SUMMER INTERNSHIP PROGRAM

Guardian of the grid: ISO New England is the independent, not-for-profit corporation that ensures the constant availability of electricity across the states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

A complex job: Regulated by the Federal Energy Regulatory Commission, our mission includes three critical responsibilities:
- Direct the production and flow of electricity across the six-state power grid, every minute of every day
- Design and run the region’s billion-dollar markets where wholesale electricity is bought and sold
- Conduct power system planning to ensure a reliable electricity supply in the region for generations to come

Diverse skills, diverse people: To fulfill our mission, we need problem solvers and technical experts—top professionals skilled in engineering, economics, IT, and business. We’re committed to helping grow that talent. That’s where you come in.

Summer intern program: Each summer, ISO New England welcomes approximately 25-30 interns for an eleven-week intern program (June-August) that provides students with an excellent platform for professional growth and development, and a head start on building career credentials. Interns are involved from day one in meaningful projects that expand their technical, business, and communication skills. Beyond working in their designated departments, interns attend lunches with the senior management team, participate in field trips to industry sites to gain greater perspective on the wholesale electricity industry, and at the conclusion of the program, interns showcase their accomplishments through presentations to senior staff.

Interns work full-time, 40 hours a week and are paid competitive salaries. There are housing stipends available for students who live outside a 35 mile radius from our campuses in Holyoke, MA and Windsor, CT.

What you get from the program:
- Learn the nuts and bolts of the wholesale electricity industry from leading experts in the field.
- Experience the inner workings of a large, thriving corporation.
- Get real-world experience in your area of study.
- Translate your education into marketable skills.

What we’re looking for:
- Minimum GPA of 3.0
- Strong technical and problem solving skills
- Excellent communication and interpersonal skills
- The ability to adapt and learn quickly
- Interest in the fields of energy and power
- Energy or power related courses or prior work experience

Apply online at:
ISO-NE.COM/CAREERS

When prompted by the online application system, upload a cover letter and resume in the same file.
Find us on LinkedIn: linkedin.com/company/iso-new-england. Contact us at universityrelations@iso-ne.com.
1. Intern – Data Architecture & Development

Minimum Education Level: Rising Junior
Preferred Majors: Information Technology, Information Systems, Data Science, Data Analytics

Department Description: The Data Architecture and Development team provides data architecture, business intelligence, and data warehousing support to the entire Enterprise, and provides Data Governance within Business Intelligence for the Enterprise Data Warehouse.

Job Description: The Data Governance Analyst intern position provides support for the day to day operations of the Data Governance Program, along with assisting in various key Data Governance initiatives and projects to ensure the highest quality data in the Enterprise Data Warehouse

Responsibilities:
- Work with key business and IT stakeholders and Data Governance Lead
- Assist with the planning and completion of a Metadata Management project to enhance existing metadata including
  - Assistance with planning and documentation
  - Analysis of existing metadata and documentation of current state of metadata
  - Data cleansing activities
- Assist in the technical support of Data Governance Tools including
  - Assistance with Business and Technical documentation
  - SQL and/or VBA development, testing
- Assist in the development and implementation of a Data Quality Program including
  - Assistance with planning and documentation
  - Data profiling and documentation

Requirements:
- Ability to understand complex data relationships
- Understanding of metadata, data structures and data analysis
- Strong verbal, written, and communication skills
- Ability to work both independently and as a part of a team
- Experience with MS Excel, Word, Access, and PowerPoints

Preferred Qualifications:
- Understanding of relational and dimensional database design
- Experience with programming languages
- Computer Science or Engineering student
2. Intern – IT Energy Management System

Minimum Education Level: Rising Sophomore
Preferred Majors: Electrical Engineering, Computer Science, Mathematics

Department Description: The IT-EMS department maintains the Day Ahead Markets systems, Energy Management System (EMS), and Real-time Markets that are core systems critical to the operation of the New England power grid and energy markets.

Job Description: The IT-EMS intern role focuses primarily on supporting development, testing, and integration efforts in the EMS group. The intern will learn about the systems that maintain the reliability of the ISO-NE grid and administer the electricity markets in ISO-NE.

