

VERESEN



LNG as a Marine Fuel

**Pacific Northwest Economic Region
26th Annual Summit**

July 18, 2016 • Calgary

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Forward-looking information advisory

Certain information contained in this presentation constitutes forward-looking information under applicable Canadian securities laws. All information, other than statements of historical fact, which addresses activities, events or developments that we expect or anticipate may or will occur in the future, is forward-looking information. Forward-looking information typically contains statements with words such as "may", "estimate", "anticipate", "believe", "expect", "plan", "intend", "target", "project", "forecast" or similar words suggesting future outcomes or outlook. Forward-looking statements in this presentation include, but are not limited to, statements with respect to: the ability of Veresen to recognize synergies between Ruby and the Jordan Cove LNG project, the cost estimate, timing of, and our ability to successfully obtain regulatory approvals for Jordan Cove LNG and the Pacific Gas Connector Pipeline, the timing of decisions to proceed with construction of, and the in-service date of Jordan Cove LNG and the Pacific Gas Connector Pipeline and sources of gas supply to feed Jordan Cove LNG and the Pacific Gas Connector Pipeline.

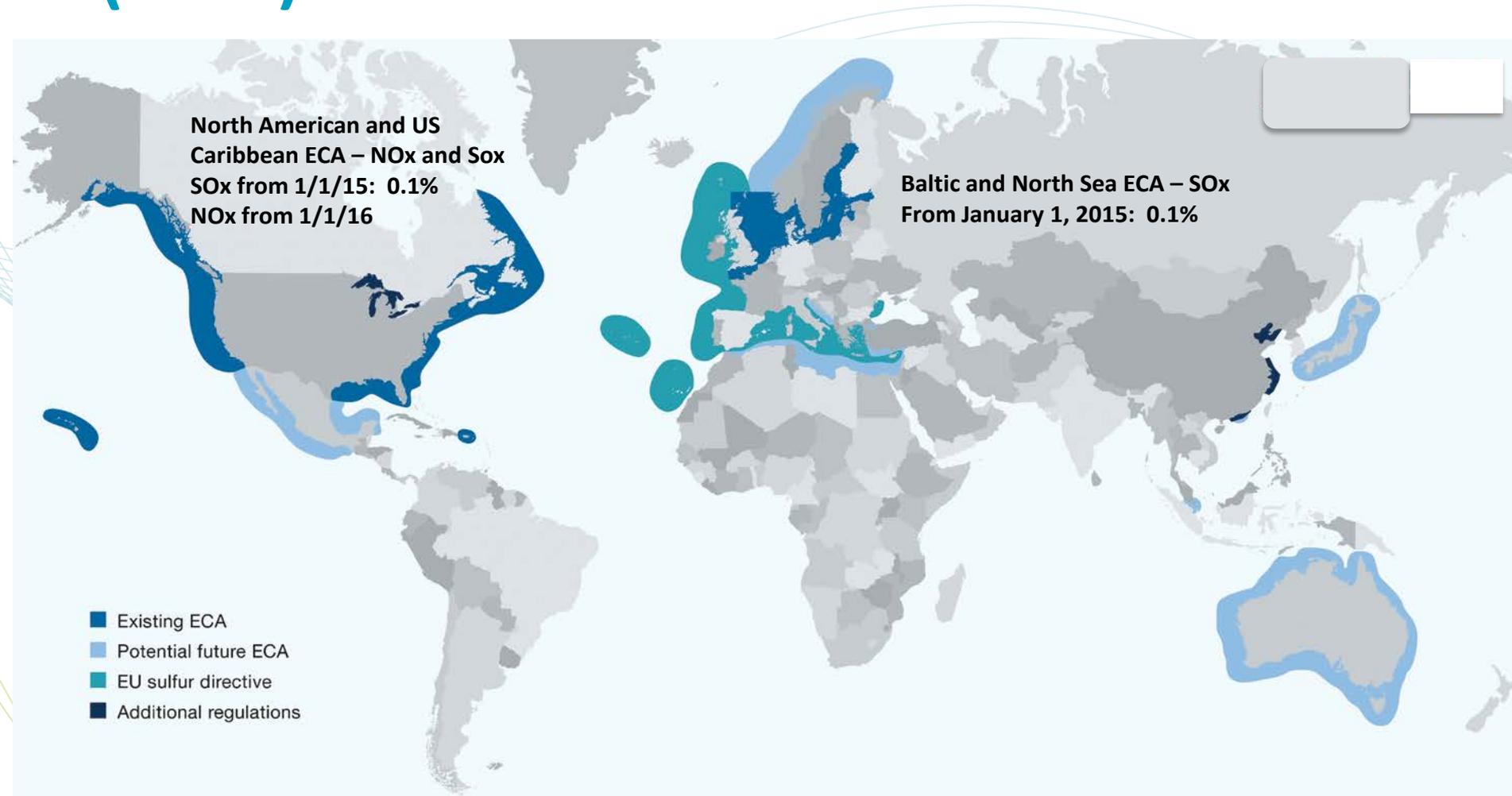
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Regulating emissions from shipping

