Topic. Zero Emissions Freight Funding Priorities

Leadership. The Carbon Neutral Cities Alliance (CNCA) members guiding this effort are London, UK; and Oslo, NO.

Problem statement. Zero emissions freight strategies can reduce emissions, improve charging infrastructure, and improve delivery coordination, yet cities struggle to: (1) gain support for a transition to zero emissions from the freight industry; and (2) enact policies to drive these efforts forward. Key issues are:

- Reducing emissions caused by inefficient delivery logistics
- Decreasing congestion and safety concerns resulting from deliveries
- Shifting second-to-last and last mile delivery to zero emission vehicle technology
- Improving charging infrastructure for service vehicles to better support electric vehicle operations
- Developing public-private partnerships to drive market shifts, toward zero emissions freight

Theory of change. With the steady increase in e-commerce and home deliveries, cities are considering options for zero emission logistics, especially for last mile delivery. As there are a growing number of zero emission alternatives for vans, but few if any alternatives for heavier vehicles, it is critical to limit the number of heavy trucks in cities. CNCA members have identified the following possible solutions:

- Establish consolidation centers to transport goods with zero emission vehicles and to provide charging infrastructure
- Build out and provide charging infrastructure for service vehicles only
- Increase the uptake of non-vehicle zero emission options like e-cargo bikes for second-to-last and last mile deliveries
- Enact city policies to rapidly advance zero emission freight
- Develop strategies to improve zero emission long-haul and heavy freight options
- Develop a repository of good examples, so cities know what measures are actually working
- Explore zoning and planning policies as possible best practices to enact

In maritime freight and ports, CNCA members are pointing to the game changer potential in:

- Optimizing use of the last areas for heavy industrial activity in urban environments
- Electrifying ports to make the transition to electric transport a viable option in maritime freight
- Improving coordination between harbor, shipping, and rail freight sectors
**Funding priorities.** The CNCA Game Changer Fund seeks to support city efforts to decarbonize transport through zero emissions freight. Table 1 summarizes funding priorities and targeted outcomes for zero emissions freight efforts as identified by CNCA members. As funds are raised, CNCA will call for projects that advance these priorities in measurable ways.

**Table 1. Zero Emissions Freight Funding Priorities and Targeted Outcomes.**

<table>
<thead>
<tr>
<th>Funding Priorities</th>
<th>Targeted Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Pilots that capture learnings from the development of consolidation centers</td>
<td>● Polices advancing zero emissions freight are implemented</td>
</tr>
<tr>
<td>● Implementing best-practice city policies to rapidly advance zero emission freight</td>
<td>● Zero emission logistics are implemented to consolidate deliveries reduce congestion and improve safety</td>
</tr>
<tr>
<td>● Approaches to building out charging infrastructure and support zero emissions freight in city centers</td>
<td>● Electric vehicles and e-cargo bikes are used for last mile delivery</td>
</tr>
<tr>
<td>● Driving a dramatic shift amongst local businesses toward zero emission deliveries – supporting efforts that may led by commercial entities over cities, which may not have jurisdiction but instead rely on the market</td>
<td>● More electric vehicle options are available to the delivery industry</td>
</tr>
<tr>
<td>● Approaches to improving coordination across sectors and between harbor, shipping, and rail freight providers</td>
<td>● Zero emission alternative technologies are available for long-haul, heavy freight</td>
</tr>
<tr>
<td>● Projects that develop strategies to decarbonize heavy freight technology covering large distances</td>
<td>● Sustainable ports are developed as a hub for sustainable energy systems such as hydrogen fueling and circular economy efforts</td>
</tr>
<tr>
<td>● Capacity building and feasibility studies for charging infrastructure and hydrogen fueling to support zero emission long-haul freight</td>
<td>● Partnerships between the public and private sectors develop new solutions for zero emissions freight at the local, regional, and national level</td>
</tr>
</tbody>
</table>