## Emily Cushman

**From:** Jim Plunkett <jim.plunkett@gmail.com>
**Sent:** Sunday, January 5, 2020 10:13 AM
**To:** Comments@efficiencymaine.com
**Subject:** Beneficial Electrification Study

Hello Emily,

I am a resident of Portland, Maine, formally trained as an environmental scientist. I founded and operated an environmental consulting firm (J. B. Plunkett Associates) in the Maine from 1985 to 1996, investigating and cleaning up some of the State's worst uncontrolled hazardous waste and leaking underground storage tank sites. I am responding with two comments to the Efficiency Maine Beneficial Electrification Study.

With regards to the transportation sector, which has sections for on-road vehicles (3.2.1) and watercraft (3.2.2), Greater Portland is Maine's largest population center (over 500,000 residents - more than 1/3 of the States population) and the transportation sector has been determined to be the largest emitter of greenhouse gases, including CO2, in Maine.

According to a 2014 study by the University of Vermont Transportation Research Center, 78.8% of commuters in the Portland Metropolitan area travel in single occupancy vehicles (SOV's). With almost 100,000 people commuting into and out of Portland daily, this is clearly one of the major sources of air pollution emissions in Maine's most densely populated city. In several studies, the most recent by the Boston Globe's Spotlight Team investigation of downtown traffic congestion in Boston, the biggest takeaway seems to be that a significant number of people who regularly drive solo to work need to change their habits. But, those habits have been shaped and remain entangled in decades of car-centric policymaking, so this is not an easy task.

Other municipalities that have tackled this problem all indicate that incentives are required to do this. Free bus passes and free first/last mile shuttles are an example, especially when they are exchanged for company provided parking in downtown lots. Incentives for reduction of SOV's should be evaluated further and in more detail.

Portland Maine is also the largest port in New England and is Maine's second most visited cruise ship port with over 100 major cruise liner visits.

Cold ironing facilities which, received only a one sentence mention in this 54 page report, deserves more extensive consideration. Cold ironing, or shore connection, shore-to-ship power (SSP) or alternative maritime power (AMP), is the process of providing shoreside electric power to a ship at berth while its main and auxiliary engines are turned off.

This is a recent New York Times article on this which is very much worth reading:

https://www.nytimes.com/2019/12/26/nyregion/cruise-ship-exhaust-shore-power-nyc.html

Cold ironing connections should be evaluated for freight tankers (Eimskip, which is expanding its operations), oil tankers (Portland Pipeline and Sprague Energy) and the City's cruise ship berths. Cold ironing should also be evaluated for Bar Harbor and Rockport, Maines busiest and third busiest cruise ship ports.

This is what it looks like almost every day in September (who knows what and how much is being emitted).

Cold ironing has been implemented in other North American ports including: Seattle, Vancouver, Los Angeles, San Diego, Long Beach, San Francisco, Oakland and Halifax.

The California Air Resources Board (CARB) passed a cold ironing regulation requiring this in CA ports in 2014.

If you have received any earlier draft comments from me, please disregard them.

Jim Plunkett

48 Hancock Street, Portland, ME 04101

jim.plunkett@gmail.com (207) 400-7011