

WATERSMEET STAGE LIGHTING REPLACEMENT WITH LED

PROJECT INITIATION DOCUMENT (P.I.D. Lite)

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Document Control

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Distribution

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Approval

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1 Introduction

1.1 Purpose of the document

The Project Initiation Document (Lite) consolidates information required regarding the fundamental aspects of the project and is the basis against which the project is evaluated and prioritised.

- Why is this project important
- What will the project do, what outcomes will be delivered, what are the success factors and risks
- How much will it cost, what resources are required

*** This document is a "lite" version of the full Project Initiation Document (PID) required when initiating the project fully. The full PID contains additional information.*

- How will the project be implemented, how will it be managed
- When will the project be implemented
- Who will be involved and who will be impacted

NOTE: When a PID is recommended to Council and approved as part of the budget setting process, the relevant Chief Officer will be deemed to have the necessary Delegated Authority to enter into any contract in respect of the project and within the budget agreed.

1.2 Executive Summary

- 1.2.1 Watersmeet stage lighting fixtures are between 15-40 years old (depending on the fixture) and with the recent change in light bulb regulations, the type of lamp (bulb) that the theatre lights use are being discontinued next year in Europe. Over the next few years it will increasingly difficult to replace the lamps and as a result the stage lighting will potentially be vastly reduced.
- 1.2.2 Stage lighting is essential for Watersmeet's business, as the vast majority of hirers require it, and all the venue's promoted live theatre shows require stage lighting.
- 1.2.3 The current ageing light fixtures have poor energy efficiency, and with the desire to reduce the Council's carbon footprint by being more energy efficient the current fixtures are not in-line with the Council's objectives.
- 1.2.4 The recommendation is to replace the stage lighting fixtures at Watersmeet with energy efficient LEDs, that will provide small savings in electrical energy costs, provide better quality stage lighting, improving the service for audiences, and reduce the venue's carbon footprint.

1.3 Project Objectives

- 1.3.1 To replace all Watersmeet's current discontinued and ageing stage lighting equipment and infrastructure with energy efficient LEDs.

1.4 Current issues and priorities

- 1.4.1 The current stage lighting ranges from 15-40 years old depending on the individual fixture and there has been minimal investment in updating the theatre lighting over the years.
- 1.4.2 The lamps (bulbs) that are currently used are due to be discontinued next year and so replacement lighting fixtures are required, as converting the fixtures is not possible.
- 1.4.3 The industry standard is to move to energy efficient LED fixtures.
- 1.4.4 To improve the energy efficiency of the building by reducing our carbon footprint by a reduction in electricity consumption.

1.5 Implications of project not being complete

- 1.5.1 The current stage lighting fixtures are no-longer manufactured and so replacement parts will soon be unavailable.
- 1.5.2 The lamps that need replacing every 6 months will also stop being manufactured in Europe within the next year, and have already been stopped in the USA. Therefore replacement lamps will be very difficult to find.
- 1.5.3 As a result, the stage lighting will potentially be vastly reduced or/and no working stage lighting.

2 Business Case

Why should this project be undertaken?

- Replacement of the stage lighting to LEDs was recommended in the February 2016 Watersmeet Condition Survey prepared by CSJ Associates Limited as a carbon footprint measure.
- The current stage lighting is predominantly made up of fixtures using filament lamps. These fixtures are no longer being manufactured and so replacement to LED fixtures is required.
- LEDs are significantly more energy efficient (circa 60% more efficient) therefore reducing Watersmeet's energy consumption and carbon footprint.
- LEDs produce significantly less heat than filament fixtures and so would require the auditorium air-cooling system to be run less often, saving on energy consumption.
- The improvement in energy efficiency will also reduce the venue's electricity costs.
- LEDs need replacing less often and so although the fixtures themselves are expensive there would be a saving on the cost of replacement lamps. Currently Watersmeet spend circa £1,500 per year on replacement lamps, this would be expected to be about a third at around £500 per annum for LEDs. (LEDs are more expensive but last longer).
- To allow Watersmeet to continue to provide adequate lighting facilities to hirers and for promoted live theatre shows and the annual pantomime.

How will project success be measured?

- A reduction in the venue's electrical energy consumption.
- A reduction in the expenditure on replacement lamps.
- An improved lighting experience for audiences.
- The ability for Watersmeet to continue to be a desirable venue to hire.
- The ability for Watersmeet to continue to promote live theatre shows.

2.1 Project Definition

2.1.1 Procure the supply of new LED stage lighting fixtures to replace the 120 filament lamp fixtures currently in place.

