

Quadrennial Technology Review 2015

**Chapter 1:** Energy Challenges

# Supplemental Information



Additional Information on Energy Challenges

Agency Information

Representative DOE Energy and Science Program Workshops





Quadrennial Technology Review 2015

# Representative DOE Energy and Science Program Workshops

# Chapter 1: Supplemental Information

The Quadrennial Technology Review (QTR) found very extensive outreach by the DOE Energy and Science Programs to the broad energy research, development, demonstration, and deployment (RDD&D) community including industry, academia, civil society, national laboratories, and the public—by organizing numerous workshops, conferences, peer reviews, webinars, and other activities. Over 300 examples of workshops, conferences, and peer reviews alone are listed below that were conducted during 2011-2015, most with weblinks to more detailed information; yet this is not a comprehensive listing of these activities, nor does it include DOE engagement with the RDD&D community in other venues, through webinars, DOE Requests for Information (RFIs), Funding Opportunity Announcement (FOA)-related meetings, and other activities. A key focus of this extensive DOE outreach is to capture, distill, and organize the deep knowledge and experience of this broad community of experts and stakeholders to help DOE managers and staff better manage DOE RDD&D activities. The tables below list some of these engagements by Sector/(QTR Chapter) that they are primarily associated with, recognizing that there are many linkages across these different areas.

## **Electricity Grid-Related (QTR Chapter 3)**

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
General Resources and Webinars (This provides weblinks to more than 60 events)		OE	http://energy.gov/oe/information-center/meetings- events/archived-meetings-events
NASPI Working Group Meeting	June 5-7, 2012; Denver, CO	NASPI with support from OE	https://www.naspi.org/site/Module/Meeting/Forms/ General.aspx?mID=MEETING&meetingid=205
2012 Smart Grid Peer Review	June 7-8, 2012; San Diego, CA	OE	http://energy.gov/node/387493
Electricity Advisory Committee Meeting (FACA)	June 11-12, 2012; Washington, DC	OE	http://energy.gov/oe/june-11-12-2012-meeting- electricity-advisory-committee
Advanced Applications R&D Peer Review	June 12-13, 2012; Washington, DC	OE	http://energy.gov/oe/downloads/2012-advanced- applications-research-development-peer-review

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
2012 Cybersecurity for Energy Delivery Systems (CEDS) Peer Review	July 24-26, 2012; Washington, DC	OE	http://events.energetics.com/CEDS2012/agenda. html
EV Everywhere: Charging Infrastructure	July 30, 2012; Los Angeles, CA	EERE	http://energy.gov/eere/eveverywhere/ev- everywhere-2012-workshops
Microgrid Workshop	July 30-31, 2012; Chicago, IL	OE	http://energy.gov/oe/downloads/2012-doe- microgrid-workshop-summary-report- september-2012
Load as a Resource Program Peer Review	Sept. 20, 2012; Berkeley, CA	OE	http://energy.gov/oe/downloads/2012-load- resource-program-peer-review
Electricity Distribution System Workshop	Sept. 24-26, 2012; Arlington, VA	GTT	http://energy.gov/oe/services/doe-grid-tech-team/activities-and-outreach/gtt-activities/distribution-workshop
2012 Energy Storage Peer Review	Sept. 26-28, 2012; Washington, DC	OE	http://energy.gov/oe/downloads/energy-storage- systems-2012-peer-review-and-update-meeting
NASPI Working Group Meeting	Oct. 17-18, 2012; Atlanta, GA	NASPI through support from OE	https://www.naspi.org/site/Module/Meeting/Forms/ General.aspx?mID=MEETING&meetingid=189
Electricity Transmission System Workshop	Nov. 1-2, 2012; Arlington, VA	GTT	http://energy.gov/oe/services/doe-grid-tech-team/activities-and-outreach/gtt-activities/transmissionworkshop
2012 Cybersecurity Information Exchange	Dec. 5-6, 2012; Washington, DC	OE	https://www.smartgrid.gov/document/2012_doe_smart_grid_cybersecurity_information_exchange
NASPI Working Group Meeting	Feb. 20-21, 2013; Huntington Beach, CA	NASPI through support from OE	https://www.naspi.org/site/Module/Meeting/Forms/ General.aspx?mID=MEETING&meetingid=260
1st Annual ARPA-E GENI Program Annual Meeting and Technical Review	Feb. 28-March 1, 2013; Arlington, VA	ARPA-E	http://arpa-e.energy.gov/?q=site-page/geni-annual-technical-review
Applications of HVDC Technologies Workshop	April 22, 2013; Arlington, VA	GTT	http://energy.gov/oe/downloads/hvdc-workshop- april-22-2013
Electricity Advisory Committee Meeting (FACA)	June 5-6, 2013; Arlington, VA	OE	http://energy.gov/oe/services/electricity-advisory-committee-eac/electricity-advisory-committee-2013-meetings/june-5-6
2013 Transmission Reliability Program Peer Review	June 27-28, 2013; Washington, DC	OE	http://energy.gov/oe/downloads/2013-transmission-reliability-program-peer-review
2013 Reliability & Markets Peer Review	Aug. 6-7, 2013; Ithaca, NY	OE	http://energy.gov/oe/downloads/2013-reliability- markets-peer-review
NASPI Working Group Meeting	Oct. 22-24, 2013; Rosemont, IL	NASPI through support from OE	https://www.naspi.org/site/Module/Meeting/Forms/ General.aspx?mID=MEETING&meetingid=286

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
2nd Annual ARPA-E GENI Program Annual Meeting and Technical Review	Dec. 10-11, 2013; Arlington, VA	ARPA-E	http://arpa-e.energy.gov/?q=site-page/geni-annual- technical-review-2
Future of the Grid - Western Regional Workshop	Dec. 11, 2013; Redmond Washington	Grid Wise Alliance with support from OE	http://www.gridwise.org/documents/ GWA_14WesternRegionWorkshopReport_02_19_ FINAL.pdf
Electricity Advisory Committee Meeting (FACA)	Jan. 24, 2014; Teleconference	OE	http://energy.gov/oe/services/electricity-advisory-committee-eac/electricity-advisory-committee-2014-meetings/january
Future of the Grid - Central Regional Workshop	Feb. 4, 2014; Dallas, TX	Grid Wise Alliance, OE	http://www.gridwise.org/documents/ GWA_14CentralRegionWorkshopReport_04_21_ FINAL.pdf
NASPI Working Group Meeting: Knoxville, TN	March 11-12, 2014; Knoxville, TN	NASPI through support from OE	https://www.naspi.org/site/Module/Meeting/Forms/ General.aspx?mID=MEETING&meetingid=316
Electricity Advisory Committee Meeting (FACA)	March 12-13, 2014; Arlington, VA	OE	http://energy.gov/oe/services/electricity-advisory-committee-eac/electricity-advisory-committee-2014-meetings/march-12
Future of the Grid - Southeast Regional Workshop	April 8, 2014; Durham, NC	Grid Wise Alliance with support from OE	http://www.gridwise.org/documents/GWA_14_ SoutheastRegionWorkshopReport_07_08_FINAL. pdf
QER - Energy Infrastructure Resilience	April 11, 2014; Washington, DC	EPSA	http://www.energy.gov/epsa/downloads/qer- public-meeting-washington-dc-enhancing-energy- infrastructure-resiliency-and
Future of the Grid - Northeast Regional Workshop	May 13, 2014; New York, NY	Grid Wise Alliance with support from OE	http://www.gridwise.org/documents/GWA_14_ NortheastRegionWorkshopReport_10_28_FINAL. pdf
2014 Transmission Reliability Program Peer Review	June 3-4, 2014; Washington, DC	OE	http://energy.gov/oe/downloads/2014-transmission- reliability-program-peer-review
Resilient Electric Distribution Grid R&D Workshop	June 11, 2014; Upton, NY	OE	http://energy.gov/oe/downloads/resilient-electric- distribution-grid-rd-workshop-june-11-2014
2014 Smart Grid R&D Peer Review	June 11-12, 2014; Upton, NY	OE	http://energy.gov/oe/downloads/2014-smart-grid-rd-peer-review
Electricity Advisory Committee Meeting (FACA)	June 16-17, 2014; Arlington, VA	OE	http://energy.gov/oe/services/electricity-advisory-committee-eac/electricity-advisory-committee-2014-meetings/june-16
2014 Advanced Grid Modeling Peer Review	June 17-18, 2014; Alexandria, VA	OE	http://energy.gov/oe/downloads/2014-advanced- grid-modeling-program-peer-review

