Energy transition and its impact on transactions

Increased CO2 prices are driving up the volume of renewables investments

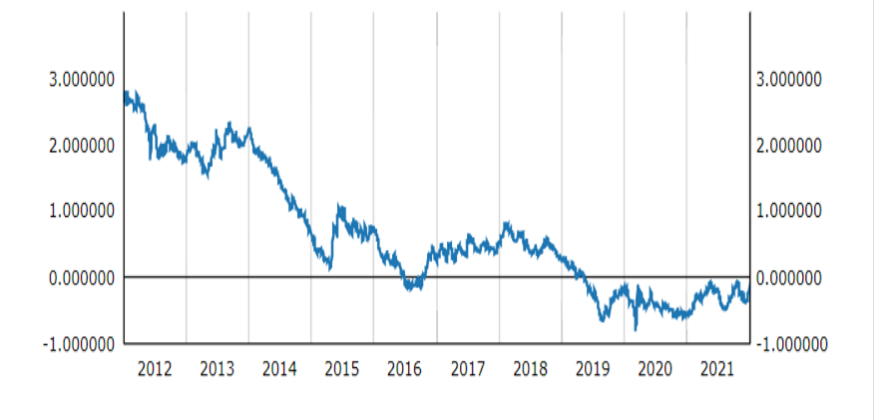
- Any non-renewable CO2 emitting power production is subject to **increasing CO2 cost**.
- With the past low carbon prices, renewables investments were financially feasible only with substantial government backed subsidies (e.g., FiT or direct investment aid). The subsidies have enabled development of the technologies, industrial process, and service infrastructure.
- During the past five years, the CO2 price have increased by more than 10x. **Non-subsidised market based renewables investments** have become financially the **most cost efficient** source of new capacity.
- With the prevailing CO2 price level and established technology/service infrastructure, there is an **increasing investor appetite for wind and other renewables**.

Source: https://tradingeconomics.com/.

Continued low interest rate level and available liquidity are also catalysing more renewables investments

- Continued quantitative easing measures of central banks have **lowered the interest rates and increased liquidity** dramatically.
- Due to the low (or negative) returns of fixed income investments, global investors have made **new investment allocations** increasing the weight of listed and non-listed equity instruments including infrastructure related alternatives.
- In addition to the underlying energy, power, and utilities sector demand for energy transition, there is a constantly increasing **investor backed "wall of cash" entering the renewables investment space**.

Yield curve spot rate, 10-year maturity - Government bond-Euro area



Source: European Central Bank.

In addition, investors have ESG in focus as a key investment criteria

"I think there is a single direction of travel on ESG. **Europeans are further down the track in talking about it and committing to ESG.** We see it in our LP investor base meetings and the questions they ask. What drives change is **what commitments are being made in the next five years."**

Global Infrastructure Investor Association

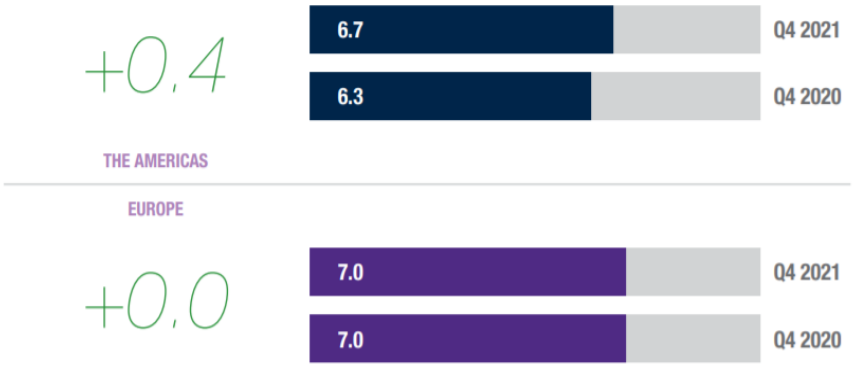
"We invest in companies only after thorough research that incorporates **detailed ESG analysis** while employing discipline on valuation. Transitioning to a sustainable economy requires **enormous investment.** By taking ESG factors into account in all our portfolios, we ensure that **capital flows to the companies that are building a more sustainable future."**

