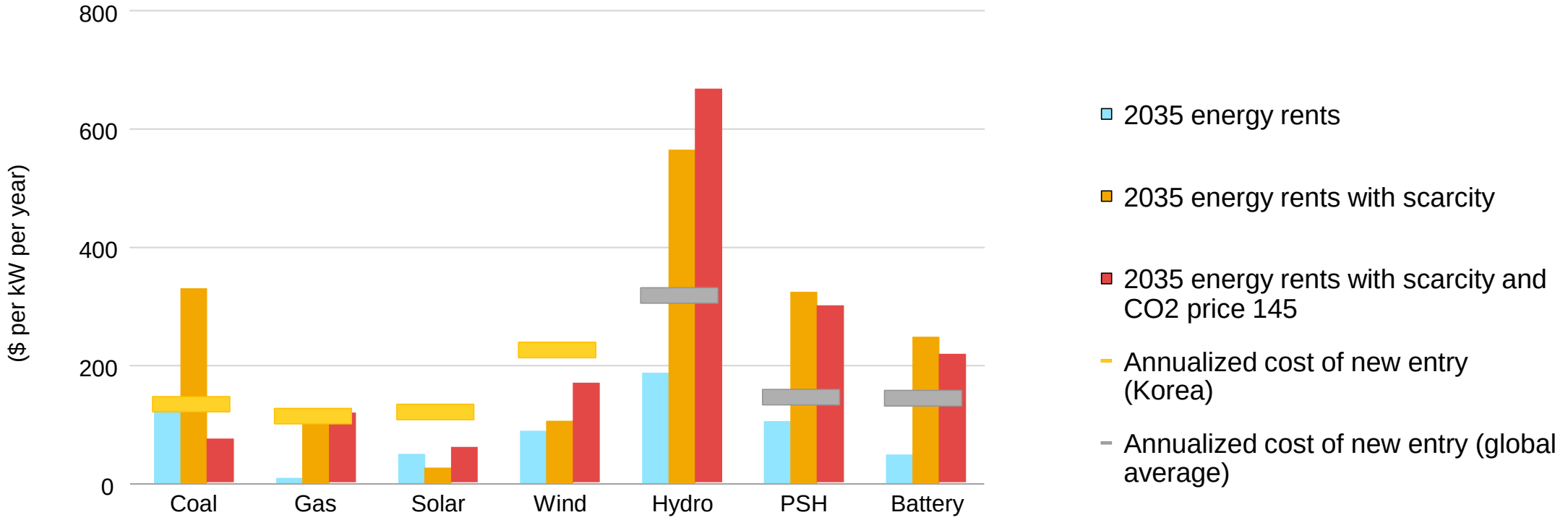
Energy and service contributions of different technologies to maintain electricity security in Korea, 2020 and 2035 APS



No technology is a silver bullet- Power system services will be provided by an increasingly diverse range of assets, Market design will need to rewarded and incentivise their contributions to stability, flexibility and capacity.

How to bring the right mix of technologies? Is not only about security of supply, nor only about decarbonisation- and can't be addressed separately

Estimate of profitability* for new plant by type, 2035 APS (with and without scarcity and carbon pricing)



*Comparison of energy rents to fixed O&M and annualised capital cost; WACC = 7%;
Notes: Using system reference marginal price (SRMC) with no carbon price and $145 per ton carbon price.

In this case, adding BOTH carbon pricing and adequacy payments can restore incentives to bring the right mix. Low carbon dispatchable sources are specially penalized in markets lacking instruments to achieve decarbonisation and adequacy objectives.

Session 1 - Case studies

Which of the following additional elements, if any, should the EU consider to increase revenue certainty in the electricity sector?

a) Centralised procurement.

b) Standardising existing mechanisms (e.g. capacity remuneration mechanisms).

c) Facilitating or supporting competitive markets (e.g. market for PPAs).

d) Other measures.

e) No intervention at all.

