



**CLEANHORIZON**  
The Energy Storage Experts

# Update from the Field

---

November 2021



---

ONLINE SESSION

November 23rd, 2021 / 10am – 11am (CET)



# Update From The Field

---

## November 2021

Every month, Clean Horizon's team of energy storage experts delivers an analysis of key data and trends affecting the energy storage industry worldwide. This monthly report updates and analyzes new relevant regulations, monitors commissioned and announced projects, and provides specific focus on key market trends which are likely to have a direct impact on industry stakeholders.

# Table of Contents

---

<b>1.</b>	<b>Executive summary .....</b>	<b>5</b>
<b>2.</b>	<b>New regulations and initiatives discussed this month .....</b>	<b>6</b>
<b>3.</b>	<b>Projects updates and announcements.....</b>	<b>7</b>
3.1.	Overview of the 2021 market for utility-scale energy storage projects .....	7
3.2.	Projects announced or contracted this month.....	8
3.3.	Projects commissioned this month .....	10
3.4.	Tenders this month .....	10
<b>4.</b>	<b>Focus of the Month : How does the current energy context impact on energy storage revenues ? .....</b>	<b>12</b>
4.1.	The current energy crisis: a change of paradigm for energy storage ?.....	12
4.1.1.	Historical storage revenue streams have skyrocketed .....	12
4.1.2.	In a world of high energy prices, new opportunities for storage arise .....	15
4.2.	Is the crisis going to last ? .....	19
4.2.1.	Context of the energy crisis.....	19
4.2.2.	Forecasted evolution in the next few years .....	21
4.3.	Risks for storage and lessons learned .....	23
4.3.1.	Overinvestment in storage could backfire in the medium term .....	23
4.3.2.	Storage is exposed to merchant risks, but also to high upsides .....	25

# Table of Figures

Figure 1: Utility-scale energy storage projects announced/contracted and commissioned in 2020 and 2021 (ongoing) .....	8
Figure 2: FCR average bid ladders and average settlement prices in 2021 in France .....	14
Figure 3: FCR average bid ladders and average settlement prices in 2021 in Germany .....	14
Figure 4: Average hourly DA price over two periods in 2021 in Belgium .....	16
Figure 5 : Revenues on the Belgium day ahead market assuming perfect forecast on the day-ahead market .....	16
Figure 6: Dynamic Containment weekly moving average availability fee and awarded daily volume from Sep. to Nov. 2021 .....	17
Figure 7: Daily spread on the Balancing Market in the UK in 2021 .....	18
Figure 8: Daily spread on the Balancing Market in France in 2021 .....	18
Figure 9: Yesterday Versus Today's Short Run Marginal Cost for different types of electricity generation capacities installed .....	20
Figure 10 :Past prices and forecast of the fuel prices (coal and gas) and of the carbon price .....	21
Figure 11: Monthly baseload price forecast 2022-2026 in France (€/MWh) .....	22
Figure 12: Observed correlation between increasing storage capacity and decreasing FCR prices (until end of 2020) .....	23
Figure 13: Long term marginal cost of storage forecasting method applied to FCR prices .....	24

# Table of Tables

Table 1: Average prices for providing FCR and aFRR in France and in Germany .....	13
Table 2: Optimized equivalent yearly revenues on the Day-ahead market for 1h, 2h and 3h batteries in Belgium ....	15