

Biomass Market Update

Pellet demand weakens

(RBCN) European wood pellet prices have declined 11% over the past quarter amid lower-than-expected demand, although residential pellets are commanding a considerable premium to the industrial market.

12 industrial wood pellets were pegged at an average of around €165/t (\$180/t) CIF ARA, down €21 against the previous quarter, according to a survey of market participants. ENplus A1 residential pellets were assessed at a significant €95 premium to the I2 price.

Industrial pellet prices for next year were seen at over €200/t.

The EU placed an embargo on Russian and Belorussian pellet imports following the invasion of Ukraine last year which effectively removed 3 million tonnes of supply from the European market.

Initial panic caused by the ban – and widespread efforts to secure alternative-origin supply – drove industrial pellet prices to record levels of above \$400/t. But as concerns eased, so did prices.

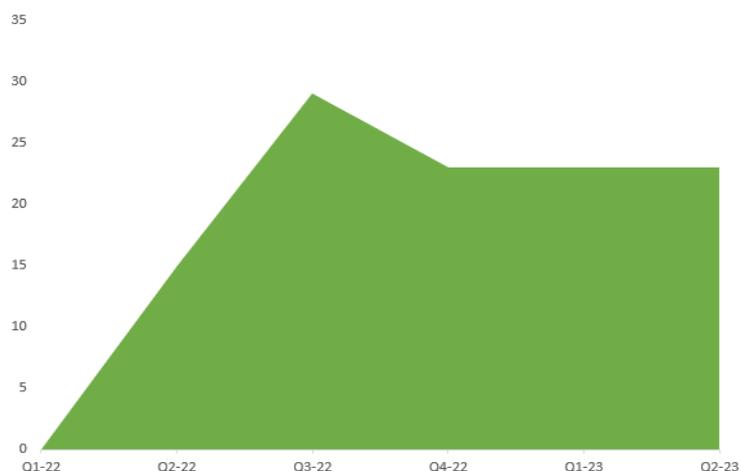
“The 3 million tonnes of Russian and Belorussian pellets was partially residential and partially industrial and there is a huge divergence in the market now [between industrial and residential],” said a European biomass trader.

For the industrial pellet market, slowing demand had helped diminish the impact of the lower available

RBCN Wood Pellet Price and Stock assessments		
	End Q2 2023	Vs. Q1 2023
Industrial (I2), CIF ARA	€ 165/t	-11.3%
ENplus (A1), CIF ARA	€ 260/t	+29.4%
ARA stocks, tonnes	23,000	Unchanged

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

ARA wood pellet stocks, '000 tonnes



volumes, he said, noting UK demand had been lower than expected.

“Industrial pellet prices are down a lot, and although no one is buying, a long-term average price for now would be €160-180/tonne CIF ARA,” he said.

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Wood Pellet Imports*, tonnes	Q1-23	Q4-22	Year-to-date	vs. Q1-22	vs. YTD-22
Netherlands	537,977	605,794	537,977	-4%	-4%
UK	1,499,526	1,711,850	1,499,526	-27%	-27%
Belgium	247,838	169,412	247,838	7%	7%
Denmark	465,383	188,815	465,383	-39%	-39%
<i>Of which in Q1-23</i>	US	Canada	Russia	Portugal/Spain	Baltics**
Netherlands	535,987	144	0	498	1,566
UK	1,126,724	170,233	0	39,439	179,987
Belgium	242,380	1,249	0	0	4,209
Denmark	62,333	155	0	23,318	382,177

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

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“Some buyers – such as RWE – can pay a little bit more than €160/tonne,” he said, adding however prices were still “really low” compared with a year ago.

“But no one is really selling at these prices as raw material costs are too high, so producers are asking for €200/tonne,” he said, adding “if anyone needs to buy pellets this winter, it’s going to have to be at more than €200/tonne”.

A UK biomass market source said the lack of UK demand was “100% economics”, adding the Lynemouth plant, in northern England, had not consumed wood pellets since last September.

“I’m sceptical they will operate before October or November,” he added.

Combined inventories at several monitored Amsterdam, Rotterdam and Antwerp (ARA) import terminals were meanwhile unchanged from the end of the previous quarter at around 23,000 tonnes, RBCN estimates showed.

“We regularly have wood pellets in storage all year round,” said a source at one ARA terminal.

A source at another terminal said stock levels had not changed at his hub, but that a lack of demand from European utilities had seen stocks rising at some terminals.

“We believe it will remain at this level until September or October, before [demand] picks up again,” he said, adding “so far, [wood pellet import activity] has not been so busy compared to last year”.

Some estimates pegged total wood pellets in storage in Europe and the Baltics at ports and plants at around 2 million tonnes, but this could not be confirmed.

