

THE MONTHLY DOSE OF CLIMATE SOLUTIONS

NOVEMBER 2022



United Nations
Climate Change



COP27
SHARM EL-SHEIKH
EGYPT 2022



IN THE FIGHT OF OUR LIVES

Markets rallied for a few days trying to price a US soft landing, while COP27 prepares for a climate hard landing.

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NOVEMBER IN REVIEW

Less pain but no real gains for broad green stocks in the month.

Back to the future, back to equities (for a moment):

The month started with the US Federal Reserve increasing interest rates on November 2nd, and markets pondering how much higher, how fast and for how long the Fed would keep increasing fed fund rates. The increase was the fourth 75 bps rate rise in a row. The markets had priced it in and reacted positively at first, but then turned negative after Chair Powell in a press conference warned that rates would top out at a “higher level”; the SP&500 ended that day down 2.5% while Nasdaq was lower by 3.4%. The day after, the Bank of England raised interest rates to 3% - even though the UK is already in a recession that the BoE warns could last until mid-2024. The US had its midterm elections on November 8th and the two days before saw a broad based rally in US indices, with most constituents up in the large indices as a Republican was expected to translate into lower bond yields. A noticeable exception was Tesla’s shares that were the biggest drag in the S&P500, as markets did not seem to like Elon Musk as CEO of Twitter.

Investors demonstrated a continued sensitivity to economic data; the November 10th news of encouraging lower US CPI at 0.4% month on month (vs. the expected 0.6%) prompted a rally in many markets. Nasdaq shot up 7.35% that day, with the S&P500 up 5.54% and the iClima Distributed Renewable Energy Index up 9.49% in one day. On November 17th, a new UK budget was presented by Chancellor Hunt, which included several tax changes. When it comes to energy, the windfall tax on excess profits of energy companies will be extended until March 2028 and the tax rate charged to these companies will increase from 25% to 35%. Also relevant to note is that the “Autumn Statement” (finally) elevates energy efficiency.

The Chancellor’s words were,

“OVER THE LONG TERM, THERE IS ONLY ONE WAY TO STOP OURSELVES BEING AT THE MERCY OF INTERNATIONAL GAS PRICES: ENERGY INDEPENDENCE COMBINED WITH ENERGY EFFICIENCY”

Home insulation and boiler upgrades will receive extra funding between 2025 and 2028,

with £6.6 billion to be spent on energy efficiency, and a further £6 billion of funding from 2025. The goal is to reduce the energy consumption of buildings and industry by 15%.

The month ended with evidence that the US economy is slowing down. The day before Thanksgiving, new data showed a cooling of the labour market and Michigan’s consumer survey showed that unemployment expectations are at their worst level since 2011. The month also ended with Black Friday and Cyber Monday sales indicating that US consumers seem to be keen on discounts, with forecasts showing that the day after Thanksgiving buyers spent a record \$9 billion on online purchases, with over 1 trillion visits to retail websites.

US midterm elections were not a “red wave”, the IRA Bill to be executed without challenges:

US voters on November 8th did not deliver a “red wave”, but Republicans did win over the House while Democrats remained in control of the Senate. The outcome will compromise the Biden administration’s ability to pass further Democratic programs, but it does not jeopardize the IRA. When it comes to this comprehensive climate bill, Republicans will not have a chance to derail it until the Democrats leave the White House as President Biden has veto power over new legislation. The IRA was signed into a Bill on August 16th, and in September the Treasury Secretary released a draft with suggestions on how to implement the incentives, with the public period for comments just having ended. In December, we will see the Treasury Department releasing guidelines on implementation. Implementing the IRA will require an unprecedented effort by key agencies of the executive branch, particularly the Environmental Protection Agency and the Departments of Energy, Transportation, and Treasury. No matter how Americans voted, NatGas, crude and coal are likely to remain high and volatile for the next couple of years. While the energy crisis persists, Republicans will not be able to oppose the solutions that provide an alternative to expensive and volatile fossil fuel energy – for transportation, electricity or heat. The demand destruction that fossil fuel at current prices creates is a very big economic reason for consumers to

accelerate adoption of renewable solutions in the next two years while the White House is still under Democratic leadership.

Green Ups & Downs:

The iClima Distributed Renewable Energy Index, a big beneficiary of the IRA Bill, had a rally from November 3rd to November 18th, up 16.77% in the period, but the last two weeks of the month brought an end to what was potentially a bear market rally and the index ended November up 9.46%. The broader

iClima Decarbonization Enablers Index ended the month up 4.51%, with overall return brought down by Plant Based solutions, Tesla (TSLA, down 14.43%), names that lost lustre post pandemic (Zoom down 9.60% and Docusign down 2.55% in the month). A noticeable performance this month was the Hang Seng Index that ended the month up 27.22%, recovering from the selloff in Chinese markets, despite the protests against the Covid lockdowns in mainland China that dominated the news in the last days of November.



They talked!
Joe Biden and Xi Jinping at the G20 Summit in Bali, Indonesia.

GOOD COP, BAD COP, BROAD COP

World leaders reconvened in Egypt for COP27 from November 8th to the 17th.

Last year COP26 in Glasgow kept alive the ambition of limiting global warming to 1.5° Celsius, but the energy crisis - exacerbated by the invasion of Ukraine - poses additional challenges to a faster reduction in fossil fuel emissions. The reduced supply of natural gas in Europe is being solved in the short term with an increased use of coal for energy generation. In June, Germany, Austria and the Netherlands announced an emergency restart of coal power plants, postponing the planned decommissioning of the heavy emitters (coal power plants emit more than twice as much as natural gas plants of the same size). The perils of such a trend represent a further reduction in our chance to limit climate change. At the end of October, the UN Environmental Program (UNEP) published its 2022 Emissions Gap Report, pointing out that after a COVID-induced reduction in 2020, 2021 emissions rebounded and reached 52.8 Gt CO₂e, above 2019 levels. Yet again, world leaders reconvened to discuss solutions while scientists warned that we are running out of time.

The Bad

We have emphasized the importance of China in global decarbonization. On Tuesday November 8th, China's special climate envoy, Xie Zhenhua, reiterated the country's commitment to peaking emissions by 2030. The problem is that China, too, is burning more coal, which drove the 6% increase in its emissions last year. China burns more coal than the rest of the world combined, which is the main reason why the country is responsible for a third of all anthropogenic global GHG emissions (more than the total from the EU, US and Japan). Therefore, there was only one path for the discussions in Egypt to be truly consequential, and that was for a real commitment to accelerate the phasing OUT of coal, but the 200 countries did not reach an agreement on this pivotal issue.

The FT analysed past and future CO₂e emissions from the world's current coal-fired power plants, concluding that if operated for typical lifetimes and utilisation rates, the world's operating coal-fired fleet would emit 330 gigatons of CO₂e between now and 2100. These future emissions are more than the past

emissions of all power plants ever in operation and represent 2/3rd of the 500 gigatons that is our entire emissions budget if we wish to secure a 50% chance of limiting global warming to 1.5° Celsius.

