

AAPA



**American Association
of Port Authorities**

Alliance of the Ports of Canada, the Caribbean,
Latin America and the United States



Lowering Ship Emissions



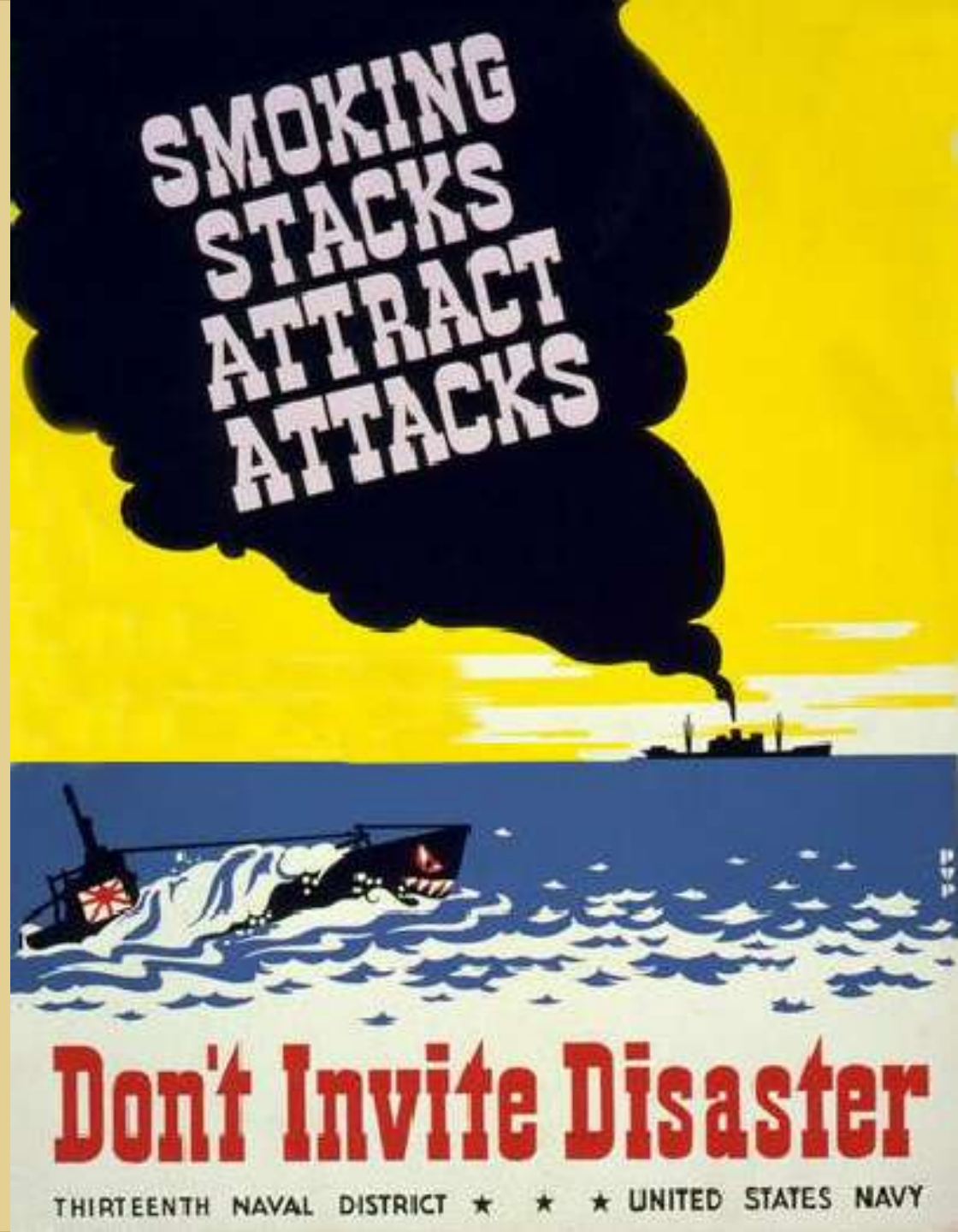
*AAPA Cruise Seminar, Miami,
February 11, 2009*

