CODE RED SRI LANKA CLIMATE SUMMIT '24

The Ceylon Chamber of Commerce

SAGT SUSTAINABILITY

Port of Colombo
Road to Net Zero

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Port of Colombo

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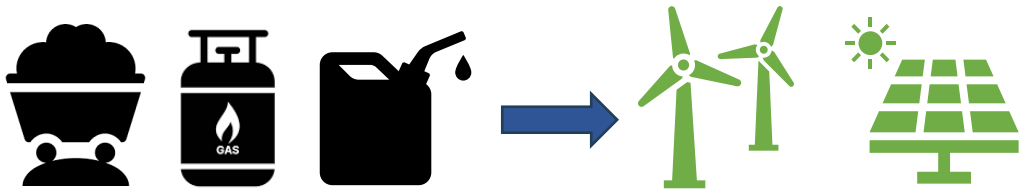
Achieving Net-Zero



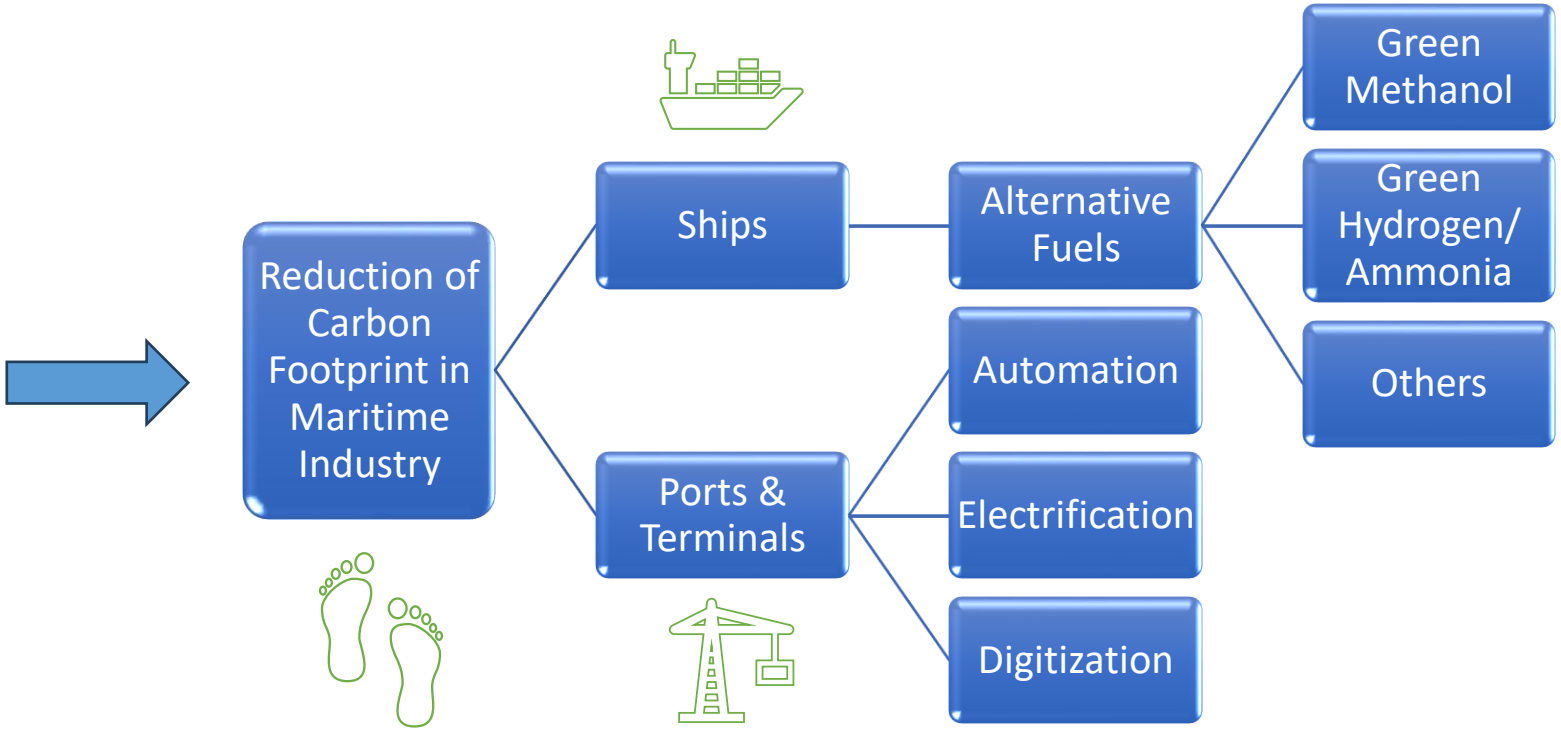
IMO Net Zero Targets

2020
Global upper limit on the Sulphur content of ships' fuel oil to be reduced to 0.50%

2030
40% reduction of CO2 per transport work
5% uptake of zero-emission fuels, striving for 10%

