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13 September 2018

Councillor C Hammond
Southampton City Council
Civic Centre
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Dear Councillor Hammond,

I am writing in response to the City Council's consultation on the introduction of a Clean Air Zone. We have, as you are aware, been actively engaged in discussions with yourself, with the Council's Executive team and Officers in recent months to explore the best way of delivering continued improvements in air quality in a way that sustains economic activity within the City.

Air quality in the UK has been steadily improving in recent decades and continues to show a long term improving trend (*Defra (2018) Air Quality Statistics in the UK 1987 to 2017*). We all want to see an acceleration of these improvements, for our own health and the health of our families.

We are fully supportive of a targeted plan to improve local air quality; however, our view is that the proposals, as set out in the Council's Clean Air Zone consultation, could be achieved by alternative means in order to deliver our shared goal of cleaner air for all.

Specifically, we believe that –

- The data on which the Council is basing its assessment overstates port activity, which adversely affects the outcome of the modelled results. For example, container volumes in the port have been overstated by 31%.

- A charging system of the type envisaged in the consultation for HGVs, coaches and taxis will have a significant negative economic impact on the whole community, including the Isle of Wight, leading to loss of business from the area and an inevitable increase in unemployment levels.

- Other measures, such as the restoration of rail freight subsidies, onshore power supply for vessels and a flexible charging arrangement for non-compliant vehicles in peak hours, should be examined. We believe this will bring about the necessary improvements to meet compliance with the Air Quality Directive objectives.

The following pages set out our observations on the consultation proposals as well as highlighting the work we have been undertaking over the past 24 months including our plans to improve air quality for the future as featured in our own air quality strategy "*Cleaner Air for Southampton*".

Our response is grouped in to the following sections:

- The Port of Southampton
- CAZ consultation and supporting evidence
- Potential impacts of a charging zone
- Current air quality measures and alternative suggestions for cleaner air
- Conclusions

The Port is ideally located to meet import and export trading opportunities now and into the future, being the closest deep-sea UK port to the international shipping lanes – the global maritime highways linking the UK with Europe and the rest of the world. Additionally, we are well placed to support economic growth and the rebalancing of the economy going forward and, if we are to do so, we must ensure that the City, and indeed the nation, remains open for business.

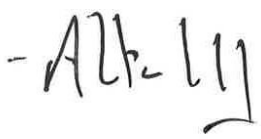
We share the City Council's objective of ensuring that we all live and work in a clean air environment. We also believe that the delivery of this goal can be undertaken in a way that does not compromise economic activity and place local employment at risk. Port businesses have made significant investments to improve air quality, such as replacing vehicles with electric equivalents and the purchase of 12 new hybrid straddle carriers by DPWorld Southampton last week.

Throughout the consultation (21 June – 13 September), we have worked with the Council to ensure the assumptions relating to our business are accurate. We both acknowledge that the consultation documents contain inaccuracies and, therefore, we advocate remodelling of the Clean Air Zone strategy using the best information available so that we can make informed decisions about the best way to proceed.

In addition, although the contribution of port emissions at the modelled underperforming areas are small, we believe that the City Council's objectives as set out in the CAZ consultation can be achieved by means other than charging HGVs, taxis and coaches, such as the reinstatement of rail freight subsidies, installation of shore power and a charge for older vehicles within areas of the port.

We look forward to continuing to work with members of the Council's team to explore alternative initiatives, which ensure compliance with the objectives and deliver clean growth for the residents and businesses of Southampton.

Yours sincerely



Alastair Welch
Director, Port of Southampton

1. The Port of Southampton

The Port of Southampton is the UK's number one export port handling goods with a value of £40 billion every year, with more than 90% of exports heading for destinations outside the European Union. Our location means that we are best placed to facilitate the import and export of goods via the immediate access to the shipping lanes of the English Channel and the international sea lanes. As such, the port plays a critical role in the UK economy that significantly benefits the City of Southampton.

The Port of Southampton and the wider associated marine and maritime economic clusters are major employers within the region. The Port itself directly employs over 5,000 people and around 15,000 within the Solent area[1]. We are a major private sector contributor to the economy; the marine and maritime sector contributes 20.5% to the Solent's GVA and accounts for 40,000 direct jobs or 5% of total private sector jobs in the sub-region[2]. In addition, port businesses spend approximately 50% of their expenditure in the Solent[3].