There was a call for an acceleration of the energy transition to solve the energy crisis, with \$4 trillion of annual investments to support the goal of cheap electricity from renewable sources, which are to provide 65% of the world's total electricity by 2030. While over 88% of new capacity added in 2021 to the global electricity system was from solar and wind, the problem is that we are still adding coal fired power plants and natural gas ones, too. The word "coal" appears only once in the first draft of the cover text released a day before the end of COP, and it was in the sentence that refers to phasing down (and not OUT) of coal. But it calls for the phasing OUT of fossil fuel subsidies.

The (Potentially) Good

Two potentially very positive developments regarding coal are related to the efforts of President Biden. Firstly, President Biden and President Xi met in Bali on November 14th during the G20 meeting. The three hour discussion was characterised as a "Bridge-Building" effort; a closer relationship between China and the US could have positive repercussions to the energy transition. President Biden also met with Indonesia's president Joko Widodo on November 15th and agreed a \$20 billion climate finance deal to support the country pivot away from coal. Indonesia is committing to capping emissions from electricity at 290 Megatons by 2030, when renewable sources must represent at least 34% of all power generation.

No conclusion was reached on the implementation of Article 6, but a draft document was discussed with key language on how the international compliance carbon market would work, with discussions to continue in 2023. The new development on carbon tax at this COP was the idea brought up by US climate envoy, John Kerry, to use a voluntary carbon offset market to fund the acceleration of the energy transition for developing countries.

The Broad

In Glasgow last year, the energy crisis was already showing signs of escalation, which undoubtedly escalated even further with Russia's invasion of Ukraine in February. The energy trilemma in the short term is being solved with a focus on security of supply, and EU countries are burning coal and extending the useful life of nuclear plants marked for decommissioning. This is the context of COP27, which we believe will be known for the year when adaptation, climate resilience and regeneration were elevated. In other words, the annual UN gathering this year saw the broadening of the issues, beyond GHG mitigation. Elevating adaptation goals means raising awareness and ambitions on water related problems, as 80% of adaptation strategies are water related. Loss and damage were also centre stage in Egypt, an acknowledgment that we have not mitigated enough and need to focus on adaptation, but that we may not adapt and build resilience fast enough and therefore need to repair loss and

damage as well.

Elevating adaptation and loss & damage for the most vulnerable was a clear, positive outcome of this COP. The countries agreed to launching a fund to support loss and damage in developing countries. The much-used terms were "avert", "minimise" and "address" referring to - respectively - mitigation, adaptation and to loss that at this point cannot be avoided. Although adaptation and loss & damage are now being elevated, specific goals for adaptation measures will only be discussed at COP28. The agreement for this COP27 is to at least double the financing for adaptation. The current levels of international adaptation-related finance flows, in particular to the most vulnerable in developing countries, is "insufficient and inadequate" to respond to climate change impacts. Loss and damage in the context of the current temperature at an additional 1.2° Celsius of warming already leaves the most vulnerable countries significantly affected.



Khafre Pyramid, one of the three ancient pyramids of Giza was lit up ahead of the start of COP27

MORE 3Q22 RESULTS AND EVIDENCE OF ACCELERATION, NOT YET REFLECTING MASSIVE BENEFITS FROM THE IRA BILL

iClima Climate Change Adaptation Index:

Increasing droughts and floods elevate the need for food security solutions, and Controlled Environment Agriculture (CEA) addresses not only security of supply, but also a way to increase food supply while reducing water consumption and land usage. This month we saw the global population reach 8 billion, which just underscores the importance of CEA. However, the current economic environment has had a substantial impact on companies in this space; namely, supply chain issues, higher cost for ongoing capex, an increase in the cost of capital, and consumers reducing spending. Companies such as AppHarvest and Local Bounti are focusing on capital preservation, revising strategies to emphasize a path to profitability and not growth at higher burn rates. More discipline in capital spending is positive and we do expect to have more clarity on the economic model for these key CEA players.



AppHarvest

AppHarvest, Inc. (APPH, down 57.66% in November, down 76.82% YTD) The world's largest high-tech indoor farm leader reported 3Q22 results that fell short of analyst expectations. **Dissecting top line.** The Kentucky CEA leader reported net sales of \$524,000 in 3Q22, down 3.5% from \$543,000 in the same quarter last year. The company's tomato volumes were 50% lower this quarter, at 0.75 million pounds versus 1.5 million pounds in 3Q21. The company stated that the low production was attributable to the annual summer refresh of the Morehead farm, as well as lower yield due to plant health complications disclosed previously this year.

Insights on margins:

Despite a 21.5% decrease in COGS and a 31% decrease in operating expenses compared to the previous year, the company recorded a net loss of \$24 million, compared to a net loss of \$17.3 million the previous year, due to lower produce yield. In 3Q22, AppHarvest recorded a non-GAAP adjusted EBITDA loss of \$12.0 million, compared to a loss of

\$16.5 million in 3Q21.

Relevant events:

In a significant departure from its plan to build and operate a dozen farms by 2025, management indicated in its earnings call that it would pause its 2025 plan and instead focus on achieving profitability of its four farms in the coming years.

Capital structure:

The company ended the quarter with \$36.2 million in cash and cash equivalents, with approximately \$25 million in remaining credit facility. AppHarvest anticipates capex of approximately \$85 million to \$95 million over the next two quarters for the completion of the three construction projects currently underway, with \$50 million to \$55 million spent in Q422 and the remaining \$35 million to \$40 million in 1Q23. Discounting the additional sources of financing, AppHarvest's existing cash and cash equivalents will only fund its planned operations into the first quarter of 2023. AppHarvest hopes to sell its 15-acre Berea farm to its distributor, Mastronardi Produce Limited, and then lease back the facility, raising the \$85 million to \$95 million needed for the next 12 months.



Local Bounti (LOCL, down 29.05 % in November, down 67.44% YTD)

The Montana-based breakthrough U.S. indoor agriculture company, reported results post acquisition of Pete's, missing analysts' forecasts.

Dissecting top line:

In 3Q22, the company reported revenues of \$6.3 million, up from \$0.2 million for the same period in the previous year. Revenue was impacted by an isolated logistics issue, but this was offset in part by an increase of 13% for the quarter's revenue from the Company's Montana facility. The company's Georgia facility, which opened this quarter, is still in the commissioning stage.

