BCN Biomass Market Update

Supply tightens amid war

(RBCN) European wood pellet prices have surged in recent weeks as European efforts to shun Russian material, in the wake of its invasion of Ukraine, exacerbated an already tight market.

12 industrial wood pellets were valued at around €261/t (US\$290/t) CIF ARA, up a considerable €65.50 against the previous quarter, according to a survey of market participants. ENplus A1 residential pellets were seen at a small €3 premium to the I2 price.

"Supply will remain tight," said a European biomass trader, noting that a number of European generators including the UK's Drax and Denmark's Orsted - had halted imports of Russian pellets.

"Drax never really purchased much from Russia, but Orsted has declared it won't take Russian cargoes, and usually buys quite a bit," he said, adding that Russia and Belarus - from which pellet imports have also been suspended – generally supply 3 million tonnes per year to the European market.

Of the total, some 2.5 million tonnes are Russian and the remaining 500,000 tonnes are ex-Belarus.

"Some goes to Holland, to RWE, and around half is for the residential market," the trader said.

"Who can still buy Russian coal, can get a good price, but pellets from Russia can't be easily replaced," said another Europe-based biomass trader.

RBCN Wood Pellet Price and Stock assessments

	End Q1 2022	Vs. Q4 2021			
Industrial (I2), CIF ARA	€ 261/t	+33.5%			
ENplus (A1), CIF ARA	€ 264/t	+33.2%			
ARA stocks, tonnes	Zero	Unchanged			

*Assessments reflect Europe-origin spot cargoes, loading up to 3 months ahead

ARA wood pellet stocks, '000 tonnes



"Some buyers could maybe pay €300/t. But it's not a question of price. There is just no availability," he said, noting the most recent spot deals were rumoured to have been concluded at €300/t.

"Prices would have been as high even without the Russian issues. That's how tight the market was before," the first trader said, adding "sellers hope this will result in more attractive longterm contracts".

On the supply side, the trader said the market was "fundamentally undersupplied". Continues on p.2...

Wood Pellet Imports*, tonnes	Q4-21	Q3-21	Year-to-date	vs. Q4-20	vs. YTD-20
Netherlands	700,293	700,293	2,767,195	-1%	17%
UK	2,161,450	2,161,450	8,913,598	1%	2%
Belgium	156,938	156,938	692,768	-24%	-30%
Denmark	218,139	218,139	2,103,489	15%	20%
Of which in Q4-21	US	Canada	Russia	Portugal/Spain	Baltics**
Netherlands	236,734	75,884	143,001	5,449	126,538
UK	1,470,708	314,946	102,068	62,966	419,456
Belgium	0	0	98,921	0	21,228
Denmark	118,088	26,269	54,861	25,241	335,732

*Source: Eurostat & BEIS **Latvia, Lithuania and Estonia

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"A large US supplier is constantly undersupplying. It's also aggressively pushing supplies to Asia," he said.

"On average, there is a 5% supply surplus in the market, so in a tight market this goes down to zero."

Meanwhile, combined stocks at several monitored Amsterdam, Rotterdam and Antwerp (ARA) import terminals remained at zero, from around 20,000 tonnes at the end of the third quarter of last year, RBCN estimates showed.

"Currently, there are no pellets in storage," said a source at one import terminal.

"Imports are still at a high level for the [650 MW Dutch] Amer power plant," he said, adding "I expect this will not change, although it could be influenced due to the war".

This was regarding further possible restrictions on the import of Russian pellets.

In the longer term, the second trader said America could potentially add some more production capacity.

"But [US producer] Enviva will not build any new mills unless a contract is long enough and strong enough," he said, adding it would take one or two years to build a new mill.

"So it would require contracts of eight years, starting in twoyears from now."

Orsted, Drax ban Russian biomass

Danish energy firm Orsted and UK generator Drax have banned all biomass imports from Russia following the country's invasion of Ukraine in February.

"Orsted finds the situation deeply disturbing, not least tuman suffering following the war in Ukraine," the firm said, adding "the Russian aggression goes against everything that Orsted stands for, and we have therefore taken significant steps in accordance with our values as a company".

The company said it had stopped sourcing biomass – and coal – for its power stations from Russia.

"Regarding the gas from Gazprom that is supplied to Denmark, Orsted recommends a clear and coordinated effort from the EU and the UK," it said, noting that shortfalls in gas supplies would, as opposed to stopping supply of other types of products, have severe human and societal consequences and therefore need to be coordinated at EU and national levels rather than decided by individual companies.

"Therefore, the dependency on Russian gas and any ban on import of gas from Russia need to be decided and enforced by clear political sanctions".

Aside from the ban on biomass and coal imports, Orsted's

management took other immediate actions as a consequence of the Russian aggression, including not entering into new contracts with Russian companies and making sure that no direct Orsted suppliers for the build-out of renewable energy were Russian.

Meanwhile, Drax also announced a halt to purchases of Russian biomass.

"Drax has ceased the supply of a very small percentage of Russian biomass used at its power station in Yorkshire to generate renewable electricity and is working with its suppliers and customers to identify any further links to Russia," it said.