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Future of the Grid - National Summit	June 26, 2014; Washington, DC	Grid-Wise Alliance with support from OE	http://www.gridwise.org/documents/GWA_14_ FutureoftheGridReport_FINAL.pdf
QER - Electricity Transmission, Distribution, Storage: West	July 11, 2014; Portland, OR	EPSA	http://www.energy.gov/epsa/downloads/qer-public-meeting-portland-or-electricity-transmission-storage-and-distribution-west
QER - Gas Electric Interdependencies	July 28, 2014; Denver, CO	EPSA	http://www.energy.gov/epsa/downloads/ qer-public-meeting-denver-co-gas-electricity- interdependencies
Grid of the Future: From Vertical to Flat (Program Dev. Workshop)	July 31-Aug. 1, 2014; Washington, DC	ARPA-E	http://arpa-e.energy.gov/?q=events/grid-future- vertical-flat
2014 Reliability & Markets Peer Review	Aug. 5-6, 2014; Ithaca, NY	OE	http://energy.gov/oe/downloads/2014-reliability- markets-peer-review
2014 Cybersecurity for Energy Delivery Systems (CEDS) Peer Review	Aug. 5-7, 2014; Arlington, VA	OE	http://www.energy.gov/oe/articles/cybersecurity-energy-delivery-systems-ceds-peer-review-august-5-7-0
QER - Grid Architecture Workshop	Aug. 26, 2014; Washington, DC Sept. 23, 2014; Washington, DC	EPSA	http://energy.gov/epsa/qer-document-library http://energy.gov/sites/prod/files/2015/04/f22/ QER%20Analysis%20-%20Grid%20Architecture_0. pdf
QER - Electricity Transmission, Distribution, Storage: East	Sept. 8, 2014; Newark, NJ	EPSA	http://www.energy.gov/epsa/downloads/qer-public-meeting-newark-nj-electricity-transmission-and-distribution-east
2014 Energy Storage Peer Review	Sept. 17-19, 2014; Washington, DC	OE	http://energy.gov/oe/downloads/energy-storage- systems-2014-peer-review-and-update-meeting
Electricity Advisory Committee Meeting (FACA)	Sept. 24-25, 2014; Arlington, VA	OE	http://energy.gov/oe/september-24-25-2014-meeting-electricity-advisory-committee
Workshop on Estimating the Benefits and Costs of Distributed Energy Technologies	Sept. 30-Oct.1, 2014; Washington, DC	GTT	http://energy.gov/oe/downloads/estimating- benefits-and-costs-distributed-energy-technologies- workshop-agenda-and
CIGRE and NASPI Working Group Meeting	Oct. 19-23, 2014; Houston, TX	EPRI; CIGRE; NASPI with support from OE	http://cigre-usnc.org/grid-of-the-future/ http://cigre.wpengine.com/gotf-2014-paper- presentations/
Next Generation Grid Data Architecture and Control	Nov. 17-18, 2014; Arlington, VA	NRECA, CURENT; with support from OE, NSF	http://curent.utk.edu/industry/grid-data-architecture/
3rd Annual ARPA-E GENI Program Annual Meeting and Technical Review	Jan. 14-15, 2015; New Orleans, LA	ARPA-E	http://arpa-e.energy.gov/?q=site-page/geni- program-annual-technical-review

# **Electricity Supply-Related (QTR Chapter 4)**

# Fossil Power/Carbon Capture and Storage (CCS)

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Links to Workshops/ Conferences, 2012-2015		NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings
2012 Crosscutting Research Kickoff and Review Meeting	March 12-14, 2012	NETL; DOE	http://www.netl.doe.gov/events/conference- proceedings/2012/ccr
26th Annual Conference on Fossil Energy Materials	April 17-19, 2012; Pittsburgh, PA	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2012/fe-materials
2012 University Coal Research/ Historically Black Colleges and Universities and Other Minority Institutions Contractors Review Conference	May 30-31, 2012	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2012/ucr-hbcu
Instrumentation, Controls & Automation Interest Group Meeting	June 6-7, 2012; Austin, TX	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2012/ica-meeting
2012 NETL CO <sub>2</sub> Capture Technology Meeting	July 9-12, 2012;	NETL; DOE	http://www.netl.doe.gov/events/conference- proceedings/2012/co2-capture-meeting
13th Annual SECA Workshop	July 24-27, 2012;	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2012/seca-workshop
Carbon Storage R&D Project Review Meeting	Aug. 21-23, 2012; Pittsburgh, PA	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2012/carbon-storage-r-d-review
2012 University Turbine Systems Research Workshop	Oct. 2-4, 2012; Irvine, CA	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2012/univ-turbine-workshop
2013 NETL CO <sub>2</sub> Capture Technology Meeting	July 8-11, 2013;	NETL, DOE	http://www.netl.doe.gov/events/conference-proceedings/2013/co2-capture-meeting
14th Annual SECA Workshop	July 23, 2013;	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2013/seca-workshop
Carbon Storage R&D Project Review Meeting	Aug. 20-22, 2013;	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2013/carbon-storage
Technology Pathways Forward for CCS on Natural Gas Power Systems - USEA	April 22, 2014; Washington, DC	USEA, DOE, Industry	
2014 NETL Crosscutting Research Review Meeting	May 19-23, 2014;	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2014/crosscutting
15th Annual SECA Workshop	July 22-23, 2014; Pittsburg, PA	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2014/15th-annual-seca-workshop

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
2014 NETL CO <sub>2</sub> Capture Technology Meeting	July 29-Aug. 1, 2014; Pittsburgh, PA	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2014/2014-netl-co2-capture- technology-meeting
Carbon Storage R&D Project Review Meeting	Aug. 12-14, 2014; Pittsburgh, PA	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2014/2014-carbon-storage
2014 NETL Water-Energy Workshop/MEGA Symposium	Aug. 20, 2014; Baltimore, MD	NETL, DOE, MEGA	http://www.netl.doe.gov/research/coal/crosscutting/ publications/water-energy-workshop-2014
Supercritical CO <sub>2</sub> Power Cycles Symposium	Sept. 9-10, 2014; Pittsburgh, PA	NETL, DOE, SWRI,	http://www.swri.org/4org/d18/sCO2/papers2014. htm
Workshop on supercritical Carbon Dioxide Brayton Cycle Energy Conversion R&D	Sept. 11, 2014;	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2014/sco2-workshop
Transformational Carbon Capture Technology Workshop	Sept. 23, 2014; Arlington, VA	DOE, NETL	http://www.netl.doe.gov/research/coal/carbon-capture/workshop-2014
Magnetohydrodynamic Power Generation Workshop	Oct. 1-2, 2014;	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2014/mhd-workshop
2014 University Turbine Systems Research Workshop	Oct. 21-23, 2014; West Lafayette, IN	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2014/2014-utsr-workshop
2015 NETL Crosscutting Technology Research Review Meeting	April 27-30, 2015; Pittsburgh, PA	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2015/crosscutting
2015 NETL CO <sub>2</sub> Capture Technology Meeting	June 23-26, 2015; Pittsburgh, PA	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2015/2015-co2-capture-technology- meeting
16th Annual Solid Oxide Fuel Cell Workshop	July 14-16, 2015;	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2015/2015sofc
2015 Gasification Systems and Coal & Coal-Biomass to Liquids Workshop	Aug. 10-11, 2015; Morgantown, WV	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2015/gas-ccbtl
2015 Carbon Storage R&D Project Review Meeting	Aug. 18-20, 2015	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2015/2015-carbon-storage-project- review-meeting
Workshop on Heat Exchangers for Supercritical CO <sub>2</sub> Power Cycles	Oct. 15, 2015; San Diego, CA	NETL, DOE, EPRI	http://www.netl.doe.gov/events/conference- proceedings/2015/epri
2015 University Turbine Systems Research Workshop	Nov. 3-5, 2015; Atlanta, GA	NETL, DOE	http://www.netl.doe.gov/events/conference- proceedings/2015/2015-university-turbine-systems- research-workshop

#### **Nuclear Power**

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Hybrid Energy Systems Workshop	April 3-4, 2012; Salt Lake City, UT	NE	http://www.nrel.gov/docs/fy12osti/55650.pdf
Blue Ribbon Commission on America's Nuclear Future	Jan. 2012;	NE	http://energy.gov/sites/prod/files/2013/04/f0/brc_finalreport_jan2012.pdf
Advanced Reactor Concepts Technical Review Panel	April-Sept. 2012;	NE	http://www.energy.gov/ne/downloads/advanced- reactor-concepts-technical-review-panel-report
Nuclear Science User Facility  – Joint Event: Modeling, Experimentation, and Validation (MeV) School/ Advanced Test Reactor National Scientific User Facilities Week	June 18-22, 2012; Oak Ridge, TN	NE	https://atrnsuf.inl.gov/default.aspx?Page=Users%20 Week%20Presentations&id=290
Fuel Cycle Technologies Annual Review Meeting	Oct. 30-31, 2012; Argonne, IL	NE	http://www.energy.gov/ne/downloads/2012- fuel-cycle-technologies-annual-review-meeting- transaction-report
Nuclear Energy Advisory Committee	Dec. 6, 2012; Washington, DC	NE	http://www.energy.gov/ne/downloads/meeting-materials-december-6-2012 See also: http://www.energy.gov/ne/listings/nuclear-energy-advisory-committee-meeting-materials
Annual Report 2012 Gen IV International Forum	2013	GIF	https://www.gen-4.org/gif/jcms/c_40359/2012-annual-report-gif-symposium-proceedings
Strategy For The Management And Disposal Of Used Nuclear Fuel And High-Level Radioactive Waste	Jan. 2013;	NE	http://www.energy.gov/sites/prod/files/Strategy%20 for%20the%20Management%20and%20 Disposal%20of%20Used%20Nuclear%20Fuel%20 and%20High%20Level%20Radioactive%20Waste. pdf
Nuclear Science User Facility  – Materials, Fuels, and Post- Irradiation Examination, and Reactor Based Technology Development	June 10-14, 2013; Idaho Falls, ID	NE	https://atrnsuf.inl.gov/default.aspx?Page=Users%20 Week%20Presentations&id=290
Nuclear Energy Advisory Committee	June 13, 2013; Washington, DC	NE	http://www.energy.gov/ne/downloads/meeting- materials-june-13-2013
2013 Annual DOE- NE Materials Research Coordination Meeting	July 30-31, 2013;	NE	http://www.energy.gov/ne/downloads/2013-annual-doe-ne-materials-research-coordination-meeting-0
Nuclear Energy Enabling Technologies Program Documents and Workshops	Various	NE	http://www.energy.gov/ne/listings/neet-documents