Insights on margins:

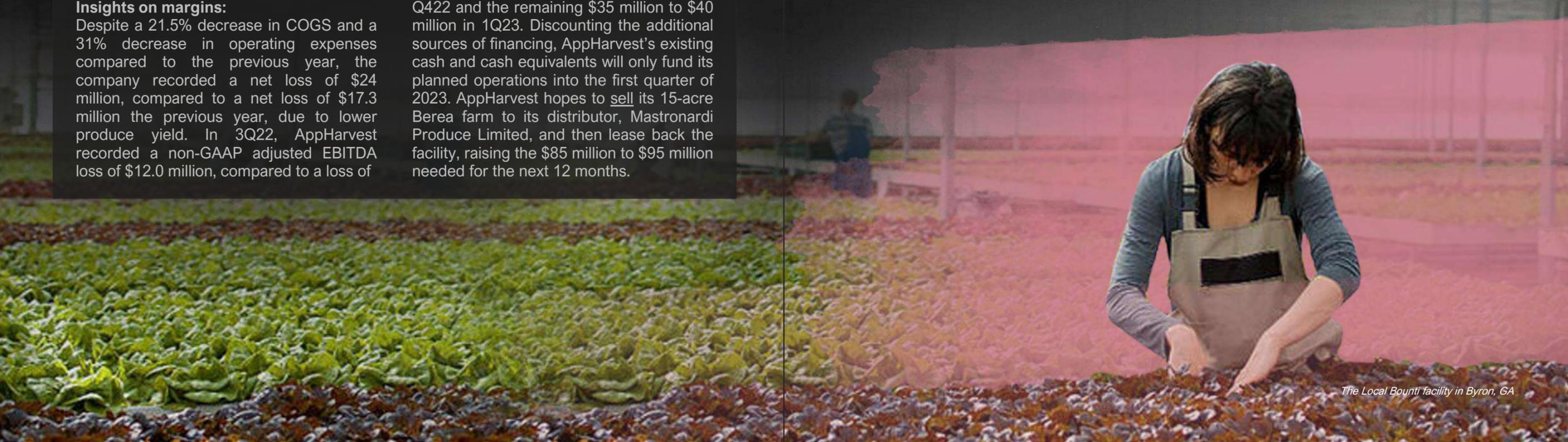
The company reported 3Q22 gross profit of \$1.3 million, with an adjusted gross margin percentage of c. 38%. Net loss registered was \$27.1 million and adjusted EBITDA loss was \$7.3 million in 3Q22 compared to a net loss of \$10.8 million and adjusted EBITDA loss of \$5.5 million in the previous period.

Relevant events:

Local Bounti signed a five-year offtake agreement with Sam's Club earlier this month for its leafy greens production at its greenhouse facility in Byron, Georgia. In terms of facilities, the company continues to advance its expansion of the Georgia facility, which will double the existing footprint and increase capacity with the addition of its Stack & Flow Technology. Following the completion of Phase 1-A construction in July 2022, construction of Phase 1-B began in June 2022 and is expected to be completed in 1Q23. The Pasco, Washington facility, which includes multiple stack zones and three acres of greenhouse space, is still under construction and is expected to be completed in 3Q23.

Capital structure:

The Company ended the quarter with \$24.0 million in cash, cash equivalents & restricted cash and approximately \$34.4 million in an undrawn credit facility with Cargill Financial Services International. Following the end of the third quarter in October 2022, Local Bounti arranged a \$23.3 million Private Investment in Public Equity (PIPE) investment in the Company. Including the proceeds of the PIPE, the company's total liquidity stands at \$80 million.



The Local Bounti facility in Byron, GA

iClima Global Decarbonisation Enablers Index:

The wind sector continues to face short term pressures from supply chain disruptions, component bottlenecks and the increased cost of raw materials. Renewable technologies like wind need about 10x the raw materials as conventional technologies and supply chain issues are therefore particularly challenging, according to Siemens Energy CEO, Christian Bruch. In addition, contracts agreed pre-pandemic are now priced below the cost of parts. While wind power will undoubtedly form a major part of the solution to the energy transition in the medium term, Q3 results reflected these short term struggles that companies face in the sector.



Vestas

Vestas (VWS, up 20.93% in November, down 10.27% YTD) The Danish wind manufacturer reported 3Q22 results on 2nd November.

Dissecting top line:

Revenue for the nine months to 3Q22 was down 12% to €9.7 billion from €11.0 billion for the same period last year, driven by project delays. The company cited delayed orders from customers facing cost inflation and offtake uncertainty, but that this was balanced by an increase in activity for Vestas' services business.

Insights on margins:

EBITDA margin (before special items) of 1.3% for the nine months to 3Q22 was significantly below the 9.0% achieved in the same period last year, reflecting supply chain disruptions and cost inflation as well as project delays.

Capital structure:

Vestas recorded €1.4 billion in debt as of 3Q22, with two green bonds of €500 million each that will mature in 2029 and 2034, and with their interest rates linked to Vestas' sustainability KPIs; and €475 million drawn from an EIB green loan facility maturing in 2032. Net debt to EBITDA stood at 2.6x as of Sep. 2022. The company stated this ratio will remain above 1x in the short term.



Nordex (NDX1, up 27.09% in November, down 13.59% YTD) Reporting Q3 results on 14th November, the German wind turbine manufacturer continued to face the same short-term issues plaguing the industry mentioned above.

Dissecting top line:

While its production of turbines was nevertheless, slightly higher for the nine months to 3Q22 as compared to the same period last year, installations were down from delays in projects within Europe, its largest market. Overall sales for the nine months to 3Q22 were down 2.1%, to €3.9 billion from €4.0 billion in Q321.

Insights on margins:

Anticipating an increase in orders from a strong order book, the company increased its inventories and staff costs; the latter rose by 22% in the first nine months. EBITDA was down significantly to negative -€199.8 million from €100.7 million in the previous year.

Relevant events:

The company reached an important technological milestone with the unveiling of its N175/6.X turbine. With a newly designed one-piece rotor, it achieves an above-average capacity factor and can generate between 7-14% additional output compared to its predecessors.

Capital structure:

The company successfully completed two capital increases. The Company generated gross proceeds of €351 million overall, consisting of €139 million from a capital increase with pre-emption rights disapplied by way of a private placement with its anchor shareholder (Acciona SA) and €212 million from an additional rights issue. The Nordex Group also secured repayment of the high-yield bond for 2023.

Orsted

Orsted (ORSTED, down 0.14 % in November, down 25.71% YTD) This Danish renewable onshore wind, offshore wind and bioenergy developer reported 3Q22 results on 3rd November.

Dissecting top line:

Total top line revenue increased significantly to DKK 96.6 billion (\$13.6 billion) for the nine months to 3Q22, up from DKK 47.0 billion (\$6.6 billion) for 3Q21. This was driven by a 40% increase in power generation from the ramp up of new offshore and onshore assets. Higher power prices in the U.S. and Europe also bolstered results, including recent PPAs that include upside-sharing structures in periods of high prices. According to the 3Q22 investor presentation, offshore wind speeds for the quarter were slightly above last year (7.7 vs. 7.6 m/s) but below norm (8.4 m/s).

Insights on margins:

The company had significant negative effects from hedging that reduced free cash flow, including volume-related over hedging and other IFRS 9-related ineffective hedges.

Capital structure:

Net debt increased as a result to DKK 45.7 billion (\$6.4 billion) from DKK 21.2 billion (\$3.0 billion) in 3Q21. More than 95% of gross debt (bond and bank loans) are at fixed interest rates.

