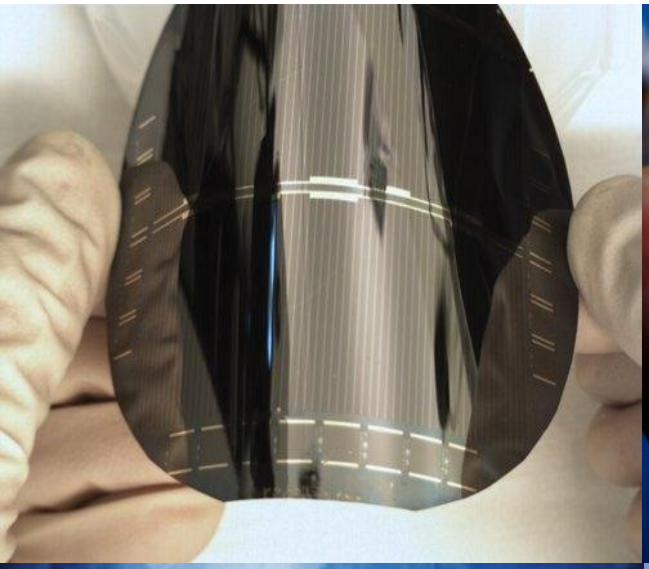
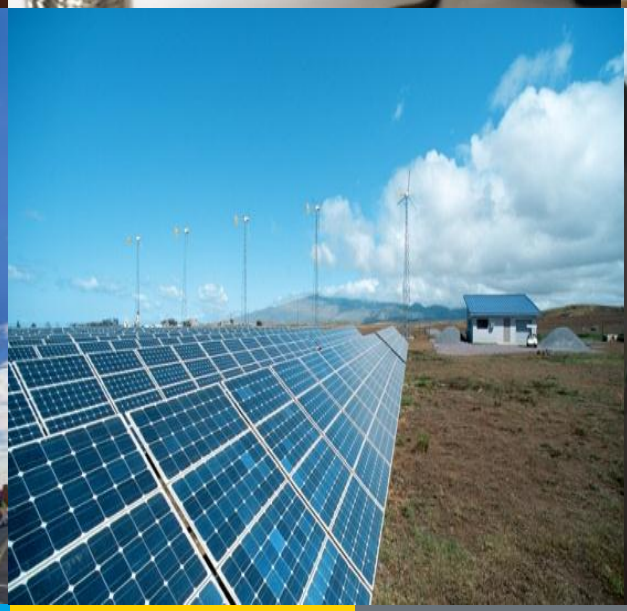
U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy





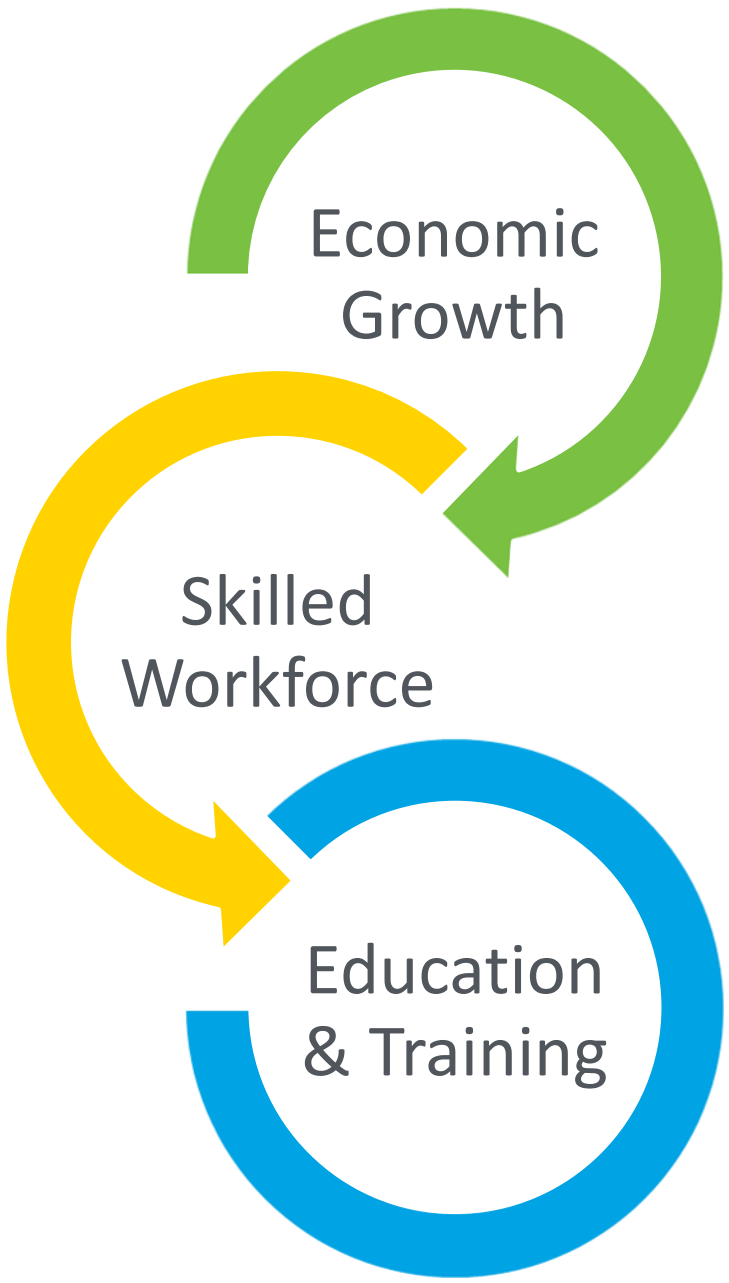





APEC ESCI KSP Workshop
Koh Samui, Thailand
March 19, 2013

Sheila Moynihan
Policy Advisor

Skilled workforce & economic growth



- Last year, a record **$270 billion was invested globally in clean energy**
- Clean energy economy relies on workers that can **innovate, produce, install, maintain, and service** advanced energy technologies.
- To qualify for clean energy jobs, workers need to **sharpen their skills** through education and training.

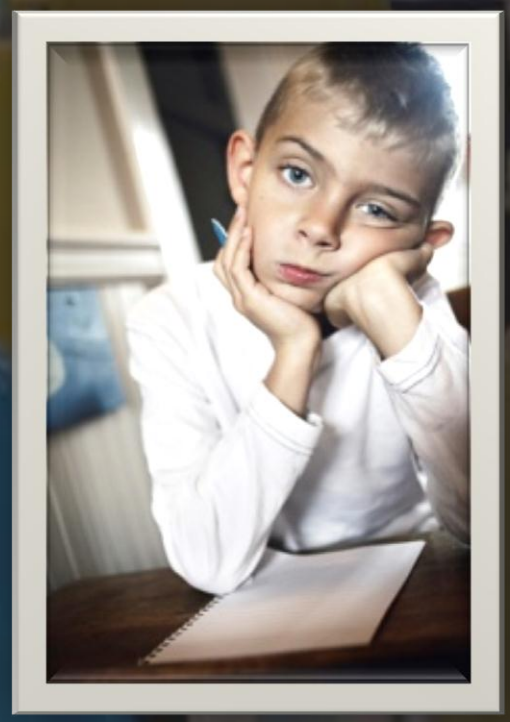
Fostering a skilled workforce

- Training
- *Career Mapping*
- *Credentials & Accreditations*

Opportunities in Education & Training

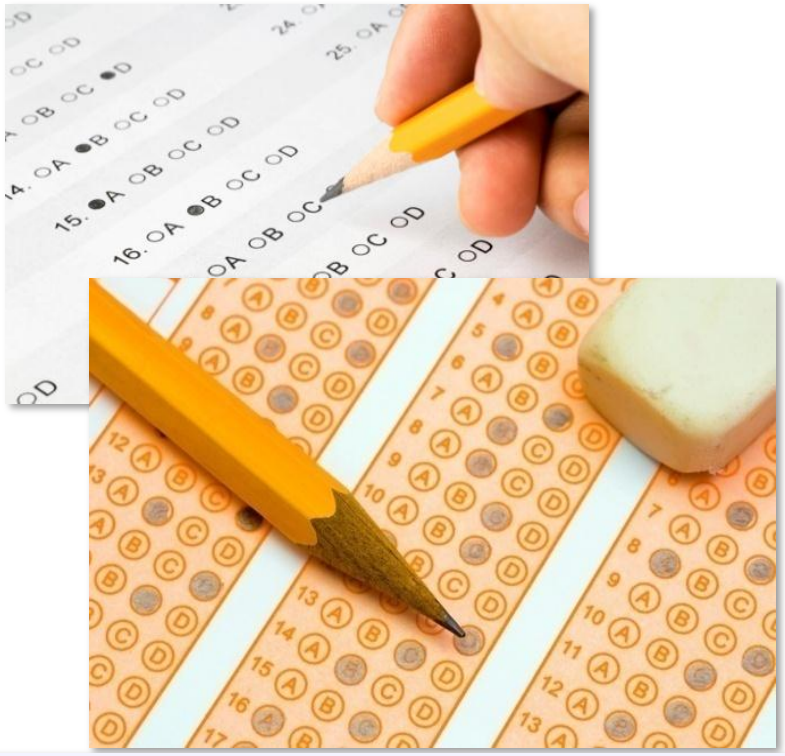
- We don't do anything like we did 20 years ago, but we educate our students the same way we did a century ago

- Lecture format seen as irrelevant for today's learners who are plugged in everywhere



Performance-based testing

Trading this….