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
FY 2014 NEUP R&D, NEUP IRP, and NEET Work scopes Webinar	Oct. 29-30, 2013;	NE	https://neup.inl.gov/SitePages/FY14%20 Webinar%20Presentations.aspx
Fuel Cycle Technologies Annual Review Meeting	Nov. 5-7, 2013; Argonne, IL	NE	
2nd Generation IV International Forum (GIF) Symposium	Nov. 14, 2013; San Diego, CA	GIF	https://www.gen-4.org/gif/jcms/c_42158/gif-presentations
Nuclear Energy Advisory Committee	Dec. 19, 2013; Washington, DC	NE	http://www.energy.gov/ne/downloads/meeting-materials-december-19-2013-1
Annual Report 2013 Gen IV International Forum	2014;	GIF	https://www.gen-4.org/gif/jcms/c_64097/2013-gif-annual-report
Technology Roadmap Update for Generation IV Nuclear	Jan., 2014;	GIF	https://www.gen-4.org/gif/upload/docs/application/pdf/2014-03/gif-tru2014.pdf
Energy Systems			https://www.gen-4.org/gif/jcms/c_9492/members
Advanced Reactor Concepts Technical Review Panel	March-June 2014;	NE	http://www.energy.gov/sites/prod/files/2014/12/f19/Advance%20Reactor%20Concepts%20 Technical%20Review%20Panel%20Public%20 Report.pdf
	April 15-16, 2014; Rockville, MD		
Advanced Reactor Licensing Initiative Licensing Workshops	July 16-17, 2014; Rockville, MD	NE; NRC	http://www.nrc.gov/public-involve/conference- symposia/adv-rx-non-lwr-ws.html
	Sept. 1-2, 2015; Rockville, MD		
Evaluation Of Options For Permanent Geologic Disposal Of Spent Nuclear Fuel And High-Level Radioactive Waste	April, 2014;	NE	http://www.energy.gov/ne/downloads/evaluation- options-permanent-geologic-disposal-spent- nuclearfuel-and-high-level
Nuclear Energy Advisory Committee	June 5, 2014; Washington, DC	NE	http://www.energy.gov/ne/downloads/meeting-materials-june-5-2014
Nuclear Energy Advisory Committee	June 12, 2014; Washington, DC	NE	http://www.energy.gov/ne/downloads/meeting- materials-june-12-2012
Integrated Nuclear-Renewable Energy Systems Foundational Workshop	July 8-10, 2014; Idaho Falls, ID	NE	https://inldigitallibrary.inl.gov/sti/6330932.pdf
FY 2015 NEUP R&D, NEUP IRP, and NEET Work scopes Webinar	Aug. 12-14, 2014;	NE	https://neup.inl.gov/SitePages/FY15%20 Webinar%20Presentations.aspx
2014 Annual DOE- NE Materials Research Coordination Meeting	Aug. 19-21, 2014;	NE	

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Advanced Sensors And Instrumentation Project Review Webinar 2014	Sept. 16-18, 2014;	NE	http://www.energy.gov/ne/downloads/advanced- sensors-and-instrumentation-project-review- webinar-2014
2014 Annual DOE-NE Advanced Methods for Manufacturing Meeting	Oct. 21, 2014; Charlotte, NC	NE	
QTR Nuclear Energy Workshop	Oct. 29-30, 2014; Washington, DC	NE	
Assessment Of Disposal Options For DOE-Managed High-Level Radioactive Waste And Spent Nuclear Fuel	Oct. 2014	NE	http://www.energy.gov/ne/downloads/meeting- materials-december-10-2014
Fuel Cycle Technologies Annual Review Meeting	Nov. 4-6, 2014; Idaho Falls, ID	NE	
Nuclear Energy Advisory Committee	Dec. 10, 2014; Washington, DC	NE	http://www.energy.gov/ne/downloads/meeting- materials-december-10-2014
Annual Report 2014 Gen IV International Forum	2015	GIF	https://www.gen-4.org/gif/jcms/c_74053/gif-annual-report-2014
Nuclear Energy Innovation Workshops	March 3–5, 2015; at Oregon State University, Boise State University, University of New Mexico, Ohio State University, Massachusetts Institute of Technology, and North Carolina State University	NE	https://nuclearinnovationworkshop.inl.gov/ SitePages/Home.aspx https://nuclearinnovationworkshop.inl.gov/ SiteAssets/SitePages/Home/Innovation%20 Workshop%20Final%20Report%201%20(1).pdf
LWRS Program and EPRI Long- Term Operations Program - Joint R&D Plan	April, 2015;	NE	http://www.energy.gov/sites/prod/files/INL- EXT-12-24562_LWRS-LTO_Joint_RD_Plan_ Rev_4_0.pdf
Light Water Reactor Sustainability Program - Integrated Program Plan	April, 2015;	NE	http://www.energy.gov/sites/prod/files/FY-15_ LWRS_IPP_Final_0.pdf
3rd Generation IV International Forum (GIF) Symposium	May 19, 2015; Chiba, Japan	GIF	https://www.gen-4.org/gif/jcms/c_42158/gif-presentations
Nuclear Science User Facility – Nuclear Science: Irradiation and Post-Irradiation Examination on Fuels and Materials	June 22-25, 2015; Idaho Falls, ID	NE	https://atrnsuf.inl.gov/default.aspx?Page=Users%20 Week%20Presentations&id=290
Nuclear Energy Advisory Committee	June 26, 2015, Arlington, VA	NE	http://www.energy.gov/ne/downloads/meeting- materials-june-26-2015

#### **Biomass Power**

#### Table 4

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Bioenergy Program Workshop Page	Various	ВЕТО	http://www.energy.gov/eere/bioenergy/past- meetings
Bioenergy with Carbon Capture and Sequestration	May 18, 2015; Washington, DC	FE, BETO	http://www.energy.gov/eere/bioenergy/bioenergy- carbon-capture-and-sequestration-workshop

## **Geothermal Power**

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Geothermal Presentations		GTO	http://energy.gov/eere/geothermal/presentations
JASON Review		GTO	http://www1.eere.energy.gov/geothermal/pdfs/ jason.final.pdf
GRC Annual Meeting	Sept. 28-Oct. 1, 2014; Portland, OR	GRC; GTO	http://geo-energy.org/events.aspx
2014 JASON Report: State of Stress in Engineered Subsurface Systems	Sept. 2014	GTO	http://energy.gov/articles/2014-jason-report-state- stress-engineered-subsurface-systems
GTO 2015 Peer Review GTO 2015 Peer Review Report	May 11-14, 2015; Westminster, Colorado	GTO	http://energy.gov/eere/geothermal/events/2015-gto- peer-review http://energy.gov/eere/geothermal/downloads/2015- peer-review-report-geothermal-technologies-office
GRC Annual Meeting	Sept. 20-23, 2015 Reno, NV	GRC; GTO	http://geo-energy.org/events.aspx

## **Solar Energy**

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Solar Energy Program Workshops are at:		SETO	http://energy.gov/eere/sunshot/past-meetings-and-workshops
AD LUCEM: Modeling Market Transformation Pathways Workshop	Feb. 17, 2012; Berkeley, CA	SETO	http://energy.gov/eere/sunshot/past-meetings-and-workshops
2012 Sunshot Grand Challenge Summit and Technology Forum	June 13-14, 2012; Denver Colorado	SETO	http://energy.gov/eere/sunshot/past-meetings-and-workshops http://energy.gov/eere/sunshot/sunshot-grand-challenge-summit-and-technology-forum
Thermochemical Energy Storage Workshop	Jan. 8, 2013;	SETO	http://energy.gov/eere/sunshot/past-meetings-and-workshops
2013 Photovoltaic Module Reliability Workshop	Feb. 26-27, 2013; Golden, CO	SETO	http://energy.gov/eere/sunshot/past-meetings-and-workshops http://energy.gov/eere/sunshot/photovoltaic-module-reliability-workshop-2013
2013 Sunshot CSP Program Review	April 23-25, 2013; Phoenix, AZ	SETO	http://energy.gov/eere/sunshot/past-meetings-and-workshops http://energy.gov/eere/sunshot/sunshot-concentrating-solar-power-program-review-2013
Photovoltaics Module Reliability Workshop	Feb. 1, 2014; Golden, CO	SETO	
Sunshot Grand Challenge Summit and Peer Review 2014	May 19-22, 2014;	SETO	http://energy.gov/eere/sunshot/past-meetings-and-workshops http://energy.gov/eere/sunshot/events/sunshot-grand-challenge-summit-and-peer-review-2014
Energy Education Data Jam	March 27, 2014; Washington, DC	SETO	http://energy.gov/eere/education/energy-education- data-jam
Solar Powering Illinois	April 8, 2014; Chicago, IL	SETO	http://www.growsolar.org/education-training/ conferences/solar-powering-illinois/agenda/
White House Solar Summit & Champions of Change	April 17, 2014; Washington, DC	SETO	http://energy.gov/eere/sunshot/articles/white- house-solar-champions-change-watch-now
SEPA SunShot GEARED Student Conference	April 28-30, 2014; Newport Beach, CA	SETO	http://www.irecusa.org/2014/04/first-annual- student-conference-for-grid-engineering-for- accelerated-renewable-energy-development- developing-the-power-engineering-workforce- for-the-future/
Fundamental Barriers to High Efficiency CIGS Photovoltaics	June 12, 2014; Denver, CO	SETO	

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Photovoltaics R&D Beyond SunShot Workshop	June 22, 2014; Anaheim, CA	SETO	
2014 DC Energy and Data Summit	June 27, 2014; Washington, DC	SETO	http://aaaspolicyfellowships.org/event/dc-energy- and-data-summit
Mechanistic Approaches to Degradation and Lifetime Prediction in PV	Sept. 9, 2014; Chicago, IL	SETO	
2015 Grid Integration of Solar Energy workshop	Oct. 29, 2015;	SETO	http://energy.gov/eere/sunshot/past-meetings-and-workshops http://energy.gov/eere/sunshot/downloads/grid-integration-solar-energy-workshop

#### **Water Power**

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Future Events	n/a	WWPTO	http://energy.gov/eere/water/calendars/water-power-events
2014 Water Peer Review	Feb. 24-28, 2014	WWPTO	http://energy.gov/eere/water/downloads/2014- water-power-program-peer-review-compiled- presentations-marine-and
			http://energy.gov/eere/water/water-power-program- peer-reviews
Wave Energy Converter (WEC) Extreme Condition Modeling Workshop	May 13–14, 2014, Albuquerque, NM	WWPTO	http://www.nrel.gov/docs/fy14osti/62305.pdf
Hydropower Vision Senior Peer Review Group (SPRG ) Meetings	March 27, 2014; Webinar April 30, 2014; Washington, DC July 25, 2014; Nashville, TN Nov. 11, 2014; Golden, CO	WWPTO	http://energy.gov/eere/water/new-vision-united- states-hydropower