Responsibilities:
- Testing Electricity Markets Clearing and EMS software
- Assisting IT-EMS department with development, testing, and integration of systems

Requirements:
- Basic programming skills in one or more program used by IT-EMS (C++, Perl, Java, SQL)
- Experience in both Windows and Linux operating systems
- Intern must bring engineering and/or an IT perspective to their work

Preferred Qualifications:
- Experience in programming with Java, C++, and Oracle PL/SQL

Minimum Education Level: Rising Junior
Preferred Majors: Electrical Engineering, Computer Science

Department Description: IT Day Ahead and Related Markets application support provides design, development, testing, integration and production support for multiple business units within ISO New England. The group acts as subject matter experts in the area of power systems and Energy Markets explaining pricing, Unit Commitment, Dispatch algorithms, etc. The group uses state of the art Power System algorithms and computer engineering methods to develop various applications and platforms viz. Java EE, JBoss, Web programming methods, Microsoft technologies, Oracle databases and complex integration methods.

Job Description: The Day-Ahead Support Intern will provide either subject matter expertise in Power Engineering or computer programming techniques to develop new tools or enhance existing software. This includes developing new algorithmic solutions.

Responsibilities:
- Study power system issues or program new software or modify existing software
- Perform product testing and document results in specified format
- Document technical software with help from developers

Requirements:
- Ability to understand Power System algorithms (or) ability to understand Computer software with Java or Microsoft or Oracle PL/SQL
- Ability to quickly understand and adapt to testing new software
- Proficiency in MS Word and Excel
- Proficiency in least one programming language (viz., Java, .Net, Oracle)

Preferred Qualifications:
- Undergraduate degree in Computer Science or Electrical Engineering
- Experience in modern programming languages or Oracle Database
4. Intern – IT Power System Modeling Management

Minimum Education Level: Rising Junior
Preferred Majors: Electrical Engineering

Department Description: The Power System Model Management department is tasked with maintaining and managing the Energy Management System (EMS) model and the various data inputs to that model. The EMS model is used by Operators to manage the electric transmission system in real-time and by support personnel to determine the parameters under which the system can reliably operate. The model is also used in the Market systems to determine the least cost solution generation commitment and dispatch.

Job Description: The Power System Model Management Intern will assist Power System Model Management with processing transmission system data changes. Refine and/or develop custom software/scripts used to process transmission system parameter data and validate transmission system data in the Energy Management System (EMS). Perform basic EMS modeling.

Responsibilities:
- Review, validate and process submitted transmission system data changes for use in the Energy Management System (EMS) and PSS/e study cases
- Refine and/or develop custom software/scripts used to process transmission system parameter data and validate transmission system data in the Energy Management System (EMS)
- Assist in development of the EMS network model

Requirements:
- Excellent analytical skills
- Excellent verbal and written communication skills
- Excellent organizational skills with attention to detail
- Ability to work in a team environment, and also complete tasks independently

Preferred Qualifications:
- Preference given to undergraduate student with concentrations in Power Systems
- Experience with JAVA and/or C++
5. Intern – IT Power System Modeling Management – MOD

Minimum Education Level: Rising Junior
Preferred Majors: Electrical Engineering

Department Description: The Power System Modeling Department is tasked with design, testing and implementation of power system model changes to the ISO Energy Management System (EMS) with focus on power system applications, including power flow, state estimation, contingency analysis, and markets applications.

Job Description: The Power System Model Management MOD intern will assist Power System Modeling with data handling, updating the New England model, creating planning study cases for Transmission Owners, updating generation profiles by collating data from various sources and reviewing and maintaining contingencies, project data, load profiles and resource data.

Responsibilities:
- Upload data to Model on Demand (MOD) application and Base-Case Database
- Maintain data within applications and databases
- Assist MOD Engineers with routine data-intensive tasks related to steady state and stability cases
- Performing preliminary review of modeling data received to correct gross data, syntax and convention errors

Requirements:
- Excellent analytical skills
- Excellent verbal and written communication skills
- Excellent organizational skills with attention to detail
- Ability to work in a team environment, and also complete tasks independently

Preferred Qualifications:
- Graduate-level student studying Power Systems with undergraduate degree in Electrical Engineering
- Experience with PSS/E software

*Please note: OPTI interns will be located in Windsor, CT and will be required to travel between the Windsor campus and the Holyoke, MA campus throughout the summer to participate in the full internship program.

Minimum Education Level: Rising Sophomore

Department Description: The Operations Performance, Training & Integration (OPTI) group performs several critical functions in support of the ISO System Operations department’s role of reliably and efficiently operating the New England Bulk Electric System.

Design and development of system operator tools – OPTI actively collaborates with internal and external parties to develop new and modified applications used by ISO system operations staff in real-time operation of the New England Bulk Electric System. This includes working with the end users and downstream customers to develop business requirements, interfacing with developers to ensure adherence to business requirements and performance of business owner testing. When an exigent need for an application or display arises, OPTI develops quick turnaround solutions, bridging the gap to a permanent solution.

