



CASE STUDY

Perth Concert Hall

TUNGSTEN TO LED
LIGHTING UPGRADE





Perth Concert Hall's lighting system, originally designed for tungsten lights, was in their words 'outdated, inefficient, and environmentally unsustainable'. The high energy consumption of this system was unacceptable to them in today's climate-conscious era.

Rising energy costs added financial strain, making the old system impractical both economically and environmentally.

Additionally, technological advancements over the past 20 years left the Concert Hall's setup 'artistically behind', relying on traditional gels and limited effects, and was unable to deliver a modern visual experience.

'Lights-Up Perth Concert Hall' was a project created by the team at Perth Concert Hall aimed at upgrading the lighting system, enriching the community's cultural amenity, and modernising their facilities. Perth Concert Hall received a generous grant from the Wolfson Foundation, and additional support from the Hugh Fraser Foundation and the Forteviot Charitable Trust, to take this project from dream to reality.



"Not only was there a need to align with modern environmental standards and reduce operational costs, there was also a strong artistic drive to enhance the visual impact of our performances.

Bringing the lighting system up to speed allows us to offer a richer, more dynamic experience to our audiences and meet the expectations of contemporary performers and productions, ensuring that Perth Concert Hall can shine in terms of artistic presentation and operate sustainably in an energy-conscious world. Even a seemingly simple orchestral concert, including a rehearsal beforehand, could contribute as much CO2 as a flight from Scotland to London. In today's climate-conscious world, where reducing carbon footprints is critical, this level of energy consumption was simply unsustainable.

Stage Electrics' assistance went beyond mere vendor support; they became true partners in our mission to modernise and elevate our venue's capabilities. Their reliability, coupled with their proactive and knowledgeable approach, ensured that despite the hurdles, we were able to achieve our goal of creating a more sustainable and artistically advanced lighting environment."

John Pike
Head of Technical Services
Perth Theatre and Concert Hall



"The Perth Concert Hall lighting system was in much need of an upgrade, in terms of functionality, aesthetics, economics, and environmental impact.

We pride ourselves on partnerships working across every aspect of the organisation, so for our team to be able to work so closely with Stage Electrics to deliver the project ensured the whole experience was collaborative, cooperative, and streamlined from start to finish."

Christopher Glasgow
Director
Perth Theatre and Concert Hall

THE CHALLENGE

The reasons for the upgrade at Perth Concert Hall were fourfold: environmental impact, functionality, aesthetics, and economics.

Environment and Carbon Footprint

The team at Perth Concert Hall are focused on reducing their carbon footprint and impact on the environment. Tungsten lighting requires more electricity to operate, and its heat output makes it more inefficient than its LED counterparts.

Functionality

Achieving different colours with tungsten lights requires the use of coloured gels or filters, which can fade or burn out over time. This limits the flexibility and speed of colour changes during a performance.

Aesthetics

Twenty years of rapid technological advancements had left the Concert Hall 'lagging artistically'. The existing setup still depended on traditional gels for colour, parcan chases for lighting effects, and had a limited capacity to create a modern visual experience for the audience.

Economics

Tungsten lights consume a significant amount of energy, leading to higher utility bills, especially for venues with extensive and frequent lighting needs like Perth Concert Hall. The shorter lifespan of tungsten bulbs also means they need to be replaced more often, increasing the costs associated with purchasing new bulbs and the labour required for maintenance.



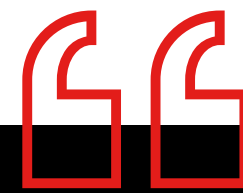
THE SOLUTION

The solution to all of these issues? A brand new fully LED lighting rig from Chauvet Professional.

Chauvet Professional and Stage Electrics worked together to provide a state-of-the-art lighting rig tailored to fit Perth Concert Hall's needs. This included 35 Ovation Rêve E-3 (to replace their Front of House washes), 4 Maverick Force 1 Spots to add to their moving light stock; 10 Rogue R1 Beam Wash lights and 10 Ovation CYC 1FC for cyc washes and uplighting legs. On the day of the demo, Simon Cox from Chauvet Professional brought an Ovation Rêve P-3, which was so well received that it replaced the fresnel as the preferred option, with the client purchasing 10 of these as well.

