

TV Energy Regulations Drive Continued Industry Support for 3M Dual Brightness Enhancement Films in LCD TVs

Company's DBEF Film Reduces LCD TV Power Consumption by 32%, While Reducing Overall Bill of Materials

TV manufacturers are continuously seeking ways to differentiate their low power technology solutions, without sacrificing visible display quality. TV sizes are getting larger, and TV usage is on the rise, with consumers watching more television, DVDs and playing video games. As a result, energy consumption has gone up dramatically. TV technology continues to improve and prices are falling, so consumers no longer have to choose between picture quality and cost.

With increasing pressures from both TV energy regulations and product labels from the EuP, California Energy Commission, Energy Guide, ENERGY STAR, and CNIS in China the LCD TV supply chain continues to play an increasingly critical role in reducing power consumption in LCD TVs.

In September of 2010, the European Commission finalized requirements for a consumer television labeling program, and manufacturers may begin to voluntarily label their products as soon as the legislation publishes (target Q1 of 2011). Manufacturers will be required to label their products one year after the legislation publishes (target Q1 of 2012). This labeling directive program has been in place for household appliances for a number of years, and European consumers will now be able to differentiate TVs based on the amount of energy that they consume.

Similarly, the FTC is targeting the launch of Energy Guide labels for TVs in the US in the middle of 2011. These labels will provide visibility of TV power consumption to consumers in a commonly understood format.

With the success of the ENERGY STAR 4.1 Televisions program launched in May of 2010, the EPA is already considering revisions to either the timing or requirements for ENERGY STAR 5.1 Televisions. Regional utility incentive programs in the U.S. are also tightening compliance thresholds below that of the currently published ENERGY STAR 5.1 requirements.

"As more TV energy regulations around the globe are going into effect, it's becoming increasingly important to improve energy efficiency without compromising the viewing experience that consumers have become accustomed to," noted Jim Bauman, vice president of 3M's Optical Systems Division.

Bauman continued, "Our DBEF products will continue to enable LCD TV manufacturers to develop new products that meet today's demand for improved energy efficient LCD TVs with unprecedented image quality, display brightness, wider viewing angles, all within a thinner form factor."

"TV manufacturers are constantly re-inventing their TV product offerings with new technology innovation," noted Norman L. Dean, President and Executive Director of [TopTen USA](#), a non-profit that ranks consumer products according to efficiency. "At the same time, energy efficiency in TVs remains a top priority. They now face the challenge of reducing power consumption in TVs, while upholding the high standards they have set for their products in terms of brightness and picture quality from all angles," Dean added.

3M's award-winning¹ Dual Brightness Reflective Polarizer (D3-340) technology improves the efficiency of LCD TVs by recycling polarized light. The film allows manufacturers to eliminate light sources and reduce the power infrastructure, making the TVs more energy efficient without sacrificing display performance or picture quality at all viewing angles, unlike prismatic enhancement films. As a result, LCD TV energy consumption is cut by up to 32 percent—requiring fewer light sources, eliminating the diffuser sheet and reducing the overall bill of

materials. The ultimate result is thinner LCDs and LCD TV form factors.

For TopTen USA's ranking of the most efficient televisions, go to www.toptenusa.org.

About 3M Optical Systems Division:

3M Optical Systems Division designs and manufactures brightness enhancement films for electronic displays. The company's films, found inside LCD TVs, notebook PCs, monitors, as well as handheld devices, improve a display's visual appearance by making it brighter, more colorful and sunlight readable. The films also make LCDs more energy efficient. Other division products include privacy filters for notebook PCs and protective films for displays.

About 3M

A recognized leader in research and development, 3M produces thousands of innovative products for dozens of diverse markets. 3M's core strength is applying its more than 40 distinct technology platforms – often in combination – to a wide array of customer needs. With \$23 billion in sales, 3M employs 75,000 people worldwide and has operations in more than 65 countries. For more information, visit <http://www.3M.com> or follow @3MNews on Twitter.

1. 3M DBEF Alliance to Save Energy Award 2009

3M is a trademark of 3M.

For 3M:SAVVY Public Relations Stacey Voorhees-Harmon, 925-336-9592 E-mail:
stacey@savvypublicrelations.net

<https://news.3m.com/2010-11-23-TV-Energy-Regulations-Drive-Continued-Industry-Support-for-3M-Dual-Brightness-Enhancement-Films-in-LCD-TVs>