Procedure Development – OPTI maintains the suite of operating procedures used by ISO New England System Operators to manage the Bulk Electric System. OPTI staff works with end users and subject matter experts to reflect rule changes, application enhancements and topology through the creation and revision of procedures.

Operator Training – OPTI is responsible for the development and implementation of ISO System Operator and System Operations support staff training. OPTI develops instructional material for classroom and computer based training. OPTI employs a fully functional transmission and market based simulator used to provide hands on training to System Operators.

Operations Analysis – OPTI provides analysis of system, system resource, system operator tool, and system operator performance during normal and emergency conditions. Results of these analyses are employed internally to drive improvements in procedures, System Operator tools, displays and human performance.

Resource Integration – OPTI provides input and analysis toward integrating alternative energy resources such as wind, solar and fuel cells into the ISO New England Energy Management System.

Job Description: This position is intended for undergraduates with problem solving skills, a familiarity with application development, and an understanding of statistical analysis. Computer applications are built using the Microsoft Office Suite (primarily Excel and VBA) for the purpose of gathering and redistribution of information or analysis. Each application is developed and deployed with short turnaround time, from conception to production. Interns will be responsible for working with the end users to determine their needs, delivering products that meet their needs, and providing training to the users on how the applications are to be used.

Responsibilities:
- Numerical analysis of a varying degree of power system data
- Simple application development, primarily using Excel, Visual Basic for Applications (VBA), MS Access, and MS Word
- Maintenance of existing applications using the same platforms
- Writing user manuals and developer documentation for existing applications

Requirements:
- Information analysis capability
- Programming ability, prefer familiarity with VBA
- A conceptual knowledge of databases and SQL
- An understanding of data structures and methods for the transfer of data between applications
- An understanding of basic statistical analysis concepts
- Communication skills for developing requirements
- Creative problem solving skills to quickly find solutions for the end users
- Basic understanding of engineering concepts related to the electric power industry

Preferred Qualifications:
- Students interested in small data analysis or programming beyond the minimum requirements to complete projects/courses in school – i.e. Hobbyists
- Students local to Windsor, CT or surrounding areas
10. Intern – Short-Term Outage Coordination

**Minimum Education Level:** Rising Junior  
**Preferred Majors:** Electrical Engineering

**Department Description:** The Short-Term Outage Coordination group performs reliability assessment and congestion impact analysis for outage requests, reviews and approves or denies Transmission and Generation outages, develops and publish interface Total Transfer Capability limits and Generation Requirements for Transmission, coordinates Outage schedules with adjacent Reliability Coordinators, Local Control Centers and Generators to minimize economic and reliability impact.

**Job Description:** This position is responsible for analyzing as well as coordinating short term transmission outage requests with respective generator outage plans to achieve outage schedules that can be reliably implemented while working to minimize overall congestion costs

**Responsibilities:**
- Process basic 115kV, 345kV, relay breaker and line short term transmission outage requests
- Process generator outage requests
- Support Economic Analysis of short term outage requests
- Provide the Control Room with a day ahead update of transmission and generation outages

**Requirements:**
- Working knowledge of MS Word, intermediate skill with Excel, proficiency with PowerPoint
- Excellent written, verbal, and analytical skills
- Excellent interpersonal skills in interacting with Management, Internal and External Participants
- Understanding of basic electrical concepts in Transmission and Generation Outages

**Preferred Qualifications:**
- Electrical Engineering major
- Experience working with a team
- Experience in leadership

**Minimum Education Level:** PhD Candidate  
**Preferred Majors:** Electrical Engineering, Power Systems Engineering

**Department Description:** The Business Architecture & Technology (BAT) department is responsible for research and development at ISO New England. BAT provides technical consultation and quantitative analysis services to other departments in the company. It makes significant contributions to improving the system reliability and increasing market efficiency in the ISO New England control area. The department also conducts research and development in market design and operations, power system planning and operations.

**Job Description:** The Business Architecture & Technology Intern will conduct research around the application of probabilistic methods for transmission planning processes at ISO New England

**Responsibilities:**
- Identify the needs and challenges for probabilistic planning
- Select appropriate probabilistic techniques
- Propose strategies for applying the techniques in planning processes

**Requirements:**
- Strong background in mathematical programming
- Familiarity with transmission planning
- Strong Analytical skills

**Preferred Qualifications:**
- Background in Power Systems
12. Intern – Business Architecture and Technology: Transmission Operating Guides

Minimum Education Level: PhD Candidate
Preferred Majors: Operations Research

Department Description: The Business Architecture & Technology (BAT) department is responsible for research and development at ISO New England. BAT provides technical consultation and quantitative analysis services to other departments in the company. It makes significant contributions to improving the system reliability and increasing market efficiency in the ISO New England control area. The department also conducts research and development in market design and operations, power system planning and operations.

