

**EE HPC Working Group**

**Meeting Notes**

**Meeting** **Time:** 8:00 AM – 9:00 AM  
**Date:** May 18, 2010 Pacific Time  
**Facilitator:** Dale Sartor and Natalie Bates  
**Location** Phone **Number of Pages:** 4

Action Items	Person Responsible	Due Date
<ul style="list-style-type: none"> <li>Please review the draft of the EE HPC WG flyer and send comments to Dale or Natalie</li> </ul>	All	06/18/2010
<ul style="list-style-type: none"> <li>Please email Natalie if you are interested in working on the Speakers Bureau</li> </ul>	All	06/18/2010
<ul style="list-style-type: none"> <li>Organize a webinar to present the White Paper on the beneficial use of waste heat in data centers.</li> </ul>	Bill Tschudi and Otto VanGeet	07/20/2010
<ul style="list-style-type: none"> <li>Post a draft of the PUE document on the EE HPC WG website. Circulate information encouraging participation in PUE sub- group.</li> </ul>	Bill Tschudi and Otto VanGeet	06/18/2010
<ul style="list-style-type: none"> <li>Set up a call to discuss DC Pro Tools Suite Discussion Group</li> </ul>	Ralph Wescott, Bill Tschudi, Otto VanGeet, Natalie Bates	06/18/2010
<ul style="list-style-type: none"> <li>Investigate holding a Working Group meeting at Supercomputing in November</li> </ul>	Natalie Bates	06/30/2010
<ul style="list-style-type: none"> <li>Add conferences to the website calendar</li> </ul>	Natalie Bates	06/18/2010

**Attendees:**

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> Arthur, Tom (IBM)                        | <input checked="" type="checkbox"/> Sekine, Yukiko (NERSC)      |
| <input checked="" type="checkbox"/> Bailey, Anna Maria (LLNL)                | <input checked="" type="checkbox"/> Silveira, Marriann (LLNL)   |
| <input checked="" type="checkbox"/> Bates, Natalie                           | <input checked="" type="checkbox"/> Tschudi, Bill (LBNL)        |
| <input checked="" type="checkbox"/> Brenner, Paul (University of Notre Dame) | <input checked="" type="checkbox"/> Unger, Marijke (NCAR)       |
| <input checked="" type="checkbox"/> Cader, Tahir (HP)                        | <input checked="" type="checkbox"/> Van Geet, Otto (NREL)       |
| <input checked="" type="checkbox"/> Campbell, Matt (UDSC)                    | <input checked="" type="checkbox"/> Wescott, Ralph (PNNL)       |
| <input checked="" type="checkbox"/> Graves, Sam (Glumac)                     | <input checked="" type="checkbox"/> Jenks, Lillian (Energetics) |
| <input checked="" type="checkbox"/> Gustafson, John (Intel)                  |   |
| <input checked="" type="checkbox"/> Kasl, Ronald (Univ. of MD)               |   |
| <input checked="" type="checkbox"/> Keville, Kurt (MIT)                      |   |
| <input checked="" type="checkbox"/> Sartor, Dale (LBNL)                      |   |

**Agenda:**

Num.	Topic	Person (s) Responsible/Briefing
1.	Introductions, Outreach and Communication	Dale Sartor (10 min)
2.	Infrastructure Sub- Group Update	Bill Tschudi and Otto Van Geet (15 min)
3.	Conferences Sub- Group Update	Anna Maria Bailey and Marriann Silveira (15 min)
4.	Computing Sub- Group Update	Natalie Bates (15 min)
5.	Closure	Natalie Bates (5 min)

**Minutes**

Introductions, Outreach and Communications, Dale Sartor

- We have added 36 new members since last September. This brings the total to a little over 80 participants.
- We are putting together a flyer about the Working Group to hand out at workshops and events. A draft was sent out yesterday as part of the reminder. There have been suggestions to shorten it and add graphics. Please send any additional comments to Dale or Natalie.
- We are working on the formation of a Speakers Bureau. The first talk will be on June 24 at 8am, featuring Bill Tschudi and Otto VanGeet. They will present the Best Practices guide for data centers.
- Dale requested participants to share any preferences for the future timing of speakers' presentations. The group suggested that we should try to have a speaker every other month, but the exact date and time will be up to preference of the speaker. A participant also asked if the webinar will be recorded and available after the actual presentation. Natalie answered that as of now, the voices will not be recorded but the slides will be available after the presentation. She will investigate recording options, and talk to the speakers about their willingness to be recorded.

