TT CONNECTS WITH TIMO KIESELER, HEAD OF ALGORITHMIC TRADING AT VATTENFALL

By: Elise Fleischaker, Chief Marketing & Communications Officer

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In the fast-paced world of algorithmic trading, energy markets present a unique set of challenges and opportunities. Unlike traditional asset classes, energy trading involves navigating physical delivery requirements, fragmented markets and extreme volatility. At the recent E-world Energy & Water trade fair in Essen, we caught up with Timo Kieseler, Head of Algorithmic Trading at Vattenfall, to discuss the challenges of algo trading in energy markets, Vattenfall's partnership with TT and future plans for technology investment.

How is the Vattenfall algo trading operation structured and what is its remit?

I lead a team of six people, comprised of quant researchers and quant traders, that is responsible for all proprietary algo trading at Vattenfall. We are a pure prop trading unit – so no asset-backed trading or flow trading.

We are active traders in derivatives, participating in European power markets, carbon markets and European oil and gas markets. We also trade spot power markets. From a strategy and timeframe perspective, we are flexible within our risk mandate.

What are the challenges of building an algo trading business in the energy market?

The big difference between energy – particularly power – and other markets is settlement. Physical delivery exists in equity markets, but if you buy or sell energy and enter into a physical delivery agreement, you have to make sure that you can deliver or take a product such as gas. That's crucial and very different from other asset classes.

Getting the algo business right therefore comes down to the whole infrastructure, not just trading.

For example, in the derivatives market, a clearing house will provide you with models for everything. When it comes to the physical markets, you need to have the whole infrastructure and logistics for delivery set up yourself. That is what sets us apart from other markets.

When it comes to trading infrastructure though, we are probably more in line with the other classes. We need a robust infrastructure that is as low-latency as possible.

However, the biggest and most crucial challenge we face is people. It is very hard to find people who have experience and knowledge both of trading the energy market and algo trading.

There are many people with experience in the energy market, as well as a lot of people who are moving from the equity and bond markets to commodities and energy, because they are so interesting at the moment. However, finding people who can combine that experience with algo knowledge is very hard.

How much of a challenge does fragmentation pose in energy markets and how do you mitigate it?

There are a lot of different exchanges that trade energy, and we are trying to mitigate the fragmentation as much as possible.

If you are trading derivatives and the physical market, you need to combine these functions as much as possible. It doesn't make sense having one compliance team dealing with physical markets and another with derivatives.

Our teams need to know everything about all the markets we're trading. An integrated approach is critical, especially in physical markets, where if you run into imbalances there will be a significant cost.

We are also leveraging smart order routing, which can mitigate the fragmentation. However, there can be complications around this, such as setting up a direct connection to the exchange and onboarding certain protocols.

Over the last couple of years, there has been a lot of volatility in energy markets. What challenges does that pose for trading strategies?

For trading strategies themselves, it's relatively easy because you can always adjust the parameters that calculate your volatility and expectancy, and you can scale up or scale down according to those frameworks.

But it is very important to have a robust infrastructure for dealing with volatility. If the market is hit by volatile conditions and suddenly, the exchange or your connection breaks down, you are in big trouble.

Of course, without a certain amount of volatility, you can't make any money. You need volatility, you just need to have proper risk management to deal with those extremes. This is a function that we get from TT, with its pre-trade controls, and our own risk management team's tools.

Where are you currently focusing investment in technology?

We are investing a lot in core infrastructure, like market data. We are also spending a lot on analytics and research, which ties in with data and which is increasingly important.

We are doing a lot of back testing, and that requires a lot of data. We have large volumes of fundamental data from the energy markets, spanning inputs such as gas flows, storage levels, temperatures, new builds and renewables.

All of this has an impact. Compared to the equity market, for example, it is huge. That means you have to invest a lot into data, core infrastructure, analytics and security technology.

Can you give some background on the Vattenfall partnership with TT?

I started using TT as a manual trader, but as Vattenfall began moving into the algo and automated execution space, we debated whether we would need to be colocated or not. In the end, for latency reasons, we decided to go with a colocated setting, which is what TT is offering.

What we really appreciate with TT is the reliability. We are really big fans of the SIM mode and the suite of order types that TT offers. It's not just the algos that use them, but the manual traders too.

TT recently connected to EPEX SPOT and Nord Pool, which is a big step forward and really sets the platform apart. Also, as far as I know, TT is the only provider so far that's offering both the EEX physical power trading market and the EEX derivatives market on one screen.

Are you using TT for any compliance or regulatory functions?

TT has a very good audit trail and drop copy. For our compliance department, those two features are very helpful.

For risk management, it's very hard to find as flexible an offering as TT when it comes to risk management controls – pre-trade and post-trade. This is a huge advantage for risk managers. When it comes to arbitrating all these controls, we feel much better knowing that if something goes wrong on our side, at least on the TT side there is an extra layer of defense with position limits in place.

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