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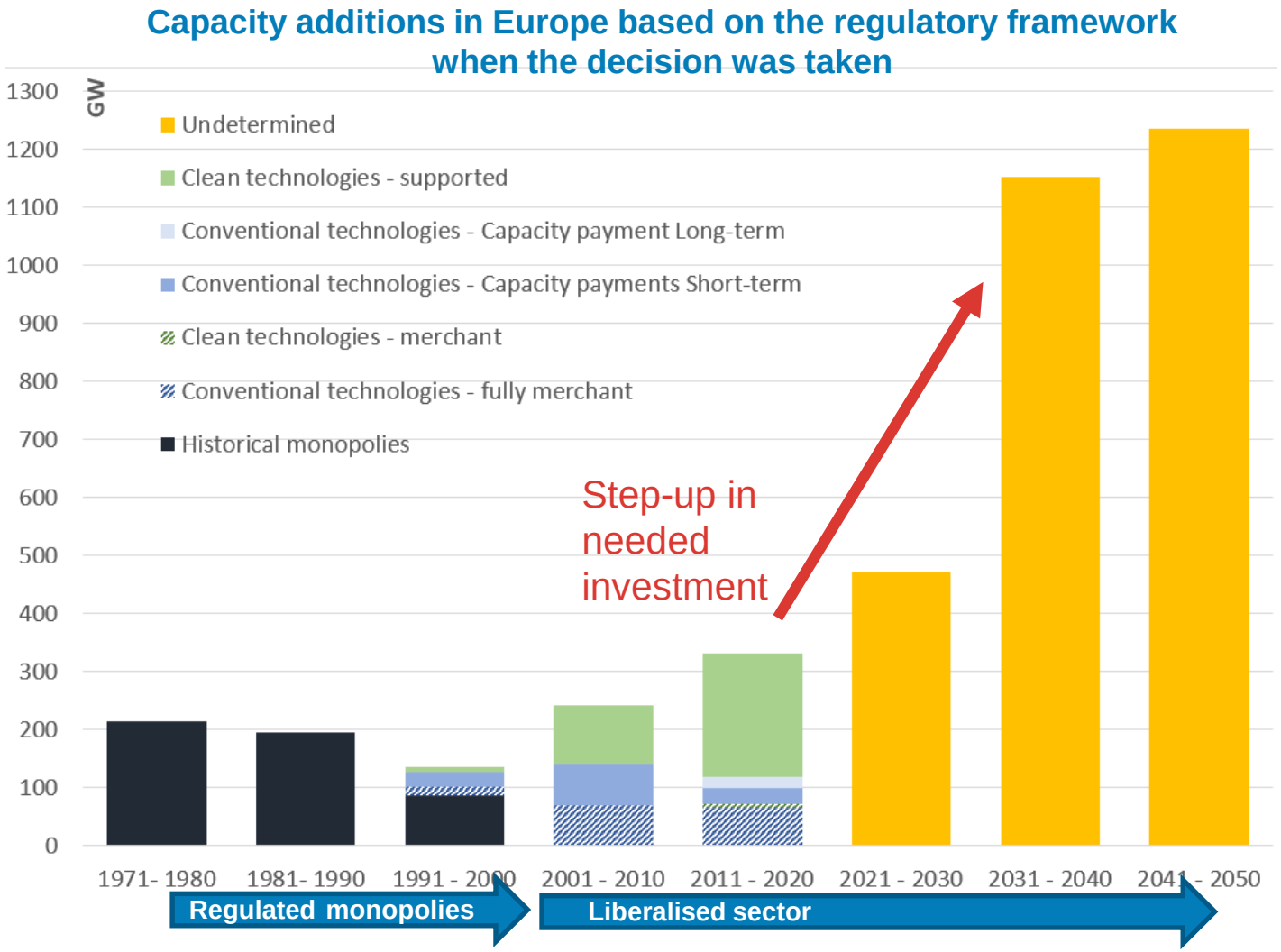
Reforming power markets for the energy transition

Stakeholder Workshop on the ACER Assessment on Electricity Market Design

Fabien Roques, Université Paris Dauphine CEEM, Florence School of Regulation, and Compass Lexecon

10 February 2022

STEPPING UP AND SECURING INVESTMENTS IN THE EU POWER SYSTEM IS KEY FOR THE EU DECARBONISATION



- Historically most EU investments in the power sector were made under regulation or supported by long term contracts
- The Green Deal requires a step up in power sector investments
- A framework to boost private investment is needed to support the economic recovery and energy sector decarbonisation

Source: CL analysis based on Platts, Country NECPs and CL Intelligence
European Commission - Final Report of the Sector Inquiry on Capacity Mechanisms
CEEM – Capacity Remuneration in power markets : an empirical assessment of the cost of production
CEER - 2nd CEER Report on Tendering Procedures for RES in Europe

