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# Direct Molten Salt (DMS®) Concentrated Solar Power technology

FRENELL has published a White Paper which outlines technical and economical key aspects and main applications of its Direct Molten Salt (DMS®) Concentrated Solar Power (CSP) technology.

As a major breakthrough, the White Paper presents how the cost of electricity for DMS® CSP plants can be lowered to 5 to 7 US$Cents per kilowatt-hour when designed for base load power generation with more than 15 hours thermal energy storage.

"Wind power and photovoltaics currently offer the lowest costs per unit electricity. However, due to the volatility of these renewables, they do not entirely cover the power demand curve. Currently, fossil fired power plants are still required to fill the power supply gaps. DMS® CSP plants are able to deliver power on demand but at lower costs than using gas or coal fired power plants. This offers sunny countries the opportunity of a 100% renewable energy power supply at the lowest cost option", says Martin Selig, Chief Executive Officer of FRENELL.

For more than three years now, the DMS® technology has been developed and successfully tested forming the basis of FRENELL's CSP project developments and turnkey EPC offering in various countries of the world's sunbelt. "Transferring proven technologies and components from different industrial sectors and combining them in a highly modular and low cost CSP system was the overarching guideline for our DMS® development", states Dr. Max Mertins, Chief Technology Officer of FRENELL.

The White Paper also includes case studies rendering the most suitable DMS® applications and cost advantages over carbon based power plants in various countries and provides first-hand information to energy policy makers and financial investors.

The White Paper can be downloaded on the FRENELL website from http://www.frenell.de/news/#N1.

FRENELL is a German technology company specialized in manufacturing, engineering and turnkey delivery of utility scale Concentrated Solar Power (CSP) systems. It was established by the founders and managing directors of Novatec Solar to continue the lead in development of cost efficient CSP technology and its market introduction. FRENELL's core business includes not only the manufacturing and turnkey delivery of DMS® solar fields, but also CSP project developments in various target markets. FRENELL's business strategy is to form partnerships with infrastructure investment groups and EPC companies in order to realize DMS® CSP plants for the benefit of emerging countries in the sunbelt and the global climate.

**How does DMS® solar technology work?**
Sunlight is concentrated through the Linear Fresnel collector where parallel rows of flat-glass mirrors reflect direct solar radiation onto a fixed-position receiver unit. Molten salt in the receiver is heated

up to 550°C. The molten salts collecting the daytime energy yield are stored within a Thermal Energy Storage system. The molten salt drives a salt/water heat exchanger to convert the collected heat into steam. The steam drives a steam turbine to generate electricity, which can then be fed into the local grid.

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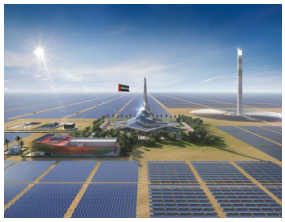

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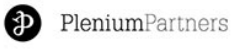
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