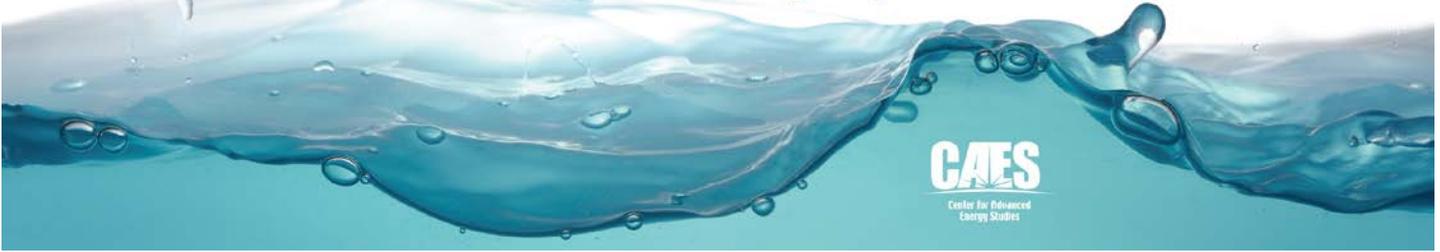


**Industry Water-Energy Workshop — Helping Industry Achieve a Sustainable Water-Energy Footprint**

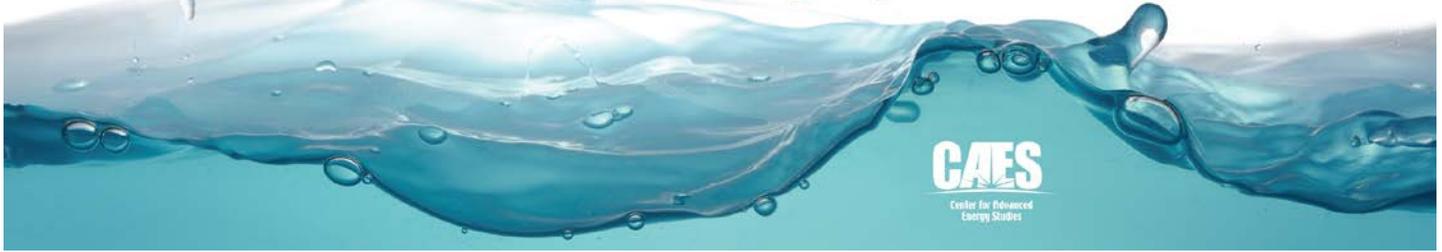


**Date:** July 26-27, 2016

**Location:** Energy Innovation Laboratory, 775 University Boulevard, Idaho Falls, Idaho

<b>Background Information:</b>	<p>“The Water, Food, Energy, and Climate Nexus...Challenges and an Agenda for Action”—  <a href="http://www.routledge.com/products/9781138190955">http://www.routledge.com/products/9781138190955</a> or <a href="http://www.routledge.com/products/9781138190948">http://www.routledge.com/products/9781138190948</a>          “Industrial Water Use and Its Energy Implications”—<i>recommended reading from DOE Office of Energy Efficiency and Renewable Energy</i>  <a href="http://www1.eere.energy.gov/manufacturing/resources/steel/pdfs/water_use_rpt.pdf">http://www1.eere.energy.gov/manufacturing/resources/steel/pdfs/water_use_rpt.pdf</a>          “At the Crest of a Wave: A Proactive Approach to Corporate Water Strategy”—<i>recommended reading from Intel Corporation</i> <a href="http://www.pacinst.org/reports/crest_of_a_wave/crest_of_a_wave.pdf">http://www.pacinst.org/reports/crest_of_a_wave/crest_of_a_wave.pdf</a>          “A Water Conservation Guide for Commercial, Institutional, and Industrial Users”,          (Section 7) — <i>recommended reading from EPA</i>  <a href="http://www.dep.state.pa.us/dep/deputate/pollprev/Iso14001/Tools/Facility%20Environmental%20Issues%20Toolbox/WU%20Water%20Use/WU2,%20WU5,%20WU9%20Water%20Conservation%20Guide.pdf">http://www.dep.state.pa.us/dep/deputate/pollprev/Iso14001/Tools/Facility%20Environmental%20Issues%20Toolbox/WU%20Water%20Use/WU2,%20WU5,%20WU9%20Water%20Conservation%20Guide.pdf</a></p>
<b>Workshop Discussion Topics</b>	<ul style="list-style-type: none"> <li>• Fodder from the field: how industry participants are building sustainable water-energy strategies</li> <li>• Technical, research, development and financial needs and approaches to attaining water-energy sustainability</li> </ul>
<b>Meeting Goals</b>	<ul style="list-style-type: none"> <li>• Discovery - learn from companies that are considering the risks and benefits of water-energy optimization</li> <li>• Partnerships - solutions reside in multiple approaches and varied vantage points.</li> <li>• Collaborations - discover ways of working in partnership with public agencies.</li> <li>• Market Definition - Help CAES better understand industry market needs.</li> </ul>
<b>Industry Sectors Represented</b>	<ul style="list-style-type: none"> <li>• Biofuels</li> <li>• Chemicals</li> <li>• Energy Resource Extraction</li> <li>• Electricity Conversion/Production</li> <li>• Food Processing</li> <li>• Pulp and Paper</li> <li>• Semiconductor/Computing/High Tech</li> </ul>
<b>U.S. Department of Energy’s Six Strategic Pillars to Address the Water-Energy Nexus</b>	<ul style="list-style-type: none"> <li>• Optimize the freshwater efficiency of energy production, electricity generation and end-use systems.</li> <li>• Optimize the energy efficiency of water management, treatment, distribution and end-use systems.</li> <li>• Enhance the reliability and resilience of energy and water systems.</li> <li>• Increase safe and productive use of nontraditional water sources.</li> <li>• Promote responsible energy operations with respect to water quality, ecosystems and seismic impacts.</li> <li>• Exploit productive synergies among water and energy systems.</li> </ul>

