

3. Overview of Freight Network



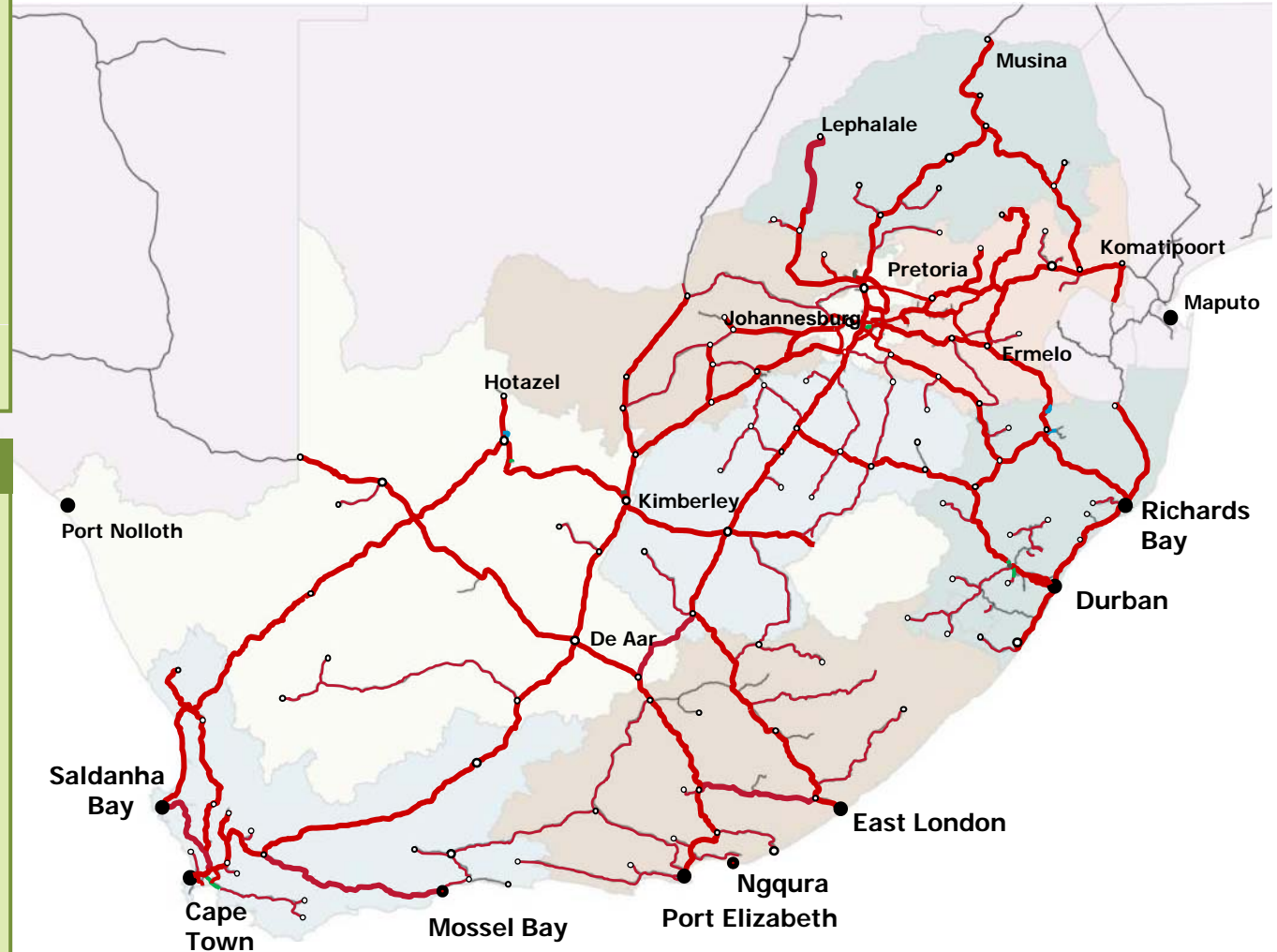
Port and Rail Network

Port Infrastructure

- 9 Commercial Ports
- Complementary grouping into west, central and eastern region
- Older ports reaching capacity
- Potential for growth at newer ports
 - 19 container berths
 - 3 automotive terminals
 - 26 dry bulk berths
 - 39 break bulk berths
 - 13 liquid bulk berths

Rail Infrastructure

- 30 400 km of track
- 20 953 route km
- Core network: 12 801 route km
- Network Electrification:
 - 50kV AC (861km),
 - 25 kV AC (2309km)
 - 3kV DC (4935km)
 - Diesel (11974km)
- Axle loading:
 - Main lines at 22t / axle
 - Coal & ore lines 30t /axle (coal line operated at 26 ton)



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Pipeline Network

Pipeline Infrastructure

Crude Oil line: 580 km

- Design cap = 6,8 bnl/a
- Current cap = 5,2 bnl/a

Refined Fuels line: 725 km + ±1000km network

- Design cap = 3,5 bnl/a
- Current cap = 4,3 bnl/a

Aviation Turbine Fuel line: 94 km.

- Design cap = 1,2 bnl/a
- Current cap = 1,1 bnl/a

Methane-rich Gas Line: ±570km

- Design cap = 23m GJ pa
- Current cap = 17m GJ pa

