Preparing for PORTS Site Reindustrialization Partner Survey

Prepared by:

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and

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1 Trillium H2 Power

Trillium H2 Power is leading the development of a first-of-its-kind installation in the United States that integrates the production of ammonia, liquid nitrogen, and dispatchable electric power, all utilizing hydrogen as the primary energy source. This innovative project uses hydrogen generated through an air separation unit and a partial oxidation methane reformer. To ensure environmental sustainability, the facility incorporates carbon capture, utilization, and storage (CCUS) technology, sequestering CO_2 in a Class VI wells. Trillium's approach represents a significant step forward in decarbonizing industrial and energy systems through advanced hydrogen-based solutions.¹

Website: https://www.th2power.com.

Sector: Manufacturing

<u>Industries:</u> Energy Production, Hydrogen, Power, and Ammonia (Energy or Commodity)

<u>Community Engagement:</u> Engages with the community through workforce development, community fund establishment and distribution, community engagement for education, and grant sourcing and private industry partnership in grants for community groups.

Employment Needs:

During the **construction phase**, Trillium H2 Power anticipates hiring approximately **3,308** workers. The largest workforce needs are for *Construction and Extraction Occupations* (1,196), followed by *Installation, Maintenance, and Repair* (655), and *Transportation and Material Moving* roles (585). Additional demand includes *Management* (294), *Business and Financial Operations* (178), and *Office and Administrative Support* (174). Most of these positions will be hired within 6 months (*short-term*) of the project launch date and require only basic or intermediate security clearance. Compensation spans from **\$20 to \$95 per hour**, reflecting a wide mix of skilled labor and professional oversight essential to initial facility development. (Table 1)

For the operations and maintenance phase, the projected workforce is around 268 workers, primarily focused on sustaining long-term operations. High-demand positions include Production Occupations (85), Business and Financial Operations (41), Architecture and Engineering (40), and Management (23). Other roles include Life, Physical, and Social Sciences, Office Support, IT, and Transportation. All roles in this phase will be filled over a long-term timeline (3+ years after the project launch date), with pay ranging from \$20 to \$75 per hour, especially for technical and engineering jobs. (Table 2)

According to Trillium H2 Power's website: https://www.th2power.com.

Table 1: Trillium H2 Power's hiring needs for the construction phase

Occupation Category	# Workers	Hiring Timeline	Pay Range	Security Level
Construction and Extraction Occupations	1196	Short term	\$40–\$95	Basic
Management Occupations	294	Medium term	\$45-\$70	Intermediate
Business and Financial Operations Occupations	178	Medium term	\$35–\$60	Intermediate
Office and Administrative Support Occupations	174	Short term	\$20–\$30	Basic
Architecture and Engineering Occupations	75	Medium term	\$40-\$60	Basic
Installation, Maintenance, and Repair Occupations	655	Short term	\$40–\$75	Basic
Transportation and Material Moving Occupations	585	Short term	\$20–\$45	Basic
Production Occupations	39	Short term	\$20-\$45	Basic
Sales and Related Occupations	19	Short term	\$20-\$45	Basic
Building and Grounds Cleaning and Maintenance Occupations	13	Short term	\$20-\$30	Basic

 $\textbf{Table 2:} \ \, \textbf{Trillium H2 Power's hiring needs for the operations \& maintenance phase}$

Occupation Category	# Workers	Hiring Timeline	Pay Range	Security Level
Production Occupations	85	Long term	\$20-\$75	Basic
Life, Physical, and Social Science Occupations	17	Long term	\$35–\$60	Basic
Architecture and Engineering Occupations	40	Long Term	\$40-\$75	Intermediate
Office and Administrative Support Occupations	26	Long term	\$20–\$35	Basic
Management Occupations	23	Long term	\$45-\$65	Intermediate
Business and Financial Operations Occupations	41	Long term	\$35–\$60	Intermediate
Installation, Maintenance, and Repair Occupations	10	Long term	\$25–\$75	Basic
Transportation and Material Moving Occupations	14	Long term	\$20-\$25	Basic
Computer and Mathematical Occupations	6	Long term	\$40-\$75	Intermediate

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Table 2 – Continued from previous page

Occupation Category	# Workers	Hiring Timeline	Pay Range	Security Level
Sales and Related Occupations	6	Long term	\$20-\$35	Basic

Recruitment challenges: Specialized skill shortages, rapidly changing technology requiring continuous skill updates, and remote location challenges.