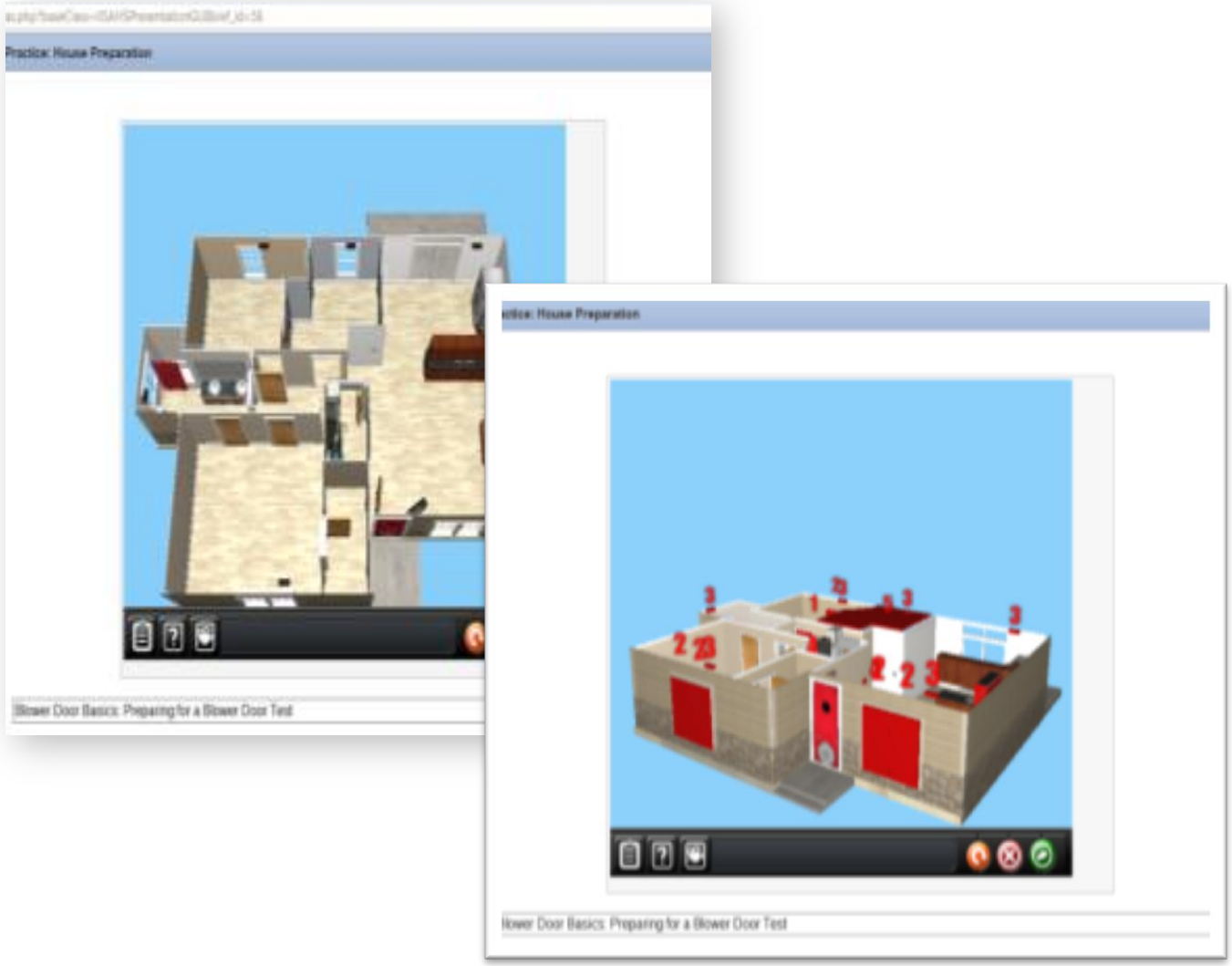


Leaky, recessed light fixtures can cause:

- Electrical problems
- Ice dams
- Furnace malfunction
- All of the above
- Poor light quality

