

Sustainable Wood Pellet Fuel Production

Balcas Energy produce wood pellet fuel with green energy at our plants in Enniskillen (Northern Ireland) and Invergordon (Scotland).

We use renewable energy and the highest quality materials in our sustainable manufacturing process. The energy used for production is generated on-site, powered by co-products from Balcas saw-milling activities.

We source locally managed spruce and pine timber from sustainably managed forests.



Sustainable Forestry Practices

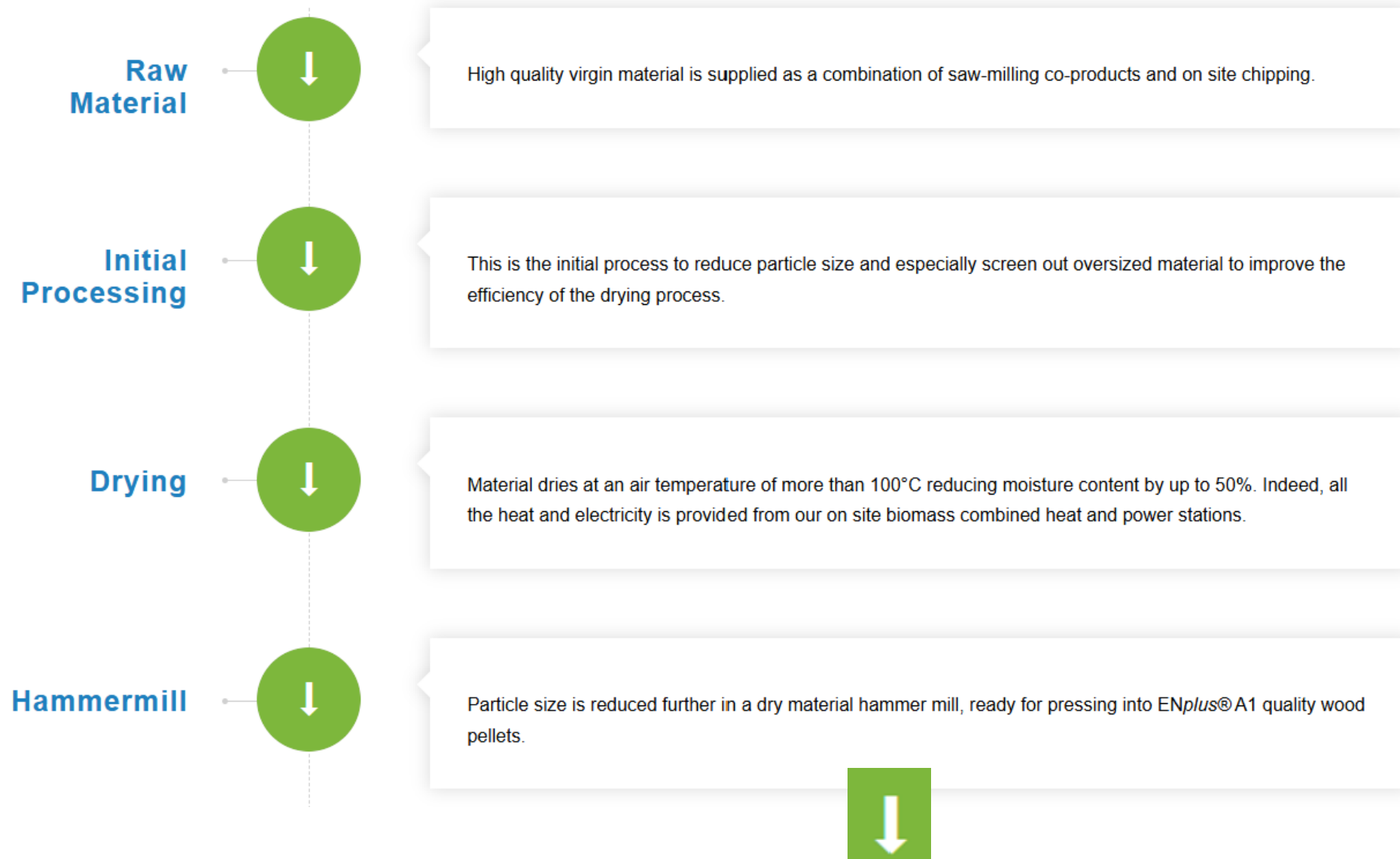
Everything begins in our local forests. We believe [sustainably managed forests](#) are key to a greener future.

We innovate with timber, using it efficiently and planting four trees for every one harvested.

No part of the tree goes to waste in our saw-milling and manufacturing activities.

Wood is at the heart of what we do. For every tree we use, we plant four more!

Our manufacturing process in detail:



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Pellet Press



Material is extruded through the pellet forming die at a very high pressure to ensure the highest quality wood pellets. This process draws out the natural lignin in the wood which helps bind the material together. Moreover, occasionally a little natural binder may be added to improve the durability of the pellets.

Cooling and Screening



We cool the pellets from approx. 90°C to less than 40°C – This ensures they are fully hardened and are then screened to remove all fines. Then we recycle all fines back into the manufacturing process.

Silos and Distribution



Then we store all pellets in on-site silos, ready for filling our dedicated pneumatic pellet delivery trucks.

We make sure we sample and test all pellets during production and on despatch to guarantee ENplus A1 quality standard.

Balcas Energy Wood Pellets are ENplus® A1 & BSL certified

At Balcas Energy, we produce high-quality ENplus certified wood pellets that meet ENplus A1 and BSL certification standards. These certifications guarantee efficiency, sustainability, and cleanliness, ensuring our fuel meets the highest industry requirements.

Wood Pellet Specification		ENplus A1	Balcas Energy*
calorific value		$16.5 \leq Q \leq 19$ MJ/kg	17.2
		4.6kWh/kg	4.8kWh/kg
ash (A0.7)		$\leq 0.7\%$	0.3%
ash deformation temp. (DT1200)		≥ 1200 °C	1350 °C
moisture (M10)		$\leq 10\%$	7.5%
additives	$\leq 2\%$ of dry bases (natural)		$\leq 2\%$
dimensions (D06)	diameter 6mm ± 1.0 mm		6mm ± 1.0 mm
	length $3.15 \leq L \leq 40^1$		$3.15 \leq L \leq 40$
sulphur (S0.03)		$\leq 0.04\%$	0.028%
chlorine (CL0.02)		$\leq 0.02\%$	0.01%
finer (F1.0)		$\leq 0.5\%$	0.24%
mechanical durability (DU97.5)		$\geq 98\%$	98.9%
bulk density		$600 \leq BD \leq 750$ kg/m ³	672 kg/m ³

¹ Maximum 1% of the pellets longer than 40mm, max. length 45mm

* On two occasions per month Balcas voluntarily submits its pellets for independent analysis by an accredited laboratory. The Balcas Energy results above are long term averages, compared against the criteria defined by ENplus A1, the highest standard for wood pellet fuel.