We play a critical role in facilitating UK trade by investing significantly in infrastructure that has underpinned the Port's continued growth as well as growth experienced by our customers. Recently, we have invested over £200 million in a new container berth, dredging, vehicle storage facilities and cruise terminals that has benefited a wide range of businesses both in Southampton and across the UK. We plan to invest at least a further £200 million over the next five years, including £50 million in vehicle handling facilities to support the continued growth and success of UK manufactured vehicles.

We are proud to handle the highest percentage of freight by rail of any UK port and we will continue to seek opportunities to improve the quantum of goods handled by rail. This year will see the commencement of the Redbridge freight train lengthening project, which will increase the capacity of each train by 36%, each having the potential to remove 28 HGV (Heavy Goods Vehicle) movements from the road network. However, the majority of activity relies on road transport and will continue to do so. Having an efficient and resilient highways network to facilitate the transition of goods between businesses and the Port is, in our view, critical to the future success of British commerce and economic activity.

Automotive **-** The Port handles around one million automotive (including non-road machinery) units from manufacturing bases across the UK with the most prominent of these (in terms of volume) being the manufacturing bases of Jaguar Land Rover at Solihull, West Bromwich and Halewood, Mini at Oxford and of Honda at Swindon. The Port of Southampton acts as the "hub and spoke" for this important sector offering connectivity to 52 ports in 41 countries serviced by 11 shipping lines with over 110 direct services every month. The Port acts as a hub allowing manufacturers to more easily access global markets – this is more cost effective than having to tranship their goods via other port(s). Having efficient and resilient road connections to the Port is imperative for the UK automotive manufacturing sector.

Containers **-** Through the operator DPWorld Southampton (DPWS), the Port handles around 2 million TEU per annum and is the most efficient container terminal within the UK. We are directly connected to 29 ports throughout the Far East and a large proportion of the total trade handled at the container terminal has destinations in the Midlands and the North. While we aim to grow the rail share of our inland transport, the largest share will still need to be transported by HGV. The terminal handles an average of 1800 HGVs each working day.

[1] Arup (2014) Economic Value of ABP to UK plc
[2] Solent LEP (2015) Transforming Solent Growth Strategy
[3] Atkins (2011) Economic Impact Port of Southampton

Passengers **-** Over 5.4 million passengers use the Port every year for either cruise or ferry purposes (3.4 million via the Red Funnel Isle of Wight operation). In 2017, we welcomed around 500 cruise calls to the Port resulting in 2 million passenger movements. Southampton has around 85% market share of the UK cruise market due to its location and world class facilities with the sector supporting over 70,000 jobs throughout the UK[4]. Each vessel call is worth £2.5 million to the local / regional economy[5]. The majority of passengers will access Southampton via the road network, whether by coach, taxi or private car.

Bulks **-** The Port handles around 2 million tonnes per annum of bulk products predominately supporting a regional hinterland and comprising cargoes such as scrap metal, woodchip, animal feedstock, grain and fertiliser. In excess of 200,000 tonnes of bulk cargo is loaded to rail, however, the majority of this sector is almost exclusively reliant on the road network to access the Port.

2. Clean Air Zone Supporting Evidence and Data

We fully understand the obligations of the Council to ensure compliance with the European Union's Air Quality Directive in the shortest time possible.

As the Council's own data demonstrates, non-charging measures illustrate that NOx levels will be compliant in 2020 across Southampton, with only one modelled exceedance location in the City. This exceedance is modelled to be only 0.2µgm^{-3}, or 0.5%, above the required objective. This compares to compliance with the 40µgm^{-3} objective achieved by the introduction of a charging system at some point during late 2019[6]. Given this small exceedance, we feel that alternative measures to the proposed charging suggestion should be examined to bring about compliance with the objectives and ongoing improvement that would not give rise to a significant economic impact.

Following discussions between ABP, DPWS, Council Officers and air quality specialists, it is widely accepted that assumptions relating to port throughput are significantly in excess of those likely to be experienced in the near future. For example, the container volumes used in the modelling are around 31% above the levels expected by DPWS and ourselves.

