

## **Monocrystal Launched Ultra-Large 8" Sapphire Wafers for LEDs**

### **Monocrystal Nears Mass Adoption of Solid State Lighting by Advancing on Ultra-Large 8" Wafers for LEDs**

**Stavropol, Russia, August 27, 2008** – Monocrystal, a leader in the synthetic sapphire and other advanced electronic materials markets, announced today that the company launched production of its ultra-large 8" C-plane epi-ready sapphire wafers for LED manufacturing in August.

Monocrystal was able to rapidly ramp up production of the new generation sapphire wafers for LEDs by leveraging its superior technology for large sapphire crystals growing – the company has routinely produced large sapphire crystals that exceed 65 kg since late 2005. Another key factor that helped Monocrystal advance on 8" wafers for LEDs was its proprietary wafer fabrication technology developed earlier in spring for production of the new generation ultra-large 8" R-plane sapphire wafers for RFICs. Monocrystal already shipped its 8" wafers to LED and RFIC customers.

"Being first to market with our ultra-large 8" wafers for LEDs is a clear indication of Monocrystal growing brand's exposure and recognition, its expanding market and technology leadership," stated Vladimir Polyakov, Chairman of the Board of Monocrystal and President of Energomera, the mother company of Monocrystal. «To be successful in a high-tech market, you should truly possess capabilities of a technology leader, and be able to constantly innovate and offer products of the highest quality that meet current and future needs of your clients. Monocrystal exports 90 percent of its production, and is a key supplier for LED and RFIC markets," he concluded.

Over the past few years the solid state LED market has been transitioning from conventionally used 2" wafers to more economically efficient larger diameter 3" and 4" wafers. "The introduction of our 8" wafers reflects growing demand in the global market for larger diameter products. Their availability, coupled with Monocrystal capacity enabling high-volume production of sapphire crystals and wafers of ultra-large diameter, provides our customers with new excellent opportunities to derive benefits of dramatic increase in performance of their production equipment and considerably lower production costs of conventional as well as high-brightness LEDs. It is expected that this will lead to a significant price reduction for LEDs and hence their use will become more economically attractive. That is why we believe that our 8" wafers could be a trigger for mass demand and large-scale adoption of the solid state general lighting – a huge market," said Oleg Kachalov, VP Sales and Marketing of Monocrystal.

The solid state lighting is a “green technology”. Compared with traditional incandescent lamps, it consumes 30% less energy, and its life span is 50 times longer. Thanks to their unique features, LEDs also have become increasingly adopted in other applications, such as architectural lighting, backlighting of computer screens and mobile devices, displays, traffic lights, car lighting and interiors.

Today, increasing demand for energy-efficient and “green” materials, products, and technologies is becoming a solid global trend. The introduction by Monocrystal of its ultra-large diameter sapphire wafers for solid state LEDs is a socially responsible contribution of the company to address growing global concerns of inefficient energy consumption, carbon emission, and use of hazardous materials.

#### **About Monocrystal**

Monocrystal is a leader in the synthetic sapphire and other advanced electronic materials markets. Operating a sapphire crystal growing and wafers fabrication business for more than 20 years, Monocrystal has built its unrivalled expertise and brand recognition in producing top quality large diameter sapphire crystals and ultra-large diameter wafers for LEDs and RFICs, as well as sapphire products for optical and other applications. Monocrystal also produces unique lead-free pastes for ultra-thin mono- and poly-crystalline silicon solar cells. The company exports 90 percent of its production to more than 20 countries around the globe. Monocrystal is the head company of the electronic materials business of Energomera Corp. To know more about Monocrystal, visit [www.monocrystal.com](http://www.monocrystal.com).

#### **About Energomera**

Energomera Corp. is a rapidly growing company that manages a diversified portfolio of market-leading businesses operating in Russia and globally. Energomera’s electrotechnical business dominates Russian electricity metering market enjoying over one third market share by manufacturing and selling meters and metering solutions to Russian utilities. The company’s electronic materials business is the world’s leading producer of synthetic monocrystalline sapphire and composite pastes for high-tech applications, and its agricultural business was named among the top six Russian grain producers for 2004–2006. To know more about Energomera, visit [www.energomera.ru](http://www.energomera.ru).

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