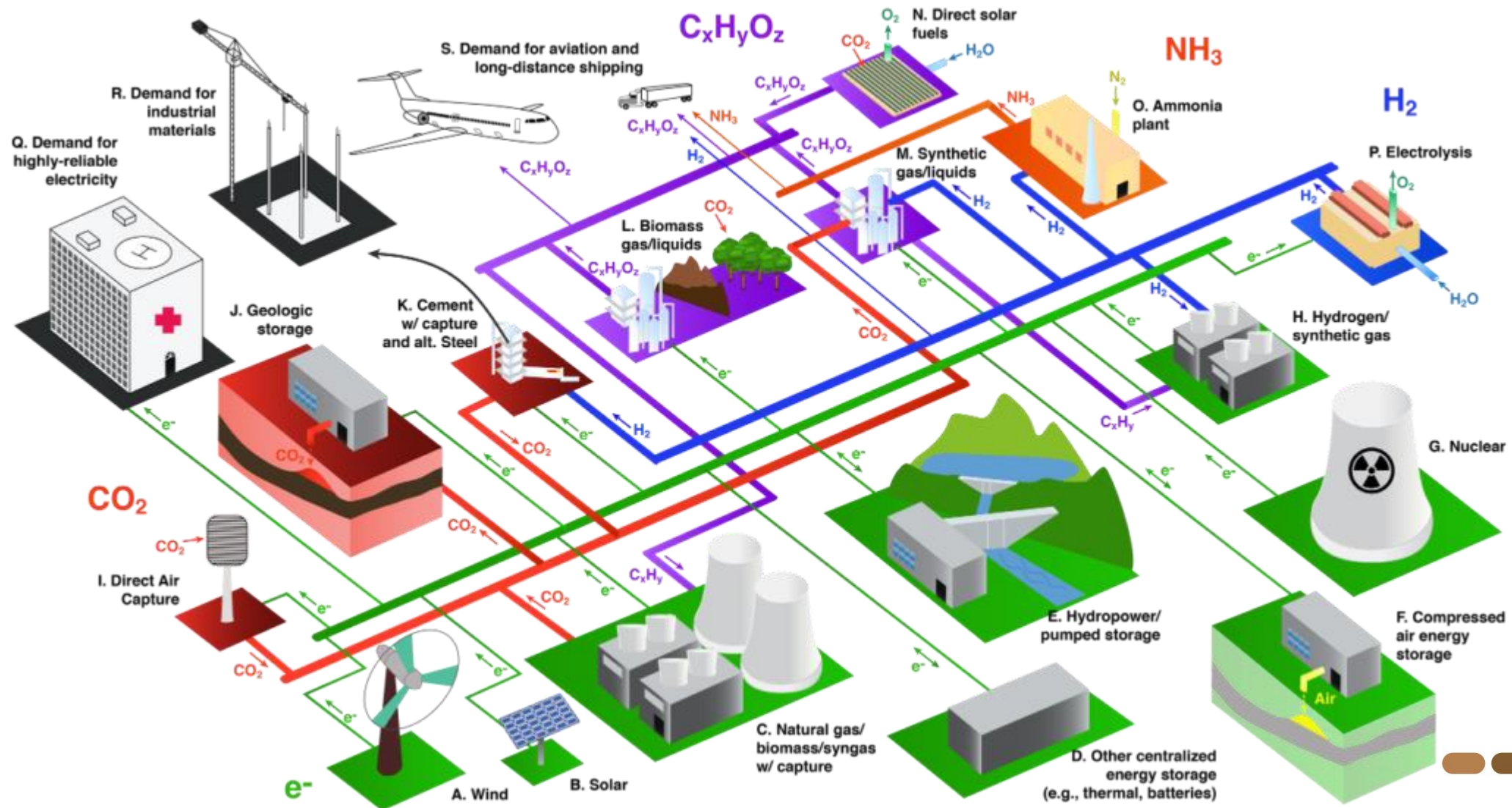




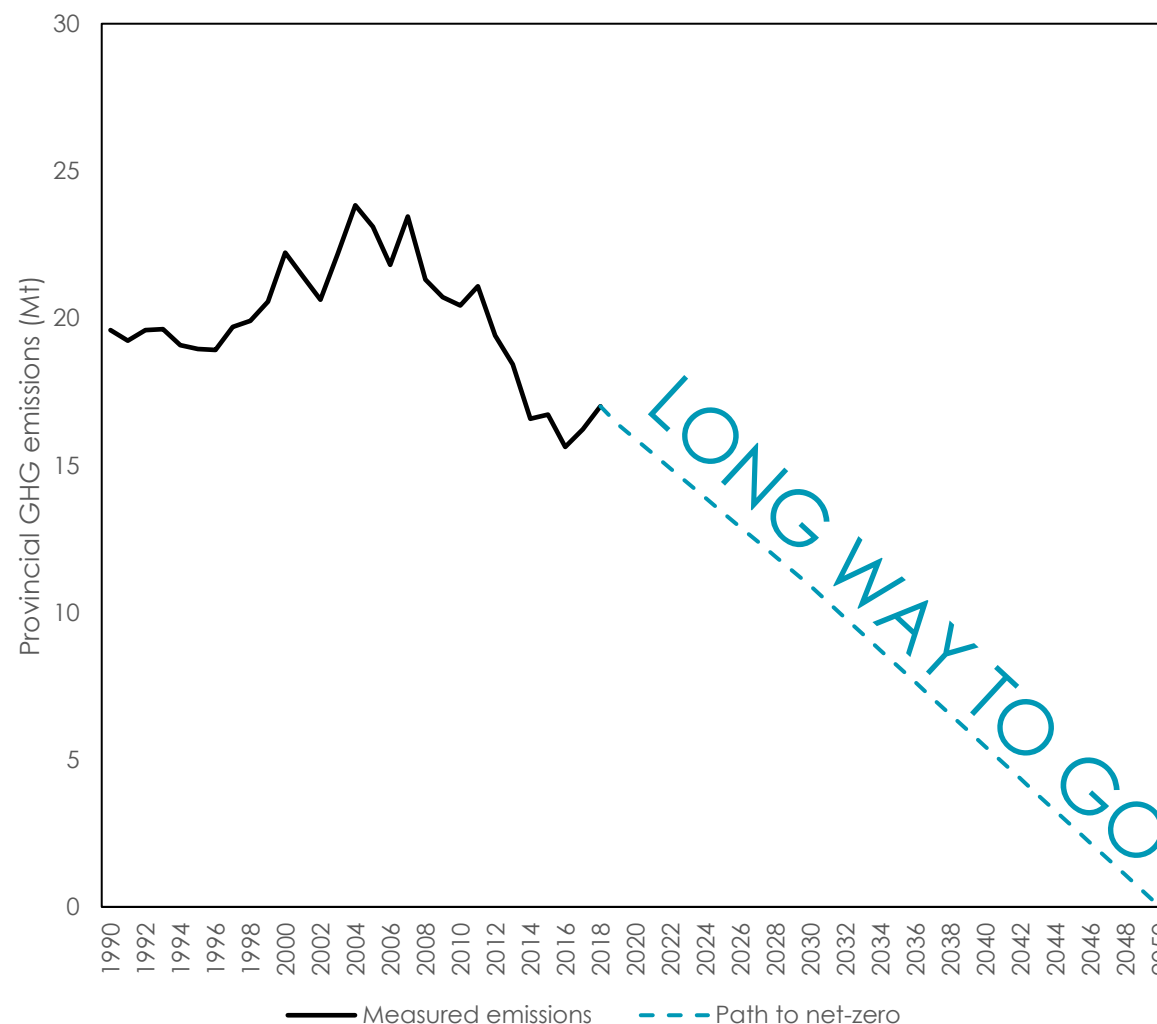
