

Electricity Long Term Contracting for Professional Consumers – *An economic overview*

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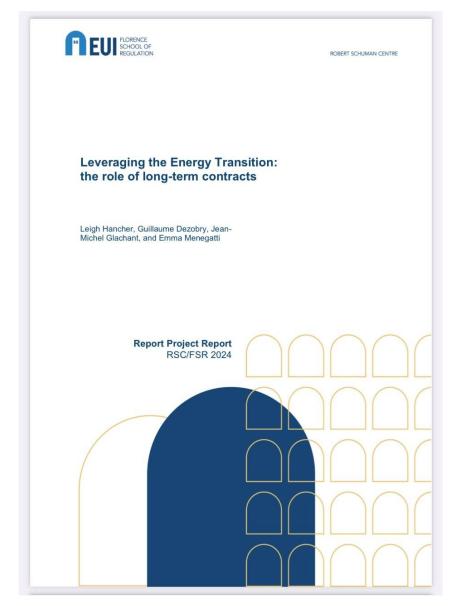
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* Pdt IAEE 2023 & V.P FR.AEE













Overview

- 1. Economics does not provide a "general theory" of long term contracting LTC valid in any industry, any place and any time.
- 2. BUT It does strongly suggest that today, in the EU, time is come to treat seriously the "Electricity long term contracting" issue for professional consumers.
- 3. It is because our EU energy & climate policy is arrived exactly there: where a fast & voluntary decarbonization of professional consumption will permit the EU to reach on time its "common good Energy & Climate policy" 2030-2040
- 4. In front of such EU common good, old EU doctrine of "ex ante hostility" to LTCs cannot stand anymore > Let's revisit "3 Worlds 4 LTC"



World 1 "Just Building Open Markets" (the 90')

- 1. It all started with 'just building open markets' (Joskow & Schmalensee 1983; UK Pool 1990 + Cambridge & EPRG, Newbery, Green, Littlechild).
- 2. Economic theory did not move much: "Well Open" Markets work (τ-O Léautier 2019 MIT Press; Léautier-Joskow 2021). But many practical issues + policy & legal frame constraints >> "market designs" derailing, adapting, changing.
- 3.EU made pragmatic doctrine: *Monopolies are national; **EU needs double opening: open country markets + open borders; ***EU has no strong Central energy regulator, but strong Central competition authority >> Ex Ante hostile EU doctrine
- 4. Ex Ante hostile doctrine did not hurt, but helped EU core: building EU internal market. << Publicly backed at FSR by A. de Hauteclocque & me.>>



World 2 "Co-building a set of working markets" - After 20xx

- 1. "Just Open Markets" did not work for both "industry sector practice" and "policy & legal frame"
- 2. >> Sector practice went to "Co-building a set of working markets". "Wholesale daily" being bypassed for *entry in generations (Nuclear or Renewables LT revenues) and **LT adequacy (CRM, and various Security options) << Pioneer works by Fabien Roques, as 2011, 2017, repeated 2021>>
- 3. An "EU economic review" should have followed, but it did not. EU kept its "double standard" (pragmatic LT bypass of Wholesale Daily + de facto restrictions for LT with Prof. Consumers)
- 4. That contradiction did not hurt the new core: Co-building a set of working markets. "Greening Supply" > dwarfing > "Greening Consumption"

[2019 before Covid: only 35 GW PPAs for 2,300 GW of Generation capacity = 1.5%]

World 3 "Accelerated Decarbonization push towards a Net Zero Industry" After 2021-22

- 1. What was true with World1 and World2 ["hostility" or "benign neglect" with LT contracting for Prof.Consumers were not hurting the policy core is become obviously false. It now hurts the core of EU policy for 2030-2040.
- 2. The core of World3 is to get Prof.Consumers becoming: 1*very active with the voluntary "greening of their professional consumption" (much more than voluntary 'ESG' branding strategy); and 2**investing a lot into new tech, new processes, new equipments to "electrify their today's fossil consumption" { Electrification }.
- 3. Exactly [like World2 has been reviewing LT contracts to enter generation (nuclear or RES) or to guarantee capacity adequacy (CRMs)] World3 has to review LT contracting for Prof. Consumers to enter new, deep & accelerated electrification.
- 4. It is an illusion to believe that CfDs will provide anything needed in World 3. Only PPAs can take into account the various concrete needs, options or trials of the various Prof. consumption processes to electrify & decarbonize. CfDs are only 'regulated' "mass market tools" provided by public authorities. PPAs are "à la carte" Business Tools for professionals.<< Cf my own 2023 Report(s) to French Regulator CRE>>