Given the minimal NOx exceedance predicted by the modelling process we feel that remodelling would allow a collaborative approach to be adopted by the port and other organisations, helping to shape feasible and deliverable options for meeting the EU objectives.

Unfortunately this remodelling work will not be made available prior to the close of the Council's consultation. This is regrettable, however, we have agreed that the work we have jointly commissioned with the Council's specialist advisors, Ricardo, to undertake further modelling of the data in order to determine the accuracy of the published information should continue with urgency.

[4] CLIA (2015) Contribution of Cruise Tourism to the Economies of Europe
[5] Atkins (2011) Economic Impact Port of Southampton
[6] Southampton City Council CAZ presentation

3. Potential Economic Impact of a Proposed Charging System

Proposed ANPR System

We understand that the Council is constrained by Defra's hierarchy of charging measures in the Clean Air Zone Framework; however, we do not agree that this method is appropriate for the City of Southampton.

A penalty charge for HGVs will, we believe, adversely affect the City's productivity and prosperity, targeting a sector of road traffic that is predicted to contribute less than 11% of NOx emissions, whilst cars accounting for 60% of total road NOx concentrations, will not be subject to any measures at all. Charging those that contribute least to NOx totals seems disproportionate and contrary to the polluter pays principle that is enshrined in EU legislation.

From our recent engagement with Council representatives, we understand that a proposed charging system would be based on an ANPR system. Implementation of an ANPR system coupled with a high daily charge for non-compliant vehicles would undoubtedly alter behaviour and reduce non-compliant vehicles from entering the City but would also result in unintended detrimental consequences for economic activity within the City and beyond.

The CAZ proposes that cameras would be positioned at various locations on the road network on the City's boundary and charges will be levied against those vehicles that are not exempt. We understand that the ANPR system is currently only capable of reading the age of the number plate, for example a HGV registration with the prefix HF13 will be deemed to be non-compliant i.e. not Euro VI whilst a number plate with the prefix HF15 will be deemed to be Euro VI.

If this is assumption is correct, then it will ignore the fact that Euro V vehicles could still legitimately be purchased and registered until quite recently. Neither will such a system, as we understand, be able to capture foreign registered vehicles or those operating on a privately registered number plate. We understand that the Council is requesting vehicles to pre-register before entering the City, however, there is no way to enforce the payment of a charge by vehicles registered overseas.

The as yet unspecified cost of a system must, we assume, run into many millions of pounds for installation and operation. The design, procurement and installation of an ANPR system capable of identifying non-compliant vehicles and able to pay for itself within one year (when the data shows that the objective will be reached by the implementation of other non-charging measures) is a significant challenge.

It is unclear whether the Council intends to remove the infrastructure when EU Directive compliance is reached as we note that in the Council's Local Transport Plan consultation documents[7], it is stated that 'other options could include City Centre congestion charging or amending the Clean Air Zone', which suggests wider possible future uses of any such ANPR system.

We are aware that Red Funnel, the Southampton Shipowners' Association, DPWS, Carnival, and the Road Haulage Association amongst others are submitting individual responses and we do not intend to replicate their comments in our response. They should, however, be taken in conjunction with the points we make in this submission.

[7] Southampton City Council (2018) LTP4 consultation, page 57

Potential Economic Impact of Charging

The consultation's economic impact assessment assumes that the majority of non-compliant vehicle owners will upgrade their vehicles in immediate response to the charge [Ricardo ED/10107 P32]. This is an assumption that is not supported by our conversations with hauliers who face circa £100k purchase prices for a Euro VI HGV. At the same time, trade-in prices for older Euro V vehicles has fallen significantly in light of Clean Air Zones proposed around the UK. Additionally, HGV manufacturers recommend a lead-time of circa nine months for new standard Euro VI vehicles ordered today. For specialist HGVs such as transporters, the lead-time increases markedly.

The economic appraisal methodology [Ricardo ED/10107 P34] also assumes that hauliers currently travel at times of peak congestion. This is simply not the case. Haulage companies have, for many years, scheduled their Southampton activities outside the main AM/PM commuter peak travel times – those prime commuter times coincide with the Council's own air quality monitored data for elevated NOx concentrations. By way of an example, DPWS main peak activity period for hauliers is 0400 – 0600. Unfortunately, it would seem that the modelling is not sensitive enough to take into account this good practice already adopted by the haulage community.

