WELCOME TO

- 1st South African Special Economic Zone to include a port.
- Building and operating a marine and energy services and engineering centre.
- Strategically located within the deep-water port of Saldanha Bay.
- Easy access to logistics by sea, land, rail, and air access.
- Situated on the West Coast, 60 nautical miles north-west of Cape Town.
Who we are

Special Economic Zone

Our mandate is to stimulate investment, industrial growth, job creation, skills development and regional competitiveness

Provincial Owned Entity

Marine Sector

Activities includes
- Marine services hub
- Boat building & repair
- Vessel decommissioning
- Offshore supply base

Energy Sector

Activities includes
- Bulk fuels storage
- Manufacturing hub
- Services hub
- Integrated logistics facility
**GH2 Opportunity**

Saldanha Bay well positioned as a hub for green hydrogen and low-carbon industry

1. **Significant Feasible Land**
   - Within West Coast District:
     - 11.5k km² of feasible wind land
     - 21k km² of feasible solar land

2. **Strong RE Load Factors**
   - Within feasible land in West Coast District:
     - Average wind load factor of ~40% and average solar load factor of ~21%

3. **Special Economic Zone**
   - Freeport Saldanha Industrial Development Zone, a freeport duty free area with streamlined investor procedures

4. **Existing Port and Rail Lines**
   - Positioned to serve domestic and global demand w. deep water port (23m draught), rail, and road infrastructure

5. **Access to Skilled Workforce**
   - ~2h from CPT International Airport
   - 100k population within Saldanha Bay Municipality

Source: BCG analysis
**1st Western Cape GH2 Cluster**

- Potential local inland demand consumption.
- Potential “at borders” refueling demand - Bulk carriers account for ~77% of ships (1).
- No pipeline delivered bunkers are available.
- One of the largest ore exporting, deep water, ports in Africa, supported by a dedicated rail link which connects to Sishen & Kolomela Mines in the Northern Cape, and the Freeport Saldanha SEZ.
- Saldanha Bay Municipality holds an EA for a 25Ml Seawater Reserve Osmosis Desalination Plant; range ~10km from Port.
- High RE potential from solar & offshore wind.
- CSIR study concluded H2 exports could be cost competitive at US $3/kg before 2030.*
- Potential off-takers incl AMSA, MyCity Bus, port equipment & ground vehicles.**

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**GH2 Markets**

- Green Iron & Steel
- Shipping Fuels
- Mobility
- Exports
- Logistics Gateway
- Manufacturing Hub

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1 Powerfuels 2: Stimulating domestic hydrogen consumption opportunities in South Africa, CSIR, 2022
* See T Roos’ latest presentation before mine ©
** Not exhaustive!
Green Shipping Initiatives

South Africa as a Green Shipping destination

**Lead:** Global Maritime Forum  
**Initiated by:** P4G Getting to Zero Coalition Partnership  
**Participants:** Private & Public sector  
**Dates of study:** 2021, 2022  
**Scope:** Strategic Oppns in South Africa  
**Progress:** Final reports can be accessed here:

Green Bunker Fuels

**Lead:** World Bank  
**Initiated by:** Presidential Climate Commission  
**Consultants:** PRDW, MTBS, CSIR  
**Dates of study:** Nov '22 – Jun '23  
**Next milestone:** Tech Workshop 3 May  
**Scope:** Saldanha as green bunkers location  
**Progress:** Prelim technical report ready 3 May

Maritime Decarbonisation Workgroup (Taskforce 6)

**Lead:** CSIR  
**Initiated by:** Dept of Transport  
**Participants:** FS, TNPA, CSIR etc.  
**Inception:** July 2022  
**Scope:** Taskforce group focused on Maritime Decarbonization through Renewable Energy workstream. It forms part of the Maritime Industry Transport Development Task Force Network.
Green Shipping Initiatives

Green Shipping Corridor Consortium

Lead: Global Maritime Forum
Initiated by: Industry
Partners: Anglo American, Tata Steel, CMB, VUKA Marine, Freeport Saldanha and ENGIE
Inception: Nov ‘22
Progress: Launch Consortium March ‘23
Next milestone: Developing TOR of study
Scope: Explore the options for developing a maritime green corridor for the zero-emission shipping of iron-ore between South Africa and Europe.

Clean Tech Marine Incubation

Lead: Energy Investment Village (EIV)
Initiated by: Saldanha Innovation Campus
Inception: 2022
Next milestone: EIV 2023, Apps close May 23
Cohort of 2022:
- SeaH4 – Biofuels from farmed algae
- ImpactFreeWater – wave energy technology
- Oceanergy – Kite Hydrogen Ships

Green Voyage 2050 Project

Lead: DOT, SAMSA
Initiated by: IMO & Government of Norway
Participants: Public & Private Sector
Inception: January 2023
Next milestone: Identifying South African Pilot Projects
Scope: Transform the shipping industry towards a lower carbon future

Risks of the Green Hydrogen Sector

**SA factors:**

- **Energy Crisis:** How can GH2 markets complement SA’s energy crisis?
- **Competitiveness:** Can SA produce internationally cost-competitive GH2?
- **Urgency:** How can SA respond with urgency & produce as an early mover?
- **Policy & Fiscal Support:** Will the SEZ incentives (or other) extend to GH2 production?
- **Co-location:** RE & GH2 production vs co-location of GH2 production & export infrastructure? How many GH2 activities can fit safely within the SEZ? Where to locate which one first? This may require extension of SEZ boundaries.
- **Inclusiveness:** Justice and inclusion in the GH2 value chain? How can we make sure that citizens’ livelihoods and wellbeing is safeguarded and improved?
- **Infrastructure:** Does the Port’s plans allow for GH2 activities? Mechanism? Timing? How do we plan for common-user/shared infrastructure between pilot and mega-scale projects? And with SBM?

**Global factors:**

- **Off Take Guarantees & Financing:** Who is going to set the 1st mover off take price & risk? How?
- **Standardisation:** Electricity grids are not 100% green. Does the zone and ports need to be 100% green? Leeway for global south countries?
- **Inclusiveness:** Justice and inclusion in the GH2 value chain?
- **Sustainability:** Design circularity from get-go? Trade-offs on project requirements?
- **Climate Risk:** How to incorporate climate risk in spatial planning?