



Energy Sector Workforce Issues

Margi Schiemann
Nicor Gas

David G. Loomis, Ph.D.
Illinois State University

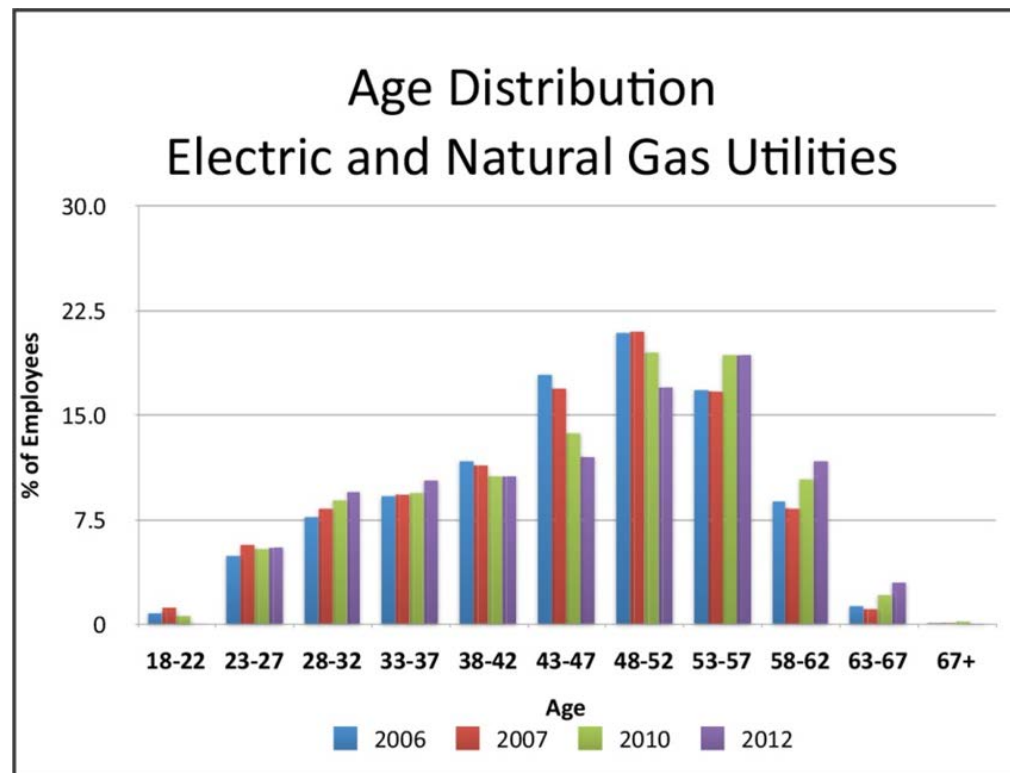
Illinois Workforce Investment Board Presentation
September 17, 2015

Energy in Illinois

- The Energy Sector is important to the economy – bringing jobs, business and investments to Illinois and contributing to the well-being of our state.
- Energy Sector defined:
 - Natural Gas
 - Nuclear
 - Coal
 - Renewables – Wind, Solar, Biofuels, Biomass, Hydro
 - Petroleum
 - Electricity
 - Refineries
 - Pipelines
 - Battery Storage

Illinois Workforce Needs

- The Center for Energy Workforce Development (CEWD) estimates that nearly 50% of the energy workforce will retire in the next 5-10 years.





Illinois Workforce Needs

- The Illinois Department of Employment Security predicts that there will be a growth of more than 50,000 energy-related jobs by 2022.
- Accelerated natural gas infrastructure modernization programs and Illinois Smart Grid creating new jobs.

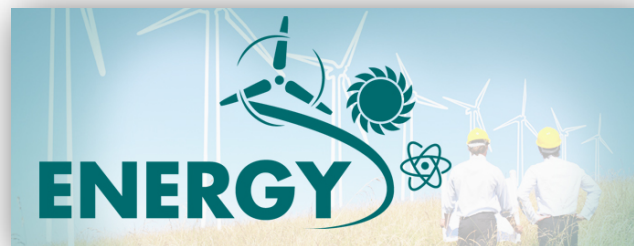


ENERGY LEARNING EXCHANGE

Illinois State University

- Part of Illinois Pathways education reform.
- Illinois Pathways is a State of Illinois-led STEM (Science, Technology, Engineering and Mathematics) initiative designed to empower students to explore academic and career interests, develop skills, access employment in careers in sectors where there will be a demand for talent.

ILLINOIS
Pathways
Science, Technology, Engineering & Math





ENERGY LEARNING EXCHANGE

Illinois State University

- Workforce Value Proposition – Improving education, workforce, and economic development coordination to build more effective talent pipelines...
 - **Co-Partner with Education Around Talent Pipelines**
 - Multiple opportunities for businesses of all sizes to contribute based on their interests.
 - Improved ability to manage transitions between P-20 and workforce training systems.
 - **Increased Access to Training Supports Around Industry Sectors**
 - Standardized, sector-based frameworks enable resource sharing across regions.
 - Expanded connections to a continuum of work experience opportunities.



