Center For
ENERGY
Workforce Development

Industry Solutions–Regional Implementation

CEWD Update

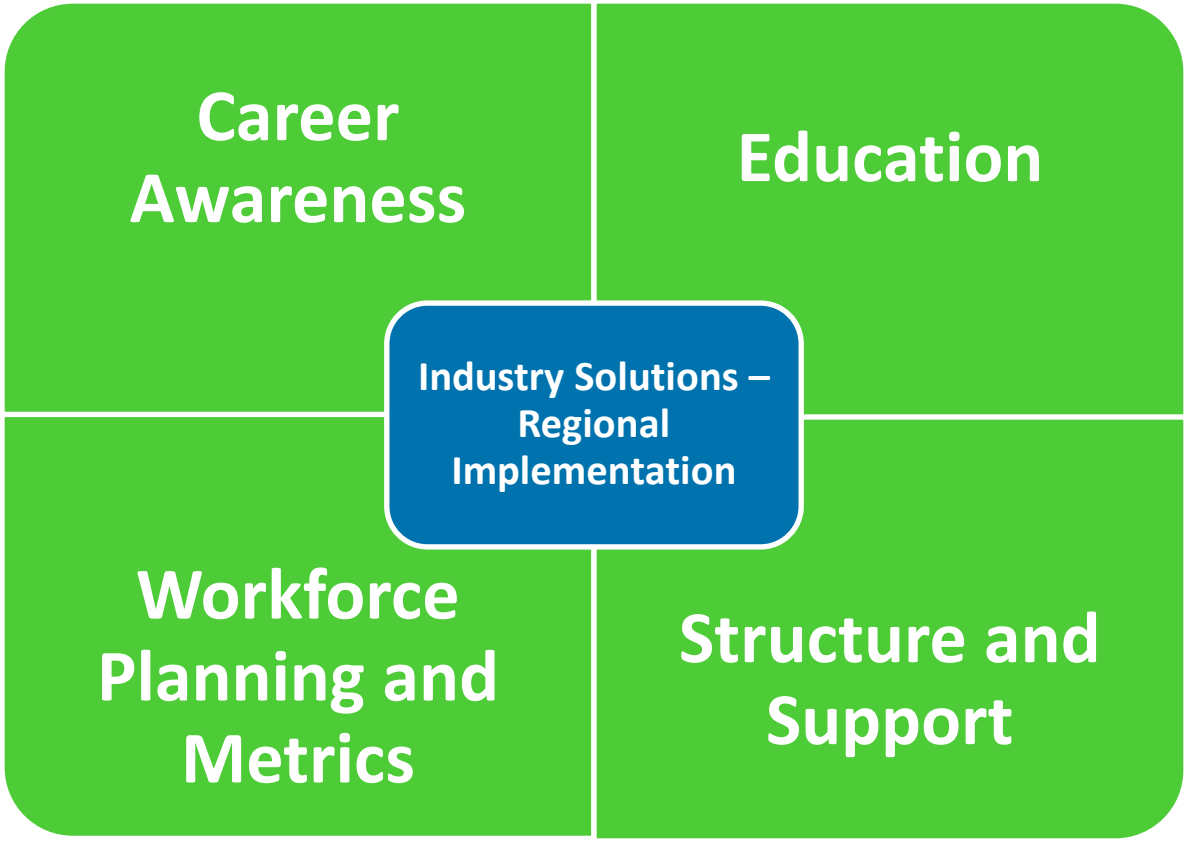
CEWD Vision and Mission

Vision: Where the industry speaks with one voice
for a single purpose –
Companies adequately staffed
with a diverse workforce
with the right skills
to safely keep the energy flowing

Mission: Build the alliances, processes and tools
to develop tomorrow's energy workforce.

