

Ivent Solutions Market Trend Update

December 2020



Severe Congestion at the Ports of Auckland

Up to 11 ships are moored in the Hauraki Gulf at present waiting to dock at the Port of Auckland. This is an unprecedented situation with normally only 1-2 ships being delayed at any one time historically. In addition to this there are also up to 10 ships moored off Tauranga and North Port waiting to berth. The North Port situation is also of concern given the poor quality of roading between Auckland and Whangarei having to cope with up to 1000 truck movements to get the freight down to Auckland. As per the reports in the media the delays are now starting to affect retailers in the lead up to Christmas with some stores unlikely to get their Christmas shipments in time. From an Ivent perspective, we have been utilising air-freight when required to minimize shipping delays however this has been problematic recently with significant delays out of Sydney Airport. Our normal shipping calculations provide for around 4 weeks to ship from China to New Zealand, however we have been increasing this over the last few months and are now allowing 7-8 weeks shipping via sea. The feedback from Ports of Auckland is that the delays are not likely to clear until June/July 2021, so the problem is a long term one that needs addressing via increased forward ordering. Adding to the mix of supply chain complexity at present are the normal Australia/New Zealand Christmas shut-downs followed shortly thereafter by Chinese New Year. The logistics team at Ivent strongly recommend to place forward orders as far out as possible to ensure continuity of supply.



Above is an actual recent aerial shot of the Hauraki Gulf shipping lane into Auckland showing 10 ships moored and waiting to berth. The reasoning for the delays has been related to a lack of trained staff, the change from manual to automated machinery and the separation of teams due to COVID-19 distancing. A further issue is that Ports of Auckland are now charging more (surcharges) as are the shipping companies due to these delays... so although the situation is clearly not the fault of any of us, as the customers, we are bearing the brunt of both the delays and shipping cost increases...

IVENT CHRISTMAS CLOSEDOWN DATES:

23RD DECEMBER TO 11TH JANUARY



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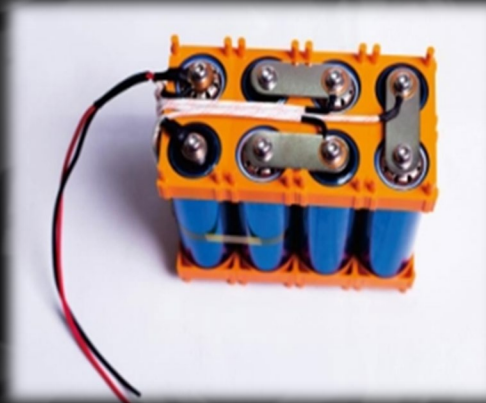
Contact Ivent now for your LiFePO4 Battery Technology.

The lead-acid battery market will continue to decline as more and more capacity is introduced in the LiFePO4 factories in China. Our key partners are producing up 2M cells per month across a range of sizes from 18500 to 40135. These larger sizes have been developed as a direct competitor to the Tesla 4680 size cell that their vehicles are now moving to. Ivent offers significant experience in this battery technology, from the design phase through to the shipping and storage of these dangerous goods.

Capacities continue to increase whilst the dollar/Wh price continues to decrease. The sweet spot in the market at present is the 32700 size cell with 6Ah capacity however this is likely to increase towards 7Ah through 2021 and 2022. The larger 40135 size cell (40mm x 135mm) will have a single cell capacity of 20Ah (therefore around 60Wh of energy). However this size is still under development prior to mass production.



The 38120S LiFePO4 size cells are manufactured as standard in China with stud terminals on both the cathode and anode terminals. This allows for simple and robust construction into battery packs



An example of a custom 40135 size battery pack manufactured by one of Ivent's factories. There are 40 cells in this pack giving approx 2500Wh of energy. Any size pack with different cell configurations can be designed to suit your specific application.

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The team at Ivent take this opportunity to genuinely thank everyone for their support in 2020. We appreciate each and every one of you and look forward to a much more normal and happier 2021!

Be safe and enjoy your Christmas and New Year Holidays.

See ya later 2020!