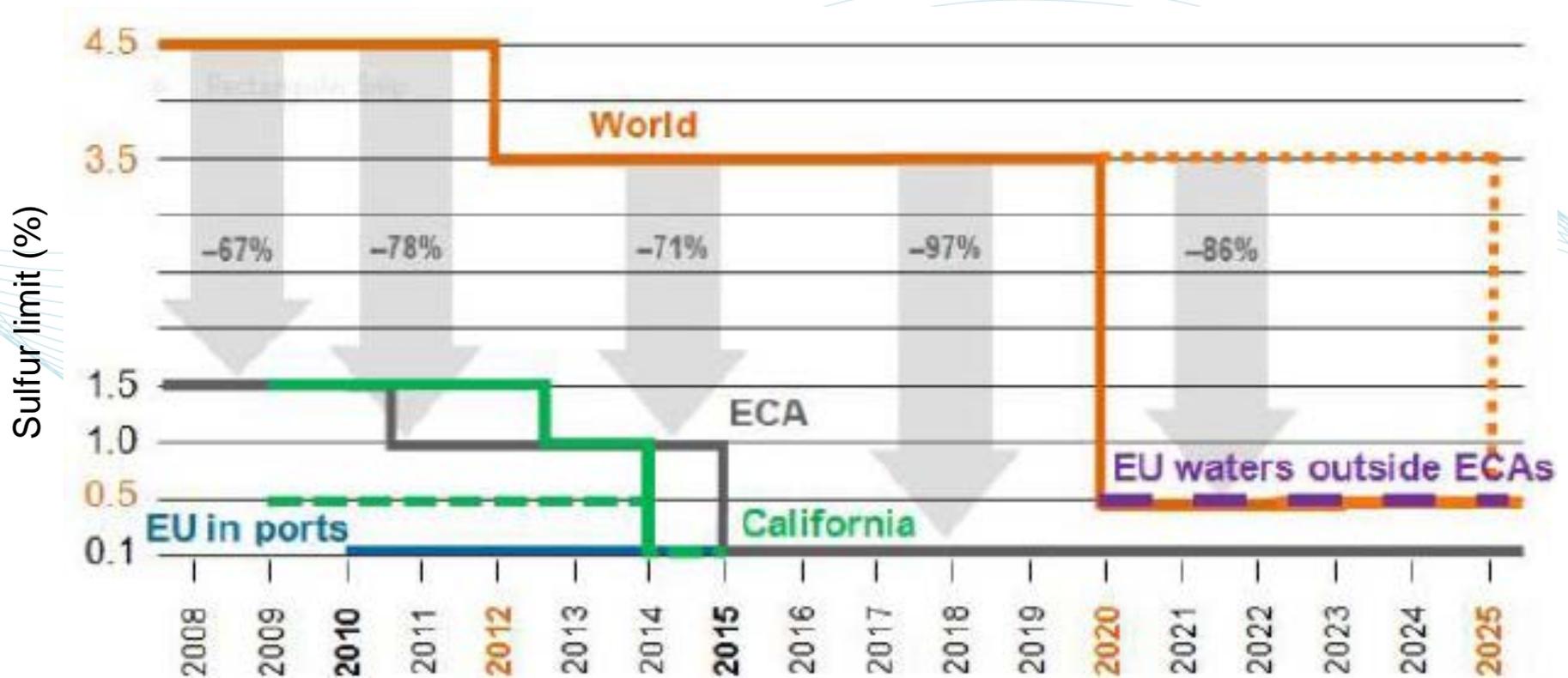
- The International Maritime Organization (IMO) has introduced regulations for emission control under Annex VI of the MARPOL Convention. It defines mandatory limits on emissions of sulfur oxides (SOx) and nitrogen oxides (NOx), both globally and within designated sea areas known as Emission Control Areas (ECAs).
- Current marine emissions contribute to over 60,000 deaths a year worldwide and produce CO2 at levels equal to those of France.
- From 1/1/15, all ships operating in an ECA must burn fuel with <0.1% sulfur content, and starting in NA in 2016, new buildings will have to reduce NOx emissions by 80%
- Ship owners have three options to comply:
 - Burn low sulfur fuel oils, like marine gas oil (a distillate);
 - Install exhaust scrubbers; and
 - Convert ships to run on LNG
- LNG has emerged as a valuable alternative due to its low emissions and the recent technological advances and availability of dual fuel marine engines
 - Using LNG results in 25% less CO2, 90% NOx, 99% less SOx and 100% less particulate matter than the equivalent heavy fuel oil
 - New builds from 2016 must meet NOx standards, ruling out scrubbers
- However, low crude oil prices has make the case for conversion less compelling

Existing and future emission control areas (ECAs)



Implementation of sulfur limits

Sulfur limit (%)



Fuel type Not regulated = both HFO and distillate are permitted.
Exhaust gas cleaning Permitted alternative under Regulation 4 to achieve any regulated limit.
Particulate Matter (PM) No limit values.

Initiatives in the Pacific North West

- Adoption of LNG as a marine fuel on the West Coast has primarily been by the Jones Act fleet and ferries that operate within the North American ECA

Projects currently under implementation:

- Matson – West Coast / Hawaii; supplier to be determined
- Tote (conversion) – Puget Sound / Alaska; supplied by Puget Sound Energy
 - A partnership of Totem Ocean and the Port of Tacoma
 - Plans include landside facility in Port with LNG liquefaction terminal
- Seaspan Ferries – British Columbia; supplied by Fortis LNG's Tilbury Island facility
- BC Ferries – South Gulf Islands; supplied by truck from Fortis LNG
- Washington State Ferries – Puget Sound; fuel supply to be delivered by truck from Fortis LNG
- Jordan Cove LNG – Coos Bay, Oregon; LNG supply for international and West Coast markets

Jordan Cove LNG – Coos Bay, Oregon

– A source of LNG bunkering fuels for the North American West Coast