## Meeting Minutes

- If anyone is interested in volunteering to help create the process for the Speakers Bureau, please email Natalie.

### Infrastructure Sub-Group Update, Bill Tschudi and Otto VanGeet

- The Sub- Group has been working with Green Grid on a White Paper on the beneficial use of waste heat in data centers. The metric will be the Energy Reuse Factor (ERF). The draft is fairly complete. They will share the link with the group when it is available. They will also organize a webinar to present the information when the paper is complete.
- DOE and EPA have gotten together with other industry players to discuss the confusion surrounding the definition of PUE. The consensus is to emphasize PUE over DCiE. There is also need to develop a way to look at the efficiency in total as opposed to a strict PUE definition. Please let Bill know if you are interested in working on this project. They will send an abstract out to encourage participation in the sub- group.
- Is there interest in putting together a discussion group about the DC Pro Tools suite that was developed for DOE? It would focus on experiences using the tool, and would address any questions or feedback. Dale suggested that it would be more helpful to cover one tool at a time, instead of focusing on the entire suite. We established plans to set up a call between Ralph, Bill and Otto to discuss further.
- Bill recommended the ASHRAE published book entitled Real-Time Energy Consumption Measurements in Data Centers. It goes into a lot of detail on how measurements are taken and how they can be inputted into DC Pro.

### Conferences Sub-Group Update, Marriann Silveira and Anna Maria Bailey

- The Sub- Group has completed four submissions for the Super Computer 2010 Technical Program.
  1. "Carbon Footprint Regulations and Measurements: An Imminent Requirement for IT" (John Nangle and Steve Strauss);
  2. "Workshop: Running a Lean and Productive HPC Center" ((Bill Tschudi and Mike Patterson);
  3. "Can We Monitor and Control Our Way to Exascale" (Patrick Kennedy, Mike Duran, Jim Fletcher);
  4. "Can We LEED the Way in Benchmarking HPC Centers to Achieve Exascale Efficiencies? " (Anna Maria Bailey, Buddy Bland, John Melchi, Mike Zatz)
- There was a decision taken not to pursue a booth this year.
- We will investigate holding a Working Group BoF at Supercomputing in November.
- Birds of Feather submissions are due June 30th.
- We discussed several upcoming events. They are all listed on the website, and Natalie will put them on the group calendar.
  1. **International Supercomputing Conference (May 30- June 4, 2010, Hamburg, Germany)**. The HPC WG is hosting a BoF on computing system metrics.
  2. **Building the Data Center of the Future 2nd Biennial Workshop: HPC Data Center (June 23-24, 2010, Champaign, Illinois)**. Anna Maria is presenting.
  3. **OE/ASHRAE Workshop (July 14th, 2010 Denver, Colorado)**. There will be a tour of NREL on July 15<sup>th</sup>.
  4. **GovEnergy (August 15-18, 2010 Dallas, TX)**. Dale and Anna Maria are presenting. ASHRAE will put on a workshop.
  5. **International Green Computing Conference (August 15-18, 2010 Chicago, Illinois)**. This conference is focused primarily on actual computing as opposed to facility management. They may try and broaden the focus. Notre Dame will be represented. They are interested in additional tutorials or panels. If we organize them, they will incorporate them in the conference. They have also expressed interest in starting a working group in sustainable computing that is not exclusively HPC- related.
  6. **Labs for the 21st Century Conference (September 27, 2010 Albuquerque, NM)**

**7. Green High Performance Computing Educators Conference (May 25, 2010, Holyoke, Massachusetts)**

This event is mostly targeted at Massachusetts educators, however similar events will likely be organized in different areas. This event is not on the website, but Natalie will add it to the calendar.

Computing System Sub-Group, Natalie Bates for John Shalf

- The Birds of Feather Session at the International Supercomputing Conference in May will focus on: "Setting Trends for Energy- Efficient Supercomputing". A key step towards setting new trends is to develop and utilize power and energy metrics for all relevant aspects of system architecture. The purpose of this BoF is to bring together members from The Top500, The Green Grid, The Green 500, The Green Grid, and the EE HPC WG to develop an action plan for accelerating the development and utilization of energy efficient computing system metrics.
- If you are interested in joining this effort, please contact Natalie.

Closure, Natalie Bates

- All action items from last meeting have been completed.
- All future meetings will be held on the third Tuesday of every other month. The 8AM PT time this week was an effort to make the calls more convenient for European participants. We will make a final decision on a regular time later.
- We will have a Roll Up Your Sleeves review program for the Speakers Bureau in order to help generate feedback for people's ideas. Participants should expect to get invitations to this type of event.