Worker retention challenges: Competition from other sectors with attractive packages, rapidly changing technology requiring continuous skill updates, remote location challenges, and concerns about job security due to industry shifts.

Expected workforce trend or change over the next 3-5 years: Lack of availability of trained workforce at all levels capable of working on medium-high voltage power systems, in cyberse-curity/defense, and in specialized energy systems/material handling for emerging energy commodities (H2, NH3, LN2).

<u>Preferred training programs or partnerships:</u> MOUs with building trades, USW, and GRIT / Future Plans, to be exercised when hiring is imminent.

Other programs you would utilize if available: Looking for programs with a simpler, more efficient approach would help future employers connect more effectively with schools, training centers, colleges, and other workforce programs like second-chance or recovery initiatives.

<u>Union Experience:</u> Yes – USW MSSC, GRIT, pre-apprenticeship programs, becoming more familiar with all union training as applicable for the site workforce.

 $\mathbf{2}$ Centrus Energy Corp

Centrus Energy Corp is a leading American supplier of nuclear fuel and services, dedicated to

supporting the global shift toward clean, affordable, carbon-free energy. Since 1998, Centrus has

delivered over 1,850 reactor years of fuel—equivalent to more than 7 billion tons of coal—helping

power civilian nuclear reactors around the world.

Centrus is the world's most diversified supplier of enriched uranium fuel and is pioneer-

ing the production of High-Assay, Low-Enriched Uranium (HALEU), a critical material for

next-generation nuclear reactors. The company is also advancing U.S. energy and national se-

curity by restoring domestic uranium enrichment capabilities through its American Centrifuge

technology—the only enrichment technology ready to scale in the United States.

Beyond nuclear fuel, Centrus offers turnkey engineering, design, and advanced manufactur-

ing solutions to customers across the energy, aerospace, chemical, and defense sectors. Leverag-

ing its world-class technical and engineering capabilities, Centrus is positioned at the forefront

of innovation and national security in the evolving energy landscape.²

Website: https://www.centrusenergy.com/.

Sector: Utilities

Industries: Nuclear energy

Community Engagement: Current engagement is limited to the small scale of current oper-

ations. However, looking forward to the expansion of operations. Centrus Energy expects to

engage in volunteerism (especially in the surrounding school districts and secondary schools),

training and workforce development, and grant funding where available.

Employment Needs:

During the construction phase, Centrus Energy plans to hire approximately 255 workers

across a wide range of skilled trades and technical roles. The largest hiring needs include General

Construction (48), Electricians (36), Pipe Fitters (36), Riggers (24), and Mechanic/Millwrights

(24), with salaries generally ranging from \$50,000 to \$70,000. Higher-level roles such as Con-

struction Engineers, EPC Engineers, and Project Managers command salaries up to \$120,000,

often requiring Q or Top Secret clearance. This hiring wave reflects the intensive labor and

specialized oversight needed during site buildout. (Table 3)

For the operations and maintenance phase, the company expects to hire around 243

² According to Centrus Energy Corp's website: https://www.centrusenergy.com/

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workers in technical, supervisory, and administrative roles. Key occupations include *Operations Technicians* (59), *Engineers* (25), *Management and Supervisors* (40 combined), and various *Maintenance staff*. Salaries range broadly, with the majority of roles earning between \$70,000 and \$130,000, and some management positions reaching up to \$150,000. This phase emphasizes stability and long-term operation, with a strong focus on technical expertise, regulatory compliance, and safety-related functions. (Table 4)