Job Description: The Business Architecture & Technology Intern will use data analysis tools to help improve the existing procedures for developing transmission operating guides at ISO New England

Responsibilities:
- Develop a data analysis tool to build a reliable decision rules for determining transmission operating guides
- Validate the effectiveness of proposed method

Requirements:
- Extensive experience with data analysis and power system modeling
- Ability to investigate issues and solve problems independently as well as collaboratively
- Ability to analyze large datasets
- Two – three years of PhD program completed in Data Analysis, Computer Science, or Power Systems

Preferred Qualifications:
- Familiarity with data analysis software
- Working understanding of electricity power markets
- Strong communication and presentation skills
13. Intern – Business Architecture and Technology: PMU Data

Minimum Education Level: Master’s
Preferred Majors: Power Systems Engineering

Department Description: The Business Architecture & Technology (BAT) department is responsible for research and development at ISO New England. BAT provides technical consultation and quantitative analysis services to other departments in the company. It makes significant contributions to improving the system reliability and increasing market efficiency in the ISO New England control area. The department also conducts research and development in market design and operations, power system planning and operations.

Job Description: The Business Architecture & Technology Intern will help with the development of situational awareness, in a broad sense, including the use of PMUs from inside and outside of the ISO-NE footprint. The intern will also assist in identifying the complex contingencies involved beyond traditional N-1 which can cause the elevated risk for power system security.

Responsibilities:
- Establish familiarity with PMU measurements available at ISO-NE
- Work towards establishing a base-live angle monitoring to detect abnormal conditions per PMU measurements from outside of ISO and security margin monitoring per internal ISO PMU measurements
- Develop a process to identify dangerous N-2 contingencies by using N-2 contingency screening
- Research to establish a metric to measure the impact of voltage collapse as the result of uncontrolled cascading

Requirements:
- Understand power system power flow, stability and security
- Proficient in mathematics and statistics
- Hands-on experience with MatLab
- MS or PhD student in Power Systems

Preferred Qualifications:
- Knowledge of PowerTech Labs DSA tools (TSAT, VSAT, PSAT, and SSAT) and PowerWorld

Minimum Education Level: PhD Candidate
Preferred Majors: Industrial Engineering, Operations Research, Electrical Engineering, Economics

Department Description: The Business Architecture & Technology (BAT) department is responsible for research and development at ISO New England. BAT provides technical consultation and quantitative analysis services to other departments in the company. It makes significant contributions to improving the system reliability and increasing market efficiency in the ISO New England control area. The department also conducts research and development in market design and operations, power system planning and operations.

Job Description: The Business Architecture & Technology Intern will investigate different day-ahead ancillary service designation and pricing schemes. Based on the findings, the intern will develop and defend an improved method.

Responsibilities:
- Explore and critically analyze different day-ahead ancillary service schemes
- Propose an improved day-ahead ancillary service designation and pricing method

Requirements:
- Able to critically examine electricity market design in terms of engineering and economics
- Curiosity necessary to formulate alternative approaches and methodology

Preferred Qualifications:
- Background in Industrial Engineering, Operations Research, Electrical Engineering, or Economics preferred
- Familiarity with electricity markets highly beneficial
- Programming experience using MatLab (or similar)
15. Intern – Business Architecture and Technology: Automated Generation Control

Minimum Education Level: PhD Candidate

Preferred Majors: Power Systems Engineering

Department Description: The Business Architecture & Technology (BAT) department is responsible for research and development at ISO New England. BAT provides technical consultation and quantitative analysis services to other departments in the company. It makes significant contributions to improving the system reliability and increasing market efficiency in the ISO New England control area. The department also conducts research and development in market design and operations, power system planning and operations.

Job Description: The Business Architecture & Technology Intern will conduct research related to the pattern recognition of power system operating conditions; Implement a prototype of cloud-hosted Automatic Generation Control (AGC) scheme using PMU data.

Responsibilities:
- Literature review on power system steady state features and pattern recognitions
- Reduce the dimensions using feature selection algorithms to represent key signatures of the power flow
- Define state and metrics
- Review AGC algorithm and implement a prototype AGC scheme using PMU data

Requirements:
- Strong background in power system analysis, power flow and power system dynamics
- Good mathematical and statistical background

Preferred Qualifications:
- PhD Candidate studying Power Systems
16. Intern – Forecasting Support
Minimum Education Level: Rising Junior
Preferred Majors: Engineering, Economics, Statistics, Meteorology

Department Description: The Forecasting Team is responsible for forecasting electricity demand, energy efficiency (EE), and solar photovoltaic (PV) resources. These responsibilities span both short-term forecasting activities in support of (for example) ISO's administration of the Day Ahead Market, as well as ten-year forecasts that guide ISO's long-term planning activities.