A MARKET FIT FOR NET ZERO NEEDS TO BUILD ON EXISTING SHORT TERM MARKETS TO DELIVER OPERATION EFFICIENCY AND OVERLAY AN INVESTMENT FRAMEWORK

Investment (years ahead) → **Operations (days /hours ahead)**

Planning of system needs

- Comprehensive and transparent approach to identify the evolving system needs
- Main dimensions: firm, flexible, variable energy, and interface with networks
- Ensure that the contribution of all resources to the system needs is adequately rewarded

Competition "for" the market

- Tendering of long-term contracts
- Can be technology neutral or specific
- Puts competitive pressure where it matters: CAPEX
- Can be used to stimulate development of competitive market
- Ensures coordinated system development

Competition "in" the market

- Well integrated and liquid forward, day ahead and intraday markets
- Optimises short term dispatch and minimises costs for consumers
- Real time price signals and removal of barriers to participation
- Supports retail competition and development of demand response

THREE MISSING ELEMENTS FOR AN EFFICIENT INVESTMENT FRAMEWORK: PLANNING, CONTRACTING AND EFFICIENT MARKET INTERFACE

Investment framework stages	Key features of an efficient hybrid market investment framework
1 Planning & definition of system needs	▪ **Efficient coordination and holistic planning of the different system needs** (clean tech and for flexible/firm capacity), **across sectors** (power/gas/heat/mobility) **and Member States** ▪ **Neutrality of the planning agenc(ies), supported by sound regulatory and governance framework**
2 Contracting & hedging mechanisms	▪ **Long term contractual commitments** to hedge some of the policy, regulatory and market risks and facilitate investment ▪ **Increased coordination and consistency of the procurement mechanism with the planning process,** to make it more efficient and predictable
3 Efficient market interaction	▪ **Efficient interface** with wholesale and retail markets ▪ **Careful choice and design of products** to avoid distortions of short term market signals

If you have any question about this presentation, please contact

Fabien Roques
Executive Vice President
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FRoques@compasslexecon.com

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Session 1 - Panel discussion

- Does the EU need to consider further instruments to increase revenue certainty (e.g. longer-term contracts, contracts-for-difference, Power Purchase Agreements (PPAs) or capacity remuneration mechanisms)?
- Which ones, what would be their main benefits and drawbacks?

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Session 1 - Participants discussion

Which topic on investments would you like to discuss next?

(2 words maximum)

- Reply via Slido in MS Teams, by scanning the QR code or via the link below:

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- Raise your hand (plus signal to the moderator your topic in Slido Q&A)


ACER
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Virtual Coffee Break
Stakeholder Workshop on the
ACER Assessment on Electricity
Market Design

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Session 2: Electricity volatility as a driver for flexibility

10:40 - 11:40

Clara Poletti, ARERA

ACER
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Session 2 - Introduction

- Session 2: Electricity volatility as a driver for flexibility (10:40 - 11:40)
    - Panel discussion 30’
    - Participants discussion 30’

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Session 2 - Introduction

Is the short term price signal enough to trigger the needed level of flexibility?

a) Maybe. Some technologies do receive the right incentive but other technologies don't.

b) No. The short term price signal alone will not be enough. Some flexibility options will need more (external) support to get to the desired level.

c) Yes. The short term price signal is enough.

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Session 2 - Panel discussion

- Price volatility (including the current price ‘shock’ situation) seems to indicate that the system has limited flexibility. How to best incentivise increased flexibility?
- How best to create a level-playing among all technologies (including storage, generation, demand side etc.) that provide flexibility?
- Do we need more hedging products for flexibility-related revenue (e.g. products on price volatility or on low wind)?

Session 2 - Panel discussion

Looking at 2030 needs, most contribution to flexibility can be expected from:

a) Fossil fuel power plants.
b) Large-scale storage.
c) Small-scale electricity storage.
d) Smart electric vehicles and vehicle-to-grid.
e) Demand response from industry.
f) Demand response from households.
g) Power-to-gas: hydrogen.
h) Increased interconnection capacity.

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Session 2 - Participants discussion

Which topic on electricity volatility as a driver for flexibility would you like to discuss next?

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Session 3: Electricity volatility, suppliers and consumers

11:40 - 12:50

Csilla Bartok, ACER

ACER
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Session 3 - Introduction

- Session 3: Electricity volatility, suppliers and consumers (11:40 - 12:50)
  - Case studies 10’
  - Panel discussion 30’
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To ask questions to the panellists and to participate in the polls → **Use Slido**

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Session 3 - Case studies

Which measures might better protect consumers from volatility whilst not being too burdensome on suppliers?

a) Stronger hedging requirements.

b) Stronger licensing with enhanced risk assessment.

c) Increased guarantees/collaterals.

d) All of the above.

e) None of the above.