"Drax's biomass supply chain is large and diversified with the vast majority of its supply coming from long-standing allies, the US and Canada".

At the same time, Danish utility Hofor said it was taking steps to reduce it's usage of Russian biomass.

"In Hofor, we are very concerned about the war in Ukraine," company CEO Lars Therkildsen said in a note, adding "we follow the situation closely and are in ongoing dialogue with our board and municipal owners about how Hofor should behave".

He said the firm currently had agreements that included the possibility of receiving biomass from Russia for the production of district heating and electricity at the Amager power plant.

"We are examining the possibilities of reducing – or even better eliminating – the share of Russian biomass in the agreements," he said, adding that the firm would buy biomass produced in Russia in the future.

"In addition, we have decided that we will largely not enter into agreements with Russian companies," he said.

Vattenfall opens new biomass plant

Swedish energy firm Vattenfall in mid-March inaugurated and took into operation a new 110 MW biofuel heat plant in Uppsala, Sweden.

The new plant – Carpe Futurum – would reduce carbon dioxide emissions by approximately 200,000 tonnes per year, compared with when peat and other fossil fuels were used, it said, noting this would halve the climate footprint for the around 170,000 Uppsala residents who are connected to Vattenfall's district heating grid in the city".

The plant can be fired with wood chips, recycled biomass and bark in various combinations. It can run the three fuels individually or in different mixtures.

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"Carpe Futurum is a milestone in Vattenfall's work to phase out fossil fuels in its Swedish heat operation by 2025 and to reach net zero emissions within the entire company by 2040," said Ulrika Jardfelt, head of Vattenfall Business Area Heat.

"The new facility is a major step to replace peat with new fossil-free heat production that is based entirely on renewable and recycled fuels".

Carpe Futurum is situated in Vattenfall's main heat plant in Uppsala, Bolanderna, 70 kilometres north of Stockholm.

Drax starts operations at US plant

UK-based Drax Group – the world's leading producer and user of sustainable biomass – has ramped up to full production at Leola, the first of three new satellite pellet plants it plans for the US state of Arkansas.

Leola, in Grant County, Arkansas is part of a \$40 million investment by Drax in the state.

Including Leola, Drax's operates six pellet plants in the US, which use biomass sourced from sustainably managed working forests in Louisiana, Arkansas and Mississippi. The pellets are used at Drax Power Station in England.

The three satellite plants in Arkansas are expected to produce a total of around 120,000 tonnes of sustainable biomass pellets a year from sawmill residues.

"This supports Drax's plans to double its pellet production capacity to 8 million tonnes by 2030 to meet its own requirements, as well as its customers' needs in Europe and Asia, amid an expected increase in global demand for the lowcarbon fuel," the firm said in a note.

"The satellite plants are located near sawmills, so they can use the sawdust and other by-products produced when timber is processed, to make the pellets," it said, noting that siting the pellet facilities near sawmills reduced infrastructure, operational, and transportation costs.

Construction of the second Arkansas satellite plant in Russellville, Pope County is underway with commissioning expected this year. Drax is continuing to develop plans for a third plant.

Drax's conversion of its UK power station to sustainable biomass from coal was Europe's largest decarbonisation project, reducing emissions from Drax's power generation by 90% since 2012. "Drax has made excellent progress in delivering our \$40m investment in Arkansas, with Leola – the first of three planned satellite pellet plants – now in operation," said Matt White, Drax Executive Vice President, Pellet Operations.

"The investments we're making will bring 30 direct jobs and many more indirect jobs and opportunities to rural communities in Arkansas alongside supporting international efforts to tackle climate change."

Enviva to double pellet output

US wood pellet producer Enviva plans to double its production capacity over the next 5 years, from 6.2 million tonnes per year at present to approximately 13 million tonnes per year, the firm said in its fourth quarter 2021 results.

The firm would achieved this ambitious target by building and commissioning two plants at a time, up from the historical rate of one plant per year, and increasing the nameplate production capacity of new plants to approximately 1.1 million tonnes per year, or up roughly 45% from the previous standard of 750,000 tonnes per year, it said.

"At Enviva's Lucedale, Mississippi plant, which is the first plant in its Pascagoula cluster, wood deliveries have commenced and commissioning is underway," the firm said, adding it expected that Lucedale's production would ramp up throughout 2022 and, as volumes build at the Port of Pascagoula terminals, shipments from the completed terminal would commence in the second quarter of 2022.

"Volumes shipped out of Pascagoula are expected to increase throughout the year, as Lucedale's production ramps to its designed run-rate of 750,000 million tonnes per year of wood pellets by the end of the year," it said.

Additionally, Enviva said it planned to commence construction of the fully-contracted 1.1 million tonnes per year plant in Epes, Alabama – the second plant in the Pascagoula cluster.

"Out business model of fully contracting plants before commencing construction remains unchanged," Enviva said.

"Given the current pace of contracting with new and existing customers, Enviva plants to accelerate the timing of a third wood pellet production plant at its Pascagoula cluster, with construction estimated to commence during 2023".

It said the firm also continued to make progress in its evaluation of a new plant potentially at a site in Bond, Mississippi.

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