

1 AN ACT relating to nuclear energy development.

2 *Be it enacted by the General Assembly of the Commonwealth of Kentucky:*

3 ➔SECTION 1. A NEW SECTION OF KRS CHAPTER 164 IS CREATED TO  
4 READ AS FOLLOWS:

5 (1) As used in this section:

6 (a) "Authority" means the Kentucky Nuclear Energy Development Authority  
7 established in Section 3 of this Act;

8 (b) "Combined operating license" means a license issued by the United States  
9 Nuclear Regulatory Commission pursuant to 10 C.F.R. sec. 52.71 et seq.  
10 that enables its holder to construct and operate a nuclear power plant at a  
11 specific site;

12 (c) "Construction permit" means a permit issued by the United States Nuclear  
13 Regulatory Commission pursuant to 10 C.F.R. pt. 50 that enables its holder  
14 to construct a nuclear power plant at a specific site;

15 (d) "Early site permit" means a permit issued by the United States Nuclear  
16 Regulatory Commission pursuant to 10 C.F.R. sec. 52.12 et seq. that  
17 enables its holder to secure federal site approval for a nuclear power plant  
18 site prior to seeking an operating reactor license from the United States  
19 Nuclear Regulatory Commission;

20 (e) "Eligible applicant" means any utility and any current or prospective  
21 customer of a utility that is acting in partnership or collaboration with the  
22 utility;

23 (f) "Generation III Plus" means the generation of nuclear reactor design  
24 following Generation III that incorporates passive and other safety  
25 measures and design improvements not included in previous nuclear  
26 reactor designs;

27 (g) "Generation IV" means the nuclear reactor designs identified and selected

1 by the Generation IV International Forum as follows:

2 1. Sodium-cooled fast reactors;

3 2. Gas-cooled fast reactors;

4 3. Lead-cooled fast reactors;

5 4. Molten salt reactors;

6 5. Supercritical water-cooled reactors; and

7 6. Very high temperature reactors;

8 (h) "Nuclear energy generating facility" means a facility containing a nuclear  
9 reactor of Generation III Plus, Generation IV, or later design that produces  
10 electricity, at least some of which is sold to the public; and

11 (i) "Utility" means a person, firm, corporation, association, cooperative  
12 corporation, federally-owned electric utility corporation, or municipal  
13 corporation engaged in the generation of electricity for sale to the public.

14 (2) (a) The authority shall create and implement the Nuclear Reactor Site  
15 Readiness Pilot Program to facilitate the application for and procurement  
16 of early site permits, construction permits, or combined operating licenses  
17 from the United States Nuclear Regulatory Commission for the siting of  
18 new nuclear energy generating facilities in the Commonwealth.

19 (b) Upon recommendation of the authority, the General Assembly may award  
20 eligible applicants grant funding of up to one-third (1/3) of the actual costs  
21 incurred in applying for and procuring an early site permit, construction  
22 permit, or combined operating license, not to exceed twenty-five million  
23 dollars (\$25,000,000).

24 (c) The authority shall:

25 1. Create grant applications;

26 2. Establish grant applicant eligibility requirements;

27 3. Establish objective scoring criteria to evaluate grant applications;

- 1           4. Review any partnership agreement between eligible applicants for  
2           validity and completeness and to ensure that the agreement provides  
3           for the surety bonding or similar security requirements required under  
4           subsection (4) of this section and repayment responsibilities for all  
5           partners in the event that forfeiture and repayment of grant funding is  
6           required under subsection (5) of this section; and
- 7           5. Make determinations on applicant eligibility and evaluate and score  
8           each eligible applicant's grant application, in consultation with the  
9           Energy and Environment Cabinet's Office of Energy Policy and the  
10           Cabinet for Economic Development, according to the following  
11           criteria:
- 12           a. The location, suitability, and previous use of the site for which  
13           the early site permit, construction permit, or combined operating  
14           license is sought;
- 15           b. The economic condition of the region where the new nuclear  
16           energy generating facility would be located;
- 17           c. The economic impact that the siting of a new nuclear energy  
18           generating facility would have in the region;
- 19           d. Whether, in relation to other pending or past grant applications  
20           or awards under this section, the proposed site would be located  
21           in a geographically diverse region of the Commonwealth;
- 22           e. The amount of additional investment being made in the proposed  
23           project by the eligible applicant or applicants or other sources;  
24           and
- 25           f. Any other criteria the authority deems appropriate to evaluate.
- 26           (3) To be eligible to apply for grant funding under this section, eligible applicants  
27           must demonstrate that:

- 1        (a) No member of the partnership or collaboration of eligible applicants has  
2        previously received grant funding under this section;
- 3        (b) The community where the proposed site of the new nuclear energy  
4        generating facility would be located has been awarded a nuclear-ready  
5        community designation under KRS 164.2804; and
- 6        (c) There would be material benefits, including but not limited to the provision  
7        of electric utility service, job creation, and return on investment to the  
8        ratepayers and the impacted community to be served by the proposed new  
9        nuclear energy generating facility.
- 10      (4) In exchange for any grant funding authorized by the General Assembly under  
11      this section, the utility and any partners it may have shall procure a surety bond  
12      or other similar security acceptable to the authority in the amount of the grant  
13      funding to be awarded. The surety bond or similar security shall bind the  
14      principal or principals and the surety to the Commonwealth to repay all grant  
15      monies forfeited pursuant to subsection (5) of this section. The surety bond or  
16      other similar security shall be continuous and remain in effect until the  
17      completion of the construction of the nuclear energy generating facility for which  
18      the permit or license was issued or upon the repayment of all forfeited grant  
19      funds pursuant to subsection (5) of this section. Any cancellation of the bond or  
20      similar security shall not occur until thirty (30) days written notice is provided by  
21      the provider of the surety bond or other similar security to the authority.
- 22      (5) A grant funding recipient and all of its partners shall forfeit and repay all grant  
23      funding awarded under this section within sixty (60) days of:
- 24      (a) Failing to apply to the United States Nuclear Regulatory Commission for a  
25      construction permit or combined operating license for a nuclear energy  
26      generating facility under 10 C.F.R. pt. 50 or pt. 52 for which an early site  
27      permit was awarded within three (3) years of obtaining the early site permit;

1       **(b) Failing to commence construction of the nuclear energy generating facility**  
2       **for which all necessary permits or licenses have been awarded by the United**  
3       **States Nuclear Regulatory Commission within three (3) years of obtaining**  
4       **all necessary permits or licenses; or**

5       **(c) The transferring of the entirety of a utility's interest in the early site permit,**  
6       **the construction permit, or the combined operating license to an entity other**  
7       **than another utility prior to the commencement of construction of the**  
8       **nuclear energy generating facility for which a permit or license was**  
9       **awarded, unless the authority finds that the transfer is in the best interest of**  
10       **the Commonwealth.**

11       **(6) (a) The Kentucky nuclear reactor site readiness pilot program fund is hereby**  
12       **established in the State Treasury and shall be administered by the authority.**  
13       **The fund shall consist of state appropriations, gifts, grants, federal funds,**  
14       **and any forfeited grant monies or surety bond or similar security proceeds**  
15       **that have been returned to the fund.**

16       **(b) The fund shall be a trust and agency account, and all monies deposited in**  
17       **the fund shall be allocated by the General Assembly for funding eligible**  
18       **Nuclear Reactor Site Readiness Pilot Program projects that have been**  
19       **evaluated and scored by the authority under subsection (2) of this section**  
20       **and for no other purpose.**

21       **(c) Notwithstanding KRS 45.229, state appropriations, gifts, grants, federal**  
22       **funds, forfeited monies, surety bond or other similar security proceeds, and**  
23       **any interest earnings on those monies not expended at the close of a fiscal**  
24       **year shall not lapse, but shall be carried forward to the next fiscal year and**  
25       **shall be used solely for the purposes stated in paragraph (b) of this**  
26       **subsection.**

27       ➔SECTION 2. A NEW SECTION OF KRS CHAPTER 278 IS CREATED TO

1 READ AS FOLLOWS:

2 (1) As used in this section:

3 (a) "Combined operating license" means a license issued by the United States  
4 Nuclear Regulatory Commission pursuant to 10 C.F.R. sec. 52.71 et seq.  
5 that enables its holder to construct and operate a nuclear power plant at a  
6 specific site;

7 (b) "Construction permit" means a permit issued by the United States Nuclear  
8 Regulatory Commission pursuant to 10 C.F.R. pt. 50 that enables its holder  
9 to construct a nuclear power plant at a specific site;

10 (c) "Early site permit" means a permit issued by the United States Nuclear  
11 Regulatory Commission pursuant to 10 C.F.R. sec. 52.12 et seq. that  
12 enables its holder to secure federal site approval for a nuclear power plant  
13 site prior to seeking an operating reactor license from the United States  
14 Nuclear Regulatory Commission;

15 (d) "Generation III Plus" means the generation of nuclear reactor design  
16 following Generation III that incorporates passive and other safety  
17 measures and design improvements not included in previous nuclear  
18 reactor designs;

19 (e) "Generation IV" means the nuclear reactor designs identified and selected  
20 by the Generation IV International Forum as follows:

21 1. Sodium-cooled fast reactors;

22 2. Gas-cooled fast reactors;

23 3. Lead-cooled fast reactors;

24 4. Molten salt reactors;

25 5. Supercritical water-cooled reactors; and

26 6. Very high temperature reactors; and

27 (f) "Nuclear energy generating facility" means a facility containing a nuclear

1                   reactor of Generation III Plus, Generation IV, or later design that produces  
2                   electricity, at least some of which is sold to the public.

3   (2) Notwithstanding any provision of law to the contrary, upon application by a  
4                   regulated utility, the commission may allow for the recovery of costs which are  
5                   not covered in the existing rates of the utility that have been incurred in applying  
6                   for and procuring an early site permit, construction permit, or combined  
7                   operating license for a new nuclear energy generating facility to be located within  
8                   the Commonwealth. The commission shall not allow cost recovery under this  
9                   section for any amounts that have been offset by grant funding awarded pursuant  
10                  to Section 1 of this Act.

11               ➔Section 3. KRS 164.2802 is amended to read as follows:

12   (1) The Kentucky Nuclear Energy Development Authority is hereby established and  
13       attached to the University of Kentucky Center for Applied Energy Research for  
14       administrative purposes. The mission of the Kentucky Nuclear Energy  
15       Development Authority shall be to:

- 16       (a) Serve as the nonregulatory, trusted state government agency on nuclear  
17           energy issues and development in the Commonwealth; and
- 18       (b) Support and facilitate the development of the nuclear energy ecosystem across  
19           the Commonwealth in a collaborative manner that:
- 20           1. Enhances the Commonwealth's economy;
  - 21           2. Offers energy production and economic development opportunities that  
22               are safe;
  - 23           3. Protects the environment across the Commonwealth;
  - 24           4. Supports community voices, especially in underrepresented or  
25               historically impacted areas;
  - 26           5. Increases energy education; and
  - 27           6. Prepares a future workforce.

- 1 (2) The Kentucky Nuclear Energy Development Authority shall be governed by an  
2 advisory board consisting of the following twenty-two (22) voting members and  
3 eight (8) nonvoting members:
- 4 (a) Seven (7) state government members or their designees who shall be voting  
5 members:
- 6 1. The director of the University of Kentucky Center for Applied Energy  
7 Research, who shall serve as chair;
  - 8 2. The secretary of the Energy and Environment Cabinet;
  - 9 3. The secretary of the Cabinet for Economic Development;
  - 10 4. The chair of the Public Service Commission;
  - 11 5. The president of the Council on Postsecondary Education;
  - 12 6. The secretary of the Education and Labor Cabinet; and
  - 13 7. The director of the Division of Emergency Management;
- 14 (b) Fifteen (15) at-large members who shall be voting members:
- 15 1. A representative from each of the four (4) investor-owned electric  
16 utilities operating in the Commonwealth, designated by the president of  
17 each investor-owned electric utility, unless two (2) or more of the  
18 investor-owned electric utilities are operated under common ownership,  
19 in which case only one (1) representative shall be designated for the  
20 commonly owned utilities;
  - 21 2. Three (3) representatives of electric cooperatives designated by the chief  
22 operating officer of the Kentucky Association of Electric Cooperatives,  
23 as follows:
    - 24 a. One (1) of whom shall represent distribution cooperatives; and
    - 25 b. Two (2) of whom shall represent each of the generation and  
26 transmission electric cooperatives operating in the  
27 Commonwealth, unless they are operated under common



1 ownership, in which case only one (1) representative shall be  
2 designated for the commonly owned generation and transmission  
3 electric cooperatives;

4 3. A representative of the Tennessee Valley Authority, designated by its  
5 chief nuclear officer;

6 4. A representative of municipal utilities, designated by the executive  
7 director of the Kentucky League of Cities;

8 5. A representative of nuclear site remediation services, designated by the  
9 director of business services for the Four Rivers Nuclear Partnership or  
10 by another organization that provides nuclear site remediation services;

11 6. A representative for environmental interests, designated by the  
12 executive director of the Kentucky Conservation Committee;

13 7. A representative of manufacturers, designated by the president of the  
14 Kentucky Association of Manufacturers;

15 8. A representative for commercial interests, designated by the president of  
16 the Kentucky Chamber of Commerce;

17 9. A mayor of a city, designated by the executive director of the Kentucky  
18 League of Cities, who lives in an "energy community" as that term is  
19 used in the Inflation Reduction Act of 2022, Pub. L. No. 117-169, and as  
20 it is defined in the latest guidance by the Internal Revenue Service; and

21 10. A county judge/executive, designated by the executive director of the  
22 Kentucky Association of Counties, who lives in an "energy community"  
23 as that term is used in the Inflation Reduction Act of 2022, Pub. L. No.  
24 117-169, and as it is defined in the latest guidance by the Internal  
25 Revenue Service; and

26 (c) Eight (8) nonvoting members:

27 1. The president of the Nuclear Energy Institute, or designee;

- 1           2. A representative from a national nuclear educational nonprofit  
2           organization, designated by the chair and confirmed by a majority of the  
3           voting members;
  - 4           3. A representative from a United States Department of Energy National  
5           Laboratory with expertise in nuclear energy policy issues, designated by  
6           the chair and confirmed by a majority of the voting members;
  - 7           4. A representative from a nongovernmental nuclear policy advocacy  
8           organization, designated by the chair and confirmed by a majority of the  
9           voting members;
  - 10          5. Two (2) members of the Senate, who shall serve as ex officio members,  
11          designated by the President of the Senate; and
  - 12          6. Two (2) members of the House of Representatives, who shall serve as  
13          ex officio members, designated by the Speaker of the House of  
14          Representatives.
- 15 (3) State government members named in subsection (2)(a) of this section and members  
16 of the General Assembly named in subsection (2)(c)5. and 6. of this section shall  
17 serve on the advisory board during the terms of their appointed or elected state  
18 government positions. After the initial appointments, all other members of the  
19 advisory board shall serve terms of four (4) years. Members shall be eligible to  
20 succeed themselves and shall serve until their successors are appointed. A vacancy  
21 occurring during the term of any member shall be filled in the same manner as the  
22 original appointment.
- 23 (4) A majority of the voting members of the advisory board shall constitute a quorum  
24 for the purposes of conducting business. The advisory board shall meet at least  
25 quarterly, or more often at the call of the chair.
- 26 (5) Members of the advisory board shall not be paid for their service as board  
27 members, and they shall not be reimbursed for any expenses relating to their

1 attendance of board meetings.

2 (6) The advisory board shall hire a director of the authority who shall possess the skills  
3 and experience necessary to lead the authority effectively, promote the safe and  
4 responsible development of nuclear energy, publicize and encourage application to  
5 the Nuclear Energy Development Grant Program established in KRS 164.2803, and  
6 achieve the authority's purposes described in subsection (8)~~[(7)]~~ of this section.

7 (7) (a) Within one (1) year of the effective date of this Act, each current voting  
8 member of the authority appointed under subsection (2)(b) of this section  
9 shall complete at least twelve (12) hours of training, provided by a  
10 nationally recognized nuclear education organization and approved by the  
11 director, or the chair if the position of director is vacant, in any area  
12 relating to nuclear energy generation, siting, or policy. All new voting  
13 members appointed under subsection (2)(b) of this section who join the  
14 authority after the effective date of this Act shall have one (1) year to  
15 complete the same training requirement.

16 (b) The director, or the chair if the position of director is vacant, may waive the  
17 training required under this subsection for any voting member appointed  
18 under subsection (2)(b) of this section who can demonstrate adequate  
19 knowledge of nuclear-related issues.

20 (8) The purposes of the authority shall be to:

21 (a) Assist interested communities in understanding advanced nuclear  
22 opportunities, including the importance of secure, firm, cost-competitive  
23 power for customers and for economic development opportunities, as well as  
24 the potential for direct and indirect economic benefits associated with the  
25 employment and tax revenue generated from nuclear energy projects;

26 (b) Provide information to the public on the history of nuclear energy  
27 technologies in the Commonwealth, the status of existing nuclear energy

- 1 projects within the Commonwealth, and the potential benefits and concerns  
2 associated with nuclear energy technologies;
- 3 (c) Develop the capacity for nuclear energy economic development in the  
4 Commonwealth, which shall include providing information to educational  
5 institutions on the types of career opportunities that will be available with the  
6 development of nuclear energy, building strong relationships with economic  
7 development professionals, promoting existing economic development  
8 incentives applicable to nuclear energy development, and seeking out new  
9 grants and other financial support for nuclear energy development;
- 10 (d) Seek greater clarity and certainty with stakeholders on financial support for  
11 early nuclear site permitting, the process for obtaining a nuclear power facility  
12 certificate of public convenience and necessity, and the recovery of  
13 construction work in progress for nuclear energy projects;
- 14 (e) Work with communities that have previously hosted nuclear-related activities  
15 and other communities facing a transition away from fossil fuels to empower  
16 those communities with the resources and information necessary to engage  
17 with regulators, developers, and decisionmakers on new nuclear power  
18 facilities, nuclear component manufacturing facilities, and fuel cycle facilities;
- 19 (f) Strengthen engagement with the federal Nuclear Regulatory Commission by  
20 reviewing current safety and security practices implemented at different types  
21 of nuclear energy facilities under their purview, promoting the streamlining of  
22 permitting efforts, and supporting the siting of interim and permanent nuclear  
23 storage facilities via the continued use of consent-based siting;
- 24 (g) Build the organizational capacity to engage and potentially convene a  
25 consortium of stakeholders interested in nuclear energy technologies that  
26 would consist of utilities, environmental advocates, electric cooperatives, and  
27 major industrial companies in order to share best practices, including how to

1 share risk associated with developing and constructing new nuclear power  
2 plants within the Commonwealth;

3 (h) Engage with the United States Department of Energy National Laboratories,  
4 academic institutions, and private companies on efforts to develop deployable  
5 technologies to reprocess or recycle spent nuclear fuel;

6 (i) Maintain awareness of potential events that could initiate or accelerate the  
7 development of new nuclear energy technologies within the Commonwealth  
8 to allow the public to benefit from these projects;~~and~~

9 (j) Through the nuclear energy development grant administration subcommittee,  
10 review and evaluate grant applications and make grant awards in accordance  
11 with KRS 164.2803; and

12 (k) Through the Nuclear Reactor Site Readiness Pilot Program, review and  
13 evaluate grant applications and make recommendations to the General  
14 Assembly for funding eligible projects.

15 (9)~~(8)~~ The authority, with the approval of the advisory board, shall:

16 (a) Propose and adopt bylaws for the management and operation of the authority,  
17 including for the Nuclear Energy Development Grant Program established in  
18 KRS 164.2803;

19 (b) Develop and adopt a strategic plan for carrying out the purposes of the  
20 authority described in subsection (7) of this section;

21 (c) Create and update at least once every two (2) years a nuclear energy economic  
22 impact analysis for the Commonwealth;

23 (d) Employ necessary staff to carry out the functions of the authority; and

24 (e) By December 1, 2025, and each December 1 thereafter, submit a report to the  
25 Governor and the Legislative Research Commission for referral to the Interim  
26 Joint Committees on Natural Resources and Energy, Appropriations and  
27 Revenue, and Economic Development and Workforce Investment providing:

- 1           1.    A summary of the authority's activities and achievements since its last  
2                report;
- 3           2.    The evaluations and scores of all nuclear energy development grant  
4                applications received and all grant awards made pursuant to KRS  
5                164.2803 since its last report;
- 6           3.    *The evaluations, scores, and funding recommendations for applicants*  
7                *to the Nuclear Reactor Site Readiness Pilot Program established in*  
8                *Section 1 of this Act;* and
- 9           4.~~[3.]~~ Recommendations for the support and expansion of the nuclear energy  
10               ecosystem in the Commonwealth.

11           ➔Section 4.   KRS 164.2803 is amended to read as follows:

- 12   (1)   The Kentucky Nuclear Energy Development Authority established in KRS  
13       164.2802 shall create and implement the Nuclear Energy Development Grant  
14       Program for the advancement and location of nuclear *fission and fusion* energy-  
15       related projects to support the entire nuclear energy ecosystem in the  
16       Commonwealth, including utility and private sector economic development  
17       activities. The nuclear energy ecosystem includes but is not limited to:
  - 18       (a)   The nuclear fuel cycle, which includes fuel conversion, enrichment, and  
19             fabrication, as well as potential future spent fuel recycling and reprocessing;
  - 20       (b)   *Nuclear fission or fusion* reactor design and component manufacturing;
  - 21       (c)   Component supply chain manufacturing and distribution;
  - 22       (d)   *Nuclear fission or fusion* facility siting and development;
  - 23       (e)   Radioisotope production;
  - 24       (f)   Facility operation and maintenance;
  - 25       (g)   Decommissioning waste storage, transport, and management; and
  - 26       (h)   End uses of nuclear energy and co-products.
- 27   (2)   The membership of the Kentucky Nuclear Energy Development Authority shall

1 select five (5) of its voting members to serve on the nuclear energy development  
2 grant administration subcommittee. A majority of the members of the grant  
3 administration subcommittee shall constitute a quorum for the purposes of doing  
4 business. The subcommittee shall:

- 5 (a) Create grant applications;
- 6 (b) Establish grant applicant eligibility requirements;
- 7 (c) Establish objective scoring criteria to evaluate grant applications, including  
8 but not limited to:

- 9 1. The likelihood that the proposed project funded by the grant will  
10 precipitate further investment in the nuclear energy ecosystem;
- 11 2. The economic impact of the grant funding on the community and region  
12 where the proposed project will be located;
- 13 3. The readiness of the community where the proposed project will be  
14 located to host nuclear-related investments, including whether the  
15 community has been awarded a nuclear-ready community designation  
16 under KRS 164.2804; and
- 17 4. The amount of additional investment that would be made in the  
18 proposed project by the grant applicant and other sources; and

- 19 (d) Make determinations on grant eligibility and funding and make grant awards  
20 based on those determinations, not to exceed two million dollars (\$2,000,000)  
21 per individual grant.