



Denton Wharf, Mark Lane, Gravesend, DA12 2PL

Planning Statement

Boyer

Prepared on behalf of Denton Wharf Marine Services Limited | June 24

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1. EXECUTIVE SUMMARY

- 1.1 The River Thames has underpinned the economy of the UK and London for over 2,000 years. As a working river, the Thames has always been the UK's gateway to work trade and a strategically important economic area. In 2017 alone, 12.83 million tonnes of cargo was transported along the river. London in particular relies on all commercial and tourist activities that take place on the River Thames.
- 1.2 However, the multifunctional benefits emanating from the Thames are not just limited to ones of a social and economic nature. The River's role is becoming ever more important within the context of environmental sustainability. It presents itself as an increasingly important conduit for achieving the government and Mayor of London's aim of transitioning towards net-zero by 2050 and 2030 respectively.
- 1.3 In terms of national planning guidance, the National Planning Policy Framework (NPPF) 2023, puts sustainable development at the heart of the plan (Paragraph 7). Paragraph 157 supports this aim by stating that the planning system should support the transition to a low carbon future in a changing climate. It also advocates for forthcoming development, whether this be terrestrial or marine, to contribute to radical reductions in greenhouse gas emissions and support renewable and low carbon energy and associated infrastructure (Paragraph 157). Importantly, the NPPF notes that these principles are not just limited to large-scale infrastructure projects. Paragraph 163 acknowledges that even small-scale projects provide a valuable contribution to significantly cutting greenhouse gas emissions.
- 1.4 The proposed development is emblematic of both the Government's aim of transitioning towards low carbon energy. The installation of the Low Voltage Cabinets and associated electrical equipment will work to reduce local emissions from marine operators on the Thames in line with the sustainability-oriented golden thread running through national, regional, and local policy and guidance.
- 1.5 By providing adequate electrical power services, marine operators using the pier in the future will be able to move away from burning diesel in generators (either onboard or temporary pier-side generators) to zero emissions at source.
- 1.6 At present, the current diesel generator consumes circa 2,000 litres of diesel weekly and requires a lorry fuel delivery along the road/ jetty once a week. Once operational, the proposed infrastructure will work to reduce local emissions by approximately 5,400kg per week which total 280,800kg annually. In addition, this project is expected to displace a total of 7.2 tonnes of carbon dioxide over the course of its lifetime and has the capacity to deliver net zero operations for the next thirty years.
- 1.7 The introduction of this infrastructure on Site will also work to support and facilitate the reinstatement of commercially viable operations at the pier in the future, with the pier being a critical piece of infrastructure to the Port of London and of the River Thames; supporting commercial operations essential for river safety.

2. INTRODUCTION

2.1 This Planning Statement ('Statement') has been prepared in support of a full planning application submitted on behalf of Net Zero Marine (the 'Applicant') at Denton Wharf, Mark Lane, Gravesend, DA12 2PL.

2.2 The application seeks full planning permission for:

"Construction of DNO kiosks, Low Voltage Cabinets and associated cabling."

2.3 The proposed development seeks to provide small-scale infrastructure which is required to facilitate a shore power installation project at the Site. The required infrastructure comprises 2no. DNO kiosks, 3-4no. Low Voltage (LV) Cabinets, (also referred to as Feeder Pillars) and other associated electrical equipment and cabling.

Site and Surrounding Context

2.4 The Site is located to the northern end of Mark Lane and is currently occupied by the Port of London Authority.

2.5 To the north of the Site is the River Thames and land to the east of the Site falls within the Thames Estuary and Marshes Special Protection Area (SPA). It is important to note, the Site falls outside of this designation. The Site is however located within Flood Zone 3.

2.6 The wharf is a commercial wharf, which works to support the River Thames economy. Properties within the surrounding area are generally characterised by industrial uses and small scale infrastructure.

2.7 The Applicant has also provided images of existing services on, or adjacent to the existing flood wall ([Appendix 1](#)).

Planning History

2.8 A review of Gravesham Borough Council's ("GBC") online planning records has been undertaken which showed no relevant or recent planning history at the Site.

2.9 The Applicant also submitted a pre-application to the Environmental Agency (EA) in relation to these proposals. The pre-application request was submitted on the 25th of April 2024.

2.10 The application is supported by the following documents:

- Application Form (prepared by Boyer);
- Planning Statement (prepared by Boyer);
- CIL Form (prepared by Boyer);
- Drawing Pack including General Arrangements and Elevation Drawings (prepared by Net Zero Marine); and
- Flood Risk Assessment (prepared by Ardent Consulting Engineers).

2.11 The Statement is structured as follows:

- Section 3 – details the development proposals;
- Section 4 – provides an overview of the relevant planning policy and guidance;
- Section 5 – assesses the proposals against planning policy;
- Section 6 – provides a conclusion.

3. PROPOSED DEVELOPMENT

3.1 Planning permission is sought for:

“Construction of DNO kiosks, Low Voltage Cabinets and associated Cabling.”

3.2 The proposed development seeks to provide small-scale infrastructure which is required to facilitate a shore power installation project at the Site. The required infrastructure comprises 2no. DNO kiosks, 3-4no. Low Voltage (LV) Cabinets (also referred to as Feeder Pillars), and other associated electrical equipment and cabling. The cabling proposed is to connect the DNO kiosks and LV cabinets.

3.3 The impetus for this proposal is underpinned by the need to transition to net zero emissions. By providing adequate grid connected electrical power services, marine operators using the pier in the future will be able to move away from burning diesel in generators (either onboard or temporary pier-side generators) to zero emissions at source electrical power. This infrastructure has the capacity to deliver net zero operations for the next thirty years.

Key definitions:

- DNO Kiosk: this is required to house the 2no. DNO connections.
- Feeder Pillar A: this is a LV cabinet owned and maintained by NZM, this is the main NZM LV cabinet.
- Feeder Pillar B: This is a LV cabinet owned and maintained by NZM, this would use to connect multiple outgoings to different meters,
- Feeder Pillar C: This is a LV cabinet owned and maintained by NZM, this would be a metering unit.
- Optional LV Cabinet right after the wall: this is subject to detail design to be done by the contractor, this cabinet is to be used to join LV cables.
- Raised Troughing: this is a LV cable tray, to place cable ideally this needs to be raised so it above the water when it floods.
- Cable over the wall structure: This structure is needed, to avoid damages to the flood defense wall.

