

By Senator McClain

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A bill to be entitled

An act relating to advanced nuclear reactors; creating s. 403.541, F.S.; defining terms; granting the Florida Public Service Commission the sole authority to regulate advanced nuclear reactors in this state; requiring the commission to take certain regulatory actions; authorizing the Department of Health and the Department of Environmental Protection to exercise specified powers and duties and develop certain guidelines; requiring the commission, the Department of Health, and the Department of Environmental Protection to jointly establish criteria for the certification of laboratories that perform analysis on nuclear materials for certain purposes; authorizing the possession of nuclear material for specified purposes; providing an exception and limitation for such possession; requiring permits for the transfer, receipt, possession, use, storage, or disposal of nuclear materials; requiring the commission to make a certain determination before issuing such permits; requiring the commission to certify construction and significant design modifications of advanced nuclear reactors; requiring the commission to consider certain factors before issuing such certifications; requiring that the construction or significant design modification include certain control devices; authorizing the commission to issue a reciprocal permit or certification if certain conditions are met; providing penalties; requiring the commission, after

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consultation with the Department of Environmental Protection and the Department of Health, to adopt rules; providing requirements for such rules; amending s. 186.801, F.S.; revising the criteria the commission must consider in its preliminary study of electric utility 10-year site plans; amending s. 366.02, F.S.; revising the definition of the term "public utility"; amending s. 366.92, F.S.; revising legislative intent for the state's renewable energy policy; revising definitions; revising requirements for the development of certain standards by electric utilities; deleting such requirements for rural cooperatives; amending s. 377.601, F.S.; revising legislative intent for the state's energy policy; amending s. 403.506, F.S.; revising applicability of power plant capacity and expansion thresholds; amending s. 403.519, F.S.; revising the criteria the commission must consider in making determinations for proposed power plants; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Section 403.541, