

## 103RD GENERAL ASSEMBLY State of Illinois 2023 and 2024 HB5323

Introduced 2/9/2024, by Rep. Marcus C. Evans, Jr.

## SYNOPSIS AS INTRODUCED:

415 ILCS 5/9.15

Amends the Environmental Protection Act. Provides, in a provision concerning the regulation of greenhouse gases, that a specific greenhouse gas emission limit does not apply to black start facilities. Defines "black start facility".

LRB103 38672 BDA 68809 b

1 AN ACT concerning safety.

## Be it enacted by the People of the State of Illinois, represented in the General Assembly:

- 4 Section 5. The Environmental Protection Act is amended by
- 5 changing Section 9.15 as follows:
- 6 (415 ILCS 5/9.15)

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- 7 Sec. 9.15. Greenhouse gases.
- (a) An air pollution construction permit shall not be 8 9 required due to emissions of greenhouse gases if the equipment, site, or source is not subject to regulation, as 10 defined by 40 CFR 52.21, as now or hereafter amended, for 11 greenhouse gases or is otherwise not addressed in this Section 12 13 or by the Board in regulations for greenhouse gases. These 14 exemptions do not relieve an owner or operator from the comply with other 15 obligation to applicable rules or 16 regulations.
  - (b) An air pollution operating permit shall not be required due to emissions of greenhouse gases if the equipment, site, or source is not subject to regulation, as defined by Section 39.5 of this Act, for greenhouse gases or is otherwise not addressed in this Section or by the Board in regulations for greenhouse gases. These exemptions do not relieve an owner or operator from the obligation to comply

- 1 with other applicable rules or regulations.
- 2 (c) (Blank).
- 3 (d) (Blank).
- 4 (e) (Blank).

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5 (f) As used in this Section:

"Black start facility" means a generating unit that has a high operating factor or equipment enabling it to start without an outside electrical supply and that a transmission provider concurs has the demonstrated ability to automatically remain operating, at reduced levels, when disconnected from the electric grid. Black start facilities are essential to a system restoration plan, as defined by the North American Electric Reliability Corporation (NERC) and the Federal Energy Regulatory Commission (FERC), which is a plan that is developed to establish the protocols that will be implemented to coordinate system restoration activities following a major system disturbance. Under such a plan, there is an orderly sequence of steps and communications with impacted transmission operators, Commonwealth Edison (ComEd), balancing authorities, and neighboring reliability coordinators, PJM and MISO, to facilitate the restoration of the electric grid. Black start is essential because it is the process of restoring power to an electric grid in the event of a natural disaster, cyberattack, or a direct physical grid attack that prompts the system to black out partially or fully. Black start capability is required to re-energize the system and

- 1 prevent a prolonged outage that could result in economic harm,
- or worse, loss of human life. Further, in the ComEd zone, black
- 3 start facilities are used to provide safe shutdown power to
- 4 nuclear facilities.
- 5 "Carbon dioxide emission" means the plant annual CO<sub>2</sub> total
- 6 output emission as measured by the United States Environmental
- 7 Protection Agency in its Emissions & Generation Resource
- 8 Integrated Database (eGrid), or its successor.
- 9 "Carbon dioxide equivalent emissions" or "CO2e" means the
- 10 sum total of the mass amount of emissions in tons per year,
- 11 calculated by multiplying the mass amount of each of the 6
- 12 greenhouse gases specified in Section 3.207, in tons per year,
- by its associated global warming potential as set forth in 40
- 14 CFR 98, subpart A, table A-1 or its successor, and then adding
- 15 them all together.
- "Cogeneration" or "combined heat and power" refers to any
- 17 system that, either simultaneously or sequentially, produces
- 18 electricity and useful thermal energy from a single fuel
- 19 source.
- 20 "Copollutants" refers to the 6 criteria pollutants that
- 21 have been identified by the United States Environmental
- 22 Protection Agency pursuant to the Clean Air Act.
- "Electric generating unit" or "EGU" means a fossil
- 24 fuel-fired stationary boiler, combustion turbine, or combined
- 25 cycle system that serves a generator that has a nameplate
- 26 capacity greater than 25 MWe and produces electricity for

1 sale.

"Environmental justice community" means the definition of that term based on existing methodologies and findings, used and as may be updated by the Illinois Power Agency and its program administrator in the Illinois Solar for All Program.

"Equity investment eligible community" or "eligible community" means the geographic areas throughout Illinois that would most benefit from equitable investments by the State designed to combat discrimination and foster sustainable economic growth. Specifically, eligible community means the following areas:

- (1) areas where residents have been historically excluded from economic opportunities, including opportunities in the energy sector, as defined as R3 areas pursuant to Section 10-40 of the Cannabis Regulation and Tax Act; and
- (2) areas where residents have been historically subject to disproportionate burdens of pollution, including pollution from the energy sector, as established by environmental justice communities as defined by the Illinois Power Agency pursuant to the Illinois Power Agency Act, excluding any racial or ethnic indicators.

