

Daryl Hatano

**Vice President for Public Policy
Semiconductor Industry
Association**



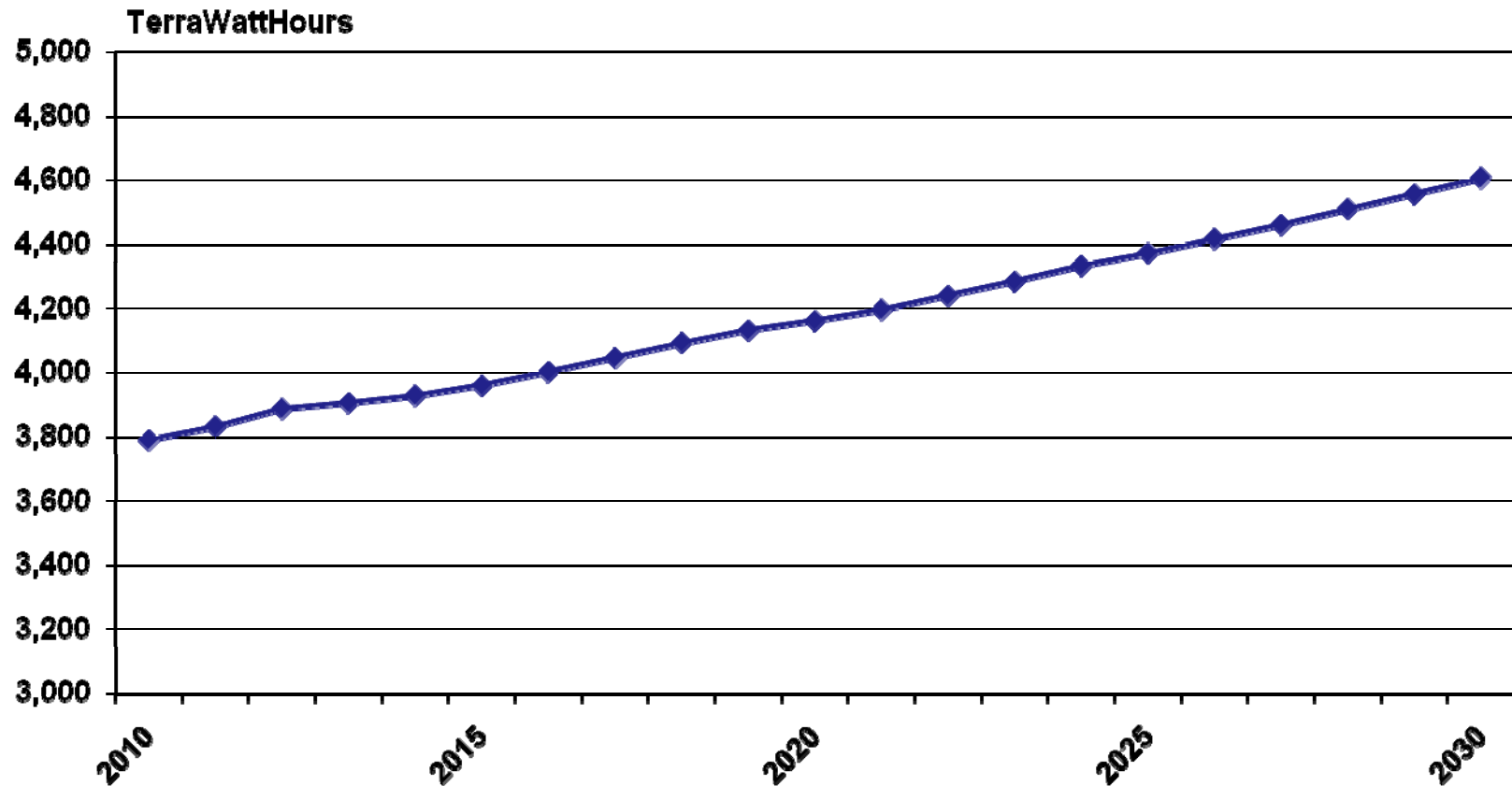
**New York, NY
March 13, 2009**



Upcoming ACEEE Study Builds On Past Studies Finding:

