

August 31, 2018

Ms. Khamly Chuop, Port Associate Environmental Planner/Scientist
Port of Oakland
530 Water Street
Oakland, CA 94607

[Transmitted via e-mail]

RE: Draft Seaport Air Quality – 2020 and Beyond Plan

Ms. Chuop:

Thank you for the opportunity to provide comment on the Port of Oakland Draft Seaport Air Quality – 2020 and Beyond Plan (Plan). These comments are submitted on behalf of the members of the Pacific Merchant Shipping Association (PMSA), who lease and operate marine terminals at the Port, as well as own and operate ocean going vessels calling at the Port.

PMSA and its members have been actively engaged with the Port, the community and the regulatory agencies in our shared goal of reducing toxic, criteria and greenhouse gas (GHG) emissions from goods movement related sources. Equally important is our shared goal of ensuring the continued success of the Port in servicing the trade demands of California and the country, and providing revenue and jobs resulting from those activities.

The 2020 and Beyond Plan is a natural next step for the Port as we approach the final years covered by the Port's Maritime Air Quality Improvement Plan (MAQIP). In the nine years since the adoption of the MAQIP there have been advances in technology, fuels and operational practices that have provided significant reductions in emissions. These improvements continue at the international, federal and state level. Because of the shared efforts of all stakeholders, it appears that the Port of Oakland will be close to achieving, or even surpassing many of the ambitious goals laid out in the MAQIP. As we move beyond the MAQIP, we welcome the port's development of a framework to continue this collaborative effort into the future.

The goals laid out in the Plan are praise worthy, but we also recognize that they are ambitious and aspirational. The Plan's vision to transition to zero-emissions (ZE) operations is one that is being pursued from multiple directions. Along with that vision, we are pleased to see that the Plan includes the goal to "keep the Port competitive, financially sustainable, and a catalyst for jobs and economic development." This important goal exists alongside the equally important goals of minimizing emissions, transitioning to new technology and more efficient, cleaner operations. None of these goals can be successfully achieved independent of one another. Our industry has long maintained that the goals of environmental improvements, health risk reductions, improved quality of life, increased trade volumes, higher port revenues and the

facilitation of more efficient goods movement are interdependent on one another. They can only all occur if we can remain competitive, grow our business and generate the revenue and jobs necessary to achieve them. In the short term these goals can sometimes be at odds with one another, but over the long term they must all succeed together.

The structure of the Plan, with a hierarchy of goals, strategies and implementing actions (IA) should provide the flexibility needed to accommodate the dynamics of changing technologies, and dynamic fiscal, market and environmental demands. The further delineation of near term, intermediate term and longer term phases, with a commitment to annual monitoring of the progress of the IAs and regular engagement with a stakeholder Task Force should allow the Port to assess progress and whether any changes to goals, strategies or IAs are required. The ability to be flexible and change course as needed is critical to success. PMSA and its members are committed to working with all stakeholders going forward through the Plan's Task Force, as well as providing any expertise and supporting data or as needed.

Past lessons learned through the sometimes unsuccessful adoption or pursuit of promising but ultimately failed technologies, fuels, operational procedures or infrastructure investments should not be lost or forgotten. For this reason we are pleased to see that the Plan includes the consideration of multiple technologies and pathways to reduced emissions (avoiding a singular focus on zero emission (ZE) electric technology and nothing else). The Plan is properly based on the establishment of goals, and strategies to achieve those goals should be technology neutral rather than technology specific.

Besides the fact that ZE technology is not proven in any aspects of cargo handling other than when deployed in a fully redeveloped, high-density terminal, and that such terminals are certainly not commercially viable for any aspects of cargo operations at Oakland's marine terminals at this time, it is important to leave the door open to hybrid technologies which continue to evolve, as well as other alternative fuels, such as hydrogen or renewables. These technologies can provide earlier emission reductions and a consequent net benefit in reductions rather than a Plan built around a rigid adherence to only one set of possible electric technologies. Along that line, PMSA is concerned that the draft Plan appears to make early infrastructure commitments to one specific technology, battery electric, before it is clear which technology will emerge as the preferred zero-emissions or near-zero-emissions technology. The plan call for early investment in electrical infrastructure to support battery electric technologies even though it is as likely that hydrogen or other technologies could become the preferred solution. Given the challenges of financing and implementing such infrastructure, as described below, the one thing that is clear is that the Port of Oakland and its tenants cannot afford to pay for this capital investment twice. While infrastructure investment necessary to support small scale demonstrations will be necessary, the Port of Oakland should refrain from wholesale investment that will pre-determine the future of technology before it is clear which technological pathway will be the preferred one.