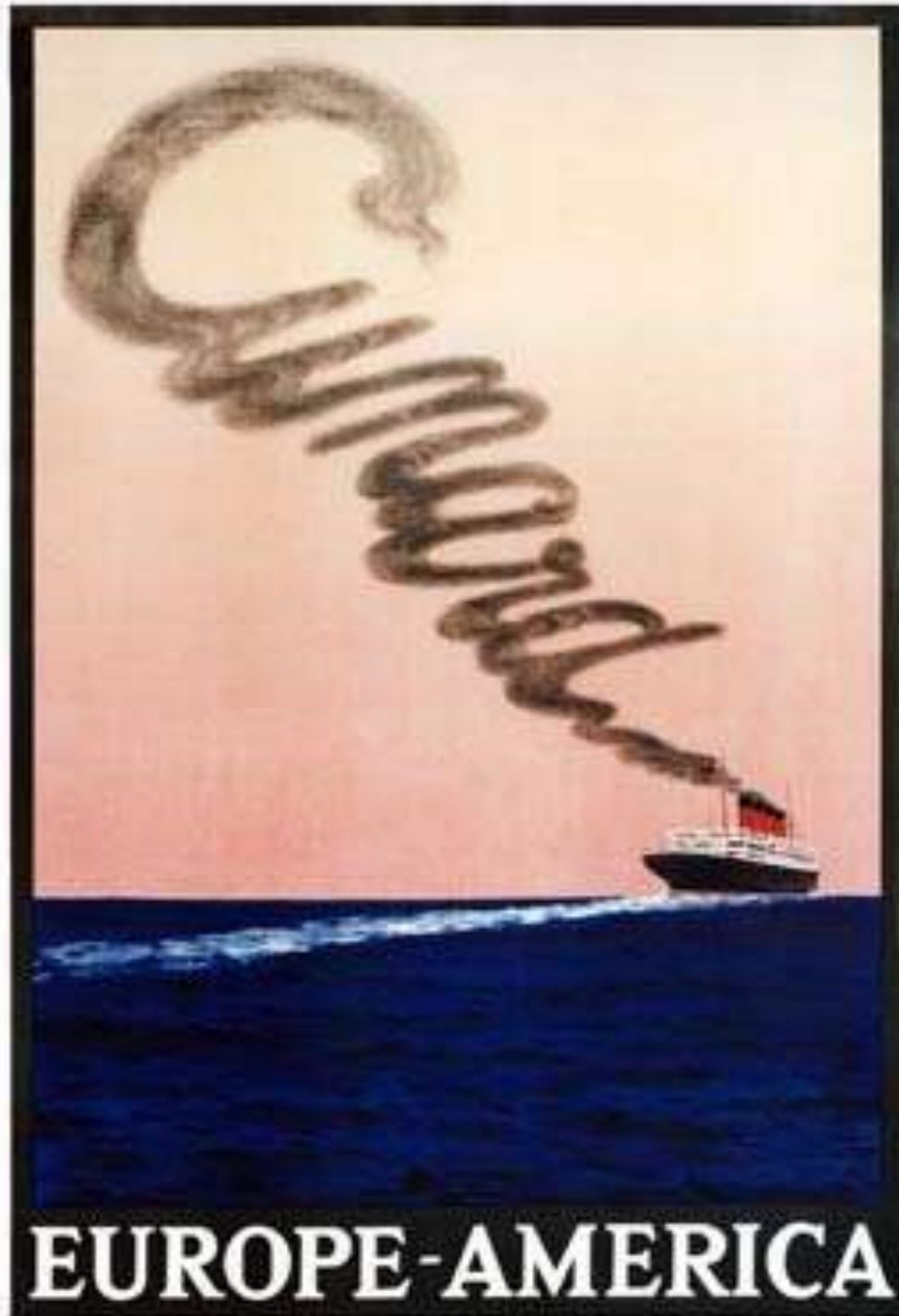
*Peter Dailey
Deputy Director, Maritime*



WHY ?

