

February 13, 2018

Riyadh, KSA









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Theme of the presentation (8'):

Efficient & sustainable power management





The challenges



- Increase efficiency, reduce production costs
- Fuel flexibility
- Diversify power production
- Flexibility
- Reliability
- Go lean & Green
- Commitment





Turning the challenges into opportunities



Efficiency

SOLAR: 22%

GAS: 35 - 39 %

DIESEL: 37 – 43%

ABC's: 3 to 10 MW

- 47% efficiency
- 185 gr/kwh



Introducing DL36: High efficiency, low consumption













Fuel flexibility

- Diesel, Gasoil
- LPG
- Dual fuel LNG/CNG MDO
- HFO 180
- HFO 380
- Crude oil
- LNG
- CNG
- Methanol





Turning the challenges into opportunities



Diversify Production: Hybrid power plants

- Hybrid solar & gensets: ABC turnkey solutions
 - Concept
 - EPC contracting
 - Full comissioning



















Mauritania (Kiffa) Country:

Hybrid thermal power plant Type of plant:

Fuel: HFO

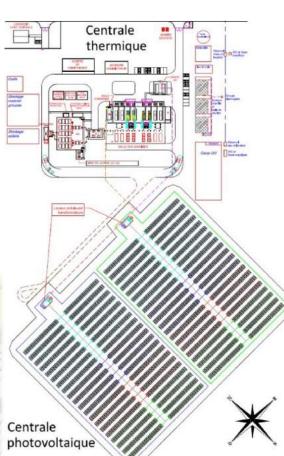
Commissioned: Mid 2016

Main Engines: 2 x 8DZC

2 x 12VDZC

Electrical power: 6,258 kWe









Diversify production







Power plant 20 MW to 200 MW

Projects:

- India
- Oman

- Wind farm
- **HFO Gensets**
- Pumped-hydro storage















Waste to electricity

Dual fuel gas – diesel with only 70% methane content

















Technical details

Algeria Country:

Type of plant: Power supply (containerized)

Fuel:

MDO

Commissioned: Sept. 2007

10 x 12VDZC Main Engine:

Electrical power: 26,5 MWe

10x LSA 54 Generator:









Flexibility: hybrid systems











Hybrid & Power Management Systems



MAIN SCOPE OF SUPPLY





Standard DMU



Optional









(a) (b) (a)



- 38 nuclear emergency diesel generators (DUS)
- 11 different locations in France
- ABC is the first manufacturer in the world to pass the extremely rigorous nuclear qualification tests



Country: France

Type of plant: Power supply for nuclear industry

Fuel: MDO

Commissioning: 2017-2018

Main Engine: 38 x 16VDZC

Electrical power: 133400 kW – 181250 HP

Generator: 38 x JEGSY 100/M/6

Tension: 6,6 kV at 50 Hz







Reliability: the KISS principle...

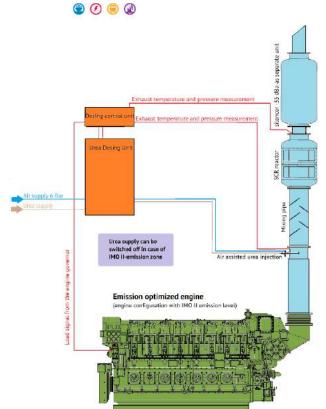


- 100 % mechanically driven engines
- Low cost regular maintenance
- Straightforward operating instructions
- Low consumption
- 25 years reliability guaranteed





Green & lean







4 ways:

- SCR scrubber
- Exhaust gas recirculation
- Dual fuel
- Methanol







Commitment: ABC in a nutshell



- Leading European manufacturer of 4 stroke medium speed generator sets
- Power range between 600 and 10400 kW
- Marine propulsion, power generating and locomotive traction, industrial applications
- Tailormade solutions to your specific requirements
- 85 % of all elements made by ABC. 100% made in Europe. Assembling in GCC.
- ABC engines are reliable and deliver outstanding performance in the toughest conditions
- Low fuel and lube oil consumption, long lifetime, low installation and maintenance costs, less downtime

BENEFIT: lower operating cost and life cycle cost

- Guaranteed availability of spare parts & consumables for the next 25 years in Saudi Arabia and the world
- All classification society approvals such as BV, LRS, RINA, DNV-GL, ABS, ...













- **Enclosures building starting in 2018**
- Spare parts centers in Dammam and Jeddah
- A training center in Riyadh in 2019
- Gensets assembly in 2019
- Engines assembly in 2021 2022

















Thank you

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