



New Nuclear and a True Zero Emissions Shipping Industry

Gaston Petrocelli

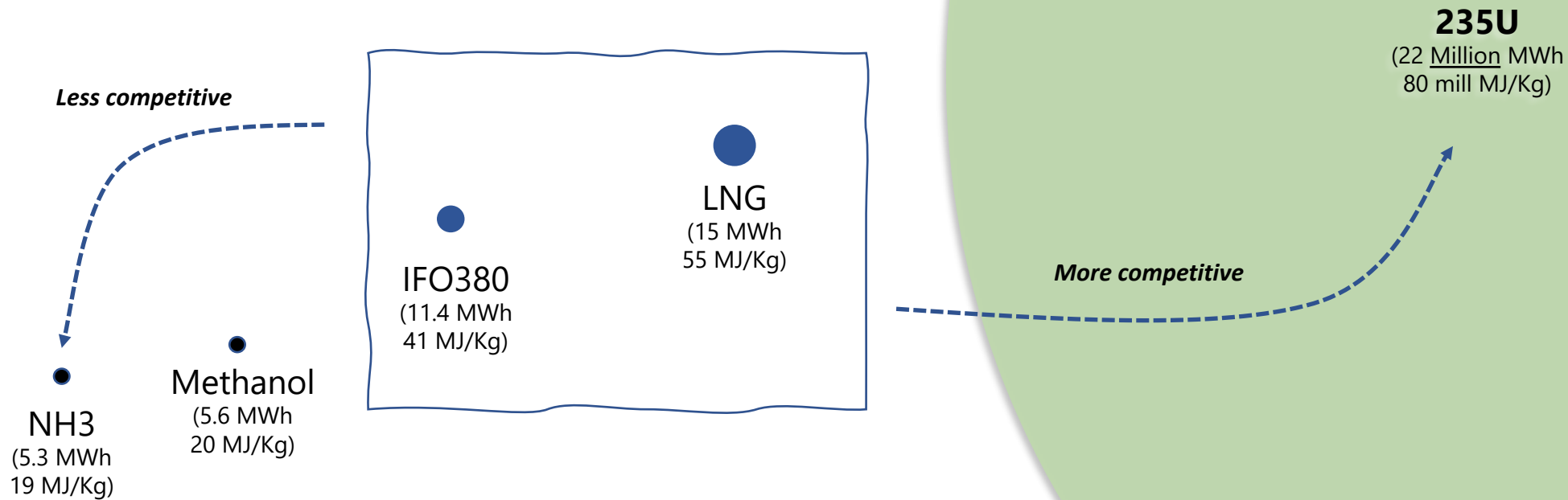
Japan Country Head
CORE POWER

NBAS – 18th November 2022

We have two main challenges:

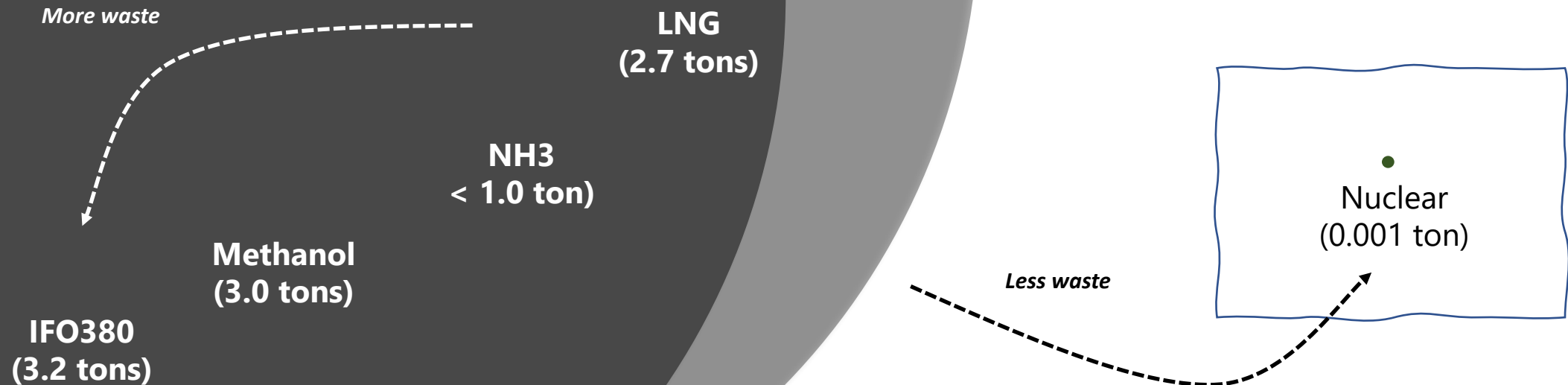
1. Produce **less waste and emissions.**
2. Remain economically competitive.

