



## More than £1bn needed to make the UK's theatre buildings sustainable

New research by leading consultancies AECOM, Avison Young, Bristow Consulting and Buro Happold for Theatres Trust has revealed the extent of the work needed to make the UK's theatre buildings sustainable. Matching the current state of theatres against the costs of recent refurbishment projects, the research group has revealed that making a typical 600-seat theatre fully sustainable and accessible will cost £11m. Analysis of 100 representative UK theatres estimates that £1.1bn is needed to make them sustainable and suitable for modern audiences.<sup>1</sup>

However, the research, which will be presented at the Theatres Trust Conference 21 Making Theatre Sustainable, shows that this level of investment in 100 theatres would bring huge benefits, saving 6,500 tonnes of CO<sub>2</sub> per year – the equivalent of 9,700 return economy flights to New York<sup>2</sup> – as well as £3.3m annual revenue savings for the UK's theatres / an average of £33,000 per theatre.<sup>3</sup>

Finance is the major obstacle to theatres improving their building's carbon footprint. In a separate survey 86% of theatres responding said it was a major challenge, with this figure rising to 92% in historic theatres. As a result 24% of theatres have not made any green improvements to their

---

<sup>1</sup> Average sustainability improvement costs are derived from a benchmark of actual costs across recent theatre capital projects price adjusted for 2021 prices.

Fully sustainable represents a typical 50% maximum overall reduction in energy use achievable through buildings and systems improvements. The path to net zero will come from decarbonisation of the grid, alongside improvements to productions, operations and supply chain.

The 100 representative theatres is based on Theatres Trust data on the overall distribution of UK theatres by age and size and a bell curve assumption of current condition.

<sup>2</sup> An economy-class return flight from London to New York emits an estimated 0.67 tonnes of CO<sub>2</sub> per passenger, according to the UN's civil aviation body, the International Civil Aviation Organization (ICAO).

<sup>3</sup> CO<sub>2</sub> reductions and financial savings are calculated by applying typical overall percentage energy use reductions for gas (65%) and electricity (35%) across a range of building improvements against current theatre energy use figures drawn from analysis of 100 published Display Energy Certificates (DECs).

buildings in the past 15 years and, of the 70% who had, only 20% had energy savings as the primary reason for refurbishment. <sup>4</sup>

To help theatre buildings become more sustainable, Theatres Trust has spearheaded the Theatre Green Book project, along with the Association of British Theatre Technicians and Buro Happold, and it has been co-ordinated by architect and Theatres Trust Interim Chair Paddy Dillon. The initiative has the backing of all the leading UK theatre sector and sustainability bodies, including SOLT/UK Theatre, Julie's Bicycle, Federation of Scottish Theatre, Creu Cymru and Theatre and Dance NI.

The Sustainable Buildings volume is published today and will be accompanied by a toolkit to guide theatre operators towards prioritising the most effective works to carry out on their individual buildings.

Paddy Dillon, Interim Chair of Theatres Trust, and co-ordinator of the Theatre Green Book, says, *This shows the scale of the task we face in equipping our theatres for the climate emergency. These are some of our best-known and best-loved public buildings. Our world-leading theatre sector depends on making them fit for purpose. It's essential we work together to find solutions to this urgent challenge.*

Theatres Trust Director Jon Morgan comments, *The theatre sector recognises there is a climate emergency and there is the will for change, as has been shown by how positively the Theatre Green Book project has been embraced across the sector. Funding this vital work is the major hurdle, a problem that has been made even more challenging by the pandemic, but the Sustainable Buildings volume of the Theatre Green Book will help theatres focus their resources on the most impactful works.*

## Notes to Editors

Title	Theatres Trust
Website	<a href="http://www.theatrestrust.org.uk">www.theatrestrust.org.uk</a>
Twitter	@TheatresTrust #MakingTheatreSustainable #TheatreGreenBook
Photograph	Glyndebourne, credit James Bellorini

---

<sup>4</sup> 112 theatres responded to the survey conducted by Buro Happold in May 2021. The distribution of responses by age and scale of theatre broadly corresponds to the overall UK picture.

The other reported major barriers to implementing carbon reduction in theatres were: Listed Building Consent (41%); Impact on Operations (41%, rising to 57% for theatres over 800 seats); Lack of Knowledge of What to Prioritise (25%, rising to 50% for theatres under 200 seats).

## **Theatres Trust**

Theatres Trust is the national advisory public body for theatres. They believe that current and future generations should have access to good quality theatre buildings where they can be inspired by, and enjoy, live performance. They champion the future of live performance by protecting and supporting excellent theatre buildings which meet the needs of their communities. They do this by providing advice on the design, planning, development and sustainability of theatres, campaigning on behalf of theatres old and new and offering financial assistance through grants.