Job Description: The Forecasting Support Intern will assist with data acquisition, analysis, and modeling in support of a variety of load, EE, and PV forecasting activities.

Responsibilities:
• Access and assemble internal and publicly-available data
• Conduct both descriptive and predictive statistical analysis
• Collaborate with forecasting staff to create and maintain Matlab and/or SAS code and standalone applications in support of varied forecasting activities

Requirements:
• Experience performing statistical analysis of large data sets
• Knowledge of statistics, econometrics, and/or forecasting in the context of the power industry
• Excellent analytical and creative problem solving skills
• Academic concentration in engineering, economics, statistics, meteorology or equivalent
• Significant programming experience
• Strong familiarity with Matlab and/or SAS is required
• Outstanding verbal and written communication skills

Preferred Qualifications:
• Experience building forecasting models and evaluating model performance is preferred
• The ability to continue internship onsite beyond Summer 2017 is highly preferred
• Current graduate-level students are preferred
17. Intern – Regional Planning & Coordination

**Minimum Education Level:** Rising Sophomore

**Preferred Majors:** Liberal Arts

**Department Description:** Regional Planning and Coordination (RPC) is responsible for producing ISO's ten-year Regional System Plan (RSP) covering requirements and plans for load, resources, and transmission, and issues that affect the future power system. RPC supports the Planning Advisory Committee (PAC), which is the major stakeholder group for RSP. RPC is also responsible for developing and coordinating the Northeast Coordinated System Plan with both NYISO and PJM. RPC leads the Inter-Area Planning Stakeholder Advisory Committee (IPSAC) meetings to obtain stakeholder input on interregional planning matters. RPC tracks environmental regulations and provides analysis of environmental issues that can affect the power system and leads an Environmental Advisory Group that supports the PAC. RPC is supporting the strategic planning issues, such as fuel diversity and the integration of variable resources. The amount of work has grown significantly over the last year and is expected to increase over the next several years as work activities are performed to comply with FERC Order 1000. The group is supporting ISO's efforts to produce an annual forecast of distributed generation resources, with a focus on solar photovoltaic (PV) resources, and publishes several documents addressing environmental and PV issues. RPC is conducting cutting edge research with the US Department of Energy.

**Job Description:** The Regional Planning & Coordination Intern will assist with researching environmental regulations, especially those related to carbon emissions, and provide support for the RSP, such as creating figures, providing reference links, and defining terms in the glossary.

**Responsibilities:**
- Assist with researching environmental regulations
- Assessing the effect of the environmental regulations on the need for remediation measures
- Assist with documentation of results and support of ISO reports, especially RSP17

**Requirements:**
- Excellent verbal and written communication skills
- Outstanding analytical skills, both qualitative and quantitative
- Ability to interface with employees in multiple departments
- Proficiency in Word, PowerPoint, and Excel

**Preferred Qualifications:**
- Liberal Arts majors preferred
- Working knowledge of Microsoft Access and Matlab are desirable
- Knowledge of environmental regulations and power systems are preferred
18. Intern – Resource Analysis & Integration

Minimum Education Level: Rising Junior
Preferred Majors: Engineering, Mathematics, Physics

Department Description: The Resource Analysis & Integration department is responsible for the qualification of both new and existing resources (generators, demand response and imports) for participation in the Forward Capacity Market (FCM). As described in Market Rule 1, the FCM is designed to purchase sufficient capacity for reliable system operation for a future year at competitive prices.

Job Description: The Resource Analysis & Integration Intern is responsible for providing assistance in the performance of FCM qualification data analyses to ensure consistency with Market Rule 1. Knowledge of database structure and querying is strongly desired since this position will require the use of the Forward Capacity Tracking System (FCTS) database to perform testing, verification of data and statistical analyses on a daily basis. Strong written and verbal communication skills are a requirement since the selected candidate will be required to interface with other departments and potentially new resource project sponsors on a routine basis.

Responsibilities:
- Support development and testing of FCM related data management tools
- Support preparation of information requests, presentations and reports
- Support review of FCM Generation/Import resource Qualification process by reviewing new project submittals and interaction with other ISO-NE departments as well as external market participants

Requirements:
- Familiarity and/or interest to work with databases to perform queries and trend analyses
- Familiarity and/or interest to work with the FCM and market operations
- Familiarity with generation technologies a plus
- Strong communication skills
- Must be a self-starter
- Must be able to work independently and in groups, under limited time constraints
- Must be able to write and communicate effectively with both internal company personnel and external participants

Preferred Qualifications:
- Proficient in Microsoft Word, Excel, and PowerPoint

Minimum Education Level: Rising Senior
Preferred Majors: Electrical Engineering

Department Description: The Transmission Planning Department is responsible for the New England regional transmission system planning, generation interconnection studies and technical transmission system analyses.