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Stakeholder Workshop on the
ACER Assessment on
Electricity Market Design

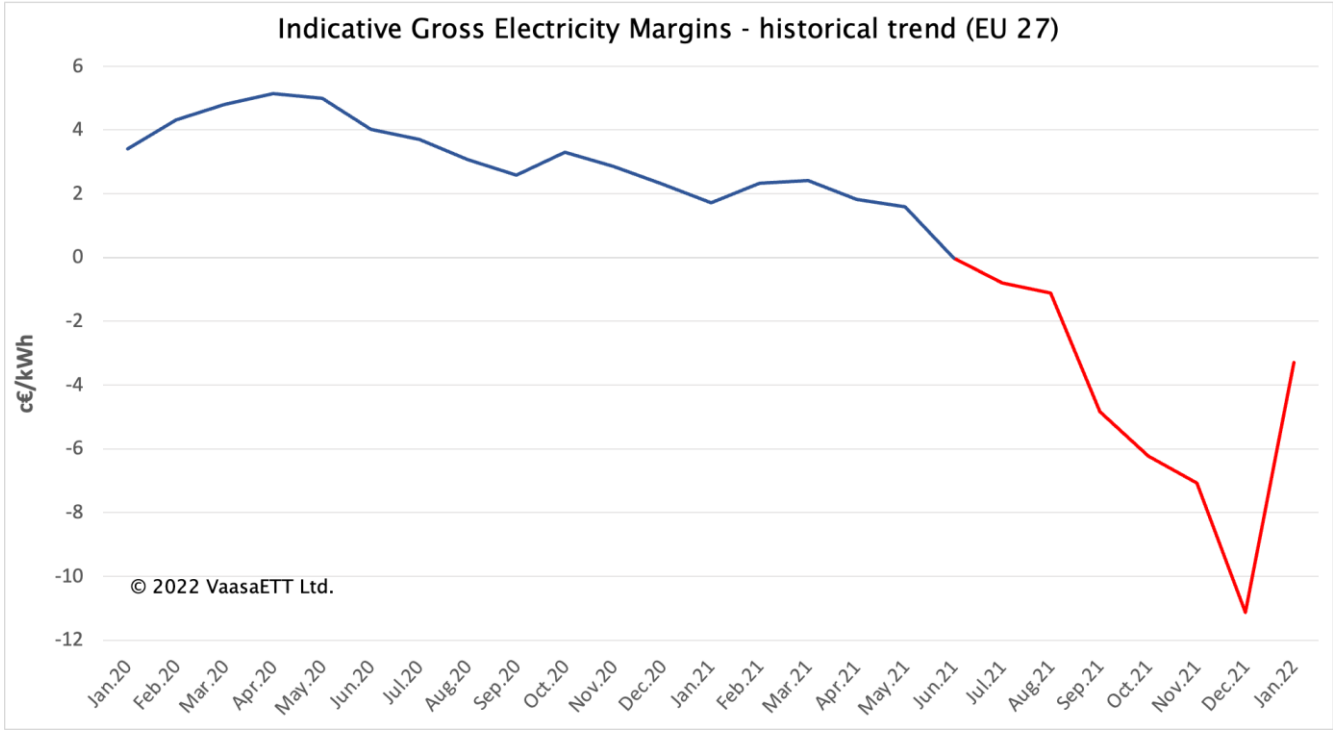
Suppliers & Consumers

Dr Philip E Lewis,
CEO, VaasaETT

10 February 2022

Supplier failure is not all about poor hedging, its about a need for massive working capital

- The energy crisis has pushed supplier margins deep into the red (even more if price caps)
- Hedges reduce the impact of wholesale but need to be renewed and during a crisis, commodity vendors protect themselves by demanding upfront payments.
- The amount of this depends on the strength of the supplier's balance sheet. Smaller and weaker suppliers pay more or receive no hedge at all.
- But other costs also increase: other guarantees, defaults; balancing costs; system price based hedging in markets with big zonal price differences…
- And as smaller suppliers are forced to stand still, they bleed customers to those with the balance sheets (or natural hedges) to keep going.
- While poorly run challengers have failed, so too have many innovative suppliers with excellent service.