DPWS recently hosted a meeting for hauliers to learn about the CAZ consultation. At this event we asked hauliers to indicate what effect a charge may have on their business activities in Southampton. 92% of respondents represented local businesses, based either in Southampton or within the Solent region. We collated information on over 640 vehicles, with 40% currently Euro VI compliant. Of the local respondents, 37% are currently Euro VI compliant. The majority of hauliers expected to have to close or relocate their business, whilst choosing to pay the charge (assumed to be £100) was the least preferable option. It is evident that the reality of the impact on businesses is much greater than recognised in the modelled behavioural change [Ricardo ED/10107 P8], which assumed that 83% of HGVs would replace non-compliant vehicles with a compliant vehicle. Our data shows that only 26% would consider upgrading their vehicle and 26% would consider rearranging their fleet.

DPWS estimates that around 45% of the current HGV fleet using its services is not Euro VI compliant, with comparable figures reported by automotive haulage firms. The consequential impact of a charge on port business would, in our opinion, be significant. If we assume that the preference for firms operating non-compliant vehicles is to relocate to other ports, then there will be a deficit of haulage companies to support the flow of goods to and from the port, shipping lines will simply divert their services to alternative ports that face no additional restrictions. The irony of such a situation would be an increase in emissions in the UK as a result of such a mechanism. One port customer has indicated that the annual charge would cost its business £600k per annum at the proposed charging rate of £100 per day. This would prove untenable for the business.

Any charge that increases the cost of bringing a container box in to Southampton will result in a reduction of boxes on the Southampton line. A loss of critical volumes could result in a complete diversion of calls to London Gateway and Felixstowe, meaning that supporting jobs would be lost from Southampton.

Put simply, the introduction of such a charge could lead to a relocation of businesses to another port with the consequent loss of significant number of jobs in the City. The entire logistics sector tends to rely on very small margins that cannot withstand unplanned business charges such as a CAZ charge.

Given that the port supports a national hinterland, diversion and relocation away from Southampton is a realistic proposition. If shipping lines divert to other ports – which could be UK or continental ports - it follows that cuts in employment levels are likely to result. Given this level of uncertainty, in the event a charge is implemented as proposed, ABP would have to review all future investment plans for the Port.

Whilst we believe the remodelled data may demonstrate compliance at an earlier date, if a blanket charge were to be introduced then even a small charge can significantly alter behaviour, such as the

plastic bag charge, where a small 5p charge resulted in a fundamental change in behaviour, having a significant cumulative impact. We believe that alternative flexible charging options to reduce non-compliant vehicles during peak times could sufficiently influence HGV activity.

4. Current Measures and Proposed Alternative Strategy

We recognise that improving air quality is a societal issue - it is important for everyone to have cleaner air, including those who work at the port, many of whom also live in the City. Making these improvements requires the actions of everyone. It is a matter of common ground between us that port operations do not significantly contribute to the overall levels of nitrogen dioxide within the City.

In recognition of the opportunity to take action, we set up a Port Air Quality Group to promote best practice and we have published our own Air Quality Strategy where, as a major employer and responsible neighbour, we have set out our existing strategy as well as our plans for the future.

The following paragraphs set out some of the measures we are already undertaking as well as some proposed measures for implementation that, in combination, will help to drive behavioural change and improve air quality. We group emission sources into three main areas:

- Shipping
- Surface Access - Road and Rail
- Plant and Equipment

Shipping

- Currently all commercial vessels visiting Southampton must run on low sulphur fuel or be fitted with an exhaust gas cleaning system to meet the requirements of the port.
- We intend to introduce a Green Tariff to incentivise the newest, cleanest vessels to visit our port.
- We want to be the first port to provide shore power for large commercial vessels. We have commissioned feasibility studies and we know that around 20% of cruise ships could take advantage of a shore power installation.
- Shipping lines are designing and constructing vessels powered by LNG. LNG significantly reduces NOx, SOx and PM emissions to the atmosphere – in the case of NOx, a reduction by up to 90%[8]
- Around 10% of cruise calls are currently made by LNG enabled vessels and we anticipate that by 2020 this will be 20% of cruise calls.
- An increasing number of automotive vessels are using LNG technology or have solar panels fitted on their roof spaces to reduce emissions whilst in port. We anticipate that vessels powered by LNG or shore power could comprise up to 30% of total commercial vessel calls by 2025.
- We are seeking to trial hybrid technology within our harbour vessels – this is an emerging technology and we aim to be at the forefront of the sector with the intention of introducing a hybrid vessel to the Harbour Master's fleet as soon as the technology allows.

