

**POWERHOUSE ULTIMO REVITALISATION
SSD-67588459
OBJECTING TO EIS VERSION II FOR THE ULTIMO SSD
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Introduction

I am an emeritus professor of history at the University of Bristol with a specialist interest in the history of science and technology, in particular of Britain between the 17th and 20th centuries. I was on the Advisory Board of London's Science Museum for six years between 2004 and 2010, and an advisor at the SS Great Britain Museum in Bristol in the run-up to its I K Brunel bicentenary celebration in 2006. Since 2014 I have been observing with increasing alarm the proposals to variously close, re-purpose, dismantle, and now 'revitalise' the world-class Powerhouse Museum at Ultimo, which since 1988 has been among NSW's and Sydney's most significant cultural institutions and internationally a leader among museums of science, technology and culture, renowned for its innovative design and irreplaceable collections, not least the early Boulton and Watt beam engine, unique in its steam-driven presentation. Consequently, I object intensely to this proposal which threatens both the PMU's cultural and educational value and its high international standing.

The Objection

My statement of objection is briefer than I would wish if time to submit it were not of the essence, except to say that I completely endorse the objections lodged by the Save the Powerhouse campaign. In particular, I will focus on two aspects of the present proposal. First, there is its failure to recognise and respect the integrated heritage of the 1988 Powerhouse Museum, in which a purpose-built, award-winning museum was designed and built both to adapt and expand an historical industrial site and to display a specific, unique collection of historically significant artefacts. Consequently, the future of the building cannot reasonably be discussed in isolation from the exhibition, conservation and protection of the collections it was designed purposefully to hold. Secondly, there is its failure to recognise and address the enormous carbon costs (and financial waste) involved in the partial demolition and reconstruction of a large structure which is in overwhelmingly good condition, less than 40 years old but built to last a century or more – and that for no evident social, cultural, or educational benefit – at a time when the global climate emergency demands that every effort be made to reduce carbon emissions and other 'greenhouse' gases.

First, there is the proposal's failure to recognise and respect the integrated heritage of the 1988 Powerhouse Museum. 'Revitalisation' is evidently a misnomer for a proposal that will reduce a museum that was intentionally designed to exhibit its unique collections to the highest museological standards and which have engaged, educated and entertained its numerous visitors for over 35 years, to three open 'event' spaces in which only three large objects are retained merely as decorative 'iconic' objects, completely out of their historical and technical context, plus a vaguely stated intention to exhibit more of the collection despite the demolition of most of the dedicated exhibition spaces.

The proposal would reduce the museum exhibition space by approximately 75%. The PMU has over 21,000 square metres of dedicated exhibition space over 5 levels, where up to 25 different exhibitions could be and regularly have been held simultaneously since it opened in 1988. According to the 'Revitalisation' documentation, the proposed exhibition space is only 5,100 square metres, as a result of removing all the intermediate floors. What would be left would be more akin to the enormous open spaces of London's Tate Modern, a dramatic vista but a complete waste of

vertical space, which makes a virtue out of necessity. Why destroy the museologically invaluable asset of 5 intermediate floors to create such a waste of (vertical) space?

The proposal would obliterate the PMU's heritage significance, its Wran legacy, and its physical presence on Harris Street. In addition to the demolition of the five intermediate floors, the proposal involves the demolition of the southern end of the Wran Building and Galleria, converting the latter into a staircase encased behind brick walls, where apparently the Boulton and Watt beam engine would be crammed in and barely visible. The 'Steam Revolution' display with its unique live steam-generated operation of the beam engine and its original, nineteenth-century floor would be (have already been?) dismantled. As for the final insult, no city (or country) intentionally hides a great national museum behind a row of shops! Moreover, imagine when 'the high street' finally dies and the row of 'prestige retail outlets' becomes a row of empty, boarded-up units – what a vista!

Ironically, given the amount of obfuscation and omission in this proposal, there is a perverse honesty in the Powerhouse management's recent decision to drop 'Museum' from 'Powerhouse Ultimo's' official title. For there is minimal awareness of museological principles and practice demonstrated in either the EIS documentation or in the actual conservation and protection of invaluable artefacts – neither during the inappropriate events held in the PMU in the months before its closure in February 2024 which risked their security, nor during their rushed removal from the building, not to mention the reported neglect of their (and the building's) regular maintenance and repair in recent years.

Secondly, there is the proposal's failure even to recognise, let alone address, the enormous carbon costs (and financial waste) involved in the PMU's partial demolition and reconstruction and all the ongoing carbon costs of operating on three (instead of two) sites at a time when the global climate emergency demands that every effort be made to reduce carbon and other greenhouse gas emissions. The lack of data and of calculations of the embodied carbon costs of demolition, reconstruction, and ongoing operations between three sites (Ultimo, Castle Hill and Parramatta) inevitably calls into question the documented assertions of 'six-star' sustainability.

The Slattery's 'Embodied Emissions NABERS Form' is evasive and inadequate, in its omission of exact data and the necessary calculations of the amount of embodied carbon wasted and released in both the unnecessary demolition of sound structures that have yet to reach even half of their expected lifespan, and the embodied carbon emissions released in the new construction with its use of inherently unsustainable new materials, including concrete, cement, brick, steel, and aluminium. It fails to include the carbon emissions produced by the transportation of rubble away from the site and new materials to the site, or of moving 99% of the collections out of the PMU. The ongoing carbon emissions involved in the transportation of artefacts and staff between three sites are also neglected.

Arup, the engineering firm, has calculated that approximately 50% of the whole-life emissions of a building could result from those produced during construction and demolition. As an example of the high carbon costs of these 'double emissions', the controversial proposal to demolish and rebuild the Marks and Spencer flagship store on London's Oxford Street was estimated to produce 40,000 tonnes of CO₂ emissions.

There is simply no excuse in our climate emergency for not taking these 'double emissions' into account when deciding on the future of public, commercial, and domestic buildings. To not even provide an accurate and detailed calculation of them appears to be gross negligence.

A further neglected issue in this proposal which is germane to the climate emergency is the role that the PMU should be playing in the education of its visitors about the causes and consequences of

anthropogenic global heating, which are no longer in dispute among 99% of climate scientists. This, of course, is presently impossible with the Parramatta Powerhouse still under construction and the PMU closed for at least another three years.

In conclusion, one can only insist that this ill conceived, wasteful, and environmentally damaging proposal should be stopped in its tracks. Fix the roof, reinstall the collections, and get on with doing the job that until recently the Powerhouse Museum Ultimo has been doing so successfully since 1988!

Christine MacLeod
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