#### **Wind Power**

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Future Events		WWPTO	http://energy.gov/eere/wind/calendars/wind-events
Applications for High-Voltage Direct Current Transmission Technologies	April 22, 2013; Arlington, VA	WWPTO	http://energy.gov/oe/downloads/hvdc-workshop- april-22-2013
Wind Vision Senior Peer Review Group and Task Force Meetings	May 8, 2013; Chicago, IL June 20, 2013; Washington, DC- web July 17, 2013; San Francisco, CA Sept. 17, 2013; Louisville, CO Nov. 5, 2013; Colorado Springs, CO Jan. 17, 2014; Washington, DC- web Feb. 27, 2014; Crystal City, VA April 24, 2014 Washington, DC- web May 6-8, 2014; Las Vegas, NV (public panel session with SPRG members) July 31, 2014; Washington, DC- web Nov. 19, 2014; San Diego, CA	WWPTO	Wind Vision Report http://energy.gov/eere/wind/new-vision-united- states-wind-power
Clean Energy Manufacturing Initiative (CEMI) Regional Summit - Wind Manufacturing Workshop	June, 2013; Toledo, Ohio	WWPTO	http://www1.eere.energy.gov/energymanufacturing/pdfs/cemi_regional_summit_agenda.pdf

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
A2E Topical Workshops Aeroacoustics Workshop Wind Plant Reliability Workshop HFM/XMC Workshops Controls Workshop Data Archive and Portal Workshop	Jan. 20, 2014; Washington, DC April 17, 2014; Dallas, TX April 15, 2014; Golden, CO June 14, 2014; Portland, OR July 28, 2014; Richland, WA	WWPTO	http://energy.gov/eere/wind/atmosphere-electrons
Atmosphere to Electrons (A2e) Initiative External Merit Review Board Meeting	Feb. 4, 2014	WWPTO	http://energy.gov/eere/wind/downloads/external-merit-review-atmosphere-electrons-a2e-initiative http://energy.gov/sites/prod/files/2014/03/f8/ A2E%20Merit%20Review%20Minutes%20Final.pdf
EERE Grid Integration Planning Workshop	Feb. 19-20, 2014; Arlington, VA	WWPTO	
2014 Wind Peer Review	March 24-27, 2014 Crystal City, VA	WWPTO	http://energy.gov/eere/wind/downloads/2014-wind-program-peer-review-compiled-presentations http://energy.gov/eere/wind/downloads/2014-wind-program-peer-review-report

# Supercritical CO<sub>2</sub>

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Super Critical CO <sub>2</sub> Power Cycle Development Workshop	June 23-24, 2014 Washington, DC	NE	
Supercritical CO <sub>2</sub> Power Cycles Symposium	Sept. 9-10, 2014; Pittsburgh, PA	NETL, SWRI, 	http://www.swri.org/4org/d18/sCO2/papers2014. htm
2015 NETL CO <sub>2</sub> Capture Technology Meeting	June 23-26, 2015; Pittsburgh, PA	NETL	http://www.netl.doe.gov/events/conference- proceedings/2015/2015-co2-capture-technology- meeting

**Table 10** Water-Energy Nexus

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Community Modeling and Long-Term Predictions of the Integrated Water Cycle	Sept. 24-26, 2012; Washington DC	SC-BER	http://climatemodeling.science.energy.gov/doe- workshops/water-cycle-workshop
Water Energy Technology Team Strategic Ideas Workshop with DOE National Laboratories	May 5-6, 2014; Washington, DC	WWPTO, SC- BER	
Water-Energy Workshop	Aug. 20, 2014; Baltimore, MD	Energy-Water Nexus; Mega Symposium	http://www.netl.doe.gov/research/coal/crosscutting/ publications/water-energy-workshop-2014
Climate Change Impacts and Integrated Assessment	July 27-30, 2015; Snowmass, CO	Energy Modeling Forum with support from SC-BER	https://emf.stanford.edu/agenda-and- presentations-6
American Geophysical Union - Town Hall on the Energy-Water Nexus: Ongoing Science Activities and Future Opportunities with DOE	Dec. 14, 2015; San Francisco, CA	SC-BER	http://climatemodeling.science.energy.gov/meetings/AGU2015; (see item #1, TH13F)

# **Buildings Energy-Related (QTR Chapter 5)**

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Technical Meeting: Buildings- to-Grid Integration	Dec. 12-13, 2012; Golden, CO	ВТО	http://energy.gov/eere/buildings/downloads/ technical-meeting-buildings-grid-integration
Solid-State Lighting Research and Development Workshop	Jan. 29–31, 2013; Long Beach, CA	ВТО	http://energy.gov/eere/ssl/2013-solid-state-lighting-rd-workshop-presentations-and-materials
Peer Review	April 2-4, 2013; Washington, DC	ВТО	http://energy.gov/eere/buildings/2013-doe- building-technologies-office-program-review
Windows and Building Envelope Research and Development: Roadmap for Emerging Technologies	April 5, 2013; Washington, DC	вто	http://energy.gov/sites/prod/files/2014/02/f8/BTO_windows_and_envelope_report_3.pdf
Solid-State Lighting Research and Development Manufacturing Workshop	June 5-6, 2013; Boston, MA	вто	http://energy.gov/eere/ssl/2013-solid-state-lighting-manufacturing-rd-workshop-presentations-and-materials

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Solid-State Lighting Market Introduction Workshop	Nov. 12–14, 2013; Portland, OR	ВТО	http://energy.gov/eere/ssl/2013-solid-state-lighting-market-introduction-workshop-presentations-and-materials
Solid-State Lighting Research and Development Workshop	Jan. 28-30, 2014; Tampa, FL	ВТО	http://www1.eere.energy.gov/buildings/ssl/ rdworkshop14.html
Research & Development Roadmap for Emerging Water Heating Technologies	Jan. 28, 2014; Washington, DC	вто	http://energy.gov/eere/buildings/downloads/ emerging-water-heating-technologies-research- development-roadmap
Peer Review	April 22-24, 2014; Arlington, VA	вто	http://energy.gov/eere/buildings/building- technologies-office-2014-program-peer-review
Public Meeting: Physical Characterization of Smart and Grid-Connected Commercial and Residential Building End- Use Equipment and Appliances	April 30, 2014; Golden, CO	вто	http://energy.gov/eere/buildings/downloads/public-meeting-physical-characterization-smart-and-grid-connected
Technical Meeting: Data/ Communication Standards and Interoperability of Building Appliances, Equipment, and Systems	May 1, 2014; Golden, CO	вто	http://energy.gov/eere/buildings/downloads/ technical-meeting-datacommunication-standards- and-interoperability-building
Technical Meeting: Reference Guide for a Transaction-Based Building Controls Framework	May 2, 2014; Golden, CO	вто	http://energy.gov/eere/buildings/downloads/ technical-meeting-reference-guide-transaction- based-building-controls
Solid-State Lighting Research and Development Manufacturing Workshop	May 7-8, 2014; San Diego, CA	вто	http://energy.gov/eere/ssl/2014-solid-state-lighting-manufacturing-rd-workshop-presentations-and-materials
Better Buildings Summit 2014	May 7-9, 2014; Washington, DC	ВТО	http://www1.eere.energy.gov/buildings/ betterbuildings/summit/
Next-Generation Low-GWP Refrigerants	May 29, 2014; Washington, DC	вто	http://www.energy.gov/sites/prod/files/2014/12/f19/ Refrigerants%20Roadmap%20Final%20Report%20 2014.pdf
Research & Development Roadmap for Emerging HVAC Technologies	June 17, 2014; Atlanta, GA	вто	http://energy.gov/sites/prod/files/2014/12/ f19/Research%20and%20Development%20 Roadmap%20for%20Emerging%20HVAC%20 Technologies.pdf
Public Meeting: Physical Characterization of Grid- Connected Commercial And Residential Building End-Use Equipment And Appliances	July 11, 2014; Washington, DC	вто	http://energy.gov/eere/buildings/downloads/public-meeting-physical-characterization-grid-connected-commercial-and
Technical Meeting: Software Framework for Transactive Energy	July 23 and 24, 2014; Cleveland, OH	вто	http://energy.gov/eere/buildings/downloads/ technical-meeting-software-framework-transactive- energy

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Solid-State Lighting Market Development Workshop	Nov. 12 – 13, 2014; Detroit, MI	вто	http://energy.gov/eere/ssl/2014-ssl-market- development-workshop-presentations-and- materials
Solid-State Lighting Research and Development Workshop	Jan. 27 – 29, 2015; San Francisco, CA	вто	http://energy.gov/eere/ssl/2015-ssl-rd-workshop- presentations-and-materials
Technical Meeting: Physical Characterization of Connected Buildings Equipment	Jan. 28 and 29, 2015; Chicago, IL	вто	http://energy.gov/eere/buildings/downloads/ technical-meeting-physical-characterization- connected-buildings-equipment
Technical Meeting: Buildings Interoperability Vision	March 11 and 12, 2015; Seattle, WA	ВТО	http://energy.gov/eere/buildings/downloads/ technical-meeting-buildings-interoperability-vision
Peer Review	April 14-16, 2015; Vienna, VA	ВТО	http://energy.gov/eere/buildings/building- technologies-office-2015-program-peer-review
Better Buildings Summit 2015	May 27-29, 2015; Washington, DC	ВТО	http://betterbuildingssolutioncenter.energy.gov/summit
Technical Meeting: Software Framework for Transactive Energy: VOLTTRON™ 2015	July 23 and 24, 2015; Arlington, VA	ВТО	http://energy.gov/eere/buildings/downloads/ technical-meeting-software-framework-transactive- energy-volttron-2015
Workshop: Advanced HVAC&R Research	Nov. 17, 2015; Houston, TX	ВТО	http://energy.gov/eere/buildings/downloads/ workshop-1-advanced-hvacr-research-effort
Solid-State Lighting Technology Development Workshop	Nov. 17-18, 2015; Portland, OR	вто	http://energy.gov/eere/ssl/2015-ssl-technology- development-workshop-presentations-and- materials
Workshop: Advanced HVAC&R Research Effort	Dec. 8, 2015; Atlanta, GA	вто	http://energy.gov/eere/buildings/downloads/ workshop-2-advanced-hvacr-research-effort