"Equity investment eligible person" or "eligible person" means the persons who would most benefit from equitable investments by the State designed to combat discrimination and foster sustainable economic growth. Specifically, eligible

- person means the following people:
- 2 (1) persons whose primary residence is in an equity 3 investment eligible community;
  - (2) persons whose primary residence is in a municipality, or a county with a population under 100,000, where the closure of an electric generating unit or mine has been publicly announced or the electric generating unit or mine is in the process of closing or closed within the last 5 years;
  - (3) persons who are graduates of or currently enrolled in the foster care system; or
  - (4) persons who were formerly incarcerated.
  - "Existing emissions" means:
    - (1) for  $CO_2e$ , the total average tons-per-year of  $CO_2e$  emitted by the EGU or large GHG-emitting unit either in the years 2018 through 2020 or, if the unit was not yet in operation by January 1, 2018, in the first 3 full years of that unit's operation; and
    - (2) for any copollutant, the total average tons-per-year of that copollutant emitted by the EGU or large GHG-emitting unit either in the years 2018 through 2020 or, if the unit was not yet in operation by January 1, 2018, in the first 3 full years of that unit's operation.
    - "Green hydrogen" means a power plant technology in which an EGU creates electric power exclusively from electrolytic hydrogen, in a manner that produces zero carbon and

1 copollutant emissions, using hydrogen fuel that is 2 electrolyzed using a 100% renewable zero carbon emission 3 energy source.

"Large greenhouse gas-emitting unit" or "large GHG-emitting unit" means a unit that is an electric generating unit or other fossil fuel-fired unit that itself has a nameplate capacity or serves a generator that has a nameplate capacity greater than 25 MWe and that produces electricity, including, but not limited to, coal-fired, coal-derived, oil-fired, natural gas-fired, and cogeneration units.

"NO $_{\rm x}$  emission rate" means the plant annual NO $_{\rm x}$  total output emission rate as measured by the United States Environmental Protection Agency in its Emissions & Generation Resource Integrated Database (eGrid), or its successor, in the most recent year for which data is available.

"Public greenhouse gas-emitting units" or "public GHG-emitting unit" means large greenhouse gas-emitting units, including EGUs, that are wholly owned, directly or indirectly, by one or more municipalities, municipal corporations, joint municipal electric power agencies, electric cooperatives, or other governmental or nonprofit entities, whether organized and created under the laws of Illinois or another state.

" $SO_2$  emission rate" means the "plant annual  $SO_2$  total output emission rate" as measured by the United States Environmental Protection Agency in its Emissions & Generation Resource Integrated Database (eGrid), or its successor, in the

- 1 most recent year for which data is available.
- 2 (g) All EGUs and large greenhouse gas-emitting units that use coal or oil as a fuel and are not public GHG-emitting units  $\frac{1}{2}$ 4 shall permanently reduce all  $\frac{1}{2}$ 602 and copollutant emissions to  $\frac{1}{2}$ 7 zero no later than January 1, 2030.
  - (h) All EGUs and large greenhouse gas-emitting units that use coal as a fuel and are public GHG-emitting units shall permanently reduce  $CO_2e$  emissions to zero no later than December 31, 2045. Any source or plant with such units must also reduce their  $CO_2e$  emissions by 45% from existing emissions by no later than January 1, 2035. If the emissions reduction requirement is not achieved by December 31, 2035, the plant shall retire one or more units or otherwise reduce its  $CO_2e$  emissions by 45% from existing emissions by June 30, 2038.
    - (i) All EGUs and large greenhouse gas-emitting units that use gas as a fuel and are not public GHG-emitting units shall permanently reduce all  $CO_2$ e and copollutant emissions to zero, including through unit retirement or the use of 100% green hydrogen or other similar technology that is commercially proven to achieve zero carbon emissions, according to the following:
      - (1) No later than January 1, 2030: all EGUs and large greenhouse gas-emitting units that have a  $NO_x$  emissions rate of greater than 0.12 lbs/MWh or a  $SO_2$  emission rate of greater than 0.006 lb/MWh, and are located in or within 3

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miles of an environmental justice community designated as of January 1, 2021 or an equity investment eligible community.

