

Tortoise Talk Third Quarter 2021

Broad energy sector performance was slightly negative for the quarter as concerns grew about the COVID-19 Delta variant's impact on energy demand. Despite this, the recovery in energy demand is occurring faster than the recovery in supply. Global underinvestment resulting from COVID-19, ESG commitments, and energy transition is likely to keep markets tight for the foreseeable future.

Commodity backdrop

The broader energy sector, as represented by the S&P Energy Select Sector[®] Index, finished the quarter ending September 30, 2021, in negative territory, returning -2.06%. OPEC+ producers continue to manage the market and shale producers remained disciplined, which led to rising commodity prices. Higher prices have spurred a revival of shale drilling in the Permian, America's biggest oil field, where production is expected to return to pre-pandemic highs within weeks. The surge is being driven by private operators, rather than the publicly traded companies that fueled the previous booms. For 2021, the Energy Information Agency (EIA) forecasts production will end the year at 11.3 million barrels per day (b/d), up from 11.0 million b/d at the start of 2021. Stress on global power markets pulled on all available natural gas supplies, pushing prices to the highest levels in over a decade. This led to some switching to fuel oil for power generation which is expected to pull forward additional crude oil demand. Finally, as the quarter came to a close, oil surged higher as OPEC+ did not respond to higher demand and instead maintained plans to increase production by only 400,000 barrels per month.

Due to its low emission intensity relative to other dispatchable fuels, natural gas is being called on to fill gaps created by intermittent sources. The Energy Information Agency (EIA) estimates U.S. LNG exports exceeded a record high of 10 billion cubic feet per day (bcf/d) earlier this year. A few years ago, this number was zero. As demand surges for lower-cost U.S. natural gas there is a need for more LNG export terminals and additional natural gas pipeline infrastructure. In the northeast Marcellus Basin, pipeline infrastructure is constrained. LNG supply takes time to construct, but projects that do end up moving forward, such as Cheniere's Corpus Christi stage 3, could have a greater visibility to signing long-term (20+ year) contracts.

Energy infrastructure

Midstream energy fell during the quarter with the Tortoise North American Pipeline IndexSM returning -1.99%. From an energy infrastructure fundamental perspective, 2021 is among the steadiest years in recent memory with free cash flow and the return of capital to shareholders as the main focus. 2021 EBITDA expectations were revised higher based on increasing pipeline volumes as the economy reopened. On the cost side, companies kept capital expenditures lower and are using the excess cash flow to reduce debt with stock buybacks as a secondary and growing consideration. Seventeen midstream companies now maintain active equity buyback programs with MPLX leading the way, buying back stock worth \$155 million per quarter.

On the legislative front, negotiations are ongoing related to President Biden's infrastructure bill. Climate change legislation is expected to primarily come through the reconciliation process. It is likely that the bill will focus more on tax credits rather than more restrictive, comprehensive climate policies. While investors may assume this means tax incentives for renewable focused initiatives, we believe there will also be regulatory support for existing infrastructure. For example, the expansion of Section 45Q tax credit would incentivize more widespread carbon capture adoption for harder to abate sectors such as steel, cement, and chemicals. We believe taking a holistic view towards energy transition, with the understanding that fossil fuels will remain critical to the economy for decades, is the best approach to reduce emissions fastest. Finally on the regulatory front, Enbridge received positive news on its Line 3 pipeline project, and the pipeline is set to start moving volumes in the coming months.

The third quarter also saw further growth opportunities for energy infrastructure companies around energy transition. Energy transition projects support the longevity of existing assets and can support future growth of cash flow. Fuels including carbon (through carbon capture and sequestration), hydrogen, renewable diesel, and renewable natural gas all create a pathway to a lower carbon future.

An example of a new growth project announced during the quarter was between natural gas pipeline company, Williams, and wind farm developer, Orsted. The companies plan to leverage Orsted's renewables and hydrogen expertise with Williams' natural gas infrastructure and processing experience. Specifically, they're looking at large-scale wind energy and electrolysis in Wyoming where Williams owns significant natural gas infrastructure. Williams believes its extensive energy infrastructure network is adaptable to further renewable energy storage and transport. This builds upon energy transition announcements from earlier in the year. Recall last quarter, a new growth project was announced with TC Energy (TRP) and Pembina (PPL) developing a Carbon Capture and Sequestration (CCS) system in Canada, including the retrofitting of some existing pipelines. Repurposing existing pipelines significantly reduces the capital expenditures versus building a new pipeline.