Relevant events:

Orsted currently has c. 29 GW of renewable capacity installed, under construction and awarded, with an ambition of reaching c.50 GW by 2030. It completed the acquisition of the German and French onshore platform Ostwind in 3Q22, and also implemented a new organisational structure in the quarter along regional lines to drive global growth.



An Orsted turbine at the Hornsea 1 Wind Farm, which generates enough green energy to power over 1 million UK homes. Source: orsted.co.uk

iClima Distributed Renewable Energy Index:

With the IRA signed into a Bill on August 16th, we will start to see positive impacts from the new legislation only in 2023. The IRA will increase investments across many activities, with c. \$394 billion of federal funding to clean energy delivered via tax incentives, grants and loan guarantees. Tax credits for corporations is the largest component (\$216 billion), followed by grants (\$82 billion) and tax incentives to consumers (\$43 billion).



SUNRUN

Sunrun (RUN, up 44.74% in November, down 5.01% YTD)

The largest installer of residential solar rooftop systems in the US released earnings for 3Q22 on November 2nd. Results were above expectations and RUN shares were up 18.7% the following day.

Dissecting top line:

Sunrun reported 3Q22 revenue of \$631.9 million, 44% higher than 3Q21. By end-September, the company reached 759,937 customers (of which 84.2% are subscribers), with 35,760 new customers added in the quarter. The average contract life remaining for their users is 17.6 years.

Milestones:

Sunrun ended the quarter with a network solar capacity of c. 5.4 GW. The company's key metric is Net Subscriber Target, which was expected to be \$10,000 but ended up at \$13,259 in the quarter. Currently only 4% of the 77 million addressable homes in the U.S. have solar rooftops and the IRA is expected to increase the rate of adoption. The IRA gives a 10-year extension to the 30% solar ITC, a \$7,500 credit for new EVs and a \$4,000 credit for used EVs, while solar & battery storage projects for low-income households receive an additional 10% bonus tax credit. The fiscal stimulus is expected to boost Sunrun's "Solar as a Service" model, and the company's guidance is for a 25% increase in solar energy capacity installed in 2022.

Capital structure:

Sunrun closed the quarter with over \$700 million available in its \$1.8 billion non-recourse senior revolving facility, enough to fund c. 300 MW of solar capacity for subscribers. The company finished the quarter with \$672.0 million of cash and \$283.8 million in restricted cash.

SUNPOWER™

SunPower (SPWR, up 31.15% in November, down 16.20% YTD)

Top line growth & margins:

SunPower added 23,000 new customers in the quarter, reaching 486,700 customers by the end of September. That translated into revenue from continuing operations of \$475.7 in 3Q22, a 67% increase over 3Q21. Gross margin in the quarter remained flat versus the previous year, at 22.2%, while adjusted EBITDA increased to \$32.6 million in the period, versus \$26.3 million in 3Q21. EBITDA guidance for the year was reaffirmed at \$90.0 million to \$110.0.

Strategic developments:

In October, the company announced a strategic partnership with GM that named SunPower its preferred EV charger-installer and exclusive solar provider. Moreover, with the partnership GM wants to enable its EVs to provide "backup energy to an equipped home with bi-directional charging" (called Vehicles to Grid, or V2G). In the quarter the company also deepened its exclusive agreement with Dream Finders Homes to be its sole provider of solar and storage solutions. Dream Finders Homes is building five solar-standard communities in Colorado that can operate as Virtual Power Plants (VPPs).

Cash position:

At the end of 3Q22, the company had \$396.5 million in cash and \$138.7 million in short term investments. The current portion of their convertible debt is at \$424.6 million.



Alfen N.V. (ALFEN, down 14.68 % in November, down 3.98% YTD) The Dutch developer of smart grids, EV charging and energy storage solutions posted 3Q22 revenue that was double that of 3Q21.

Dissecting top line. The €123.2 million in revenue was 103% higher than 3Q21, primarily driven by EV charging equipment that nearly tripled in size in the last year, and energy storage system sales growth that reached €17.0 million in the quarter, almost the full amount of revenue booked in FY21. Management reiterated full 2022 revenue guidance at €410.0 to €470.0 million

Margins:

Gross margin in 3Q22 was €42.9 million (34.8%) and adjusted EBITDA was €24.5 million, in line with previous quarters, but management emphasized the supply chain and inflation pressures across all segments.



SolarEdge Technologies (SEDG, up 29.92 % in November, up 6.52% YTD)

The Israeli company produces PV, storage, EV charging, batteries, electric vehicle powertrains, and grid services solutions but is best known for its inverters.

Dissecting top line & margins:

In 3Q22 the company reported record revenues of \$836.7 million, of which 94% were in the solar segment, representing 15% growth over 2Q22 and 59% up over 3Q21. What is leading the sales momentum in the year is higher demand in the EU, where revenue was up 90% over 3Q21. Management guidance for 4Q22 revenue is between \$855.0 to \$885.0 million. Gross margins, however, deteriorated to 26.5% in 3Q22 versus 32.8% in 3Q21, but management expects solar margins to improve to c. 31% by year end.

New developments: The company has a well established and comprehensive set of residential and commercial solutions for PV, storage, smart energy, and EV charging and is launching a full utility scale offering. The strategy is to launch products that leverage inverters as the focal point. The company is also creating new applications, such as the virtual power

plant business. SolarEdge launched a cloud-based virtual power plant (VPP) service, aggregating and optimizing the fleet of smart inverters and distributed energy assets, with current clients in Vermont, the Netherlands and Australia using VPP service.



Meyer Burger (MBTN, up 4.58% in November, up 23.34% YTD)

The German high end rooftop solar panel manufacturer is in the right segment, in the right country and at the right time.

Revenue & strategy:

Management's previous sales plan for 2023 had a target of 30% of sales for utility-scale projects but now the company expects sales to be almost completely in the high-margin residential rooftop segment. Sales in 1H22 reached €56.7 million, over 3 times the figure in 1H21.

Capital raise:

In November, the company concluded a rights offering where it raised CHF 250.0 million (\$264.6 million), which will be used to increase its capacity so it can reach c. 3 GW by the end of 2024.



Wallbox N.V. (WBX, down 19.71 % in November, down 65.61% YTD)

The Barcelona-based provider of energy management home solutions and EV charging announced hypergrowth numbers.

Revenue & margins:

In 3Q22, Wallbox reached €44.1 million in sales having delivered 67,000 chargers in the quarter, a 140% growth rate over 3Q21 while achieving a gross margin of 41.4%. Management reiterated full-year 2022 revenue in the range of €154.0 to €164.0 million, a c. 115% to 130% YoY growth rate.

New developments:

The company announced several new partnerships, including Fisker and Uber (for the EU market); it opened its first factory, located in Texas, as part of a strategy to be a leading U.S. manufacturer of EV charging solutions and be able to qualify for IRA incentives; Wallbox also released "Hypernova", a new 400kW DC public charger.