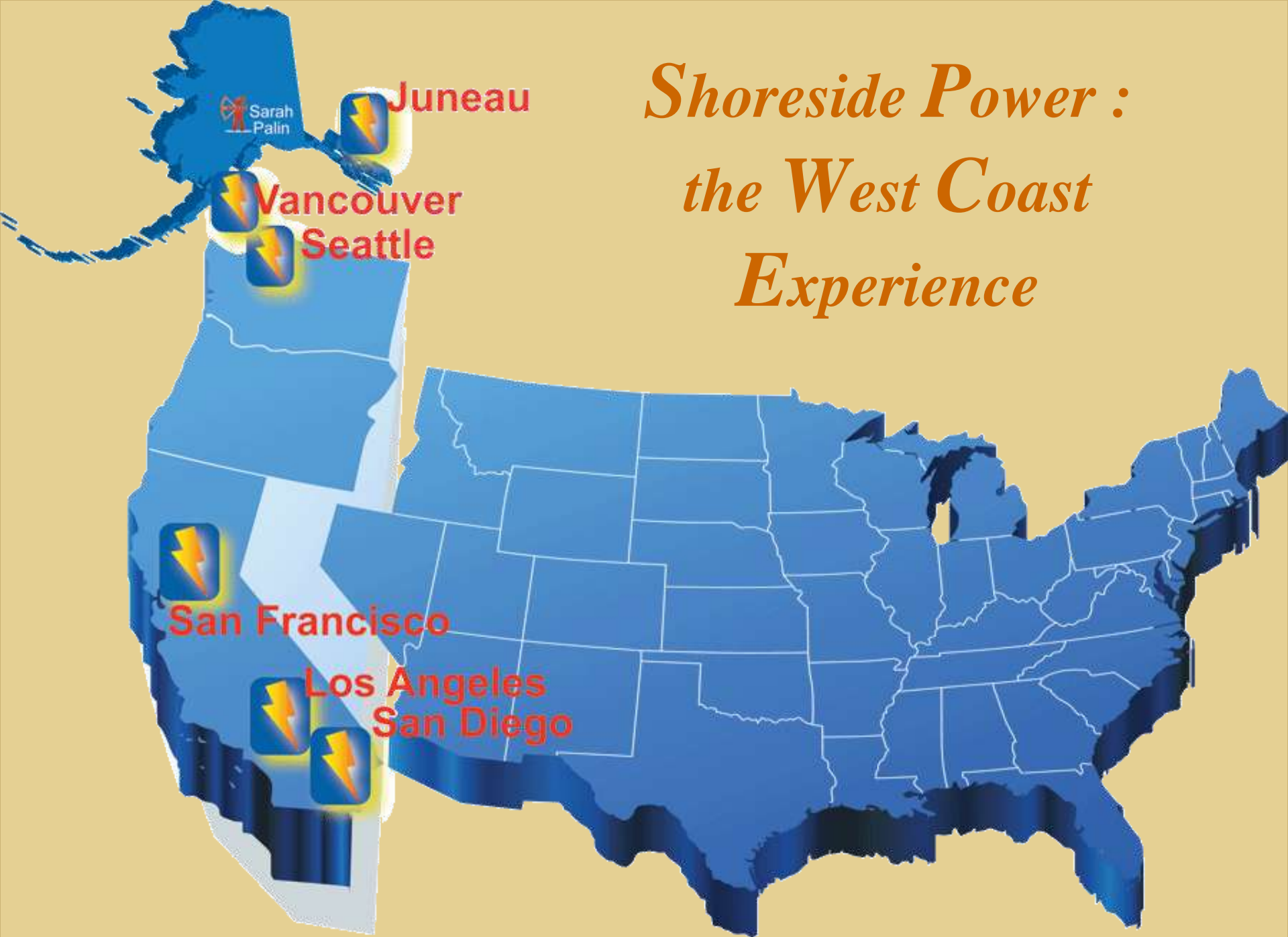
OR ...





EUROPE-AMERICA

*Shoreside Power :
the West Coast
Experience*



Sarah
Palin

Juneau

Vancouver

Seattle

San Francisco

Los Angeles

San Diego



An Industry Initiative

Princess Developed . . .

In Juneau	—	2001
Seattle	—	2005
Vancouver	—	2009
San Francisco	—	2010
San Diego	—	2010
Long Beach	—	2011(?)
Los Angeles	—	2010

is Now the Law

2008 California EPA Regulation —

What is the compliance schedule?

Date	Reduced Onboard Power Generation Option
Jan. 1, 2010	Shore-power equipped ships must use shore power if available at berth
Jan. 1, 2014	50% of all cruise ship calls on shore-power
Jan. 1, 2017	70% of all cruise ship calls on shore-power
Jan. 1, 2020	80% of all cruise ship calls on shore-power

OR – equivalent emissions reduction by other means

Public Benefits of a Shoreside Project

Emission Reductions per Ship Call
(based on 77,441 GRT / 856' LOA as typical)

- ❑ 1.3 tons of nitrogen oxides (NO_x)
- ❑ 0.87 tons of sulfur oxides (SO_x)
- ❑ 19.7 tons of CO₂
- ❑ 140 lbs of PM





COMING TO A PORT NEAR YOU

When Is Shore Power Sustainable ?

