

# Biomass Market Update

## Prices surge amid Russian supply dearth

**(RBCN) European wood pellet prices have jumped more than 50% over the past quarter as a lack of Russian material has resulted in some considerable market tightness, with no tangible sign of sufficient replacement volumes.**

I2 industrial wood pellets were pegged at an average of around €440/t (US\$424/t) CIF ARA, up €154 against the previous quarter, according to a survey of market participants. ENplus A1 residential pellets were assessed at a pronounced €100 premium to the I2 price.

“The market is tighter than ever,” said a European biomass trader, pointing to restrictions on EU imports of pellets from Russia and Belarus in the wake of the former country’s invasion in February of Ukraine.

“Russian volumes aren’t being replaced,” he said, noting they amounted to around 3m tonnes, including Belarus.

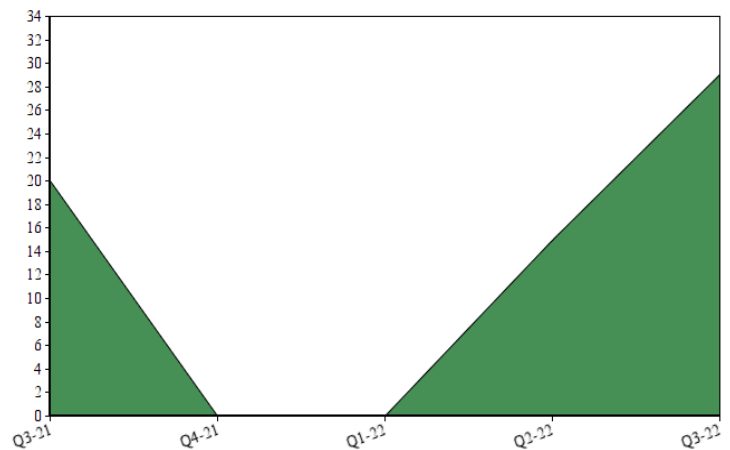
“The total market in Europe is around 40m tonnes, so this means around 8% of the market is gone,” he said, adding however some was being replaced by other fuels – such as coal – or other sources of electricity.

“Normally this [shortage] would not be a big issue, as there is overcapacity in the market and mills don’t usually run at full speed, but during the pandemic, there was a lot of panic buying , especially for premium pellets,

RBCN Wood Pellet Price and Stock assessments		
	End Q4 2022	Vs. Q3 2022
Industrial (I2), CIF ARA	€ 440/t	+54%
ENplus (A1), CIF ARA	€ 540/t	+64%
ARA stocks, tonnes	29,000	+14,000

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

### ARA wood pellet stocks, ‘000 tonnes



so a lot of supply was absorbed”.

He added that the 3m-tonnes shortage would not be replaced in a year as there was also a lack of available raw material for producing pellets.

Market sources meanwhile said deals were being concluded at significantly higher than the aforementioned average, citing trades for CIF ARA cargoes at €460/t. They also saw residential pellets at between €500-600/t.

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Wood Pellet Imports*, tonnes	Q2-22	Q1-22	Year-to-date	vs. Q2-21	vs. YTD-21
Netherlands	489,176	558,101	1,047,277	-45%	-29%
UK	1,723,131	2,066,563	3,789,694	-25%	-14%
Belgium	293,541	231,045	524,586	18%	26%
Denmark	696,618	757,449	1,454,067	54%	10%
<i>Of which in Q2-22</i>	<b>US</b>	<b>Canada</b>	<b>Russia</b>	<b>Portugal/Spain</b>	<b>Baltics**</b>
Netherlands	368,040	11,651	52,498	414	56,572
UK	1,160,069	250,385	15,522	48,886	248,270
Belgium	159,838	272	94,846	55	38,531
Denmark	168,469	30,003	121,625	48,958	327,563

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

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“Prices will remain at around EUR 460/t in Q4 2022 and Q1 2023,” said another trader.

“If you want to buy anything for those periods, you have to pay that price,” he said, adding “power prices are still high, so utilities are still making money. It’s just private consumers who are suffering”.

But he said that beyond the current winter, it was difficult to gauge likely prices.

“If you buy anything for the second half of next year, it’s a lottery ticket. Prices [for industrial pellets] could be €200/t, or they could be €500/t,” he said.

At the same time, the trader said there was unlikely to be much additional supply entering the market to ease the current tightness.

“In north America, it’s just Drax and Enviva producing significant wood pellet volumes. They will only build new mills if there are big, long-term contracts, for example with Japan,” he said.

“I’m not aware of anyone building pellet mills because of the price spike.”

Meanwhile, combined stocks at several monitored Amsterdam, Rotterdam and Antwerp (ARA) import terminals rose to 29,000 tonnes, which was nearly double from the end of the previous quarter, RBCN estimates showed.

“Throughput remains high for the [Dutch] Amer and Eemshaven power plants,” said a source at one terminal.

“I suppose this will not change due to the situation in the Ukraine,” he added.

## **Bioenergy use must grow 10%/year – IEA Bioenergy deployment must increase by 10% per year this between 2021-2030 to achieve net zero emissions by mid-century, the International Energy Agency (IEA) said in a report.**

“Modern bioenergy is the largest source of renewable energy globally, accounting for 55% of renewable energy and over 6% of global energy supply,” it said, adding its net zero emissions by 2050 scenario saw a “rapid increase” in the use of bioenergy to displace fossil fuels by 2030.

“Use of modern bioenergy has increased on average by about 7% per year between 2010 and 2021, and is on an upward trend,” it said.

But it noted “more efforts” were needed to accelerate bioenergy deployment to get on track with the net zero scenario, while simultaneously ensuring that bioenergy production did not incur negative social and environmental consequences.