Proterra (PTRA, down 11.22% in November, down 37.26% YTD)

The Californian maker of electric transit vehicles and EV technology for commercial applications posted 3Q22 results in November.

Dissecting top line:

Revenues in the quarter reached \$96.2 million, a 55% growth over 3Q21 when 60 e-buses and 292 battery systems were delivered (94 MWh of batteries produced). Proterra Transit represented 58.5% of total sales, with the remainder generated by the Powered & Energy business line.

Insight on Margins:

SG&A expense grew materially in the past year, and R&D also grew but in proportion to revenue growth, which caused operating losses of \$57.9 million in 3Q21, and \$147.2 million YTD (as opposed to \$86.8 million in the first three quarters of 2021).

Insights on pipeline:

IRA will benefit the company in two key ways. Firstly, the Bill provides a Commercial Clean Vehicle Credit in the form of a 10-year tax credit, beginning in 2023, of up to 30% (\$40k per vehicle) of the price of a new Class 4 - 8 electric commercial vehicles; secondly, it also provides a production tax credit for US manufactured battery facilities.

Capital structure:

Cash at the end of the quarter was \$59.6 million, with an additional \$348.9 million in short-term investments (US Treasuries) available to weather the storm. Proterra has \$117 million in convertible notes maturing in 2025.



EVGo (EVGO, down 13.63% in November, down 35.61% YTD)

The US public electric vehicle fast charging network reported its 3Q22 results on November 2nd.

Dissecting top line:

Revenues for the quarter reached \$10.5 million, a 70% increase year-over-year from \$6.2 million and up 15% on 2Q22 revenue. Growth was “primarily driven by higher retail charging revenue and increased ancillary revenues and regulatory credit sales.”

Margins:

The company reported adjusted gross margins of 19% for the quarter, down by 3.2% from 3Q21. This was attributed to lower priced Low Carbon Fuel Standard (“LCFS”) credits and higher energy costs, though this was “partially offset by improved leverage of network fixed operating costs.”

Insights on pipeline:

EVGo added 54,000 customer accounts during the quarter, bringing the total to c. 498,000, an increase of approximately 60% year-over-year. The company ended the quarter with 2,625 stalls in operation or under construction, having added 188 new stalls to the network during the quarter. Network throughput increased to 12.1 GWh in the third quarter of 2022, compared to 8.0 GWh in the third quarter of 2021, representing 51% year-over-year growth.

Capital structure:

The company ended the quarter with \$301.0 million cash and adjusted EBITDA for the quarter was negative \$22.0 million.



Blink Charging Co. (BLNK, down 6.22% in November, down 47.64% YTD)

The Florida EV charging network and solutions provider reported 3Q22 results on the 8th of November.

Dissecting top line:

The company noted a 169% increase in total revenues to \$17.2 million in the quarter compared to \$6.4 million in 3Q21. Product sales were up 177% to \$13.4 million for the quarter compared to 3Q21 “primarily driven by increased sales of commercial chargers, DC fast chargers, and residential chargers.” Service revenues were also up 123% to \$3.1 million versus \$1.4 million in 3Q21 “primarily driven by an increased number and greater utilization of chargers in Blink’s portfolio, significant increase in network fees, and increased revenues associated with the Blink Mobility ride-sharing service program.”

Insights on pipeline:

Blink reached 7,834 charging stations contracted, deployed or sold in 3Q22. This is an increase of 160% over 3Q21, bringing its total to 58,907 with over 440,000 users on its networks across 25 countries with 74% of its chargers in North America and the remaining 26% international. The expansion is supported by a recent redesign of its network and app to create a more seamless experience for more users.

Margins:

Regarding Blink’s acquisitions of SemaConnect and EB in the 2nd quarter, the CFO noted on the 3Q22 earning call that the company is “going from a path of us having third parties manufacture equipment for us to doing it internally,” which he believes will lead to higher margins in the future as they realise more synergies. The acquisitions did, however impact adjusted EBITDA for the quarter, which was a loss of \$17.6 million compared to \$8.4 million in the prior year period. Although the CFO noted that “adjusted EBITDA as a percentage of revenues for the third quarter and for the first nine months of 2022 both improved by about one-third when compared to the same periods in 2021.”

Capital structure:

As of September 30, 2022, cash and cash equivalents totalled \$57.0 million.



Stem (STEM, down 3.91% in November, down 31.10% YTD)

The Californian provider of AI solutions for energy management reported very solid 3Q22 results on November 3rd.

Dissecting top line:

Stem’s revenue in 3Q22 was almost \$100.0 million, up 150% over 3Q21 and up 49% over 2Q22, as contracted storage under management reached 2.4 GWh by end of September, with solar monitoring AUM at 25 GW. The contracted recurring revenue represented 61% of total revenue.

Insights on pipeline:

In 3Q22, bookings added up to \$223.0 million (up from \$104.0 million in 3Q21), while contracted backlog reached a record of \$817.0 million (up 162% over 3Q21) and 12-month pipeline was reported as \$7.2 billion. Management said they “started to see an increase in demand from our customers following the passage of the (IRA) Act, as evidenced by the 29% sequential increase in our 12-month pipeline. In particular, many of our Behind-the-Meter (BTM) customers are increasing their investments in renewables as a result of the Act.”

Margins:

Stem’s Operating Margin increased to 13% while Adjusted EBITDA in 3Q22 was a loss of \$12.5 million. Management gave guidance of positive EBITDA being achieved in the second half of 2023.

Capital structure:

Stem ended the quarter with \$100.0 million in cash and \$193.0 million in short term investments and a long-term convertible note of \$447.4 million due in 2028, issued in November 2021. Stem subsequent to the issue acquired Also Energy, with 75% of the consideration paid in cash.



The Proterra ZX5 Electric Transit Bus

iClima Long Duration Energy Storage Index:

Green hydrogen in the US is expected to materially increase in 2023, when the IRA kicks in. Goldman Sachs' Carbonomics author called the US IRA "really a turning point on the economics of a lot of these technologies, with really generous incentives." We expect the first big application for green H2 to be long duration energy storage (LDES). IRA makes US green H2 competitive with blue H2 (also because NatGas prices are higher than historical levels). The new clean electricity tax credits allow any project producing zero-emissions power to receive either a 30% investment tax credit or a production tax credit worth 1.5 cents/kWh. In addition, there is a ten year \$3/kg credit for clean hydrogen. Combined, green H2 incentives add up to ca. \$4.50/kg.



Bloomenergy

Bloom Energy (BE, up 13.79% in November, down 2.92% YTD)

A California company that enables distributed generation of energy and hydrogen, Bloom reported 3Q22 earnings on November 3rd.

Dissecting top line:

3Q22 revenue was \$292.3 million, an increase of 41.1% compared to \$207.2 million in 3Q21 with management citing the Inflation Reduction Act (IRA) as a tailwind as well as strong demand and increased manufacturing capacity.