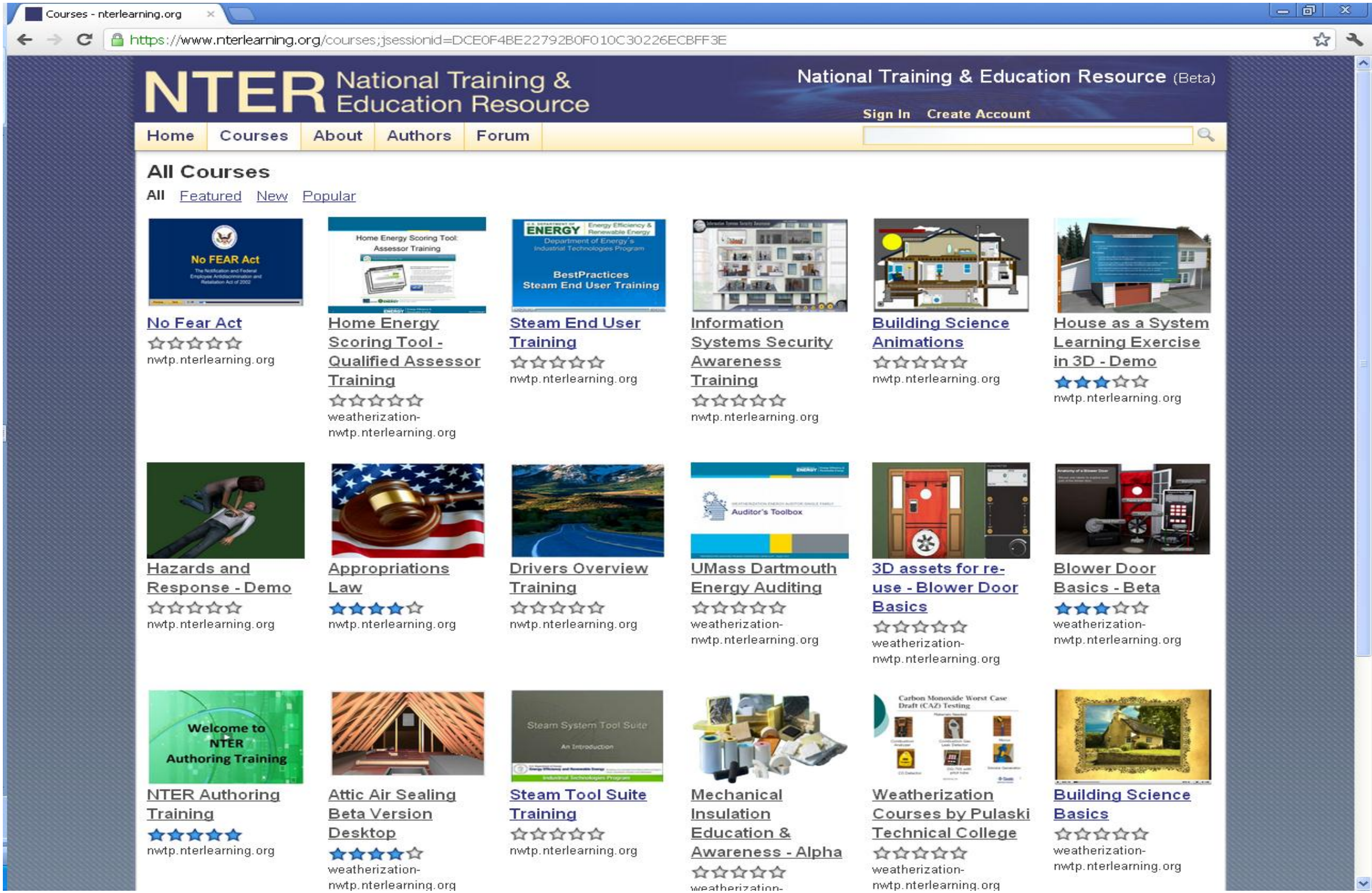
Submit Answers

For meaningful, performance-based assessment



Correctly configure the house for winter conditions

Sample Screen Shot of Available Courses



ESCI-KSP Screenshot

Energy Smart Communities Initiative

Knowledge Sharing Platform

APEC Energy Working Group

About ESCI Contacts Search Submit a Project Register Sign

Smart Jobs & Consumers – Energy Efficiency Training Curricula:

SJ-1.2 Energy Efficiency Training Resources

Select a Task

Projects | Interviews | Events | Publications

Projects

APEC Open Educational Resources (OER)

Australia

APEC Open Educational Resources (OER) repository offers an exciting opportunity to transform the lea...

National Training and Education Resource (NTER)

United States

The US Department of Energy developed the National Training and Education Resource (NTER) as an open...

Recent Events

Energy Working Group 45th Meeting
2013-03-18, Samui Island

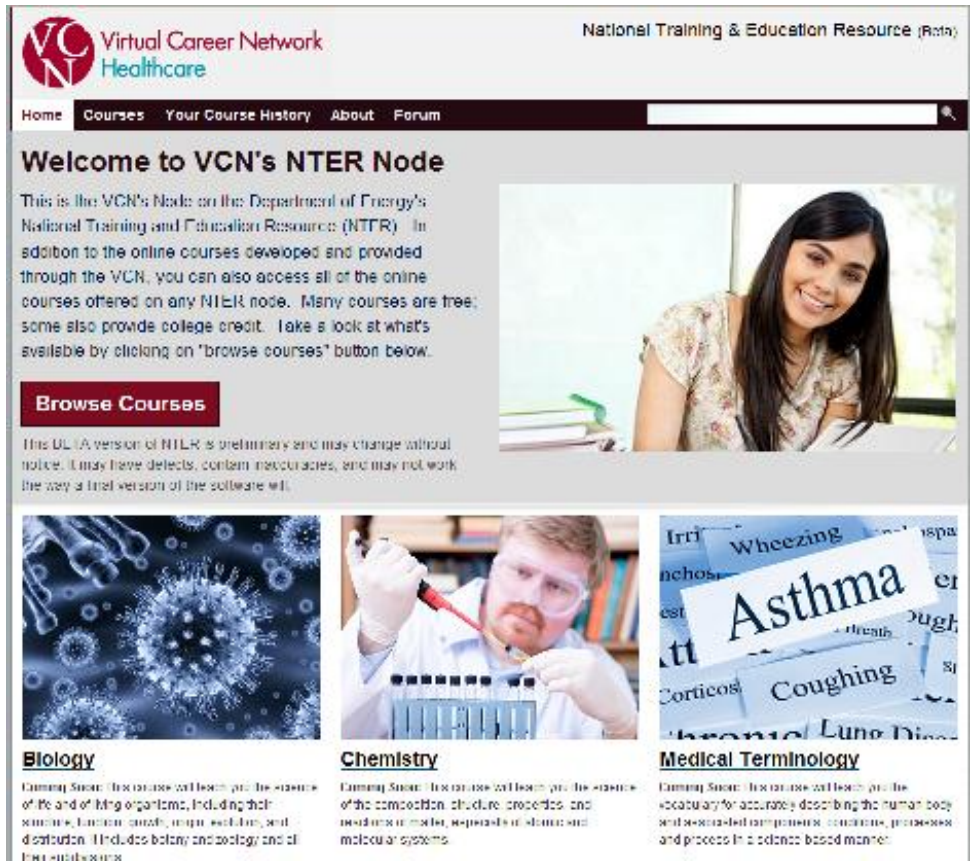
APEC Symposium on Human Capital Policies for Green Growth and Employment
20-21 March 2012, Washington, DC, USA

