

TO: Mayor and City Council

FROM: Gary Holm

DATE: July 5, 2022

RE: RES 22-073-R Authorizing Mayor to sign official response letter to League of Women Voters of Central Kane County (PU)

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The League of Women Voters of Central Kane County submitted a letter to the City of Batavia dated June 2, 2022. The letter was in regards to carbon capture at the Prairie State Energy Campus. The letter is attached for your reference.

Also attached is the City's proposed DRAFT response. Staff is recommending approval of RES 22-073-R authorizing the Mayor to sign the City's response letter.



June 2, 2022

Mayor Jeffery D. Schielke  
Batavia City Council Members  
City of Batavia  
100 N. Island Avenue  
Batavia, IL 60510

Dear Mayor Schielke and City Council Members:

The League of Women Voters of Central Kane County is concerned about the on-going efforts of Prairie State Management Group (PSMG) to fast-track a carbon capture retrofit project for the coal-fired power plant at the Prairie State Energy Campus (PSEC). It is our understanding that the Front-End Engineering Design (FEED) study is nearly complete and that construction of the retrofit project could begin as early as August 2023. <https://netl.doe.gov/projects/project-information.aspx?p=FE0031841>

PSEC's carbon capture retrofit project is far from being the climate-mitigation answer that PSMG and the Prairie Research Institute are promoting. **There is no known power plant carbon capture project that has reached the 95% carbon capture target.** Consider the following projects initiated to date:

- [Petra Nova](#) in Richmond, Texas was approximately one-fourth the size of PSEC and **failed to reach its carbon capture targets by about 17%** before it closed in 2020 (it was designed to capture 33% of its carbon emissions when it opened in 2017).
- [SaskPower](#) in Saskatchewan, Canada is approximately one-eighth the size of PSEC and **captured only 44% of its carbon emissions** in 2021, far short of its 90% target.
- A recent report from the GAO shows some success with carbon capture on industrial sites, but not on coal plants. <https://www.canarymedia.com/articles/carbon-capture/us-government-squandered-hundreds-of-millions-on-clean-coal-pipedream>

The costs of the PSEC carbon capture retrofit project to the City of Batavia and its residents are potentially substantial and raise a number of serious questions:

Mayor Jeffery D. Schielke  
Batavia City Council Members  
City of Batavia  
June 2, 2022  
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- How much did the FEED study cost Batavia? Was the City Council informed about the intentions and merits of the FEED study?
- Will the reduced power output used to run the PSEC carbon capture system increase the cost of each megawatt purchased by Batavia? Because carbon capture is an energy-intensive process, PSEC would have to use approximately 25% of its current power production to run the carbon capture system. This would reduce PSEC's power output and divert it to the carbon capture system.
- What will be Batavia's share of the operating costs for the carbon capture system? According to the FEED study, operating costs are estimated to be over \$176,000,000 **per year**. If this estimate is correct, Batavia's share will be at least \$6,000,000 **per year**.
- What provisions have been planned if PSEC fails to reach its 95% carbon capture target? It does not seem prudent for Batavia to spend money on an experimental project.
- Is Batavia satisfied that the carbon capture project will not result in further injury to the health and safety of Illinois residents by PSEC?

An additional goal of the retrofit project is to extend the life of PSEC. This would result in the burning of more coal and the production of more toxic coal ash. Extending the life of PSEC would also produce more water and air pollution, thus further endangering the health and well-being of Illinois and its residents.

We ask that the City of Batavia immediately seek answers to these and other critical questions and share these answers with the residents of Batavia in the interests of full transparency.

Sincerely,

*Llona Steele*

Llona Steele  
Co-Vice President

*Patti Lackman*

Patti Lackman  
Co-Vice President

*Jean Pierce*

Jean Pierce  
Co-Vice President

cc: Andrew Greenhagen, Chair, Batavia Environmental Commission

**CITY OF BATAVIA, ILLINOIS  
RESOLUTION 22-073-R**

**Authorizing Mayor to Sign City Response Letter to League of Women Voters**

**WHEREAS**, the City of Batavia owns and operates a municipal electric utility; and

**WHEREAS**, the City of Batavia Municipal Electric Utility entered into a Power Sales Agreement with the Northern Illinois Municipal Power Agency; and

**WHEREAS**, the Northern Illinois Municipal Power Agency is one of nine public power owners of the Prairie State Energy Campus; and

**WHEREAS**, Prairie State has partnered with the University of Illinois and the U.S. Department of Energy to study carbon capture technologies; and

