



August, 2016

I'm pleased to present the inaugural edition of EnergySec's Program and Services Guide. EnergySec is approaching its 8th anniversary as a formal 501(c)3, non-profit organization, and has roots extending back another half-decade before that. The past few years, in particular, have been a time of growth and reorganization as we have emerged as an independent organization, free of federal funding. In this booklet, we describe what we do, and aspire to do, as an organization committed to serving industry and supporting efforts that strengthen cybersecurity in critical infrastructure.

As you'll see, we organize our activities into five distinct but inter-related program areas: Community, Professional Education, Workforce Development, Information Sharing and Analysis, and Services. Community is the core of our organization. As a non-profit industry association, we exist to build and serve the community of security professionals in our sector. We do that by providing professional education opportunities, operating workforce programs, supporting information sharing efforts, and providing targeted services to meet industry needs.

EnergySec has something for everyone, from the boiler room to the board room. We are always looking for ways to improve and expand our service offerings, so we'd love to hear your thoughts on what we can do better. Our leadership and staff are easily accessible. You'll find background information and contact details on all of us in the directory section of this booklet. We look forward to speaking with you.

Regards,

Steven Parker

President



EnergySecCOMMUNITY



Our mission is to provide resources that *support organizations* in securing their critical infrastructure.

www.energysec.org/get-connected

PUBLICATIONS

Weekly, Bi-Weekly, and Monthly

We provide various informational publications, including a weekly update on key security topics and a semi-monthly newsletter on NERC CIP topics.

We also publish guidance and analysis documents and occasionally executive level briefs on key issues.

EnergySecCONNECTED

A monthly newsletter that details events within the EnergySec community in electronic and hard copy available to all parties interested in the work of EnergySec.

✓ Weekly Update

A weekly email newsletter containing updates on cybersecurity threats and vulnerabilities, emerging practices, policy, legislation, and regulation.

✓ CIP Newsletter

A semi-monthly email newsletter containing updates and analysis on CIP-related events, guidance, and published violations.

✓ The Week Ahead Email

Sent at the beginning of each week, this includes security- and compliance-related events which are scheduled.

✓ = Members Only Benefit

✓ Executive Briefs

EnergySec's Executive Briefs provide a 1-2 page abstract on key security topics of interest to an organization's executives. Security professionals are able to present executives with a quick read on topics of security.

✓ Analysis Documents

EnergySec's team of experts, with years of relevant industry experience in cybersecurity and NERC CIP implementation and audits, review and provide a written in-depth analysis of documents, white papers, and briefs that discuss the security of critical infrastructure.

✓ White Papers

EnergySec's talented staff address the latest security and compliance standards with detailed insight into the effects on critical infrastructure.

NERC CIP

Compliance and Security

✓ NERC CIP Guidance

In cooperation with industry and our extensive network of advisors, EnergySec staff develops and publishes detailed guidance on topics in the latest CIP version. Published versions of all guidance are available as a member benefit in the EnergySec Community.

✓ NERC CIP RFI Assistance

EnergySec can assist with, coordinate, and/or submit formal Requests for Interpretation (RFI) of the NERC CIP standards. EnergySec staff is well-positioned to assist member entities with the

evaluation of potential RFI situations, drafting of the request where needed, and interacting with NERC and Interpretation Drafting Team (IDT) throughout the process.

✓ Comments on Regulatory Actions

EnergySec staff review NERC draft standards and FERC NOPRs, providing comments that members can use as a response to the identified security measure.

✓ Application Guidance

In accordance with NERC's Compliance Guidance Policy, EnergySec is seeking status as an organization prequalified to submit Application Guidance for potential "endorsement" by the ERO. Once approved, we will be able to work with our members and the broader community to develop and submit implementation approaches for CIP standards requirements.

ONLINE RESOURCES

Discussion forums and more

Available in our online community at community.energysec.org. See the Technology section further ahead in this document for additional resources.

CIPtionary

The EnergySec CIPtionary is a comprehensive reference for words and phrases used in the CIP standards and related documents and discussions. This is a useful resource to further understanding of the CIP standards and specific requirements where terminology is ambiguous.

✓ Discussion Forums

EnergySec staff provide discussion forums available to all members on topics of interest and concern to critical infrastructure security.

✓ Vendor Resource Center

The number of security products and services on the market has exploded in recent years and continues to grow. EnergySec's Vendor Resource Center (VRC) is designed to provide a comprehensive listing of available solutions for specific problems with our industry.

Our goal is to make the VRC a perfect starting point in the evaluation of potential security product

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EnergySec's Vendor Resource Center (VRC) is designed to provide a comprehensive listing of available solutions for specific problems with our industry.

and service purchases. In addition to vendor listings by category and topics area, the VRC will have areas for comments by member utilities and will contain results of industry surveys to determine the extent to which various products are used within industry.

WEBINARS

Easily accessed seminars

Educational Webinars

EnergySec staff organize webinars that are educational in nature relevant to topics of security and critical infrastructure.

Solutions Webinars

EnergySec organizes presenters to provide awareness of the latest technology products available in cybersecurity and ways these devices can be utilized to secure critical infrastructure.

EVENTS

Opportunities for Participation

- ✓ Members receive priority speaking engagements and a 30% discount off attendee pricing.

