Energy and Cost Savings from LED-Backlit LCD TVs Not Communicated to Consumers

SANTA CLARA, CALIF., July 18, 2011—According to an analysis in the DisplaySearch Q2'11 *Quarterly TV Design and Features Report* [1], brands are missing an opportunity to market LED-backlit LCD TVs based on cost savings. Analysis of electricity and TV prices together with power consumption data reveals modest payback times for low-energy TVs. There is a strong case for consumers to choose LED-backlit sets when replacing their TV, given the energy savings advantages.

DisplaySearch investigated whether the cost savings from lower energy consumption outweigh the increased purchase price of LED-backlit LCD TVs. In comparing CCFL and LED-backlit 40" LCD TVs, basic configurations and Energy Star certified, LED-backlit sets were found to have lower life-cycle costs, under reasonable lifetime assumptions, even in the US. The payback time for an entry-level LED-backlit TV is under four years in California, and under two years in Europe.

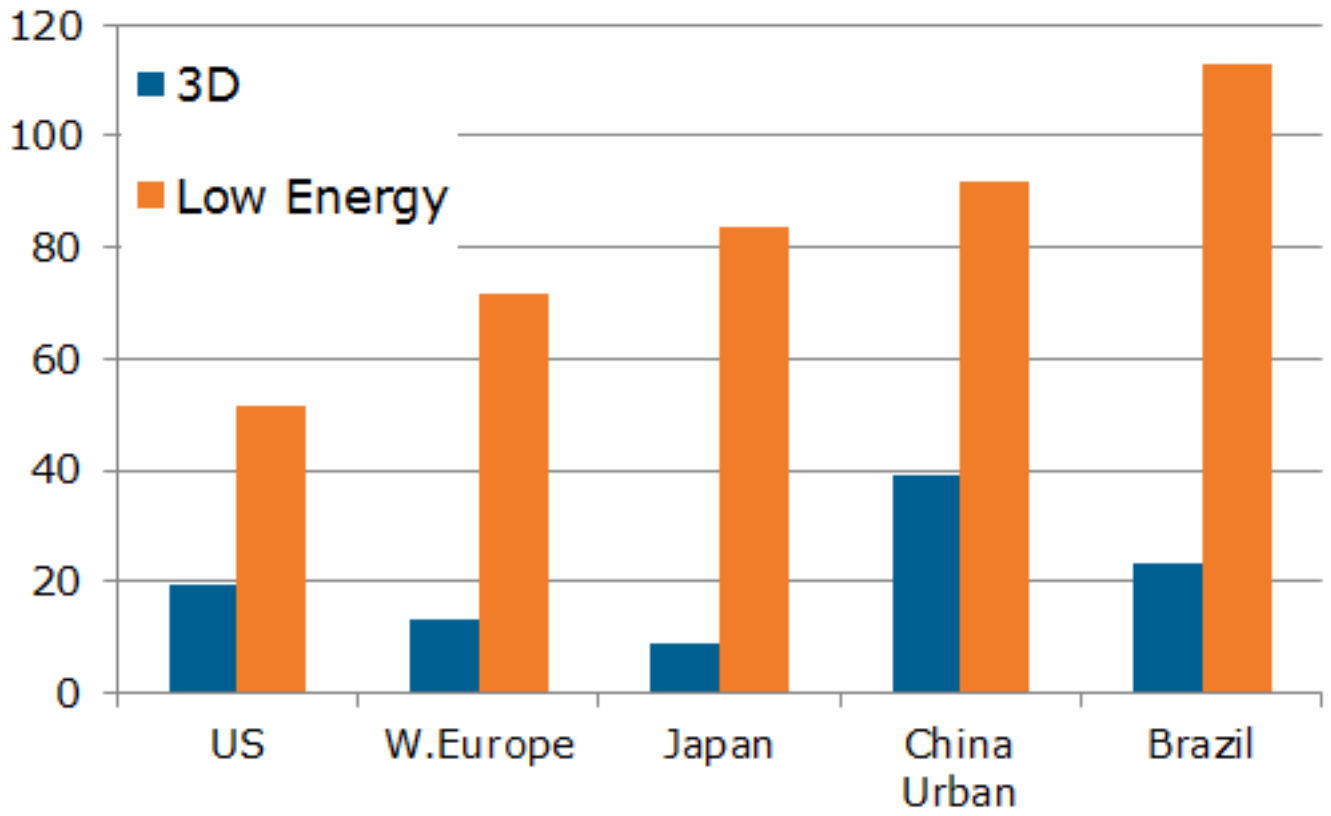
Figure 1: Payback Time for Entry-level LED-backlit TV in Comparison to CCFL-backlit TVs

Region	Payback Time (Years)
US (California)	3.8
US Average	5.1
China	12.2
Western Europe	1.9

Source: DisplaySearch Q2'11 *Quarterly TV Design and Features Report* [1]

Paul Gray, DisplaySearch Director of TV Electronics Research, noted "The benefits are clear, and it is surprising that TV set makers do not market this advantage. Consumers are attuned to fuel consumption in cars, and our *Global TV Replacement Study* [2] showed they are equally mindful of electricity usage when choosing a TV. When compared to 3D, the survey revealed far heavier consideration for energy consumption than 3D."