CEWD Mission

Build the alliances, processes, and tools to develop tomorrow's energy workforce



Strategic Workforce Planning

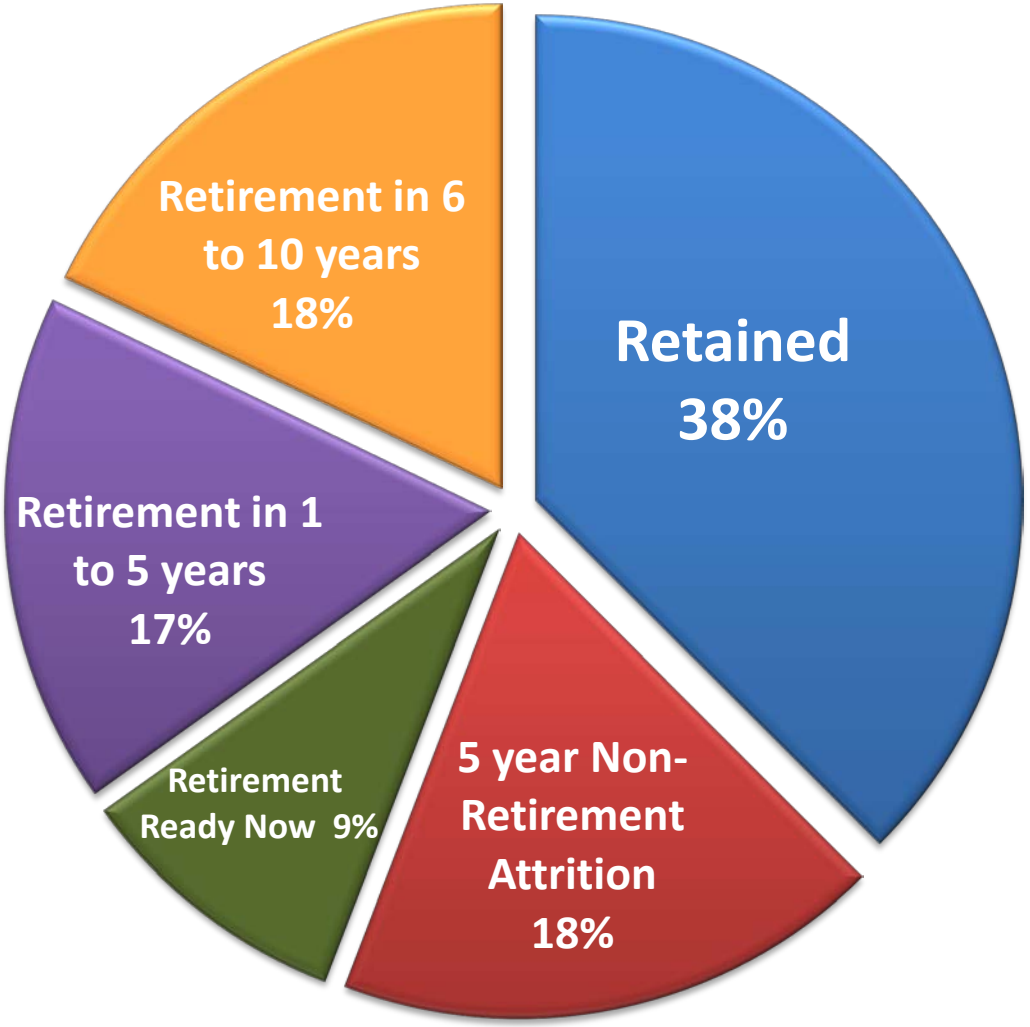
What are the game changers?

Forecasts and critical jobs?

Were you Successful?