Annual Security and Compliance Summit

For more than 11 years the EnergySec Security Summit has been the premier gathering for stakeholders in the energy sector focused on physical and cyber security. Our summits give each attendee a rare opportunity to mingle with asset owners, government agencies, researchers, consultants, vendors and academia under one roof. We are one of the oldest and most mature

security events in the industry, bringing the most relevant and timely security topics to the forefront of discussion

Security Education Week

In 2017, EnergySec will launch its Security Education Week designed for apprentices and/or students interested in the cybersecurity profession within critical infrastructure. The event will feature speakers from industry, mini-tech sessions on topics like NERC CIP, and question and answer forums.

Hawaiian Educational Sessions

EnergySec's Hawaii Educational sessions are cybersecurity educational events targeted at security professionals representing businesses in Hawaii, the United States West Coast and Japan who are eager to learn more about what they can do to improve security in mission critical environments. Through our Hawaii events, EnergySec continues to drive toward our mission of helping people learn more about what they can do to improve the security and reliability of critical infrastructure.

PROFESSIONAL FORUMS

Opportunities for professional discussions

✓ Security Leadership Forum

EnergySec's Security Leadership Forum facilitates collaboration between senior security leaders within the energy industry and provides a vehicle for the execution of joint projects that serve industry-wide interests.

✓ Other Professional Forums

Professional forums are developed as members define a need for discussion and connecting with peers in industry. Any member may request the creation of a forum meet the needs of their peer group.

✓ Security Analysts Forum

A Security Analysts Forum is being formed to support our Information Sharing and Analysis programs.

BRIEFINGS

EnergySec Staff Expertise

✓ Member Briefings

EnergySec conducts "members only" briefings concerning topics of relevance to security personnel, such as NERC CIP requirements, the latest in security incidents, etc. Commercial members have the opportunity to participate in such briefings to share security news and information discovered by their research or analysis teams.

NARUC Briefings

EnergySec provides a monthly (third Thursday) security news briefing to state regulatory commissioners and staff.

INDUSTRY PARTICIPATION

EnergySec Staff monitors industry events

✓ Staff Access

EnergySec staff and leadership participate in numerous industry events. Our staff is available to our member organizations for questions and consultation.

✓ CIP SDT

EnergySec has staff dedicated to closely monitor new CIP drafting team efforts. The discussions, changes, and/or insights are made available to our members. Staff are available to members for clarification of results released by the drafting team.

Regional Entity Meetings

EnergySec staff attend meetings and conferences organized by regional entities to keep abreast of compliance-related activities throughout the country. The reporting of events is available to our members through our member publications and briefings.

Security Conferences

EnergySec staff attend a variety of security conferences to keep informed of current issues and inform our membership.

Other Events

EnergySec staff participate in events that relate to our five core areas of operation to keep abreast of the latest trends in security, compliance, and cybersecurity education.

TECHNOLOGY

Online services available from EnergySec

community.energysec.org

EnergySec's online community is available to support collaboration in industry by providing industry-specific online forums. This platform is also used to distribute online resources for members and participants.

HipChat

EnergySec's HipChat server is a private instant messaging service provided to community participants. This service provides immediate interaction with EnergySec staff and others in the industry. We regularly host chat sessions in conjunction with industry events, enabling real-time discussions and tracking of events by those unable to attend directly.

Members are able to establish private chat rooms under their control for discussions with the peers across organizations.

Email List Server

EnergySec operates an email list server integrated into our community in support of our forums. We can also provide comprehensive list and group management to ad-hoc industry groups seeking an effective, private collaboration platform.

✓ Surveys

EnergySec staff conducts customized, confidential surveys for individual or group organizations as requested. These surveys provide much-needed feedback for organizations while providing anonymity to respondents.

✓ ThreatConnect Community

EnergySec operates a security analyst collaboration community on the ThreatConnect platform. This technology allows security analysts to engage in robust collaboration on threat intelligence and incident analysis in a secure manner.

✓ = Members Only Benefit

VOLUNTEER OPPORTUNITIES

Ways to get connected with EnergySec

EnergySec is first and foremost a community of like-minded individuals working to improve the security of critical infrastructure. There are many ways to get involved and support our mission.

Below are various areas in which volunteer opportunities exist for those willing to contribute a little time and expertise to the cause.

Speakers' Bureau

EnergySec staff coordinates cybersecurity professionals with speaking opportunities in their local area. For example, visiting schools and colleges to encourage young people to follow a career path into the cybersecurity field. Speaking opportunities may also include regional and national events and online webinars.

Workforce Advisory Group

EnergySec has established a Workforce Development Advisory Group to bring together individuals interested in cybersecurity workforce development within the electric sector. Participation in this group is informal and voluntary, although more formal task teams may be assembled from willing participants on an as-needed basis.

The purpose of the advisory group is to provide industry input into EnergySec's cyber security workforce programs, including review and comment on internship, and apprenticeship programs.

Mentoring

EnergySec is currently seeking individuals interested in connecting with, encouraging, and training prospective cybersecurity professionals.

To build future professionals, mentoring relationships need to be developed. Mentoring can range from casual conversation providing insight or answers on technical topics to more intensive teaching of specific areas of knowledge.