# **Decarbonizing Nova Scotia**

# Energy systems are complex...



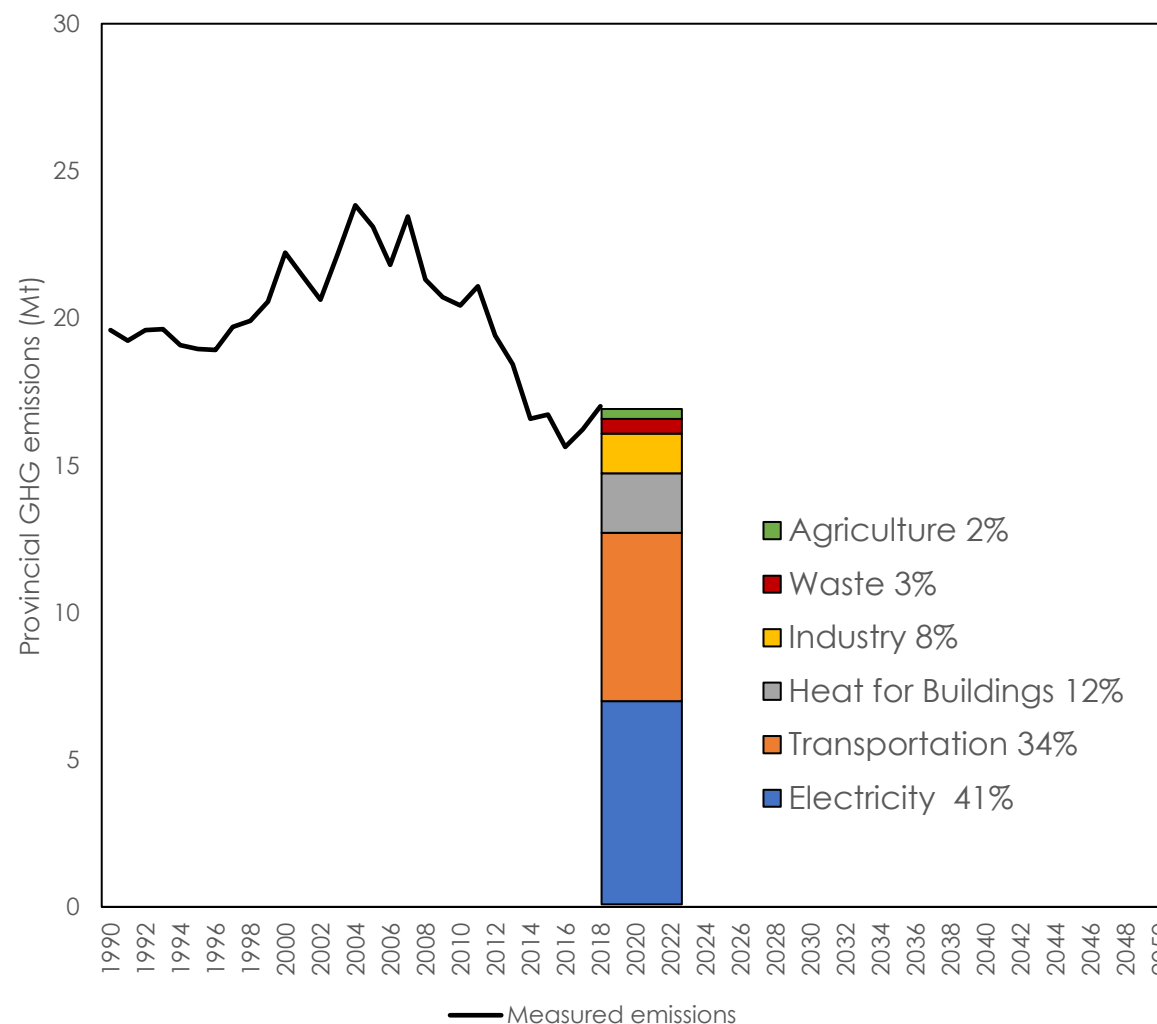
## Energy systems are complex; so is the transition to net-zero.