- ❖ For every kilowatt hour of electricity consumed by information technologies over the period 1949-2006, an estimated 8.6 kWh were saved economy-wide.¹
- ❖ A sizeable percentage (15-20%) of U.S. electricity can be saved by optimizing the performance of motor systems.²
- ❖ Using state-of-the-art technologies and practices to improve the energy efficiency of servers and data centers would reduce electricity use by up to 55 percent compared to current efficiency trends – representing annual savings in 2011 of approximately 74 TWh, the equivalent of up to 15 new power plants.³
- ❖ Estimated 3.9 million telecommuters save 840 million gallons of gas per year, equal to 10-14 million tons of CO2 reduction.⁴
- ❖ Potential savings of 1272 TWh, or 32% below “business as usual” trend line, is technically/economically possible in residential and commercial buildings by 2030.⁵
- ❖ A savings of 398 TWh, or 8% reduction in projected consumption, is realistically achievable by 2030.⁶

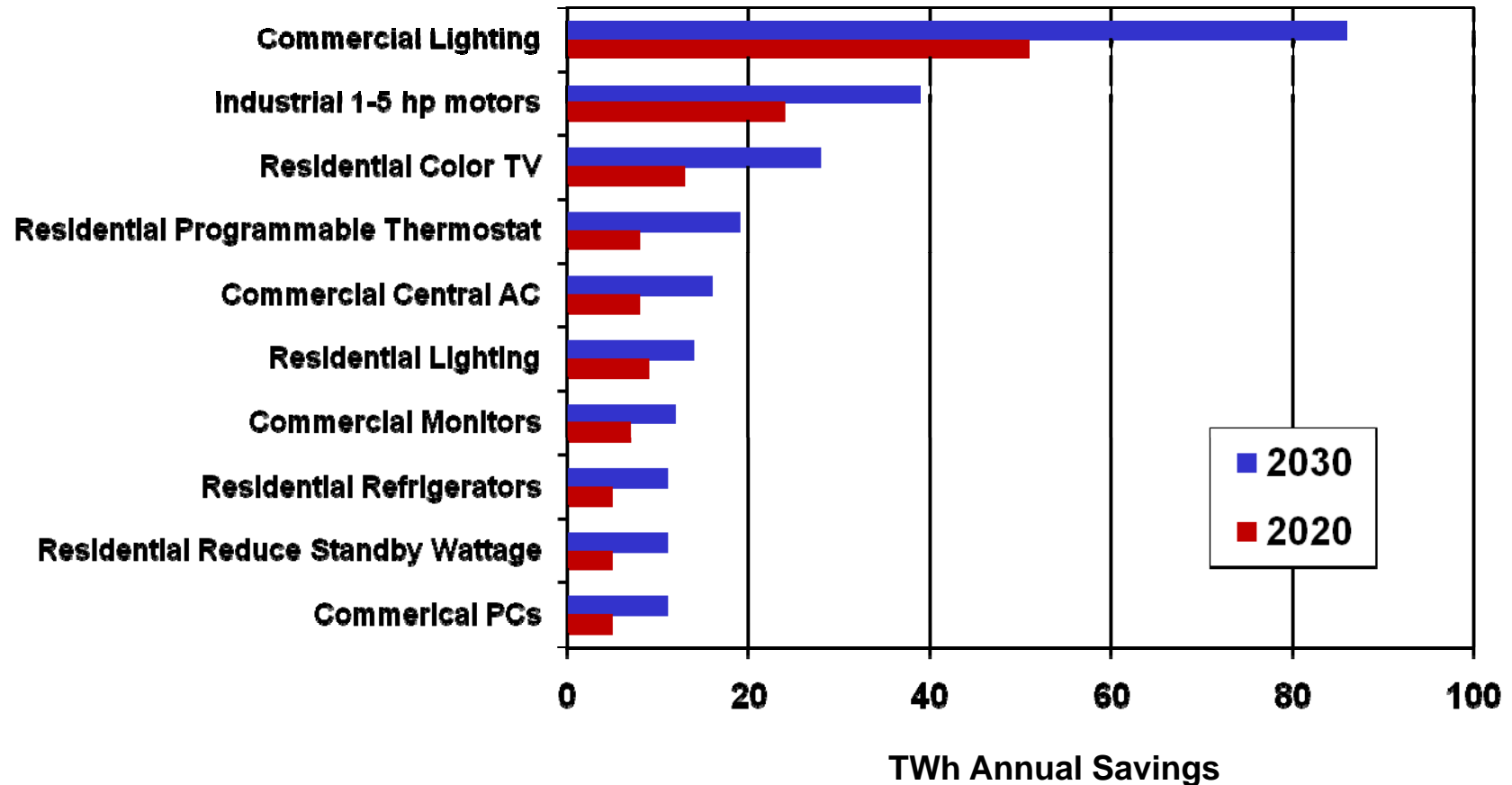
Department of Energy's Annual Energy Outlook Projection Used As Reference



