

Digital TV Going Green

By Randy Lawson, Senior Analyst

Forecast

Frequency, Time Period

- 5-year annual

Measures

- Annual energy consumption of TVs by TV technology type
- LED backlight adoption for LCD TV
- Energy savings potential of ENERGY STAR
- Comparative energy consumption limits of competing standards
- Annual power-related semiconductor forecast for TVs

Regions, Markets

- Worldwide, North America, Japan, Europe

Detail Level

- By TV technology (LCD, PDP, RPTV, CRT)
- Power semiconductor by type (voltage regulators, power transistors, rectifiers)
- LED semiconductor revenues by: Control ASIC, LED driver ICs, LED units

Applications/Products Covered

- Digital and Analog TVs of all technology types (PDP, LCD, DLP, CRT)

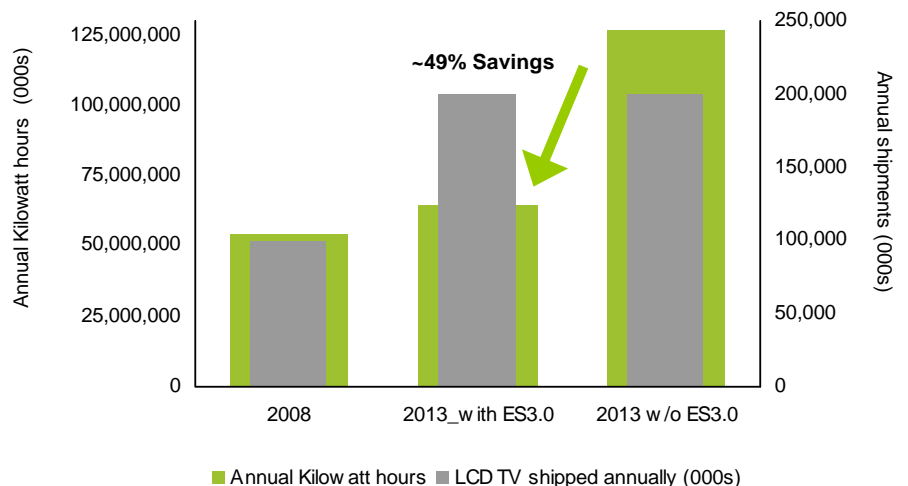
Technologies Covered

- LCD TV backlight designs
- LED backlights for flat panel TVs
 - Direct-lit type
 - Edge-lit type
- LCD optical materials
- Video processors for DTV
- Ambient light sensors

The “green” movement is a popular theme right now in the CE industry, and is especially relevant to the television market given the vast market changes that have occurred in just the past five or six years—changes which show no sign of slowing down. Sales of once-dominant CRT models have rapidly dwindled in the face of continually dropping LCD and plasma panel costs and as retail prices have fallen below \$1000 for popular screen sizes across the globe. This rapid change in deployed TV technology across the globe carries the potential to impact household energy uses and increase energy requirements substantially. With no restrictions directed at TV on-time energy demand, the worldwide demand for energy to power those flat panel TVs entering the market will expand dramatically by 2013, more than doubling the annual new-energy demand that entered the market in 2008.

This quarter’s Display Electronics topical report examines the evolving energy consumption standards being applied to televisions around the world and what the likely impact is to both the TV market and the underlying electronics and semiconductors used in new flat-panel, high-definition TV displays.

Energy Savings Estimate for LCD TV, 2008 vs. 2013



Critical Questions Answered

- How will regional differences in energy standards impact the TV market?
- Which TV technologies are the most energy efficient?
- How will energy demands change over the next five years as a result of the market dominance of flat panel TVs?
- How are energy standards evolving within the digital TV market?
- Which standards and regions will require mandatory compliance versus voluntary?
- What methods will be used by TV and Panel manufacturers to increase the energy efficiency of future models?

Who Should Read This?

- DTV semiconductor manufacturers
 - Marketing
 - Market intelligence
 - Sales
 - Product definition & system engineers
- TV OEM & ODM manufacturers
 - Marketing
 - Procurement
 - Product definition & system engineers
- Financial community

Lead Analyst**Randy Lawson, Senior Analyst**

Randy comes to iSuppli with extensive industry experience in semiconductor design and applications for consumer electronics and DTV systems. He spent over 15 years with Texas Instruments in various engineering design, product definition and management roles. He began his career in display electronics design, afterwards moving to PC and CE connectivity applications and technical marketing. He has also been involved in both chip level and DTV systems design, helping lead teams that developed some of the first 1394 devices that supported DTCP content protection and high speed networking applications. Randy worked as a systems engineer on the recent Slim DLP program focused on both China and U.S. markets. His most recent role was as an engineering Program Manager with Texas Instruments DLP TV group.

Randy is an alumni of the University of Tennessee and holds a Bachelor of Science in Electrical Engineering.

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