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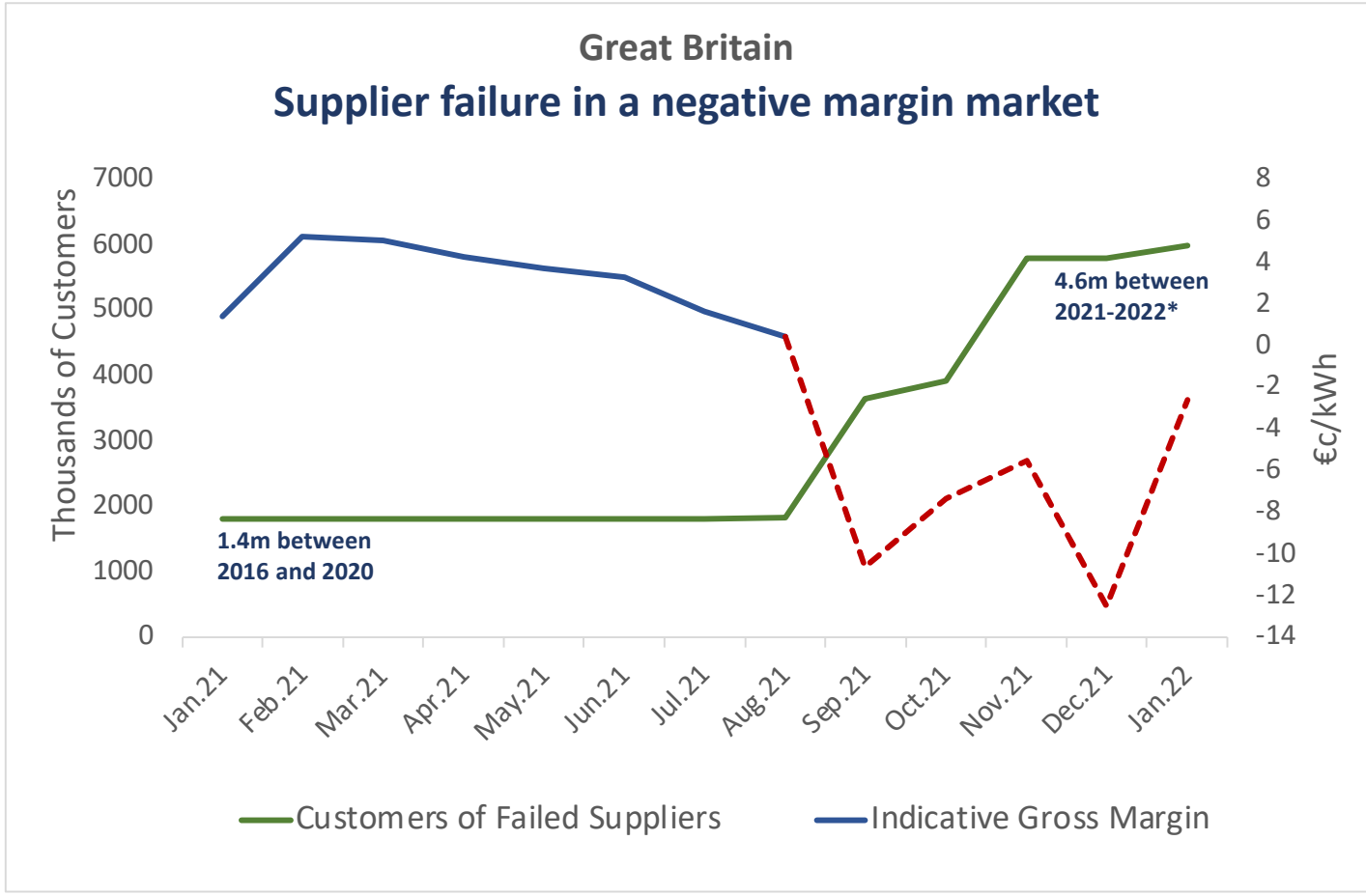