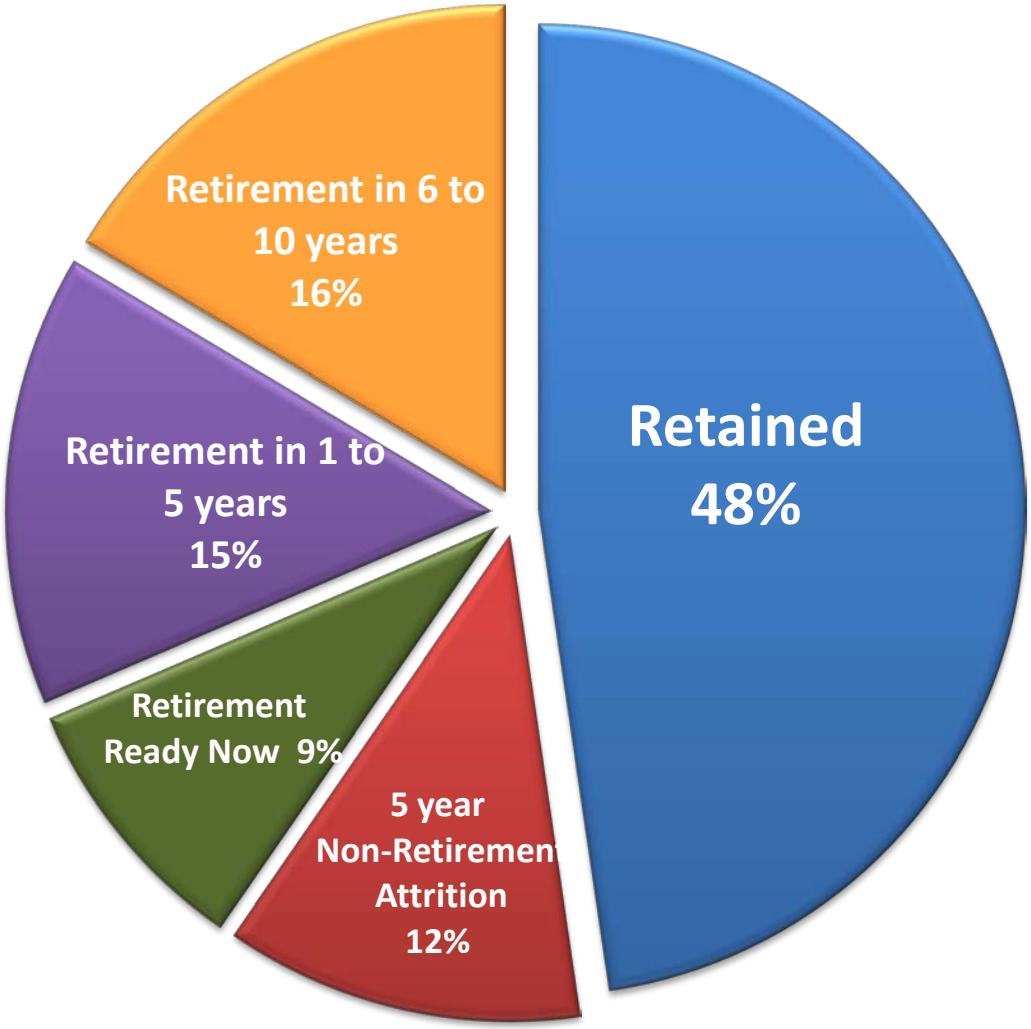
Specific plans for pathways?

Total Industry Potential Replacement Impact on Retirement and Non-Retirement Attrition