4. PLANNING POLICY CONTEXT

Planning Policy Framework

- 4.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications be determined in accordance with the Development Plan unless material considerations indicate otherwise.
- 4.2 The Statutory Development Plan for the GBC comprises:
- Gravesham Local Plan Core Strategy and Local Plan Policies Map (2014); and
 - Gravesham Local Plan First Review (1994) – Saved Policies.
- 4.3 GBC's Development Plan is also supported by a range of Supplementary Planning Documents (SPD's).
- 4.4 The planning policy relevant to the consideration of the application comprises three levels of policy – national, regional, and local.

National Planning Policy Framework (NPPF) (2023)

- 4.5 The National Planning Policy Framework (NPPF) 2023 contains national planning policy and sets out the Government's intentions for the planning system and how these are expected to be applied. The Government's National Planning Practice Guidance (NPPG) is also relevant to the determination of this application.
- 4.6 The NPPF was updated in December 2023 by the Department of Levelling Up, Housing and Communities (DLUHC). The document sets out the government's economic, environmental, and social planning policies for England.
- 4.7 The overarching national planning policy theme evident from the NPPF is a presumption in favour of sustainable development, which the Government has advised should be at the heart of the planning system. In terms of development management, it advises that the primary objective is to foster the delivery of sustainable development and should not hinder or prevent future development.
- 4.8 Chapter 2 seeks to promote sustainable development. Paragraph 7 states that the purpose of the planning system is to contribute to the achievement of sustainable development, which includes the provision of supporting infrastructure in a sustainable manner.
- 4.9 Paragraph 8 outlines the three overarching objectives (social, environmental, and economic) which underpin sustainable development. These objectives are considered to be interdependent and need to be pursued in mutually supportive ways.
- 4.10 Chapter 6 seeks to ensure that planning policies and decisions create conditions in which businesses can invest, expand, and adapt.

- 4.11 Chapter 9 seeks to promote sustainable transport. Paragraph 108 states that transport issues should be considered at the earliest stages of development proposals, so that:
- Opportunities from changing transport technology and usage, are realised;
 - Opportunities to promote public transport use are identified and pursued; and
 - The environmental impacts of traffic and transport infrastructure can be identified, assessed and taken into account – including any opportunities for avoiding and mitigating any adverse effects and for net environmental gains.
- 4.12 Chapter 14 seeks to ensure that the planning system supports the transition to a low carbon future in a climate changing climate, taking full account of flood risk and coastal change. Policies and decision should help to shape places in ways that contribute to radical reductions in greenhouse gas emissions and support renewable and low carbon energy and associated infrastructure.
- 4.13 Paragraph 163 states that in determination planning applications for renewable and low carbon development LPA's should not require applicants to demonstrate the overall need for renewable or low carbon energy and recognise that even small-scale projects provide a valuable contribution to significant cutting greenhouse gas emissions.
- 4.14 Annex 3 classifies infrastructure located in a flood risk area for operational reasons, including infrastructure for electricity supply to be essential infrastructure.

Development Plan

Gravesham Local Plan Core Strategy (2014)

- 4.15 The Gravesham Local Plan ('Local Plan') was adopted in September 2014. This document sets out a spatial vision for the district which acknowledges the importance of retaining the commercial functioning of the River Thames as a working river.
- 4.16 The relevant policies within the Local Plan are:
- Policy CS01: Sustainable Development
 - Policy CS07: Economy, Employment and Skills
 - Policy CS11: Transport
 - Policy CS18: Climate Change
 - Policy CS19: Development and Design Principles

Material Considerations

Gravesham Climate Change Strategy (2022-2030)

- 4.17 In 2019 the Council declared a Climate Emergency, pledging to act and prepare the borough to be net zero by 2030.

- 4.18 Gravesham's Climate Change Strategy pledges to make Gravesham Borough Council carbon neutral by 2030.

Planning Practice Guidance (PPG) – Climate Change (2019)

- 4.19 PPG advises how to identify suitable mitigation and adaption measures in the planning process to address the impacts of climate change.
- 4.20 Addressing climate change is one of the core land use planning principles which the NPPF expects to underpin both plan-making and decision-making (Ref ID: 6-001-20140306). This requirement is underpinned the Climate Change Act 2008 which establishes a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% in 2050, from 1990 levels (Ref ID: 60-002-20140306). The PPG lists four examples of how climate change can be mitigated, by reducing emissions, of relevance are the following two points (Ref ID: 6-003-20140612):
- Reducing the need to travel and providing for sustainable transport; and
 - Providing opportunities for renewable and low carbon energy technologies

Thames Estuary Plan 2100 (TE2100) (2023)

- 4.21 The Thames Estuary Plan ("TEP")¹ is a key national policy document prepared by the Environment Agency (EA) and the Department for Environment, Food and Rural Affairs (DEFRA). The plan outlines how stakeholders should adapt to climate change along the Thames Estuary and it sets out the vision for the estuary's future.
- 4.22 GBC comprises one of the 23 policy units along the Thames Estuary. The Thames Estuary 2100 Plan (2023) sets out three main aims:
- A - Take an adaptive approach to manage tidal flooding and create climate resilient communities.
 - B - Protect and enhance the value of the Thames, its tidal tributaries and floodplain. Deliver social, cultural, and commercial benefits for communities and support resilient growth.
 - C - Tackle the climate and nature crises by putting sustainability at the heart of this Plan. Restore ecosystems, reduce carbon emissions, and deliver environmental and biodiversity net gain.
- 4.23 Objective 6 states that proposals should embed carbon reduction pathways within the Plan, striving to achieve net zero carbon status.