Regarding the residential pellet market, traders pegged prices at as much as €360/t.

“There is a real shortage of premium pellets. Italy has been active, making sure they get supply,” said the first trader, adding they were however having to pay significantly inflated prices.

“Almost no producers can swing from industrial to premium pellet production. You are either an industrial or premium pellet producer,” he said, linking the shortage to the Russia and Belorussia ban.

“There is no other reason, as the burn is actually down on the year,” he added.

An East European biomass trader said Italians were largely buying pellets at €270-240/tonne, delivered to the Bulgarian border, adding Russian producers were also still able to take advantage of the high prices, despite being blocked from the EU market.

“There is a good market for Russian pellets in Turkey, but

Russia has very high production costs, so it’s hard to price into the market,” he said.

“Domestic demand for pellets in Turkey is improving – it’s a growing market,” he said.

“But a small share of the Russian pellets being imported to Turkey are being repackaged and exported again, sometimes even to Europe,” he added.

Europe’s pellet imports drop 24% in first quarter of 2023

Imports of wood pellets by four key European consumers in the first quarter of 2023 dropped by nearly a quarter, versus the same period last year, amid a halt to Russian supply, Eurostat data showed.

The Netherlands, UK, Belgium and Denmark imported an estimated 2.57 million tonnes of wood pellets in January-March, which was 0.86 million tonnes lower than in the first quarter of 2022, the data showed, based on RBCN calculations. (See table on p.1)

Of the total, the UK imported 1.5 million tonnes, down 27% on the year, while the Netherlands took 0.5 million tonnes, which was a more modest 4% lower, and Denmark imported 39% less, at 0.47 million tonnes.

Just Belgium bucked the trend, increasing imports by 7% to 0.25 million tonnes.

Russian and Belorussian wood pellets have been banned from entering the EU and the UK since last year, in retaliation for Russia’s war in Ukraine. But as Russian supply dropped from 0.35 million tonnes in the first quarter of 2022 to zero in January-March this year, the other supplies largely failed to plug the gap.

US supply led the charge, growing 2.3% to 1.97 million tonnes, while combined Spanish and Portuguese supply was static at 0.06 million tonnes.

But Canadian supply was down nearly 60% at just 0.17 million tonnes and combined deliveries from Latvia, Lithuania and Estonia was 33% lower at 0.57 million tonnes.

Enviva boosts Q1 sales by 20%, but fails to hit target

The world's largest producer of industrial wood pellets, Enviva, delivered 1.3m tonnes of wood pellets to customers in the first quarter of 2023, up 20% from the January-March 2022, but marginally below expectations of 1.5m tonnes, the firm said in its Q1 results.

"Although the future continues to be incredibly bright for Enviva's business, we have had a difficult and disappointing start to 2023," said President and Chief Executive Officer Thomas Meth.

"Operating cost overages and production challenges were key drivers behind the first quarter's poor performance," he said, noting while plant production was increasing and the firm was reducing its operating cost position, neither improvement was materialising at the rate it had forecasted a few months ago.

"Based on results from the first four months of the year, we believe it is prudent to take a more conservative view on the timing of our ability to deliver these improvements."

Nevertheless, net revenue for first-quarter 2023 was \$269 million as compared to \$233 million for first-quarter of last year.

"The increase of approximately 15% year-over-year was primarily driven by incremental volumes produced and sold, in large part due to production contributions from Enviva's newest plant in Lucedale, Mississippi being fully ramped during first-quarter 2023," the firm said.

"The increase in net revenue was also bolstered by an uptick in average sales price per tonne as a result of annual price escalators in our contracts as well as new contracts typically having higher pricing than our legacy contracts," it added.

Enviva said it continued to advance productivity and cost-reduction initiatives designed to improve the operating and financial performance of its fully contracted assets.

"Notwithstanding a difficult start to the year, produced tonnes in the first quarter increased by 7.7% over first-quarter 2022," it said.

During January-March, Enviva management was able to reduce the delivered at port (DAP) cost per tonne by approxi-

mately \$9, which was "well below" management's expectations.

"Management's execution plan is now targeting a further \$20 reduction in DAP costs by year-end 2023," it said, adding "despite the improvements underway, the rate of productivity increases and cost reduction is slower than management's prior expectations for full-year 2023."

As a result, Enviva reduced its estimates for full-year produced volumes in 2023 to between 5 and 5.5 million tonnes, as compared with the prior forecast of 5.5 to 6 million tonnes.

For third-party procured volumes, it was now forecasting a range of 500,000 to 1 million tonnes, as compared with the prior estimate of 1 to 1.5 million tonnes.

"Net of contracted tonnes that have been deferred by customers due to planned and unplanned outages in power generation facilities, [this] creates a balance between our wood pellet deliveries and customer demand for the remainder of the year," the producer said.