Curriculum Reviews

EnergySec is continuing to develop and expand its curriculum resources for interns, apprentices, and professional education courses. Interested experts in each area of development are offered opportunities to review new material to provide comments and insights that are subject-material related.

Webinars

EnergySec hosts regular educational webinars. We are always looking for industry experts to participate as panelists on these webinars.

- ✓ Commercial members receive priority for participation in educational webinars.

Guest Articles

EnergySec accepts articles from industry experts on topics related to security and awareness for inclusion in our monthly newsletter, *EnergySecConnected*.

- ✓ Industry and commercial members receive priority for publishing of guest articles.

Volunteer Instructor

As part of our workforce programs, EnergySec is seeking to develop short, online “mini-courses” (30 minute segments) on a various security topics that would be beneficial to new and incumbent workers in critical infrastructure. This is a great way to share some of your expert knowledge as well as earn some CPE credits towards maintaining our professional certifications.

EnergySec staff can help with refining presentation material, and we handle all the behind the scenes logistics for these courses.

Event Support

EnergySec provides opportunities for volunteers to support our various events, such as special workshops, summits, regional classes, and more.

To Get Connected:

For more information and contact information visit our website: www.energysec.org/volunteer. Or email us at volunteer@energysec.org.



WorkforceDevelopment



Implementation of workforce development programs designed to *develop cybersecurity professionals* with the unique skills and abilities required for critical infrastructure protection.

www.energysec.org/workforce-development

ACADEMIC OUTREACH AND PARTNERSHIP

Partnering with education

EnergySec is partnering with academic institutions to assist in preparing their students for jobs in our sector, and providing entry points into those careers. Academic institutions (or individual instructors) sign up for participation in our events through our online forms. EnergySec staff uses web conferencing, on-site visits, and industry events to grow and develop our cooperative relationship with each institution.

✓ Staff Assistance

EnergySec staff can provide assistance in outreach to local colleges and universities based on our experience with other partners. We also arrange speaking opportunities for utility staff in their local schools to encourage students to pursue careers in cybersecurity.

Mount Hood Community College

EnergySec president, Steve Parker, is a member of the cybersecurity advisory board for Mt. Hood Community College. In this capacity, he is able to provide direct input into the creation of cybersecurity-related courses. Also, for the past four years, EnergySec has participated with Mt. Hood's Cybersecurity Degree program by piloting in-house internships.

Oregon Institute of Technology

EnergySec is partnering with OIT on the continued development of internships in the cybersecurity space.

Whatcom Community College / Cyber Watch West

EnergySec president, Steve Parker, is part of the National Science Foundation's review board for Cyber Watch West, a program operated by Whatcom Community College that supports and promotes cybersecurity degree programs at more than 70 institutions in the Western US.

Highline College

Highline College is a registered educator with EnergySec's workforce development and collaborates with EnergySec staff to place interns into cybersecurity opportunities.

CREDC/University of Illinois/Champaign-Urbana

EnergySec staff are working with CREDC's elementary education program as they develop new materials for use in the K-5 classroom.

The Cyber Resilient Energy Delivery Consortium (CREDC) is the successor to the Trustworthy Cybersecurity Infrastructure for the Power Grid

(TCIPG) CREDC's mission is to develop cyber resiliency in not only the electric power but in the oil and gas industries as well. We are working with CREDC's elementary education program as they develop new materials for use in the K-5 classroom.

Cyber Watch West (CWW) Member Schools

EnergySec has established a working relationship with several CWW colleges to establish internship opportunities for undergraduate students.

The mission of CyberWatch West is to increase cybersecurity education and workforce development throughout the western United States. CWW collaborates with businesses, higher education, and government to develop cybersecurity instruction and innovations to strengthen the cybersecurity workforce.

National CyberWatch Center

EnergySec is utilizing the resources (curriculum, etc.) developed by the National CyberWatch Center for our internship pre-training program and apprenticeship education program. EnergySec is also involved with the newly-established student organization for recruitment and information.

The National CyberWatch Center is a consortium of high education institutions, businesses, and government agencies that focus on providing cybersecurity education curriculum, e-books, and webinars. Most recently, it has launched a student association for networking students to learning opportunities

CEWD

EnergySec is using portions of the curriculum developed by the Center for Energy Workforce Development to prepare interns for work in the electric industry.

CEWD is a nonprofit consortium of utility companies dedicated to building a skilled workforce for the future needs of industry.

INTERNSHIP PROGRAM

Filling the pipeline with qualified workers

An intern is a temporary employee that works within an organization, often to fulfill a college requirement. Internships are a short-term commitment that affords students the opportunity

to make meaningful contributions to the industry as they network with others in their field of study.

Internships provide students the opportunity to gain experience in cybersecurity while gaining exposure to potential future employers in the industry.

✓ Staff Assistance

EnergySec staff provides assistance to our member organizations in developing security related internship programs. We publish internship case studies and are developing work models for use in internship programs.

Industry Outreach

EnergySec has established relationships with the Northwest Public Power Association (NWPPA), a trade organization representing 145 publicly owned utilities across the western U.S. and Canada, as well as numerous electric utility organizations. We are also actively involved with WorkSource Oregon, our local workforce board, and SmartGridNW, a trade association that promotes the smart grid industry and infrastructure in the Pacific Northwest.