Job Description: The Transmission Planning Studies Intern will assist in the department in analysis of the New England transmission system. This work may include model development, system analysis, and also support services such as data management.

Responsibilities:
- Assist Transmission Planning engineers in the performance of regional planning studies for New England. This includes:
  - Simulation of transmission system behavior
  - Analysis of results
  - Developing recommendations to ensure reliability and economic efficiency of system
- Potential work assignments provide support for the development of transmission system modifications necessary to reliably serve New England for the next ten years

Requirements:
- Good organizational skills
- Familiarity with power system analysis or willingness to learn programs such as
  - PSS/E, MUST, TARA
- Experience with Microsoft Word, Excel, Access or other office programs
- Enrolled in a BS, MS, or PhD degree program in Electrical Engineering

Preferred Qualifications:
- Preference given to students studying power systems
- Preference given to graduate-level students
21. Intern – Transmission Strategy & Services

Minimum Education Level: Rising Junior
Preferred Majors: Electrical Engineering

Department Description: The Transmission Services group is responsible for the administration of all requests to interconnect to the New England administered transmission system and all requests to secure service over the transmission system.

Job Description: The Transmission Strategy & Services Intern will support the study and review of new resource interconnection and integration, including performing all related studies (load flow stability, short circuit) related to the interconnection of new resources to assess system reliability and determine transmission system solutions to resolve concerns.

Responsibilities:

• Performing power system analysis studies
• Reviewing and summarizing results
• Preparing reports and recommending solutions

Requirements:

• Electrical Engineering or Electric Power Engineering major

Preferred Qualifications:

• Experience with using power system analysis software such as PSS/E
22. Intern – Real-Time Engineering Support

Minimum Education Level: Master’s
Preferred Majors: Electrical Engineering

Department Description: The Real-Time Engineering Support group provides support for the ISO New England control room and outage coordination. They perform engineering and technical analyses supporting real-time needs, tools, and transmission operating limits and guides.

Job Description: The Real-Time Support Intern will support ongoing software tool development for conversion of EMS (Energy Management System) model data to ISO New England’s main analysis tool (PSS/E) for steady-state and dynamic analyses.

Responsibilities:
- Software simulation
- Data analysis
- Data mapping
- Software development
- Project support
- Leading technical projects

Requirements:
- Bachelor’s degree in Electrical Engineering
- Some exposure to power systems analysis
- Skills in quantitative analysis

Preferred Qualifications:
- Skills in computer programming
- Experience with power flow software
- Educational concentration in Power Systems or related
23. Intern – Market Monitoring

Minimum Education Level: Rising Junior
Preferred Majors: Economics, Finance, Business

Department Description: The Internal Market Monitor is responsible for monitoring the competitiveness and operation of New England's wholesale electricity markets. To accomplish this, the Market Monitoring Department collects and analyzes complex market data. The department is also authorized to implement mitigation procedures to deter market behavior that may interfere with the competitive and efficient operation of the markets.

Job Description: The Market Monitoring Intern will work with a diverse group of market analysts and economists to monitor wholesale market outcomes and market participant behavior.

Responsibilities:
- Assist the department in analyzing market results and market participant behavior
- Assist in the development of insightful metrics and analyses designed to gauge the performance of the market

Requirements:
- Research and analysis skills
- Self-motivated
- Strong attention to detail and organization
- Ability to work in teams
- Excellent oral, written and interpersonal skills
- Working knowledge of Outlook, Word, Excel and PowerPoint
- Experience working with large data sets in statistic applications such as SAS

Preferred Qualifications:
- Knowledge of markets and an understanding of market competitiveness
- Experience of analyzing and working with large datasets, particularly in SAS
24. – 25. Interns – Internal Audit

**Minimum Education Level:** Rising Junior

**Preferred Majors:** Accounting, Auditing

**Department Description:** The Internal Audit department (IAD) is responsible for providing high quality, independent, professional audit coverage of ISO New England’s business and information technology (IT) processes including the evaluation of the ISO’s system of internal controls, reviewing governance and risk management processes, performing company-wide risk assessments for the purpose of developing the annual audit work plan, checking ISO compliance with governing agreements and regulations, supporting external audits/reviews and examining the quality and integrity of financial reporting. IAD performs internal controls and compliance audits as well as substantive testing in the areas of business operations (e.g., bulk power system and grid reliability, control room and forecasting functions and bid to bill processes including market administration and settlements functions), financial reporting processes and IT (e.g., IT general controls support processes, security management, application systems, technical infrastructure and systems development projects). IAD is responsible for providing resources to lead, facilitate, coordinate and oversee special ongoing projects including the SSAE 16 engagement, benefit plans audits, third party certification of Market System software and an independent annual internet vulnerability assessment at ISO New England.