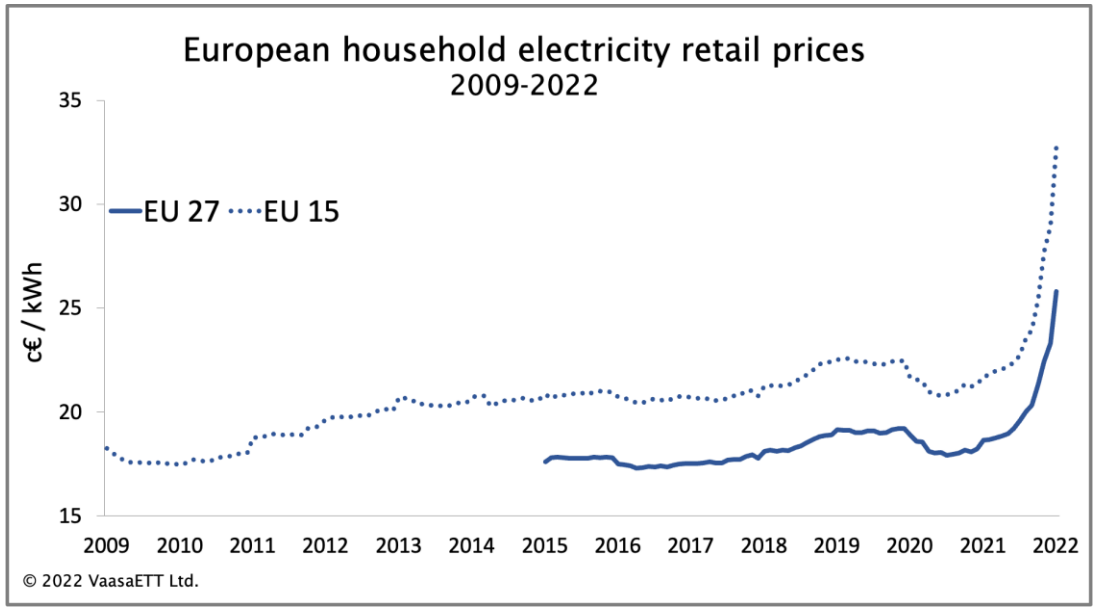
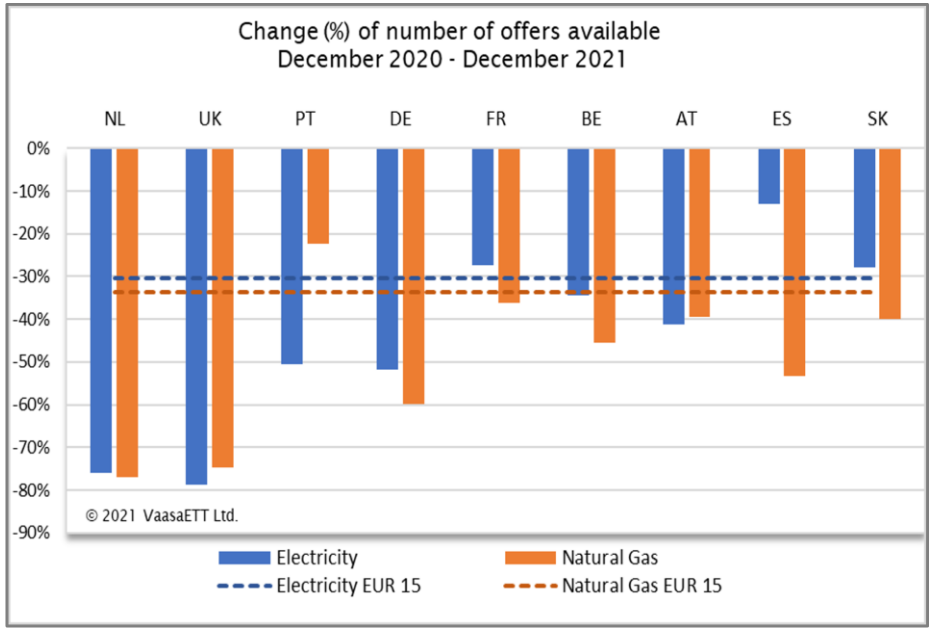