# Industrial Energy-Related (QTR Chapter 6)

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
See Workshop Listing and Events		AMO	http://energy.gov/eere/amo/workshops
Manufacturing Demonstration Facility Workshop	March 12, 2012; Chicago, IL	AMO	http://energy.gov/eere/amo/downloads/ manufacturing-demonstration-facility-workshop
Critical Materials Workshop	April 3, 2012; Arlington, VA	AMO	http://energy.gov/eere/amo/downloads/critical- materials-workshop-0
Innovative Manufacturing Recognition Day	June 20, 2012; Washington, DC	AMO	http://energy.gov/eere/amo/downloads/innovative-manufacturing-initiative-recognition-day

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Sustainable Nanomaterials Workshop	June 26, 2012; Washington, DC	AMO	http://energy.gov/eere/amo/downloads/sustainable-nanomaterials-workshop
Multimaterial Joining Workshop	July 23, 2012; Chicago IL	AMO	http://energy.gov/eere/amo/downloads/ multimaterial-joining-workshop
Membrane Technology Workshop	July 24, 2012; Rosemont, IL	AMO	http://energy.gov/eere/amo/downloads/membrane-technology-workshop-0
Wide Band Gap Semiconductor for Clean Energy	July 25, 2012; Chicago, IL	AMO	http://energy.gov/eere/amo/downloads/wide- bandgap-semiconductors-clean-energy-workshop-0
Microwave and Radio Frequency workshop	July 25, 2012; Long Beach, CA	AMO	http://energy.gov/eere/amo/downloads/microwave-and-radio-frequency-workshop
AEMC Dialogue 1 – Rebuilding the Industrial Commons	April 11-12, 2013; Washington, D.C.	CEMI	http://www.compete.org/component/content/article/2653
AEMC Dialogue 2 – Driving Regional Transformation	June 20, 2013; Toledo, OH	CEMI	http://www.compete.org/component/content/article/2654
Clean Energy Manufacturing Initiative Regional Series— Toledo	June 21, 2013; Toledo, OH	AMO, CEMI	http://energy.gov/eere/amo/clean-energy- manufacturing-initiative-regional-and-national- summit-series
AEMC Dialogue 3 – Public Private Partnerships	Aug. 12, 2013; Niskayuna, NY	CEMI	http://www.compete.org/component/content/article/2655
AEMC Dialogue 4 – Facilitating Scale-up	Oct. 17, 2013; Santa Clara, CA	CEMI	http://www.compete.org/component/content/article/2656
EERE Quality Control Workshop	Dec.9-10, 2013; Golden, CO	AMO; BTO; FCTO; SETO; VTO	http://energy.gov/eere/fuelcells/eere-quality-control-workshop http://energy.gov/sites/prod/files/2014/05/f15/eere_qc_workshop_final_report.pdf
2013 AEMC Summit	Dec. 12, 2013: Washington, DC	EERE	http://www.aemcsummit.compete.org/inaugural-aemc-summit
Fiber Reinforced Polymer Composite Manufacturing Workshop	Jan. 13, 2014; Arlington, VA	AMO	http://energy.gov/eere/amo/downloads/fiber- reinforced-polymer-composite-manufacturing- workshop
AEMC Dialogue 5 – Strengthening the Innovation Pipeline	April 16, 2014; Berkley, CA	CEMI	http://news.berkeley.edu/2014/04/16/chancellor-dirks-hosts-clean-energy-talks-with-doe-industry/
Clean Energy Manufacturing Initiative, Western Regional Summit	April 17, 2014; San Francisco, CA	DOE	http://energy.gov/eere/cemi/events/cemi-western-regional-summit
2014 AEMC Summit	Sept. 17, 2014; Washington, D.C.	EERE	http://www.aemcsummit.compete.org/about/140
Manufacturing Innovation Multi-Topic workshop	Oct. 8-9, 2014; Fort Worth, TX	AMO	http://energy.gov/eere/amo/downloads/ manufacturing-innovation-multi-topic-workshop

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Smart Manufacturing Institute Industry Day	Feb. 25th, 2015; Atlanta, GA	AMO	http://energy.gov/eere/amo/downloads/smart- manufacturing-institute-industry-day-workshop
AEMC Dialogue 6 – Extreme Environment Materials Workshop 1	May 8, 2015; Portland, OR	AMO, FE, NE, CEMI	http://www.compete.org/component/content/ article/3056
2015 Better Buildings Summit	May 27-29, 2015; Washington D.C.	AMO, BETO, SETO	http://www1.eere.energy.gov/buildings/ betterbuildings/summit/
AEMC Dialogue 9 – Scaling Innovations to Partnerships	June 23, 2015; Washington, D.C.	CEMI	http://www.compete.org/component/content/ article/2952
AEMC Dialogue 7— Extreme Environment Materials Workshop 2	June 25, 2015; Rosemont, IL	AMO, FE, NE, CEMI	http://www.compete.org/component/content/ article/2952
AEMC Dialogue 8 Extreme Environment Materials Workshop 3	Aug. 17, 2015; College Station, TX	AMO, FE, NE, CEMI	http://www.compete.org/programs/compete- energy-manufacturing/aemc
2015 AEMC Summit	Sept. 15-16, 2015; Washington, D.C.	EERE	http://www.aemcsummit.compete.org/
Process Intensification	Sept. 29-30, 2015; Alexandria, VA	AMO	http://energy.gov/eere/amo/downloads/process-intensification-workshop-september-29-30-2015
Energy Optimized Desalination Technology Development	Nov. 5-6, 2015; San Francisco, CA	AMO	http://energy.gov/eere/amo/downloads/energy- optimized-desalination-technology-development- workshop-november-5-6-2015
Natural Gas Infrastructure R&D and Methane Emissions Mitigation	Nov. 12-13, 2014; Coraopolis, PA	AMO, FE	http://energy.gov/eere/amo/downloads/natural- gas-infrastructure-rd-and-methane-emissions- mitigation-workshop
Materials for Harsh Service Conditions	Nov. 19-20, 2015; Pittsburgh, PA	AMO	http://energy.gov/eere/amo/downloads/ workshop-materials-harsh-service-conditions- november-19-20-2015
High Value Roll-to-Roll (HV R2R) Manufacturing Innovation	Dec. 2-3, 2015; Alexandria, VA	AMO	http://energy.gov/eere/amo/downloads/workshop-high-value-roll-roll-hv-r2r-manufacturing-innovation-december-2-3-2015
Sustainability In Manufacturing	Jan. 6-7, 2016; Portland, OR	AMO	http://energy.gov/eere/downloads/workshop- sustainability-manufacturing-january-6-7
Role of the Manufacturing Sector in Grid Modernization	Feb. 10-11, 2016; Austin TX	AMO	http://energy.gov/eere/downloads/dispatchable- distributed-generation-manufacturing-s-role- support-grid-modernization

# **Fuels-Related (QTR Chapter 7)**

## **Biomass Fuels**

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Bioenergy Program Workshop Page	Various	ВЕТО	http://www.energy.gov/eere/bioenergy/past- meetings-and-workshops
Commercial Aviation Alternative Fuels Initiatives Sustainable Alternative Fuels Cost Workshop	Nov. 27, 2012;	FAA, DOE	http://www.energy.gov/eere/bioenergy/past-meetings http://www.energy.gov/eere/bioenergy/downloads/sustainable-alternative-fuels-cost-workshop http://www.energy.gov/eere/bioenergy/downloads/sustainable-alternative-fuels-cost-workshop-roster-participants
Renewable Low-Cost Carbon Fiber for Lightweight Vehicles Workshop	June 4-5, 2013;	BETO; VTO; AMO	http://www.energy.gov/eere/bioenergy/past-meetings http://www.energy.gov/eere/bioenergy/downloads/renewable-low-cost-carbon-fiber-workshop-agendahttp://www.energy.gov/eere/bioenergy/downloads/renewable-low-cost-carbon-fiber-lightweight-vehicles-summary-report
Symbiosis Conference: Expanding Commercialization of Mutualistic Microbes to Increase Bioenergy Crop Production	June 20-21, 2013; Ithaca, New York	ВЕТО	http://www.energy.gov/eere/bioenergy/past-meetings http://www.energy.gov/eere/bioenergy/downloads/symbiosis-conference-speaker-and-attendee-list http://www.energy.gov/eere/bioenergy/downloads/symbiosis-biofeedstock-conference-expanding-commercialization-mutualistic
Natural Gas-Biomass to Liquids Workshop	Sept. 3, 2013;	BETO, FE, NETL	http://www.energy.gov/eere/bioenergy/past-meetings http://www.energy.gov/eere/bioenergy/downloads/gbtl-workshop-attendees http://www.energy.gov/eere/bioenergy/downloads/gbtl-opening-presentationtech-barriers http://www.energy.gov/eere/bioenergy/downloads/gbtl-workshop-ghg-emissions
Incorporating Bioenergy In Sustainable Landscape Design Workshop	March 4-6, 2014; New Bern, NC June 24-26, 2014; Argonne, IL	ВЕТО ВЕТО	http://www.energy.gov/eere/bioenergy/past-meetings http://www.energy.gov/eere/bioenergy/downloads/incorporating-bioenergy-sustainable-landscape-designs-workshop-two-summary
Demonstration and Deployment Strategy Workshop	March 12-13, 2014	ВЕТО	http://www.energy.gov/eere/bioenergy/ demonstration-and-deployment-strategy-workshop