**WHEREAS**, the League of Women Voters of Central Kane County submitted a formal written letter to the City of Batavia concerning Prairie State's carbon capture study efforts; and

**NOW, THEREFORE, BE IT RESOLVED**, by the Mayor and City Council of the City of Batavia, Kane and DuPage Counties, Illinois, as follows:

**SECTION 1:** That the Mayor is hereby authorized to sign the City of Batavia response letter to the League of Women Voters of Central Kane County attached hereto as Exhibit I

CITY OF BATAVIA, ILLINOIS RESOLUTION 22-073-R

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**PRESENTED** to the City Council of the City of Batavia, Illinois, this 18<sup>th</sup> day of July, 2022.

**PASSED** by the City Council of the City of Batavia, Illinois, this 18<sup>th</sup> day of July, 2022.

**APPROVED** by me as Mayor of said City of Batavia, Illinois, this 18<sup>th</sup> day of July, 2022.

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Jeffery D. Schielke, Mayor

| <b>Ward</b> | <b>Alderman</b> | <b>Aye</b>  | <b>Nay</b>  | <b>Abstain</b> | <b>Absent</b> |
|-------------|-----------------|-------------|-------------|----------------|---------------|
| 1           | Baerren         |             |             |                |               |
| 1           | Solfa           |             |             |                |               |
| 2           | Lehman          |             |             |                |               |
| 2           | Wolff           |             |             |                |               |
| 3           | Ajazi           |             |             |                |               |
| 3           | Chanzit         |             |             |                |               |
| 4           | Malay           |             |             |                |               |
| 4           | Connelly        |             |             |                |               |
| 5           | Uher            |             |             |                |               |
| 5           | Beck            |             |             |                |               |
| 6           | Cerone          |             |             |                |               |
| 6           | Russotto        |             |             |                |               |
| 7           | Vogelsinger     |             |             |                |               |
| 7           | Miller          |             |             |                |               |
| Mayor       | Schielke        |             |             |                |               |
|             |                 | <b>AYES</b> | <b>NAYS</b> | <b>ABSTAIN</b> | <b>ABSENT</b> |
|             | <b>TOTALS</b>   |             |             |                |               |

*total holding office: Mayor and 14 Aldermen*

ATTEST:

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Kate Garrett, City Clerk

**EXHIBIT I**  
**RES 22-073-R**  
**DRAFT**

July \_\_\_\_, 2022

Dear Co-Vice Presidents Steele, Lackman, and Pierce:

Thank you for your inquiry on behalf of the League of Women Voters of Central Kane County. The City of Batavia strives to maintain transparency and open dialogue with all of its residents, and this topic is no different.

As you may know, in September of 2019 the University of Illinois at Urbana-Champaign was awarded a \$14 million grant from the U.S. Department of Energy (DOE) to perform a front-end engineering design (FEED) study for a potential CO<sub>2</sub> capture facility at the Prairie State Energy Campus. The goal of the FEED study was to complete preliminary engineering design work in support of developing a conceptual cost estimate for retrofitting a 95% CO<sub>2</sub> capture system on one unit at Prairie State. Project partners performed multiple feasibility and design studies, based on project-specific details, in preparation for developing engineering deliverables. Prairie State's owners invested \$3,505,000 in cost-share for the study. Estimates of the grant and cost-share requirements were provided publicly, via a press release from Prairie State, at the time the study grant was awarded in late 2019.

DOE is sponsoring CO<sub>2</sub> capture FEED studies in an effort to better understand the cost of capture facilities and to advance carbon capture technologies with a goal of eventual nationwide-scale deployment of carbon capture, utilization and storage (CCUS). Prairie State elected to partner with the University of Illinois Prairie Research Institute to conduct a FEED study to identify CO<sub>2</sub> mitigation opportunities at a commercial scale. CO<sub>2</sub> capture at Prairie State could have widespread implications for closing the gap between today's technologies and long-term carbon reduction goals of the future.

The initial FEED study scope was completed at the end of 2021. At that time the DOE requested a six-month extension to perform additional engineering design and cost analysis. The extension was completed with no additional funding from Prairie State, and at no additional cost to its owners. The initial FEED study findings show that utilizing Mitsubishi Heavy Industries of America CO<sub>2</sub> capture technology to retrofit one unit at the Prairie State Energy Campus with a post-combustion carbon capture plant would cost roughly \$2 billion; that cost does not include an estimated \$176 million in additional annual operating and maintenance costs, property and income taxes, insurance costs, or the costs to transport and permanently sequester the CO<sub>2</sub>.