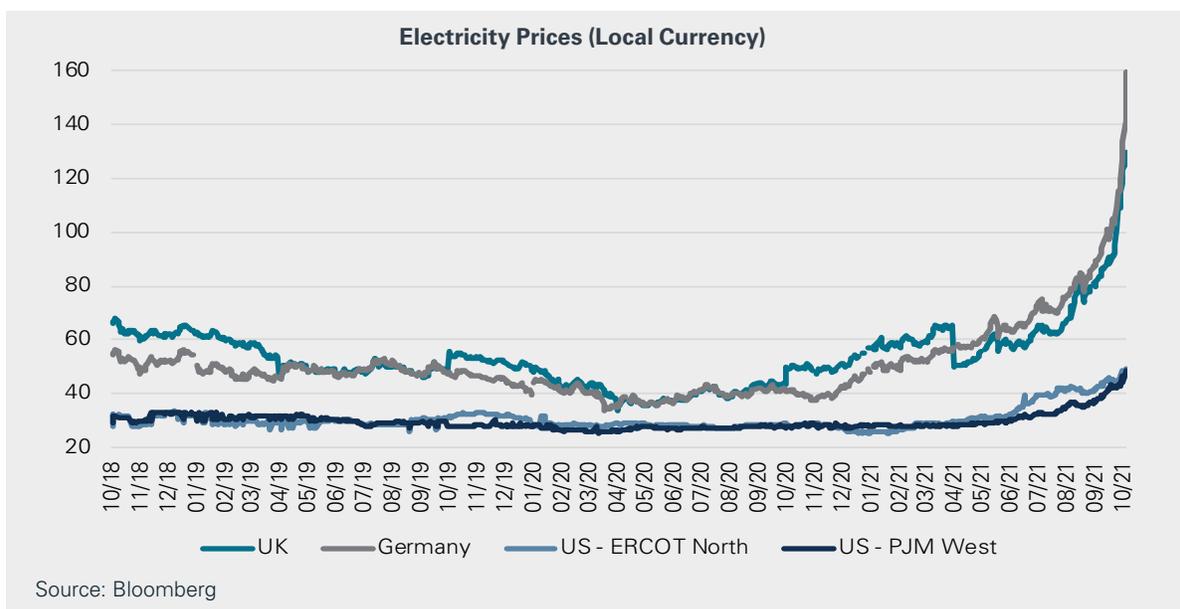
The downstream portion of the energy value chain continues its recovery from the COVID-19 pandemic. U.S. demand largely normalized with gasoline and distillate demand roughly in-line with 2019 levels and jet demand down around 20% from pre-COVID levels. Natural gas liquids, unlike the refining sector, proved resilient despite challenges faced during the COVID-19 pandemic. Natural gas liquids (NGLs) prices are elevated on favorable fundamentals and recovering demand. Strength can be seen in LPGs (liquid petroleum gases) where demand is driven by global population growth and improvements in living standards in Asia, notably in China and India.

Renewable energy

It was a very busy period of political and policy framework progression in a number of regions. The 76th session of the UN General Assembly wrapped up in New York in late September. During the session, Xi Jinping reiterated China's target of carbon neutrality by 2060 and added that China would increase support for other developing countries in developing green and low-carbon energy, and not build new coal-fired power projects abroad. This set a positive tone for the COP26 summit which is scheduled to take place from October 31, 2021 through November 12, 2021. There have been a number of other favorable policy developments: The EU released its "Fit for 55" plan with specific 2030 targets for renewables across the energy, building, industry and transport sectors; Japan issued a new draft energy policy with the renewable energy generation ratio target for FY3/2031 lifted to 36-38% from 22-24% (including hydro; or 20% ex-hydro) which would be double the 18% ratio in FY3/2020; Germany held elections on 26 September and it is very likely the Green party will be part of a coalition government. Progress on the U.S. Infrastructure Bill and Budget Reconciliation have been slower than anticipated earlier in the year, with lower visibility on timing and scope. The draft Budget Reconciliation bill in particular contains many measures which would be very supportive of energy transition end-markets such as tax incentives for renewables and storage, incentives for electric vehicles and incentives for domestic manufacturing of clean technologies. Just as passing of the draft bill would serve as a positive catalyst, a longer term delay or watering down of these incentives would be a short term negative for some of our portfolio companies; government policy, however, remains only one driver of the energy transition, with corporates (with decarbonization targets to meet) and consumers providing strong momentum.

