

# “Handbook on Electricity Markets”

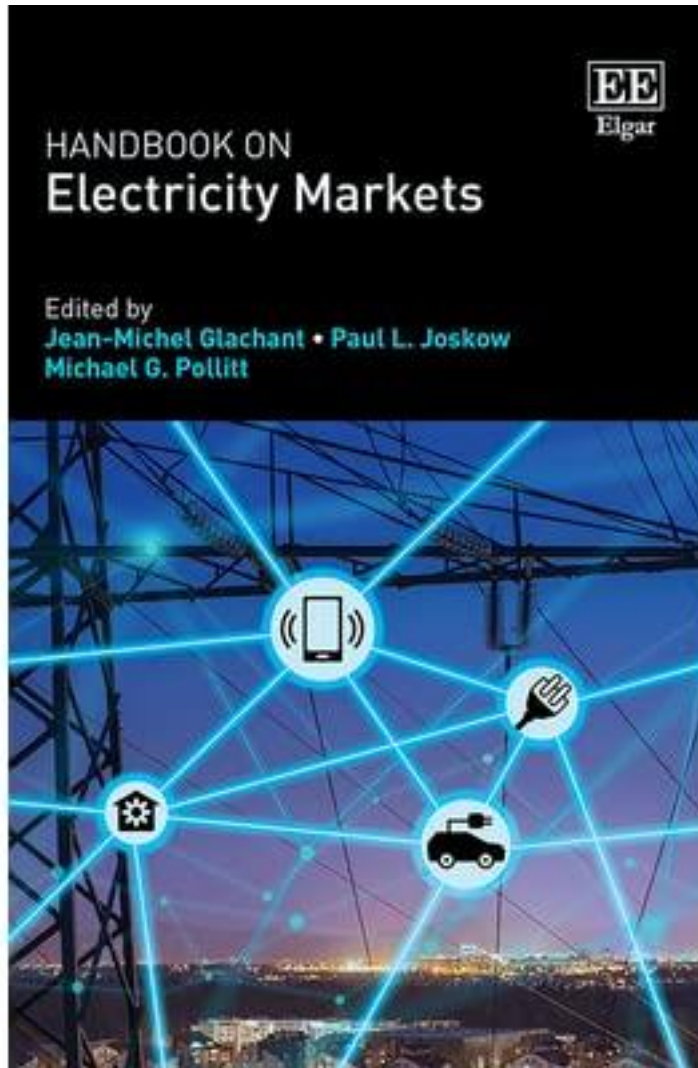
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With twenty-two chapters written by leading international experts, this volume represents the most detailed and comprehensive Handbook on electricity markets ever published.

