



## Update from the Field – June 2020

A monthly analysis note from the energy storage experts

## **Table of contents**

Executive summary	2
New regulations and initiatives discussed this month	5
Americas	5
United States	5
Europe	5
Germany	5
Australia & Oceania	5
Australia	5
Project updates and announcements	6
Overview of the 2020 market for utility-scale energy storage projects	6
Projects announced or contracted this month	7
Projects commissioned this month	10
Australia & Oceania	10
Americas	10
Tenders this month	11
Americas	11
Focus of the month: PICASSO, secondary reserves harmonised across Europe, what's in it	
storage?	12
storage?	12
storage? I) The aFRR : an ancillary service widely differing from one country to another	<u>12</u> 12
storage? I) The aFRR : an ancillary service widely differing from one country to another 1. The aFRR features several technical specificities	<b>12</b> <b>12</b> 12
<ul> <li>storage?</li> <li>I) The aFRR : an ancillary service widely differing from one country to another</li> <li>1. The aFRR features several technical specificities</li> <li>2. The current contracting process is not homogenous in Europe</li> </ul>	<b>12</b> <b>12</b> 12 13
<ul> <li>storage?</li> <li>I) The aFRR : an ancillary service widely differing from one country to another</li> <li>1. The aFRR features several technical specificities</li> <li>2. The current contracting process is not homogenous in Europe</li> <li>3. The IGCC framework is the first brick of an aFRR European mutualization</li> </ul>	12 12 13 15 16 duct
<ul> <li>storage?</li> <li>I) The aFRR : an ancillary service widely differing from one country to another <ol> <li>The aFRR features several technical specificities</li> <li>The current contracting process is not homogenous in Europe</li> <li>The IGCC framework is the first brick of an aFRR European mutualization</li> </ol> </li> <li>II) The PICASSO project has triggered an in-depth, cross-border review of the aFRR</li> </ul>	12 12 13 15 16 duct
<ul> <li>storage?</li> <li>I) The aFRR : an ancillary service widely differing from one country to another <ol> <li>The aFRR features several technical specificities</li> <li>The current contracting process is not homogenous in Europe</li> <li>The IGCC framework is the first brick of an aFRR European mutualization</li> </ol> </li> <li>II) The PICASSO project has triggered an in-depth, cross-border review of the aFRR <ol> <li>The PICASSO project will enable European countries to share a standardized aFRR proc</li> </ol> </li> </ul>	12 12 13 15 16 duct 16
<ul> <li>storage?</li> <li>I) The aFRR : an ancillary service widely differing from one country to another <ol> <li>The aFRR features several technical specificities</li> <li>The current contracting process is not homogenous in Europe</li> <li>The IGCC framework is the first brick of an aFRR European mutualization</li> </ol> </li> <li>II) The PICASSO project has triggered an in-depth, cross-border review of the aFRR <ol> <li>The PICASSO project will enable European countries to share a standardized aFRR proce</li> </ol> </li> <li>Most of the European countries will have implemented the platform by 2023</li> </ul>	12 12 13 15 16 duct 16 17
<ul> <li>storage?</li> <li>I) The aFRR : an ancillary service widely differing from one country to another <ol> <li>The aFRR features several technical specificities</li> <li>The current contracting process is not homogenous in Europe</li> <li>The IGCC framework is the first brick of an aFRR European mutualization</li> </ol> </li> <li>II) The PICASSO project has triggered an in-depth, cross-border review of the aFRR <ol> <li>The PICASSO project will enable European countries to share a standardized aFRR proce</li> </ol> </li> <li>Most of the European countries will have implemented the platform by 2023</li> <li>III) Opportunities for battery storage arise as aFRR procurement process is revised</li> </ul>	12 12 13 15 16 Juct 16 17 18
<ul> <li>storage?</li> <li>I) The aFRR : an ancillary service widely differing from one country to another <ol> <li>The aFRR features several technical specificities</li> <li>The current contracting process is not homogenous in Europe</li> <li>The IGCC framework is the first brick of an aFRR European mutualization</li> </ol> </li> <li>II) The PICASSO project has triggered an in-depth, cross-border review of the aFRR <ol> <li>The PICASSO project will enable European countries to share a standardized aFRR process.</li> </ol> </li> <li>Most of the European countries will have implemented the platform by 2023</li> <li>III) Opportunities for battery storage arise as aFRR procurement process is revised <ol> <li>The aFRR features potential high levels of revenue for storage</li> </ol> </li> </ul>	12 12 13 15 16 duct 16 17 18 18
<ul> <li>storage?</li> <li>I) The aFRR : an ancillary service widely differing from one country to another <ol> <li>The aFRR features several technical specificities</li> <li>The current contracting process is not homogenous in Europe</li> <li>The IGCC framework is the first brick of an aFRR European mutualization</li> </ol> </li> <li>II) The PICASSO project has triggered an in-depth, cross-border review of the aFRR <ol> <li>The PICASSO project will enable European countries to share a standardized aFRR proce</li> </ol> </li> <li>Most of the European countries will have implemented the platform by 2023</li> <li>III) Opportunities for battery storage arise as aFRR procurement process is revised</li> <li>The aFRR features potential high levels of revenue for storage</li> <li>Storage participation to the aFRR will be driven by the upcoming regulatory changes</li> </ul>	<b>12</b> <b>12</b> 12 13 15 <b>16</b> Juct 16 17 <b>18</b> 18 19



## Update from the Field – June 2020

A monthly analysis note from the energy storage experts

## Table of figures

Figure 1. Potential uptake of DNSP SAPS6
Figure 2. Utility-scale energy storage projects announced/contracted and commissioned in 2019 and 2020 (ongoing)
Figure 3. Awarded projects under the Stage 2 of the Variable Renewable Dispatchable Generation and Energy Storage RFP
Figure 4. Example of a frequency deviation leading to reserve activation
Figure 5. Overview of the current aFRR contracting process in Western Europe14
Figure 6. General principles of the aFRR allocation through a market mechanism14
Figure 7. Comparison of the economic merit order activation with the pro-rata activation 15
Figure 8. PICASSO platform simplified framework16
Figure 9. PICASSO project advancement by country according to April 2020 roadmap17
Figure 10. Average capacity remuneration for a symmetrical bid on the aFRR in Europe18
Figure 11. Example of an aFRR bidding strategy based on the battery state of charge21