Knowledge Sharing Platform (KSP) Workshop for the Energy Smart Communities Initiative
17-18 October 2011, Kaohsiung, Chinese Taipei

View All Events

NTER Branding Examples

DOE NTER Node



Virtual Career Network Node

U.S. DEPARTMENT OF ENERGY

SunShot Initiative

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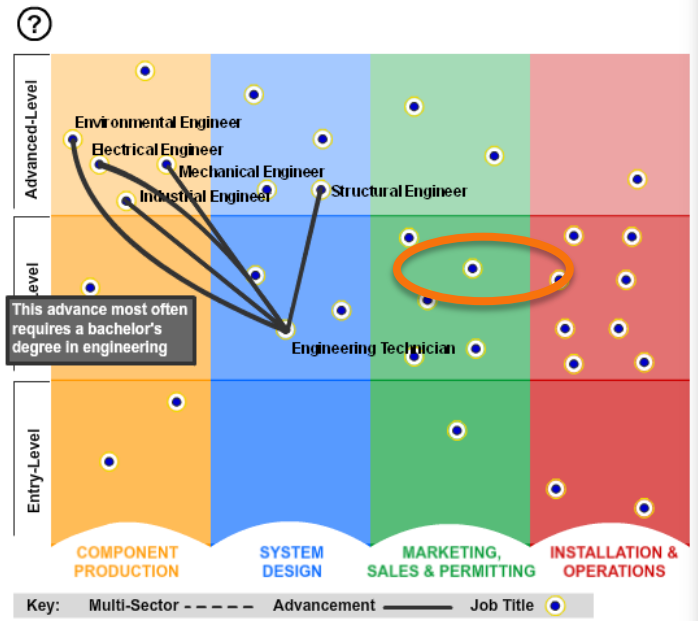
- Newsletter
- Multimedia
- Meetings & Workshops
- Solar Innovation Timeline
- Solar Career Map

Solar Career Map

This solar career map explores an expanding universe of solar-energy occupations, describing divers
possible progression between them, and identifying the high-quality training necessary to do them w



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Engineering Technician

Alternate Title(s): Civil Engineering Technician; Electrical Engineering Technician; Mechanical Engineering Technician; Environmental Engineering Technician

Job Type: System Design

Education & Training Level: Post-Secondary Credential

High school level trigonometry, geometry, and algebra are essential; Associates degree in engineering technology is strongly preferred. Education paths vary depending on type of engineering; technicians usually need a 4-year degree to advance as technologists or applied engineers.

Preferred:
Associate's Degree; Certification http://irecusa.org/irec-programs/workforce-development/certification-organizations/

Work Experience: 3-5 years

Median Pay:

$46,760.00/year
$22.48/hour

Engineering Technician Profile:

Work with engineers in apply
theory and principles of eng
plan, design, evaluate, and
the performance of solar en
related equipment, processe
facilities.


Photo Courtesy of DOE/NREL

Engineering technicians use the principles of science, engineering, and mathematics to solve technical problems across all sectors of the solar industry. Their work is more narrowly focused and application-oriented than that of the scientists and engineers they assist. Civil engineering technicians, for example, might design layouts for solar-related projects to ensure compliance with profile and component specifications, square footage, and material quantities; review solar-related project blueprints and structural specifications to determine dimensions and material requirements of a solar structure or system; and develop plans and cost estimates for system installation, facility use, or construction.

Skills:
Mathematics; Computer skills, including computer-aided design and drafting; Active listening; Critical thinking; Complex problem solving; Coordination; Active learning; Data monitoring and assessment

Requirements:
Able to work in a team and communicate clearly with supervisor; Some specialties may require drivers license.