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**JULY 26, 2016**

<b>TIME</b>	<b>ACTIVITY</b>	<b>LOCATION</b>	<b>PARTICIPANT(S)</b>
4:00 – 6:00 p.m.	Meet-and-Greet Gathering	Sandpiper Restaurant	Meeting Participants

**JULY 27, 2016**

**LOCATION:** Energy Innovation Laboratory, 775 University Boulevard, Idaho Falls, Idaho, 83401

<b>TIME</b>	<b>ACTIVITY</b>	<b>SPEAKER/COORDINATOR</b>
8:00 a.m.	Welcome – Opening Remarks INL/CAES Overview	<i>Mike Hagood</i> , Director Program Development INL Energy and Environment Science and Technology
8:15 a.m.	Introduction to the Water-Energy Nexus	<i>Travis McLing</i> , INL Energy-Water Lead
8:30 a.m.	CAES and Industry Partnerships	<i>Howard Grimes</i> , Ph.D., CAES Director for Innovation in Industry Partnerships
9:00 a.m.	A Water Efficiency Case Study: Intel’s Ocotillo Arizona Campus	<i>Todd Brady</i> Global Sustainability Director Intel Corporation
9:30 a.m.	Agrichemical Industry’s Approach to Water-Energy Sustainability	<i>Rick Phillips</i> , Manager, Public Affairs J. R. Simplot Company
9:45 a.m.	Developing an Understanding of the Links Between Energy, Water and Food	<i>Jake Jacobson</i> , Staff Researcher University of Idaho
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10:00 a.m.	Break	
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10:15 a.m.	An Innovative Biological Approach for Wastewater Treatment Using Algae	<i>Ryan Ekre</i> , Ph.D., Environmental Engineer Inland Empire Paper Company
10:45 a.m.	Overview of Energy and Water Issues in Northwest Food Processing	<i>Pamela Barrow</i> , J.D., Vice President Energy, Environmental & Sustainability Northwest Food Processors Association
11:45 a.m.	Electric Power Generation – Energy and Water Use Issues	<i>Ian Andrews</i> , Director Resource Development PacifiCorp

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*(continued)*

**JULY 27, 2016**

**LOCATION:** Energy Innovation Laboratory, 775 University Blvd., Idaho Falls, Idaho, 83401

<b>TIME</b>	<b>ACTIVITY</b>	<b>SPEAKER/COORDINATOR</b>
12:15 p.m.	Break	
12:30 p.m.	Working Lunch Why Water-Energy and Why Now?	<i>Greg Möller, Ph.D., Professor of Environmental Chemistry and Toxicology, University of Idaho</i>
1:30 p.m.	Biodico Zero Net Energy Farm	<i>Russ Teall, J.D., President/CEO/Founder Biodico Sustainable Biorefineries</i>
2:00 p.m.	Oil and Gas Produced Waters: Matching the Level of Treating to the Reuse Application	<i>Jonathan A. Brant, P.E., Ph.D., Director The Center for Excellence in Produced Water Management University of Wyoming</i>
2:30 p.m.	Tour of INL's Water Treatment Technology Center	<i>Aaron Wilson, INL Water Technology Research Lead</i>
3:00	Break	
3:15 p.m.	Industry Breakout Sessions  Biofuels and Electricity Conversion/Production Food Processing and Energy Resource Extraction Pulp & Paper and Chemicals Semiconductor, Computing, High Tech	Industry Representatives INL/CAES/Industry Moderators/Technical Associates  EIL Room #A-112 EIL Room #A-102 EIL Room #A-111 EIL Room #A-110
4:30 p.m.	Breakout Sessions' Summary – "Next Steps"	<i>Travis McLing, INL Energy-Water Lead</i>
5:00 p.m.	Meeting Adjourned	