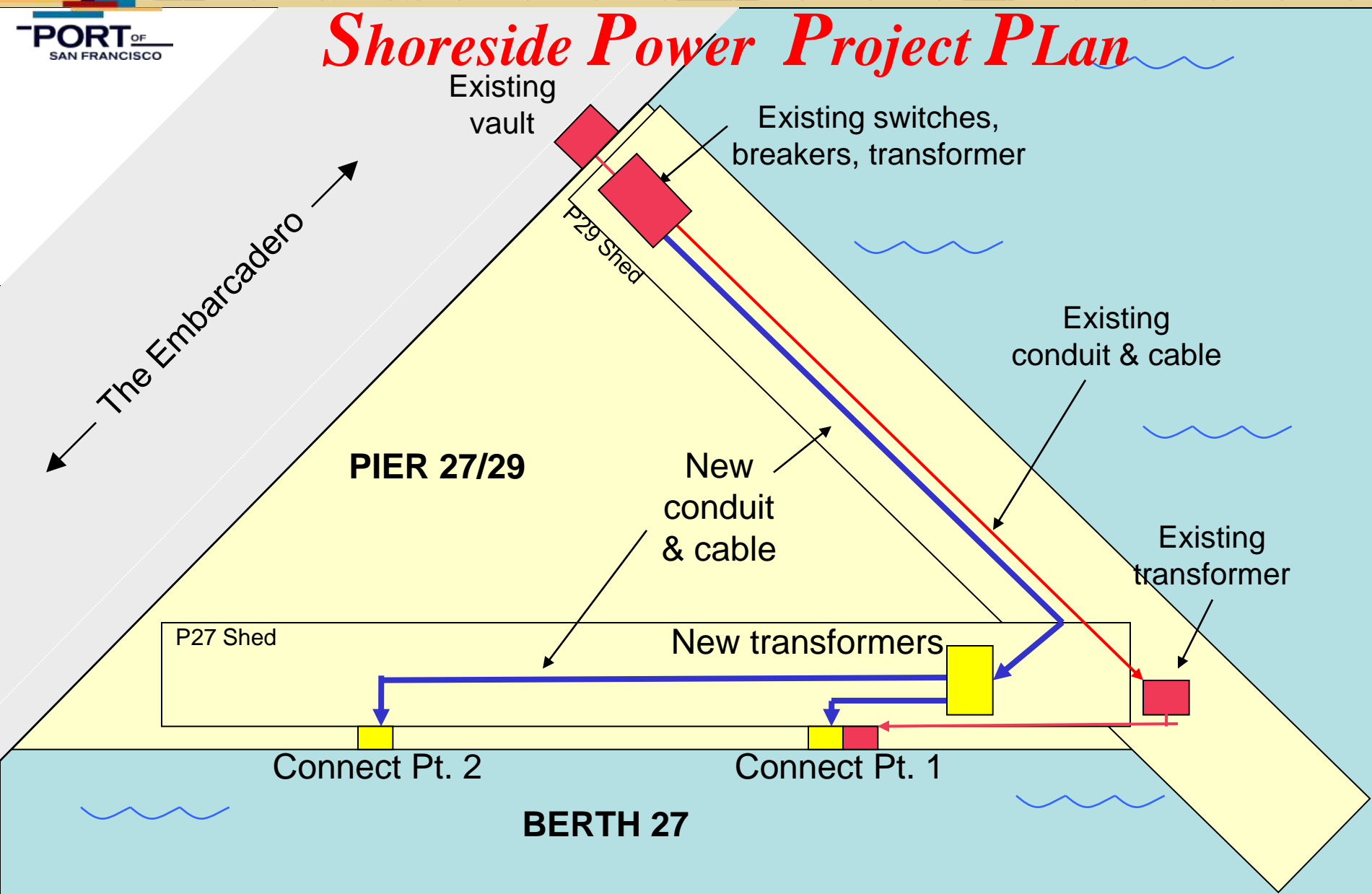
- ✚ Abundant Low Emitting Sources of Electricity
- ✚ Hydro; Natural Gas; Nuclear
- ✚ Available Distribution Infrastructure
- ✚ Frequent & Regular Cruise Ship Calls





San Francisco's Pier 27

Shoreside Power Project Plan



INITIAL TEST PHASE

PORT OF
SAN FRANCISCO





— Success —



PORT OF
SAN FRANCISCO

Monique Moyer
Executive Director
Port of San Francisco

Dean Brown
E.V.P. Corporate Services
Princess Cruises

Hon. Gavin Newsom
Mayor, City & County of
San Francisco



Thank You