Port of London Authority (PLA) The Net Zero River Plan 2024-27 (2024)

- 4.24 The PLA are a key regional authority and self-funding public trust which was established on the 31st of March 1909 in accordance with the Port of London Act 1908 to govern the Port of London. The PLA's operations cover 95 miles of the River Thames, from Teddington to the

¹ <https://www.gov.uk/government/collections/thames-estuary-2100-te2100>

North Sea. The PLA's key aim is to keep commercial and leisure users safe, protect and enhance the environment, and promote the use of the river for trade and travel.

- 4.25 The Net Zero River Plan, prepared by the PLA, states that it is committed to enhancing its environmental performance in order to achieve net zero prior to the Government's target of 2050. The Plan seeks to achieve Net Zero by 2040.
- 4.26 A copy of the PLA Net Zero River Plan is enclosed under Appendix 2.

5. PLANNING ASSESSMENT

- 5.1 This section assesses the development proposals against the relevant development plan policy and other material considerations.

Design and Visual Impact

- 5.2 Policy CS19 'Development and Design Principles' of the GBC Local Plan requires new development to incorporate sustainable construction techniques, be adaptable to reflect changing lifestyles, and be resilient to the effects of climate change, including delivering carbon reduction. Policy CS19 also requires new development to be visually attractive, fit for purpose and locally distinctive. New development is required to safeguard the amenity of its occupants and neighbouring properties/ land.

Location

- 5.3 The proposed infrastructure has been sensitively positioned to avoid infringement on the public realm and to minimise impact to the visual amenity of passersby. It is important to note, the river is not visible from the public realm due to the presence of Denton Wharf; a commercial wharf at the Site, and therefore any impact on the visual amenity of the river would also be negligible.
- 5.4 The infrastructure is discreetly positioned within PLA land, both inside and outside the palisade fencing.
- The DNO kiosks are sited to the east of the PLA's Main Entrance, on PLA Land outside the palisade fence (to allow UK Power Networks 24 hour access);
 - The two Net Zero Marine cabinets are located inside the Port of London Authority palisade fence;
 - The other LV cabinets, associated electrical equipment and cabling is sited on the pier/ jetty.; and
 - The cabling from the DNO kiosks is proposed to run under the ground before crossing over the flood wall using cable trays so that it can then run along the jetty to connect the LV cabinets at the end of the jetty.
- 5.5 Please note that the cable tray design over the existing flood defence wall does not require any fixings, drilling or otherwise intrusive work to the wall itself, the cable tray design is self-supporting. Please see supporting Drawing Pack.
- 5.6 This infrastructure represents the evolution of the jetty structure services required for zero emissions operations. In addition, as the surrounding area is predominantly industrial in nature, any visibility of the DNO kiosks/LV cabinets through the Port of London Authorities Main Entrance or Pier gates would be locally distinctive and therefore compliant with Policy CS19.

Size and Design

- 5.7 Feeder Pillar A measures approximately 2.0 metres in height, 1.75m metres in width and 0.6 metres in depth. Feeder Pillar B measures approximately 2.4 metres in height, 2.5 metres in width and 0.6 metres in depth. Feeder Pillar C measures approximately 1.7 metres in height, 1.1 metres in width and 0.4m in depth. Feeder Pillar D measures approximately 1.9 metres in height 1.5 metres in width and 0.6 metres in depth. And the DNO kiosks measures 1.9 metres in height, 2.0 metres in width and 1.0 metres in depth. The massing and dimensions of the cabinets and kiosks are informed by the design standards under the DNO's statutory powers. They are no larger than needs to be and seeks to meet the minimum requirements stipulated by UKPN.
- 5.8 Therefore, the design of the cabinet seeks to balance the need to satisfy statutory power requirements, alongside the need to ensure that the requirements set out in Policy CS19 above are satisfied.
- 5.9 The proposed LV cabinets and associated equipment are considered to be an instrumental piece of equipment which, in the future, will assist in the transition from diesel combustion to zero emissions at source.
- 5.10 The cabinet and kiosk will be green and blue which is sympathetic to the site and its surroundings. Please also see images of existing services on Site in [Appendix 1](#).

Overall Design

- 5.11 The proposals are considered to be appropriately located, and of a suitable size and design. As a result of this, the proposals are considered to preserve the quality of the public realm, and the visual amenity of the riverside walkway. Therefore, the proposals are in compliance with the requirements of Policy CS19.

Flooding

- 5.12 Policy CS18 'Climate Change' requires proposals in areas at risk of flooding to be accompanied by a Flood Risk Assessment (FRA).
- 5.13 An FRA Report has been prepared by Ardent Consulting Engineers and submitted alongside this application. The assessment concludes the proposals are water compatible and will not result in an increase of flood risk on or off site. In addition, that the proposed development is consistent with the NPPF, its planning practice guidance and the Council's Core Strategy policies.

Construction Method Statement

- 5.14 We propose the following condition should permission be approved:

Prior to the commencement of works on Site a Method's Statement should be submitted and approved by the Council in writing.

Benefits Associated with the Proposal

Energy and Sustainable Transport

- 5.15 Policy CS11 'Transport' of the GBC Local Plan is supportive of proposals which improve the efficiency of freight transport and states the Council will safeguard wharves within the district.
- 5.16 Policy CS18 'Climate Change' of the GBC Local Plan seeks to reduce the overall carbon footprint of the borough.
- 5.17 The Water Framework Directive and Thames River Management Plan seek to improve the quality of local water environments for people and wildlife, and to promote the sustainable use of water.
- 5.18 Underpinning all tiers of policy is the Climate Change Act 2008. This piece of legislation established a legally binding target to reduce the UK's greenhouse gas emissions by at least 80% in 2050, from 1990 levels.
- 5.19 The installation of the proposed technology is critical to facilitating a reduction in carbon emissions from marine operators on the Thames. The availability of this power will assist in displacing diesel for vessels whilst at berth.
- 5.20 By providing adequate electrical power services, marine operators using the pier in the future will be able to move away from burning diesel in generators (either on board or temporary pier-side generators) to zero emissions at source electrical power and reduce road transport emissions by discontinuing the use of the diesel generator and associated diesel fuel deliveries.
- 5.21 At present, the current diesel generator consumes circa 2,000 litres of diesel weekly and requires a lorry fuel delivery along the road/ jetty once a week. Once operational, the proposed infrastructure will work to reduce local emissions by approximately 5,400kg per week which total 280,800kg annually. In addition, this project is expected to displace a total of 7.2 tonnes of carbon dioxide over the course of its lifetime and has the capacity to deliver net zero operations for the next thirty years.
- 5.22 This proposal is consistent with the golden thread running through key legislation, as well as national, regional, and local planning and non-planning policy documents. This section seeks to outline the prevalence of sustainability-oriented rhetoric in policy, as well as the significance of the moving towards net-zero and why this alone should be afforded substantial weight in the planning balance.