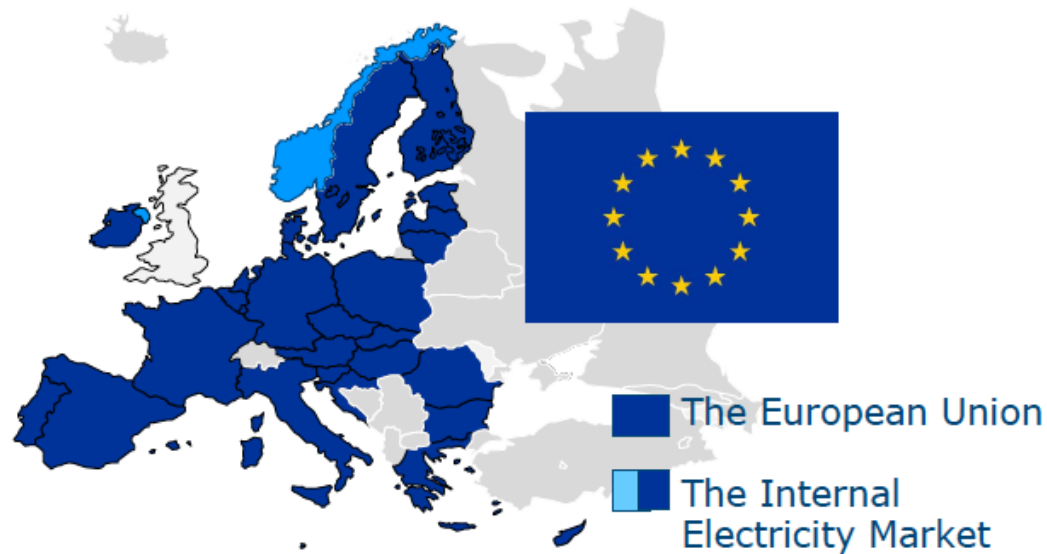
672 pages of happy reading 😊

# HANDBOOK PART I TAKING STOCK: THE LEGACY

# EU is EU

*EU is not a federal country*; has no very strict separation between federal and local affairs. If EU Member States agree, EU can both address Climate & Carbon Pricing, and building EU-wide common Wholesale & Retail Markets.

- Somewhat similar in India, although India is one country.



# EU is EU: a set of open countries

## EU-wide wholesale market is more integrated

Each country has its wholesale market(s) implementing Day Ahead minimum requirements within borders always open to cross-border trade.

“Market Coupling” via cross-border is built on TSOs calculating guaranteed capacities that Exchanges put into their “Day Ahead” trade equilibrium. High challenges are: planning of the grids to expand cross-border capacities; and design of market “Bidding Zones”

## Since 2016, integration of EU wholesale markets go beyond “IntraDay” stage

**EU embarked into defining EU-wide “Network Codes”** which harmonize “IntraDay”, “Balancing”, “Capacity Calculation & Allocation”, “Congestion Management”

New EU Code for Flexibility & Flexibility markets starting to be discussed

While EU has no federal regulator, it created 2 EU bodies (ACER gathering national regulators; ENTSO-E gathering national TSOs) with powers to create Markets & Network norms & rules, under EU Commission supervision.

> See Chapters by P.Joskow and F. Wolak for more on wholesale market design

# EU is EU: a set of open countries

## EU-wide retail market is more integrated

Like for wholesale, each EU country has an obligation to implement a 100% retail opening.

In a second row (2017-19) appeared other harmonization obligations (as rights given to ‘prosumers’, to “self-consumption”, to “communities”, to “aggregators”)

> See Chapter by S. Littlechild for more on retail competition

## This said, EU still has substantial regional or national differences

**1- Always been the case for UK** Today out of EU; but always been an island, preserved from too dense cross-border interactions > See Chapter by D. Newbery

**2- Also for Nordic countries;** where common Day-Ahead wholesale market created in Norway (not member of the EU) > See Chapter led by C. Le Coq

**3- Another big case is Capacity Markets.** EU failed to get support from countries to define a tight common Market Design. Practice of case by case “Review & Authorization” led by EU Competition Authority (not EU Energy Administration) > See Chapter F. Roques

# HANDBOOK PART II ADAPTING TO NEW TECHNOLOGIES AND NEW POLICY PRIORITIES

# EU – RES Impacted by Supply and Demand

1 New Tech on the supply side, renewables & storage – *what support mechanisms for efficient procurement, operations and planning of grids*

> See Chapter led by K. Neuhoff

2 New Tech on the demand side, “Behind-the-Meter”: *basic prosumers or sophisticated prosumagers; basic Peer-to-Peer or sophisticated Communities or Platforms of transactive energy; digital tools enabling this – but will intermediaries come to offer demand response*

> See Chapter led by F. Sioshansi

3 Shifting supply as well as demand: *the new economics of electricity with high renewables – initial price impact may not be much – boosting low carbon investments*

