



## Leaving a Legacy, Not a Footprint at Slane Distillery

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**Brown-Forman**

**Ireland**

**2015 > Ongoing**

**#C02Emissions**

**#SustainableAgriculture #WaterUse**



### Objective

To work toward a lower carbon footprint, positive biodiversity, better water stewardship, and integrated circular economy.

In addition, as part of the wider Brown-Forman company vision, the distillery is committed achieving to the following by 2030:

- To reduce greenhouse gas (GHG) emissions by 50%.
- To source 100% of electricity from renewable energy sources.
- To integrate circular economy principles into business processes across the organisation.
- To ensure that 100% of primary packaging is recyclable or reusable.

### Description

The site of the distillery has a long history, beginning when the Conyngham family settled in Slane Castle on a 1,500-acre estate. In 2015, Brown-Forman purchased the Slane Castle Irish Whiskey and began building a distillery and consumer experience on the Estate. This united the Conyngham family's commitment to sustainability with Brown-Forman's whose vision is inherently linked to environmental sustainability. Through this shared vision, every element of production at Slane Distillery was designed with the surrounding environment in mind. The strong desire to reduce any impact on the existing environment and to build with sustainable processes in mind, meant that sustainability was woven into the site's fabric beginning right from its construction:

- The listed stables complex was restored and converted the distillery and visitor centre. The restoration included using traditional building techniques and materials and using some of the old fixtures that had lain unused for many years.
- Wooden exteriors were added to many on-site buildings.
- A system to collect and store rainwater from the roofs of the distillery buildings was installed.
- Permeable pavers in the visitor parking area that allow rainwater to infiltrate into the soil, reducing runoff and potential pollution from reaching the Boyne River.
- A section of Harlinstown Stream, a tributary of the Boyne River, was reconstructed and a salmon ladder was installed. This salmon ladder allows salmon and other fish to bypass the mill pond (used for fire suppression water) and travel upstream during spawning season.
- Nesting boxes for bats and barn owls were installed within the attic spaces of some of the farm buildings to ensure the distillery doesn't disturb them.
- Heat recovery systems are built into the production process, allowing cooling process lines to simultaneously preheat lines that need temperature increases. These systems also provide heat to on-site buildings.
- The Slane Castle farm which produces around 2,000 tons of barley is used in the whiskey-making process. The rest of the barley is sourced from Ireland.
- The inaugural cask contained new make malt whiskey using barley harvested on the Slane Castle Estate.

In 2018 the distillery set targets to be achieved by 2021, these covered sustainably sourcing raw materials, reducing the volume of outgoing packaging, reducing the total mains energy consumption, the use of process heat from renewable energy, achieving zero waste to landfill and meeting the water use efficiency ratio of 11.5L/OLA.

#### **Actions towards the targets:**

- **Biodiversity:** In 2019, an orchard of heritage varieties of fruit trees was planted, providing an on-site source of garnishes for the distillery's cocktail and bartending programme.
- **Waste:** Draff and stillage are provided to local farmers for animal feed. General office and homeplace waste materials are segregated and sent for recycling or waste-to-energy. In 2020, an aerobic wastewater treatment system became fully operational to handle the processing of wastewater, pot ale, and spent lees.
- **Reducing emissions:** Bicycle racks were installed at the distillery for use by both employees and visitors.

This commitment to sustainability continued in 2021 when, as part of the wider Brown-Forman company vision, the distillery committed achieving to the following by 2030 (2020 baseline):

- To reduce greenhouse gas (GHG) emissions by 50%.
- To source 100% of electricity from renewable energy sources.
- To integrate circular economy principles into business processes across the organisation.
- To ensure that 100% of primary packaging is recyclable or reusable.

## Actions towards the targets:

- **Renewable energy:** In 2023, the distillery installed a rooftop solar system. In November 2023, the Distillery and Flogas Enterprise signed a Corporate Power Purchase Agreement (CPPA) which allows the company to purchase renewable electricity directly from the nearby Cronalaght windfarm.
- **Biodiversity:** In 2021, the Distillery partnered with the Slane Castle Estate to start a 10-year forestry management programme: In 2021, native tree species on 6.65 hectares of estate property, creating a new native woodland alongside the barley fields; In 2022, invasive species were removed, and new hedgerows were planted.
- **Circular economy:** An anaerobic digester converts distillation by-products into biogas, biomass and water. The biogas is used on site to heat the stills, the biomass is used as a natural fertiliser and the water meets requirements to be reused.