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Biomass Indirect Liquefaction	March 20-21,		http://www.energy.gov/eere/bioenergy/biomass- indirect-liquefaction-workshop
Workshop	2014; Golden, CO	ВЕТО	http://www.energy.gov/eere/bioenergy/downloads/biomass-indirect-liquefaction-strategy-workshop-summary-report
Algal Biofuels Spring Strategy	March 26-27, 2014; Charleston,	ВЕТО	http://www.energy.gov/eere/bioenergy/algal- biofuels-strategy-workshop
Workshop	SC SC	BETO	http://www.energy.gov/eere/bioenergy/downloads/ algal-biofuels-strategy-workshop-spring-event
Bio-Oil Co-Processing: Expanding the Refinery Supply System Workshop	April 3, 2014; New Orleans, LA	ВЕТО	http://www.energy.gov/eere/bioenergy/bio-oil-co- processing-expanding-refinery-supply-system
			http://www.energy.gov/eere/bioenergy/process- integration-and-carbon-efficiency-workshop
Process Integration and Carbon Efficiency Workshop	June 11-12, 2014; Lakewood, CO	ВЕТО	http://www.energy.gov/eere/bioenergy/downloads/ process-integration-and-carbon-efficiency- workshop-agenda
			http://www.energy.gov/eere/bioenergy/downloads/ process-integration-and-carbon-efficiency- workshop-summary-report
	Nov. 5, 2014; Arlington, VA	ВЕТО	http://www.energy.gov/eere/bioenergy/waste- energy-workshop
Waste to Energy Roadmapping			http://www.energy.gov/eere/bioenergy/downloads/ waste-energy-workshop-agenda
Workshop			http://www.energy.gov/eere/bioenergy/downloads/ waste-energy
			http://www.energy.gov/eere/bioenergy/downloads/ waste-energy-workshop-summary-report
Advanced Supply System Validation Workshop	Feb. 3-4, 2015; Golden, CO	ВЕТО	http://www.energy.gov/eere/bioenergy/advanced- supply-system-validation-workshop
			http://www.energy.gov/eere/fuelcells/hydrogen- hydrocarbons-and-bioproduct-precursors- wastewaters-workshop
Hydrogen, Hydrocarbons, and Bioproduct Precursors from Wastewaters Workshop	March 18-19, 2015; Washington, DC	вето, гсто	http://www.energy.gov/eere/fuelcells/downloads/ hydrogen-hydrocarbons-and-bioproduct- precursors-wastewaters-workshop-agenda
			http://www.energy.gov/eere/fuelcells/downloads/ hydrogen-hydrocarbons-and-bioproduct- precursors-wastewaters-workshop-report
Workshop on Energy-Positive Water Resource Recovery	April 28-29, 2015; Arlington, VA	NSF, EPA, DOE	http://www.energy.gov/eere/bioenergy/energy- positive-water-resource-recovery-workshop- presentations
			http://www.energy.gov/eere/bioenergy/energy- positive-water-resource-recovery-workshop-report

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Bioenergy with Carbon Capture and Sequestration Workshop	May 18, 2015; Washington, DC	FE, BETO	http://www.energy.gov/eere/bioenergy/bioenergy- carbon-capture-and-sequestration-workshop
Optima Stakeholder Listening Day	June 16-17, 2015; Golden, CO	ВЕТО	http://www.energy.gov/eere/bioenergy/optima- stakeholder-listening-day http://www.energy.gov/eere/bioenergy/downloads/ optima-stakeholder-listening-day-agenda
Bioproducts to Enable Biofuels Workshop	July 16, 2015; Westminster, CO	ВЕТО	http://www.energy.gov/eere/bioenergy/bioproducts-enable-biofuels-workshop-0 http://www.energy.gov/eere/bioenergy/downloads/bioproducts-enable-biofuels-workshop-agenda http://www.energy.gov/eere/bioenergy/downloads/bioproducts-enable-biofuels-workshop-summary-report

#### **Fossil Fuels**

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Methane Hydrate Advisory Committee Meetings	March 27-28, 2014; Galveston, TX May 15, 2014; Washington, DC May 7, 2015; Washington, DC	ВЕТО	http://energy.gov/fe/downloads/methane-hydrate-advisory-committee-meetings
Offshore Technology Conference	May 5-8, 2014; Houston, TX		http://2014.otcnet.org/
Unconventional Resources Technology Conference	Aug. 25-27, 2014; Denver, CO		http://www.urtec.org/
DOE-RPSEA Offshore Technology Showcase	Sept. 3-4, 2014; Houston, TX	With support from FE O&G and others	http://www.rpsea.org/past-events/153/
Federal Multiagency Collaboration on Unconventional Oil and Gas Research: A Strategy for Research and Development	2014 n/a	FE O&G DOI/ USGS, EPA	http://unconventional.energy.gov/pdf/Multiagency_ UOG_Research_Strateg.pdf

## **Hydrogen Fuels**

#### Table 15

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Hydrogen and Fuel Cell	23 listed	FCTO	http://energy.gov/eere/fuelcells/workshop-and-
Workshops	2011-present		meeting-proceedings
Biological Hydrogen	Sept. 24-25, 2013;	FCTO	http://energy.gov/eere/fuelcells/biological-
Production Workshop	Golden, CO		hydrogen-production-workshop
International Workshop on Hydrogen Infrastructure and Challenges	Dec. 2013	FCTO	http://www1.eere.energy.gov/hydrogenandfuelcells/pdfs/webinarslides_hydrogen_infrastructure_challenges121713.pdf
Electrolytic Hydrogen	Feb. 27-28, 2014;	FCTO	http://energy.gov/eere/fuelcells/downloads/
Production Workshop	Golden, CO		electrolytic-hydrogen-production-workshop
Hydrogen Contamination	June 12, 2014;	FCTO	http://energy.gov/eere/fuelcells/downloads/
Detector Workshop	Troy, MI		hydrogen-contamination-detector-workshop
Hydrogen, Hydrocarbons, and	March 18-19,	BETO; FCTO	http://energy.gov/eere/fuelcells/hydrogen-
Bioproduct Precursors from	2015; Washington,		hydrocarbons-and-bioproduct-precursors-
Wastewaters Workshop	DC		wastewaters-workshop
Fuel Cell and Hydrogen Annual Merit Review and Peer Evaluation	Annual, in June; Washington, DC	FCTO	https://www.hydrogen.energy.gov/annual_review. html

See Below, under Transportation, for further Hydrogen fuel-related Workshops

# Subsurface Engineering and Technology R&D Crosscut

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
SubTER	July 22, 2014; Washington, DC	SubTER	http://www.energy.gov/subsurface-technology-and-engineering-rdd-crosscut
Controlling Subsurface Fractures and Fluid Flow: A Basic Research Agenda	May 22, 2015; Germantown, MD	SC-BES; SubTER	http://www.energy.gov/eere/geothermal/downloads/controlling-subsurface-fractures-and-fluid-flow-basic-research-agenda
SubTER Grand Challenge Roundtable	July 21, 2015; Washington, DC	SubTER	http://www.energy.gov/eere/geothermal/downloads/ subter-grand-challenge-roundtable-imaging- geophysical-and-geochemical

# **Transportation Energy-Related (QTR Chapter 8)**

**Table 17** Transportation Energy-Related (QTR Chapter 8)

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Hydrogen and Fuel Cell Workshops	23 listed 2011-present	FCTO	http://energy.gov/eere/fuelcells/workshop-and- meeting-proceedings
Clean Cities Workshops		VTO	https://cleancities.energy.gov/events
Clean Cities webinars	Ongoing	VTO	https://cleancities.energy.gov/webinars/
Directions in Engine-Efficiency and Emissions Research (DEER) Workshops	Ongoing	VTO	http://energy.gov/eere/vehicles/vehicle- technologies-office-directions-engine-efficiency- and-emissions-research-deer
U.S. Drive Partnership	Ongoing	FCTO; VTO	http://www.uscar.org/guest/partnership/1/us-drive http://energy.gov/eere/vehicles/vehicle- technologies-office-us-drive
21st Century Truck Partnership	Ongoing	VTO	http://energy.gov/eere/vehicles/vehicle- technologies-office-21st-century-truck-partnership
Annual Merit Review	Annual, most recently June 8-12, 2015; Arlington, VA	FCTO; VTO	http://www.annualmeritreview.energy.gov/ http://energy.gov/eere/vehicles/vehicle- technologies-office-annual-merit-review- presentations http://energy.gov/eere/vehicles/vehicle- technologies-office-annual-progress-reports
DOE Hydrogen and Fuel Cell Technical Advisory Committee	Ongoing, most recently Oct. 27, 2015; Washington, DC	FCTO	https://www.hydrogen.energy.gov/advisory_htac. html
EV Everywhere Grand Challenge Kick-off	June 21, 2012; Dearborn, MI	VTO	http://energy.gov/eere/eveverywhere/ev- everywhere-2012-workshops
EV Everywhere Electric Drive Workshop	July 24, 2012; Chicago, IL	VTO	http://energy.gov/eere/eveverywhere/ev- everywhere-2012-workshops
EV Everywhere Battery Workshop	July 26, 2012; Chicago, IL	VTO	http://energy.gov/eere/eveverywhere/ev- everywhere-2012-workshops
EV Everywhere Consumer Acceptance and Charging Infrastructure Workshop	July 30, 2012; Los Angeles, CA	VTO	http://energy.gov/eere/eveverywhere/ev- everywhere-2012-workshops
Directions in Engine-Efficiency and Emissions Research (DEER)	Oct. 16-19, 2012; Dearborn, MI	VTO	http://energy.gov/eere/vehicles/2012-directions- engine-efficiency-and-emissions-research-deer- conference-presentations