EnergySec supports industry internships by:

- Prescreening prospective interns
- Providing pre-internship training and orientation
- Publishing job models for use by employers in developing internship opportunities
- Providing follow up with both interns and employers to ensure the effectiveness of the program
- Developing a larger pool of intern candidates
- Providing cost effective training specific to the needs of industry

Student Outreach

Through EnergySec's connections with academic institutions, we have begun registering students that are interested in internships and are working to

prepare them for placement. As our outreach to colleges grows, so does our pool of internship candidates.

Summer of Security

EnergySec is currently designing an entry-level internship program—*Summer of Security*—to launch in June, 2017, with 100 participants. Interested participants will then have the opportunity to become a part of our two-year apprenticeship program for cybersecurity within critical infrastructure.

APPRENTICESHIP PROGRAM

Continuity of training for cybersecurity professionals

EnergySec is developing an apprenticeship-style training model to help integrate and develop junior level staff in cybersecurity.

The apprenticeship-style program will provide a formalized program of education, training, and work experience for new security professionals. This model can be applied as a formal Registered Apprenticeship, or simply as a structured on-the-job training pathway. Either approach will provide an expedited process for staff development.

Apprentices are hired to work full-time for an employer where they receive on-the-job-training and are provided opportunities for related learning through classroom instruction, seminars, online training, etc directed by the EnergySec Workforce Development department.

Wages are upscaled as training progresses through the program with an expectation that individuals completing an apprenticeship program will be offered permanent employment at a competitive salary

✓ = Members Only Benefit

EnergySec apprenticeships provide industry with:

- Career Pathway planning for employees
- Apprenticeship training classes taught by knowledge experts in the field
- Job models developed for an easy transition into meaningful work
- Apprentice progression tracked and documented to insure all required Knowledge, Skills, and Abilities are completed successfully
- Related Learning Instruction
- Mentoring by EnergySec staff and industry professionals for learning success

Mentoring

EnergySec is currently enrolling individuals interested in connecting with, encouraging, and teaching prospective cybersecurity professionals.

To build future professionals, mentoring relationships need to be developed. Mentoring can range from casual conversation providing insight or answers on technical topics to more intensive teaching of specific areas of knowledge.

EnergySec staff will provide a matching service to connect mentors with students and young professionals desiring interaction with more senior members of their field.

STUDENT PROGRAMS

Building high school to college pathways

✓ Staff Assistance

Through our experience and connections we can assist member organizations in connecting with student-focused events in their service area. Identifying and recruiting future employees early in their educational careers is a great way to stay ahead of the fierce competition for cybersecurity professionals.

INTERRUPT

EnergySec leads the Portland, Oregon, chapter of INTERRUPT, a non-profit cybersecurity organization formed to encourage young people to pursue careers in technology and security.

INTERRUPT is a one-day event that seeks to excite and challenge students, ages 14-22, about the rewarding work in cybersecurity. The event

includes speakers who are IT and cybersecurity professionals, hands-on workshops, and an opportunity for students to practice their newly-acquired skills through a Treasure Hunt. Students have the opportunity to meet cybersecurity professionals, hear about cybersecurity opportunities in their community, and learn about fundamental topics of cyber security.

PDX CyberCamp/Eastside

EnergySec directs the PDX CyberCamp Eastside in Portland, Oregon. This program continues our outreach into high schools to identify students who have the abilities and desire to work in cybersecurity.

In 2009, the Air Force Association (AFA) created the CyberPatriot National Youth Cyber Education Program to inspire students toward careers in cybersecurity or other science, technology, engineering, and mathematics (STEM) disciplines critical to our nation's future. The goal of the camp is to provide motivated high school students with a hands-on, introductory experience to cyber security principles, including hands-on implementation of cyber security policies and practices in Windows and Ubuntu operating systems. These are core skills applicable in any cyber security career, as well as providing students with an "on-ramp" to further high-school educational cyber security activities such as the "capture the flag" competitions.

Speakers' Bureau

EnergySec has established a speakers' bureau to track security leaders and professionals that are willing to speak at local schools and colleges to promote cybersecurity careers. Our staff coordinates opportunities and connects local professionals with schools in their area.

NATIONAL INITIATIVE FOR CYBERSECURITY EDUCATION

NICE for short

The National Initiative for Cybersecurity Education (NICE), under the direction of the National Institute of Standards and Technology (NIST), partners with government, schools, and private industry to increase the education and workforce development in cybersecurity. NICE has divided this work into groups.

K-12 Standards

EnergySec participates in the K-12 working group which is developing cybersecurity curriculum goals for K-12 students.

Career Development and Workforce Planning

We participate in the Career Development and Workforce planning group whose work involves mapping the National Cybersecurity Framework to specific industries.

ADVISORY GROUP

Participants provide workforce development guidance

EnergySec has established a Workforce Development Advisory Group to bring together individuals interested in cyber security workforce development within the electric sector.

Participation in this group is informal and voluntary, although more formal task teams may be assembled from willing participants on an as-needed basis.

The purpose of the advisory group is to provide a forum for discussing cyber security workforce issues within the electric sector and promote and support the development of training programs.



Professional Education



EnergySec-developed *curriculum* and instructor-led educational courses on *security and compliance* topics.

www.energysec.org/professional-education

LIVE COURSES

Led by qualified cybersecurity instructors

We offer a growing list of instructor-led courses on both security and compliance topics.