Energy from 1 ton of fuel

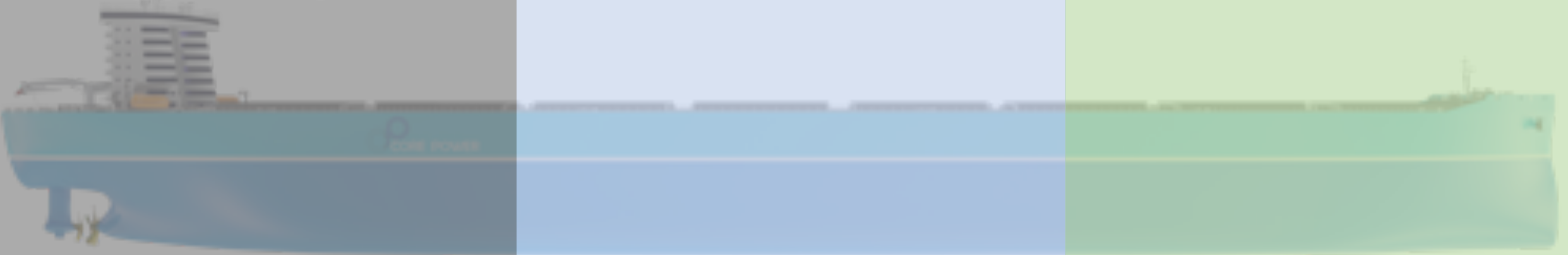


... that's 4 million times more than 'green fuels'

Emissions and waste from 1 ton of fuel



Energy comparison



IFO380

- Carbon emissions
- Carbon taxes (coming)
- Eco-speeds
- Price volatility
- Cold ironing in port

Green fuels

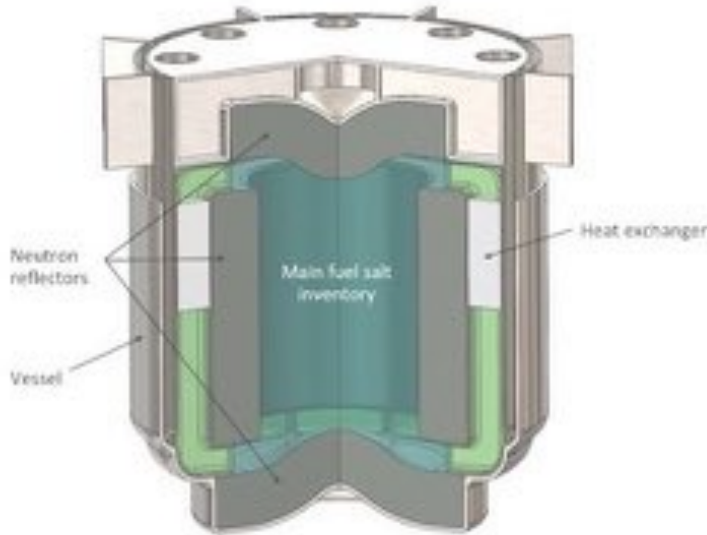
- Less cargo
- Slower speed
- Extreme costs
- Carbon emissions?
- Cold ironing in port

New nuclear

- More cargo
- Higher speed
- Stable low cost
- True-zero emissions
- Power-to-ports**