“Bioenergy is an important pillar of decarbonisation in the energy transition as a near zero-emission fuel,” the IEA said, noting it was useful because there was flexibility in the contexts and sectors it could be used in, from solid bioenergy and biogases combusted for power and heat in homes and industrial plants to liquid biofuels used in cars, ships and airplanes.

“Furthermore, it can often take advantage of existing infrastructure – for instance, biomethane can use existing natural gas pipelines and end-user equipment, while many drop-in liquid biofuels can use existing oil distribution networks and be used in vehicles with only minor alterations.

Specifically, regarding biomass in power generation, the IEA said it provided “dispatchable, low-emission power to complement generation from variable renewables”.

Under its net zero scenario, biomass’s use nearly doubles, from creating about 750 TWh of electricity – or 2.5% of total demand – in 2021 to about 1,350 TWh – or roughly 3.5% of total demand – in 2030.

“Bioenergy with carbon capture and storage (BECCS) – which creates negative emissions by capturing and storing bioenergy emissions that are already carbon-neutral – also plays a critical role,” it said, noting BECCS captured and stored 2 million tonnes of CO<sub>2</sub> in 2021, and would increase to around 250 million tonnes of CO<sub>2</sub> in 2030, offsetting emissions from sectors where abatement would be most difficult.

The IEA said the largest operating BECCS project to date was the Illinois Industrial CCS Project, which had been capturing 1 million tonnes per year of CO<sub>2</sub> for permanent storage in a deep geological formation since 2018.

The Red Trail Energy bioethanol project also recently came online in North Dakota and other small-scale bioethanol facilities were capturing CO<sub>2</sub> in Europe and the United States, but these either sold the CO<sub>2</sub> to greenhouses for yield boosting or used it for enhanced oil recovery, it said.

It said a large-scale biomass-fired power plant was retrofitted with CO<sub>2</sub> capture in Japan in 2020.

“In 2020 the Drax power plant in the United Kingdom, the largest biomass-fired power plant in the world, started a capture pilot capturing up to 1 tonnes of CO<sub>2</sub> per day at one of its four 660 MW biomass units.

## NGOs challenge EU biomass stance

**The International Coalition against Burning Biomass – which is a group of nature and forest NGOs from across the EU – has filed an annulment action seeking to block forest bioenergy and forestry projects from inclusion under the Sustainable Finance Taxonomy, it said in mid-September.**

It argued that the taxonomy's standards would encourage projects that contribute to climate warming and forest degradation.

"Taxonomy criteria are unlawful. We are asking the court to strike them down," it said in a press note.

The case was filed in the wake of a vote in the EU Parliament which the coalition said also signalled new reservations about burning trees and other forest biomass for "renewable" energy.

"By classifying air-polluting and forest-destroying activities as sustainable, major environmental damage is caused, stimulated and financed with 'sustainable' funds. We therefore ask the Court to review and annul the Commission's refusal to designate these activities as sustainable," said Clementine Baldon, of Baldon Advocats.

"Cutting down and burning forests is not a solution to the Paris climate goals," said Fenna Swart, of the Dutch NGO Clean Air Committee, adding "we cannot allow continued investment in these activities to be labelled renewable or sustainable".

The annulment action follows a February 2022 Request for Review by the NGOs which requested the European Commission reconsider and revise its criteria for forest biomass and forestry projects.

The environmental law organisation ClientEarth is also filing a similar case challenging the Taxonomy's bioenergy criteria, as well as one on criteria for organic chemicals.

One Nordic biomass trader said the action was "a concern".

"This could have an effect, and the effect is that prices will go up," he said, pointing already to record prices due to a cut in Russian pellet imports.

"It means you exclude some US and Baltic supply, and demand for pellets from residue will surge."

## Drax acquires Canadian plant

**UK-based Drax Group – the world's leading producer and user of sustainable biomass – has acquired a 90,000 tonnes/year pellet plant in Canada.**

The firm has signed an agreement with Princeton Standard Pellet Corporation (PSPC) to acquire its pellet plant in Princeton, British Columbia, Canada.

The plant, which has been operating since 1995, has the capacity to produce 90,000 tonnes of wood pellets a year, primarily from sawmill residues. Around half of the output from the plant is currently contracted to Drax.

The plant is located close to the group's Armstrong and Lavington plants and the port of Vancouver and has 32 employees.

Following completion of the acquisition – which is expected to complete in Q3 2022 – the plant is expected to contribute to the group's strategy to increase pellet production to 8 million tonnes a year by 2030.

"We look forward to welcoming the Princeton pellet plant team to Drax Group as we continue to build our global pellet production and sales business, supporting UK security of supply and increasing pellet sales to third parties in Asia and Europe as they displace fossil fuels from energy systems," said Drax CEO, Will Gardiner

"Drax's strategy to become a world leader in sustainable biomass, supports international decarbonisation goals and puts Drax at the heart of the global, green energy transition," he said.

Meanwhile, Drax has agreed a Memorandum of Understanding (MoU) with Respira, which could see the largest volume of carbon dioxide removals (CDRs) traded so far, globally, it said in September.

Carbon finance business Respira will be able to purchase up to 2 million metric tonnes of CDRs from Drax over a five year period, under the terms of the MoU. The creation of the CDRs would be linked to the future deployment of bioenergy with carbon capture and storage (BECCS) by Drax in North America.

Drax already aims to invest over £2bn in its UK BECCS project and its global supply chain by 2030, to remove 8 million tonnes of CO<sub>2</sub> from the atmosphere each year. In addition to this it is developing investment plans for BECCS projects outside the UK, including in the US, which could remove a further 4 million tonnes of CO<sub>2</sub> from the atmosphere each year.