- ✓ Member organizations receive a 30% discount for staff members attending training.

NERC CIP Bootcamp

Our three-day CIP Bootcamp has provided hundreds of individuals across dozens of organizations with foundational knowledge of the NERC CIP standards, including the history and regulatory background of the standards. It also includes a deep dive into all of the requirements, providing a thorough introduction for new entrants into the CIP world.

NERC CIP Audit Workshop

EnergySec's team of experts has developed a 2-day workshop that prepares entity personnel to successfully navigate the audit process from preparation, to execution, to post-audit negotiations. Attendees will obtain an understanding of the NERC Rules of Procedures (RoP), Compliance Monitoring and Enforcement Program (CMEP), Inherent Risk Assessments (IRA), Internal Controls Evaluation (ICE), and the audit process as documented in the ERO Auditors Handbook.

NERC CIP for Low Impact Entities

This one-day course is designed for individuals working at utilities which have only low impact systems subject to the NERC CIP standards. This course provides the detailed knowledge and

understanding attendees need to achieve compliance with NERC CIP version 6.

NERC CIP Vendor Workshop

This course is designed specifically for individuals affiliated with organizations that provide products and services to electric utilities that are subject to the NERC CIP standards. In this interactive, two-day workshop we provide attendees with the foundational knowledge and industry insights needed to effectively develop, sell, and support products and services used in NERC CIP environments. Attendees obtain an understanding of the NERC CIP regulatory environment, commonly used terminology, requirements, and most importantly, how CIP impacts the sales and support of an organization's products and services.

Cybersecurity Frameworks

Our two-day Security Frameworks course explains the foundational principles undergirding security frameworks then applies those principles to practical issues in the security space. The course is non-technical and is appropriate for leadership and staff across an organization. The NIST CSF and ES-C2M2 are covered.

HOSTED COURSES

Partnered with educated leaders in cybersecurity

We partner with other organizations to bring valuable courses to our community.

NERC CIP Supply Chain Workshop presented by Utilities Technology Council

This workshop will help organizations address cyber supply chain risks by presenting practical

✓ = Members Only Benefit

guidance for establishing cyber supply chain risk management capability while addressing emerging compliance drivers. The workshop provides practical information on how to implement ten specific practices that have been proven to help manage cyber supply chain risks. These practices are based on existing national and international standards and guidelines, as well as energy industry documents, and dialog with utilities and technology vendors. The workshop provides key pointers for how utilities who acquire technology and vendors who supply technology can engage in a productive, two-way conversation that would help both parties address the challenge.

ONSITE COURSES

EnergySec Staff will come to your organization

- ✓ The lowest available rates for onsite classes offered to our members.

EnergySec offers custom CIP training events at your location tailored to meet your needs. This includes 1-2 trainers and training materials. With this opportunity, we are able to work with your organization to address areas of the CIP standards that are a concern for your organization. Our classroom style on-site training allows you to train all of your staff at once without the expense of travel. All live-training courses are available for onsite presentation.

ONLINE COURSES

Learning in your time frame

- ✓ Members receive discounts on courses. Selected courses will be available to members at no cost.

In Fall 2016, EnergySec will launch an online educational platform, with shorter “mini-courses” for use in upskilling current employees as well as for training new employees, including those in our apprenticeship program.

SECURITY EDUCATION WEEK

A week of cybersecurity tech sessions

In 2017, EnergySec will launch its Security Education Week designed for apprentices and/or students interested in the cybersecurity profession within critical infrastructure. The event will feature speakers from industry, mini-tech sessions on topics like NERC CIP, and question and answer forums.

HAWAII EDUCATION SERIES

Mission-critical learning to improve cybersecurity

EnergySec's Hawaii Educational sessions (held in February each year) are cybersecurity educational events targeting security professionals representing businesses in Hawaii, United States West Coast and Japan that are eager to learn more about what they can do to improve security in mission critical environments. Through our Hawaii events, EnergySec continues to drive toward our mission of helping people learn more about what they can do to improve the security and reliability of critical infrastructure.

COURSE ABSTRACTS

An Overview of our Course Offerings

NERC CIP BOOTCAMP

The CIP Bootcamp is our flagship course, now with more than 1000 alumni. This 3-day course is designed for those new to NERC CIP as well as those wishing to solidify their knowledge of the standards.

This course provides essential foundational knowledge of the NERC CIP ecosystem, as well as in-depth information on every CIP standard and requirement.

This course is continuously updated and always addresses the latest of the standards as well as new requirements that are in development.

Attendees will come away from this class prepared to tackle the challenges in the latest version of the standards, including version 6 and possible future versions. In this course we will:

- Explain the nearly two dozen formally defined terms and other important words and phrases that are still undefined
- Describe the nearly 20 categories of assets to which requirements apply
- Explain the bright line criteria and the three tier (High/Medium/Low) approach to asset classification
- Discuss the new standards in version 5 and 6
- Explore changes that in version 6 and likely areas of change in future standards
- Provide references and discussion on the pertinent NERC filings and FERC rulings on these standards
- Deep Dive into the each requirement of each Standard with detailed explanation and discussion of entity obligations and auditor expectations
- Discuss the evidence needed to demonstrate compliance during an audit

Cybersecurity Frameworks: Theory and Application

EnergySec's Cybersecurity Frameworks: Theory and Application course is designed to provide participants with the cybersecurity, framework, and communication theory required to make practical improvements to their cybersecurity environments.

