

Dundee Rep Theatre

Tracking energy use changes and embedding sustainable planning in capital projects.

At a glance

Location
Dundee

Tags

Lighting
Capital Projects
Air curtain
Garden space
EV charging
Garden space

Overview

Founded in 1939, Dundee Rep shares a building with Scottish Dance Theatre. In 2019, they began substantial changes to their building and operations to move towards becoming a greener organisation. In 2024 further funding from Dundee Climate Fund allowed them to install secondary glazing, solving the long-term difficulty of heating the building during the winter months.



Lighting

In 2021, the Dundee Rep team began with their lighting, selecting to install LED node lighting. The node lights are small, so require more units, but are able to change colour and be dimmed. The front of house lighting changes saved the company 92% of original costs, saving £6,880 a year and reducing the CO2e by 88% annually.

The team were able to install the new lighting themselves, and through counting the number of units before and after, and tracking energy bills, they were able to keep a detailed record of the work done and its impact.

Tracking the carbon impact of capital projects: toilet replacement

The venue Front of House toilets needed updating, but the team at Dundee Rep were determined to do limit the carbon impact of this large-scale project as much as possible. Through careful planning and tracking they were able to do this, coming in under their £330,000 budget and completing in 8.5 weeks rather than the planned 16.

From an early stage they ensured the suppliers and contractors for the project knew the brief was to keep the impact as low as possible. The original tiling in the WCs came from Spain, but the team managed to trace replacements from a surplus stock in Aberdeen. The decision was also taken to remove nearly all heating from the toilets, as it wasn't required and the rooms were already warm enough.

The team also ensured they added Changing Places Toilets with hoists to make the facilities more accessible not only to audience members, but to any members of the public needing them during the daytime.



New toilet and Changing Places Toilet

Secondary Glazing

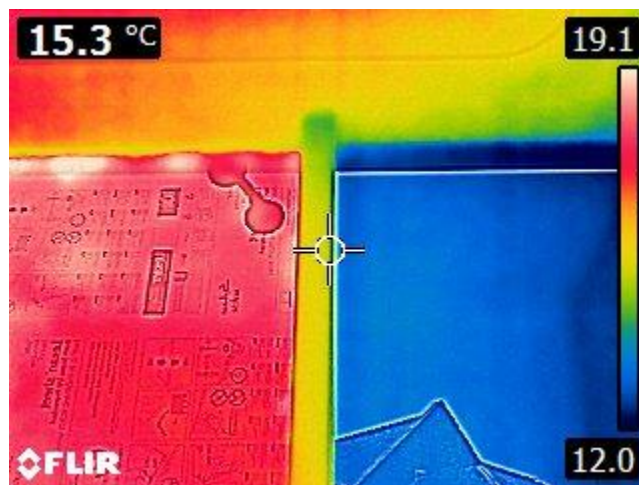
The venue had always struggled to stay warm enough in the winter due to single-glazing, especially in the rehearsal rooms which the dance company often use (dance companies need especially consistently warm rooms to avoid injury to the performers).

They were able to get funding to install secondary polycarbonate glazing called 'Invisitherm' to their single pane and louvred windows. This material can prevent heat loss by 68% and prevent solar gain. The glazing also helps to work as a noise barrier. The glazing is attached with magnets so can be taken off and put away if you want to open the windows during the summer months.

As a part of the project destratification fans were also installed into the dance studio, which help by pushing rising heat down to the working level. It used to take four to five hours to get the room up to temperature, whereas now it only takes one. So far in the month of May 2024 Dundee Rep have saved 5,500kwh of energy (compared to previous figures).



Polycarbonate being added and the final result



Difference in temperature between glazed and unglazed

Other Improvements

- Dundee Rep were also able to install EV chargers through funding from Loganair.
- They are due to replace their front entrance in November 2024 replacing a revolving door with a large doorway with an air curtain to keep heat in.
- All staff are invited to join meetings on sustainability if they want to. There are also green achievements for staff.
- The venue has a garden where they grow rhubarb, amongst other things.
- They replaced their printers with inkjet printers which use less ink than laser.
- The team had a trip to visit their local recycling centre
- They have regular climate cafes.
- Dundee Rep started with a CO₂e figure of 445 tonnes and are currently sitting at 209 tonnes (based on 2023/2024).
- You can find Dundee Rep's Environmental and Procurement Policies [here](#).

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