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ITI/Technet Computer presentations

Additional submitted attachment is included below.

CEC Workshop
ITI and TechNet Comments

Chris Hankin, Senior Director
Information Technology Industry Council (ITI)
April 15, 2015

ITI and TechNet Presentations

Opening comments: Chris Hankin, ITI

Computers:

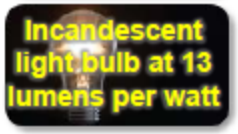
- Broad customer/product impact – Mark Hollenbeck, HP
- PCs - Methodology/Framework – Shahid Sheikh, Intel
- Cost Effectiveness/Technical Barriers – Gary Verdun, Dell
- High Performance PCs – Donna Sadowy, AMD

Displays:

- Broad customer/product impact – Mark Hollenbeck, HP
- Cost Effectiveness/Technical Barriers – Gary Verdun, Dell

Closing comments: Gabriele Peterschmidt, HP

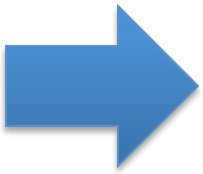
Increasing Performance and Productivity

	1960	2010	Improvement
Electricity Generation	 10,780 Btus per kWh of electricity	 9,980 Btus per kWh of electricity	8 percent
Automobiles	 14.3 miles per gallon of gas	 22.6 miles per gallon of gas	58 percent
Labor Output	 20.6 dollars per working hour	 59.4 dollars per working hour	188 percent
Passenger Airlines	 8,836 Btus per passenger mile	 2,917 Btus per passenger mile	196 percent
Lighting	 Incandescent light bulb at 13 lumens per watt	 Compact fluorescent lamp at 57 lumens/watt	339 percent
Computer Systems	 0.015 instructions per second per watt	 40,000,000 instructions per second per watt	266,666,666,600%

Source: Skip Laitner, ACEEE, various calculations, January 2011

Many industries located in California require additional compute capabilities provided by lower volume higher performance products:

- Aerospace
- Electronics
- Financial
- Manufacturing
- Mining
- Oil & Gas
- Entertainment (Movies & Film)



I. Lifelike 3D animation
II. Renderings
III. Video editing
IV. Digital content creation
V. Live streaming
VI. Complex analytics for oil and gas reserves and recovery
VII. Modeling and design for space craft, military, etc.
VIII. Processing financial transactions

Value to the business of work done is orders of magnitude greater than the energy costs in these platforms.

The Intelligent Efficiency Opportunity

"If homeowners and businesses were to take advantage of currently available information and communications technologies that enable system efficiencies, the US could reduce its energy use by about 12-22% and realize tens of hundreds of billions of dollars in energy savings and productivity gains. In addition, there are technologies that are just beginning to be implemented that promise even greater savings."

-- ACEEE, 2013, "A Defining Framework for Intelligent Efficiency"

THANK YOU