ENERGY LEARNING EXCHANGE

Illinois State University

- Workforce Value Proposition – Improving education, workforce, and economic development coordination to build more effective talent pipelines...
 - **Improved Workforce Readiness Systems and Guidance**
 - Supports portfolio assessments for academic and workforce readiness skills.
 - Infrastructure to identify and support sector pathway credentialing statewide.
 - **Review Data for Continuous Improvement**
 - Access to education and workforce longitudinal data to support program planning.
 - Enables performance-based review to identify and report on program effectiveness.



ENERGY LEARNING EXCHANGE

Illinois State University

- Founding Member: Nicor Gas
- Other Members: Representatives from 94 Entities
 - Energy Industry Companies
 - Organizations
 - Education (Universities, Community Colleges, and Schools)
 - Unions
 - Workforce Investment Boards
 - Career Centers
 - State Agencies



ENERGY LEARNING EXCHANGE

Illinois State University

- Partners:

Founding Member:  Nicor Gas™
An AGL Resources Company

Companies :



Workforce Boards:



Colleges and Universities:



Workforce Related:



More:



IL Energy Workforce Consortium

- The Illinois Energy Workforce Consortium (IEWC) is a collaboration of industry employers, cooperatives, educators and government partners from across the state who have partnered to develop a pipeline of qualified candidates for energy industry jobs in Illinois.
- Our goal is to serve as a resource for educators and students alike – sharing information, data, and real-world examples of the types of careers that are available in Illinois' energy industry.



IL Energy Workforce Consortium

- Members include:

- Ameren Illinois
- Association of Illinois Electric Cooperatives
- College of DuPage
- Exelon
- Energy Learning Exchange, Illinois State University
- Illinois Department of Employment Security
- Illinois Energy Association
- Mt. Carmel Public Utility Co.
- Nicor Gas
- North Shore Gas
- Peoples Gas
- Prairie State Generating Company
- Primera Engineers
- S&C Electric



Careers in Energy Week

- October 12-18, 2015... Last year's efforts included:
- The Energy Learning Exchange mailed kits to 270 teachers including an ELE t-shirt, pencils, pencil sharpeners, a Get Into Energy notebook and flyer.
- ELE website featured a page for teachers to request speakers to present in classrooms, plus presentation materials and curriculum links. Industry representatives presented at schools.



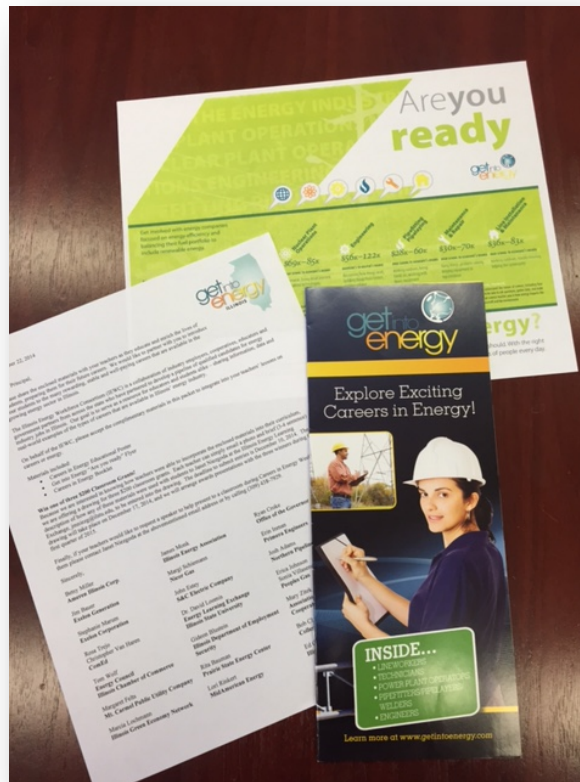
Careers in Energy Week

- IEWC received a Proclamation from Governor Quinn for Careers in Energy Week 2014



Careers in Energy Week

- IEWC mailed 1,000 packets to high schools, including a Get in Energy poster, booklet, and flyer.





Careers in Energy Week

- Nicor Gas' 2014 campaign included:
- Webpage for teachers, students and general visitors to the Nicor Gas website
 - Provides job descriptions and photos of employees in typical jobs at Nicor Gas
 - Offers links to games and activities for teachers and students
 - Teachers may request a classroom speaker
- 1,800 postcards mailed to junior high schools
 - Announcing Careers in Energy Week
 - Directs teachers to Nicor Gas' *Discover Careers in Energy* page



Careers in Energy Week

- To promote Nicor Gas' participation in Careers in Energy Week, digital ads appeared on websites:
 - Daily Herald, NW Herald, Kane County Chronical, DeKalb Daily Chronicle, Joliet Herald, Morris Herald, Suburban Life and Bloomington Pantagraph.
- Partnered with Nicor Gas' energySMART Elementary Education Program
 - A new poster was created as part of this program and includes messaging about careers in energy
 - These posters were provided to about 500 teachers
- During Careers in Energy Week, Nicor Gas tweeted messages about careers as well as planned activities lined up during the week

Careers in Energy Week

- Career Awareness Events during the week:

**TRiO – Illinois Junior Energy Project Networking Event,
Prairie State College, Chicago Heights, IL.**

Date/Time: Thursday, October 15 from 6 – 8 p.m.

