

2018 Energy Exchange

ISWG Updates

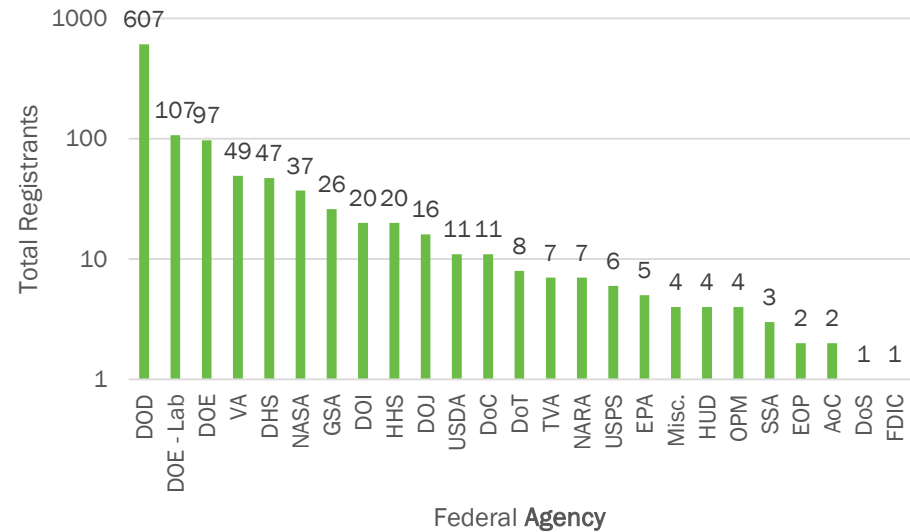
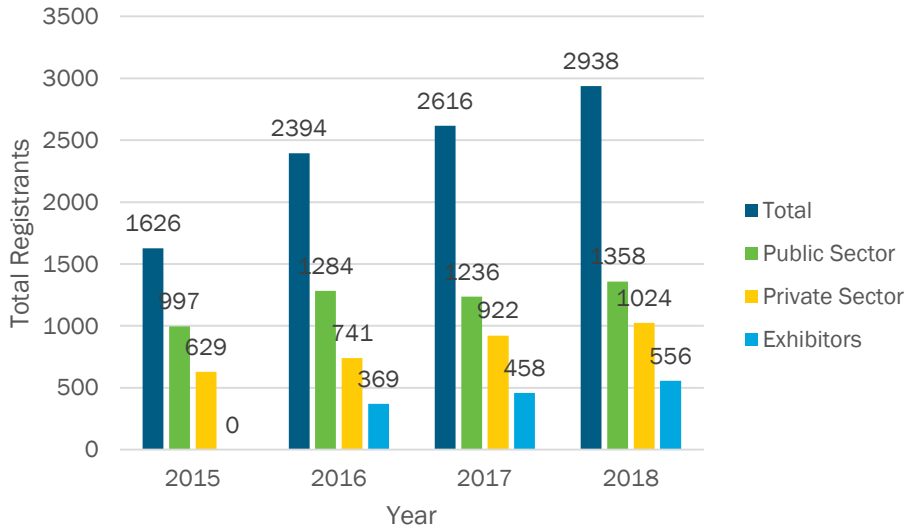
Nicolas Baker, LEED AP

09/20/2018



2018 Energy Exchange | Better Buildings Summit

| OVERALL REGISTRATION BY SECTOR TYPE | | | | | | | | |
|-------------------------------------|-------------|----------------------|----------------|--------------------------|------------------|-----------------|-------------------|--|
| 2,938 | | | | | | | | |
| PUBLIC SECTOR ATTENDEES | | | | PRIVATE SECTOR ATTENDEES | | | | |
| 1,358 | | | | 1,580 | | | | |
| Federal Attendees | | Nonfederal Attendees | | | | | | |
| 1,102 | | 256 | | | | | | |
| FED Attendee | FED Speaker | NONFED Attendee | NONFED Speaker | NONFED Exhibitor | PRIVATE Attendee | PRIVATE Speaker | PRIVATE Exhibitor | |
| 879 | 223 | 134 | 109 | 13 | 812 | 212 | 556 | |

