

# Nomad Foods

## Nomad Foods' study zeros in on opportunity to increase freezer temperatures to save energy

*Pilot study reveals that just a 3 degrees Celsius increase in frozen food storage temperatures could reduce freezer energy consumption by over 10% with no need to reformulate products<sup>1</sup>*

FELTHAM, England – August 8th, 2023 – Nomad Foods, the company behind some of Europe's best loved frozen food brands including Birds Eye, Findus, and iglo, has today announced the results of a pilot study to investigate the potential to store frozen food at higher temperatures. The unique study, conducted over six months with leading food science and technology organisation, Campden BRI, shows that storing frozen food at -15°C, instead of the industry standard -18°C (Zero degrees Fahrenheit), could reduce freezer energy consumption by more than 10% without any noticeable impact on product safety, texture, taste or nutrition of the frozen food products.

Nine products were tested in the pilot including poultry, coated fish, natural fish, vegetables, plant based and pizza. Four temperatures (ranging from -18°C up to -9°C) and eight key areas including food safety, texture, nutrition, energy use and packaging impact were tested. Results showed no significant change to the products across the areas tested at any of the higher temperatures with the following exceptions. There was some change in sensory for Mixed Veg<sup>2</sup> at -9°C and Salmon Fillets at -12°C. There was also some impact on Vitamin C for vegetable products when stored at the highest temperature -9°C. Campden BRI also estimates that for every 3°C increase in temperature there is a drop in freezer energy consumption of 10% - 11%.

Nomad Foods' new study, comes on the back of its industry leading research on the [life cycle analysis](#) of frozen food published last year which showed that frozen food performs very well against alternatives in terms of carbon footprint, partly due to much lower levels of food waste.<sup>3</sup>

Stéfan Descheemaeker, Nomad Foods' Chief Executive Officer, said, "Clarence Birdseye pioneered frozen food technology almost 100 years ago and as we approach the anniversary of his ground-breaking innovation, frozen food is more than ever a great choice for consumers and a great choice for the planet. This new pilot study with Campden BRI shows that we have the potential to significantly reduce energy use when storing frozen products, without reformulating. Delivered at scale, this could revolutionise our industry and deliver substantial energy use and cost reductions for manufacturers, food retailers and consumers and further reduce the carbon footprint of frozen food products. This is not something that we can deliver on our own and so we look forward to sharing our results with trade bodies, retail partners and other key stakeholders to explore opportunities for broader collaboration."

Emma Hanby Associate Director at Campden BRI said: "Campden BRI's unique capabilities have allowed us to undertake a large scale, pilot study working with the experts at Nomad Foods to consider a wide range of parameters that impact the safety and quality of frozen food. Once we had established there were no regulatory or legal barriers in Europe to freezing at higher temperatures, our scientists utilised a combination of analytical, instrumental and sensory panel techniques to generate a robust dataset across a range of Nomad's products. We have shown that an increase in freezer temperatures to -15 degrees C (from the industry standard of -18 degrees C) reduces energy consumption without any decrease in product safety or quality."

Peter Headridge, CEO at Campden BRI said: "Campden BRI was able to support Nomad Foods in this visionary project because we cover a broad range of disciplines relevant to the global food and drink industry. We have 250 scientists, many of whom are experts in their fields enabling us to develop world changing solutions that support companies in their strategic endeavours."

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### Nomad Foods Media Contacts

Sam Fulton  
Group Director of Corporate Affairs & Sustainability  
sam.fulton@nomadfoods.com  
+44 7936 924691

Oliver Thomas  
Senior Corporate Affairs Manager

# Nomad Foods

oliver.thomas@nomadfoods.com  
+44 7568 108744

## About Nomad Foods

Nomad Foods (NYSE: NOMD) is Europe's leading frozen foods company. The company's portfolio of iconic brands, which includes Birds Eye, Findus, iglo, Ledo and Frikom, have been a part of consumers' meals for generations, standing for great tasting food that is convenient, high quality and nutritious. Nomad Foods is headquartered in the United Kingdom. Additional information may be found at [www.nomadfoods.com](http://www.nomadfoods.com).

## About Campden BRI

With over 3000 member companies in 80 countries, we are the trusted, premier, independent, technical partner of choice for the food and drink industry. Campden BRI provides a wide range of services and products all underpinned by investment in meaningful research and science. We are not just about giving you the results, but the understanding too. In support of that understanding and knowledge management, we have extensive training and information provision services, enabling our members in particular, to stay ahead of the curve and make the best decisions for their businesses and consumers. We are headquartered in the United Kingdom. Additional information may be found at [www.campdenbri.co.uk](http://www.campdenbri.co.uk).

## Notes to editors

1. The objective of the Nomad Foods/Campden BRI pilot study was to identify the potential to increase the temperature that frozen food is stored at on a large scale, without reformulating products. The six month pilot was conducted between November 2022 and May 2023 with results measured for storage at -18°C, -15°C, -12°C and up to -9°C.

The pilot focused on eight key areas across 13 individual tests:

- Microbiological
- Sensory
- Texture analysis
- Oxidative Rancidity
- Drip loss
- Nutrition
- Energy usage
- Packaging impact

Nine frozen products were tested

- Crumb coated chicken
  - 2 types of fish fingers (wild caught pollock and fanned Basa)
  - Salmon fillets
  - Garden peas
  - Leaf spinach
  - Mixed vegetables
  - Plant based meatballs
  - Margherita pizza
2. Mixed Veg refers to Birds Eye Steamfresh Family Favourites mix of carrots, broccoli and sweetcorn
  3. In 2022 Nomad Foods published results of an industry leading peer-reviewed Life Cycle Assessment study comparing a range of frozen foods to their alternatives. Further details on the study and 100 page technical report are available online.

<https://www.nomadfoods.com/news/nomad-foods-urges-food-industry-to-adopt-end-to-end-carbon-impact-product-assessment-to-help-tackle-the-climate-emergency/>

<https://www.nomadfoods.com/news/nomad-foods-publishes-third-party-technical-report-of-its-peer-reviewed-life-cycle-assessment-lca-study/>