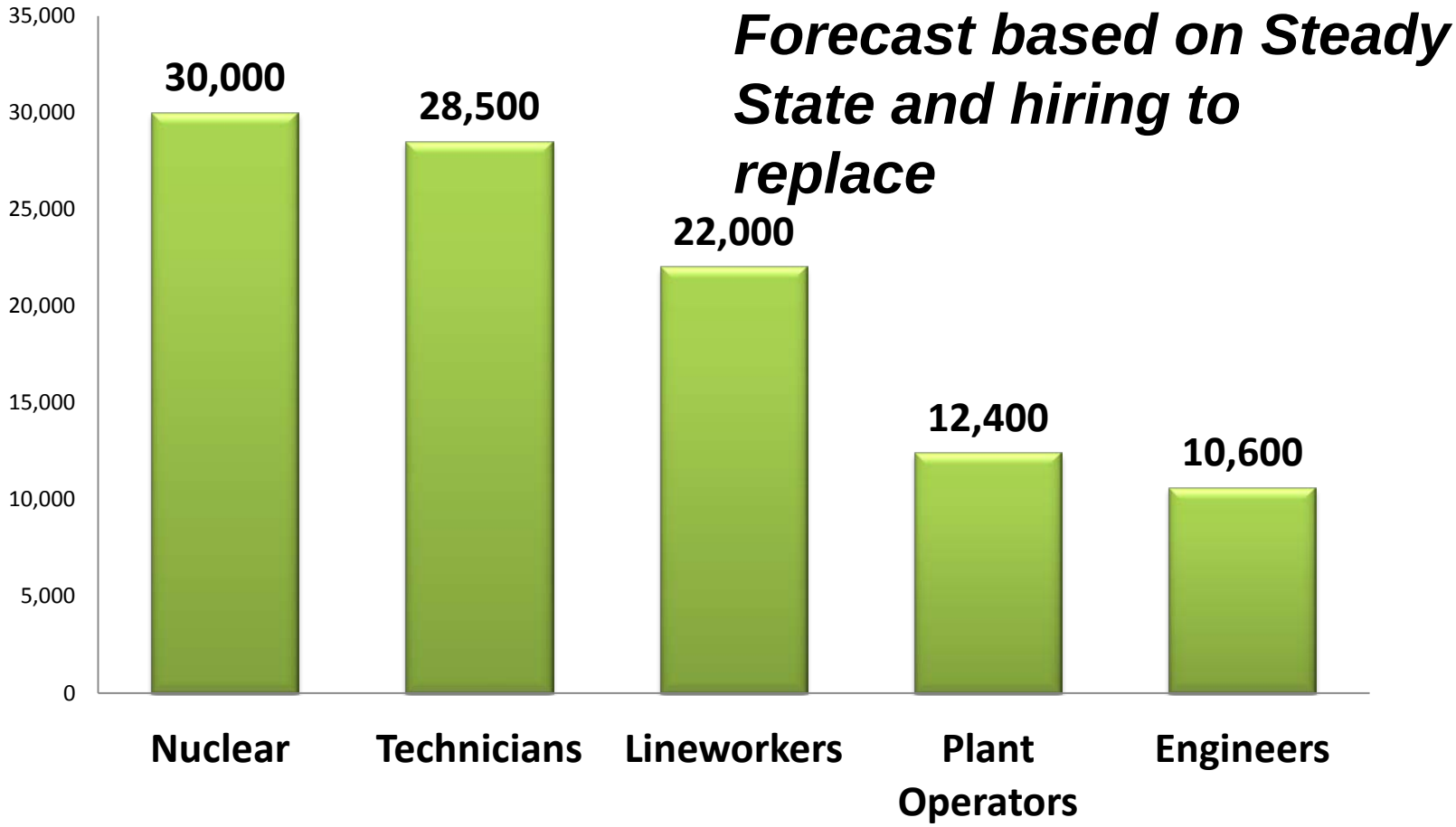
62 % of the workforce may need to be replaced in the next 10 years

Key Jobs - Potential Replacement Impact on Retirement and Non-Retirement Attrition



52 % of skilled technicians and engineers may need to be replaced in the next 10 years

Potential Replacements by 2015



"companies adequately staffed"

Potential replacements by 2015

Lineworker	Utility Technician	Plant Operators	Engineers	Nuclear
22,000	28,500	12,400	10,600	30,000

- How do the Game Changers affect your state / company?
- Does demand equal hiring?
- What is ratio of entry vs. experienced Hires?
- What is impact of productivity and other gains?
- When will replacements be needed and where?

"A diverse workforce"

Youth	Military	Women	Low Income Young Adults	Transitioning Adults

What percentage of each group will be recruited into critical jobs?

Lineworker	Utility Technician	Plant Operators	Engineers	Nuclear
22,000	28,500	12,400	10,600	30,000

Potential Replacements by 2015

get into energy

With the right education and training, you can begin a rewarding, well-paying energy career that benefits millions of people every day. Explore the many career opportunities in energy today.

Engineering

Engineers are essential in the energy industry, and help improve systems and create more efficient ways to generate, transmit, and use power. Learn more about the many rewarding career opportunities to apply your engineering experience and help shape the future of energy.

EXPLORE
ENGINEERING CAREERS

PAUSE

Feature Get Into Energy on your Web site with the free Get Into Energy badge

Like us on Facebook!

Women in Energy

get into energy

Transition from old to new, embrace change, take risks, and look for unconventional solutions to problems.