IVENT CHRISTMAS CLOSEDOWN DATES:
23RD DECEMBER TO 11TH JANUARY



CHRISTMAS



2020

**ALL I WANT FOR CHRISTMAS
ISN'T YOU.**



DUE TO COVID-19



**CHRISTMAS 2020 IS
CANCELLED!**

**Santa Claus Is
FAKE NEWS Kid!**



SAY MERRY CHRISTMAS



ONE MORE TIME

WHY YOU DO NOT



**PUT XMAS LIGHT S ON A
PALM TREE**

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Raw Materials
Rising

NZD versus AUD - AU\$0.950 vs NZ\$1.00



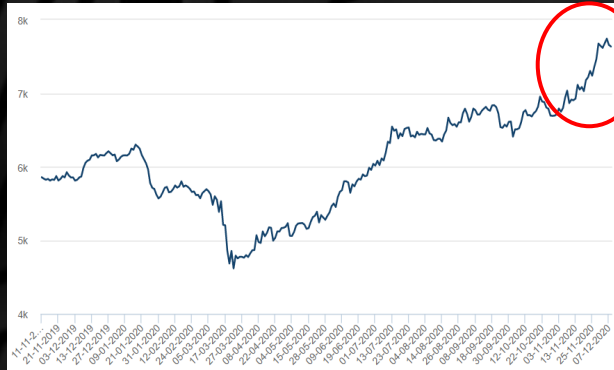
NZD versus USD - US\$0.700 vs NZ\$1.00



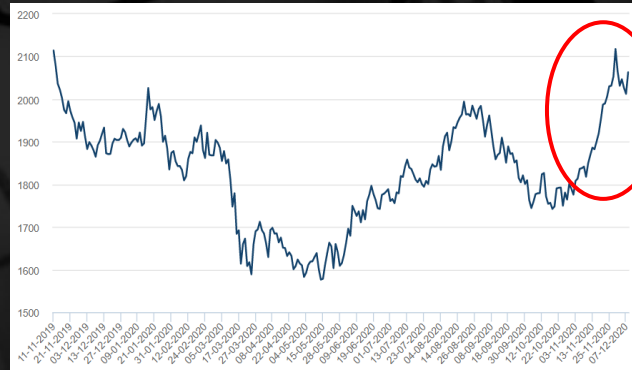
NZD versus EUR - EU\$0.580 vs. NZ\$1.00



Copper - USD7635 / tonne



Lead - USD2060 / tonne



Nickel - USD16400 / tonne



IVENT CHRISTMAS CLOSEDOWN DATES:
23RD DECEMBER TO 11TH JANUARY



This Month in Tech History...

December 22, 1882 – Edward Johnson, an associate of Thomas Edison, has walnut-sized bulbs made specifically for him to wire his Christmas Tree with electric light. The 80 red, white, and blue bulbs formed the first set of electric Christmas Tree lights in history. Prior to this, people would traditionally decorate their trees with wax candles (sounds dangerous!).

December 17, 1903 – Orville and Wilbur Wright make their famous first controlled and sustained flights with a heavier than air, powered aircraft. Orville made the very first flight which lasted about 12 seconds. Three more flights were made that day by both brothers, with the most successful being the fourth and final flight in which Wilbur flew for 59 seconds. The work done by the Wright brothers helped spawn the modern aviation industry.

December 9, 1968 – Douglas Englebert and his team of researchers present a 90-minute public technology demonstration including such innovations as hypertext, video conferencing, but most famously, the computer mouse. This is the first public demonstration of the mouse, witnessed by about 1,000 computer professionals in attendance.

December 23, 1968 – Astronauts Frank Borman, James A. Lovell, and William Anders become the first men to orbit the Moon. Flying in Apollo 8, the men perform 10 total lunar orbits and test many of the procedures that will be used in future lunar missions. Additionally, the men were the first humans to travel beyond low Earth orbit, the first to see Earth as a whole planet, and the first to directly see the far side of the Moon. On Christmas Eve, the crew made a television broadcast from which they read the first 10 verses from the Book of Genesis. It was the most watched television program ever at the time.

December 25, 1987 – The Christmas virus begins to effect IBM mainframe computers around the world. Technically defined as a worm, the Christmas virus drew a Christmas tree text graphic on the victim's monitor and searched out other network users. Named CHRISTMA EXEC because IBM systems only supported eight-character filenames, it was the world's first widely disruptive computer worm.

December 31, 1993 – Microsoft releases version 3.11 of Windows, a minor upgrade to Windows 3.1. It became the last stable version of Windows before Windows 95 was released in August of 1995... why release this on New Years Eve?!?!?

December 3, 2001 – Inventor Dean Kamen unveils the Segway self-balancing, battery-powered vehicle on the TV show Good Morning America. The Segway uses computers and motors in its base to keep itself upright while the user is riding it. Users shift their weight to control the Segway. While not considered a commercial success, the Segway has definitely become a familiar icon of personal transportation.

December 11, 2008 – Google releases the first stable public version of their web browser, Chrome. Chrome is now considered the most popular web browser in the world with 64% of the market as of November 2020.

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23RD DECEMBER TO 11TH JANUARY



DON'T FORGET THE CHINESE NEW YEAR DATES:
12TH FEBRUARY TO 26TH FEBRUARY

新年快乐
HAPPY CHINESE NEW YEAR
2021
YEAR OF THE OX