- NS GHG emissions in 2018: approx. 17Mt
- Large-scale emission reduction is necessary to reach the net-zero emissions goal by 2050.
- Similarly ambitious goals for NB, NL, PEI



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# GHG mitigation strategies depend on the sector

Electricity

Transportation

Heat

Industry

Waste

Agriculture



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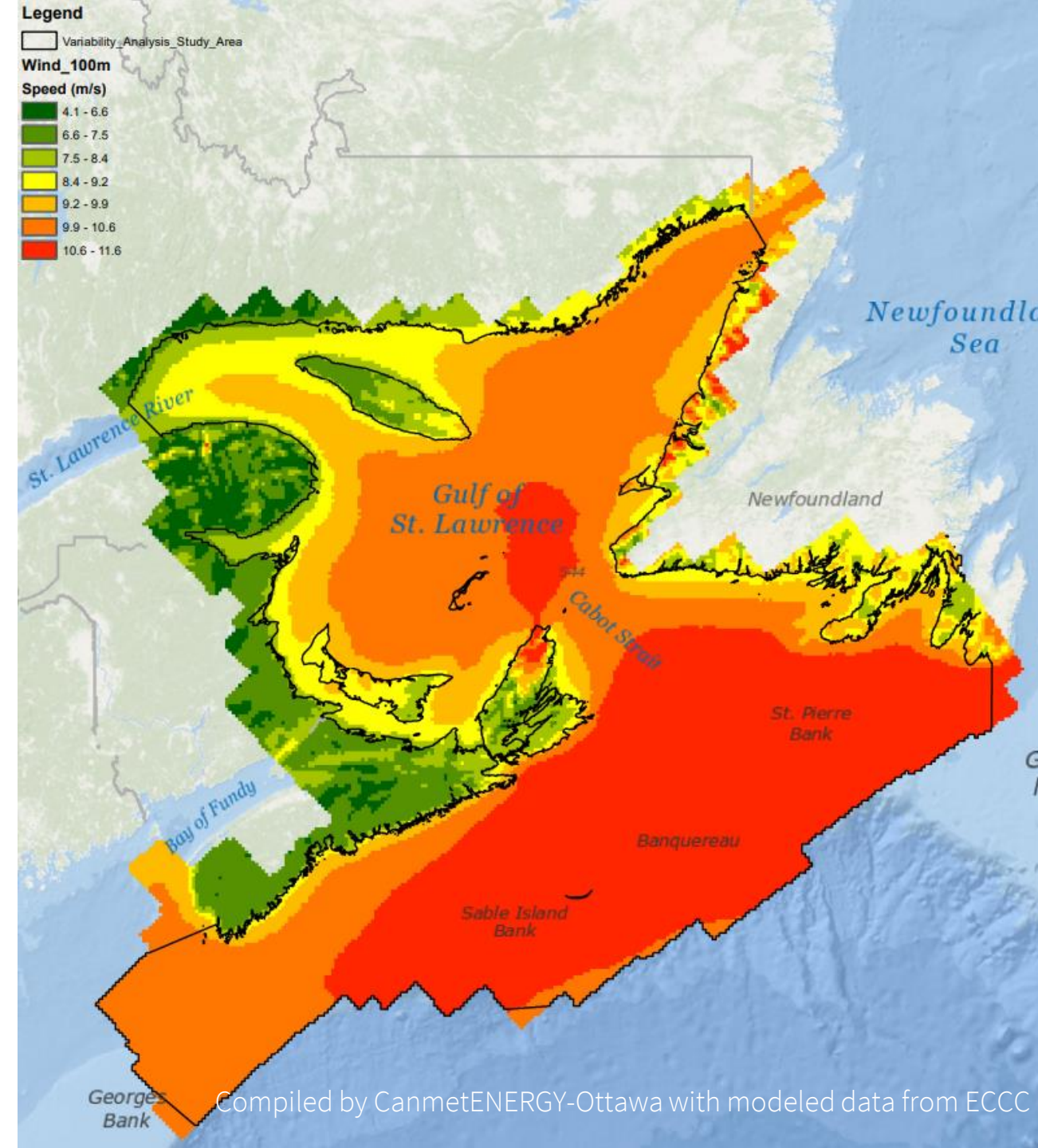
	Electricity	Transportation	Heat	Industry	Waste	Agriculture
More imports	✓					
More VRE	✓					
More low-carbon baseload	✓					
CCS	✓			✓		
Demand reduction	✓	✓	✓	✓	✓	
Electrification		✓	✓	✓		
Use of alternative fuels		✓	✓	✓		
Waste organization and use of landfill gas					✓	
Changes in fertilizer use, tillage, livestock management						✓