J.P. Morgan

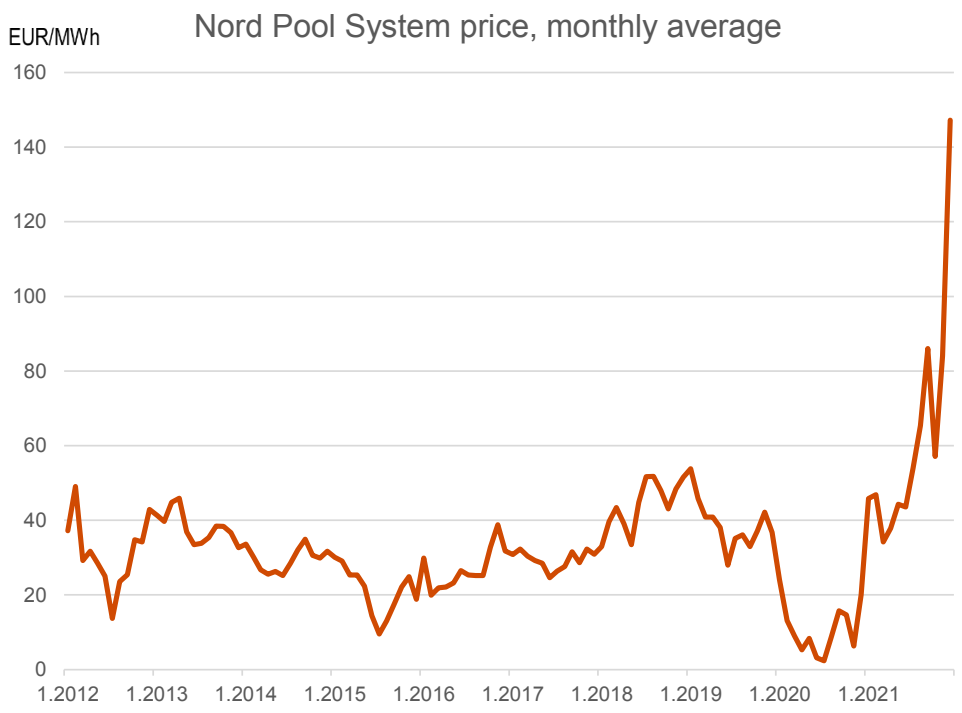
"HSBC CEO Noel Quinn announced that 2021 is set to be the year that the **green bond market reaches $1tn.** In the UK, NatWest announced plans to invest £100bn in climate and sustainable funding by the end of 2025."

Reuters

How important is ESG to you (or your LP's) and how strongly does it influence your investment decisions?
(0: not considered, 5: balance of factors, 10: primary factor)



Power market price volatility is increasing due to the reduced base load and increasing weather dependent capacity



- **The power system needs to be in balance** (demand and supply) in any given time. Increasing weather dependent capacity requires additional back up capacity and/or flexibility on demand side to enable system stability.
- Market price would be set at the marginal cost level of the last starting /operating entity.
- During the **low demand/high supply** (wet summer night) there is a surplus of supply driving the hydro pricing very low and resulting downward dips in the price curve.
- During the **high demand/low supply** (cold and dark winter days) there is lack of supply driving the prices to a level where high marginal cost (fossil) back up capacity starts and also the consumption gradually regulates down.
- **Increasing volatility** will be a material cost and risk factor for any consumer and producer in the future.

Source: Nord Pool.

Hence, Power Purchase Agreements (PPAs) and partnerships are emerging in the corporate Net-Zero toolbox

Real estate asset management company Sponda and Helen have signed an agreement to cover 100% of the electricity consumption of Sponda's properties with wind power. From 2022 onwards, the wind power used by Sponda will be generated at Helen's new Lakiakangas wind farm.

Renewable energy company Neoen has signed a 126MW power purchase agreement (PPA) in Finland with a consortium formed by Heineken, Philips, Signify and Nouryon.

According to the ten-year PPA, Neoen will supply clean energy from its future wind farm in Mutkalampi.

Co-developed with Prokon and owned by Neoen, the wind facility has a 125MW PPA in place with Google, which was signed in September 2019.

Recent examples of renewables investments in Finland showcase the energy transition taking place

Dec 2021

P2X Solutions, a Finnish pioneer in green hydrogen and Power-to-X technology, has received approximately 26 MEUR grant for new energy technology and large-scale demonstration projects from the Ministry of Employment and the Economy to build Finland's first industrial scale green hydrogen production plant and methanation unit in Harjavalta. In addition, the Climate Fund has granted the company a capital loan of 10 MEUR. The total investment planned by P2X solutions is approximately 70 MEUR.

Dec 2021

Enersense International Plc has signed an agreement on acquiring Megatuuli Oy, an onshore wind farm developer company. The total purchase price is 18.5 MEUR. With the acquisition of Megatuuli, Enersense will become a developer of onshore wind power projects. Megatuuli and its partners have projects in progress or in the feasibility study phase with a total capacity of ~3,000 MW.