It expected net revenue per tonne to be approximately \$234 for the full-year 2023.

Meanwhile, Enviva's customers were renewing existing contracts and signing new contracts in large part due to the urgent need to reduce lifecycle greenhouse gas emissions from their supply chains and products while securing reliable, affordable, renewable feedstocks over the long term, the firm said.

"There are limited large-scale alternatives available for renewable baseload and dispatchable power and heat generation, and even fewer sustainably sourced feedstocks to substitute in hard-to-abate carbon-intensive industries," it said.

"Additionally, the carbon price environment in the European Union continues to strengthen, which reinforces the cost-competitiveness of biomass," it added.

Wood pellets were currently the cheapest form of thermal energy generation in Europe, it said, adding Enviva's long-term contracted wood pellets at \$220 to \$260/tonnes made biomass generation in the EU more profitable than conventional generation, especially compared to delivered liquified natural gas prices.

"Biomass continues to be very price competitive, with biomass currently forecasted to be cheaper than natural gas and coal at all points along forward curves," it said.

Drax to open BECCS HQ in Texas

UK biomass-fired power generator Drax will establish its North American headquarters for bioenergy with carbon capture and storage (BECCS) in Houston, Texas.

The new office will serve as the hub for Drax's team focused on bringing BECCS projects to fruition throughout the United States and Canada, it said in a press statement.

"With the growing global demand for high-quality carbon removals, Houston was a natural fit for our BECCS headquarters as it is the energy capital of the world with a proven, highly skilled workforce that will be needed to lead the world's clean energy transition," said Drax CEO Will Gardiner.

"Additionally, the US Gulf Coast has emerged as a major hub for carbon capture and sequestration investment and technology, a key component of the company's plans to expand clean electric generation from renewable resources."

Drax noted that BECCS was the only technology that can deliver reliable, dispatchable renewable power while permanently removing millions of tonnes of carbon dioxide from the atmosphere.

Two initial sites in the US south for deploying BECCS have been selected and are progressing. Drax continued to evaluate nine further sites in North America, creating a pipeline of development opportunities into the 2030s, it said.

"With additional sites under evaluation for further BECCS development, our new Houston office will allow the Drax team to accelerate its work in bringing cleaner and affordable electricity options to the market," Gardiner said.

Drax has already started hiring what will eventually amount to over 100 new jobs in Texas, particularly focused on the development of new-build BECCS facilities, associated carbon capture and storage infrastructure, and the conversion of coal-fired electric generation plants to BECCS facilities across North America.

Drax's office in Monroe, Louisiana will remain the headquarters for its North America Pellet Operations, which also includes regional offices in Vancouver and Prince George, Canada.

"We are thrilled at Drax's announcement to name Houston as their BECCS headquarters, as it comes at a time of great momentum for Houston's energy transition ecosystem and further positions the region as a leader in energy efficiency

and carbon capture," said Jane Stricker, Houston Energy Transition Initiative, Executive Director and SVP of Energy Transition at the Greater Houston Partnership.

RWE eyes BECCUS at Dutch plants from 2030

German utility RWE plans to produce negative emissions and green CO2 at its two Dutch biomass co-fired plants, using bioenergy carbon capture utilisation and storage (BECCUS), from 2030.

RWE's 600 MW Amer power plant currently runs on an 80% share of biomass, in addition to coal, while the 1.56 GW Eemshaven plant runs on a 20% share.

"As a result, a corresponding share of production is now carbon neutral," the utility said in a press note, adding "RWE's strategy is to make the power plants part of both an organic cycle and a CO2 cycle in a few years' time."

In June, RWE presented the BECCUS project in The Hague to government and industry, among others. Subject to technical and economic feasibility, the technology would be in place from the end of the current decade, it said.

The BECCUS project aims to reuse and store CO2 of sustainable, biogenic origin at the two plants, resulting in negative CO2 emissions of 11-14 megatons as of 2030.

"This amounts to 7-9% of the total annual CO2 emissions in the Netherlands," RWE said, adding however to meet the climate targets, the government still had to fill a gap of between 12 and 36 megatons of CO2.

"RWE's deployment makes a major contribution here," it noted.

"RWE wants to become a company that removes CO2 from the atmosphere at an accelerated rate in the Netherlands," said Roger Miesen, CEO of RWE Generation SE.

"In doing so, we are clearly breaking with the past, when gas and coal were the predominant fuels."

Carbon molecules from the biogenic CO2 formed the basis of the BECCUS project, the company said.

"Together with its national and international suppliers, RWE has achieved optimal utilisation of both biomass and biogenic CO2, resulting in a neutral and even negative CO2 balance sheet," it said.