It is based largely on the NIST Cyber Security Framework (NIST CSF) and the Electric Sector Cybersecurity Capability Maturity Model (ES-C2M2).

Topics covered will include:

✓ = Members Only Benefit

- The Essentials of Cyber Security (How it is important and Why it is so difficult)
- Framework Skills Development (How can we build and use focused, practical frameworks)
- Cyber Management Skills Development (Concepts such as metrics and organizational behavior that are necessary to manage risk effectively)
- "Implementing NIST CSF and C2M2 in 11 steps" (Tying everything together)

On the first day of the class, key elements of framework theory will be introduced and explained. On the second day, additional foundational knowledge will be provided, then the class will work through examples of the 11 steps to successfully implement the NIST CSF or the C2M2

Students should also be aware that, despite some use of jargon, no technical experience or security expertise is assumed and each class will be tailored to the experience levels of those in attendance wherever possible.

NERC CIP for Low Impact Entities

This one-day course is designed for individuals working at utilities that have only low impact systems subject to the NERC CIP standards.

This course will provide the detailed knowledge and understanding you need to achieve compliance with NERC CIP version 6.

Topics covered include:

- Background and Terminology
- Asset Identification
- Policy and Management requirements
- Security Awareness
- Physical Security
- Electronic Security
- Incident Response
- Compliance Monitoring and Enforcement
- Future direction

Compliance with the NERC CIP standards is only half the battle. Once compliance programs are in place, it is necessary to collect documentation and evidence of that compliance, and prepare to provide such evidence to auditors.

EnergySec's team of experts has developed a 2-day workshop that prepares entity personnel to successfully navigate the audit process from preparation, to execution, to post-audit negotiations. Attendees will obtain an understanding of the NERC Rules of Procedures (RoP), Compliance Monitoring and Enforcement Program (CMEP), Inherent Risk Assessments (IRA), Internal Controls Evaluation (ICE), and the audit process as documented in the ERO Auditors Handbook.

2016 Live Course Dates

September 20-22 | Denver, CO

NERC CIP Bootcamp
NERC CIP for Low Impact Entities
NERC CIP Audit Workshop

October 11-13 | Columbus, OH

NERC CIP Bootcamp
NERC CIP for Low Impact Entities
NERC CIP Audit Workshop

November 8-10 | San Antonio, TX

NERC CIP Bootcamp
NERC CIP Audit Workshop

December 6-8 | Anaheim, CA

NERC CIP Bootcamp

2017 Live Course Dates

January 23-26 | Phoenix, AZ

NERC CIP Bootcamp
NERC CIP Audit Workshop
Cybersecurity Frameworks

February 20-24 | Nashville, TN

NERC CIP Bootcamp
NERC CIP Audit Workshop

The following cities and dates are tentative and not yet open for registration:

April | Atlanta, GA

June | Kansas City, MO

July | Portland, OR

September | Boston, MA

November | Austin, TX

December | San Diego, CA

FACULTY PROFILES

Our dedicated cybersecurity education team



Steven Parker

President, EnergySec

Steven Parker, CISA, CISSP, is a founding director of EnergySec. He has been engaged in critical infrastructure protection within the electric sector for more than 14 years, including eight years as a senior security staff member at a large west coast utility. He was also one of the original NERC CIP auditors for the WECC region. He has been with EnergySec full-time since 2010.



Bryan Carr

Instructor

Bryan most recently served as a Senior Auditor for Cyber and Physical Security at WECC for the past 4 years. Prior to joining WECC, he served as CIP Compliance Program Manager at PacifiCorp, a large investor-owned utility in the northwest U.S. Bryan has a very strong background in generation environments.



Brent Castagnetto

Instructor

Brent most recently served as Manager, CIP Audits and Investigations for the Western Electricity Coordinating Council (WECC), the organization charged with compliance oversight for the Western Interconnection. Brent has more than 6 years direct experience auditing the CIP standards and helping the industry with compliance.



Wally Magda

Instructor

Wally brings his passion and unique experience into conducting cyber and physical security training courses and assessments specific to ICS and NERC CIP. Wally is a recognized cyber security expert for

Industrial Control Systems (ICS) with over 22 years of utility experience. He is a retired Western Electricity Coordinating Council (WECC) NERC CIP auditor.



Jack Whitsitt

Instructor

Jack Whitsitt is a Principal Analyst for EnergySec. His unusual combination of hard technical, public/private partnership development, facilitation, and national risk management experience allow him to provide particular insight into and leadership of strategic organizational, sector, and national cyber security initiatives and educational endeavors.



Leonard Chamberlain

Instructor

While at FERC, Leonard was technical lead on audits (both observational and FERC-led), network architecture reviews, investigations, and NERC notice of penalties teams. Leonard also worked at Entergy where he was involved in their NERC CIP program.



InformationSharing andANALYSIS



Collaboration with numerous organizations on *security matters*, including formal participation in programs operated by US Dept. of Homeland Security.

www.energysec.org/information-sharing-and-analysis-organization

More than a decade ago, a small group of utility security professionals formed EnergySec to provide a forum for discussing common issues, exchanging solutions, and sharing experiences on security topics. That mission continues today.