The sharp increases in natural gas and other energy commodity prices globally have been propelling power prices significantly higher across Europe and in the U.S., providing a tailwind for exposed power generators. Notwithstanding this strong power price backdrop and the significantly higher prices for fossil fuels which make renewables sources even more economically competitive, most utilities – especially the green ones – continued to underperform in the third quarter. Steeper yield curves were a factor but so too was government intervention.

The electricity sector is not immune to the inflation whirlwind affecting the overall energy sector and the broader economy. Substantial commodity and electricity price inflation around the world is disruptive in the short term and will need to be addressed through better market structure and a better energy mix.



Apart from the undeniable need for the 'green' attributes of renewable energies, we argue that the world's experience today of soaring energy cost inflation makes the case for renewables stronger than ever. Much of the current discussion about renewables centers on their decarbonization benefits and cost differential with fossil fuel alternatives. These are key attractions of course but it is worth highlighting two others, especially at times of high commodity price inflation and geopolitical tensions.

First, we all know that renewables generators have the inherent advantage of not having to rely on any fuel, with wind, sun and water, rather than conventional fuels, producing electricity. This is obvious but can sometimes be forgotten as a key attraction of the renewables technologies. The beauty of renewables for consumers of electricity is, therefore, that the cost of electricity is not variable; renewables are fixed cost in nature and deliver electricity at a predictable price, one that can be set for 10 or 20 years in advance. In contrast, the cost to consumers of electricity generated by fossil fuel power plants fluctuates with the prices of coal and gas in the open markets, which can be significantly impacted by supply-demand imbalance and today we see these commodity inputs are sky-rocketing. Second, renewable electricity is either locally generated or transmitted regionally by power cables and lines, hence it is not exposed to cost increases caused by logistics bottlenecks or international trade or other conflicts with countries where the fuel commodities are sourced. Electricity independence and, by extension, energy independence can be a strategic benefit to any country in terms of security of supply but also an economic one with respect to the balance of trade.

The existing backlogs of projects by electricity generation developers might be negatively impacted by cost escalation. Some growth expectations may need to moderate as some projects that are no longer economic are either repriced or cancelled. On the other hand, we see upside risk of additional supply agreements as repriced renewables and market prices for power, as well as the difference between them, have grown substantially. Moreover, as contracts and hedges on forward power sales expire, we can expect these to be reset at higher levels than previously anticipated, leading to increased expectations for revenues and return. We would expect to see some renewable developers, especially small ones, experiencing project development delays, opting for postponement and cancellation of projects as they no longer meet their return expectations.

Concluding thoughts

High commodity cost inflation and logistics bottlenecks are creating tensions in the energy and electricity markets and these can be disruptive to the normal running of business. We believe the best companies in the sector will come out of this volatile period stronger, with more projects to choose from as the structural growth in demand for renewables continues unabated. As the world economy continues to reopen, we believe midstream energy is positioned for a reflation around increased energy demand. We are looking forward to the U.S. infrastructure and reconciliation bill passing and believe that could be a positive catalyst for many of the companies in which we invest across the energy value chain.

About TortoiseEcofin

TortoiseEcofin focuses on essential assets – those assets and services that are indispensable to the economy and society. We strive to make a positive impact on clients and communities by investing in energy infrastructure and the transition to cleaner energy and by providing capital for social impact projects focused on education and senior living. TortoiseEcofin brings together strong legacies from Tortoise, with expertise investing across the energy value chain for more than 20 years, and from Ecofin, which unites ecology and finance and has roots back to the early 1990s. For more information, please visit www.TortoiseEcofin.com.

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