

## DOCKETED

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**June Deep Dive Mtg, ITI/Technet Computers Presentation -- Hewlett Packard**

submitted in behalf of ITI and Technet

*Additional submitted attachment is included below.*

# Integrated vs Discrete Graphics Demonstration

- Higher End Desktop Computer that does not meet the Workstation definition but does support ECC memory
- Highly configurable
- Business/commercial customers ex: public schools, higher education, businesses using computer assisted design
- Not sold in retail stores.
- Most computer suppliers represented have a model like the one shown with very similar TEC measurements.
- The TEC for this type of computer is considerably lower than a Workstation that supports the same type of discrete graphics.
- The lower TEC, size and price point of this computer model is appealing to customers that would prefer not to buy a workstation to achieve the same graphical capability.

	<b>CONFIGURATION 1</b>	<b>CONFIGURATION 2</b>
Processor	Intel Xeon E3-1246, 3.5 GHz, 8M, 4 Core CPU	
Graphics	<b>Integrated Graphics</b>	<b>NVIDIA Quadro K620</b>
HDD	1TB 7200 RPM SATA	
Memory	16GB DDR3-1600 nECC RAM	
OS	Microsoft Windows 7 Pro 64-bit OS	
Power Supply	240W, 92% efficient	
CEC Total Energy Consumption (TEC) Limit	66 KW-Hr/Yr	
Total Energy Consumption (TEC)	98 KW-Hr/Yr	140 KW-Hr/Yr
Configuration (TEC) exceeds CEC (TEC) limit by:	<b>32 KW-Hr/Yr</b>	<b>74 KW-Hr/Yr</b>

# Integrated vs Discrete Graphics Demonstration

- The benchmark being run is an industry standard SPEC 12. The workload being shown is the SW-03.
- The workload has a composite score of 21 and takes 6 minutes to complete for Configuration 1 and a composite score of 63 and takes 3 minutes to complete for Configuration 2. The difference in performance is due to the G5 graphics card.
- Product efficacy is greatly reduced without the use of a discrete graphics card.