Energy Efficient High Performance Computing Working Group Survey Results
Updated July 3, 2009
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- 43 people have responded (see list) – a high response rate
- Over half (25) represent nine DOE laboratories
- 10 people offered to help organize activities of the working group and 8 of those were from DOE labs
- The group is evenly split between Facilities personnel and IT and computing science personnel – some claimed multiple job functions. 4+ suppliers are represented and several claimed "other."
- All respondents agreed to share contact info (one dissenter agreed after a call)
- E-mail and conference calls were the strong preferences for method of communication. Webinars and a collaborative web space were neck-and-neck in third and forth place.
- The most popular topics in order of preference (weighted):
    1. **Energy efficient design guidelines and specifications for super computer centers**
       Few volunteered to help but LBNL is working with FEMP to develop a design programming guide, and this will be shared with the Working Group.
    2. **Best practices, case studies, and lessons learned in design of super computer centers**
       This was a close second, but also got few volunteers. NREL will be developing a best practice guide and LBNL will be developing a case study in 2009. These and other lessons learned canned be shared perhaps via a webinar.
    3. **Computer center (infrastructure) energy performance metrics and benchmarking**
       This was a close third and had a number of volunteers to help.
    4. **HPC/SC energy performance metrics and benchmarking**
       Likewise this had a number of volunteers to help.
    5. **SC09+ technical program (energy efficiency)**
       While lower in priority, this topic had a strong showing of volunteers. Therefore we will likely combine it with the SC09+ HPCC (also strong volunteer support) and form a sub-group.
    6. **Improving software for energy efficiency**
       A low preference and small number of volunteers will put this activity on hold for 2009.
    7. **Market pull strategies (collectively influencing vendors)**
       Likewise this topic will be on hold.
    8. **SC09 HPCC (energy challenge)**
       Combine with SC09+ technical program activity.
- Therefore design guides, best practices, case studies and lessons learned will proceed without a sub-group. LBNL and NREL will host several conference calls and webinars for sharing among the working group.
- Sub-groups will be formed for:
    1. Computer center (infrastructure) energy performance metrics and benchmarking
    2. HPC energy performance metrics and benchmarking
    3. Input to the SC09 and SC10+ conferences
- 54% of the responders didn't feel we need a separate sub-group for users only
- 62% didn't think we should affiliate with an industry organization
- Of the three issues ranked, developing roles and responsibilities ranked highest by a large margin
- 91% favored being called Energy Efficient High Performance Computing (EEHPC) Working Group

Next steps:
- Conference calls to:
    1. Develop overall working group's mission statement/charter, and identify roles and responsibilities
    2. Sub-group (3) conference calls to develop mission statement/charters and identify roles and responsibilities
    3. Add members as momentum builds (or is 43 enough?)

Responders/Working Group Members: (Please use list for Working Group business only)
As of July 3, 2009

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