In 2020, Theatres Trust signed up to the Culture Declares Emergency campaign and committed to five Environmental Principles to reshape its work and help influence and improve the sector's sustainability. Theatre Green Book project is one outcome of this.

## **AECOM**

At AECOM, they're delivering a better world. As the world's most trusted infrastructure consulting firm, they're committed to managing their business with the utmost responsibility and to always strive for better – whether by reducing emissions, creating social value or diversifying their senior leadership and workforce. They understand both the urgency of the challenges facing our society and our responsibility to respond in an impactful and enduring way. With this consciousness, they're leading the change toward a more sustainable and equitable future, partnering with those who want to make a positive difference in the world. They're listening to their clients and the communities they serve to improve lives and livelihoods, and to create sustainable legacies for generations to come. Thinking without limits is what keeps them at the vanguard. Ideas have no borders, and this ethos is embedded in their culture. The full scope of their capabilities is available to anyone who needs it, wherever they are based. They're trusted advisors – planners, designers, engineers, scientists, consultants and program and cost managers – delivering professional services throughout the project lifecycle, they're one team driven by a common purpose to deliver a better world.

## **Avison Young**

Avison Young creates real economic, social and environmental value as a global real estate advisor, powered by people. As a private company, their clients collaborate with an empowered partner who is invested in their success. Their integrated talent realises the full potential of real estate by using global intelligence platforms that provide clients with insights and advantage. Together, they can create healthy, productive workplaces for employees, cities that are centres for prosperity for their citizens, and build spaces and places that create a net benefit to the economy, the environment and the community. Avison Young is a 2021 winner of the Canada's Best Managed

Companies Platinum Club designation, having retained its Best Managed designation for 10 consecutive years.

## **Bristow Consulting**

Trusted. Experienced. Independent. Bristow delivers first class cost and project management consultancy services within the property sector. Bristow has provided independent cost and project management consultancy to the property industry since 1936. Over many years, they have built a complete range of expert services – with a focus on delivering bespoke solutions which minimise risk and maximise value, for each individual client’s development project. Their team of highly qualified and dedicated directors and consultants work with clients all across the UK. They pride themselves on delivering exceptional levels of client service – with 90% of their work coming through repeat business and recommendation. Backed by decades of experience, and with an absolute attention to detail, they are able to overcome complex challenges. And, while they draw on their past achievements, they never stop exploring new ways of working and are quick to embrace new technologies. They structure their approach on a project-by-project basis, dedicating significant time and effort to understanding the potential of every project – overlaying this with their sector-specific expertise and insight, to guide clients towards real commercial success.

## **Buro Happold**

Buro Happold is an international, integrated consultancy of engineers, consultants and advisers. After leading the construction industry in declaring a climate emergency, we’ve committed to reduce our own impact by achieving challenging science-based targets. We are collectively working towards an equitable and green future by adapting our business to mitigate climate change and the biodiversity crisis and helping others achieve their sustainability goals.

## **Theatre Green Book**

Theatre Green Book initiative pulls together existing guidance and creates a shared standard for environmentally responsible theatre across three volumes:

- Sustainable Productions
- Sustainable Buildings
- Sustainable Operations

The project spearheaded by ABTT, Buro Happold and Theatres Trust and co-coordinated by theatre architect and Theatres Trust Interim Chair Paddy Dillon, builds upon the work of Julie’s Bicycle, Creative Carbon Scotland, SiPA, Ecostage and others.

Its creation has been entirely funded by the following theatre and construction sector bodies: ABTT, AECOM, AHMM, Bristow Consulting, Buro Happold, Charcoalblue, English National Opera, Gardiner & Theobald, Glyndebourne Opera, Haworth Tompkins, Ingleton Wood, Laing O'Rourke, National Theatre, Paddy Dillon Architect, Plann Ltd, Royal Opera House, Sadler's Wells, Scottish Opera, Stage Electrics, Theatreplan Ltd, Theatres Trust and the Wolfson Foundation.

Theatre Green Book is supported by the following theatre and sustainability organisations: Association for Lighting Production and Design, Association of Sound Designers, Community Leisure UK, Creative Carbon Scotland, Creu Cymru, Ecostage, Federation of Scottish Theatre, ITC, Julie's Bicycle, Scene Change, SiPA, Society of British Theatre Designers, Society of London Theatre / UK Theatre, Stage Sight, Staging Change, Theatre and Dance NI. <https://theatregreenbook.com/>

All enquiries, high res images and further information:

Isobel Jaffray

E: [isobel@chloenelkinconsulting.com](mailto:isobel@chloenelkinconsulting.com), M: 07772 643 959

W: [www.chloenelkinconsulting.com](http://www.chloenelkinconsulting.com)