Zero Carbon Journey with Danfoss

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WRI Istanbul, 19.11.2019
Four business segments geared for growth

**Danfoss Power Solutions**
- #2 Market position
- 35% of Group net sales
- 7,625 employees
- 25 factories in 12 countries
- 2.1bn EUR annual sales

**Danfoss Cooling**
- #1 Market position
- 27% of Group net sales
- 6,179 employees
- 15 factories in 10 countries
- 1.6bn EUR annual sales

**Danfoss Drives**
- #2 Market position
- 23% of Group net sales
- 4,645 employees
- 11 factories in 7 countries
- 1.4bn EUR annual sales

**Danfoss Heating**
- #1 Market position
- 15% of Group net sales
- 4,898 employees
- 24 factories in 11 countries
- 0.9bn EUR annual sales
Our climate strategy and achievements

**Highlights**

- **Annual energy cost** EURm: 40
- **Annual cost savings** EURm: 9
- **Payback time** Years: 2.8
- **Energy reduction** since 2007: 43%
- **CO₂ reduction** since 2007: 25%

**2030 targets**

- Halve the energy intensity
- Double the energy productivity
- Halve the CO₂ intensity
- All of it compared to 2007

... and we are well on track!
GLOBAL MEGA-TRENDS
transforming our world

DIGITALIZATION
URBANIZATION
FOOD SUPPLY
ELECTRIFICATION
CLIMATE CHANGE
The Sustainable Development Goals tie it all together

• We have the opportunity to work together to develop customer-centric solutions

• Danfoss is an active player when it comes to living up to the SDGs

• We lead by example by combining digitalization, innovation, and energy efficiency to create sustainable solutions

• This not only improves our environmental footprint, but also frees money to be spent elsewhere

• Linking the SDGs and our business supports our growth ambitions
District Energy

From single source to...
MULTI-SOURCE

From fossil to...
RENEWABLES & SURPLUS ENERGY

From high temperature to...
LOW TEMPERATURE DISTRICT HEATING
New Istanbul Airport
HVAC controls by Danfoss

Variable Speed Drives for Air Handling Units, Fans, Jetfans

- Pay-back in less than 17 months

- 17 ay’dan kısa ödeme süresi

- Doğru seviyede havayı doğru zamanda doğru yere ulaştırma

- 1900 adet HVAC cihazı ile

- Yangın Modu acil durumlarda hayat kurtarır

- Sismik koruma sayesinde güvenli havalimanı

- Harmonik standartına tam uyguluk IEC/EN 61000-3-12

- Dahili RFI filtreler Ve DC Şok bobinleri ile hasas ortamlarda dahi parazitsiz çalışma sağlar. 300m dahili kablo mesafesi

- 14.000 adet PIHAV CV valve.
Water and Wastewater
Generating 90% surplus power from wastewater treatment

Aarhus Water WWTP
Denmark
Blowers, pumps, mixers and dewatering pumps

- 35% carbon footprint reduction
- 40% annual electricity surplus
- 2.5 GWh annual heat surplus
- 0.32 kWh/m³ treated wastewater

Uniform water-dedicated technology for flexibility, compatibility, ease of training & service

190% power generation results in 90% annual net surplus
Marine and Offshore
High sustainability for hybrid RORO passenger ferry

CMAL Ferries
Scotland
Diesel-electric battery propulsion

- 38% fuel savings
- 30% more traffic capacity
- Higher reliability
- Meets 2020 air pollution limits
- Reduced noise
- Batteries charge via renewable-energy-based shore power supply

38% less fuel consumption

38% less fuel consumption
Marine and Offshore

Shore supply to rigs ensures fuel savings and cleaner air

CCB Bergen
Norway
Shore power supply

- **5000** liters less diesel consumption daily
- **4500 t** less CO$_2$ and NO$_x$ emission annually
- Easy connectivity
- Prepared for future legal requirements
- Optimal user interface for easy operation
- Optimal cooling

4500 t
Reduction in emissions annually
Refrigeration
Accelerate system payback with best-practice speed control

Drive down total cost of ownership for reefers, cold rooms and all kinds of compressors

Win full traceability, seamless system integration and full motor compatibility

We champion your cause in optimizing refrigeration applications

- Experts at your service
- Specialized range of refrigeration
  - optimized AC drives

Top performer:

- VLT® Refrigeration Drive FC 103
Food and Beverage
Fine-tuning and variant reduction improve line productivity

Cantine Riunite wine bottling line
Italy
Conveyors

- 30% energy savings
- Payback time ~1 year
- 40% less cleaning time
- EHEDG certified hygienic design for food safety
- Efficiency class > IE4
- Variant reduction for leaner warehousing

90% overall system efficiency
When we turn down energy consumption we turn up growth

Energy efficiency can accelerate the economy. According to the European Alliance to Save Energy, we can achieve impressive growth, if we set more ambitious targets for energy efficiency.

Today’s available technology can support:

**Reduced CO₂ emissions**
Europe can reduce CO₂ emissions by 1.5 billion tonnes annually in 2030 – a 30% reduction

**Postponing energy investments**
Higher energy efficiency postpones the need to expand energy production, which could lead to €30 billion investment savings per year

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**More jobs**
A more ambitious policy on energy efficiency can create 1.5 million full-time jobs

**Lower energy use**
By reducing energy consumption, Europeans could achieve a net saving of €200 billion

**Lower energy prices**
The less energy we use, the less we demand. We can by 2030 potentially reduce accumulated energy expenses by €50 billion