The use of asynchronous generators driven by frequency converters, allow shaft generators to operate at variable rpm in generator and motor mode. Different operation modes, optimize the vessels power system:

- Generation mode
- Motor mode
- Booster mode: The shaft generator works in parallel with the main engine

**Diagram:**

- **Main Solutions:**
  - Title: SHAFT_GENERATOR
  - Drawing No.
  - Date: 16.03.2018
  - Scale: NE 1/1

- Key:
  - Orange: Electric Power Flow
  - Green: Mechanical Power Flow

- Components:
  - Main CP Propeller
  - Bow Thruster
  - Frequency Converter
  - Diesel Engine
  - Electrical Connection
  - General Consumers
  - Shore Connection
  - EMERGENCY SWITZHEI CONNECTION