# Topic Overview – OSW

- Atlantic Canada has an outstanding OSW resource base
- Opportunities to use OSW for
  1. Decarbonization of electricity grid
  2. Export of electricity
  3. PtX
- Favourable geology for significant fixed-bottom turbine developments
- Offshore supply chain with O&G experience
- Regulatory framework in development
- Capacity building in First Nation communities has started

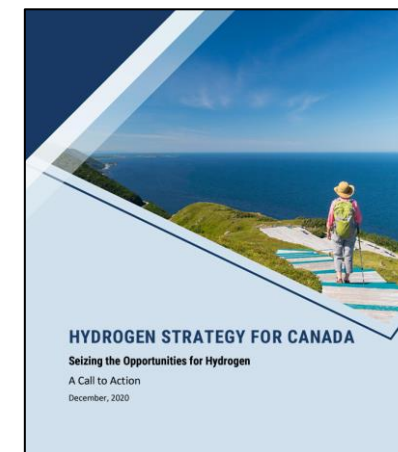
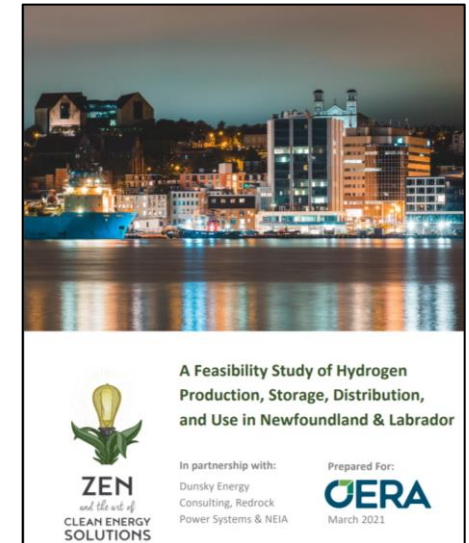
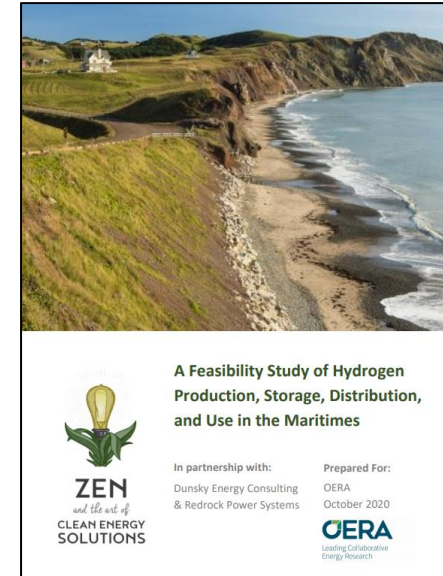


# Topic Overview – Hydrogen

- Electrification won't solve all GHG problems.
- Hydrogen will play an important role in deep decarbonization scenarios.
- Global demand for low-carbon hydrogen creates export opportunity.

*How the discussion started in Atlantic Canada:*

- ✓ Feasibility Study for the Maritimes (November '20) + NL (March '21)
  - Strategy; standards and codes; hydrogen hubs; education
  - 78 member organizations
- ✓ Atlantic Hydrogen Alliance – NZA is Secretariat





# Thank You

net-zero  
atlantic