

www.stopcruiseshippollution.org



**STOP CRUISE
SHIP POLLUTION**



P&O

PACIFIC JEWEL

Launched:	25 May, 1989 (Sitmar line)
Age:	29 years 5 months
Tonnage:	70,000
Capacity:	2,000+ passengers
Crew:	700
Fuel:	HFO (heavy fuel oil) Bunker diesel / "Hazardous waste"
Consumption:	300,000 litres/day 12,500 litres/hour

Exhaust Toxicity: EXTREME
Class 1 carcinogen (WHO)

WHAT'S IN THESE EMISSIONS?

- Sulphur dioxide
- Nitrogen oxides (NOx)
- Fine particles (PM_{2.5} PM₁₀)
- Cocktail of other highly poisonous, volatile compounds

HOW DO THEY IMPACT PEOPLE?

- Dizziness
- Headaches
- Eye, nose and throat irritation
- Breathing difficulties
- Increased blood pressure
- Heart attack
- Stroke
- Lung cancer



SO WHAT IS HEAVY FUEL OIL OR BUNKER?

- Residual oil
- A by-product of the **crude oil refining process**
- The **sludge** left after other fuels are refined
- Contains **contaminants** removed from lighter oils/petrol/road diesel etc
- Much **cheaper** than other lighter marine fuels (est 30c/litre less)
- Much more **poisonous** to those who ingest its emissions ...



ROAD DIESEL IN NSW

Cars / trucks / buses etc



CRUISE SHIP FUEL IN SYDNEY

On harbour / White Bay / OPT



THE HEALTH IMPACTS HAVE BEEN STUDIED & THE RESULTS ARE NOT GOOD...

Years of Life lost 2010/11 from Sydney Harbour shipping emissions:

220

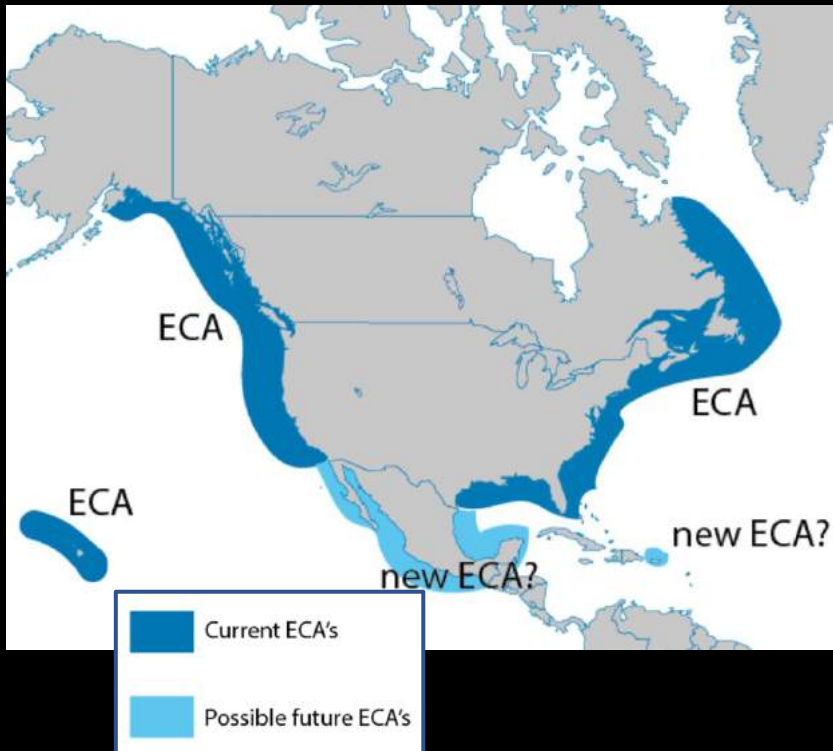
WHILE WE BREATHE POISON, WHAT'S THE REST OF THE WORLD DOING?

2015 – many developed countries have brought in ECAs (Emission Control Areas).

These preclude ships from burning bunker fuel within 320 kms of their coastlines to protect communities.

Australian federal and state regulators condone this fuel being used in suburban heartlands and along our coastlines.

