

LCD TV ASSOCIATION MEMBERS REINFORCE THEIR COMMITMENT TO USHER IN AN ERA OF 'GREEN' LCD TVS

Beaverton, Ore., April 22, 2009 – Member companies of the LCD TV Association (LTA), a global, not-for-profit, marketing trade association formed to help the entire LCD supply chain, retail channel and consumers, today reinforced their commitment to usher in an era of greener TVs.

The LCD TV Association's GreenTV logo program was launched last year in an effort to help focus LCD TV manufacturers and brands on reducing the power consumption of LCD TVs and raising consumer awareness of this important issue. The program currently aims to work with major TV vendors to implement and promote ambient light sensors, which will automatically lower the set brightness in a dark room by decreasing power to the backlight—thus saving energy and actually reducing potential eyestrain as well. This can reduce power consumption by at least 30%, and as much as 60%, in current implementations. Participants in the program are awarded the right to use the Association's unique GreenTV logo on products, packaging, marketing and advertising material to help consumers identify these specifically enabled and wonderfully featured sets. Earlier this year, the group announced that a major global TV manufacturer has recently begun shipping TVs which qualify for its GreenTV logo usage—becoming the inaugural company to do this (see our website at <http://www.lcdtvassociation.org/greentv/certifiedgreentvs.html> for more detailed information).

"We are proud to be at the forefront of helping make LCD TVs better, more energy efficient and in many ways a "greener" product for the world's consumers, and will continue these efforts in conjunction with companies, brands and governmental organizations in the future," noted Bruce Berkoff, Chairman of the LCD TV Association.

In addition to the LTA's effort, below is a sampling of how other member companies including DisplaySearch, Corning, Fusion Optix, Merck KGaA, NOVA Chemicals, Retrevo, Uni-Pixel Displays and Westinghouse Digital Electronics are working toward achieving greener, energy efficient LCD TVs:

Corning (www.corning.com/displaytechnologies)

In 2006, Corning introduced EAGLE XG™ glass substrates for LCD, the industry's first to contain no added heavy metals or halides—allowing increased opportunities for LCD technology to be green before, during and after use. It begins with removing potentially harmful chemicals from the manufacturing process. During ownership, EAGLE XG allows consumers to feel even better about LCD technology, already an energy efficient choice. At the end of the device's useful life, the lack of heavy metals increases the potential for recycling. If all LCDs between now and 2012 were made with an environmentally friendly glass like EAGLE XG, more than 19,000 metric tons of heavy metals would go unused – enough hazardous material to fill over 3,000 dump trucks.

DisplaySearch (www.displaysearch.com).

"Our recent green FPD report concluded that energy savings in display centric electronic devices such as LCD TVs has become an increasingly important issue that display and TV manufacturers are both striving to improve. In 2008, green flat panel displays (TFT LCD, OLED and Plasma displays) accounted for nearly 20% of the total FPD market. Green FPD penetration will pass 50% in 2011 and then achieve 100% in 2014," noted Vice President David Hsieh, Vice President of LTA Member Company, DisplaySearch.

Fusion Optix (www.fusionoptix.com)

Fusion Optix products contribute to greener displays, while enabling green technologies. The company's core technology allows for greener diffusion films used in LCDs: they require less plastic and fewer manufacturing steps, resulting in a smaller carbon footprint. Additionally, their optical films and light guides enable the use of LEDs in LCD backlights; LEDs are mercury-free, highly efficient, and require less power than CCFLs. By adopting a system approach to component design, Fusion Optix has eliminated many of the adoption issues that LEDs face in the LCD market. All of this combined results in energy efficient LCD TVs that have fewer harmful chemicals and a smarter supply chain.

Merck KGaA, Darmstadt Germany (www.merck4displays.com)

Merck, the world's leading manufacturer of high-tech display materials, in particular for LCD TVs, remains strongly committed to sustainability and product stewardship. The company only uses safe and legally compliant substances manufactured by highly efficient and environment-friendly processes. Together with its customers Merck KGaA is strongly involved in the development of new LCD technologies such as 'PSVA' ('Polymer Stabilised Vertical Alignment'), which features a significantly enhanced panel transmission—enabling significantly lower backlight and consequently TV set power consumption for more eco-efficient hence 'greener' LCDs. The company's display materials comply with laws concerning electronic equipment such as EU and Asian RoHSs and voluntary self-restrictions like the Halogen-free initiative of the 'High Density Packaging User Group'. Furthermore, Merck has developed two 'WEEE' (Waste of Electrical and Electronic Equipment)-conform LCD recovery processes that allow almost 100 % recovery and can run in existing industrial waste incineration and precious metal recycling plants.

