



**Meeting Industries' Critical Workforce Needs**  
a non-traditional, cluster-based grant program

Project Title:

***Texas Nuclear Workforce Development***

Cluster Represented: ***Energy Cluster***

Region of Impact: ***Statewide***

# *Texas Nuclear Workforce Development*

## Executive Summary

- *Nuclear power will grow significantly in the next few years*
- *Texas is a primary national focus for new plants*
- *A well-prepared workforce is critical*
- *To respond, the Texas A&M University System is partnering with industry, universities and colleges*
- *Using as a foundation the largest Department of Nuclear Engineering in the country, through these partnerships the A&M System Nuclear Power Institute will develop a statewide focus on new courses, curricula and certificates in nuclear power plant operations to produce graduates with a strong background to go into careers in nuclear energy*

# *Texas Nuclear Workforce Development*

## Regional Partners and Stakeholders

- Key partners, including employers: *Texas A&M University System, Wharton County Junior College, Brazosport Community College, Hill College, University of North Texas, Texas State Technical College South Texas Project, TXU and Exelon*
- Key stakeholders
  - Employers: *STP, TXU, Exelon, nuclear power industry*
  - Industry advisory groups: *Nuclear Energy Institute, Institute for Nuclear Power Operations, National Academy of Nuclear Training, U.S. Nuclear Regulatory Commission, Nuclear Engineering External Advisory and Development Council*
  - Regional leadership and planning agencies: *ISD's, county and municipal authorities, community colleges, economic development and regional planning agencies*
  - Target impact groups:
    - *Youth entering the pipeline, attraction and retention of students, students in engineering, science and technology disciplines*
    - *Educators and councilors*
    - *Transitioning workers, outreach to the general public*

# *Texas Nuclear Workforce Development* Cluster Impact Strategies & Deliverables

- Strategy: *Develop Curriculum for Nuclear Power Technology, Nuclear Operation and Fuels, Radiation Protection Technology, Digital I&C Maintenance*
  - Deliverables & Outcomes: *Prepare graduates from engineering fields including nuclear, mechanical, electrical, chemical, civil and industrial as well as engineering technology, and at the 2 year and 4 year degree levels for entry into nuclear power plant careers*
- Strategy: *Expand Nuclear Power Technology tract*
  - Deliverables & Outcomes: *Involve Prairie View A&M, TAMU-Kingsville and Corpus Christi*

# *Texas Nuclear Workforce Development* Strategies & Deliverables (continued)

- Strategy: *Implement work-study programs, fellowships, internships, mentors and guest lecturers*
  - Deliverables & Outcomes: *Strengthen ties between engineering programs and plant owner/operators*
- Strategy: *Develop a state-wide public and student education and marketing program*
  - Deliverables & Outcomes Strategy: *Raise awareness of needs and opportunities to attract students to the future workforce*
- Sustainability: *With anticipated plants, workforce needs will extend to 2020 to 2025*
  - Deliverables & Outcomes: *With industry, federal and institutional resources, these programs will meet those needs*

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## Key Issues and Challenges

- Examples of project issues:
  - *Working with the nuclear power utilities to identify the workforce needs, disciplines, magnitude and timing*
  - *Identifying existing capabilities in the academic community including courses, laboratories and facilities*
  - *Identifying resources*
  - *Prioritizing strategies*
  - *Developing the optimal utilization of courses and capabilities*
  - *Build on successful programs to recruit and retain students*
  - *Implementing an outreach program to high schools*
  - *Opportunities and support of students--internships, coop positions, scholarships and fellowships*
  - *Strategies to engage teachers and faculty to enable them to become more aware of the plants' needs and opportunities*

# *Texas Nuclear Workforce Development*

## Primary Contacts

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