



ILLINOIS DEPARTMENT OF LABOR

JB PRITZKER
GOVERNOR

JANE R. FLANAGAN
DIRECTOR

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To: General Assembly Members and the Honorable Governor Pritzker

The Energy Transition Workforce Commission (Commission) was created within the Department of Commerce and Economic Opportunity through the Energy Community Reinvestment Act as part of Public Act 102-662, commonly referred to as the Climate and Equitable Jobs Act (CEJA). The Commission was charged with producing a report that analyzes the impact on the Illinois workforce of the clean energy transition, including recommendations to address these changes. The Commission, through the research and analysis from the University of Illinois – Springfield Center for State Policy and Leadership, is happy to submit these recommendations to you.

The commission wishes to thank those businesses and community colleges that hosted us for our regional meetings to take public input to inform our recommendations.

Sincerely,

Jason Keller
Chair
Energy Transition Workforce Commission

Lincoln Tower Plaza
524 South 2nd Street, Suite 400
Springfield, Illinois 62701
(217) 782-6206
Fax: (217) 782-0596

Michael A Bilandic Building
160 North LaSalle, Suite C-1300
Chicago, Illinois 60601-3150
(312) 793-2800
Fax: (312) 793-5257

Regional Office Building
2309 West Main Street, Suite 115
Marion, Illinois 62959
(618) 993-7090
Fax: (618) 993-7258

The Energy Transition Workforce Commission (the "Commission") was created by the Climate and Equitable Jobs Act ("CEJA") (Public Act 102-0662). The Commission consists of appointed members that represent business, labor, and environmental justice concerns within the State of Illinois (the "State"), as well as the regional administrators of the workforce programs developed by CEJA and leadership from State executive agencies including the Department of Commerce and Economic Opportunity ("DCEO") and the Illinois Department of Labor ("IDOL"). (A full list of Commission members is available here: [Energy Transition Workforce Commission](#).)

The Commission is charged with outlining the anticipated impact of the transition to clean energy in Illinois and developing a comprehensive set of recommendations to address anticipated changes to the Illinois workforce during the period of 2020 through 2050. Specifically, the statute (20 ILCS 735/10-15(d)) requires that the Commission provide:

- an accounting of all employees who currently work in fossil fuel energy generation, nuclear energy generation, and coal mining in the State;
- the anticipated schedule of closures of power plants and coal mines across the State;
- an estimate of worker impacts due to scheduled closures;
- changes in the revenue for units of local government in areas that have had or are facing a closure;
- environmental impacts in those areas due to closures; and
- the economic impacts of the energy transition.

The Commission met regularly over the last 17 months. In order to address some of these complex labor market questions, DCEO entered into an intergovernmental agreement with the University of Illinois - Springfield to assist in developing data models and statistics for reporting purposes. This academic partnership led to the Energy Transition Workforce Commission Phase 1 Report, released in December 2022, and the Phase II Report, released in January 2024. The Commission also conducted a series of community meetings across the State in communities that have been impacted or are anticipated to be impacted by the clean energy transition. This Report summarizes the findings from the Commission's activities and contains the Commission's final recommendations. The Commission wishes to acknowledge the work and research done by Dr. Ken Kriz from the University of Illinois – Springfield. Without his dedication, this would not have been possible.

I. Commission Activities and Findings

A. Phase I Report

On December 8, 2022, the Energy Transition Workforce Commission voted to approve the [Energy Transition Workforce Commission Phase I Report](#), summarizing preliminary findings. The report, authored by Dr. Ken Kriz at the University of Illinois, Springfield Center for State Policy and Leadership, acknowledged that additional work remained, given data limitations and other factors. Further research, analysis, and time was needed to fully understand the impacts of the energy transition at the community level.

The preliminary report first looked at statewide total electrical generation capacity and found that there has been a fundamental shift in the fuel types powering generation in Illinois. In 2015, coal-fired plants were the leading sources of electrical capacity, accounting for a third of total capacity. However, by 2020, numerous coal-fired plants had been shuttered, and coal was the third leading source of capacity, at just under 22 percent. Two primary fuel sources have replaced coal: natural gas and wind. Natural gas jumped from 30% of total capacity to 35% by 2020. While wind power only accounted for 8% of total capacity in 2015, it comprised 14% of total capacity by 2020.