CfDs & PPA # Risk of Country fragmentation & politization #To resist creation of new deep country barriers inside EU

*<u>David Newbery (2021, 2023)</u> Production-based CfDs are giving bad incentives to RES Gen by distorting real value of their output. Better to decouple financial hedging from real-time output

*Entsoe (17May 2024) Yes CfD designs are very diverse: at least 6 families (4 'Production-based') + (2 'non-Production based') > wide EU heterogeneity coming; obvious fragmentation of EU for entry, operation & payments processes

*<u>Lena Kitzing (FSR Report March 2024)</u> 7 families: all CfDs have trade-offs and create problems + not the same in different places > we need to be very careful & pragmatic > Who will take care?

*Lion Hirth (Hertie School, 2023,2024) Inside a single design family, details of the parameters can create big differences > wide EU heterogeneity coming > Who will take care?

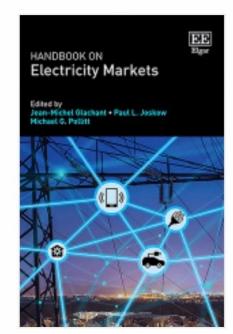
>>> Enrico Letta report (April 2024) Instead of strengthening our internal market as a common tool for faster industrial decarb; we might highly fragment our EU to favor "national populist" politics

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My last Electricity Handbook: a new edition January 2023

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Nov. 2021

Handbook on Electricity Markets

Edited by Jean-Michel Glachant, Paul L. Joskow, Michael G. Pollitt

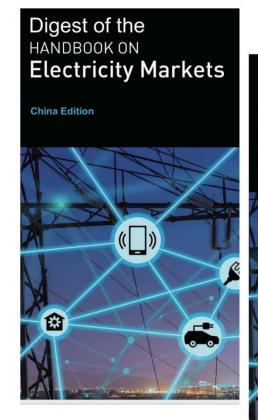






EUI FLORENCE SCHOOL OF REGULATION Thanks EU Embassy in China: for free!

Digest of the Handbook on Electricity Markets NEW EU-China Energy Cooperation Platform (ececp.eu)











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And World Exec V.President IAEE...
International Association for Energy Economics

+French V.P FR.AEE







CfDs (+ PPAs) for EU Accelerated Decarbonization Push towards NZ Industry

CfDs will offer state-driven public tools in mass markets. 3 issues: #1 eviction; #2 mass market; #3 country fragmentation & politization

- 1 # (Eviction) ~ Avoiding publicly pushed CfDs evicting private PPAs
- Could standardizing PPAs make them easier to use, easier to enter in an EU platform of trade and to create standardized financial derivatives (Eurelectric & Compas Lexecon, March 2023)
- 2 # (Mass Market) ~ Avoiding Mass Market features' rigidity
- *2A* Keeping PPAs open to the 'innovative fringe' acknowledging that CfDs will offer state-driven public tools in mass markets, and that only PPAs might adapt to the variety of concrete needs, risks, options that professionals would face to keep innovating, discovering & testing in this decade long "Net Zero Industry" discovery process. (Toulouse WP, Amber & Crampes co-signed by Nobel Laureate Tirole, October 2023).
- *2B* <u>Electrifying à la carte</u> keeping PPA characteristics open to the variety of needs and trials of the various industries investing into their electrification and decarbonization; "one size PPA" will not fit all (Working Group "Electrification of industry usage" at French Energy Regulatory Commission, March 2023).
- *2<u>C* Stronger PPAs for the hardcore</u> creating very robust "hedging PPAs" for energy-intensive consumers consuming 24/7 (= 8760 hours a year) by combining solar assets, wind assets and batteries in typical contracts for 10 MW baseload demand (Eurelectric and PexaPark, November 2023).