- (2) No later than January 1, 2040: all EGUs and large greenhouse gas-emitting units that have a  $NO_x$  emission rate of greater than 0.12 lbs/MWh or a  $SO_2$  emission rate greater than 0.006 lb/MWh, and are not located in or within 3 miles of an environmental justice community designated as of January 1, 2021 or an equity investment eligible community. After January 1, 2035, each such EGU and large greenhouse gas-emitting unit shall reduce its CO2e emissions by at least 50% from its existing emissions for CO2e, and shall be limited in operation to, on average, 6 hours or less per day, measured over a calendar year, and shall not run for more than 24 consecutive hours except in emergency conditions, as designated by а Transmission Organization or Independent System Operator.
- (3) No later than January 1, 2035: all EGUs and large greenhouse gas-emitting units that began operation prior to the effective date of this amendatory Act of the 102nd General Assembly and have a  $NO_x$  emission rate of less than or equal to 0.12 lb/MWh and a  $SO_2$  emission rate less than or equal to 0.006 lb/MWh, and are located in or within 3 miles of an environmental justice community designated as of January 1, 2021 or an equity investment eligible community. Each such EGU and large greenhouse gas-emitting

- unit shall reduce its  $CO_2$ e emissions by at least 50% from its existing emissions for  $CO_2$ e no later than January 1, 2030.
  - (4) No later than January 1, 2040: All remaining EGUs and large greenhouse gas-emitting units that have a heat rate greater than or equal to 7000 BTU/kWh. Each such EGU and Large greenhouse gas-emitting unit shall reduce its CO<sub>2</sub>e emissions by at least 50% from its existing emissions for CO<sub>2</sub>e no later than January 1, 2035.
  - (5) No later than January 1, 2045: all remaining EGUs and large greenhouse gas-emitting units.
    - (j) All EGUs and large greenhouse gas-emitting units that use gas as a fuel and are public GHG-emitting units shall permanently reduce all  $CO_2e$  and copollutant emissions to zero, including through unit retirement or the use of 100% green hydrogen or other similar technology that is commercially proven to achieve zero carbon emissions by January 1, 2045.
    - (k) All EGUs and large greenhouse gas-emitting units that utilize combined heat and power or cogeneration technology shall permanently reduce all  $CO_2$ e and copollutant emissions to zero, including through unit retirement or the use of 100% green hydrogen or other similar technology that is commercially proven to achieve zero carbon emissions by January 1, 2045.
  - (k-5) No EGU or large greenhouse gas-emitting unit that uses gas as a fuel and is not a public GHG-emitting unit may

- emit, in any 12-month period, CO<sub>2</sub>e or copollutants in excess of that unit's existing emissions for those pollutants. This subsection (k-5) does not apply to an EGU or large greenhouse gas-emitting unit that is a black start facility. Any gas turbine located at a black start facility shall not exceed more than 3,200 hours of operation a year.
  - (1) Notwithstanding subsections (g) through (k-5), large GHG-emitting units including EGUs may temporarily continue emitting  $CO_2e$  and copollutants after any applicable deadline specified in any of subsections (g) through (k-5) if it has been determined, as described in paragraphs (1) and (2) of this subsection, that ongoing operation of the EGU is necessary to maintain power grid supply and reliability or ongoing operation of large GHG-emitting unit that is not an EGU is necessary to serve as an emergency backup to operations. Up to and including the occurrence of an emission reduction deadline under subsection (i), all EGUs and large GHG-emitting units must comply with the following terms:
    - (1) if an EGU or large GHG-emitting unit that is a participant in a regional transmission organization intends to retire, it must submit documentation to the appropriate regional transmission organization by the appropriate deadline that meets all applicable regulatory requirements necessary to obtain approval to permanently cease operating the large GHG-emitting unit;
      - (2) if any EGU or large GHG-emitting unit that is a

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participant in a regional transmission organization that receives notice the regional transmission organization has determined that continued operation of the unit is required, the unit may continue operating until the issue identified by the regional transmission organization is resolved. The owner or operator of the unit must cooperate with the regional transmission organization in resolving the issue and must reduce its emissions to zero, consistent with the requirements under subsection (g), (h), (i), (j), (k), or (k-5), as applicable, as soon as practicable when the issue identified by the regional transmission organization is resolved; and

- (3) any large GHG-emitting unit that is not a participant in a regional transmission organization shall be allowed to continue emitting  $CO_2e$  and copollutants after the zero-emission date specified in subsection (g), (h), (i), (j), (k), or (k-5), as applicable, in the capacity of an emergency backup unit if approved by the Illinois Commerce Commission.
- 21 (m) No variance, adjusted standard, or other regulatory 22 relief otherwise available in this Act may be granted to the 23 emissions reduction and elimination obligations in this 24 Section.
  - (n) By June 30 of each year, beginning in 2025, the Agency shall prepare and publish on its website a report setting