Margins:

The company reported gross margin of 17.4% in the third quarter of 2022, compared to gross margin of 17.8% in the third quarter of 2021 with CEO K R Sridhar commenting on the earnings call that we will see "better margins in Q4 as our volumes ramp up" on the back of the company's Fremont factory expansion. The company underlined its guidance of doubling manufacturing capacity in 2022.

Capital structure:

The company has a cash balance of c. \$670.0 million and recourse debt of \$294.0 million. Bloom announced a \$338.0 million public offering of class A stock in August with intent to use the proceeds for "general corporate purposes, including research and development and sales and marketing activities, general and administrative matters and capital expenditures" and possibly to repay debt. SK Ecoplant are also due execute a second tranche option to purchase an additional 13.5 million Class A shares at \$23.05 per share for gross proceeds of \$311.0 million and convert 10 million redeemable convertible preferred shares to Class A shares in 1Q23 subject to regulatory review.



PlugPower (PLUG, down 0.13% in November, down 43.46% YTD)

The US hydrogen and fuel cell specialist reported 3Q22 results on November 8th.

Dissecting top line:

3Q22 revenues of \$188.6 million were up 31% over 3Q21 and 25% on 2Q22. Although the company noted that 2022 revenue could potentially be 5-10% lower than the previous target of \$900-925 million due to timing of larger projects and supply chain issues, they did reaffirm their 2023 revenue forecast of \$1.4 billion and longer term 2026 and 2030 revenue targets of \$5.0 billion and \$20.0 billion, positioning "Plug to deliver annual revenue growth of 50% through 2030."

Margins:

The company's gross margin was -24%, down 3% sequentially and down 2% year-over-year. While margins on the fuel cell systems, related infrastructure and equipment were 19%, the company noted that margins for the fuel segment "remained under significant pressure due to increased hydrogen molecule cost associated with historically higher natural gas prices and continued supplier disruptions." Plug Power has set operating margin targets of 17% and 22% in 2026 and 2030, respectively.

Capital Structure:

The company ended 3Q22 with over \$3.5 billion in cash and liquid investments noting that the passing of the IRA Act "increases opportunity for recycling capital to fund ongoing investments."

iClima Early Stage Climate Change Solutions Index:

Companies in the pre revenue phase or that have just achieved commercialization are experiencing poor share performance in a market that does not reward future growth. Many of the companies in the ERLY index listed in the 2020 and 2021 favourable markets, many under SPAC structures that had aggressive growth forecasts. However, the solutions are relevant and many companies will benefit from IRA stimulus.



WORKHORSE

Workhorse (WKHS, down 14.81% in November, down 47.25% YTD)

The Ohio-based last-mile electric vehicle and drone delivery specialist reported results on November 8th.

Dissecting top line & margins:

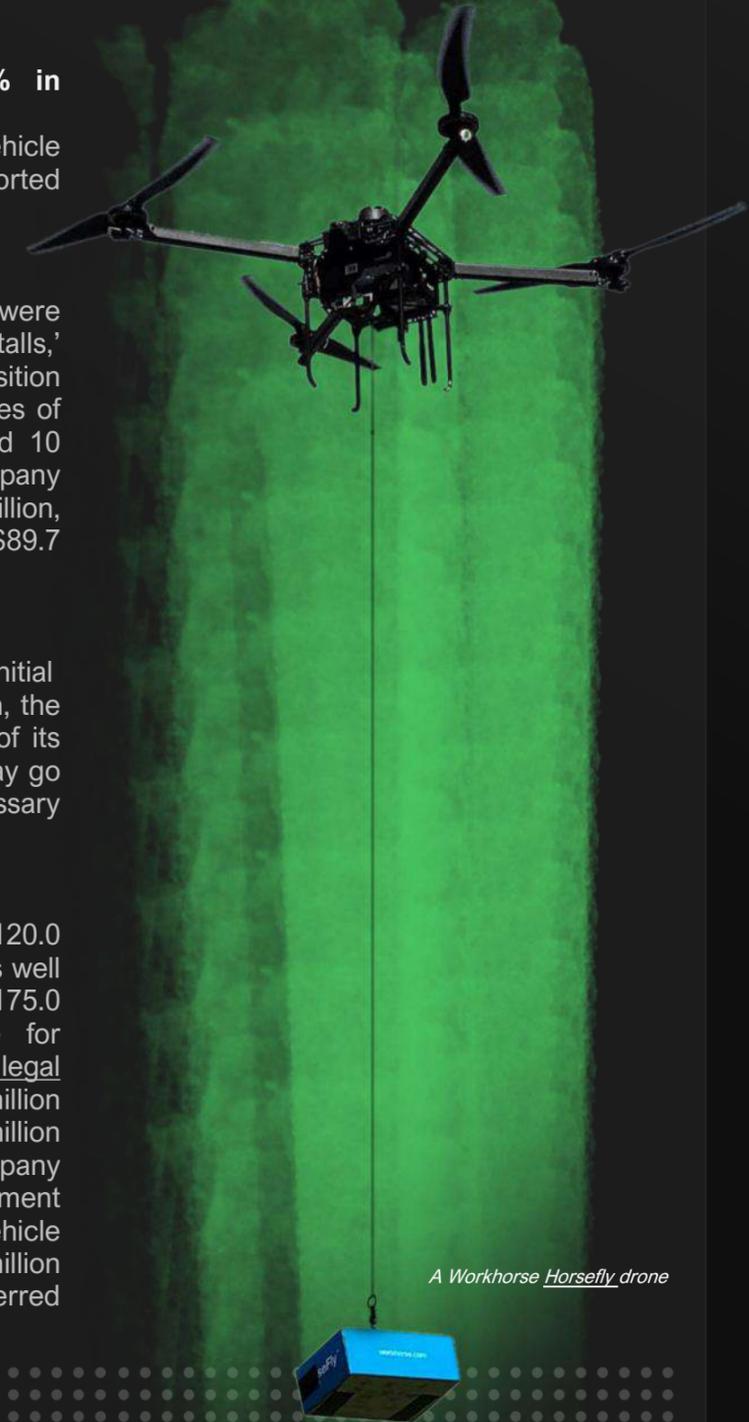
3Q22 revenues of \$1.55 million were attributed to the launch of 'Stables & Stalls,' which helps small fleet operators transition to electric vehicles as well as first sales of their W4 CC van, of which they sold 10 units in the quarter. In 3Q22 the company had an operating loss of \$48.8 million, bringing the YTD operating loss to \$89.7 million.

Pipeline:

The company is on schedule to begin initial pilot builds of its package delivery van, the W75, in Q422 and is in final testing of its Horsefly drone, which they posited may go into production in 2023 once necessary equipment and skills are developed.

Capital Structure:

The company is debt free, has \$120.0 million in cash and cash equivalents as well as an unused ATM program with \$175.0 million of common stock available for issuance. A recent \$35 million legal settlement will be offset by a \$15.0 million insurance receivable and \$20.0 million payable in Workhorse stock. The company also made a \$10.0 million equity investment in the compact electric utility vehicle company, Tropos, receiving a \$5 million non-cash contribution deposit in deferred revenue.