*4.2m between August 2021 and Jan 2022

Impact for consumers beyond price increases

- Fixed price and capped contract prices have been increased / caps removed
- Reduced offers means few alternatives for customers on a bad deal
- In desperation, customers are locking into high fixed long-term contracts
- Many high-satisfaction, innovative suppliers have left the market
- A fixed price market mean higher prices and less flexibility





Possible solutions

- Market-wide shared insurance instrument
- Decarbonised / Integrated homes and heating

Session 3 - Case studies

What is required to engage consumers to respond to and shield against price volatility and/or partake in demand side flexibility?

a) Price transparency including the possibility of flexible contracts for consumers.

b) Availability of aggregators.

c) Enhance investments for solar PV and battery storage capabilities.

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- Promoter of competition
- Adviser to customers
- Provider of risk mitigation services
- Provider of new and innovative products & services
- Enabler of customers' access to the markets

EUROPEAN ENERGY RETAILERS
Network of Independent Energy & Solution Providers

Case Study: Suppliers
10 FEB 2022

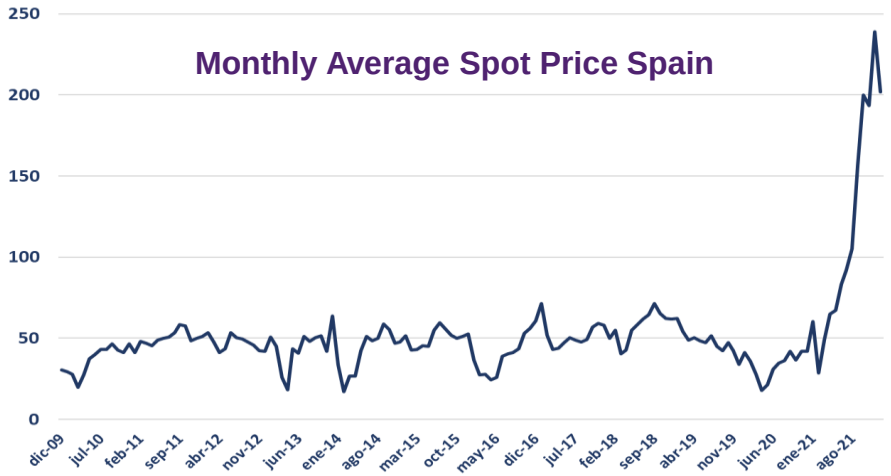
Antonio Colino
EER President

Founded in 2017:

ACIE: Asociación de Comercializadores Independientes de Energía / Association of Independent Retailers – SPAIN
AFIEG: Association Française Indépendente de l'Electricité et du Gaz / French independent association for electricity and gas – France
AIGET: Associazione Italiana di Grossisti di Energia e Trader / Italian Association of Energy Traders & Suppliers - ITALY
BNE: Bundesverband Neue Energiewirtschaft e.V. / Association of Energy Market Innovators – GERMANY
ESPEN: Ελληνικό Σύνδεσμο Προμηθευτών Ενέργειας / Hellenic Association of Energy Suppliers - GREECE
Oberoende Elhandlare / Independent Electricity Retailers – SWEDEN

Volatility: The Real Challenge for Retailers

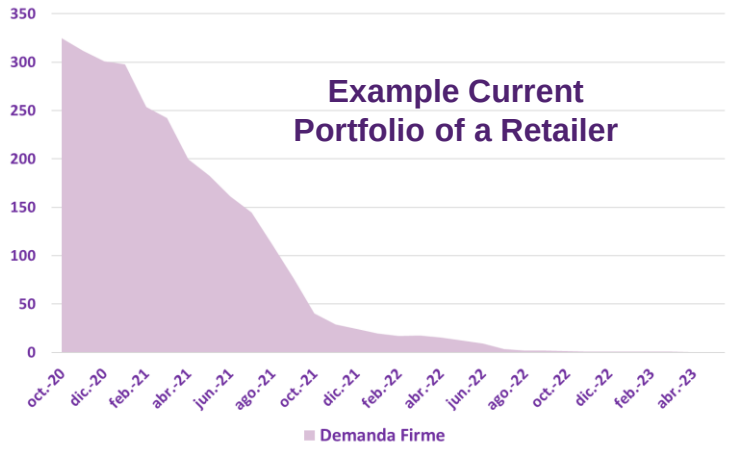
High market volatility **impedes a sustainable P&L visibility** for retailers and, therefore, implies **big price premiums for consumers** or, alternatively, direct pass-trough of this volatility to final consumers.