Table 3: Centrus Energy's hiring needs for the construction phase

Occupation Category	# Workers	Hiring Timeline	Pay Range	Security Level
General Construction	48	Medium term	\$50-70K	Basic
Electrician	36	Medium term	\$50-70K	Basic
Pipe Fitter	36	Medium term	\$50-70K	Basic
Rigger	24	Medium term	\$50-70K	Basic
Mechanic/Millwright	24	Medium term	\$50-70K	Basic
Construction Engineer	15	Short term	\$90–120K	Q / Top Secret
Welder	12	Medium term	\$50-70K	Basic
Plumber	12	Medium term	\$50-70K	Basic
HVAC	12	Medium term	\$50-70K	Basic
EPC Engineer	9	Short term	\$90–120K	Q / Top Secret
EPC Project Management	8	Short term	\$90–120K	Q / Top Secret
Construction Scheduler	8	Short term	\$70–90K	Q / Top Secret
Construction Project Manager	7	Short term	\$90–120K	Q / Top Secret
EPC Data Management	4	Short term	\$70–90K	Q / Top Secret

Table 4: Centrus Energy's hiring needs for the operations & maintenance phase

Occupation Category	# Workers	Hiring Timeline	Pay Range	Security Level
Operations Technician	59	Medium term	\$90-110K	Q / Top Secret
Engineer	25	Short term	\$100-130K	Q / Top Secret
Management	20	Short term	\$120–150K	Q / Top Secret
Operations Supervisor	20	Medium term	\$100-130K	Q / Top Secret
Maintenance Electrician	11	Medium term	\$90–110K	Q / Top Secret
Maintenance Mechanic	10	Medium term	\$90–110K	Q / Top Secret
Health Physics Tech	10	Medium term	\$90-110K	Q / Top Secret
NDA Technician	8	Long term	\$90–110K	Q / Top Secret

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Table 4 – Continued from previous page

Occupation Category	# Workers	Hiring Timeline	Pay Range	Security Level
Maintenance Supervisor	7	Medium term	\$100-130K	Q / Top Secret
Administrative Specialist	7	Medium term	\$60-80K	Q / Top Secret
Procurement	4	Short term	\$100-130K	Q / Top Secret
Safety Specialist	4	Medium term	\$70-90K	Q / Top Secret
Security Personnel	4	Medium term	\$50-70K	Q / Top Secret
Quality Control Inspector	3	Medium term	\$80-100K	Q / Top Secret
Regulatory Engineer	3	Short term	\$100–130K	Q / Top Secret
Information Technology Tech	3	Medium term	\$70-90K	Q / Top Secret
Security Analysts	3	Medium term	\$70-90K	Q / Top Secret
Quality Assurance Engineer	3	Short term	\$100–130K	Q / Top Secret
Accountant	2	Medium term	\$70-90K	Q / Top Secret
Program Management	2	Short term	\$100–130K	Q / Top Secret
Project Controls	2	Short term	\$100–130K	Q / Top Secret
Regulatory Specialist	2	Short term	\$80-100K	Q / Top Secret
Environmental Specialist	2	Medium term	\$70-90K	Q / Top Secret
Training Specialists	2	Medium term	\$70-90K	Q / Top Secret
NDA Supervisor	2	Long term	\$100–130K	Q / Top Secret
Health Physics Supervisor	1	Medium term	\$100–130K	Q / Top Secret
Quality Control Supervisor	1	Medium term	\$100–130K	Q / Top Secret

Recruitment challenges: They identify multiple challenges, including a shortage of specialized skills, competition from other sectors offering attractive packages, personnel availability to obtain the necessary clearance levels, lack of applicable skills and industry experience, and a lack of desire among candidates to relocate to Southern Ohio.

Worker retention challenges: Competition from other sectors with attractive packages.

Expected workforce trend or change over the next 3-5 years: Artificial Intelligence incorporation.

<u>Preferred training programs or partnerships:</u> United Steel Workers - manufacturing training, health physics training, and other partnerships are in development with college programs.

Other programs you would utilize if available: Open to other partnerships if they are beneficial to those involved.

<u>Union Experience:</u> Yes – While they have not yet had the opportunity to hire from specific training programs such as those offered by the United Steelworkers, manufacturing classes, or health physics classes, they are supportive of and open to doing so.