Job Responsibilities:
Estimating the quantifiable characteristics or products, events or information; Evaluating information to determine compliance with

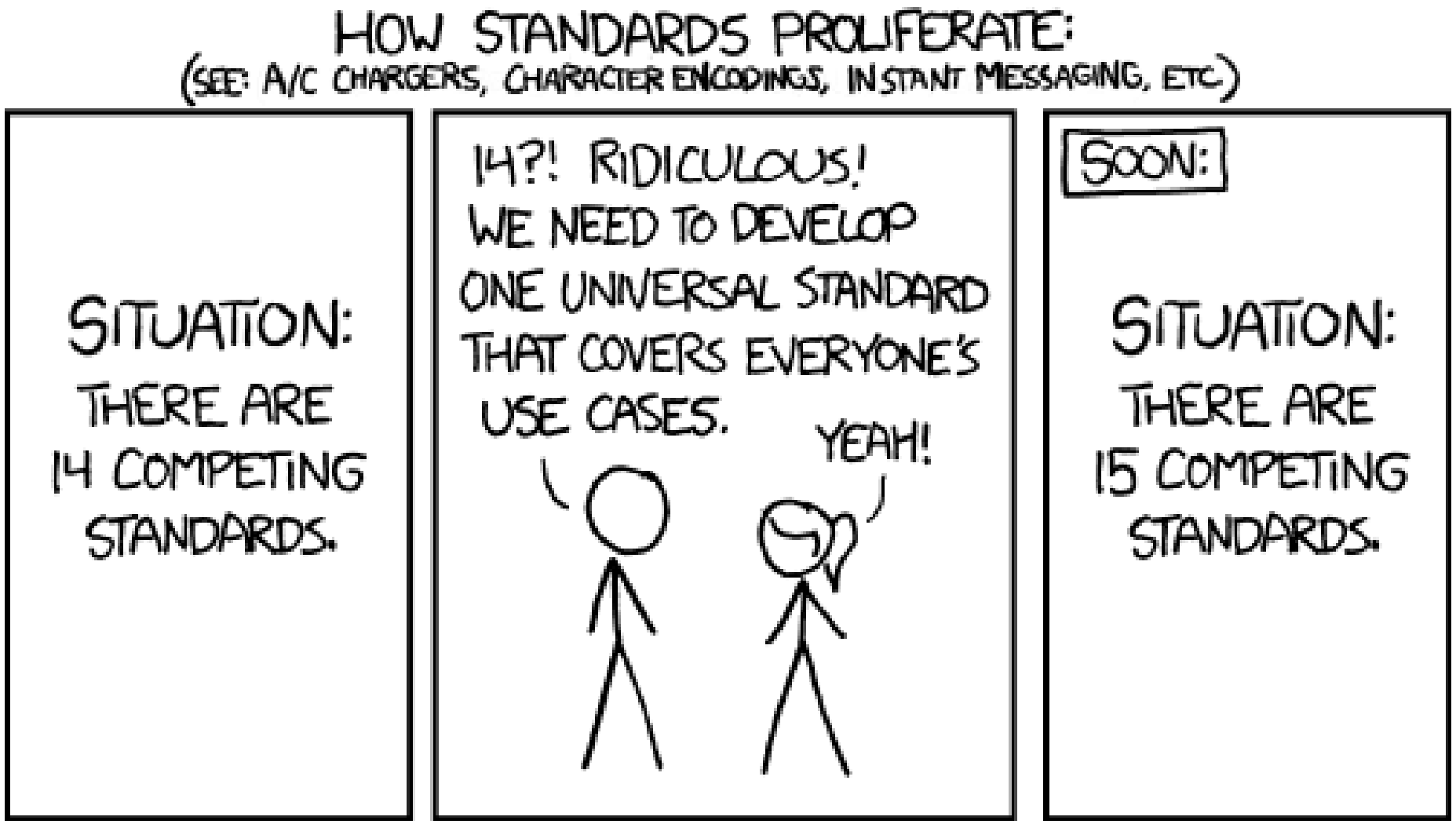
equipment, structures or materials; Identifying design or performance problems

Interests:
Working with a team; Mathematics; Technology design; Problem-solving; Working in a clean energy economy

Did You Know?
Civil Engineering Technician jobs are projected to grow 14%-19% between 2008 and 2018.

"Job Details" for Engineering Technician.

NTER Products and Services



From XKCD.com

Thank You

Sheila Moynihan

Sheila.moynihan@ee.doe.gov

(202) 287-5272