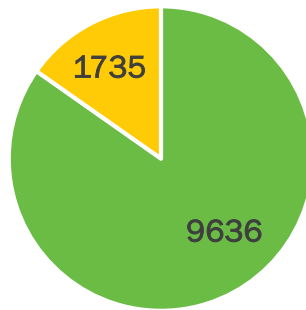


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ORGANIZATION TYPE: PRIVATE, PUBLIC-FEDERAL, PUBLIC-NONFEDERAL

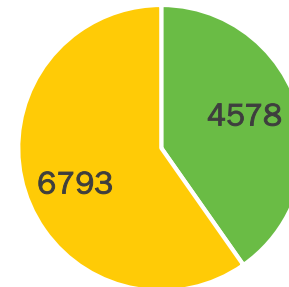
| TYPE | ENERGY EXCHANGE | | BETTER BUILDINGS SUMMIT | | COMBINED | |
|----------------|-----------------|--------------|-------------------------|--------------|---------------|---------------|
| | EEx Scans | EEx % Scan | BBS Scans | BBS % Scan | Total Scans | Overall % |
| PRIVATE | 4,261 | 79.8% | 1,081 | 20.2% | 5,342 | 38.5% |
| PUBLIC-FEDERAL | 6,377 | 88.4% | 839 | 11.6% | 7,216 | 52.0% |
| PUBLIC-NONFED | 719 | 55.7% | 571 | 44.3% | 1,290 | 9.3% |
| #N/A | 14 | 66.7% | 7 | 33.3% | 21 | 0.2% |
| | 11,371 | 82.0% | 2,498 | 18.0% | 13,869 | 100.0% |

EEx Scans – Accredited Sessions Attended



■ Accredited ■ Not Accredited

EEx Scans – FBPTA Aligned Sessions Attended



■ FBPTA ■ non-FBPTA

ALIGNED SESSIONS

41 out of 134 total sessions

31%

2018 Energy Exchange – *Track Attendance*

| TRACK INFORMATION | | | ALL ATTENDEES | | FEDERAL ATTENDEE SCANS | | |
|----------------------------------------------------------------------|-------|----------------------------------------------------------------|---------------|--------|------------------------|-------------|-----------|
| Theme | Track | Track Title | Scans | Hours | FED Attendee | FED Speaker | FED TOTAL |
| Workforce, Management, and Policy Drivers | 1 | Workforce Development and Engagement | 466 | 699 | 234 | 49 | 283 |
| | 2 | Policy and Strategies | 993 | 1489.5 | 467 | 91 | 558 |
| | 3 | Partnering Strategically with FEMP | 388 | 582 | 165 | 45 | 210 |
| Resilience and Energy Contingency Planning Implementation | 4 | Planning for Mission-Driven Resilience | 1032 | 1548 | 525 | 91 | 616 |
| | 5 | Continuity of Operations: Resilience and Contingency Solutions | 1031 | 1546.5 | 523 | 97 | 620 |
| | 6 | Distributed Generation: Contribution to Resilience | 1053 | 1579.5 | 472 | 78 | 550 |
| Optimizing Design, Operations, and Maintenance for Smarter Buildings | 7 | Building Optimization Essentials | 920 | 1380 | 497 | 28 | 525 |
| | 8 | Data Literacy | 835 | 1252.5 | 362 | 61 | 423 |
| High Impact and Secure Technology Applications | 9 | Emerging Technologies | 1023 | 1534.5 | 471 | 57 | 528 |
| | 10 | Cybersecurity Technologies and Control Systems | 905 | 1357.5 | 424 | 77 | 501 |
| Financing, Performance Contracting, and Utility Partnerships | 11 | Financing and Performance Contracting | 923 | 1384.5 | 375 | 79 | 454 |
| | 12 | M&V and Performance Assurance/Utility Partnerships | 795 | 1192.5 | 344 | 60 | 404 |
| Key Sectors: Water and Fleet | 13 | Water Management and Resilience | 519 | 778.5 | 239 | 72 | 311 |
| | 14 | Fleet | 488 | 732 | 303 | 91 | 394 |

Tracks with Recorded Sessions

Most Attended Tracks

EEx Recorded Workshops – 3 Recorded

FEMP Pre-Event Workshops - Monday

FEMP Pre-Event Workshop A - Operation and Maintenance of Solar Photovoltaic Systems: Reducing Cost and Improving

This workshop introduces procedures to safely and cost-effectively perform effective operations and maintenance (O&M) for photovoltaic (PV) systems and covers PV system inspection, operations, preventative and corrective maintenance, O&M plans, safety and budgeting.

