

# Battery Cost Spotlight

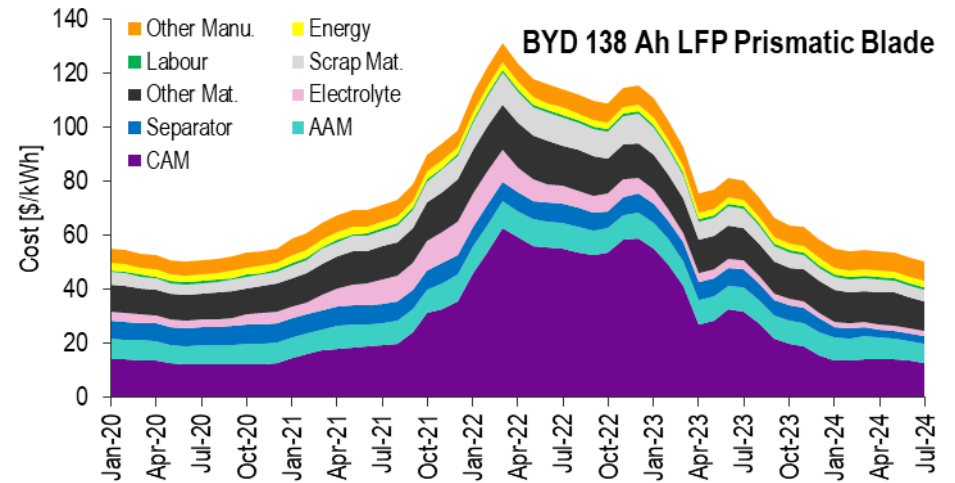
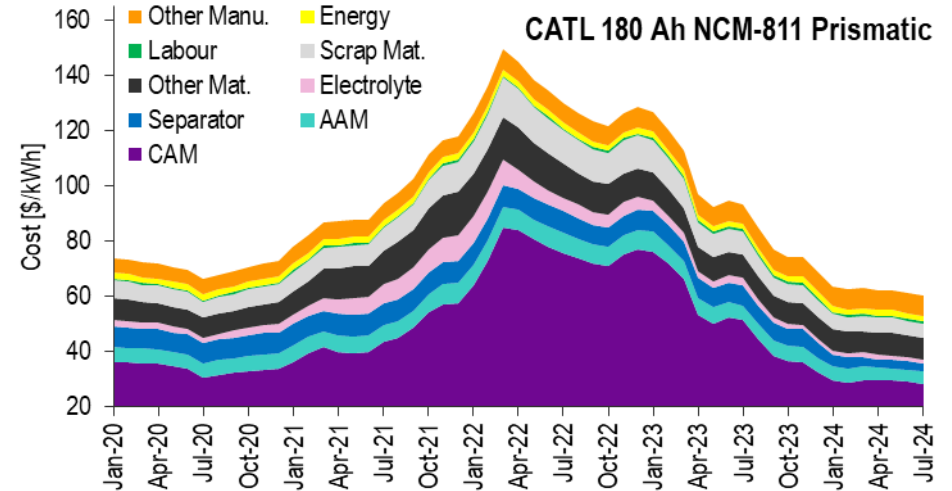
September 2024. [Muthu Krishna](#), [Robert Searle](#) - Fastmarkets analysts

## Current situation:

- Cell costs continued to fall in July on bearish material prices and slow downstream buying.
- LMFP and NCM-622 cell costs once saw the largest falls, down 3.0% month on month.
- NCM-811 cylindrical and NCA cell costs saw the smallest declines month on month.
- NMC-811 prismatic cell costs were down 2.5% in July.
- LFP cell costs were down 2.6% due to falling lithium carbonate prices.

## Analysis

- Costs across the range of cells tracked by Fastmarkets fell in the range of 1.3-3.0% in July as bearish raw material costs drove down values. Broadly speaking, iron-based cell costs fell by a greater degree last month as a result of bearish moves in lithium carbonate prices. Falling CAM costs were the major driver of bearish cell values while AAM values were flat month on month in July.
- The LMFP K-Tech 12 Ah 34145 cell saw the largest falls in July, down 3.0% month on month, averaging \$54.80 per kWh. Bearish CAM and electrolyte costs, driven by falling lithium carbonate prices, were the major reason behind the fall in cell costs. The CAM value of this cell fell 7.4% month on month while electrolyte costs were down 7.9%. In nickel-based chemistries, the NCM-622 LG 58Ah Pouch cell saw the largest fall in costs, down 3.0% month on month to average \$60.90 per kWh. CAM and electrolyte values were the largest contributor to this bearish movement. Separator costs were also down 6.4% month on month.
- High-nickel chemistries were less bearish in July with NCM-811 cells seeing some of the lowest fall in costs. The cell cost of NCM-811 Tesla 23 Ah 4680 fell 1.4% in July, with costs averaging \$60.7 per kWh. Cell costs for the NCA-87 SDI 5 Ah 2170 (50G) model were down 1.3% month on month, averaging \$63.4 per kWh.
- LFP cell costs ranged \$49.60-51.30 per kWh in July. In comparison, NCM cell costs ranged \$59.70-61.10 per kWh, 20% higher on average.



## The year-to-date trends

Year-on-year costs are down 33.2-39.0% across the range of chemistries tracked. The NCA-87 SDI 5 Ah 2190 (50G)'s cell has seen the lowest fall in costs over the past 12 months, down 33.6%. Mid-nickel chemistries have seen the lowest fall since July 2023. The NCM-622 LG 58 Ah pouch and NCM-712 LG 78 Ah pouch cell costs are down 39.0% and 38.9% respectively. The major cause of the smaller declines in value for these cells over the past 12 months has been the relative falls in lithium hydroxide and nickel sulfate prices, with nickel prices closer to levels seen in July 2023.