Employment and the Economy

- 5.23 Policy CS07 'Economy, Employment and Skills' of the GBC Local Plan states the Council will support proposals which facilitate the expansion of river-related employment, particularly

where this involves the use of the river for transport and as a functional commercial waterway.

- 5.24 Policy CS11 'Transport' of the GBC Local Plan is supportive of proposals which improve the efficiency of freight transport. In addition, this policy states the Council will safeguard wharves within the district.
- 5.25 The River Thames is a working river which plays a key role in the economy. Given its strategic economic role, it is important that the necessary green infrastructure is in place to enable continued economic growth, especially in the context of there being growing pressure on businesses to reduce the carbon footprint and to rely on greener means of transporting goods.
- 5.26 Whilst the provision of this shore power project at Denton Wharf is a minor proposal in itself, it is nonetheless emblematic of the policy objectives at a national and regional level.
- 5.27 The proposed infrastructure will provide an array of economic benefits. Most notably, this infrastructure will be key in supporting and facilitating the reinstatement of commercially viable and sustainable operations at the pier in the future, with the pier being an important piece of infrastructure which many river users rely on.
- 5.28 The electrical infrastructure will enable businesses using the pier to shift away from using non-renewable sources of fuel such as diesel, which is being encouraged at all administrative levels. It is greatly important to ensure that the necessary electrical infrastructure is available along the Thames, to avoid stifling the operations and viability of business that rely on river transport.

6. CONCLUSION

- 6.1 The proposed development seeks to provide small-scale infrastructure which is required to facilitate a shore power installation project at the Site. The required infrastructure comprises 2no. DNO kiosks, 3-4no. Low Voltage (LV) Cabinets, and associated electrical equipment and cabling.
- 6.2 The impetus for this change is underpinned by the need to move towards sustainable forms energy generation and low or zero emissions operations. This electric infrastructure will allow marine operators using the pier to move away from burning diesel in generators (either onboard or temporary pier-side generators) to zero emissions at source.
- 6.3 Once operational, the proposed infrastructure will work to reduce local emissions by approximately 5,400kg per week which total 280,800kg annually. In addition, this project is expected to displace a total of 7.2 tonnes of carbon dioxide over the course of its lifetime and has the capacity to deliver net zero operations for the next thirty years.
- 6.4 The design and dimensions of the infrastructure are informed by the design standards under the DNO's statutory powers. The infrastructure seeks to meet the minimum requirements stipulated by the distribution network operator (DNO), UK Power Networks. The infrastructure is water resistant and will not result in an increase in risk of flooding on or off site.
- 6.5 The proposed infrastructure has also been sensitively positioned to minimise any infringement on the public realm. In doing so, it seeks to minimise infringement on the public realm and therefore maintain the useability of the surrounding public realm.
- 6.6 Overall, it is considered that planning permission should be granted as the sustainability and economic oriented benefits of the scheme demonstrably outweigh any minimal perceived harm. A key factor to be considered within the planning balance is that the proposals are consistent with the sustainability-oriented golden thread running through key legislation, as well as national, regional and local planning policy. The sustainability-related benefits alone should be afforded significant weight, given that a fundamental role of the planning system is to facilitate and promote sustainable development.
- 6.7 On the above basis, we respectfully request that the Council approves this application without delay.

Appendix 1 – Photos of Existing Services Relating to the Flood Wall

View from Pathway Facing West



Image of Existing Service or Infrastructure on Flood Wall



Image of Existing Service Running Underneath Flood Wall



Image of Existing Service Attached on Flood Wall



Appendix 2 – Port of London Authority (PLA) The Net Zero River Plan 2024-27

THE NET ZERO RIVER PLAN

**THREE YEAR ACTION PLAN
2024-27**

MESSAGE FROM THE CHIEF EXECUTIVE

The Port of London Authority's (PLA) purpose is to improve and protect the tidal Thames for all. Our mission is to create a thriving river, home to the UK's number one port.

Ports underpin the global economy and play an essential role in our everyday lives. More than 80% of global merchandise trade is transported via sea. Similarly, inland waterways, such as the Thames, are a vital lifeline for the movement of cargo and materials. Nearly three million tonnes of inland cargo, waste and construction materials are transported on the river annually – taking 140k lorry loads off the roads.

While shipping remains the most carbon efficient mode of international transport for freight, it accounts for approximately 3% of global greenhouse gas emissions.

The UK maritime sector must reach Net Zero by 2050 – this requires collaboration on an unprecedented scale. Bold action across the sector before 2030 is needed to meet international targets and keep pace with competitors as supply chain logistics decarbonise.

At the Port of London Authority (PLA), we can demonstrate leadership through our role as the port authority for the UK's most iconic river, home to the UK's number one port, to tackle some of these key challenges. In our Thames Vision 2050, developed with partners and stakeholders along the river, we set an ambitious goal of reaching Net Zero by 2040 – and we have already halved our emissions from our baseline year. We are also measuring emissions from vessel movements in our jurisdiction to identify strategic opportunities to support vessels to decarbonise faster.

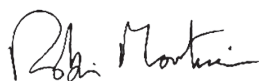
But we cannot do this alone. We need to work with terminals and vessel operators to achieve Net Zero for the river – putting the building blocks in place to drive action beyond our areas of responsibility.