3 Mid-America Conversion Services LLC

Mid-America Conversion Services, LLC (MCS) manages the Depleted Uranium Hexafluoride (DUF6) Conversion Facilities at the U.S. Department of Energy (DOE) sites near Paducah, Kentucky, and Portsmouth, Ohio. The conversion facilities were designed and constructed to convert DOE's inventory of DUF6 produced by the former Paducah Gaseous Diffusion and the Portsmouth Gaseous Diffusion Plants to a more stable uranium oxide form for reuse, storage, and/or transportation and disposition. MCS' focus will be on continuing to provide cylinder surveillance and maintenance for the DUF6 conversion facilities and associated equipment; operating the conversion facilities to convert the DUF6 inventory at Paducah and Portsmouth to uranium oxide; reusing, storing, transporting and/or disposing of the DUF6 conversion process end-products; and selling the aqueous hydrofluoric acid (AqHF) product.³

Website: https://duf6-mcs.com

Sector: Professional, Scientific, and Technical Services.

<u>Industries:</u> Serve the U.S. Department of Energy in a broad array of needs, including nuclear operations, site stewardship, utilities, infrastructure, emergency services, protective services, and laboratory and technical services.

<u>Community Engagement:</u> Donates to local charities and interests, employees volunteer, support local businesses, and hire locally as much as possible.

Employment Needs:

During the operations & maintenance phase, MCS plans to employ approximately 585 workers, primarily by transferring staff from its current contract. The largest occupational group is USW-represented positions, totaling 300 workers with a median salary of \$125,000 including overtime and benefits. Other significant needs include Emergency Services/Protective Force (80 workers), Technical roles (70 workers), and both Engineering and Health and Safety/Radiological positions (50 workers each). Additional staffing includes Administrative (30 workers) and Management (5 workers) personnel. Most roles will be filled by current employees under existing contracts, with some new hires drawn from training programs. Compensation levels range from \$100,000 to over \$200,000, with most positions requiring security clearances ranging from uncleared level to Q-level (Top Secret). (Table 5)

According to MCS website: https://duf6-mcs.com/duf6-mission-2

Table 5: Mid-America Conversion Services' hiring needs for the operation & maintenance phase

Occupation Category	# Workers	Hiring Timeline	Pay Range	Security Level
USW	300	Most will be transferred from current contracts (new hires will be within the first year)	\$125K median w/ overtime and benefits	Uncleared through Q
Emergency Services / Protective Force	80	Some will be transfered from current contracts	\$130K median	Uncleared through Q
Management	5	Many will be transferred immediately from current contracts	\$150—200K median	Uncleared through Q
Technical	70	Some will be transferred from current contracts	\$150K median	Uncleared through Q
Engineering	50	Most will be transferred from current contracts	\$150–200K median	Uncleared through Q
Health and Safety / Radiological	50	Mix of current contracts and new from training programs	\$120K median	Uncleared through Q
Administrative	30	Transferred from current contracts	\$100K median	Uncleared through Q

Recruitment challenges: The employer faces several key challenges in recruiting workers. These include a shortage of specialized skills, strong competition from other sectors offering more attractive compensation packages, and difficulties associated with the remote location. Engineering support is particularly hard to find, making it one of the most challenging roles to fill. Additionally, positions in radiological control (RadCon) and industrial hygiene are also challenging to recruit for. As a "captive audience" on the reservation, the employer notes that frequent poaching among contractors creates further instability. Relocation to Piketon remains a persistent barrier, compounding recruitment difficulties.

Worker retention challenges: Employers anticipate key challenges in retaining workers, primarily due to competition from other sectors offering more attractive compensation packages. Additionally, the remote location of the site poses a significant challenge, making it harder to retain talent in the long term. These factors may contribute to higher turnover rates and difficulty in sustaining a stable workforce over the project's duration.

Expected workforce trend or change over the next 3-5 years: Pretty stable.

Preferred training programs or partnerships: The employer expressed interest in expanding training efforts through the USW Local 689 Hall, noting that past training provided by the Building Trades effectively prepared workers for site needs. For professional roles, particularly engineers, they prefer to recruit from Ohio University, The Ohio State University, the University of Cincinnati, and other local institutions. This approach not only helps identify qualified candidates but also increases the likelihood of hiring individuals who are interested in living and staying in the region.