**Job Description:** The IAD intern will assist with performance of internal audit fieldwork, direct support of SSAE 16 engagement testing and SOC 1 report review, as well as administrative tasks such as follow up of outstanding audit issues. Position reports to the Audit Manager, with general direction given by the Director of Internal Audit and Senior Auditor.

**Responsibilities:**
- Performing detail audit testing and analysis and preparing audit work papers in the areas of vendor contracts, wires, various information systems audits, etc.
- Performing detail audit testing in direct support of the SSAE 16 engagement in the areas of automated testing, user registration, DA Energy, FTR/ARR, Reserve Market, and OATT
- Utilizing automated tools such as the ACL data mining and data analysis package to perform fraud, waste and abuse monitoring
- Assisting with administrative tasks such as the follow-up of outstanding audit issues, proofreading of senior management and Audit & Finance Committee presentations, etc.

**Requirements:**
- A minimum of two years of an auditing, accounting and/or business administration program completed with a cumulative 3.2 GPA or higher
- Strong knowledge and experience with office software, preferably Word, Excel, and PowerPoint
- Demonstrated attention to thoroughness and accuracy in performing detailed, repetitive tasks
- Strong interpersonal, communication and writing skills

**Preferred Qualifications:**
- Experience performing detailed administrative tasks in a professional office or company environment
- Active participation in college, community and/or volunteer activities
- Cumulative 3.7 GPA or higher
26. Intern – Internal Audit: Technical

Minimum Education Level: Rising Junior
Preferred Majors: Engineering, Computer Science, Information Technology, Cyber Security

Department Description: The Internal Audit department (IAD) is responsible for providing high quality, independent, professional audit coverage of ISO New England’s business and information technology (IT) processes including the evaluation of the ISO’s system of internal controls, reviewing governance and risk management processes, performing company-wide risk assessments for the purpose of developing the annual audit work plan, checking ISO compliance with governing agreements and regulations, supporting external audits/reviews and examining the quality and integrity of financial reporting. IAD performs internal controls and compliance audits as well as substantive testing in the areas of business operations (e.g., bulk power system and grid reliability, control room and forecasting functions and bid to bill processes including market administration and settlements functions), financial reporting processes and IT (e.g., IT general controls support processes, security management, application systems, technical infrastructure and systems development projects). IAD is responsible for providing resources to lead, facilitate, coordinate and oversee special ongoing projects including the SSAE 16 engagement, benefit plans audits, third party certification of Market System software and an independent annual internet vulnerability assessment at ISO New England.

Job Description: The IAD intern will assist with performance of internal audit planning, fieldwork and reporting phases in technical areas such as identity management, networks, operating systems, web platforms, data base management systems and application systems, fieldwork on system operations audits, as well as administrative tasks such as follow-up of outstanding audit issues. Position reports to the Director of Internal Audit.

Responsibilities:
- Research for audit planning purposes including Vendor documentation, audit guidance and security reference benchmarks for recommended security and configuration practices
- Detail audit testing for various IT and operations audits and reviews
- Issue tracking and audit follow-ups in technical IT areas such as Network Security Administration, VMware Security Administration and Change/Configuration Management

Requirements:
- A minimum of two years of an engineering, computer science, information technology or cyber security program completed with a cumulative 3.2 GPA or above
- Strong knowledge and experience with operating system, database and office software including Word, Excel, and PowerPoint
- Demonstrated attention to thoroughness and accuracy in performing detailed, repetitive tasks
- Strong interpersonal, communication and writing skills

Preferred Qualifications:
- Experience performing detailed technical tasks in an engineering or IT environment
- Active participation in college, community and/or volunteer activities
- Cumulative 3.5 GPA or above
27. Intern – Corporate Communications

Minimum Education Level: Rising Junior
Preferred Majors: Communications, Public Relations

Department Description: The Corporate Communications department is responsible for media relations; corporate messaging, collateral, and identity; employee communications; crisis communications; content management; web management; and technical editing.

