Edward Dahlheimer
Senior Engineering Officer
Engineering Services
Water – Process Team
Gladstone Regional Council
Curtis Island
Sewerage Infrastructure
SCOPE

• Overview – Waste Water
• Overview – Power Network
• Power infrastructure
• Conclusion
Power Infrastructure

• Generation system
  – Both generators – common issues
    • Due to time from purchase to install
      – All fan belts and lift pump seals failed
    • Rebuilt off site Feb 2014
    • Had all engine heads machined & replaced
    • Alternators failed
    • Replaced both main C/B
    • Exhaust system replaced
Power Infrastructure

• Generation system
  – G1 issues
    • During Construction
      – Oil leak defect rectified
    • After Construction
      – Engine rear seal replaced
      – Fuel pump failed
  – G2 issues
    • During Construction
      – Faulty fuel pump
      – Perished fan belts overheated engine
    • After Construction
      – Turbo oil line ruptured
      – Diesel cooling line cut by fan failure – bearing
      – Main C/B failed
      – Dropped rod & scored bore
      – Fuel pump failed
      – Thermistor failed on Alt 4 Aug 16
Power Infrastructure

- HV Distribution
  - Damaged during construction
  - Found June 2013
  - Needed specialist to locate then repair
  - Reduced lifespan of cable
  - RMU made in Italy
Conclusion

• As a result of the list of issues
• Investigating different options