Key criteria for maritime

Acceptance of advanced nuclear in a maritime environment, means:



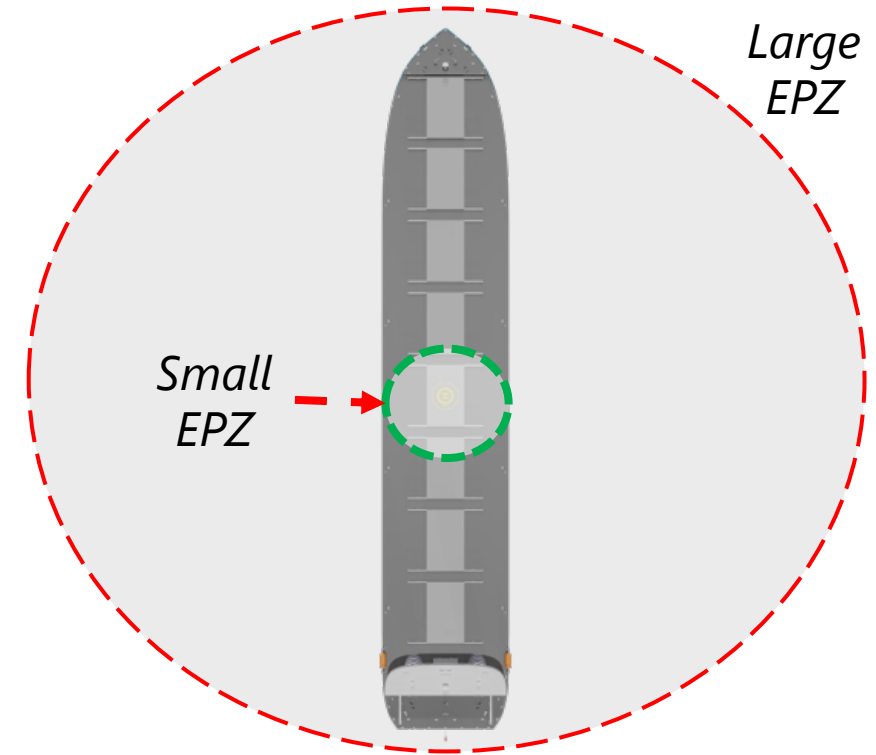
Exceptional fuel efficiency of
'new nuclear'