A Workhorse Horsefly drone

iClima Circular & Shared Economy Index:

There have been some positive developments in the circular economy sector, despite the easing of pandemic-prompted tailwinds, surging inflation, and aggressive rate hikes that have hurt capital markets.



Despite the current headwinds and turmoil in the FAANG stocks, e-commerce platforms such as ETSY and Pinduoduo have proven to be outliers, particularly Pinduoduo that appears to still be benefiting from China's long zero-COVID policy. Shared economy platforms such as Airbnb, Zoom, and Lyft have also seen sustained post-COVID performance, though Lyft's pure-play ride-sharing model may jeopardize its future. All is not well with plant-based alternative companies. Beyond Meat, Oatly, and Tattooed Chef, three plant-based alternative companies, are in trouble. The category, which was expected to grow rapidly, is now showing signs of waning consumer appetite for plant-based diets, as well as increased competition from cheaper alternatives, owing to high food inflation. With rising product costs, these companies are battling to maintain revenue growth and improve margins.



Pinduoduo

Pinduoduo (PDD, up 49.63 % in November, up 40.72% YTD)

Despite the headwinds affecting Chinese markets, the Chinese online agriculture ecommerce platform delivered impressive results that exceeded analyst expectations.

Dissecting top line:

The company recorded a 65% increase in total revenues, to CNY 35,504.3 million (US\$4,991.1 million) from CNY 21,505.8 million in the same quarter last year. According to the company, the increase was primarily due to an increase in revenues from online marketing services and transaction services, which were attributable to various initiatives such as coupons and promotional events, as well as growing consumer demand for superior products within categories such as agricultural produce, electronics, household appliances, and cosmetics.

Insights on margins:

The operating profit was CNY 10,436.6 million (US\$1,467.2 million) in the quarter, up 388% from CNY 2,139.3 million in the same quarter last year. Total revenue costs were CNY 7,414.1 million (US\$1,042.3 million), up 13% from CNY 6,558.6 million in 3Q2021. The increase was primarily due to higher fulfilment and payment processing fees. The total operating expenses were CNY 17,653.6 million (US\$2,481.7 million), representing a 38% increase from CNY 12,807.8 million in the same quarter of 2021.

Relevant events:

As its exclusive e-commerce platform partner, Pinduoduo launched a dedicated platform to support the Annual Harvest Festival in September. The Harvest Pavilion, which runs for three months, showcases over 0.5 million different types of agricultural products from across the country.

Capital structure:

The company ended the quarter with CNY 137.8 billion (US\$19.4 billion) in cash, cash equivalents, and short-term investments, up from CNY 92.9 billion as of December 31, 2021.

Etsy

Etsy (ETSY, up 40.66% in November, down 39.67% YTD)

The online marketplace reported its third-quarter earnings, beating analysts' revenue and EPS estimates for the 12th consecutive quarter, delivering a more resilient e-commerce environment than market participants might have expected due to high inflation and an impending recession.

Dissecting top line:

In 3Q22, the company reported consolidated revenue of \$594.5 million, an increase of 11.7% over 3Q21. The consolidated Gross Merchandise Sales (GMS) performance was \$3.0 billion, a 3.3% year-over-year decrease but 0.7% year-over-year increase on a currency-neutral basis, impacted by macro

headwinds such as reopening, pressures on consumer discretionary spending, foreign exchange rate volatility, and ongoing geopolitical events. When compared to pre-pandemic levels, the Etsy marketplace acquired approximately 6 million new buyers, maintaining a significantly higher rate of new buyer acquisition.

Insights on margins:

The company reported a net loss of \$963.1 million, down \$1.1 billion year over year, due to an impairment charge of \$1.0 billion on Depop and Elo7 goodwill. Non-GAAP Adjusted EBITDA was \$167.8 million, with a margin of 28%, a 500-basis point decrease from the third quarter of 2021.

Relevant events:

Etsy launched a new image search feature earlier this month to help users find what they're looking for faster. Until recently, the only way to search on Etsy was to use keywords.

Capital structure:

Etsy had \$1.1 billion in cash and cash equivalents, as well as short- and long-term investments, at the end of the third quarter.



Lyft (LYFT, down 23.36% in November, down 73.74% YTD)

Dissecting top line:

The US-based ride-sharing app Lyft reported 3Q22 revenue of \$1,053.8 million, up from \$864.4 million in the third quarter of 2021, a 22% YoY increase. Active Riders increased 7% YoY to 20.3 million in 3Q22, up from 18.9 million in 3Q21. Revenue per Active Rider increased 14% year over year in 3Q22 to \$51.88 from \$45.63 in 3Q21, attributable to licensing and data access agreements, as well as revenue from bikes and bike station hardware and software sales.

Insights on margins:

The company recorded a net loss of \$422.2 million for 3Q22 compared to net loss of \$99.7 million in the same period of 2021. Net loss margin for 3Q22 was 40.1% compared to 11.5 % in the same period the previous year. The cost of revenue for the company increased by 45%, from \$392 million in 3Q21 to \$570.7 million in 3Q2022. SG&A expenses increased by 25% this

quarter compared to the previous year.

Relevant events:

The company announced it was laying off 13% of its staff, joining the wave of tech companies that are laying off employees in massive numbers.

zoom

Zoom (ZM, down 9.60% in November, down 58.99% YTD)

The online video telecommunications platform third-quarter earnings performance this month exceeded market expectations and forecasts.

Dissecting top line:

In 3Q22, the company's total revenue was \$1,101.9 million, a 5% increase over the previous year. After adjusting for the impact of foreign currency, revenue in constant currency was \$1,126.1 million, up 7% year on year. Enterprise revenue was \$614.3 million, a 20% increase year over year, while online revenue was \$487.6 million, a 9% decrease year over year.

Insights on margins:

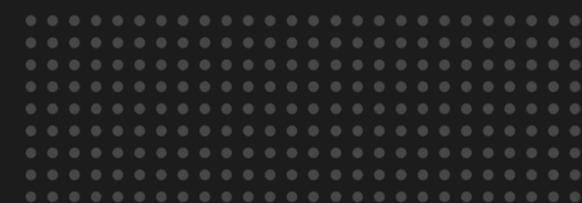
GAAP net income was \$48.4 million in 3Q22, compared to \$340.3 million in 3Q21. GAAP operating margin was 6.0%, while non-GAAP operating margin was 34.6%.

Relevant events:

Earlier this month, the company announced new product integrations such as Zoom Mail and Calendar, which allow popular email and calendar services to be integrated directly into Zoom, allowing users to access their communications and schedule more quickly and efficiently. Zoom Spots, Zoom's virtual co-working space solution, was also introduced.