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Biogas and Fuel Cells Workshop	June 11-13, 2012; Golden, CO	FCTO	http://energy.gov/eere/fuelcells/biogas-and-fuelcells-workshop
Polymer and Composite Materials Meeting	Oct. 17-18, 2012; Washington, DC	FCTO	http://energy.gov/eere/fuelcells/polymer-and-composite-materials-meeting
Hydrogen Compression, Storage, and Dispensing Cost Reduction Workshop	March 20-21, 2013; Argonne, IL	FCTO	http://energy.gov/eere/fuelcells/hydrogen- compression-storage-and-dispensing-cost- reduction-workshop
Electric Vehicle Community Readiness Workshop	May 1, 2013; Knoxville, TN	VTO	https://cleancities.energy.gov/events/573
Biological Hydrogen Production Workshop	Sept. 24-25, 2013; Golden, CO	FCTO	http://energy.gov/eere/fuelcells/biological- hydrogen-production-workshop
EERE Quality Control Workshop	Dec. 9-10, 2013; Golden, CO	AMO; BTO; FCTO SETO;VTO	http://energy.gov/eere/fuelcells/eere-quality- control-workshop
Hydrogen Transmission and Distribution Workshop	Feb. 25-26, 2014; Golden, CO	FCTO	http://energy.gov/eere/fuelcells/downloads/ hydrogen-transmission-and-distribution-workshop
Electrolytic Hydrogen Production Workshop	Feb. 27-28, 2014; Golden, CO	FCTO	http://energy.gov/eere/fuelcells/downloads/ electrolytic-hydrogen-production-workshop
2nd International Workshop on Hydrogen Infrastructure and Transportation	May 8-9, 2014; Torrance, CA	FCTO	http://energy.gov/sites/prod/files/2015/03/f20/ fcto_webinarslides_2nd_international_h2_ infrastructure_challenges_031015.pdf
Hydrogen Energy Storage for Grid and Transportation Services Workshop	May 14-15, 2014; Sacramento, CA	FCTO	http://energy.gov/eere/fuelcells/downloads/ hydrogen-energy-storage-grid-and-transportation- services-workshop http://www.nrel.gov/docs/fy15osti/62518.pdf
Hydrogen Contamination Detector Workshop	June 12, 2014; Troy, MI	FCTO	http://energy.gov/eere/fuelcells/downloads/ hydrogen-contamination-detector-workshop
R&D Needs and Technical Barriers for PEMFC	June 16, 2014; Washington DC	FCTO	http://energy.gov/sites/prod/files/2014/05/f16/fcto_fuel_cell_pre-solicitation_workshop_agenda.pdf
Transitioning the Transportation Sector: Exploring the Intersection of Hydrogen Fuel Cell and Natural Gas Vehicles	Sept. 9, 2014; Washington, DC	FCTO; VTO	http://energy.gov/eere/fuelcells/downloads/ transitioning-transportation-sector-exploring- intersection-hydrogen-fuel
Workplace Charging Challenge Summit	Nov. 18, 2014; Alexandria, VA	VTO	http://energy.gov/eere/vehicles/downloads/ workplace-charging-challenge-summit-2014-agenda
DOE Materials-Based Hydrogen Storage Summit: Defining Pathways for Onboard Automotive Applications	Jan. 27-28, 2015; Golden, CO	FCTO	http://energy.gov/eere/fuelcells/downloads/doe-materials-based-hydrogen-storage-summit-defining-pathways-onboard

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Clean Cities Strategic Planning Meeting	Feb. 25, 2015; Washington, DC	VTO	https://cleancities.energy.gov/events/568
Hydrogen, Hydrocarbons, and Bioproduct Precursors from Wastewaters Workshop	March 18-19, 2015; Washington, DC	BETO; FCTO	http://energy.gov/eere/fuelcells/hydrogen- hydrocarbons-and-bioproduct-precursors- wastewaters-workshop
Advanced Composite Materials for Cold and Cryogenic Hydrogen Storage Applications in Fuel Cell Electric Vehicles	Oct. 29, 2015; Dallas, TX	FCTO	http://energy.gov/eere/fuelcells/downloads/ advanced-composite-materials-cold-and-cryogenic- hydrogen-storage

# **Energy Science-Related (QTR Chapter 9)**

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
SC Office of Basic Energy Science	es	<u>'</u>	
From Quanta to the Continuum: Opportunities for Mesoscale Science	Feb., 2012; Boston, MA March, 2012; San Diego, CA April, 2012; San Francisco, CA May, 2012 Report: Sept., 2012	SC-BES	http://science.energy.gov/~/media/bes/pdf/reports/files/OFMS_rpt.pdf
Neutron and X-ray Detectors	Aug. 1-3, 2012; Gaithersburg, MD	SC-BES	http://science.energy.gov/~/media/bes/pdf/reports/files/NXD_rpt.pdf
BES Facilities Prioritization	Feb. 26-27, 2013; Bethesda, MD	VTO	http://energy.gov/eere/vehicles/vehicle- technologies-office-directions-engine-efficiency- and-emissions-research-deer
X-ray Optics for BES Light Source Facilities	March 27-29, 2013; Potomac, MD	SC-BES	http://science.energy.gov/~/media/bes/pdf/reports/files/BES_XRay_Optics_rpt.pdf
Report of the BESAC Subcommittee on Future X-ray Light Sources	May 23, 2013; Irvine, CA July 9-12, 2013; Bethesda, MD Report: July 25, 2013	SC-BES	http://science.energy.gov/~/media/bes/besac/pdf/ Reports/Future_Light_Sources_report_BESAC_ approved_72513.pdf
Future of Electron Scattering & Diffraction	Feb. 24-25, 2014; Rockville, MD	SC-BES	http://science.energy.gov/~/media/bes/pdf/reports/files/Future_of_Electron_Scattering.pdf

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks		
SC Office of Biological and Environmental Research					
Biosystems Design	July, 2011 Report: April, 2012	SC-BES	http://science.energy.gov/~/media/bes/pdf/reports/files/Future_of_Electron_Scattering.pdf		
Community Modeling and Long-Term Predictions of the Integrated Water Cycle	Sept. 24-26, 2012	SC-BER	http://science.energy.gov/~/media/ber/pdf/ workshop%20reports/Water_Cycle_Report_HR.pdf		
BER Virtual Laboratory: Innovative Framework for Biological and Environmental Grand Challenges	Report: Feb., 2013	SC-BER	http://science.energy.gov/~/media/ber/berac/pdf/ Reports/BER_VirtualLaboratory_finalwebHR.pdf		
CESD Atmospheric Testbed Workshop	Aug. 5-6, 2013; Germantown, MD	SC-BER	http://science.energy.gov/~/media/ber/pdf/ Brochures/CESD_Atmospheric_Testbed_ Workshop_V9_LOW.pdf		
Research for Sustainable Bioenergy: Linking Genomic and Ecosystem Sciences	Oct. 2-4, 2013; Germantown, MD Report: May, 2014	SC-BER	http://genomicscience.energy.gov/sustainability/ SustainableBiofuels.pdf		
Building Virtual Ecosystems: Computational Challenges for Mechanistic Modeling of Terrestrial Environments	March 26- 27, 2014; Germantown, MD Report: Feb., 2015	SC-BER	http://science.energy.gov/~/media/ber/pdf/ workshop%20reports/VirtualEcosystems.pdf		
ARM/ASR High-Resolution Modeling Workshop	May 19-20, 2014; Bethesda, MD	SC-BER	http://science.energy.gov/~/media/ber/pdf/ workshop%20reports/doe-sc-0169-low-resolution. pdf		
BER Molecular Science Challenges Workshop	May 27-29, 2014; Germantown, MD Report: April, 2015	SC-BER	http://science.energy.gov/~/media/ber/pdf/ workshop%20reports/MolecularScienceChallenges- April-9-2015Final.pdf		
Lignocellulosic Biomass for Advanced Biofuels and Bioproducts	June 23-24, 2014; Washington, D.C. Report: Feb., 2015	SC-BER	http://science.energy.gov/~/media/ber/pdf/ workshop%20reports/Lignocellulosic_Biomass_for_ Advanced_Biofuels_and_Bioproducts.pdf		
SC Office of Advanced Scientific	Computing Research				
Data and Communications in BES: Creating a Pathway for Scientific Discovery	Oct. 24-25, 2011; Bethesda, MD Report: June, 2012	SC-ASCR SC-BES	http://science.energy.gov/~/media/bes/pdf/ reports/2015/ASCR_BES_Data_rpt.pdf		
Scientific Collaborations for Extreme-Scale Science	Dec. 6-7, 2011; Gaithersburg, MD	SC-ASCR	http://science.energy.gov/~/media/ascr/ pdf/program-documents/docs/Scientific_ Collaborations_for_Extreme_Scale_Science_ Report_Dec_2011_Final.pdf		

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
DOE Fault Management Workshop Report	June 6, 2012; Linthicum Heights, MD Report: Aug. 13, 2012	SC-ASCR	http://science.energy.gov/~/media/ascr/pdf/ program-documents/docs/FaultManagement- wrkshpRpt-v4-final.pdf
Report on the ASCR Workshop on Modeling and Simulation of Exascale Systems and Applications	Aug. 9-10, 2012; Seattle, WA	SC-ASCR	http://science.energy.gov/~/media/ascr/pdf/ program-documents/docs/ModSim_Report-2012_ AH_5.pdf
Large Scale Production Computing and Storage Requirements for Biological and Environmental Science: Target 2017	Sept. 11-12, 2012; Rockville, MD Report: June, 2013	SC-ASCR SC-BER NERSC	http://science.energy.gov/~/media/ascr/pdf/facilities/NERSC/2015/BER2017FinalJune7.pdf
Large Scale Computing and Storage Requirements for Fusion Energy Sciences: Target 2017	March 19-20, 2013; Rockville, MD Report: May, 2014	SC-ASCR SC-FES NERSC	http://science.energy.gov/~/media/ascr/pdf/ facilities/NERSC/2015/FES2017NERSC-RR.pdf
ASCAC Facilities Statement: Response to charge on plans for new and upgraded major facilities	Report: March 21, 2013	SC-ASCR	http://science.energy.gov/~/media/ascr/ascac/pdf/reports/2013/ASCAC_facilities_statement_final.pdf
Synergistic Challenges in Data- Intensive Science and Exascale Computing	Report: March 30, 2013	SC-ASCR	http://science.energy.gov/~/media/ascr/ascac/pdf/reports/2013/ASCAC_Data_Intensive_Computing_report_final.pdf
Data Crosscutting Requirements Review	April 4-5, 2013	SC-ASCR	http://science.energy.gov/~/media/ascr/ pdf/program-documents/docs/ASCR_ DataCrosscutting2_8_28_13.pdf
Applied Mathematics Research for Exascale Computing	Aug. 21-22, 2013; Washington, D.C. Report: March, 2014	SC-ASCR	http://science.energy.gov/~/media/ascr/pdf/ research/am/docs/EMWGreport.pdf
Large Scale Production Computing and Storage Requirements for Basic Energy Sciences: Target 2017	Oct. 8-9, 2013; Gaithersburg, MD Report: Oct., 2014	SC-ASCR SC-BES NERSC	http://science.energy.gov/~/media/ascr/pdf/facilities/NERSC/2015/NerscBES2017ReqRevFinal.pdf
DOE Workshop on Software Productivity for eXtreme-scale Science	Jan. 13-14, 2014; Rockville, MD	SC-ASCR	http://science.energy.gov/~/media/ascr/ pdf/research/cs/Exascale%20Workshop/ SoftwareProductivityWorkshopReport2014.pdf
Top Ten Exascale Research Challenges	Report: Feb. 10, 2014	SC-ASCR	http://science.energy.gov/~/media/ascr/ascac/pdf/meetings/20140210/Top10reportFEB14.pdf
Workshop on Modeling & Simulation of Systems and Applications	Aug. 13-14, 2014; Seattle, WA Report: Dec., 2014	SC-ASCR	http://science.energy.gov/~/media/ascr/pdf/ program-documents/docs/ModSim_2014_Report_ FINAL.pdf