As a not-for-profit owned energy campus, Prairie State and its municipal and cooperative owners are unable to bear the substantial costs and risks of building a CO<sub>2</sub> capture facility at this time. The current cost estimates obtained from the FEED study validate that constructing a capture facility is not the best economic decision for Prairie State's owners and the 2.5 million families they serve. Thus, there are no

immediate or pending plans to proceed forward with construction at Prairie State. That being said, Prairie State will continue to evaluate all potential options to reduce its carbon footprint while also reducing the cost of producing power. The only way carbon capture will be considered by Prairie State in the future is if a third-party developer is willing to finance such a project and if Congress makes substantial changes to their federal tax policies and incentives for carbon capture.

We have restated the questions posed in your June 2 letter in bold font, with responses in italics below:

- **How much did the FEED study cost Batavia? Was the City Council informed about the intentions and merits of the FEED study?**

*As noted above, Prairie State's owners invested \$3,505,000 in cost-share for the FEED study—that equates to approximately \$122,000 for the City of Batavia's portion of that cost. The City of Batavia feels that its 2019 investment in funding FEED study research was prudent given the legislation that was subsequently passed by the State of Illinois in 2021. The general concept of carbon capture has been discussed by Batavia's City Council; however, given that the FEED study was preliminary in nature, and that the six-month extension was just recently completed, specific details of the study have not been discussed publicly.*

- **Will the reduced power output used to run the PSEC carbon capture system increase the cost of each megawatt purchased by Batavia? Because carbon capture is an energy-intensive process, PSEC would have to use approximately 25% of its current power production to run the carbon capture system. This would reduce PSEC's power output and divert it to the carbon capture system.**

*The FEED study was specifically and purposefully designed so as not to reduce any of the power output of the Prairie State Energy Campus. The study assumed that power for the CO<sub>2</sub> capture facility would come from the grid and the associated costs would be an ongoing operational expense to the facility operator. It should be noted that the FEED study estimated that the electric load required to operate the capture facility would be considerably less than the 25% value cited above.*

- **What will be Batavia's share of the operating costs for the carbon capture system? According to the FEED study, operating costs are estimated to be over \$176,000,000 per year. If this estimate is correct, Batavia's share will be at least \$6,000,000 per year.**

*Given current federal and state regulations and tax policies, and based on the FEED study cost estimates, NIMPA does not intend to own or operate a carbon capture facility as it is not currently economic to do so. Any decision to proceed in a different manner would be thoroughly vetted and discussed and ultimately voted upon by the NIMPA Board.*

- **What provisions have been planned if PSEC fails to reach its 95% carbon capture target? It does not seem prudent for Batavia to spend money on an experimental project.**

*As noted above, there are no immediate or pending plans in place for constructing a CO<sub>2</sub> capture facility at Prairie State. While the FEED study has provided valuable information in support of advancing carbon capture technologies, it is important to recognize that additional engineering work, financial evaluation, and state and federal regulatory/legislative initiatives would still be necessary before a project of the scope and complexity contemplated by the FEED study could be feasibly constructed at Prairie State.*

- **Is Batavia satisfied that the carbon capture project will not result in further injury to the health and safety of Illinois residents by PSEC? An additional goal of the retrofit project is to extend the life of PSEC.**

*The City of Batavia has publicly expressed its support of a goal to achieve 100% renewable energy in the state of Illinois; However, the City has also stated that it cannot support an accelerated timeline that will result in financially devastating impacts to our community. Despite the legislation that was passed by Illinois in 2021, Batavia remains opposed to any closure of Prairie State prior to the full satisfaction of the City's bond debt, which will occur in 2042. The City continues to support a transition to clean energy that includes a mix of different generation resources. Sources of carbon-free electricity, such as sun and wind, are variable in nature and do not support the power grid (i.e. grid operators cannot turn them on and off as needed). To balance out the variation in sun and wind, new technologies, such as CCUS, will be needed so that traditional generation resources can continue to operate until such time that all energy production is transitioned to being 100% carbon free. NIMPA and the other Prairie State member-owners supported the FEED study as a way to determine if carbon capture could become a viable option to dramatically reduce carbon emissions at Prairie State to satisfy potential future environmental regulations.*

I hope that this letter addresses your concerns and provides a clearer picture of this topic.

Sincerely,