There is a wealth of opportunities opening up in the energy industry. If you're looking for steady, challenging work and a great career, find out how you can Get Into Energy at **www.getintoenergy.com.**

Energy Industry careers offer:

- Great pay with median salaries averaging over $60,000
- A family-friendly work environment
- The opportunity to move up
- Tuition reimbursement
- Defined benefit plans
- A corporate philosophy of diversity

Center For ENERGY Workforce Development

HARD HATTED WOMEN

www.hardhattedwomen.org

get into energy

There are five key areas where energy companies are focused and will see major shortages over the next few years.

Lineworkers install (and repair) cables, wires and other equipment you typically see on electrical poles and transmission towers. Other common job titles include: Line Installer and Line Technician. If you're not afraid of heights and enjoy teamwork, this may be the position for you.

Technicians: These jobs, as well as Electrician, Boilermaker, and Electronics Technician, fall under the Technician category. If you are good at fixing things, this could be the job for you. Overall, you would be in charge of making sure machines, mechanical equipment, and buildings are working properly and in good condition.

Power Plant Operators have the very important job of making sure customers have enough electricity or gas to meet their daily needs. If helping others is up your alley, being a Power Plant Operator may be a great career choice. You would be in charge of operating and controlling the machines that generate power.

Pipefitters/Pipelayers are essential for the smooth operation of both electric and gas utilities. Pipefitters/Pipelayers lay pipe for steam (electricity can be generated from steam) or gas mains. Another common job title includes Valve and Regulator Repairer.

Engineers do great things in the world of energy. If you are a problem-solver, this may be the career pathway for you. There are many types of engineers in the energy industry, and all require a four-year degree. With the effort to increase the number of women engineers, there may be special programs in your area to help pay for your college education.

Student Path to Success

Preparation to enter education: *Interest to Acceptance into program*

Education: *Enrollment to Completion of credential with Labor Market Value*

Preparation to enter job market: *Screening to Selection*

Career in Energy

Energy and Education Partnerships

Implementation Strategy

- Make it easier for them to find us and be prepared for our jobs
- Partner with Pipeline Organizations that focus on a specific demographic
- Prepare for success instead of remediate for failure
- Provided targeted support - One by One

Youth | Military | Women | Low Income Young Adults | Transitioning Adults

Competency Based Education

Lineworker	Utility Technician	Plant Operators	Engineers	Nuclear
22,000	28,500	12,400	10,600	30,000