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks			
Storage Systems and Input/ Output to Support Extreme Scale Science	Dec. 8-11, 2014; Rockville, MD	SC-ASCR	http://science.energy.gov/~/media/ascr/pdf/ programdocuments/docs/ssio-report-2015.pdf			
The 2015 Cybersecurity For Scientific Computing Integrity Workshop	Jan. 7-9, 2015; Rockville, MD	SC-ASCR	http://science.energy.gov/~/media/ascr/pdf/ programdocuments/docs/ASCR_Cybersecurity_ For_Scientific_Computing_Integrity_Report_2015. pdf			
SC Office of High Energy Physics						
Accelerator Task Force Report	Report: May, 2012	SC-HEP	http://www.acceleratorsamerica.org/report/ accelerator_task_force_report.pdf			
Workshop on Laser Technology For Accelerators	Jan. 23-25, 2013; Napa, CA	SC-HEP	http://science.energy.gov/~/media/hep/ pdf/accelerator-rd-stewardship/Lasers_for_ Accelerators_Report_Final.pdf			
Building for Discovery: Strategic Plan for U.S. Particle Physics in the Global Context	Nov. 2-4, 2013; Fermi National Accelerator Lab Dec. 2-4, 2013; SLAC National Accelerator Lab Dec. 15-18, 2013; Brookhaven National Lab Report: May, 2014	SC-HEP	http://science.energy.gov/~/media/hep/hepap/pdf/ May-2014/FINAL_P5_Report_Interactive_060214. pdf			
Tools, Techniques, and Technology Connections of Particle Physics	Report: May, 2014	SC-HEP	http://science.energy.gov/~/media/hep/pdf/files/ Banner%20PDFs/TTT-connections-May14.pdf			
SC Office of Nuclear Physics						
Implementing the 2007 Long Range Plan	Report: Jan. 31, 2013	SC-NP	http://science.energy.gov/~/media/np/nsac/pdf/20130201/2013_NSAC_Implementing_the_2007_Long_Range_Plan.pdf			
Major Nuclear Physics Facilities for the Next Decade	Feb. 15-16, 2013 Report: March 14, 2013	SC-NP	http://science.energy.gov/~/media/np/nsac/pdf/docs/2013/NSAC_FacilitiesReport.pdf			

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks			
The 2015 Long Range Plan for Nuclear Science	Aug. 6-8, 2014; East Lansing, MI	SC-NP NSF	http://science.energy.gov/~/media/np/nsac/ pdf/2015LRP/2015_LRPNS_091815.pdf			
	Aug. 21-23, 2014; College Station, TX					
	Sept. 13-15, 2014; Philadelphia, PA					
	Sept. 28-29, 2014; Rosemont, IL					
	April 16-20, 2015					
	Report: Sept. 18, 2015					
SC Office of Fusion Energy Sciences						
Opportunities for Fusion Materials Science and Technology Research Now and During the ITER Era	Nov. 7-8, 2011; Gaithersburg, MD Jan. 5-6, 2012; San Diego, CA Oct. 3, 2011–Feb. 10, 2012(telecon) Report: Feb., 2012	SC-FES	http://science.energy.gov/~/media/fes/pdf/ workshop-reports/20120309/FESAC-Materials- Science-final-report.pdf			
Opportunities for and Modes of International Collaboration in Fusion Energy Sciences Research during the ITER Era	Nov. 14-17, 2011; Salt Lake City, UT Dec. 19-21, 2011; La Jolla, CA Report: Feb., 2012	SC-FES	http://science.energy.gov/~/media/fes/pdf/ workshop-reports/20120309/Intl_Collab_Final_ SCSC-PRINT.pdf			
Report of the FESAC Subcommittee on the Prioritization of Proposed Scientific User Facilities for the Office of Science	Feb. 1, 2013; Gaithersburg, MD March 2-3, 2013; Gaithersburg, MD Report: March 21, 2013	SC-FES	http://science.energy.gov/~/media/fes/fesac/ pdf/2013/FESAC_Facilities_Report_Final.pdf			
Priorities of the Magnetic Fusion Energy Science Program	Report: Feb. 10, 2013	SC-FES	http://science.energy.gov/~/media/fes/fesac/ pdf/2013/Final-Report-02102013.pdf			
Report of the FESAC Strategic Plan Panel: Priorities Assessment and Budget Scenarios	June 3-5, 2014; Gaithersburg, MD July 8-10, 2014; Gaithersburg, MD Report: Oct. 8, 2014	SC-FES	http://science.energy.gov/~/media/fes/fesac/pdf/2014/October/FESAC_Strategic_Panel_Report_Final_Draft_Oct_10_2014.pdf			

## **Quadrennial Technology Review 2015**

#### **Table 16** Quadrennial Technology Review 2015

Workshop/Conference/ Peer Review	Dates; Location	Leads; Co-Sponsors	Weblinks
Cornerstone Workshop	Dec. 4-5, 2014; Crystal City, VA	S4	
Capstone Workshop	April 15-16, 2015; Crystal City, VA	S4	
QTR Industry and Manufacturing Webinar	Feb. 11, 2015; N/A	AMO	http://energy.gov/downloads/qtr-webinar-chapter- 8-industry-and-manufacturing
QTR Public Webinar 1	Feb. 18, 2015; N/A	S4	http://energy.gov/downloads/qtr-public-webinar-1
QTR Public Webinar 2	March 4, 2015; N/A	S4	http://energy.gov/downloads/qtr-public-webinar-2
QTR Framing Document	Jan. 13, 2015; N/A	S4	http://energy.gov/downloads/framing-document- second-quadrennial-technology-review-qtr-2015

# Acronyms

#### **Department Of Energy**

ARPA-E DOE Advanced Research Projects Agency-Energy

**EPSA** DOE Office of Energy Policy and Systems Analysis

**S4** Office of the Under Secretary for Science and Energy

**EERE** DOE Office of Energy Efficiency and Renewable Energy

**AMO EERE Advanced Manufacturing Office** 

EERE Building Technologies Office BTO

**BETO** EERE BioEnergy Technologies Office

**FCTO** EERE Fuel Cell Technologies Office

**GTO** EERE Geothermal Technologies Office

EERE Solar Energy Technologies Office **SETO** 

EERE Vehicle Technologies Office VTO

**WWPTO** EERE Wind and Water Power Technologies Office

FE DOE Office of Fossil Energy

FE Office of Oil and Gas O&G

NE DOE Office of Nuclear Energy

OE DOE Office of Electricity Delivery and Energy Reliability

SC DOE Office of Science

SC-ASCR SC Office of Advanced Scientific Computing Research

**SC-BER** SC Office of Biological and Environmental Research

**SC-BES** SC Office of Basic Energy Sciences

**SC-FES** SC Office of Fusion Energy Science

SC Office of High Energy Physics **SC-HEP** 

SC-NP SC Office of Nuclear Physics

#### Crosscuts:

**ACTT** Advanced Computing Technology Team

CEMI Clean Energy Manufacturing Initiative

GTT Grid Tech Team

Supercritical Carbon Dioxide Technology Team sCO,

**SubTER** Subsurface Technology and Engineering RD&D Crosscut

(Technology Team)

WETT Water Energy Technology Team

#### **DOE National Laboratories**

Ames Laboratory **Ames** 

ANL **Argonne National Laboratory** 

BNL Brookhaven National Laboratory

INL Idaho National Laboratory

**Fermilab** Fermi National Accelerator Laboratory

**LBNL** Lawrence Berkeley National Laboratory

LLNL Lawrence Livermore National Laboratory

LANL Los Alamos National Laboratory

**NETL** National Energy Technology Laboratory

**NREL** National Renewable Energy Laboratory

Oak Ridge National Laboratory ORNL

**PNNL** Pacific Northwest National Laboratory

**PPPL** Princeton Plasma Physics Laboratory

SLAC Stanford Linear Accelerator Laboratory

SNL Sandia National Laboratory **SRNL** Savannah River National Laboratory

Thomas Jefferson National Accelerator Facility JLab

#### **DOE National Laboratories**

DOC Department of Commerce

DOI Department of Interior

**EPA Environmental Protection Agency** 

National Aeronautics and Space Administration **NASA** 

National Science Foundation NSF

**NRC Nuclear Regulatory Commission** 

**OSTP** White House Office of Science and Technology Policy

U.S. Department of Agriculture **USDA** 

#### Initiatives, Interagency Activities, Other Organizations

**CIGRE** The International Council on Large Electric Systems

**CURENT** Center for Ultra-wide-area Resilient Electric Energy Transmission Networks

**EPRI** Electric Power Research Institute

Generation IV International Forum GIF

NAS National Academy of Sciences

North American Synchro-Phasor Initiative NASPI

**NRC** National Research Council

**NERSC** National Energy Research Scientific Computing Center

**NRECA** National Rural Electric Cooperative Association

**NSET** Nanoscale Science, Engineering, and Technology Subcommittee, National

Science and Technology Council's Committee on Technology, White House

Office of Science and Technology Policy.

**RPSEA** Research Partnership to Secure Energy for America (public-private

partnership)

**SWRI** Southwest Research Institute