## Partners

The Conyngham family: Owners of the Castle and grounds.

Alex Conyngham: Slane Irish Whiskey Co-Founder.

Flogas Enterprise: Green energy facilitator.

The National Fisheries: Consulted for the Harlinstown Stream reconstruction and salmon ladder.

## Results

### Commitments to be achieved by 2030. Progress as of July 2024:

- To reduce greenhouse gas (GHG) emissions by 50%: The anaerobic digester reduces GHG emissions by upto 30%.
- To source 100% of electricity from renewable energy sources: 65% (the solar system provides 5% of the electricity annually and the CPPA meets 60% of the energy demand).
- To integrate circular economy principles into business processes across the organisation: The Anaerobic digester reduces waste and new water usage. In 2022, the distillery reduced the water consumption per litre of whiskey produced by 32%.
- To ensure that 100% of primary packaging is recyclable or reusable.

2021 Forestry management programme: Actions so far will improve the biodiversity, protect the surrounding barley fields and environment of the area, and improve the distillery's carbon footprint. 14,000 trees were planted on 6.65 hectares of estate property. These trees may also potentially facilitate the production of their own casks.

### Slane Irish Whiskey 2018-2022 Origin Green Plan achievements:

- Source 75% of raw materials from suppliers with sustainability certifications: unknown.
- Reduce the volume of outgoing packaging: unknown.
- Reduce total energy use from mains supply by 10%: unknown. They were however able to reduce the energy required to produce one litre of whiskey by 24%.

- Obtain 10% of process heat from renewable energy: unknown.
- Total waste reduction of 10% and zero waste to landfill by 2020: Achieved.
- Meet Brown-Forman Best Distillery Water Use Water use efficiency ratio of 11.5L/OLA: unknown.

Since 2019, the fruit tree orchard provides an on-site source of garnishes for the distillery's bartending programme. It also allows them to educate bartenders and visitors about pollinators.

2015-2017: Wooden exteriors reduce the carbon footprint of these structures. The water collection system reduces the distillery's dependence on local water supplies and minimises its environmental footprint. The salmon ladder was designed to mimic a natural stream environment and improve the biodiversity of this section of the water on site. Heat recovery systems reduce GHG emissions by providing heat to the production process and on-site buildings. Local barley reduces GHG emissions produced from travel.

## Measurement & evaluation

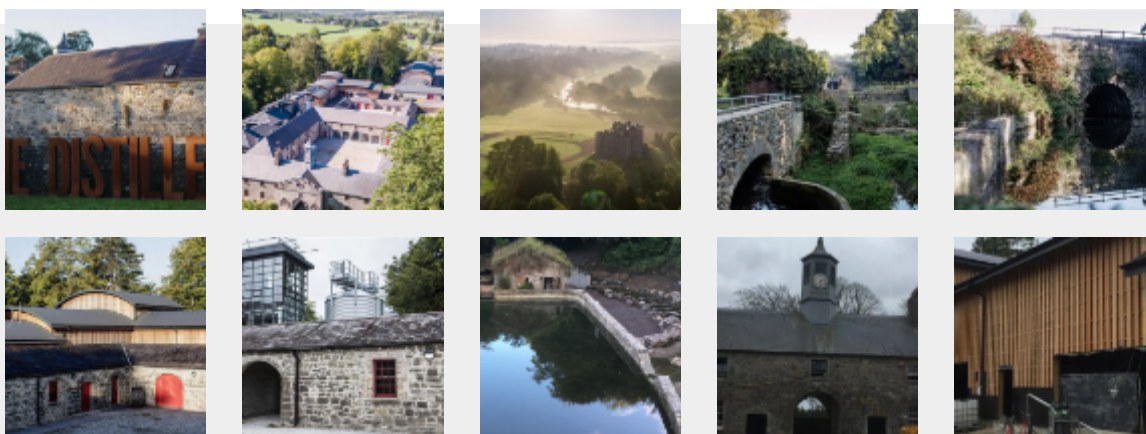
In 2017, Slane Distiller was certified by Origin Green, Ireland's food and drink sustainability programme. It currently has Origin Green Gold Membership which has been approved until May 2025.

## Website

<https://www.slaneirishwhiskey.com/who-we-are/sustainability/>

## Downloads

## Photo gallery





## Documents

**2023 Origin Green Gold Member Status** (pdf - 0.21 Mo)