2.1.2 Watersmeet staff to rig the new fixtures and dispose of the current fixtures.

2.2 Outputs and Outcomes

Outputs

- To improve the energy efficiency and reduce the carbon footprint of Watersmeet.
- To allow the venue to continue to have adequate lighting facilities to facilitate hirers, pantomime and promoted shows.

Outcomes

- Provide an energy efficient theatre lighting facility.
- Adequately service the needs of our hirers, promoted shows and pantomime.
- Continue to provide a high quality theatre experience for our customers.
- Reduce the Council's carbon footprint.

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2.3 Benefits

- 2.3.1 The benefits would include reducing the Council's carbon footprint, by being more energy efficient, and reducing waste as the LED lamps will last considerably longer than the filament ones.
- 2.3.2 The lighting rig will be more flexible as all the lanterns will be able to change colour remotely rather than requiring coloured gels fitted to them. This will save staff time allowing them to spend more time on other lighting design aspects, therefore improving the quality of the lighting and the productions as a whole shown at Watersmeet.
- 2.3.3 There would be improved auditorium temperature control as the current lighting fixtures generate a significant amount of heat, resulting in the air cooling system needing to be run during performances. The new LED fixtures generate very little heat and so would not require the air cooling system to be on as often.
- 2.3.4 LED fixtures would bring health and safety improvements to staff and visiting companies' staff as they are safer to rig, de-rig and focus (activity that happens several times a week) because the fixtures do not get hot to the touch unlike the current fixtures currently in place.

3 Project Costs

3.1 One off project costs

Item	Cost
Project Management	(in-house)
Procurement	(in-house)
Supply of Fixtures	£96,000
Supply of Infrastructure (cable, plugs, hooks, clamps, rigging etc.)	£16,000
Installation	(in-house)
Total	£112,000

All prices above are excluding VAT.

3.2 Financial viability

- 3.2.1 Despite the considerable costs involved in replacing the stage lighting, due to the change in regulations regarding filament light bulbs, these will no longer be produced and so the current lighting fixtures are obsolete and will be harder and harder to replace. In order to continue to attract hirers and touring theatre productions Watersmeet is required to supply an adequate stage lighting rig. Without a suitable stage lighting rig Watersmeet would not be able to programme the live theatre shows currently on offer, and it is highly likely many hirers would find alternative venues to hire, as stage lighting is essential for the majority of events held at Watersmeet. This would result in significantly reduced income for the venue.
- 3.2.2 An alternative option would be to hire LED lighting fixtures, however this would be considerably more expensive over time and would be anticipated to cost circa £35,000-£40,000 per year for the required number of lighting fixtures, making this option unviable.
- 3.2.3 The small savings in electricity consumption and lamp replacement would be realised within the first year of replacement and combined would provide an estimated revenue saving of circa £3,000 per annum.

3.3 Resources and skills

- 3.3.1 Project management and installation would be carried out in-house by Watersmeet management and staff, with procurement for the supply of lighting fixtures utilising the Council's Procurement Manager.
- 3.3.2 The supply of the lighting fixtures would need to be procured to appoint a suitable supplier.

Has the project been agreed by the Head of ICT?

Yes	
No	X

3.4 Equalities

Is this project responding to an Equality Impact Assessment?

Yes	
No	X

If yes, please provide brief details of the EIA...

Has an [Equality Impact Assessment](#) been undertaken for this project?

Yes	
No	X

If yes, what are the outcomes and how do these link to the project?

3.5 Data Protection Impact Assessment (DPIA)

Has a [Data Protection Impact Assessment](#) be completed for this project?

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Yes	
No	X

If yes, please attach a copy

If no, why not?

N/A

3.6 Risks

Risk Management Strategy

Nature of Risk	Consequence	Suggested Control Measures	Response <i>(tolerate, treat, terminate, transfer)</i>	Risk Rating <i>(combination of likelihood and impact)</i>
Replacement lamps and parts are to be discontinued	When lamps blow there would be no way to replace them, resulting in fewer stage lights. This would significantly reduce the quality of the Service and eventually reduce venue income	Stock up on lamps to provide a contingency in the short term Hire LED lighting equipment (at significant expense), although this is financially unviable in the medium to long term	Replace the existing lighting to ensure the service can continue	Very High (12)

Very Likely ----- Likelihood ----- Remote	Low	High	Very High	Very High
	4	8	12	16
	Low	Medium	High	Very High
	3	6	9	12
	Low	Low	Medium	High
2	4	6	8	
Low	Low	Low	Low	
1	2	3	4	
Low		Impact		Unacceptable
Likelihood Score				

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Impact Score

4 (Catastrophic)

3 (Critical)

2 (Significant)

1 (Marginal)

4 (Very Likely ($\geq 80\%$))

3 (Likely (21-79%))

2 (Unlikely (6-20%))

1 (Remote ($\leq 5\%$))