From PMSA’s perspective the most difficult hurdle facing our members is the ability to finance the huge costs involved in changing over equipment, infrastructure and processes to meet the Plan’s goals. The adoption of ZE technology will be extremely expensive and disruptive. A study by Moffett and Nichols done in 2015, commissioned by PMSA, estimated initial capital expenditure of \$3 billion to convert to all electric operations at the Port. The ability to finance such commitments is dependent on several things:

- Availability of supporting funding schemes, including incentives at the port, local, state and federal levels
- Availability of favorable financing
- The ability to amortize these investments over a suitable timeline
- The ability to generate cargo growth to support such expenditures

The Plan highlights the Port’s commitment to assisting its tenants in obtaining public funds, as well as third party private funds via original equipment manufacturers (OEMs). We are naturally hopeful that such funding will be available as it is essential to success in reaching the Plan’s vision. However based on our experiences in the past, it is doubtful that such funding will play anything more than a very small role in covering the cost of reaching full ZE technology in the intermediate and long term. As such, we view the public and third party funding possibilities as welcome, but essentially faith-based. None the less, we appreciate the port’s support and commitment in assisting with the acquisition of such funding, and acknowledgement that such funding must materialize if the port’s proposed plan is to succeed.

This leads us to the other variables and constraints on new investments in Oakland: financing terms, amortization timelines and business growth. The Port estimates a growth of 2% per year, which is in line with our member companies’ estimates but notably exceeds historical growth since 2006. Favorable financing will be critical in making sound investment decisions, and this will depend greatly on being assured of a workable amortization horizon based on realistic growth estimates. We do not believe that adopting ZE technologies in the intermediate term (2030) of the plan is workable within the business model existing at the port. This is evidenced by the reluctance of terminals to commit to leases beyond 2029 due to the state’s proposals to adopt such an accelerated timeline. Aligning with the Governor’s direction of an 80% reduction in GHG by 2050, a ZE goal of 2050 would allow businesses at the port to more appropriately plan and finance such a costly endeavor and to amortize costs over longer lease terms.

The Plan wisely adopts feasibility criteria for each IA. PMSA agrees with the Plan’s set of criteria, which align with our comments and concerns outlined above. We do however take exception to the Plan’s inclusion of “pre-production stage” as qualification for the definition of “Commercial Availability.” This is incompatible with the Plan’s definition of “Operational Feasibility” criteria, where sufficient experience with a technology or equipment is necessary to determine whether it is acceptable operationally. Commercial availability should mean just that, technology that is marketed, available, proven and supported at a minimum with manufacturer warranties, after-market parts, and product support.

The Plan proposes convening a working group to assess feasibility of IAs. We strongly support such assessments and the inclusion of marine terminal and shipping line representatives in any such assessments or working groups. The Plan also includes a Tracking process to follow the progress of pre-production technology and equipment, which should provide a means to better vet the feasibility of technology and equipment.

Finally, the Plan calls for an economic assessment and evaluation. We agree with the Port that such an analysis is a critical component of the Plan. As the economic analysis is being undertaken at the same time as public comments to the Plan are being solicited, there is nothing to review and we are unable to provide any commentary. We would respectfully request that the port distribute the economic analysis for public input prior to finalizing a draft for submission to the Harbor Commission. In addition, we would request that the Plan include an economic evaluation and update provision, in order to compare the Plan's projections for growth, costs, and cost-effectiveness with the reality on the ground during its implementation.

PMSA's members are committed to helping make the goals of the Plan a success, and are looking forward to working with Port staff and other stakeholders to enable the visions of the Plan. The staff at PMSA is happy to answer any questions or concerns that the Port may have and are always available to engage on these important issues.

Sincerely,



John Berge
Vice President