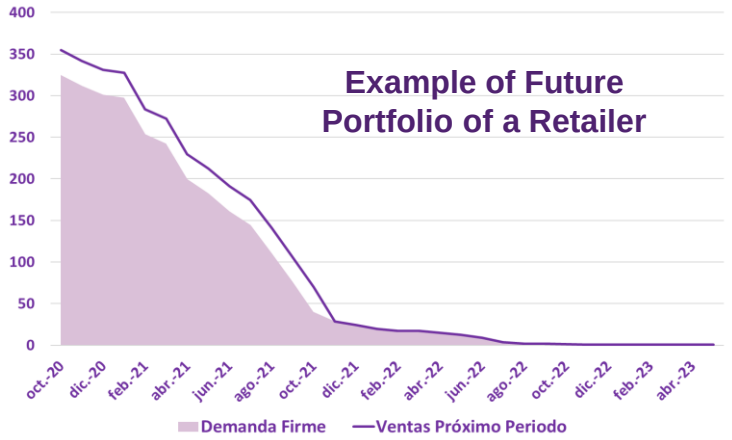


Well-designed marginal price markets can be efficient but because of the volatility they should also be marginal in volume.

How much do I hedge?

50? 70? 100? 80? 120? 0?



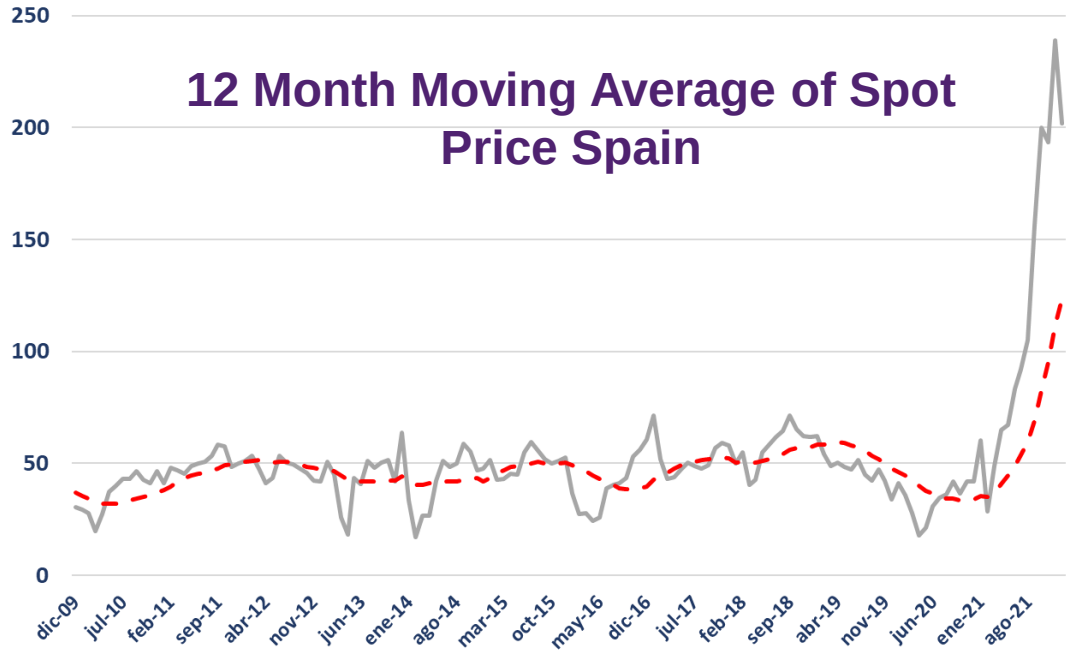


Volatility: The Real Challenge for Retailers

Retailers, and market participants in general, must support **very high guarantees** to operate. The total amount of guarantees required **covers the system** for the default of **all participants at the exact same time**.

At this price level and with this level of volatility, **guarantees** intended to demonstrate solvency end up making companies **non-solvent**.

In addition, in **organized markets** no collateral is accepted. **Only cash.**



A cash and collateral individual model should be substituted by a global **CREDIT INSURANCE** model where each participant pays a part of the assurance premium based on market share.

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Session 3 - Panel discussion

- Which requirements should apply to suppliers, regarding promotion of hedging, collateral, and what information consumers should have to better protect them from price volatility? Should such requirements be harmonised at EU level, or defined locally?
- Which market-based instruments could help shield consumers from volatility (especially vulnerable consumers) in such a way that it does not affect overall market efficiency?
- In what way will the evolution of the retail market and its regulation have implications for the design of wholesale markets and how to ensure this is accommodated in the improvements to wholesale market design?

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Session 3 - Participants discussion

Which topic on electricity volatility, suppliers and consumers would you like to discuss next?

(2 words maximum)

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Thank you.
Any questions?

The contents of this document do not necessarily reflect the position or opinion of the Agency.

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