= **Long fuel cycle**



Manufacturing, modular design
and construction

= **Affordable, mass
assembled product**



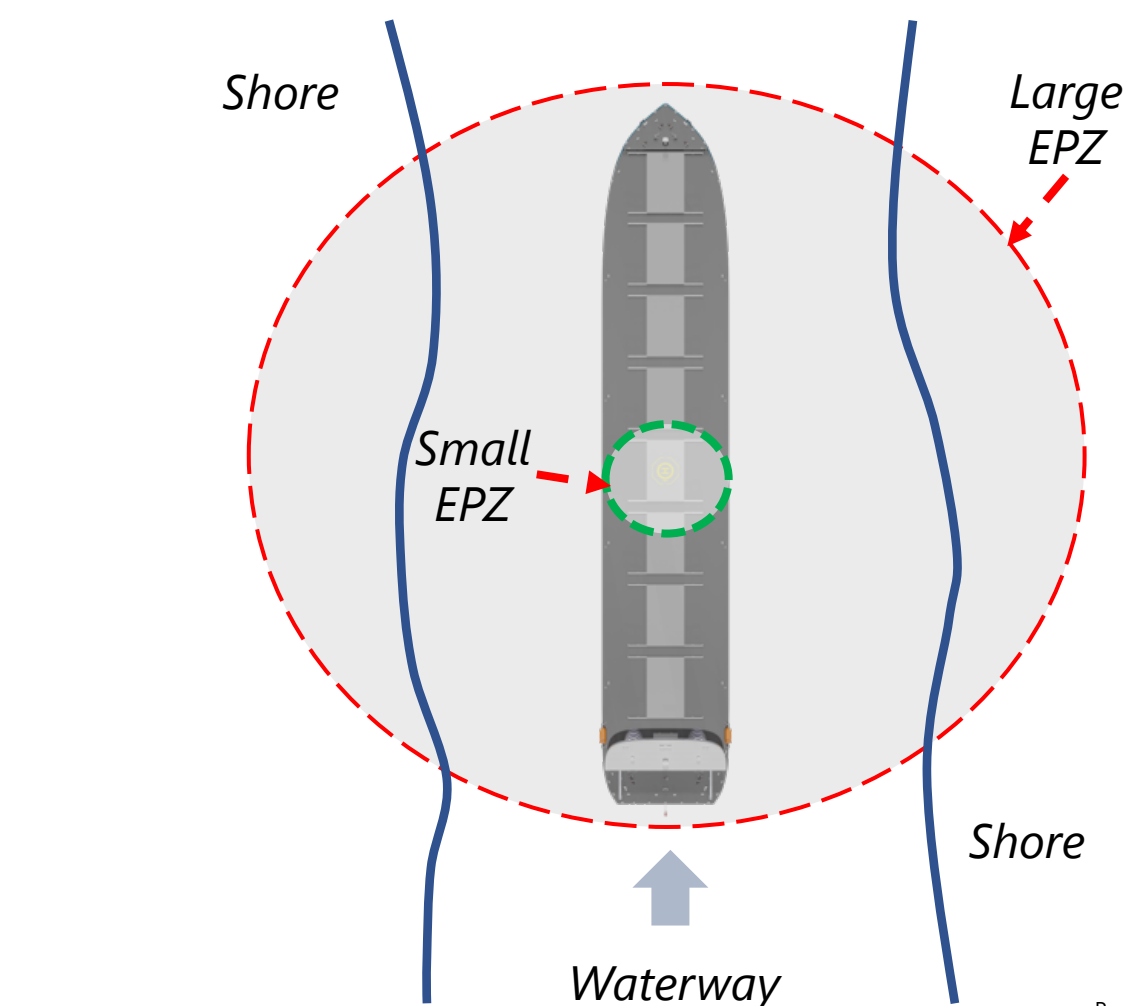
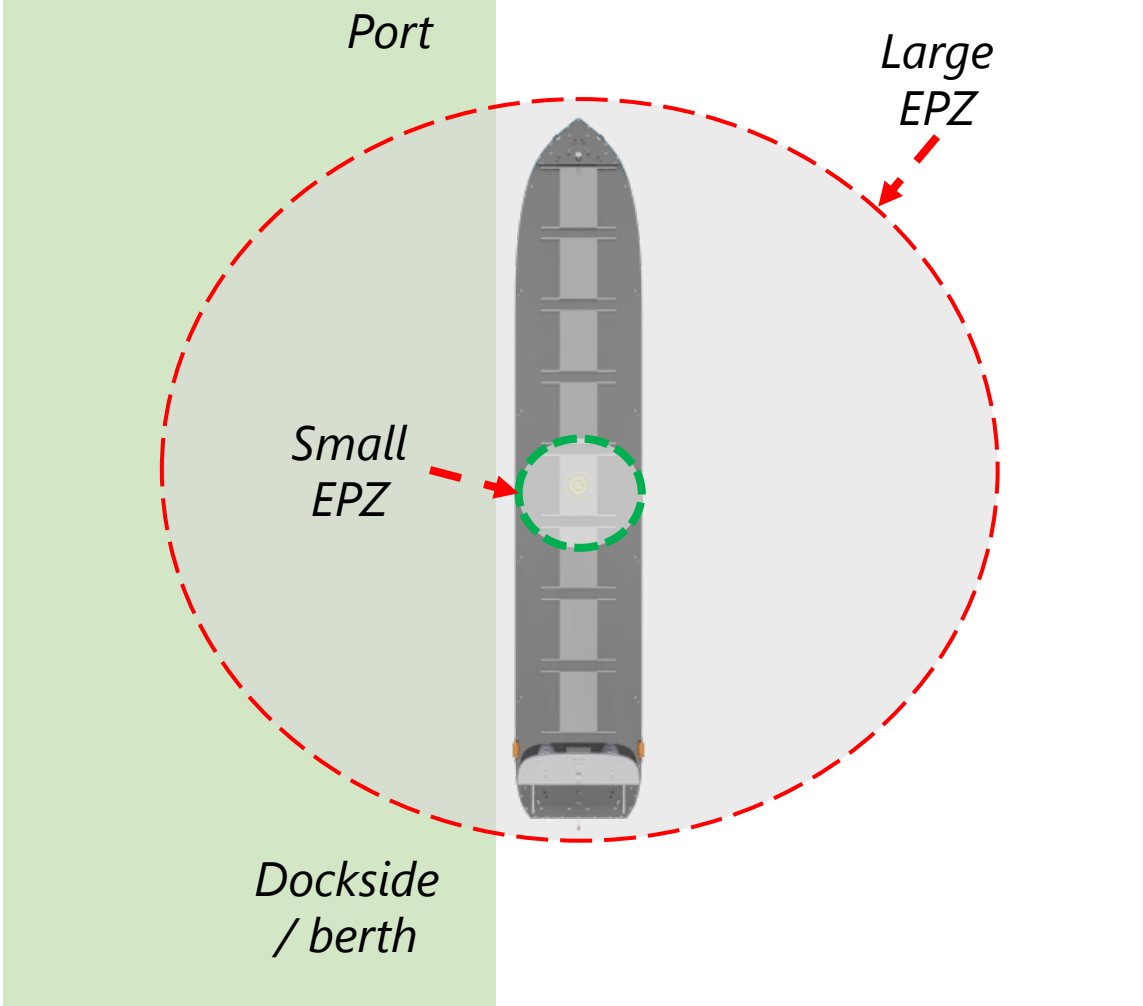
Ambient or unpressurized core