There are countless examples of the river community taking steps to reduce carbon emissions. In the last year alone, we have seen hybrid passenger vessels, fully electric workboats, and methanol-ready container ships in the port. More and more operators are showing climate leadership by switching to lower carbon fuels, despite the additional costs they incur.

In 2023, we convened the Thames Net Zero Coalition, to bring together river operators and share challenges and deepen collaboration – and shape our Net Zero River Plan. The plan focuses on river-based emissions – primarily from vessel movements. While the PLA is not directly responsible for these emissions, we know this is a crucial first step to wider emissions reductions and gaining a competitive advantage for river operators.

The Net Zero River Plan aims to do three things. Firstly, the plan brings together the concerns, challenges and opportunities that coalition members face in decarbonising. Secondly, we aim to tell the story of the considerable progress achieved so far. And finally, the plan identifies the actions that the PLA will take in the next three years to support decarbonisation of river-based emissions.

We know that this speed of change in sustainability causes uncertainty and risks for the operators on the Thames. The Net Zero River Plan and ongoing work of the coalition will put Thames operators at a commercial advantage, ensuring that the Port of London, and the river community, stays competitive and sustainable for the future.



Robin Mortimer
Chief Executive Officer

ABOUT THE PORT OF LONDON AUTHORITY

The Port of London Authority (PLA) is the owner in trust of the riverbed and foreshore of the tidal Thames from Teddington Lock to the Estuary. The purpose of the PLA is to improve and protect the tidal Thames for all. We ensure the safe navigation of the river, enable trade and recreation, and protect the health of the river's ecosystems. Our Thames Vision 2050 sets out our goal of being the UK's largest port, central to the economy, with Net Zero emissions.

The Port of London is made up of 70 independently owned terminal operations and hundreds of vessel operators who provide services to those terminals and across the river. It is also the busiest inland waterway in the UK for freight and passengers.

OUR KEY STATISTICS

LARGEST UK PORT

50 million+
tonnes of cargo

INLAND BULK FREIGHT

140,000+
lorry loads

LIGHT FREIGHT

87,500
packages

VALUED HABITAT

4,000+
seals

SPORT

19,000
people afloat

TOURISM AND TRAVEL

8 million+
passenger trips

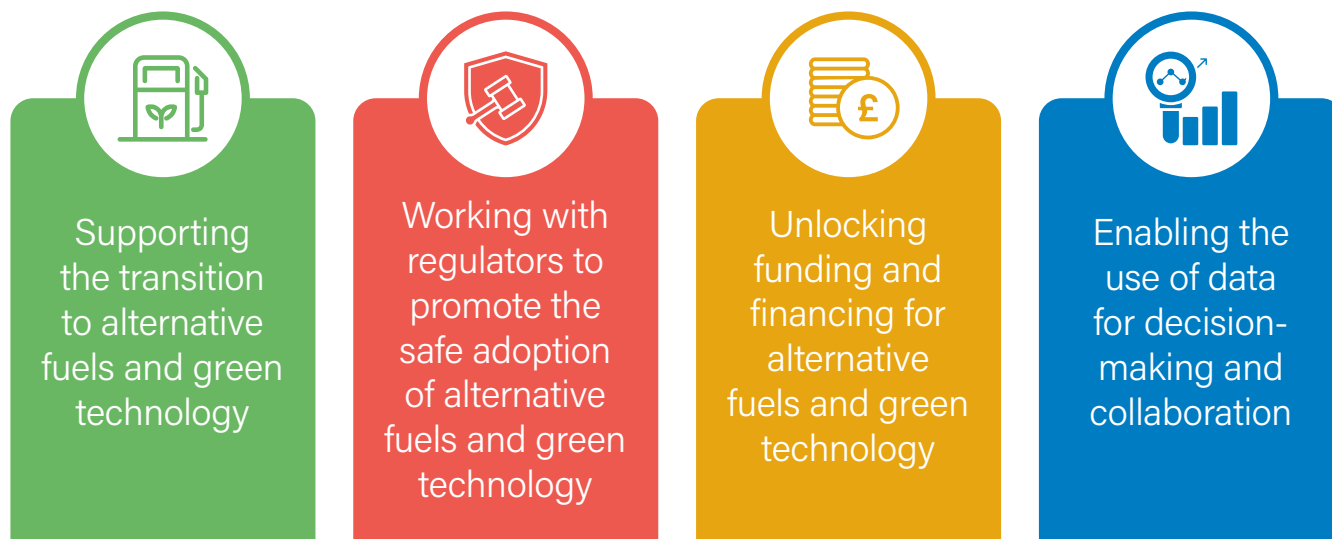
OUR NET ZERO RIVER PLAN

As part of the PLA's Thames Vision 2050, we made a commitment to convene a Thames Net Zero Coalition to produce an action plan to reduce emissions on the Thames.

The Coalition is made up of terminal and vessel operators and supporting stakeholders. In 2023, we launched the Net Zero Coalition with a series of workshops designed to understand the challenges and opportunities for decarbonisation on the river.

The work of the Coalition helped the PLA to identify four priority themes to help accelerate the transition to Net Zero on the Thames; 1) alternative fuels and infrastructure adoption, 2) clear regulation and legislation, 3) funding and 4) robust data. These themes have shaped our four commitments to support a Net Zero River.

We have already supported decarbonisation on the river through a variety of initiatives and programmes. This Net Zero River Plan (2024-27) builds on those efforts and formalises our approach for the next three years. We commit to updating this plan on a three-year cycle, recognising the pace of innovation and change required to meet the UK's targets. We will continue to work with the Net Zero Coalition to keep this plan relevant and useful to their individual and collective efforts.



THE NET ZERO COALITION

We offer our sincere thanks to the following organisations who have helped to shape our Net Zero River Plan:

- Boluda Towage
- Britannia Aggregates
- Cemex
- Cory
- Cross River Partnership
- Day Group
- Department for Transport
- Ford Dagenham
- GPS Marine
- Livetts
- London & Partners
- London Gateway, DP World
- Maritime and Coastguard Agency
- Net Zero Marine Services
- Oikos
- Port of Tilbury, Forth Ports
- Stema Shipping
- Thames Estuary Growth Board
- Thames Freeport
- Thames Luxury Charters
- Thames Marine Services
- Uber Boat by Thames Clippers
- Woods Silver Fleet

OUR AMBITION: NET ZERO RIVER

Operators along the Thames have set different targets for achieving Net Zero based on their own operational realities. This is driven by their land-side emissions, river-based emissions (primarily vessel activities) and wider Scope 3 considerations.