2040
Indicative checkpoint: 70% reduction of the total annual GHG, striving for 80%

2050
Net-zero GHG emissions



Commitments of the Maritime Community

MAERSK

- Net Zero by 2040
- Green Methanol Enabled Fleet
- 70% emission reduction at owned terminals
- Collaboration with industry leaders & innovators
- Electric mini delivery vehicles

CMA CGM

- Net Zero by 2050
- Energy Fund - PULSE
- Dual Fuel Enabled Fleet
- Electric Vans & Trucks
- Logistics warehouses powered by 100% renewable electricity

MPA SINGAPORE

- Electrification of Port Handling Equipment
- Smart Systems & Solutions to avoid idle time
- Energy optimization & Utilization to reduce Carbon Footprint
- Green Electricity

Port of Rotterdam

- Hydrogen pipeline
- Wind Farms
- Hydrogen Manufacturing facility
- Power Grid upgrade
- Shore based power
- Bio Fuel Refinery

DP WORLD

- Equipment electrification & efficiency
- Process efficiency and digitalization
- Renewable energy supply
- Low-carbon fuels
- Carbon compensation

Port of Colombo – where are we now

Port of Colombo (PoC) Operations – Points of high energy consumption

Quay side operations

- ✓ Ship-to-Shore Cranes

Yard Operations

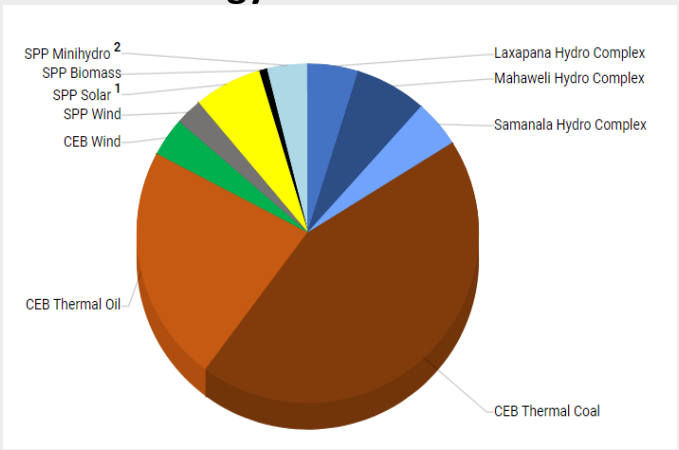
- ✓ Rubber Tyred Gantry Cranes
- ✓ Terminal Trucks/ ITT operations
- ✓ Reach Stackers/ Forklifts etc.

Primary contributors to GHG emissions

Electricity Consumption

Diesel Consumption

Current Energy Generation mix in Sri Lanka

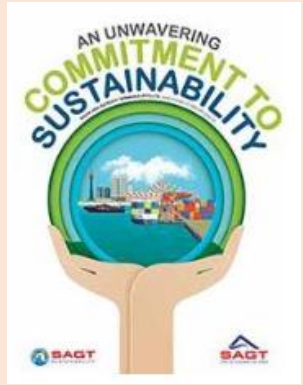


33% from Renewable Energy Sources

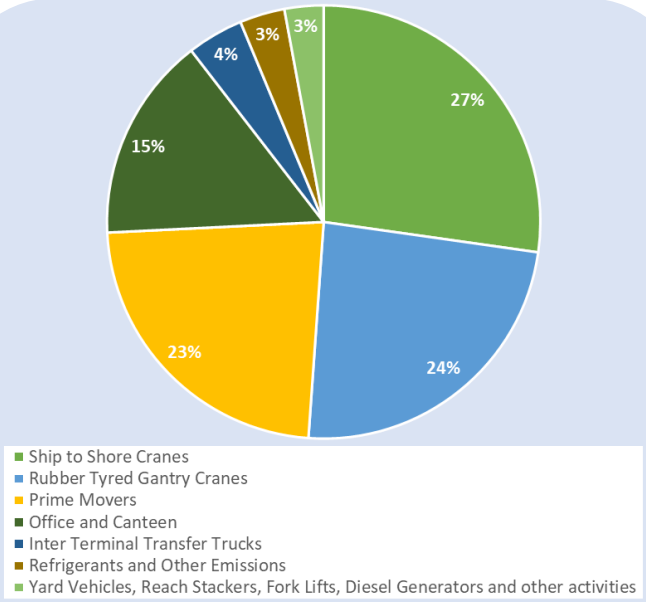
Source: https://www.ceb.lk/?lang=si – as of 5th May 2024

