



Media Backgrounder

Biomass boilers – a carbon positive solution, helping Danone on its journey to becoming a carbon neutral company by 2050

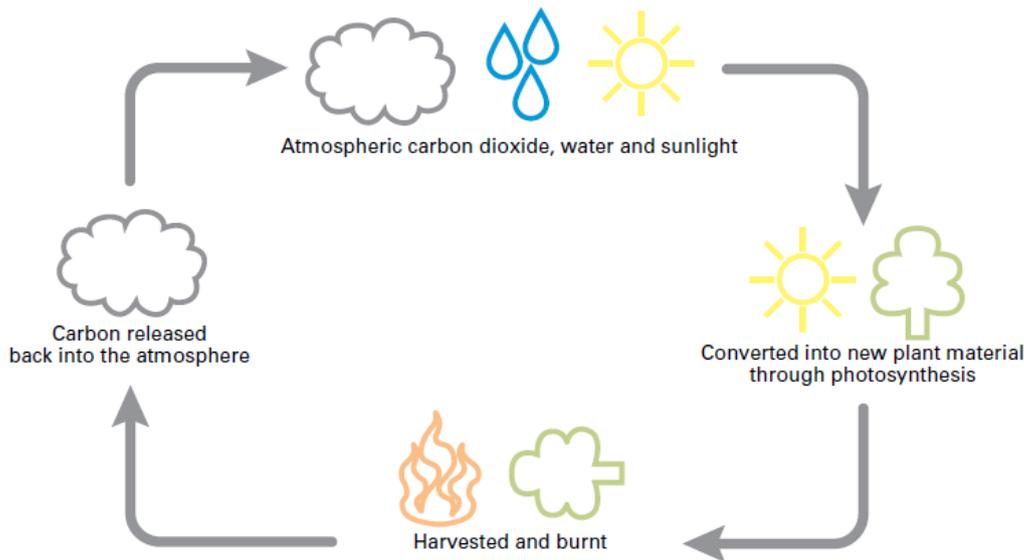
At Danone, we believe a healthy body needs healthy food. And healthy food needs a healthy planet – our ‘One Planet. One Health’ vision. To this end, Danone supports the 2030 Sustainable Development Goals of the United Nations, which are embedded in the company's business operations.

One of these UN goals - *Sustainable consumption and production* – is about promoting resource and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs as well as a better quality of life for all. In short, it's “doing more and better with less.” Danone is committed to playing its part in the fight against climate change by implementing carbon positive solutions toward our aim of to becoming a carbon neutral company by 2050.¹ To reach this goal, Danone targets cutting carbon emissions across our entire scope – from farm to family. Danone has also committed to transitioning to 100% renewable electricity by 2030, with an intermediary step of 50% by 2020.

To achieve these targets, Danone examines every step involved in bringing healthy food to our customers around the world in a sustainable manner. This, of course, also includes how we employ energy efficient processes and technologies to minimize the carbon footprint of our production facilities. As a result, Danone has decided to invest NZ\$30 million (approximately €17.5 million) in a state-of-the-art biomass boiler at its Nutricia spray drying plant at Balclutha, in the Otago region of New Zealand's South Island. The boiler is expected to be fully operational toward the end of 2020.

What is a biomass boiler & how does it work?

‘Biomass’ or ‘bioenergy’ is energy from plants or plant bi-products. The sun is the primary source of energy contained within all biomass fuels – its energy is captured and stored via the process of photosynthesis. This energy can be released and used (e.g. by combustion). When this occurs, CO₂ and other by-products of combustion are also released. However, the CO₂ released is largely offset by that which was absorbed in the original growth of the biomass, or which will be captured in the growth of new biomass to replace the biomass being used.



Biomass heating is a mature, proven technology and has been used successfully for many years in countries such as Austria, Finland and Denmark. The two key elements of a biomass heating solution are the fuels and the heating system. The most commonly used sources of biomass heating fuels are virgin wood, certain energy crops, industrial wood residues and certain agricultural residues. Biomass fuels are typically delivered as woodchips but can also be in other forms such as logs, pellets or even straw bales.

Danone's biomass boiler at the Balclutha facility will be fuelled by by-products or residue of forestry activity that may ordinarily go to waste. These lumber production by-products, while traditionally disposed of or burned, are valuable sources of heat, steam, and/or electricity when used in a biomass boiler system. With four commercial forests within a 50-kilometre radius of the Balclutha plant, the plant will have a reliable source of biofuel, in addition to providing an economic benefit to the local forestry industry. Danone will source fuel from local partners who participate in New Zealand's Forest Stewardship Council (FSC) certification scheme² to ensure fuel is being sourced from sustainably managed forests. Danone also plans to broaden its source of fuel to include urban wood waste.

How energy efficient will the biomass boiler in Balclutha be?

Although burning biomass releases carbon dioxide into the atmosphere, this is offset by the carbon dioxide absorbed in the original growth of the biomass or captured in the growth of new biomass to replace the materials used. As a result, using biomass for heating results in very low net 'lifecycle' carbon emissions relative to conventional sources of heating, such as coal, gas or heating oil.

Once Danone's biomass boiler is fully operational in 2021 and has replaced the current gas boiler, it will cut the plant's forecast CO₂ emissions by approximately 20,000 tonnes per year. Danone also plans to switch to renewable sources of electricity by 2020. The combined impact of these measures will cut the facility's forecast CO₂ emissions by 96%. The remaining 4% of CO₂ emissions represents the facility's expected gas consumption during periods when the biomass boiler is undergoing maintenance. Danone is currently working to secure a renewable source of energy by 2021 for this specific energy needed during maintenance. This Danone expects will make the Balclutha facility the first carbon neutral plant to serve New Zealand's dairy industry.

References

1. https://www.danone.com/content/dam/danone-corp/about-us-impact/policies-and-commitments/en/2016/2016_05_18_ClimatePolicy.pdf
2. <https://nz.fsc.org/en-nz/about-fsc>

About Danone (www.danone.com)

Dedicated to bringing health through food to as many people as possible, Danone is a leading global food & beverage company building on health-focused and fast-growing categories in three businesses: Essential Dairy & Plant-Based Products, Waters and Specialized Nutrition. Danone aims to inspire healthier and more sustainable eating and drinking practices, in line with its 'One Planet. One Health' vision which reflects a strong belief that the health of people and that of the planet are interconnected. To bring this vision to life and create superior, sustainable, profitable value for all its stakeholders, Danone has defined its 2030 Goals: a set of nine integrated goals aligned with the Sustainable Development Goals (SDGs) of the United Nations. Danone commits to operating in an efficient, responsible and inclusive manner; it holds itself to the highest standards in doing business, as reflected by its ambition to become one of the first multinationals certified as B Corp™. With more than 100,000 employees, and products sold in over 120 markets, Danone generated €24.7 billion in sales in 2018. Danone's portfolio includes leading international brands (*Actimel, Activia, Alpro, Aptamil, Danette, Danio, Danonino, evian, Nutricia, Nutrilon, Volvic*, among others) as well as strong local and regional brands (including *AQUA, Blédina, Bonafont, Cow & Gate, Horizon, Mizone, Oikos, Prostokvashino, Silk, Vega*).

Listed on Euronext Paris and on the OTCQX market via an ADR (American Depositary Receipt) program, Danone is a component stock of leading social responsibility indexes including the Dow Jones Sustainability Indexes, Vigeo Eiris, the Ethibel Sustainability Index, MSCI Global Sustainability, MSCI Global SRI Indexes and the FTSE4Good Index.