Stage Electrics also provided all the hybrid cable infrastructure for the new lighting, and an MA Lighting GrandMA3 8Port Node was supplied as well.

The team was able to replace all existing tungsten lights with elevated, superior counterparts, taking the setup to another level in terms of aesthetic appeal, functionality, operational efficiency, and environmental impact.



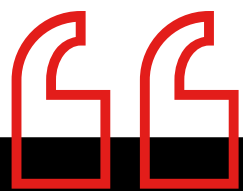
"It was a great opportunity to work alongside Stage Electrics to demonstrate our Chauvet Professional fixtures to the Technical Team at the Perth Concert Hall. The venue team had a clear idea of their needs from the forthcoming investment to ensure maximum flexibility of the venue for their in-house productions, but also as a house rig for the touring shows coming through.

With the Ovation Rêve fixtures, we were able to show that high-quality light output levels could be achieved, whilst offering the flexibility needed for the long front-of-house throws and stage wash requirements. The team really took to the Ovation CYC unit as we were able to show it not only illuminating their stage CYC but also its functionality as a footlight as part of their stage lighting package.

Newer fixtures from our Maverick and Rogue ranges were evaluated for their ability to work alongside the venue's current Chauvet inventory. Maverick Force 1 fixtures were put through their paces as the team considered the gobo package, colour mix, and graphic functionality needed from their overhead fixtures to sit alongside dynamic moving wash fixtures, resulting in a combination of Maverick Force 1 Spots and Rogue R1 Beam Wash solutions being selected by the team."

Simon Cox

Architectural & Special Projects Business Development Manager
Chauvet Professional



"It is clear that considerable time and effort have been invested by Chauvet to develop products that meet the needs of professional venues. Their commitment to improvement and innovation has transformed their reputation, and they were able to present a range of products that exceeded our expectations at a price point more attuned to the realities of the current arts funding challenges.

Chauvet demonstrated that their units could meet, and in some cases surpass, the performance metrics of their competitors. Their products hit all the critical points: brightness, colour quality, dimmer curves, and minimal noise operation. Each of these factors is crucial for our venue. Furthermore, Chauvet's offerings are highly adaptable, able to meet the demands of the rapidly changing environment in which we operate. This adaptability is vital as we look to future-proof our lighting system.

The competitive pricing of Chauvet products was another significant factor in our decision-making process. In an era where the arts are grappling with funding challenges, finding a solution that delivers high quality without breaking the bank is essential.

Chauvet's ability to offer superior products at a more affordable price made them the only option worthy of our consideration.

For our venue, Chauvet was the only brand able to provide a full suite of products covering all our needs. This comprehensive offering simplifies our ongoing support relationship, making the upkeep of our lighting equipment more straightforward for our team. Instead of managing multiple vendors and service contracts, we can streamline our maintenance and support processes, leading to greater efficiency and reduced downtime. This holistic approach from Chauvet ensures that we have reliable, high-quality lighting that enhances our performances while also being cost-effective and easy to manage."

Pam Dochard
Head of External Relations
Perth Theatre and Concert Hall





THE RESULT

This new lighting rig alleviates all previous concerns that the team at Perth Concert Hall had;

Environment and Carbon Footprint

Upgrading from their previous tungsten lighting rig to LED allows them to align more closely with modern environmental standards.

Venues often report a significant reduction in waste when upgrading to LED, with tungsten lights needing frequent bulb replacements. LED lights are also drastically more energy-efficient than their tungsten counterparts, consuming up to 80% less power than tungsten. LED bulbs also release less heat, reducing the need for additional cooling systems.