Second, the Phase I report used a basic model of statewide electricity demand to make projections of statewide job losses in the fossil fuel generating sector and job gains in the renewable energy generating sector. It also examined demographic and job characteristics of the fossil fuel and renewable energy sectors and found:

- Renewable energy industries have a slightly younger workforce.
- Nearly 9 in 10 fossil fuel workers are males. 4 in 5 workers in wind, solar, and nuclear power are males.
- African American, Hispanic/Latino, and Asian workers in total comprise less than 9% of fossil fuel industry employees. On the other hand, these workers comprise 20% of employees in the wind industry, 26% for solar, and 17% for nuclear.

Finally, the Phase I report analyzed statewide emissions impacts from fossil fuel sector closings and found that, due to coal power plant closings, Illinois will see a disproportionately strong improvement in its emissions profile. Specifically, closing 13 coal plants (that were still operating at the time of CEJA's passage) will reduce total statewide emissions of nitrogen oxides by 27%, carbon dioxide emissions by about 20%, and sulfur dioxide emissions by almost 70%. While natural gas plants create fewer emissions than coal, the phase out of natural gas plants envisioned by CEJA should

result in further reducing nitrogen oxide emissions by 9.5 percent and carbon dioxide emissions by 7.3 percent.

B. Phase II Report

The Commission asked the University of Illinois – Springfield and Dr. Kriz to cover the following topics in the 2023 Phase II report:

- Analyze economic and labor market effects of the clean energy transition at the statewide and regional levels using a fully-specified economic model that allows for greater modeling of supply chain impacts and electrical demand at the regional level. The researchers examined “mid-case” estimates (essentially the average of all scenarios from a recent National Renewable Energy Laboratory study) and “high electrification” estimates. Their findings were as follows:
 - There are likely to be strong net employment gains throughout the State due to the transition to renewable energy. In the Mid-Case, employment rises by over 40,000 FTE jobs per year by 2028, levels off, then falls somewhat by 2035, but employment levels permanently remain approximately 20,000 jobs higher than in the base year. In the High Electrification scenario, employment rises by over 50,000 FTE jobs by 2028, then falls to around 20,000 in 2035 but then begins to slowly rise to 30,000 more jobs in 2045 than there were in 2024.
 - The required electric generating capacity to balance loads in each year are remarkably similar in the two scenarios up to 2040, when the High Electrification scenario begins to show consistently higher capacity needs in the State. Demand for wind generation rises faster under the High Electrification scenario compared to the Mid-Case. For the solar production sector, the High Electrification scenario projected need is always less than the Mid-Case. This difference is driven by the relative availability of solar generation during certain times. As evening and overnight loads are increased relatively more by electrification (when people are home and charging devices and vehicles), solar is offline. So, the need for solar under high electrification is lower while wind is somewhat higher. The researchers note that the relative demand for wind and solar is greater than what was projected in the Phase I study. In both scenarios, significantly more renewable energy capacity must be developed in the State to meet the demands of a growing economy, especially under the High Electrification scenario.

- The Phase II report was able to explicitly model the distribution of solar energy. The data shows that the distributed solar sector will grow significantly over the next several years but then level off. One of the things that keeps distributed solar from growing more quickly is that utility-level solar is expected to see significant cost decreases. The relatively higher cost per kilowatt of distributed solar will hold back its development, absent the deployment of significant incentives.
- Model environmental impacts more fully at the statewide and local levels.
 - Using an online tool for estimating air quality impacts created by the U.S. Environmental Protection Agency, the researchers were able to code the policy changes by CEJA as a 100% reduction in fossil fuel electrical generation by 2045 into the model. Not surprisingly, they found the largest reductions in particulate matter are in counties with major fossil fuel power plants located in the county or nearby, including Massac, St. Clair, Sangamon, Peoria, and Tazewell counties.
- Address impacts to the Illinois workforce resulting from the transition to clean energy.
 - The Phase II report identified that one of the challenges for economic development is that several of the counties impacted by energy transition are small and so, without the presence of new employers, existing “opportunities are relatively slim for employment after fossil fuel power plants are shuttered.” Of all counties with over 100 projected job losses due to fossil fuel power plant and coal mine closures, only Will County has a workforce greater than 100,000, and two other counties (Tazewell and Williamson) have employment greater than 20,000. There will likely be some geographic relocation of power plant workers as plants close.
 - Many of the emerging industries are in the business services sector (excluding personal services and retail industries as those mostly involve servicing the local region), including warehousing and storage, office administrative services, management consulting, and financial investment activities. However, there are a significant number of jobs being developed in manufacturing industries (animal food manufacturing and automotive manufacturing) and religious and civic organizations. These may be opportunities for future growth in jobs for those displaced by fossil fuel plant closures.