US and Canada – **Protected**



Europe – **Protected**, more coming



Australia - **Nothing**

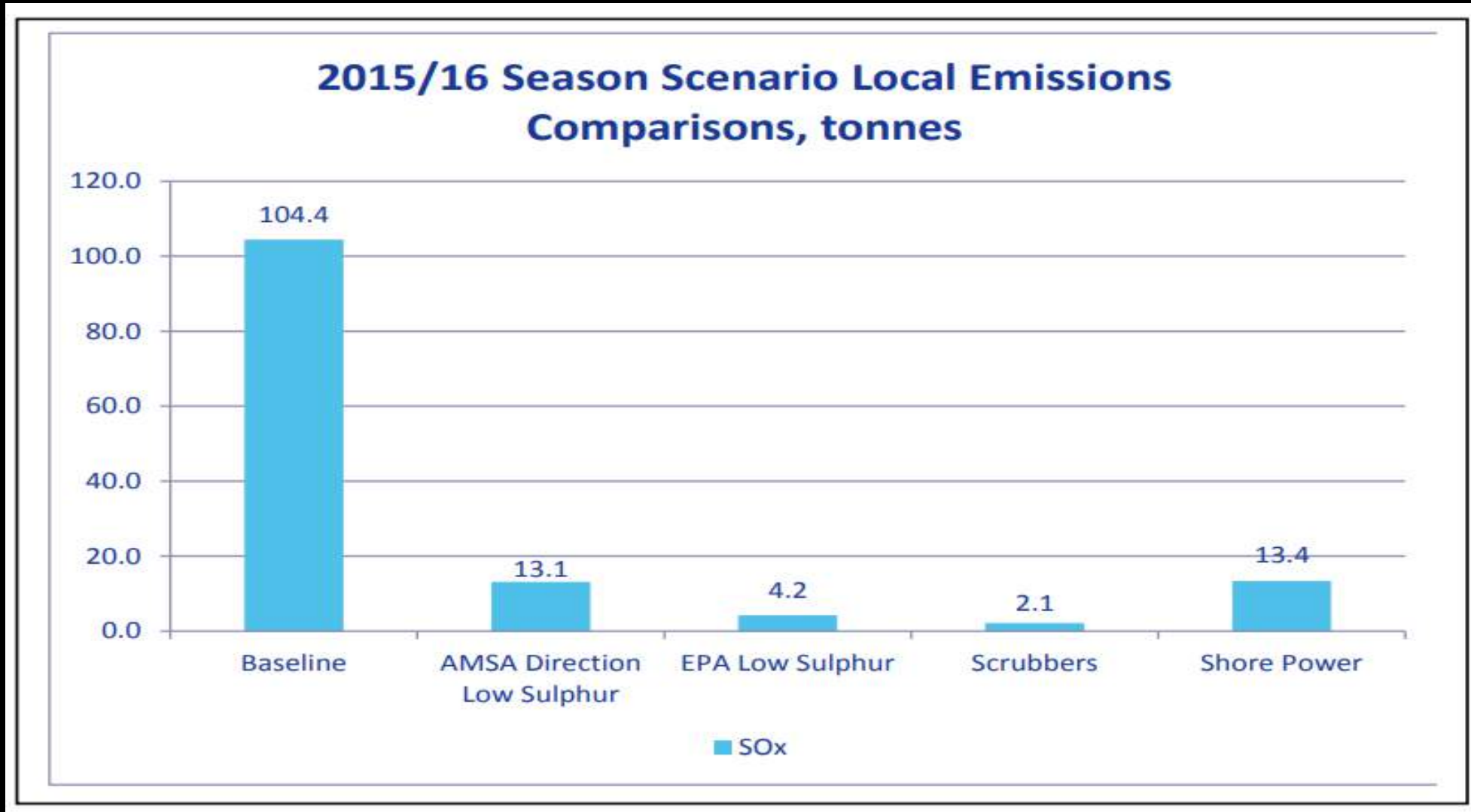


SHORE-TO-SHIP POWER

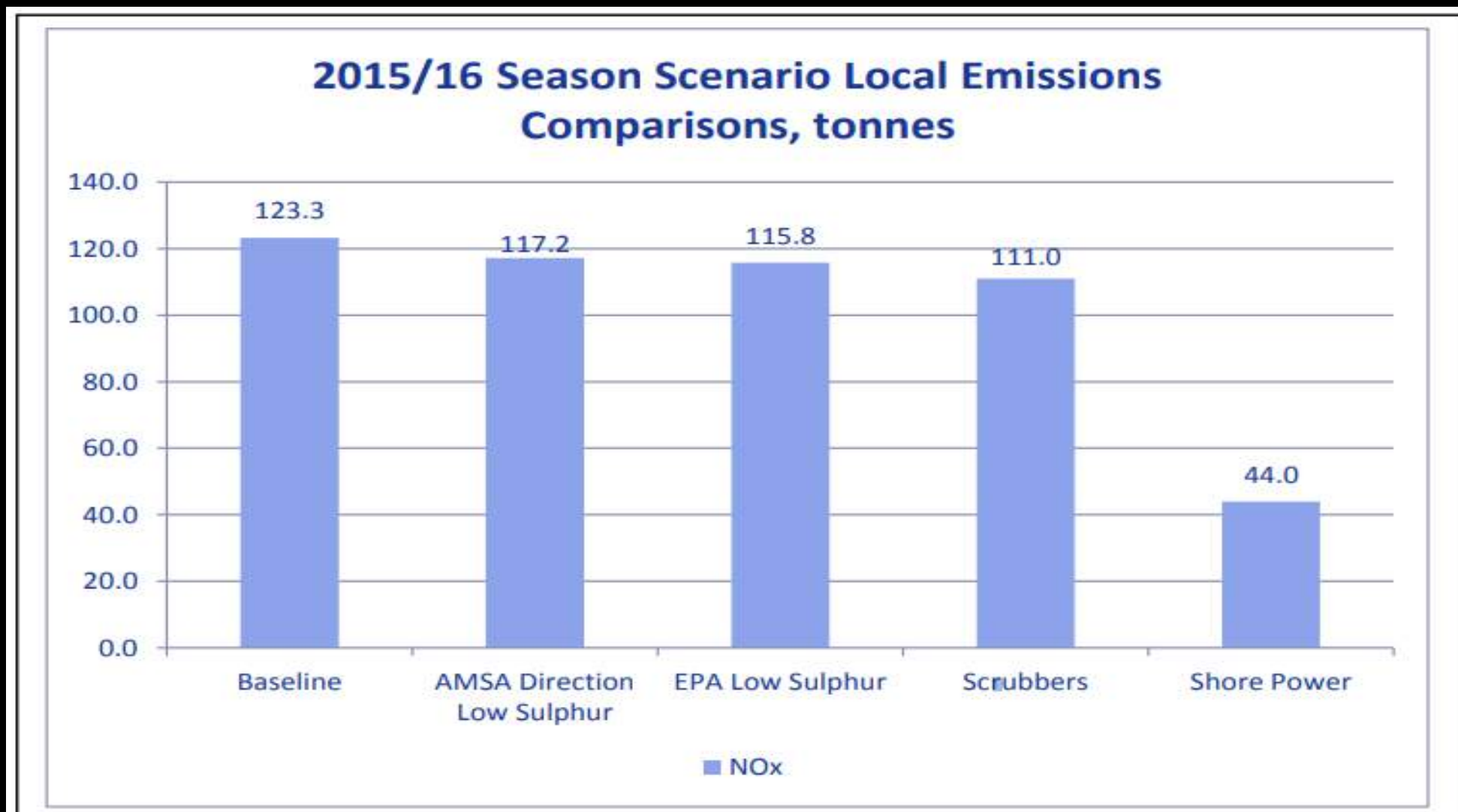
Port of San Diego, California



IMPACT AT WHITE BAY OF MEASURES TO LIMIT: A. SULPHUR DIOXIDE



IMPACT AT WHITE BAY OF MEASURES TO LIMIT: B. NITROGEN OXIDES





YOUR VOCAL SUPPORT AND ACTION CAN
MOVE OUR GOVERNMENTS TO ACTION.

More info: www.stopcruiseshippollution.org

Search on FB: Stop Cruise Ship Pollution