Attendance: 120

**Museum of Science & Industry Science Works “Cool
Jobs, Hot Careers” – Science Career Exhibition**

Date/Time: October 17 from 10 a.m. – 3 p.m.

Attendance: 5,000

NIU Annual STEM Fest, DeKalb Convocation Center

Date/Time: October 17 from 10 a.m. – 5 p.m.

Attendance: 8,000

Construct



- 11-week job readiness program
 - CDL Permit Training
 - Core Academic Review
 - Basic Math Skills
 - Reading Skills
 - Graphic Arithmetic
 - Mechanical Concepts
 - Electrical Concepts



Construct

- 11-week job readiness program
 - Direct Contact with Industry
 - Industry Specific Skills/Trade Skills
 - Employment Readiness
 - Resume Writing
 - Interview Skills
 - Career Pathway Planning
 - Job Shadowing



Construct

- 60 “student” participants
- 23 partnering companies, including:

ComEd
Nicor Gas
Intren
Aldridge
Asplundh
Burling Builders
Cathodic protection
Choctaw-Kaul
David Mason & Associates
Groundhog Utility Construction
HBK Engineering
Henkels & McCoy

Lindblad Construction
LiveWire
Meade
MJ Electric
MZI Group
Nash Brothers Construction
Osmose
PMI Energy Solutions
Primera Engineers
Trice Construction
USIC



Construct

- 6 partnering agencies:
 - ASPIRA of Illinois
 - Austin Peoples Action Center
 - Chicago Urban League
 - National Latino Education Institute
 - Quad County Urban League
 - YWCA Metro Chicago



Construct

- Agencies screen candidates:
 - Age (must be at least 18 years old)
 - High school diploma or GED
 - Minimum 8th grade reading and math level
 - Valid driver's license
 - Be drug free
 - Pass a background check
 - Pass an admissions interview



Nicor Gas Career Awareness

Elmwood Park High School Career Fair

Date/Time: Friday, Feb. 20 from 12:30 – 3 p.m.

Attendance: 450

West Aurora High School Career Fair

Date/Time: Tuesday, March 3 from 7 a.m. – 1:30 p.m.

Attendance: 1,000

Rochelle Township High School Career Fair

Date/Time: Friday, March 6 from 11 a.m. – 12:30 p.m.

Attendance: 100

Junior Achievement at Romeoville High School

Date/Time: Friday, March 13 and Friday, March 27

Attendance: 900 for each session - All the school's sophomores



Nicor Gas Career Awareness

**John C. Dunham STEM Partnership School Career Presentations,
Aurora, IL**

Date/Time: Wednesday, March 4 AND Monday, April 13

Attendance: 30

School District 308 STEM+A Night Event, Oswego High School

Date/Time: Friday, March 20 from 6:30 - 8:30 p.m.

Attendance: 750

McHenry High School (West Campus) College and Career Expo

Date/Time: Thursday, April 9 from 8 a.m. – 1 p.m.

Attendance: 1,500

**Science Careers in Search of Women Conference at Argonne Labs,
Lemont, IL**

Date/Time: Thursday, April 16 from 1:30 – 3:45 p.m.

Attendance: 320 students and 100 teacher/mentors



Nicor Gas Career Awareness

Grundy Area Vocational Center/Community Foundation of Grundy County – Morris Community HS Recreation Center, [Morris, IL](#)

Date/Time: Tuesday, April 21 from 8:15 a.m. – 2:15 p.m.

Attendance: 1,000 (eighth graders from across Grundy County)

STEM Career Expo at Fermi Lab, [Batavia, IL](#)

Date/Time: Wednesday, April 22 from 5:30 – 8:30 p.m.

Attendance: 1,000

Junior Achievement, Careers in Energy Pilot, [Rockford, IL](#)

Date/Time: Thursday, May 7 AND Thursday, May 14 from 8 a.m.-4 p.m.

Attendance: 300 (2 High Schools, 10 classes of 30)

Troy Middle School, All 8th Grade Classes, [Plainfield, IL](#)

Date/Time: Thursday, May 28 from 8 a.m.-2 p.m.

Attendance: 135



Nicor Gas Career Awareness

GirlSTEM, Kankakee Community College, [Kankakee](#)

Date/Time: Tuesday, June 16 from 10 – 11 a.m.

Attendance: 30

North Central College Junior/Senior Scholars Program, a K-12 college readiness program for underserved students from North Lawndale and East Aurora, [Naperville, IL](#)

Date/Time: July 6 from 9 – 11 a.m.

Attendance: 180

GADgET Camp - Girls Adventuring in Design Engineering & Technology, Triton CC, [River Grove, IL](#)

Date/Time: July 20 from 1-3 p.m.

Attendance: 30



For More Information

Margi Schiemann
Nicor Gas

630-388-2689

mschiem@agresources.com

Dr. David G. Loomis
Illinois State University

309-438-7979

dloomis@ilstu.edu