

■ Green is the Next Wave in Flat Panel Displays; DisplaySearch Reports Half of Mainstream Panels Will Be Green by 2011

AUSTIN, TEXAS, January 19, 2009—DisplaySearch reports that in 2008, 20% of FPD shipments had green features, and this share is expected to soar to 70% by 2012 and dominate the market by 2014.

DisplaySearch has created a new topical report dedicated to green FPDs: [Green Technology in Flat Panel Displays: Market Technology and Trends](#). This new report examines environmental regulations, power-saving technologies, eco-friendly components, energy-saving manufacturing processes, and panel structure simplification efforts of the main three kinds of FPD, TFT LCD, OLED and Plasma.

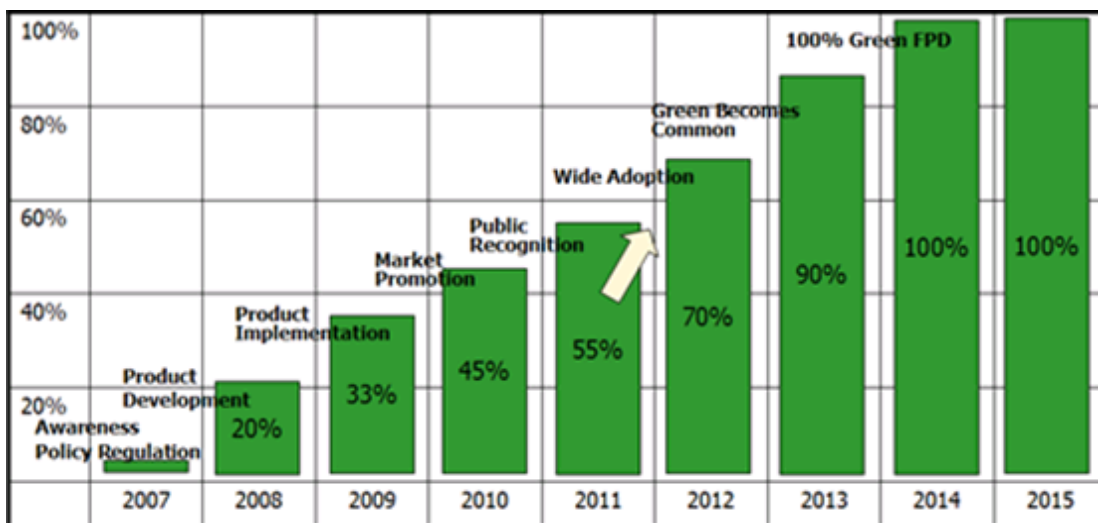
DisplaySearch defines green flat panel displays as those which meet one of the following conditions: using environmentally friendly components and materials; achieving lower power consumption by using new components or technologies; compliant with environmental regulations such as waste disposal; using production processes that reduce energy and materials consumed; completely or partially recyclable after useful life; or use of green or eco-friendly concepts in product design, packaging methods or materials.

DisplaySearch finds that FPD supply chain participants work on green FPD for many reasons:

- Environmental Regulations, like Restriction of Hazardous Substances (RoHS), Waste Electrical and Electronic Equipment (WEEE), Energy Using Products (EuP), Energy Star, TCO and others
- Cost Reduction: While not all green FPD technologies represent cost reductions for panel makers, as long as the technologies improve and more suppliers adopt them, green will eventually lead to lower costs.
- Social Responsibility, such as corporate citizenship in areas including global energy savings
- Prevention of future damages or customers claims

As Figure 1 shows, 2008 was the year of green FPD development, with green panels accounting for nearly 20% of the total \$95.6 billion market for TFT LCD, OLED and Plasma displays. DisplaySearch defines 2009 as the year of green implementation, and panels and end products will be focusing on green promotion in 2010. Green FPD penetration will pass 50% in 2011 and then achieve 100% in 2014.

Figure 1: Green Display Trends



Source: [DisplaySearch Green Technology in Flat Panel Displays: Market Technology and Trends Report](#)

According to [David Hsieh](#), Vice President of DisplaySearch and the author of the report, "Energy savings is a hot topic globally, whether the economy is good or bad. Displays often have the highest power consumption of any component in electronics products." Hsieh continued, "This new DisplaySearch report contains all relevant market and technology information, as well as our analysis of green FPDs. The report also attempts to raise consciousness for a greener display industry."

Regarding TFT LCD, there are currently four methods to implement green displays:

- Green Panel Design, like new cell structures that increase panel transmittance or new technologies like PSA, COA, AMVA and SHA
- Energy-Saving Production Processes, like photomask reduction, ink-jet printing of color filters, roll-to-roll production, and replacement of toxic gases in production
- Green Components, such as glass, color filter, liquid crystal, optical films, driver ICs and LED backlights
- Packaging, like space-saving containers for better transportation efficiency and recyclable packing materials

DisplaySearch defines OLED as a naturally green technology, due to the simpler structure, reduced materials consumption, and lower power consumption. For plasma, there are three ways to implement green: high luminous efficiency, eco-friendly materials with lower EMI, and new manufacturing processes for materials reduction.

The [*Green Technology in Flat Panel Displays Report*](#) also takes a close look at the green activities and technologies adopted by 12 major companies: Samsung, LG Display, AUO, CMO, CPT, Sharp, Sony, Lenovo, HP, Philips, Apple, Dell, Panasonic and LG Electronics.

The DisplaySearch [*Green Technology in Flat Panel Displays Report: Market Technology and Trends*](#) is delivered in PowerPoint. For more information, contact DisplaySearch sales at +1.512.687.1511 or via email at sales@displaysearch.com.

About DisplaySearch

DisplaySearch, an NPD Group Company, has a core team of 59 employees located in Europe, North America and Asia who produce a valued suite of FPD-related market forecasts, technology assessments, surveys, studies and analyses. Visit the [DisplaySearch blog](#) to read about how our top analysts are interpreting up-to-the-minute issues that impact the display industry, and join us in this discussion about technology and the flat panel industry. The company also organizes influential events worldwide. Headquartered in Austin, Texas, DisplaySearch has regional operations in Chicago, Houston, Kyoto, London, San Diego, San Jose, Seoul, Shenzhen, Taipei and Tokyo, and the company is on the web at <http://www.displaysearch.com/>.

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