The PLA are committed to pushing for faster decarbonisation of river-based emission sources – primarily from vessel movements. While the PLA is not directly responsible for these emissions, we know that reducing them is a crucial step in creating a Net Zero river.

We want to work with operators along the river community to achieve Net Zero for river emissions by sooner than government targets. That is because we know that the future of trade and transportation on the river requires swift action to be on track to meet the UK and international targets for 2050.

And we know that this is the decade to act. At least 5% of global shipping will need to use zero-emissions fuel by 2030 to achieve this.

As pressure from consumers, governments and customers increases, the need to demonstrate progress towards decarbonisation will intensify across the maritime sectors. Achieving Net Zero, in river-based emissions sources, will put the Thames and London at a competitive advantage – securing our future as a green destination for trade and leisure.

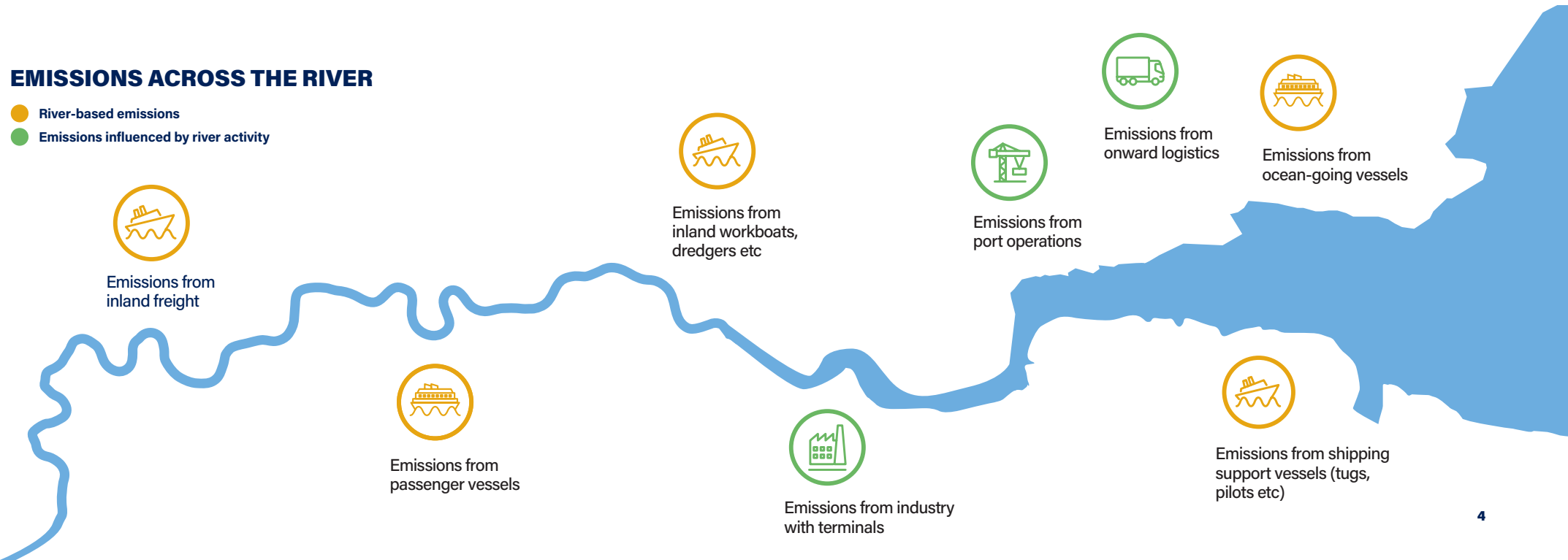
“
The PLA is committed to pushing for faster decarbonisation of river-based emission sources.”

NET ZERO TARGETS

COMPANY	NET ZERO TARGET
GPS Marine	2040
Cory	2040
Uber Boat by Thames Clippers	2040
Forth Ports / Port of Tilbury	2042
DP World	2050
London & Partners	2050

EMISSIONS ACROSS THE RIVER

- River-based emissions
- Emissions influenced by river activity



PROGRESS ON NET ZERO

CROSS RIVER PARTNERSHIP

London Light Freight Trial supporting a modal shift to transporting light freight on the river.



UBER BOAT BY THAMES CLIPPERS

Introduction of three hybrid clippers in achieving a 90% reduction in carbon emissions

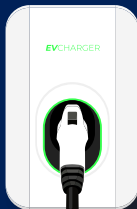


THAMES MARINE SERVICES

Delivery and successful licensing of fully electric work boat called ALB-E

NET ZERO MARINE SERVICES

Conceptually building a Smartdock Network, consisting of shore power and low/zero emissions berths.



PORT OF TILBURY / FORTH PORTS

Onsite renewable energy generation with wind and solar, and investigating hydrogen production



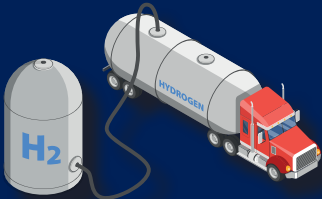
OIKOS

Repurposing landside storage tanks for low carbon fuels.



CEMEX

Assessing the feasibility of implementing hydrogen powered 'yellow plant' equipment and vehicles at London sites.



PLA

Leading MarRi-UK funded consortia project to establish a national hydrogen network, integrating land, sea and port.

DP WORLD

Fully electric berth constructed with electric shuttle carriers.

This map represents projects that are currently in progress as of 2023 across the Thames that support decarbonisation. This is not an exhaustive list of projects but represents some exemplars from Thames operators.