FEMP Pre-Event Workshop B - A New Way of Financing On-Site Renewable Energy: ESPC Energy Sales Agreement

This workshop provides an overview of energy savings performance contract energy sales agreements (ESPC ESAs) and the various approaches to implementing ESPC ESAs for on-site third-party financed renewable energy projects. Attendees will learn about the three approaches to implementing ESPC ESAs (site-specific/stand-alone, DOE IDIQ, and ESPC ENABLE), the Federal Energy Management Program's ESPC ESA Toolkit, best practices, project considerations, and resources available.

FEMP Pre-Event Workshop C - Executing Cost-Effective Distributed Energy Projects on Federal Sites

This workshop introduces the implementation process for distributed energy projects. Upon completion of this workshop, attendees will understand the drivers for distributed energy projects on federal sites, the process, considerations, and best practices for implementing distributed energy projects and be familiar with the resources available for implementing distributed energy projects.

EEx Recorded Sessions - 7 Recorded

Energy Exchange Sessions - Tuesday

T10-S1: Cybersecurity Basics for Energy Managers

Operating technologies (OT) pose a unique challenge to cybersecurity. Legacy systems, IoT integration, and OT architecture priorities require a different approach relative to traditional IT cybersecurity. This session will provide a high-level overview of controls systems cybersecurity, priming the attendee for the rest of this essential track.

(FBPTA Competencies 3.1 & 4.5)

T8-S2: Energy Modeling

This session will explore various energy modeling tools, technologies, and best practices. It will discuss basic and advanced modeling techniques for existing buildings using popular tools such as building simulation software, spreadsheet analysis, and computational fluid dynamics. Additionally, the session will demonstrate the pros and cons of different tools and models and how to apply best practices.

T8-S3: Metering

This session will illustrate how to extract useful data from smart meters and utility invoices to identify actionable energy efficiency measures. It will also provide insights on suitable sub-metering placement on critical assets.

(FBPTA Competencies 2.5)

EEx Recorded Sessions - 7 Recorded

Energy Exchange Sessions - Wednesday

T13-S4: Alternative Water and Storage Planning

This session will discuss the use of FEMP tools to implement alternative water projects at federal facilities and give examples from agencies that already use alternative water sources.

(FBPTA Competencies 8.1)

T13-S5: Water Auditing Tools and Resources

This session will share best practices for water assessments including process, tools, and calculation methods needed for the quadrennial EISA Section 432 Energy and Water Audits studies, as well as how to perform a basic water balance.

(FBPTA Competencies 8.1 & 8.2)

T9-S6: Advanced Energy Storage Systems

This session will present available technologies and benefits for implementing advanced energy storage solutions. New technologies are coming on the market and old technologies are being dusted off and updated. These advances make energy storage an economical and viable option for facility and campus energy. Panelists will show how building automation technology can facilitate seamless integration of energy storage into building facility power systems.

(FBPTA Competencies 2.5 & 4.1)

T9-S7: Indoor Environmental Quality for Energy and Productivity

Advances in building sensors, HVAC equipment, and lighting technology allow us to create highly-efficient and modern spaces for federal employees. Ever wonder how these technologies also improve indoor air quality and worker productivity? This session will dive deeper into how three research teams are using multiple streams of data from a distributed sensor network to create an accurate picture of building performance and its resultant effects on health and productivity while reducing operating costs.

Federal Buildings Personnel Training Act (FBPTA)

Don't forget to get your CEU's *and* get credit for FBPTA

- To obtain your CEUs after completing a session, visit www.wbdg.org/continuing-education/energy-exchange by **October 31, 2018**, and take the assessment and evaluation.
- Some sessions are also eligible for FBPTA credit.
- These sessions will be automatically uploaded to Accelerate FM—the FBPTA compliance reporting tool.
- To receive credit for completing these sessions, create an account in Accelerate FM within 30 days. To access Accelerate FM, visit www.fmi.gov.