- forth the actual greenhouse gas emissions from individual units and the aggregate statewide emissions from all units for the prior year.
- (o) Every 5 years beginning in 2025, the Environmental 5 Protection Agency, Illinois Power Agency, and 6 Commerce Commission shall jointly prepare, and 7 publicly, a report to the General Assembly that examines the 8 State's current progress toward its renewable energy resource 9 development goals, the status of CO2e and copollutant 10 emissions reductions, the current status and progress toward 11 developing and implementing green hydrogen technologies, the 12 current and projected status of electric resource adequacy and 13 reliability throughout the State for the period beginning 5 years ahead, and proposed solutions for any findings. The 14 15 Environmental Protection Agency, Illinois Power Agency, 16 Illinois Commerce Commission shall consult PJM 17 Interconnection, LLC and Midcontinent Independent Operator, Inc., or their respective successor organizations 18 19 regarding forecasted resource adequacy and reliability needs, 20 anticipated new generation interconnection, new transmission 21 development or upgrades, and any announced large GHG-emitting 22 unit closure dates and include this information in the report. 23 The report shall be released publicly by no later than 24 December 15 of the year it is prepared. If the Environmental 25 Protection Agency, Illinois Power Agency, and 26 Commerce Commission jointly conclude in the report that the

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data from the regional grid operators, the pace of renewable energy development, the pace of development of energy storage and demand response utilization, transmission capacity, and the  $CO_2e$  and copollutant emissions reductions required by subsection (i) or (k-5) reasonably demonstrate that a resource adequacy shortfall will occur, including whether there will be sufficient in-state capacity to meet the zonal requirements of MISO Zone 4 or the PJM ComEd Zone, per the requirements of the regional transmission organizations, or that the regional transmission operators determine that a reliability violation will occur during the time frame the study is evaluating, then Illinois Agency, in conjunction with the Power Environmental Protection Agency shall develop a plan to reduce delay CO2e and copollutant emissions reductions requirements only to the extent and for the duration necessary to meet the resource adequacy and reliability needs of the State, including allowing any plants whose emission reduction deadline has been identified in the plan as creating a reliability concern to continue operating, including operating with reduced emissions or as emergency backup appropriate. The plan shall also consider the use of renewable energy storage, demand response, transmission energy, development, or other strategies to resolve the identified resource adequacy shortfall or reliability violation.

(1) In developing the plan, the Environmental Protection Agency and the Illinois Power Agency shall hold

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at least one workshop open to, and accessible at a time and place convenient to, the public and shall consider any made by stakeholders or the public. comments development of the plan, copies of the plan shall be posted and made publicly available on the Environmental Protection Agency's, the Illinois Power Agency's, and the Illinois Commerce Commission's websites. All interested parties shall have 60 days following the date of posting to provide comment to the Environmental Protection Agency and the Illinois Power Agency on the plan. All comments submitted to the Environmental Protection Agency and the Illinois Power Agency shall be encouraged to be specific, supported by data or other detailed analyses, and, if objecting to all or a portion of the plan, accompanied by specific alternative wording or proposals. All comments shall be posted on the Environmental Protection Agency's, the Illinois Power Agency's, and the Illinois Commerce Commission's websites. Within 30 days following the end of the 60-day review period, the Environmental Protection Agency and the Illinois Power Agency shall revise the plan as necessary based on the comments received and file its revised plan with the Illinois Commerce Commission for approval.

(2) Within 60 days after the filing of the revised plan at the Illinois Commerce Commission, any person objecting to the plan shall file an objection with the

Illinois Commerce Commission. Within 30 days after the expiration of the comment period, the Illinois Commerce Commission shall determine whether an evidentiary hearing is necessary. The Illinois Commerce Commission shall also host 3 public hearings within 90 days after the plan is filed. Following the evidentiary and public hearings, the Illinois Commerce Commission shall enter its order approving or approving with modifications the reliability mitigation plan within 180 days.

- (3) The Illinois Commerce Commission shall only approve the plan if the Illinois Commerce Commission determines that it will resolve the resource adequacy or reliability deficiency identified in the reliability mitigation plan at the least amount of CO<sub>2</sub>e and copollutant emissions, taking into consideration the emissions impacts on environmental justice communities, and that it will ensure adequate, reliable, affordable, efficient, and environmentally sustainable electric service at the lowest total cost over time, taking into account the impact of increases in emissions.
- (4) If the resource adequacy or reliability deficiency identified in the reliability mitigation plan is resolved or reduced, the Environmental Protection Agency and the Illinois Power Agency may file an amended plan adjusting the reduction or delay in  $CO_2e$  and copollutant emission reduction requirements identified in the plan.

HB5323

1 (Source: P.A. 102-662, eff. 9-15-21; 102-1031, eff. 5-27-22.)