C. Regional Hearings

To inform the Commission's recommendations to address changes to the Illinois workforce over the next 30 years, the Commission held regional hearings in Fall 2023 in the north, central, and southern parts of the State that have been or will be impacted by the transition from a carbon-based energy to renewable power generation. The Commission held the following hearings in the evening to allow community members to attend:

- September 13th – Romeoville;
- October 18th – East Peoria;
- November 9th – Marion

The hearings were public, with a webinar option to attend and participate. Following a presentation of the Phase I Report findings (see Exhibit A), public comment was welcomed. The format of the hearings was designed to share our initial findings and, more importantly, to listen to those in these communities to understand the real ramifications of plant closures and the transition to renewable energy.

II. Commission Recommendations

The following Commission recommendations address changes to the Illinois workforce and are derived from the Phase I and II reports, the community hearings, and as a result of the Commission's ongoing meetings.

Resource Management, Attracting New Businesses and Retaining Workforce

1. There should be one energy web site or dashboard for the State.
 - a. It is recommended that the State improve access to information and on energy sector opportunities through web-based resources and other support available to communities impacted by closures. This includes information on opportunities for support from CEJA and federal programs for businesses and communities, as well as information on job training and career services from agencies providing services for displaced workers.
2. As Illinois continues to shift to renewable energy sources and production, it is imperative that the workforce is ready to meet the demand. This includes the construction and manufacturing sectors. Not only will job training be needed, but innovative ideas to retain those workers will need to be developed. If the supply of workers does not meet the demand, there will be delays in energy production and an increase in costs. Policy makers must find ways to retain

current workers and attract younger populations to clean energy jobs and to the regions of the State where the clean energy projects are located.

- a. The Commission highly recommends that any plan for the State workforce includes retraining and other services for those individuals who will lose a job because of a carbon-based plant closure.

Promotion of Illinois' Communities

3. Communities hoping to entice companies and clean energy projects to locate in their area should also prepare for a workforce to be in their area on short notice and for extended periods of time. Areas of need will be:
 - a. Housing;
 - b. Food;
 - c. Childcare;
 - d. Transportation;
 - e. Education; and
 - f. Health Care.
4. For communities where fossil fuel plants or mines currently account for or recently accounted for a significant amount of employment, the State should identify ways to provide financial and technical support for business development and strategic planning that will support community-driven recovery from plant or mine closures.

Coal Ash Clean-Up

5. In 2019, the Illinois General Assembly passed and Governor Pritzker signed into law the Coal Ash Pollution Act (Public Act 101-171), which created a comprehensive framework to address coal ash contamination at active and closed coal power plants across Illinois. The Illinois Environmental Protection Agency is charged with overseeing permitting of the facilities and compliance with the law. The website to track matters is <https://epa.illinois.gov/topics/water-quality/watershed-management/ccr-surface-impoundments.html>. The Commission heard testimony from the public multiple times regarding concerns of coal ash contamination and clean-up, and recommends that commissioners and other related bodies – like the Energy Workforce Advisory Council – continue to monitor the progress of coal ash clean-up.

A Just Transition

6. Ensure the transition to clean energy jobs is fair and just for people of color.
 - a. This should include the promotion and expansion of pre-apprenticeship and apprenticeship programs, contractor support, and supportive services for trainees provided through CEJA.
7. Authorities should ensure that retiring power plants or mines are decommissioned safely and with ample notice. Authorities should also encourage or not discourage the reuse of retired power plant sites for new energy infrastructure where reuse would be efficient.

Promote Access and Accomplishments

8. Improve awareness among eligible individuals to increase participation in the Displaced Energy Worker Dependent Transition Scholarship program.
9. As CEJA programs for workforce development and businesses ramp up, aggressively promote them in underserved communities, continue to evaluate for ways to improve, and report their successes.