June 30, 2022

Jonathan Foster, Marine Strategies Section
Jeff Jacobs, Freight Policy Section
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814
Via Electronic submittal

RE: CARB Should Not Approve Hapag-Lloyd's LNG "Innovative Concept" proposal

Dear Mr. Foster and Mr. Jacobs,

On behalf of the undersigned organizations, we would like to thank the California Air Resources Board for soliciting stakeholder input on the Innovative Concept from Hapag-Lloyd. **CARB should not approve** the proposal of a seagoing vessel 23kTEU with liquefied natural gas (LNG) for dual-fuel operation because it fails to achieve equivalent or greater emissions reductions of the same pollutants within the same communities that would otherwise see benefits from direct emissions reductions from vessels at berth.

Liquefied natural gas (LNG) releases methane (CH4), a dangerous greenhouse gas that is up to 86 times more potent than carbon dioxide on a shorter timescale. LNG also emits cancerous criteria pollutants like particulate matter (PM) and nitrogen oxide (NOx). In terms of environmental impact, many of today's LNG ships are worse than the ships they are beginning to replace. According to recent data from the International Council on Clean Transportation (ICCT), when accounting for both upstream and downstream emissions factors and methane leaks, an LNG-powered ship is likely to release GHGs with up to 80% more warming potential than diesel-powered ships, when analyzed over 20-year global warming potential (GWP) framework.

Running on LNG does not eliminate at berth/at anchor emissions of GHGs or air pollutants such as NOx. When ships are at anchor or at berth, they will be running their auxiliary engines, which for LNG-fueled ships, would be the LNG-Otto-MS [medium-speed] engine. The Fourth IMO GHG Study assumes that these engines emit 1.3 gNOx/kWh. Requiring 100% at berth participation by ships – i.e., requiring that all ships calling or using a port plug into electric power while docked – is the best method to reduce in-port air pollution from ocean-going vessels (OGVs). Building an entirely new generation of vessels to run on LNG propulsion is a delay tactic by the fossil fuel industry to keep themselves in business, and this pathway will lock in climate-warming emissions that will serve only to derail us from our climate action goals.

We must focus instead on a pathway to zero-carbon, zero-emission shipping fuels that will enable us to achieve a zero-emission future for maritime shipping and our economy at large.

The proposal fails to achieve emissions reductions of NOx, PM 2.5, and ROG that are in excess of what could be achieved by shore power, and **the proposal should be rejected.**

Thank you for your consideration of these comments.

Sincerely,

Gary Cook
Global Climate Campaign Director
Stand.earth

Teresa Bui
State Climate Policy Director
Pacific Environment

Faig Abbasov
Shipping Programme Director
Transport & Environment

cc:
Angela Csondes, Manager, Marine Strategies Section, CARB

Bonnie Soriano, Chief, Freight Activity Branch, CARB