The LTDis technology is simple to integrate and highly efficient with low operation and maintenance costs making it a clear choice to achieve significant savings in the medium-long run.

The technology can also be retrofitted to existing plants to optimise processes, without incurring huge investments.

In Summary;

- **Low investment costs**
- **Fresh water** from LTDis is very clean (3-30 ppm)
- **Low maintenance costs** due to a simple and robust process without membrane or tube bundles; limited pre-treatment required
- **Combination with solar power plant possible** due to low temperature and part-load tolerant process
- **Low energy costs**: 0.7-1.5 kWh/m³
- **Use of excess heat** can generate CO₂ benefits

For more information and expert advise, check your local contacts:

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Intelligent Water Management
The patented and award-winning LTDis technology is a thermal process using specially designed direct-contact condensers for effective heat transfer. The process uses low-grade heat from various sources with only small temperature differentials (<10 K) between the heat and re-cooling sources required. The process can also desalinate highly saline feed-water (including brine from existing desalination plants) and is also able to purify polluted water.

**LTDis® by TPTec**

A Typical LTDis Plant

The LTDis plant utilises feed-water from numerous sources:

- **Seawater**
- **Discharge (brine) from existing desalination plants**
- **Industrial wastewater**
- **Polluted water from oil and gas exploration**

**LTDis Unique Offering**

- The thermodynamics are similar to MED, but without the disadvantage of the tube bundles
- There are no heat exchangers in the stages
- There is no phase change on the surface of the heat exchangers
- A unique spraying and control system optimises the efficiency
- Can handle certain amount of oil in feed source without any pre-treatment
- The process is very tolerant to salinity and is not limited to treating seawater, but also polluted water, brine from other desalination plants and various industrial wastewaters, including produced water from oil and gas exploration and mining which could typically be problematic to deal with.

**Type of Feed-water and Applications**

- **Feed water**
- **Heat Source**
- **Evaporator**
- **Condenser**
- **Heat Exchanger**
- **Brine/Salt**
- **Cooling Media**

**LTDis Flow Sheet**
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A Typical LTDis Plant

The plant is typically designed to be simple and robust, yet very effective. It consists of:

- Evaporation and condensation chambers where billions of water droplets form a large, robust and cost effective surface (there are no tube bundles nor membranes)
- External plate heat exchangers (titanium) with no phase change on the surface, thus greatly reducing the risk of scaling, with only limited pre-treatment required
- Pumps (including a vacuum pump), sensors, piping and a control panel

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Type of Feed-water and Applications

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- Discharge (brine) from existing desalination plants
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The Technology

LTDis®

by TPTec

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