2018 Energy Exchange | Better Buildings Summit

FEDERAL ENERGY MANAGEMENT PROGRAM

Home » Federal Leadership & Engagement » Training » Energy Exchange



In 2018, the U.S. Department of Energy brought together [Energy Exchange](#) and the Better Buildings Summit in Cleveland, Ohio, August 21-23, creating the largest and most exciting DOE training, trade show, and peer event of the year.

More than 3,000 thought leaders from the federal, private, education, and state and local government sectors convened to accelerate the adoption of energy and water efficiency, integrated resilience, emerging and secure technologies, and replicable renewable energy solutions.

Energy Exchange Archives

Energy Exchange 2018: August 21-23; Cleveland, Ohio

- View the [session presentations](#).
- Read about [2018 FEDS Spotlight recipients](#).

Energy Exchange 2017: August 15-17, 2017; Tampa, Florida

- View the [session presentations](#).

2018 Session Presentations Now Available

Select the session title to view the presentation.

<https://www.energy.gov/eere/femp/energy-exchange>

2018 Energy Exchange | Better Buildings Summit



Denotes Track with CEU Qualified Sessions

HOME AGENDA SPEAKERS TRAINING EXHIBIT CONTACT

** SESSION SLIDES ARE CURRENTLY AVAILABLE. SELECT A SESSION BELOW TO ACCESS THE PDF LINK. **

Check back for updates or additional presentations.

2018 Technical Training Schedule

Tuesday
08/21

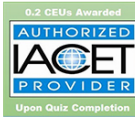
| | |
|-------------------|--------------------------------------------------------------------|
| 9:00am - 11:30am | T15-S1: eProject Builder Training |
| 10:30am - 12:00pm | T01-S1: Energy Manager Workforce Development Credentialing |
| 10:30am - 12:00pm | T02-S1: Legislative Developments Affecting E Funding |
| 10:30am - 12:00pm | T03-S1: FEMP Cybersecurity Program for Facilities |
| 10:30am - 12:00pm | T04-S1: What Keeps You Up at Night? Today's Infrastructure |
| 10:30am - 12:00pm | T05-S1: Continuity and Contingency: What is it and Why? |
| 10:30am - 12:00pm | T06-S1: Transforming Business Models for Alternative Energy |
| 10:30am - 12:00pm | T07-S1: Energy 101: Lighting |
| 10:30am - 12:00pm | T08-S1: Data Analytics 101 |
| 10:30am - 12:00pm | T09-S1: Advanced HVAC Systems |

Tracks

* Energy Exchange

Credentialing

T09-S1: Advanced HVAC Systems



0.2 CEUs Awarded
IA CET PROVIDER
Upon Quiz Completion

This session will introduce attendees to HVAC technologies that are commercially available and have demonstrated performance significantly better than their peers, but which have not achieved significant visibility or market penetration. At the end of this session, attendees will have a suite of ideas that they can take back to their facilities and, if so desired, purchase through their agency's normal process.

Session Presentation – Phillips
Session Presentation – Miller
Session Presentation – Underwood
Session Presentation – McDonough

Recommended Follow-on Sessions:

- T09-S6: *Advanced Energy Storage Systems* (Wednesday, 2:00 PM – 3:30 PM, Room 26B)
- T16-S7: *Liquid in the Rack: Liquid Cooling Your Data Center* (Wednesday, 4:00 PM – 5:30 PM, Room 8)
- T21-S10a: *Cooling Tower Water Management Best Practices* (Thursday, 2:00 PM – 3:30 PM, Room 26C)

Aug 21 @ 10:30
10:30 am - 12:00 pm
Room 26B
Curt Phillips (U.S. Army), Dave Underwood (U.S. Army), Jim Miller (U.S. Army Corps of Engineers), Scott McDonough (Carrier Corporation)

<https://www.2018energyexchange.com/training-session-schedule/>