Energy Cluster:
Careers regarding developing, planning, and managing the production of energy including renewable energy and clean coal technology and its distribution through smart grid technologies.

Pathways:
- Energy Management
- Energy Engineering
- Building Energy Efficiency
- Transportation Energy Efficiency
- Energy Research & Development
- Energy-Related Management

Websites:

Suggestions:
Suggestions for the ELE, including additional contacts to invite to participate in the ELE should be emailed to:
EnergyLearningExchange@ilstu.edu

ELE Subcommittees Developing Plans of Action

The ELE has already created three subcommittees to develop a plan for achieving nine specific functions assigned to the learning exchange, identifying key resources, areas of perceived need, and partnerships. The committees are meeting via conference calls, and preparing presentations for a full-group, in-person meeting on January 18, 2013, at Illinois State University.

1. Curriculum, Equipment, Student and Teacher Support Committee

Co-Chairs: Tod Treat (Student & Academic Services, Richland Community College) and Dr. Willy Hunter (Center for Mathematics, Science and Technology, Illinois State University)

Next calls* (select one): Thursday, Dec. 6th, 12:00 Noon, OR Friday, Dec. 7th, 11:00 AM

This committee is planning for a master database/catalog to share information of what resources are available for teachers, which can also be used to determine areas of need.

2. Internships, Collaboration, and Career Development Committee

Co-Chairs: Jim Monk (Illinois Energy Association) and Jolene Willis (Illinois Institute for Rural Affairs, Western Illinois University)

Next call*: Monday, Dec. 10th, 9:00 AM

Committee members are contacting energy industry representatives to find out what programs are already in place with K-12 schools in Illinois. The group continues to discuss ideas for an Energy Fair, Career Video, and Challenges with other Learning Exchanges.

3. Personalized Education Plans and Performance Evaluation Committee

Co-Chairs: Julie Elzanati (Illinois Green Economy Network) and Dr. David Loomis (Center for Renewable Energy and Institute for Regulatory Policy Studies, Illinois State University)

Next call*: Friday, December 7th, 1:00 p.m.

This group is focusing on discussions regarding dual credit courses for high schools and community colleges, energy courses in community colleges that could be offered to high school students, partnerships, and articulation agreements.

* To connect to the conference calls:
Please dial (712) 775-7100
At the prompt, enter code 471368#
Blackberry users: (712) 775-7100x471368#

Energy Learning Exchange Lead Organization: Illinois State University, Dr. David Loomis, 309-438-7919, EnergyLearningExchange@ilstu.edu
Nine Functions of the Energy Learning Exchange:

The subcommittees are planning ways to reach these nine ELE goals:

1. Provide e-learning curriculum resources, including on-line courses, assessments and feedback systems, reference materials, databases, course articulation and software tools.

2. Expand access to classroom and laboratory space, equipment, and related educational resources necessary to support programs of study through regional partnerships and other strategies.

3. Support student organizations and their major activities, including conferences, internships and professional networking experiences, competitions, and community projects that build leadership, communication and interpersonal skills and provide professional and peer support networks.

4. Provide internships and other work-based learning opportunities that connect students with adult mentors.

5. Sponsor challenges and project management resources for students to work in collaborative teams addressing real-world interdisciplinary problems.

6. Provide professional development resources for teachers and school administrators integrated and aligned across middle school, high school, and community college instruction, including STEM externships, support for web-based networks, and integrated professional development for academic and CTE instructors.

7. Provide career development and outreach resources to expand awareness of cluster-related programs and careers to K-12 students.

8. Provide tools and resources to assist students and schools with implementing personalized education plans and transitions to post-secondary academic and training programs, including establishing course articulation and dual credit opportunities that are consistent with the Illinois Community College Board’s administrative rules and the Illinois Dual Credit Quality Act.

9. Review and report on performance of STEM programs of study through aggregate student data and assessments, including consideration of talent pipeline benchmarks established by IPIC and work with school partners to continuously improve performance.

**Illinois Pathways** is an innovative state-led STEM initiative designed to support college and career readiness for learners and better prepare youth and adults for transitions into employment.

The State of Illinois’ P-20 Council set a goal to increase the proportion of Illinoisans with high-quality degrees and credentials from 44% to 60% by 2025. By 2018, Illinois employers will offer over 319,000 jobs requiring education and training in STEM, increasing nearly 20% since 2008. According to Georgetown University, Center on Education and the Workforce, over 90% of those STEM occupations will require postsecondary education or training. To grow the economy and maintain its competitiveness, preparing students for STEM careers is essential.

*Source: Illinois Pathways STEM Learning Exchanges Overview Flyer*