Replacements by 2015

Stackable Credentials

Tier 6–8 Job Specific Skills/Credentials

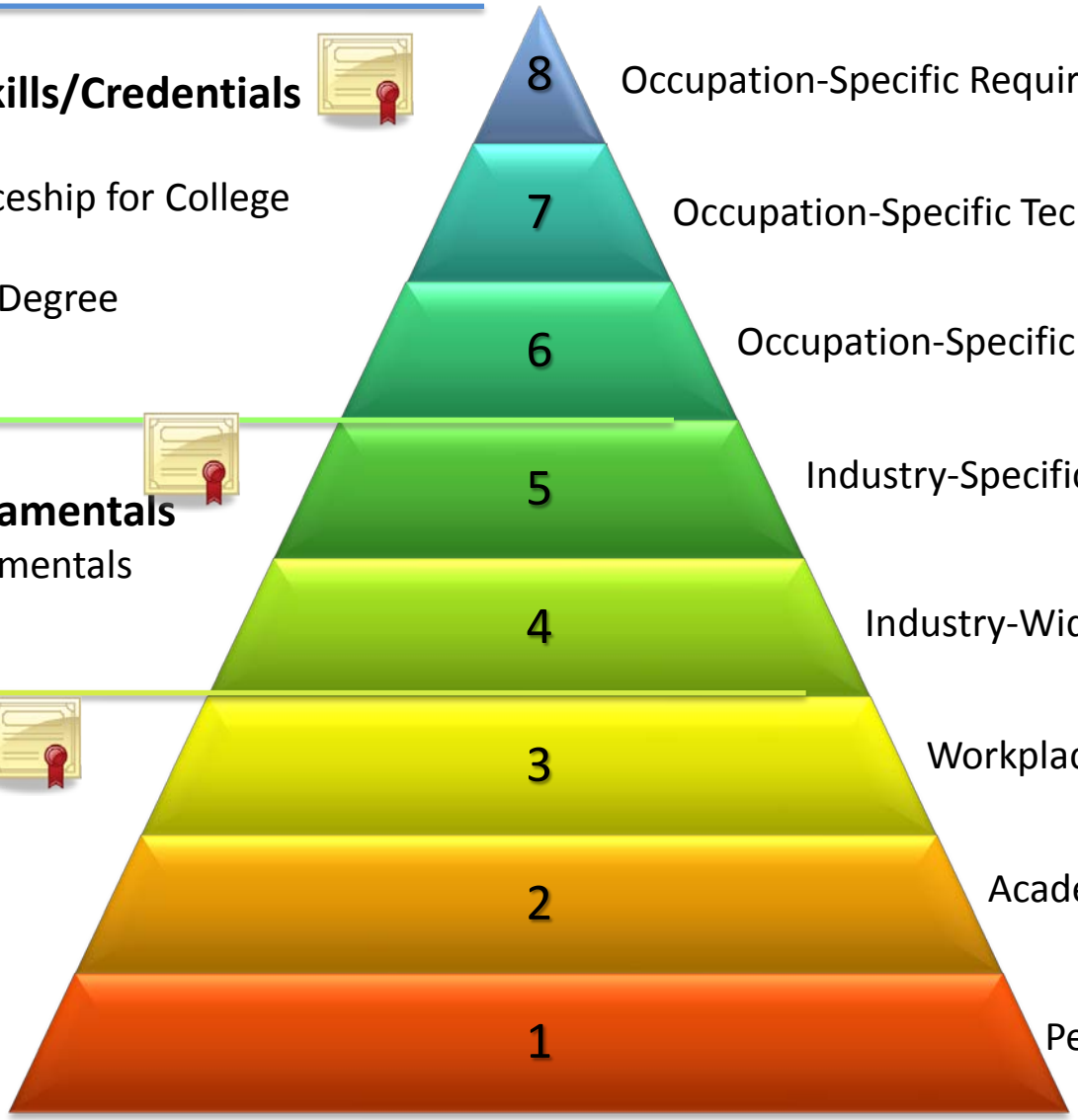
- Associate Degree
- Boot Camp / Apprenticeship for College Credit
- Accelerated Associate Degree

Tier 4–5 Industry Fundamentals

- Energy Industry Fundamentals Certificate

Tier 1–3 Basic Training

- Energy Industry Employability Skills Certificate
- National Career Readiness Certificate



Energy Competency Tier Model for Skilled Technician Positions in Energy Efficiency, Energy Generation and Energy Transmission and Distribution

Implementation Strategy

- Designate education partners
- Communicate the skills required and which credentials are really Industry Recognized
- Focus on Workforce Common Denominator - foundation and technical competencies
- Conduct bootcamps for concentrated skill development
- Implement common curriculum across institutions
- Accelerate time to credential by recognizing prior training
- Bundle courses and credit with transferable certificates and stackable credentials

Career Pathways

Targeted Outreach and Support

- Youth
- Military
- Women
- Low Income Young Adults
- Transitioning Adults

Work Ready Bootcamps

- Youth: Math; Employability; Learning to Learn; Physical Conditioning
- Military: Math; Employability; Physical Conditioning
- Women: Math; Employability; Learning to Learn; Physical Conditioning
- Low Income Young Adults: Math; Employability; Learning to Learn; Physical Conditioning
- Transitioning Adults: Math; Employability; Learning to Learn; Physical Conditioning

Tiers 1-5 credentials

- NCRC
- Energy Employability / Work Keys
- Energy Industry Fundamentals (EIF)

Job specific Bootcamps

- Lineworker Bootcamp
- Gas Technician Bootcamp
- Nuclear Bootcamp

Job specific Apprenticeships and Credentials

- Apprenticeship for College Credit
- Utility Technician Accelerated Associate Degree or Associate Degree
- Apprenticeship for College Credit
- Non-Nuclear Generation Accelerated Associate Degree or Associate Degree
- Nuclear Uniform Curriculum Degree

Get Into Energy Career Pathways

Competency Based Learning

- Tier 1-3 competencies common to other industries
- Tiers 4-8 progressively more specific to job