Source: EPRI "Assessment of Achievable Potential from Energy Efficiency and Demand Response Programs in the U.S. (2010-2030). 2009.



Semiconductors Enable Savings In EPRI Identified Highest Potential Efficiency Opportunities



Source: EPRI "Assessment of Achievable Potential from Energy Efficiency and Demand Response Programs in the U.S. (2010-2030). 2009.



Sources

1. **For every kilowatt hour of electricity consumed by information technologies over the period 1949-2006, an estimated 8.6 kWh were saved economy-wide.** -- Laitner, John A. "Skip," and Karen Ehrhardt-Martinez. 2008. "Information and Communication Technologies: The Power of Productivity, How ICT Sectors Are Transforming the Economy While Driving Gains in Energy Productivity". Washington, D.C.: American Council for an Energy-Efficient Economy.
2. **A sizeable percentage (15-20%) of U.S. electricity can be saved by optimizing the performance of motor systems.** Nadel, Steven R., Neal Elliott, Michael Shepard, Steve Greenberg, Gail Katz, and Anibal T. Almeida. 2002. "Energy-Efficient Motor Systems: A Handbook on Technology, Program, and Policy Opportunities," Second Edition. Washington D.C.: American Council for an Energy-Efficient Economy.
3. **Using state-of-the-art technologies and practices to improve the energy efficiency of servers and data centers would reduce electricity use by up to 55 percent compared to current efficiency trends – representing annual savings in 2011 of approximately 74 billion kWh, the equivalent of up to 15 new power plants.** U.S. Environmental Protection Agency, 2007, "Report to Congress on Server and Data Center Energy Efficiency Public Law 109-431," Washington, DC.
4. **Estimated 3.9 million telecommuters save 840 million gallons of gas per year, equal to 10-14 million tons of CO2 reduction.** TIAX, LLC. 2007. "The Energy and Greenhouse Gas Emissions Impact of Telecommuting and e-Commerce." Report prepared for the Consumer Electronics Association. Cambridge, Mass.: TIAX, LLC.
5. **Potential savings of 1272 TWh, or 32% below "business as usual" trend line, is technically/economically possible in residential and commercial buildings by 2030.** Brown, Rich, Sam Borgeson, Jon Koomey, and Peter Biermayer. 2008. "U.S. Building Sector Energy Efficiency Potential." LBNL Report-1096E. Berkeley, CA: Lawrence Berkeley National Laboratory.
6. **A savings of 398 TWh, or 8% reduction in projected consumption, is realistically achievable by 2030.** EPRI 2009. "Assessment of Achievable Potential from Energy Efficiency and Demand Response Programs in the U.S.: (2010–2030)." Report 1016987. Palo Alto, CA: Electric Power Research Institute.