Other programs you would utilize if available: The employer emphasized the need for expanded training across several critical areas. Specifically, they identified a need for more Radiological Worker (Rad Worker) training, OSHA training, Supervisor training, and Work Control Planning training. They are also looking at the current Training Matrix.

Union Experience: Yes – Rad Worker. IH. MSSC.

4 Hecate Energy LLC

Hecate Energy is a leading developer, owner, and operator of renewable power projects and storage solutions in the United States. They specialize in clean energy and energy storage projects, from planning and inception through construction and operation. Hecate Energy LLC discovers and deploys creative approaches to structuring power purchase agreements and financing for power projects in the United States.⁴

Website: https://www.hecateenergy.com.

Sector: Utilities.

Industries: Renewable Energy Developers.

Community Engagement: Community engagement is a cornerstone of successful development. Hecate Energy is committed to understanding the unique needs of each community and works collaboratively to align project goals accordingly. The company actively engages with community groups and local governments, listening closely to their priorities to ensure that each project reflects their vision. Recognizing that every community is different, Hecate Energy meets with stakeholders individually and develops tailored engagement plans based on their specific needs.

Employment Needs:

Hecate Energy LLC plans to hire about 89 workers for the construction phase, with the largest group (47 workers) in Construction and Extraction Occupations. Other roles include Management (14), Business and Financial Operations) (11), and Office Support (7). Smaller numbers will be needed in Engineering, Maintenance, Production, Transportation, Sales, and Science. Compensation for these jobs ranges from approximately \$44,000 to over \$118,000 annually, based on Ohio statewide averages. (Table 6).

In the operations and maintenance phase, staffing will decrease to around 16 workers, including 4 in *Maintenance*, 3 in *Management*, and 3 in *Production*. A few additional workers will be needed for *business*, office, and technical support. (Table 7)

Table 6: Hecate Energy LLC's hiring needs for the construction phase

Occupation Category	# Workers	Annual Mean Wage
Construction and Extraction Occupations	47	\$61,020

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⁴ According to Hecate Energy LLC's website: https://www.hecateenergy.com.

Table 6 - continued from previous page

Occupation Category	# Workers	Annual Mean
Occupation Category	# WOLKEIS	Wage
Management Occupations	14	\$118,330
Business and Financial Operations Occupations	11	\$80,700
Office and Administrative Support Occupations	7	\$45,650
Architecture and Engineering Occupations	3	\$92,310
Installation, Maintenance, and Repair Occupations	2	\$56,020
Production Occupations	2	\$46,250
Transportation and Material Moving Occupations	1	\$44,000
Sales and Related Occupations	1	\$48,990
Life, Physical, and Social Science Occupations	1	\$79,200

<u>Note:</u> The annual mean wages in this table reflect statewide averages for Ohio. For more information, please visit the U.S. Bureau of Labor Statistics' Ohio Occupational Employment and Wage Estimates: https://www.bls.gov/oes/2023/may/oes_oh.htm

Table 7: Hecate Energy LLC's hiring needs for the operations & maintenance phase

Occupation Category	# Workers	Annual Mean Wage
Installation, Maintenance, and Repair Occupations	4	\$56,020
Management Occupations	3	\$118,330
Production Occupations	3	\$46,250
Business and Financial Operations Occupations	2	\$80,700
Office and Administrative Support Occupations	2	\$45,650
Architecture and Engineering Occupations	1	\$92,310
Sales and Related Occupations	0.5	\$48,990
Construction and Extraction Occupations	0.5	\$61,020

<u>Note:</u> The annual mean wages in this table reflect statewide averages for Ohio. For more information, please visit the U.S. Bureau of Labor Statistics' Ohio Occupational Employment and Wage Estimates: https://www.bls.gov/oes/2023/may/oes_oh.htm

Expected workforce trend or change over the next 3-5 years: Advancement of renewable technologies (PV panels, batteries, etc.). The renewable energy industry is an ever-evolving industry.

<u>Preferred training programs or partnerships:</u> Yes (However, the employer did not specify which programs.)

Other programs you would utilize if available: Yes (However, the employer did not specify which programs.)

<u>Union Experience:</u> Yes – The employer stated that they have developments across the country and have worked with numerous unions and trade groups on the construction of our projects.