Capital structure:

Zoom had \$5.2 billion in cash, cash equivalents, and marketable securities as of October 31, 2022, excluding restricted cash. Free cash flow was \$272.6 million in 3Q22, compared to \$374.8 million in the previous quarter.





AirBnB (ABNB, down 4.46% in November, down 38.65% YTD)

The online marketplace for rental accommodations, Airbnb announced a set of impressive third quarter earnings, recording their best quarter in revenues, profits and cash position.

Dissecting top line:

The San Francisco-based company reported \$2.9 billion in revenue for the third quarter, citing it as their best quarter ever. Revenue increased by 29% year on year (or 36% ex-FX), driven by a combination of strong growth in nights and experiences booked as well as continued strength in Average Daily Rates (ADR), resulting in nearly \$16.0 billion in Gross Booking Value (GBV) in 3Q22. Despite macroeconomic uncertainty, nights and experiences booked increased 25% year on year in 3Q22.

Insights on margins:

Airbnb also had its most profitable quarter ever, with a Q3 net income of \$1.2 billion, up \$380.0 million from the previous quarter. The company delivered a net income margin of 42% in 3Q22, up from 37% in 3Q21. Adjusted EBITDA of \$1.5 billion in the third quarter set a new high. Adjusted EBITDA increased 32% in 3Q22 compared to \$1.1 billion in 3Q21. The adjusted EBITDA margin in 3Q22 was 51%, up from 49% in Q3 2021.

Relevant events: On November 16, the company unveiled the 2022 Winter Release, a brand-new, super-simple way for millions of people to Airbnb their homes. The online platform also stated that longer lead times for bookings continued in 3Q22, indicating a strong backlog for Q4.

Capital structure:

The company's free cash flow for the third quarter of 2022 was \$960 million. It had \$3.3 billion in TTM FCF, representing a 41% TTM FCF margin. Revenue growth and net margin expansion drove the increase in cash flow.



Beyond Meat (BYND, down 7.07% in November, down 77.61% YTD)

The US-based plant-based meat company

announced a consecutive quarter of disappointing performance, reporting a wider net loss and a decline in net revenues.

Dissecting top line:

The company's net revenues fell 22.5% to \$82.5 million in 3Q22, from \$106.4 million the previous year. The drop in net revenues was caused by a 12.8% decrease in total pounds sold and an 11.2% drop in net revenue per pound. All markets and channels were adversely impacted by a combination of lower-than-expected category demand and specific customer and distributor changes, such as reductions in targeted inventory levels, among other factors.

Insights on margins:

In 3Q22, gross profit was a loss of \$14.8 million, or a gross margin of -18.0% of net revenues, compared to a profit of \$23.0 million, or a gross margin of 21.6% of net revenues the previous year. Gross margin fell primarily due to higher costs of \$5.60 per pound compared to \$4.19 per pound in the same period last year, as well as lower net revenue per pound in the third quarter of 2022 compared to the previous year. Higher manufacturing costs per pound, including depreciation, as well as higher materials and logistics costs, drove the increase in overall cost per pound. Adjusted EBITDA was a loss of \$73.8 million, or -89.5% of net revenues, compared to a loss of \$36.8 million, or -34.5% of net revenues, the previous year.

Capital structure:

The Company's cash and cash equivalents balance was \$390.2 million and total outstanding debt was \$1.1 billion as of October 1, 2022. The company intends to achieve cash flow positive operations by the second half of 2023. In total, the reduction in force, combined with the elimination of certain open positions and recent changes to the executive leadership team, is expected to result in approximately \$27 million in cash operating expense savings and an additional \$12 million in non-cash operating expense savings over the next twelve months. Furthermore, as a result of these actions, the Company expects to recognise approximately \$3 million in one-time non-cash savings in the third and fourth quarters of 2022 from the reversal of previously expensed, unvested stock-based compensation.



Oatly (OTLY, down 25.91% in November, down 79.52% YTD)

Troubled by a weakening in consumer interest for plant-based alternatives, Swedish-based dairy alternatives too posted an underwhelming third-quarter earnings, lagging analyst forecasts.

Dissecting top line:

The Swedish dairy alternatives company reported revenue of \$183.0 million, a 7.0% increase over \$171.1 million in the prior year period, which included a \$16.6 million foreign currency exchange headwind. The revenue increase was primarily driven by continued product volume growth across the three segments, as well as price increases implemented in EMEA during the first half of 2022 and the Americas in the third quarter of 2022. The volume sold in 3Q22 was 126 million litres, up 14.5% from 110 million litres the previous year.

Insights on margins:

Oatly posted a gross profit of \$5.0 million, or a gross profit margin of 2.7%, compared to \$44.9 million, or a gross profit margin of 26.2%, in the previous year period. The EBITDA loss was at \$92.2 million compared to a loss of \$36.5 million the previous year; adjusted EBITDA loss was \$82.7 million compared to a loss of \$27.0 million the previous year.

Relevant events:

In its earnings update, management stated that the company's strategy is now centered on focusing investments on Oatly's proprietary oat-base technology and capacity, which is expected to reduce the capital intensity of future facilities and have a positive effect on its cash flow outlook. In addition, the company is actively seeking manufacturing partners to build a more hybrid production network across key geographies. This is in addition to the previously mentioned phasing of capital expenditures and production projects, which has already had a positive impact on the Company's cash flow in the near to medium term.

Capital structure:

The Company closed the quarter with \$105.6 million in cash and cash equivalents.



Tattooed Chef (TTCF, down 68.21% in November, down 90.28% YTD)

The Californian plant-based Ready-To-Eat meals company is yet another company grappling with the declining trend of plant-based diets, reporting a third quarter loss and lagging analysts' estimates.

Dissecting top line:

The company reported a 6.7% decrease in net revenue to \$54.1 million in 3Q22 from \$58.0 million in 3Q21, owing to a \$10.3 million decrease in Tattooed Chef branded products.

Insights on margins:

In 3Q22, the cost of goods sold increased by 9.4% to \$58.0 million, up from \$53.0 million in 3Q21. This increase was primarily driven by continued inflationary pressures, which pushed labour and freight to 34.1% of net revenue from 24.9% in 3Q21. The addition of a new manufacturing facility in August 2022, while expected to be accretive in the short term, increased the company's rent, depreciation, and other fixed costs in 3Q22. In 3Q21, the gross loss was \$3.9 million, or -7.2%, compared to a gross profit of \$5.0 million, or 8.6%.

Relevant events:

Management reiterated the company's roadmap to expand retail partnerships for its Tattooed Chef branded products this year and in 2023, including the ongoing launch of its expanded presence in Walmart stores, which is expected to be completed by the end of November. In the fourth quarter, the Company's manufacturing facilities are being upgraded, including the installation of its first automated bowl line in Paramount, California, which will double the capacity of the line in the same footprint. Expanding additional manufacturing capacity and introducing new products and categories, including refrigerated and ambient products, remain on track for 2023.

Capital structure:

The company ended the quarter with \$14.2 million of cash and a credit-line of approximately \$20.0 million.