NOVA Chemicals (www.novachemicals.com)

NOVA Chemicals' ARCEL resin is a high performance foam packaging solution designed to ensure that products withstand the rigors of shipping while creating cube utilization and material source reduction efficiencies that reduce environmental impact throughout the supply chain leading to a positive customer brand experience at a lower total cost.

Retrevo (www.retrevo.com)

A recent [Gadgetology report](#) from Retrevo.com revealed some discouraging news about consumers' willingness to buy green electronics. The study found that although consumers feel buying environmentally-friendly products are important, less than half said they were willing to pay a premium for them. Retrevo figured they had better do something to help educate consumers about the importance of buying green electronics and saving energy with gadgets. They developed a [Survival Guide to Greener Living](#) that explains how to spot a green gadget along with information about rating agencies. They include some helpful tips on buying and using green electronics. Retrevo believes everyone needs to do their part to help the environment.



UniPixel Displays, Inc. (www.unipixel.com)

Uni-Pixel Displays, Inc. is vigorously continuing its development work on its revolutionary new TMOS display technology. TMOS offers LCD display panel manufacturers the ability to build better performing displays at significantly lower cost. One of the performance improvements is a vast reduction in the power consumed by the display. This power conservation has the potential to dramatically reduce the power consumed by televisions in the U.S. The chart below shows the direct power savings potential for various panels, and the cumulative effect had TMOS been the basis for TVs since 2002.

Diagonal (in.)	Resolution	Luminance (cd/m ²)*	LCD (Watts)**	TMOS (Watts)**
3.5	480x320	441	0.45	0.14
8.9	1024x600	300	2.66	0.72
12.1	1280x800	203	4.49	1.20
13.1	1366x768	224	5.11	1.36
13.3	1280x800	313	6.50	1.71
15.4	1440x900	309	8.57	2.25
24	1920x1200	346	38.88	10.19
46	1920x1080 1080p	140	70.05	18.88
55	1920x1080 1080p	131	121.74	32.31
55	1920x1080 1080p	150	104.24	27.91

*Actual measured values from LCD panels at full white

** Calculated using typical video content = average 30% of full white



A great TV in every room!



Westinghouse Digital Electronics (www.westinghousedigital.com)

All 2009 Westinghouse Digital Electronics LCD HDTVs are Energy Star 3.0 compliant. The company's new 26" and 32" LCD HDTVs feature a 33% or more decrease in energy consumption from its 2008 HDTV lineup. All Westinghouse LCD HDTVs feature recyclable packaging and are RoHS compliant. The TVs feature a reduced product packaging volume and we are able to fit more TVs into containers for transportation--resulting in fuel cost savings and lowering our transportation carbon footprint.

For more information on the LCD TV Association, it's membership, or to join, please visit us on the web at www.LCDTVAssociation.Org or email us at membership@lcdtvassociation.org.

About the LCD TV Association:

The LCD TV Association is a global, non-for-profit marketing trade association, formed to help the entire LCD supply chain and retail channel through to the end consumer via various communication tools, including speeches, interviews, sponsored research, as well as industry newsletters, meetings and standards settings—resulting in information distribution. Participating at the many industry trade and consumer shows around the world to help promote members' interests, as well as creates better LCD TVs for everyone. We encourage and engage in discussions to promote the industry overall, as well as helping foster healthy competition and create better products with higher value propositions for consumers and retailers alike. The LCD TV Association can help fight the growing "specsmanship" in trade publications and refocus conversations on true image quality and understanding for consumers, and help the whole LCD TV ecosystem to improve and thrive. For more information on the LCD TV Association, it's membership, or to join, please visit us on the web at www.LCDTVAssociation.Org.

The LCD TV Association's "Sustaining Member" companies currently include Amtran, Corning, DisplaySearch, Dolby Laboratories, the Flex Tech Alliance, Fusion Optix, Global Lighting Technologies, LG Display, LG Electronics, LG Innotek, Luminus, Merck KGaA, NOVA Chemicals, RallyPoint, Retrovo, Unipixel, Veritas et Visus, Vizio and Westinghouse Digital Electronics.

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