Aug 2020

Helen to significantly increase its wind power production – total investment of 100 MEUR in a new wind farm. Helen has started the construction work of the Lakiakangas 3 wind farm in Ostrobothnia in partnership with the project developer CPC Finland.

Jun 2021

Food company Valio and energy company St1 are establishing a joint venture to produce renewable biogas from dairy farm manure and other agricultural byproducts mainly as fuel for heavy-duty transport. The company to be established is targeting up to 1,000 GWh of biogas production by 2030; this amount is one third of the biogas needed for Finland's fossil-free transport roadmap. Significant emissions reductions can be achieved by using biogas for heavy-duty transport. Prerequisite for creating a supply and demand that aligns with Finland's biogas target is that the biogas-powered transport fleet becomes more common in Finland.

Large investment decisions are also made in the transportation and automotive sector as they are heading for Net-Zero

Recent deals showcase the emerging trend

- DIF Capital Partners, a global infrastructure investment manager acquired Plugit Finland Oy, a leading **EV charging infrastructure** company in Finland. Plugit, supported by DIF's **aim to invest 100 MEUR**, will expand its CaaS product and plans to build-out the amount of infrastructure that it funds and owns. DIF/Willem Jansonius: "**Electrification of transportation** will play a critical role in reducing carbon emissions."
- Kempower is a Finnish electric vehicle **(EV) fast charging equipment and solutions** manufacturer. Demand in their **IPO** was very strong from Finnish and international investors, and the Company will receive gross proceeds of approximately **100 MEUR** from it.
- Jolt Capital led a **30 MEUR round in Virta** with co-investor Tesi (FIN), Vertex Growth (SING), and ENEOS (JPN). Jolt Capital will be supporting Virta to become the leading **EV charging platform** in Europe and Asia.

Global players are investing to drive transition

- "The **EV shift** is picking up speed. The tipping point is getting closer and we will be ready as markets switch to electric-only by the end of this decade." said Ola Källenius, CEO of **Daimler AG** and Mercedes-Benz AG. "This step marks a **profound reallocation of capital**."
- Soren Skou, **Maersk's** CEO, told that when they first set a **2050 goal of net zero emissions** in 2018 it was really a moonshot as they didn't have an idea on how to get there. But now, e.g., Amazon, Ikea, and Unilever are **demanding carbon-free transport by 2040** and Maersk is already **ordering its first ships capable of running on green methanol**.
- DB Schenker, Lufthansa Cargo, and Nokia join forces on **CO2-neutral air freight**. The SAF (Sustainable Aviation Fuel) for Lufthansa Cargo is produced by Neste. Neste is currently **increasing its Neste MY SAF production** to 1.5 million tons annually by the end of 2023.

Source: DIF, Plugit, Kempower, Jolt Capital, Daimler, FT, DB Schenker.

EU Taxonomy has also become a key investment criteria within the last year

Case Loviisa, nuclear power plant of Fortum

- Fortum operates two nuclear power plants in Loviisa, and is considering sizeable investments to prolong their lifetime.
- Fortum has major **concerns regarding** the status of nuclear power within the **EU taxonomy**. The EU Taxonomy guides and mobilises private investment in activities that are needed to achieve climate neutrality in the next 30 years.
- In October 2021, Simon-Erik Ollus of Fortum said in HS: "We don't know what it means if zero-emission production was not included in the taxonomy. **How would this affect the financial markets?** It is a **material uncertainty making our decision more difficult.**"
- In December 2021, a draft of the Commission's proposal labels **nuclear power as green** if the project has a plan, funds, and a site to safely dispose of radioactive waste.

HELSINGIN SANOMAT

Fortumille päätös Loviisan ydinvoimalan jatkosta on vaikea, vaikka sähkön hinta ja kulutus ovat kasvussa – Syynä on EU-sääntelyn epävarmuus

Energiayhtiö päättää ydinvoimalan kohtalosta ensi vuonna.

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Nuclear and gas criteria set for inclusion in EU taxonomy

06 January 2022

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The European Commission has released to member states for consultation a draft of the complementary Delegated Act of the EU Taxonomy Regulation covering certain gas and nuclear activities. The Commission notes that in light of respective assessments "it is necessary to recognise that the fossil gas and nuclear energy sectors can contribute to the decarbonisation of the Union's economy."

Application for Advisory Day opens by week 5 and interviews are held virtually on week 9

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Interested in making the Net-Zero target and energy transition a reality?

We are constantly looking for new ESG Consulting & Deals talents. Job ad for Advisory Day is opening in a few weeks – stay tuned!

Thank you

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