UC Santa Barbara Summit on Energy Efficiency

May 1-2, 2013
The Fess Parker Resort, Santa Barbara, CA

2013 Summit Theme: *Materials for a Sustainable Energy Future*

Summit keynotes and panelists will focus on the materials challenges, opportunities and the latest developments for technologies that are impacting energy efficiency and driving us toward a sustainable energy future.

**Wednesday, May 1, 2013**

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<th>Time</th>
<th>Session</th>
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<tr>
<td>7:45-8:30am</td>
<td><strong>Check-in and Registration at the Fess Parker Resort</strong></td>
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<td></td>
<td><strong>Continental Breakfast &amp; Networking</strong></td>
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<td>8:30-8:45am</td>
<td><strong>Summit Welcome</strong></td>
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<td></td>
<td><em>John Bowers</em></td>
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<td><em>Director, Institute for Energy Efficiency</em></td>
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<td></td>
<td><em>Professor, Electrical and Computer Engineering</em></td>
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<td><em>UC Santa Barbara</em></td>
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<td>8:45-9:10am</td>
<td><strong>Opening Keynote Address</strong></td>
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<td><em>Secretary Steven Chu</em></td>
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<td><em>Secretary of Energy</em></td>
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<td><em>U.S. Department of Energy</em></td>
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<td>9:10-9:40am</td>
<td><strong>Fireside Chat</strong></td>
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<td><em>Jeff Henley</em></td>
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<td><em>Chairman, Oracle Corporation</em></td>
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<td><em>with Secretary Steven Chu</em></td>
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<td>9:40-10:15am</td>
<td><strong>Networking Break</strong></td>
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| 10:15-10:45am   | **Keynote Presentation**  
Michael McQuade  
Senior Vice President of Science & Technology  
United Technologies Corporation |
| 10:45-12:00pm   | **Critical Materials for Energy Technologies**  
What are the key issues around extracting, processing and using materials needed for our increasing global energy demands?  
Panelists:  
Tom Graedel  
Professor, Industrial Ecology, Chemical Engineering, Geology and Geophysics, Yale University  
Robert Jaffe  
Professor, Department of Physics, Massachusetts Institute of Technology  
Alex King  
Director, Ames Laboratory, DOE Critical Materials Hub  
Sangwon Suh  
Professor, Bren School of Environmental Science & Management, UC Santa Barbara  
**Moderator:**  
Barbara Goss Levi  
Contributing Editor, Physics Today |
| 12:00-1:45pm    | **Networking Lunch at the Plaza del Sol**                               |
| 1:45-3:00pm     | **Innovations in Solid-State Lighting**  
Discussions on the latest developments in this rapidly growing field.  
Panelists:  
Steven DenBaars  
Co-Director, Solid-State Lighting & Energy Center and Professor, Department of Materials, UC Santa Barbara  
Kelly Gordon  
Program Manager, Pacific Northwest National Laboratory  
James Ibbetson  
Manager, Advanced LED Group, Cree  
Mike Krames  
Chief Technology Officer, Soraa |
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<td><strong>Welcome</strong>&lt;br&gt;David Auston&lt;br&gt;Executive Director, Institute for Energy Efficiency&lt;br&gt;UC Santa Barbara</td>
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**Thursday, May 2, 2013**

**3:00-3:30pm**  
**Networking Break**

**3:30-4:45pm**  
**Energy Efficient Information & Communications Technology**  
The future of scalability and energy efficiency for next generation ICT core networks.  
**Panelists:**  
- Steve Alexander  
  Senior Vice President, Ciena  
- John Bowers  
  Director, Institute for Energy Efficiency and Professor, Electrical and Computer Engineering, UC Santa Barbara  
- Mario Paniccia  
  Director, Photonics Research, Intel  
**Moderator:**  
- Craig McCaw  
  Chairman and CEO, Eagle River Investments

**4:45-7:00pm**  
**Reception at Plaza del Sol**
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| 9:10-10:25am | **Electrochemical Energy Storage Technologies**  | What are the latest technologies and materials that will enable more efficient, economical and reliable energy storage? | George Crabtree  
*Director, Joint Center for Energy Storage Research*  
*Argonne National Laboratory*  

**Panelists:**  
David Eaglesham  
*Chief Executive Officer, Pellion Technologies*  

Jun Liu  
*Laboratory Fellow, Department of Chemical and Materials Science, Pacific Northwest National Laboratory*  

Galen Stucky  
*Professor, Department of Materials, UC Santa Barbara*  

**Moderator:**  
Richard Harris  
*Science Correspondent, National Public Radio* |
| 10:25-10:50am | **Networking Break**                             |                                                                             |                                                                                                      |
| 10:50-11:30am | **Utilities Discussion**                        | The need for, and implementation of, new technologies for energy efficiency. | George Crabtree  
*Director, Joint Center for Energy Storage Research*  
*Argonne National Laboratory*  

**Panelists:**  
Seth Kiner  
*Vice President, Customer Programs and Services, Southern California Edison*  

Steven Malnight  
*Vice President, Integrated Demand Side Management, PG&E*  

**Moderator:**  
Dave Auston  
*Executive Director, Institute for Energy Efficiency, UC Santa Barbara* |
| 11:30-12:45pm | **High Efficiency Power Electronics**          | Using materials to minimize energy loss and make power electronics more efficient on all levels. | George Crabtree  
*Director, Joint Center for Energy Storage Research*  
*Argonne National Laboratory*  

**Panelists:**  
Richard Harris  
*Science Correspondent, National Public Radio* |
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<tr>
<td>12:45-1:30pm</td>
<td>Lunch &amp; Keynote Presentation</td>
<td>Kateri Callahan, President, Alliance to Save Energy</td>
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<td>1:30-2:00pm</td>
<td>Fireside Chat</td>
<td>Dan Burnham, Retired President and CEO, Raytheon Company, with Kateri Callahan</td>
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