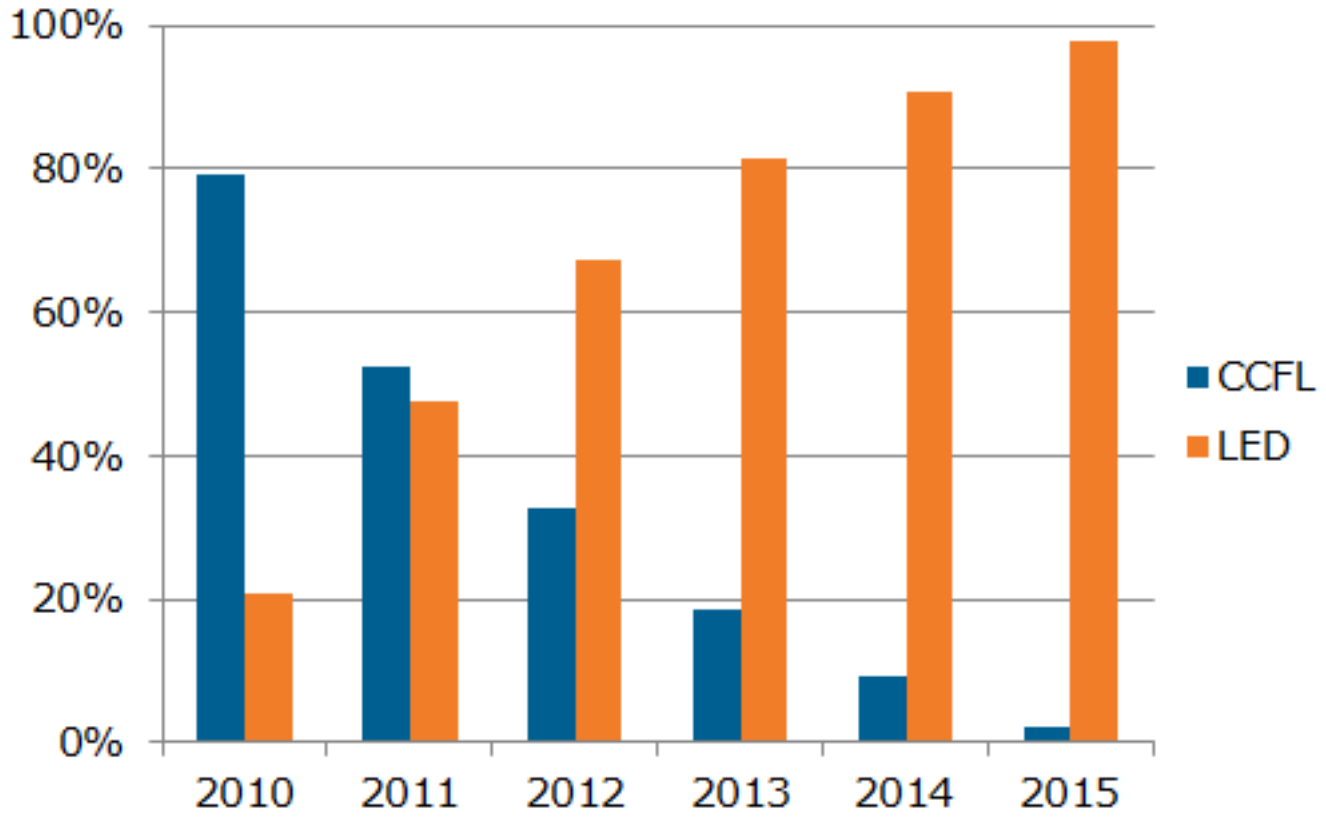
Figure 2: Consumer Consideration of 3D and Energy



Source: DisplaySearch Q2'11 ***Quarterly TV Design and Features Report*** [1]

In the DisplaySearch *Global TV Replacement Study* [2], research was carried out on over 1,000 people per country. In most countries, lower power emerged as a stronger purchase motivator than LED backlights, but the connection between the two is not being made. Set makers seem to be failing to establish the connection or make the case for power, and thus cost savings, in their LED-backlit products.

Figure 3: LED Backlight Forecast Share in LCD TV



Source: DisplaySearch Q2'11 *Quarterly TV Design and Features Report* [1]

The DisplaySearch *Quarterly TV Design and Features Report* [1] is a quarterly update of the issues and rapid shifts in TV feature developments. The 250+ page report examines and forecasts video processor and signal processing IC market development, including 120/100 and 200/240 Hz frame rates as well as market shares for major IC vendors. In addition, the report also features forecasting for MPEG-4 decoding and the digital broadcast environment around the world, including a forecast for DVB-T2; TV connectivity, such as wired and wireless networked TVs; LED backlighting; 3D-capability and implementation; remote controls and chassis design; and power consumption.

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[1] http://www.displaysearch.com/cps/rde/xchg/displaysearch/hs.xsl/quarterly_tv_design_features_report.asp
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