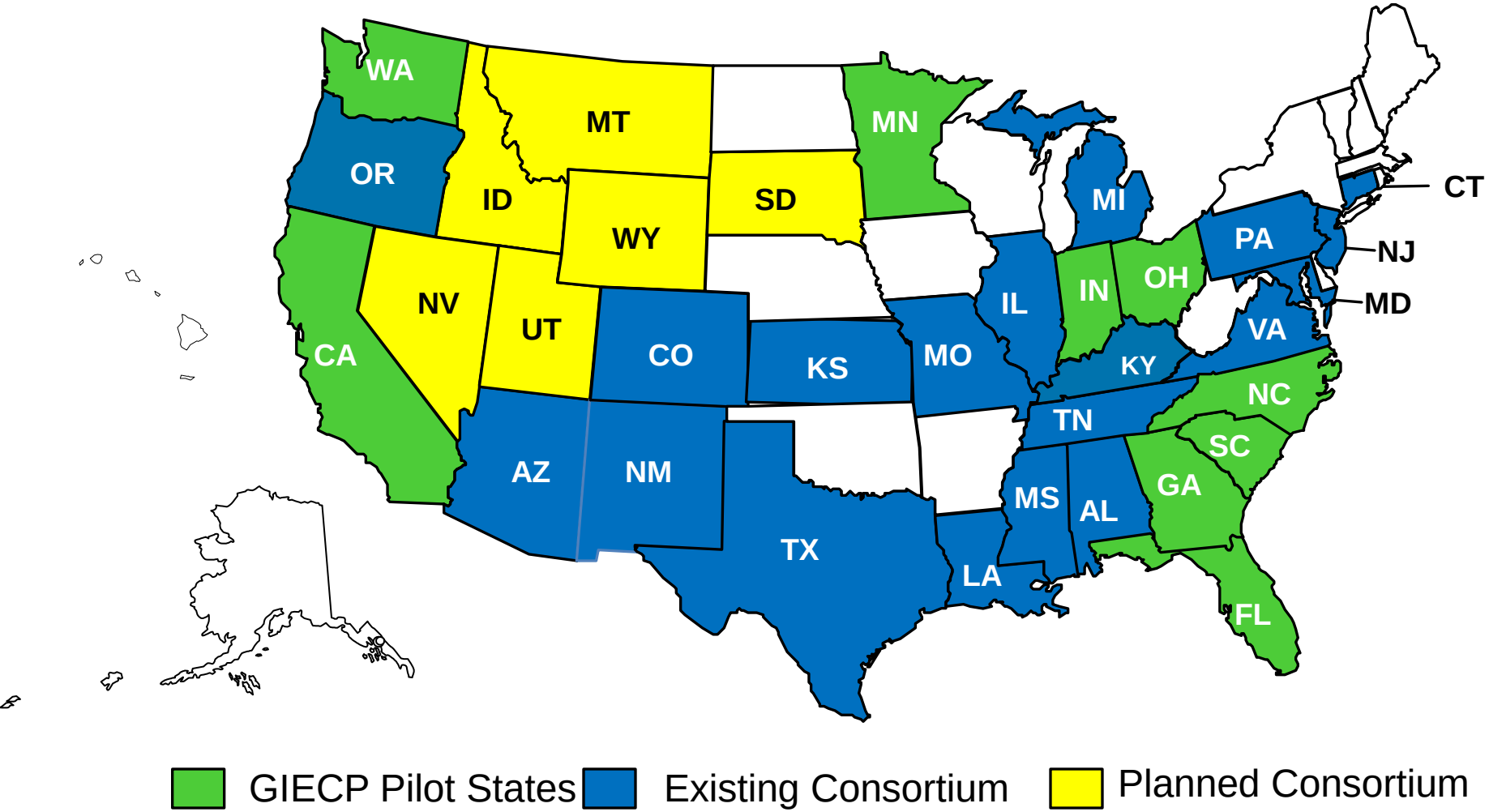
Defined programs of study

- Built on industry defined competencies and stackable credentials
- Lead to multiple career pathways

Energy Careers

- Industry generated demand data
- Applicants with Solid foundational skills
- Flexibility to learn and grow and needs change

State Energy Workforce Consortia



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