OUR ACTIONS: NET ZERO RIVER



Supporting the transition to alternative fuels and green technology

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We are very pleased to be part of the Port of London Authority's Net Zero Coalition and to support its essential sustainability ambitions. At DP World, we are working hard to become a net-zero logistics organisation by 2050 and are currently delivering several major initiatives at London Gateway, such as its £350m new fourth berth, which will be the world's first all-electric berth on opening in 2024.”

DP World Spokesperson

Decarbonising the river will require the large-scale adoption of alternative low-carbon fuels. With many different alternatives and no 'one size fits all' solution, ports are increasingly having to consider how they will adapt to a mix of fuels in the future. Among the challenges to the sector are concerns about risks involved in transitioning to new fuels and technologies. This includes the future direction of regulation, end customer support and willingness to pay, demand from other sectors and competition risks to early adopters.

Additionally, the transition to lower carbon fuels and green technologies on the Thames will require the right infrastructure to support it. This could take the form of shore power and charging stations, alternative fuel bunkering and storage, and the production, import and export of alternative fuels. Investing in infrastructure can be costly and with uncertainty around the demand and supply of green fuels, it is difficult for operators to make long term commercial decisions.

To support the Thames operators to transition to alternative fuels and greener technology, we commit to undertaking the following enabling actions:

ACTION	Completion by the end of
Produce a feasibility study for the adoption of domestic and international green corridors on the Thames	2024
Aggregate current and future activities and develop a strategic plan for green hydrogen-based fuels including demand at the Port of London	2024
Map the current and future grid requirements of the Thames	2025
Develop a strategic infrastructure plan for the Thames which includes shore power, and importation, storage and bunkering of alternative fuels	2026
Develop a design standard for piers and jetties which support green technology and alternative fuels	2026



Alternative fuel types

Methanol – can be used directly in an internal combustion engine or fuel cell. Can be used as a fuel itself or a store for hydrogen.

Hydrogen – can be used as an input to ammonia or methanol production as well as a fuel itself.

Ammonia – can either be used as a fuel itself, or as a carrier for hydrogen before the hydrogen is used as the fuel.

Biofuels – Used directly in an internal combustion engine. Various types of biofuels from different sources of biomass (e.g. crops, wastes) possible.

Hybrid propulsion – a diesel engine acts as a power source, charging batteries which power an electric motor, often in order to keep the diesel operating at its most efficient load point. Fully electric propulsion - no diesel engine. An electric motor is entirely powered by batteries, which are charged whilst the vessel is in port.

Source (Clean Maritime Plan 2019)

OUR ACTIONS: NET ZERO RIVER



Working with regulators to promote the safe adoption of alternative fuels and green technology

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Clear and consistent policy direction is needed to support the economic feasibility at scale for green fuels”

Clear and consistent policy direction is needed to support the economic feasibility at scale for green fuels, as well as build confidence to stimulate investment in fuels, vessels and supporting infrastructure. Similarly, the regulatory environment needs to keep pace with the speed of innovation required to meet the UK's Net Zero ambitions.

A clear and streamlined regulatory environment is required to support the early and safe adoption of green technologies – allowing operators making greener choices to gain a competitive advantage. This is particularly important as many Thames operators face decisions about transitioning their fleets of vessels over the next ten years. Capitalising on this opportunity is essential due to the lifespan of commercial vessels.

To support the Thames operators to transition to alternative fuels and greener technology, we commit to undertaking the following enabling actions:

ACTION	Completion by the end of
Develop a strategic working group with key regulators which will focus on driving forward the safe and faster adoption of green technology and alternative fuels	2024
Review the approval process for green technology use in both vessels and landside operations through our current levers (leases, RWL, etc)	2024
Update the Thames Freight Standard to allow the safe adoption of green technology and alternative fuels	2025



Key regulators and organisations

International Maritime Organisation (IMO) – is the United Nations specialised agency with responsibility for the safety and security of shipping and the prevention of marine and atmospheric pollution by ships.

Maritime and Coastguard Agency (MCA) is an executive agency sponsored by the Department for Transport which works to prevent the loss of life on the coast and at sea. The MCA produces legislation and guidance on maritime matters and provides certification to seafarers.

Port of London Authority (PLA) is the harbour authority for the tidal Thames and certifies vessels through the Thames Freight Standard, where those vessels are not under the certification of the MCA

OUR ACTIONS: NET ZERO RIVER



Unlocking funding and financing for alternative fuels and green technology

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The Port of Tilbury is proud to play its part in the Thames Net Zero Coalition, collaborating with customers and partners across the estuary to enable and accelerate the transition to net zero. As part of the Forth Ports Group, the Port of Tilbury is committed to being carbon neutral by 2032 and net zero by 2042. These ambitious commitments, together with investments to promote modal shift and alternative fuels, underscore our vision for delivering low carbon logistics solutions across London and the South East.”

Forth Ports Spokesperson

Transitionary, lower-carbon fuels are becoming more competitive but rarely reach parity with traditional fuel types. Companies that are switching to lower carbon fuels are doing so at a cost. Funding and financing of decarbonisation strategies and projects was cited as a major obstacle facing operators on their journeys to Net Zero.

Clean Maritime Decarbonisation Competition (CMDC) and Zero Emission Vessel and Infrastructure (ZEVI) funding from UK Shore over recent years has helped support the innovation of new technologies for the sector. We are now starting to see vessels that can operate with lower emissions – such as electric workboats, hybrid passenger vessels, and the uptake of biodiesels. However, the roll out of these technologies is dependent upon availability and affordability. As these technologies mature, government funding to support wider spread scaling across the sector will be required to stimulate adoption.