Job Description: The Corporate Communications intern will develop content for a variety of mediums for both external audiences (national and regional media, utility and energy companies, financial institutions, state policymakers and commissioners, and federal regulators) and employees (highly specialized engineers and economists). The intern will be involved in projects and functions primarily related to: 1) Reporting, writing, editing. 2) Employee Communications. 3) Media Relations.

Responsibilities:
- Draft articles and other content for corporate websites (intranet, external web, news blog)
- Report on internal events and take photos
- Perform tasks related to the corporate intranet redesign project
- Perform tasks to support media requests
- Develop PowerPoint slides for employee meetings and events
- Draft tweets
- Proofread content created within department and other technical documents
- Support Communications staff should emergency communications be required

Requirements:
- Excellent writing and editing skills
- Strong verbal and written communication skills
- Ability to work independently and manage time
- Experience meeting tight deadlines.

Preferred Qualifications:
- Pursuing a career in corporate communications or public relations
- Interest in energy policy or the energy industry
28. Intern – Accounting

Minimum Education Level: Rising Junior
Preferred Majors: Accounting

Department Description: The Finance department at the ISO is responsible for safeguarding and growing the Company’s assets, establishing and maintaining a functioning set of policies and procedures, while ensuring compliance to audit and generally accepted accounting principles and ethical standards.

Job Description: The Finance intern will be involved in the day-to-day accounting work of the company’s Finance department.

Responsibilities:
- Daily cash management including
  - Daily reconciliation of all cash accounts
  - Accounts receivable (A/R) processing
  - Data entry for quarterly forecasting, annual budgeting
  - Month end close
  - Maintenance of fixed-asset system
  - Preparing journal entries
  - General ledger analysis and account reconciliation
- Accounts payable (A/P) processing including check runs and inquiries

Requirements:
- Current enrollment in a 4-year accounting program
- Skills in Microsoft Excel, PowerPoint, Word, and Outlook

Preferred Qualifications:
- Excellent technical skills in computer software and accounting applications
- Strong communication skills (written, verbal)
- Previous work experience in a professional setting
- At least two years completed in degree program (Rising Junior by June 1, 2017)
29. Intern – Human Resources

Minimum Education Level: Rising Senior
Preferred Majors: Human Resources, Business, Psychology, Sociology

Department Description: The Human Resources department recruiter supports the attraction, retention and development of ISO New England workforce by partnering with the business to support its objectives and applying best HR practices, tools and programs to meet the organization's needs.

Job Description: The Human Resources Intern will work with Senior Recruiter on sourcing and special project around Social Media, Diversity, and Veterans. Utilize existing sourcing activities and research new means to find quality candidates through social media and industry networking.

Responsibilities:
- Prepare and post job requisitions, source resumes, maintain candidates in applicant tracking system, check references, and initiate background checks
- Prepare, post, monitor job openings on traditional Media (LinkedIn, Twitter...)
- Expand efforts on Social Media to increase posts' reach
- Research and propose new Social Media outlets - Glassdoor, Tech Blogs, Industry sites
- Learn and utilize sourcing techniques to identify passive candidates
- Shadow Senior Recruiter during intake sessions with hiring managers to gain understanding of the roles bring filled
- Shadow Senior Recruiter on initial screening calls with candidates
- Provide ad-hoc administrative support and project work to Senior Recruiter as needed

Requirements:
- Must be a current student pursuing a Bachelor's Degree
- Proficient in MS Office Suite, LinkedIn, Twitter and other Social Media
- Ability to handle confidential information in a professional manner
- Exceptional verbal and written communication skills
- Attention to detail

Preferred Qualifications:
- Master’s Degree preferred
- Human Resources or Business Management majors preferred
- HRIS systems experience desired
30. Intern – Enterprise Risk Management

Minimum Education Level: Rising Junior
Preferred Majors: Finance, Engineering

Department Description: The Enterprise Risk Management department is responsible for assessing market and credit risk, running quality and document management programs, conducting corporate reporting, and organizing business continuity.

Job Description: The Enterprise Risk Management Intern will work directly with the Lead Risk Analyst in conducting in-depth analysis for a range of Financial Assurance (FA) topics to expand the Enterprise Risk Management department’s analysis capabilities and create the framework for future analyses.

Responsibilities:
- Analysis and recommendation of Financial Assurance requirements for virtual transactions
- Analysis and recommendation of Financial Assurance requirements for external transactions
- Back-testing and/or benchmarking of non-hourly Financial Assurance requirements

Requirements:
- Advanced skills in quantitative and qualitative analysis
- Ability to maintain strict confidentiality
- High level of business acumen

Preferred Qualifications:
- Background in Finance or Engineering
- Previous experience or interest in the energy industry