EnergySec serves as an Information Sharing and Analysis Organization (ISAO) under the federal model being developed to supplement the ISAC structure. Our focus is to assist utilities in building capabilities for the detection of and response to security incidents.

DHS COLLABORATION

Collaborative research and development agreement

We have a Collaborative Research and Development Agreement (CRADA) with Department of Homeland Security that allows us to participate in their Cyber Information Sharing and Collaboration Program (CISCP), and provides eligibility for access to the NCCIC.

CISCP

The CISCP program provides threat intelligence and indicators of compromise obtained from both public and private sector sources. CISCP also operates the DHS STIX/TAXI server for automated data sharing and holds monthly analyst meetings at both the Secret and unclassified levels.

AIS

We have authorized access to AIS, the Automated Information Sharing system operated by DHS in support of the Cybersecurity Information Sharing Act (CISA). Information from this program is provided to our members via the ThreatConnect Community.

NCCIC

Based on our existing contractual relationship with DHS, we are eligible to participate at the National Cybersecurity and Communications Integration Center (NCCIC). We are pursuing access to that facility so that we may better represent our members interest in that program, and work to improve the information products coming to us from the federal government.

OTHER PARTNERSHIPS

Federal partnerships

Cyber Fed Model

We participate in the Cyber Fed Model, an automated information sharing program spearheaded by Argonne National Lab. We are able to share data from that program with our industry members.

VENDOR PARTNERSHIPS

Vendor partnerships

ThreatConnect

We have a partnership with ThreatConnect, the leading threat intelligence management platform. The agreement provides EnergySec and its members with a private community on the ThreatConnect (TC) platform at no cost. The TC platform allows organizations and groups to manage, share, and collaboratively analyze threat intelligence received from multiple sources, including data provided by community participants.

We believe this platform, coupled with EnergySec resources, can provide a catalyst for improving utilities' capabilities and involvement in the sharing of threat information.

Commercial Members

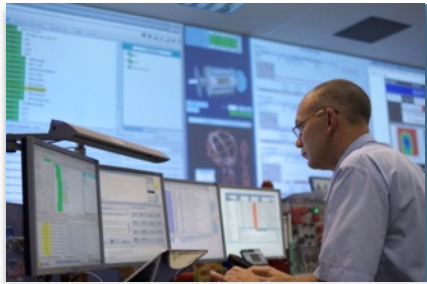
We work with our commercial members to provide useful and relevant security information developed or discovered by their threat research and analysis teams.

We also work with our commercial members to share security information to the extent feasible by information handling requirements.

ISAO Standards Organization

Formalizing ISAOs

We are participating with the Information Sharing and Analysis Organization Standards Organization (SO). The SO was established by a federal government grant to establish standards for ISAOs. The federal government is strongly encouraging and supporting the formation or formalization of ISAOs to further information sharing efforts beyond that provided by the ISACs.



EnergySecSERVICES



A variety of services available to **assist organizations** in developing and executing their security programs.

www.energysec.org/services

Although EnergySec is not a consulting organization, we do provide advisory and other services on a limited scale.

EnergySec staff are available for consultation and limited-duration onsite engagements related to security, compliance, governance, and strategy.

EnergySec Vendor Resource Center

Vendor information for members

- ✓ The main objective of the Vendor Resource Center is to provide our members a place to browse all the innovative security solutions that we have identified on the market.

EnergySec knows that protecting our nation's power grid is more than just writing policy and procedures; it is finding the right tools for the job. Deciding which solution best meets the needs of your organization can be daunting.

We have created a private community to help navigate the vast array of products and services the marketplace. Information available includes vendor and products lists by category, including specific NERC CIP requirements. We will also include industry surveys that assess which products are most widely used in the industry.

✓ = Members Only Benefit

Security Shared Services

"Fractional-ownership" of a security analyst

We recognize that many organizations struggle to staff security functions and often don't have the budget to add full-time staff.

Our security shared services program allows organizations to obtain "fractional ownership" in a security analyst, providing additional help without breaking the budget.

We've designed our shared analyst program with the flexibility to meet the needs of any organization. This is not a typical MSSP arrangement, rather, our analysts become an extension of your organization, serving your needs directly.

Key differentiators are:

Named Analysts

With our program, you will get a real person, not a phone number and a good luck wish. You will be assigned a specific, named analyst who will work directly with your organization on an ongoing basis. Your analyst will become familiar with your organization.

Flexibility

EnergySec's shared analyst program is designed to provide maximum flexibility in meeting your needs. Packages are available starting at just a 1/8 analyst share and can scale up or down as needed. Also, we do not meter time*, so you won't be turned away when you need us most.

Backed by EnergySec

Our analysts have the backing of the entire EnergySec organization, from the leadership, to senior staff, to back office support. This ensures that you have access to the expertise and resources required regardless the situation.

Connections

EnergySec has established formal connections with federal government information sharing programs. These allow us to obtain and deliver information that may not be available elsewhere. We also can facilitate upstream sharing of information, as needed, to support the broader community in our common defense.

Vendor Partnerships

EnergySec is building partnerships with the vendor community to strengthen our support capabilities and bring better information and capabilities to our members.

