

## Linde Nippon Sanso To Power Spain's First Thin Film Solar Plant

*Giant solar panels to increase energy efficiency and lower cost per unit*

**Munich/Barcelona, August, 2008** – Linde Nippon Sanso today announced that it has been awarded the exclusive contract to supply high purity gases to Spain's first thin film solar cell manufacturing plant set up by T-Solar S.A. in Ourense, Galicia (Spain).

Under this agreement, Linde Nippon Sanso will provide T-Solar with turnkey installation of the plant's bulk and special gases supply systems and ongoing delivery of the gases essential to making thin film solar cells. These gases include large volumes of silane and hydrogen gas, used to deposit silicon light absorber layers on large area sheets of glass used in solar panels.

"As the search for renewable energy sources gains momentum globally, Linde Nippon Sanso's collaboration with T-Solar is in line with our mission to enable solar energy to achieve grid parity and become more affordable for mass consumption," said Andreas Guenther, President, Linde Nippon Sanso. "T-Solar's choice of Linde Nippon Sanso as the exclusive supplier reiterates our strengths in advanced gas technologies for thin film manufacturing."

The T-Solar plant, fully operational in mid-2008, is using a new technology that enables the production of giant solar panels – more than five times larger than those currently produced. This thin film manufacturing technology is expected to lower the cost of solar electricity toward grid parity, making solar energy competitive with conventional grid-supplied electricity.

"The first thin film manufacturing plant places Spain among the front-runners in the global solar energy market," said Juan Laso, CEO, T-Solar. "It confirms T-Solar's commitment to making photovoltaic technology a key contributor to a sustainable approach to power generation.

"We view Linde Nippon Sanso as a strategic long-term partner in our efforts to reduce the cost of thin-film solar cells as also minimise the environmental impact of manufacturing these – as we strive to bring the benefits of solar energy to the mass-market," Laso added.

Solar panels have traditionally been made using silicon semiconductor wafers to absorb light. But standard wafer sizes limit panel size, and the amount of solar energy each panel can capture. Thin film solar production has adapted technology originally developed for the production of thin film, liquid crystal displays to create significantly larger panels that can deliver solar energy at a lower unit cost.

### About Linde Nippon Sanso

Linde Nippon Sanso (LNS) is a joint venture of The Linde Group, a leading global gases and engineering group, and Japanese industrial gases company Taiyo Nippon Sanso Corp. LNS, headquartered in Pullach near Munich, Germany, offers gases, turnkey supply systems and services for numerous applications in semiconductor, solar cell, and optical fibre production.

### About The Linde Group

The Linde Group is a world leading gases and engineering company with more than 50,000 employees working in around 100 countries worldwide. In the 2007 financial year it achieved sales of EUR 12.3 billion. The strategy of The Linde Group is geared towards earnings-based and sustainable growth and focuses on the expansion of its international business with forward-looking products and services. Linde acts responsibly towards its shareholders, business partners, employees, society and the environment – in every one of its business areas, regions and locations across the globe. Linde is committed to technologies and products that unite the goals of customer value and sustainable development. For more information, see The Linde Group web site at [www.linde.com](http://www.linde.com)

### About T-Solar

T-Solar is an industrial group based in Spain focused on photovoltaic technologies. In addition to investing in next-generation manufacturing, T-Solar installs and operates its own PV power generation plants. T-Solar is backed by a consortium of independent investors, with Spanish construction, engineering and services company Isolux Corsán Group as the main shareholder. This initiative has also been supported through the collaboration of local government and other institutional investors.

For more information on T-Solar, please click through <http://www.tsolar.eu/>