To support the Thames operators to transition to alternative fuels and greener technology, we commit to undertaking the following enabling actions:

ACTION	Completion by the end of
Review our current incentivisation schemes (Green Tariff and Thames Green Scheme) to support the transition to green technology and alternative fuels	2024
Develop a procurement focused working group to investigate a collective purchasing scheme for Net Zero technologies with operators on the Thames, to bring down costs and stimulate the market	2025
Develop a 'Centre of Excellence for Green Projects' for Thames operators to capitalise on government funding cycles, providing 'meet the partners' brokerage, advisory support and other collaborative opportunities	2025



Key government policies

- In July 2021, the government published the transport decarbonisation plan which contains a commitment to refresh the clean maritime plan and establish ambitious 'course to zero' of indicative targets for the domestic maritime sector.
- The Alternative Fuels Infrastructure Regulations 2017 is the underpinning legislation which ensures the way electricity and hydrogen are supplied to vehicles or ships is consistent across the UK. This will reduce dependence on oil and the environmental impact of transport, while contributing to a low carbon economy.
- Related strategies include the UK hydrogen strategy (2021) which sets out the approach to developing a thriving low carbon hydrogen sector in the UK; and UK biomass strategy (2023) which sets out the role sustainable biomass can play in reaching Net Zero.

OUR ACTIONS: NET ZERO RIVER



Enabling the use of data for decision-making and collaboration

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A collaborative approach is absolutely imperative to ensure that the port, stakeholders and operators fully understand the needs and future infrastructure requirements to support the future supply chains and day to day requirements in order to achieve our route to net zero.”

Sean Collins, Uber Boat by Thames Clippers

Good quality and robust data is key to evidence-based decision making and gaining a competitive advantage. However, many of the operators on the Thames are small, agile businesses who do not have resources to invest in data collection and analysis.

Providing access to data on the Thames will allow operators to provide robust evidence on funding bids, commercial opportunities and partnership work. Building and using this evidence base will strengthen the ability of the Thames to effectively transition to Net Zero.

To support the Thames operators to make evidence-based decisions, we commit to undertaking the following enabling actions:

ACTION	Completion by the end of
Provide access to the Maritime Emission Portal data to operators on the Thames	2024
Host academia-industry information sharing sessions on alternative fuels	2024
Commission data on the impact of modal shift on emissions in London	2025
Identify future data requirements for Thames operators and develop a data strategy to support these	2026

“

Clean, green growth in the Thames Estuary means a Net Zero river and we're delighted to be working with the PLA to deliver it.

Electric and hydrogen-powered ferries and new, clean, green opportunities for freight will transport people to places and goods to market cutting carbon, building business and connecting communities.

With innovative new approaches to green investment in the Thames Estuary together we can make this happen.

Kate Willard, Thames Estuary Envoy and Chair of the Thames Estuary Growth Board

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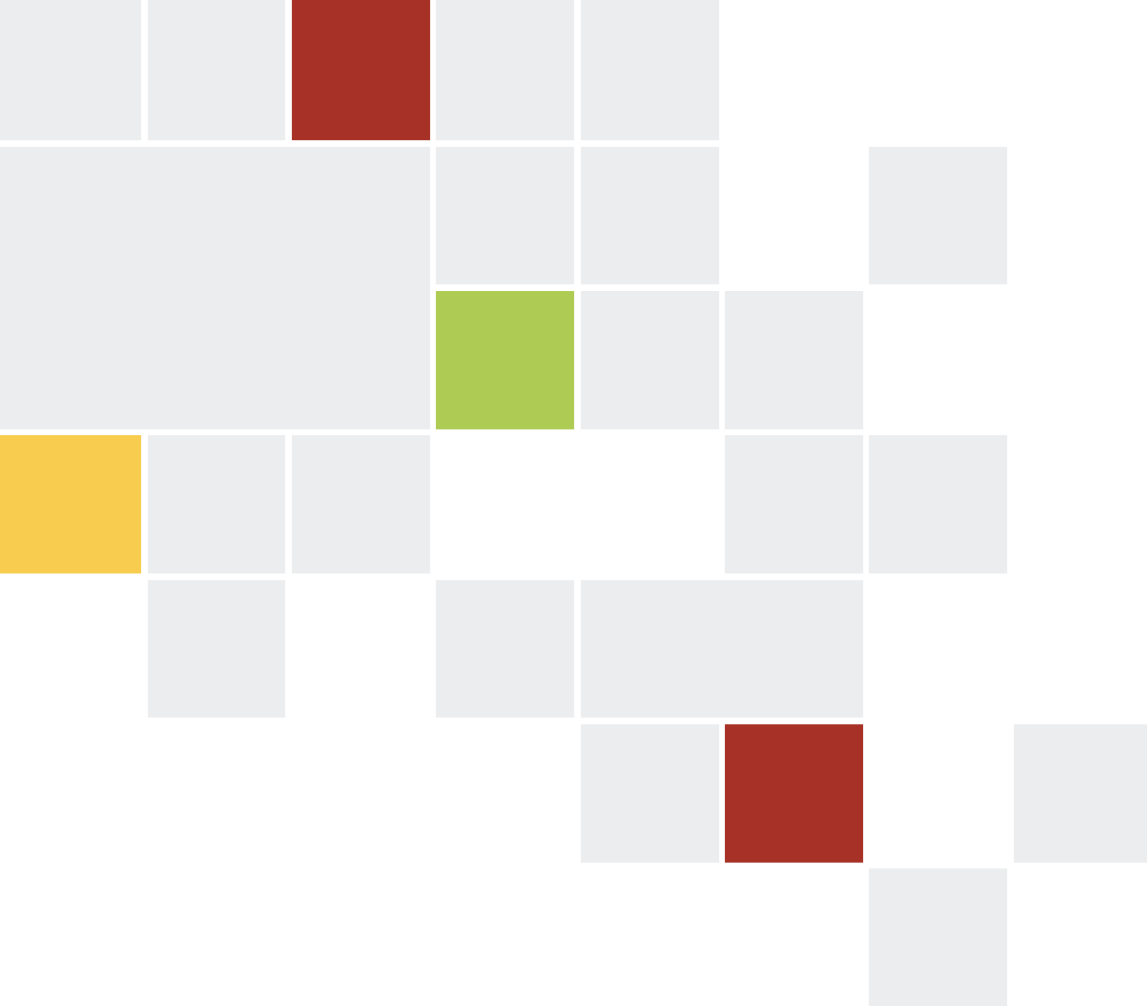
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Appendix 3 – Proposed Cabling





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