= **Small 'Emergency Planning
Zone' (EPZ)**

Limited vs Unlimited Liability

Welcome in ports

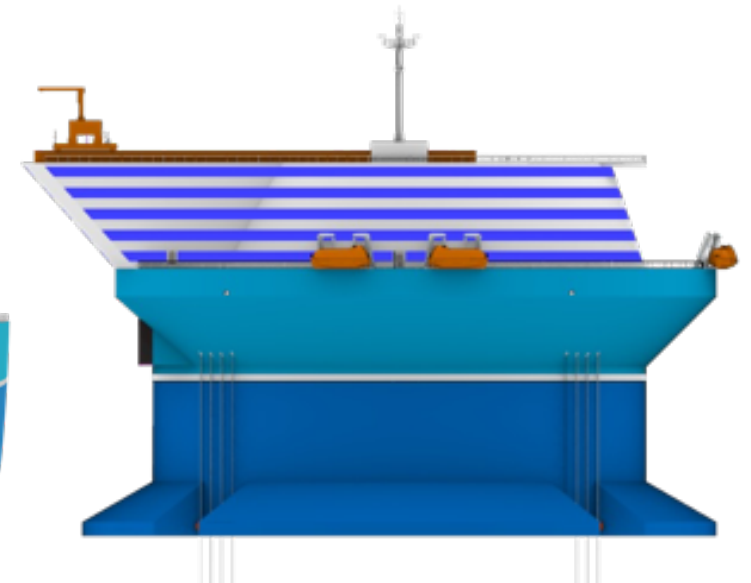
Welcome in waterways



Development timeline



- 2013-2020** Critical R&D and validation.
- 2020** – US ARDP funding of 'New Nuclear'
- 2025** – first criticality of experimental reactor
- 2028** – Design completion of maritime demonstration
- 2030** – First commercial marine deployment
- 2035** – Serial commercialization





CORE POWER

First ever Asian conference

New Nuclear for Maritime

Thursday 9th February 2023

PARKROYAL COLLECTION Marina Bay

Limited places, register today at:

[corepower.energy](https://www.corepower.energy)



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