Sustainability Reporting

- SAGT's sustainability journey commenced in 2018 through data tracking and analysis
- Published 4 consecutive independently accredited reports aligned to global reporting standards
- SAGT is the first and to date remains the only terminal at PoC to publicly disclose sustainability performance



SAGT Energy Portfolio (2022/23)



Potential Next steps for PoC

Cold Ironing

Equipment Electrification

Renewable Energy

Sustainability at SAGT

4 Pillared Strategy » Corporate Governance | Social Responsibility | **Environmental Stewardship** | Enabling Work Environment

- Energy and emissions policy focused of decarbonizing operations and conserving energy
- In compliance with the Environmental Protection License (EPL) issued annually by the Central Environmental Authority

Projects and Initiatives – Current

- **Hybrid Conversion of Rubber Tyred Gantry Cranes (RTGs)**
  - ✓ 22 out of 31 cranes converted
  - ✓ 21% reduction in diesel consumption per RTG move
  - ✓ Over 50% fuel saving per machine
  - ✓ 6 more cranes to be converted to hybrid technology

Investment: USD 5.9 million

- **Increasing the utilization of hybrid RTG's for yard operations**
- **Underwriting a feasibility study in green hydrogen for PoC**
- **Conversion of kitchen equipment from LPG to electric**

Projects and Initiatives – Future

- **Electric conversion of equipment (terminal trucks, forklifts)**
- **Solar power installation for the administration building**
- **Gate, quayside and yard automation**

Investment: USD 9.2 million

SAGT's performance for 2018 vs 2023

Carbon Footprint
21k ➡ 15k MT
26% Decrease

Carbon Footprint/ TEU
10 ➡ 9 kg/TEU
10% Decrease

Diesel Consumption
6.1mn ➡ 3.5mn liters
42% Decrease

Power Consumption
12.3mn ➡ 9.4mn kWh
24% Decrease

Towards a Green Port

100% Green Power

- ✓ Revision of CEB act to enable power wheeling
- ✓ Underwrite a renewable energy project for PoC
- ✓ Solar power for PoC

Electrification of Terminal Equipment

- ✓ Convert existing machinery powered by ICE to electric/other
- ✓ New investments to be only electric equipment

Wind Power: Sri Lanka's untapped potential for renewable energy generation

Onshore Capacity: 24-40 GW

Offshore Capacity: 56 GW

- Reduce dependence on fossil fuels
- Contribute towards Sri Lanka's 2050 net zero goal
- Create new grid connectivity with India for export of electricity
- Alternative Fuels (Green hydrogen, Ammonia & Methanol)

https://www.energy.gov.lk/index.php/en/renewable-energy/technologies/wind-power
https://renews.biz/87738/sri-lanka-has-56gw-of-offshore-wind-potential/
https://www.eng.jfn.ac.lk/ice/wp-content/uploads/2022/Conference-Proceedings/Onshore%20Wind%20Energy%20Potential%20in%20Srilanka.pdf

Port of Colombo – Opportunities to leapfrog typical evolution

Large untapped renewable potential combined with deregulation

- 100% Green electricity to all existing and future terminals through novel and creative supply solutions
- Adds to the lustre of future port/terminal investment propositions
- Early achievers of 2030-2040 IMO emissions targets

Competitive positioning to key global Customers

- Emissions from Port operations aligned with Key Customer emission goals for total supply chain – ahead of regional hubs
- Cold Ironing (Shore-Power to ships in Port) using 100% green power

Develop next-gen marine fuels and broadbase maritime offering

- Green Hydrogen value chain
  - Transmission, Conversion, Storage and Sale (Bunker fuel and/or Exports)
  - Opportunities for related fuels – Ammonia, Methanol
- Enhance scope of Port development
  - Reclamation and development marine fuel terminals – storage and Export
  - Broaden bunkering eco-system