*Analysts time may vary from week to week based on the needs of specific clients, but should on average be consistent with the share plan selected.

Onsite Advisory Services

Helping organizations directly on key issues

Board and Leadership Briefings

Our staff are available to provide senior level briefings on security issues and strategic directions to entity Boards of Directors and Senior Leadership.

Security Strategy

Our senior staff and leadership are available to assist with setting strategic direction and long term planning for security efforts.

ES-C2M2 and NIST CSF Workshops

Our Cybersecurity Frameworks course is available in a workshop format for those entities that wish to apply its concepts and involve individuals from across the organization. The 2-day workshop is customizable and extensible to meet the needs of any organization.



EnergySecSTAFF



EnergySec staff and leadership have extensive industry experience and **expert knowledge** in cybersecurity.

www.energysec.org/about-energysec/

Leadership



Steven Parker
President

Steven Parker, CISA, CISSP, is a founding director of EnergySec. He has been engaged in critical infrastructure protection within the

electric sector for more than 14 years, including eight years as a senior security staff member at a large west coast utility. He was also one of the original NERC CIP auditors for the WECC region. He has been with EnergySec full-time since 2010.



Stacy Bresler
Vice President

Stacy Bresler is a founding director of EnergySec. Mr. Bresler has served as cybersecurity manager for PacifiCorp, with previous experience

at U.S. Bancorp, Hewlett-Packard, Conoco Oil and Chevron. He was also part of the team of NERC CIP auditors that helped establish the regional reliability audit program. He has devoted the past 15 years to the electric sector cybersecurity profession.



Twila Denham
Managing Director, Operations and Workforce Development

Twila Denham is a talented educator and administrator with nearly 30 years of experience in education, most recently as the Principal and Administrator for a K-12 private school. She holds a B.A. in

Education and Biblical Studies. Twila joined EnergySec full-time in July 2015 to lead our workforce development programs.

Senior Staff



Sean Maloney
Security Architect

Sean Maloney is a talented software developer and security technologist. He has previously worked at PacifiCorp where he was a primary

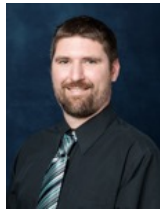
developer and architect of several internal security tools. He has been with EnergySec since 2012 and supports all of our technology systems and related initiatives.



Jack Whitsitt
Security Strategist

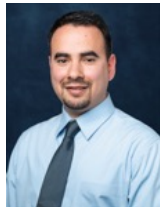
Jack Whitsitt, recently identified by Tripwire as one of the top 10 Rising Stars and Hidden Gems in security education, and winner of TSA's "Honorary Award" – the highest award given by the agency – brings a breadth of cybersecurity knowledge and thoughtful leadership to any project. He has previously served as the ICS-CERT liaison to the NCCIC and led an industry-wide security effort in the pipeline sector.

Staff



Brandon Workentin
Cybersecurity Analyst II

Brandon Workentin specializes in cybersecurity. His role includes compiling our weekly security newsletter, drafting various publications, and participating in our ISAO efforts. As a former school teacher, he holds a B.A. in Mathematics and English Education, as well as an AAS in Cybersecurity and Networking.



Andrew Zambrano
Cybersecurity Analyst

Andrew Zambrano joined EnergySec after a successful internship in 2015. He recently received an AAS in Cybersecurity and Networking and also holds an AA in General Education. Andrew is a five-year veteran of the U.S. Marine Corps.



Kim Zimmerman
NERC CIP Specialist

Kim Zimmerman joined EnergySec in early 2015 after internships at both EnergySec and Portland General Electric. She holds an AAS in Cybersecurity and Networking. Kim focuses her time on NERC CIP, attending numerous industry events and assisting with the publication of our CIP Newsletter.



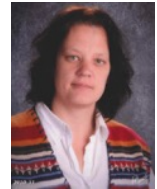
Vicky Maloney
Event and Membership Coordinator

Vicky Maloney is responsible for event logistics for our live, instructor-led courses, as well as numerous other administrative tasks. She also plays a key role in organizing our annual security and compliance summit. Vicky also has the role of membership coordinator, ensuring that our membership program's processes are well executed.



Marianne Schroeder
Financial Administrator

Marianne Schroeder is EnergySec's financial administrator. She handles a wide range of important back office tasks related to billing, payments, benefits, and financial reporting.



Mary Parker
Volunteer Coordinator

Mary Parker is EnergySec's coordinator for our numerous volunteer programs, including our Speaker's Bureau and mentorship programs. She brings to EnergySec her expertise as an Executive Assistant who co-ordinated events in the educational realm.



Kristen Bresler
Summit Logistics

Kristen Bresler is responsible for the logistics of our annual summit and our Hawaii Education Series. She works with the hotels on everything from room blocks to menu selections to AV equipment. Kristen's "behind-the-scenes" work insures that these events are a success.

Contact List

Primary Contacts Arranged by Departments

Billing/Financial

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EnergySec Hawaii Educational Sessions

Stacy Bresler

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Event Logistics/Registration

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General Information/After Hours

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Membership

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EnergySec Annual Summit

Sponsorships

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Speaker, Vendor, Attendee Support

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Event Logistics

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Agenda

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Services, Webinars, Sponsorships

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Volunteer Coordinator

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