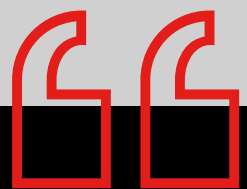
Functionality & Aesthetics

With LED lighting systems, such as the new Chauvet Professional rig installed here, the need for coloured gels or filters is eliminated. LEDs allow for instant and precise colour changes, improving flexibility and reducing maintenance. Furthermore, LED lights offer smooth dimming without the colour shift that occurs with tungsten lights, allowing for greater control over the mood and atmosphere on stage.

The team at Perth Concert Hall have only had their new rig installed for a few weeks and they have already noticed the dynamic effects that can be produced, such as strobes, fades, and colour changes, creating impressive displays.

Economics

Though the initial purchase cost of LED fixtures can be higher, the energy savings typically result in a quicker-than-expected payback period. The costs saved by reducing energy consumption make the initial investment worthwhile, especially in venues such as Perth Concert Hall where the lights are used for extended periods for rehearsals and performances. Although the new Chauvet Professional lighting rig has only been installed recently at Perth Concert Hall, we expect to see significant cost savings soon.



“Stage Electrics were incredibly helpful and supportive throughout what became a prolonged and challenging process, largely due to the complications brought about by the pandemic. The journey to upgrade our lighting system extended far longer than initially anticipated, but Stage Electrics stood by us every step of the way. From the very beginning, they played a crucial role by arranging demonstrations and providing demo stock, allowing us to thoroughly evaluate the potential new equipment in our venue’s unique setting. This hands-on experience was invaluable in helping us make informed decisions about which products would best meet our needs.

Throughout the funding process, which was intricate and often slow, Stage Electrics kept us well-informed about product changes and updates. This transparency ensured that we were always considering the most current and relevant technology, which was essential given the rapid advancements in lighting equipment. Pete and Rupert, in particular, were reliable and steadfast partners throughout this endeavour. Their expertise and dedication were evident as they consistently provided guidance and support.

Whether it was answering our numerous questions, troubleshooting issues, or simply offering reassurance during uncertain times, they were always there for us. Their unwavering commitment made a significant difference in navigating the complexities of the upgrade, ultimately contributing to the successful enhancement of our lighting system. In summary, Stage Electrics’ assistance went beyond mere vendor support; they became true partners in our mission to modernise and elevate our venue’s capabilities. Their reliability, coupled with their proactive and knowledgeable approach, ensured that despite the hurdles, we were able to achieve our goal of creating a more sustainable and artistically advanced lighting environment.”

John Pike
Head of Technical Services
Perth Theatre and Concert Hall



How Can We Help You?

Stage Electrics provide technical services and products for venues and production companies.

We take care of our clients through the three specialist divisions of Stage Electrics: Projects, Equipment Sales and Venue Services.

Projects

Our Projects department facilitates a wide range of projects and installations. Our experts will look after all your design, installation, and commissioning needs for new-build and refurbishment projects. We work on installations of all scales, from village halls and schools to multi-million-pound projects like the Shakespeare North Playhouse in Prescot or Soho Place in London. Our Projects team are ready to help with as much or as little as you need us to do.

Equipment Sales

Stage Electrics supports thousands of venues and professionals across the UK with their production technology and consumable needs. We stock products by over 100 manufacturers in our Bristol warehouse, many of which are available for same-day dispatch. Our online store is quick and simple to use. If you require personal assistance, our Equipment Sales team would be delighted to provide you with all the help and guidance needed to make a well-informed decision.

Inspection and Testing

The Stage Electrics Venue Services team will help you maintain a fully functional and legally compliant venue and performance space. We are a NICEIC certified contractor, providing tailored packages for electrical and mechanical inspections as required by BS7671, ISITEE, PUWER, and LOLER. Our specialist onsite crew are highly qualified, and DBS checked to enhanced level—the safety and functionality of your venue couldn't be in better hands.

**WE
MAKE
PERFORMANCE
POSSIBLE**



Let's Talk

If you'd like to learn more about our Equipment Sales services, we'd love to hear from you.

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