> See Chapter led by R. Green

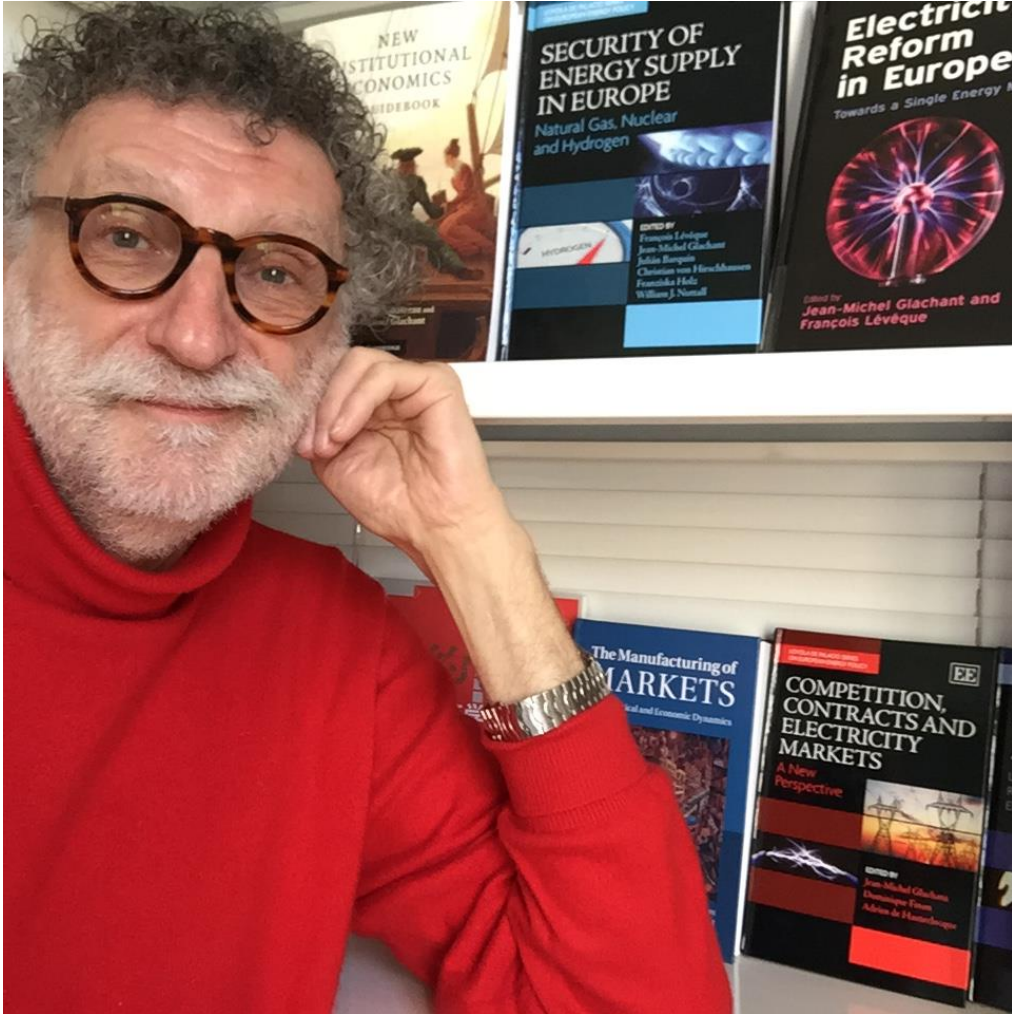


# Crossing New Tech Supply & Demand

## Chapter by J-M Glachant

### New trends for Business Models

- On supply side, both decentralization for generation investments & generation (wind onshore & solar rooftop); and potential for strong recentralization, with “*Green Majors*” raising money in financial markets & building big offshore farms behind barriers to entry
- On demand side, appearance of Peer-to-Peer, Aggregators, Communities, & Digital Platforms as alternative ways of coordinating ‘direct power interactions’ bypassing traditional utilities with or without help of “*asset light*” suppliers
- Will new intermediaries help to maximise the value potential to be created by the “individual power systems”? Like Aggregators already do for demand response?
- Traditional model of grid owners (“*Fit to Forget*” via high hardware investments) deeply challenged by new digital “asset light” management of grid users.



*Thank you  
for your  
attention*

धन्यवाद

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