Surface Access

Rail

- In 2011 we invested in lowering the rail track through Southampton's tunnels allowing more containers to be transported in and out of the Port by rail.

[8] International Maritime Organisation (2016) Studies on the Feasibility and Use of LNG as a Fuel for Shipping, page 65

- Until recently, around 40% of all containers were accessing the port by rail. The Government has recently reduced a national subsidy which encouraged movement of freight by rail, which has meant more freight moving back to the road. Restoration of the subsidy could reduce around 120,000 HGV movements on the City's roads each year.
- Around 20% of export vehicles arrive at the Port via rail connected services.
- Network Rail's plans to invest in the network at Redbridge, which was approved by the Council earlier this year, will allow longer trains to access the Port making rail even more attractive for users.
- In 2017, we invested a further £4 million to improve an on-site railhead in the Western Docks to make the transfer of goods by rail more efficient.

Road

- DPWS has its Vehicle Booking System that streamlines the arrival of HGVs to the container terminal and their movement around the port.
- We have worked with the Council to improve access to the Eastern Docks and around Town Quay with the Platform Road project significantly reducing congestion.
- We hold regular meetings with representatives from the City Council, Hampshire County Council and Highways England to manage the transport network as efficiently as possible – this has now been formalised with the Port Surface Access Forum.
- We have an ongoing 'no idling' campaign, assisted by The Environment Council, encouraging drivers to switch off engines when vehicles are not moving to reduce unnecessary emissions.
- We have improved our cycle-to-work infrastructure by installing secure bike facilities and new employee showers.
- We know that cycling to work can have significant benefits in helping the wellbeing and psychology of staff as well as reducing absenteeism.
- We have plans to install a 'Cycle Super Highway' within the Western Docks to make it easier for port employees to access their workplace by bicycle. The first phase from Millbrook Roundabout into the Port is already in place.
- We have been working with the Council's *My Journey* team to promote cycling and more sustainable ways to travel to work.

Plant & Equipment

- We are replacing our own fleet of vehicles with Electric Vehicles (EV). By the end of 2018 we'll be 45% EV and are working to be 100% EV or hybrid by 2020 for compatible vehicles.
- We are working with Ford to develop electric minibuses as none currently exist.
- We have installed EV charging stations across the port which are free for our staff and visitors to use.
- We have a network of monitors within the port to record air quality and identify areas where we can target improvements. We intend to make this information public when we have a full year of data.
- We are participating in the Nesta *Flying High* project led by the University of Southampton, in which the Council is also participating, to explore the use of drone technology to tackle challenges such as air quality.
- We will be installing EV charging points for cruise passengers
- We are exploring the installation of alternative fuel filling stations on the port estate for HGVs

5. Conclusions

Air quality is recognised as improving within the City of Southampton, however, there is additional work to be undertaken in order to reduce the slight exceedance in the modelled NOx forecasts around the area of Regents Park Road.

Although port-related contributions are a small percentage of the total emissions at this location, we recognise that improving air quality requires an accelerated change in approach by individuals and businesses alike to improve the environment in which we live and work.

We take this challenge seriously and we have initiated a port-wide Air Quality Forum to share best practice and promote awareness. We have also published our own Clean Air Strategy and we know that other port community businesses are looking to see how they can also play their part.

The proposed measures set out in the consultation document will, in our opinion, have a detrimental effect on the port and the wider local economy including the Isle of Wight. Given that the current margin of exceedance is relatively small, we believe that there are alternative measures to a charging zone that, if implemented, will ensure compliance with the Air Quality Directive whilst safeguarding economic activity in the City – providing a good outcome for everyone. These include restoration of the rail freight subsidy, the provision of shore power supply for cruise vessels and localised in-port charging for older HGVs.

We will continue to work with Council Officers, its specialist advisors and members of Defra's Joint Air Quality Unit to ensure that we can deliver a continued improvement in air quality in our City.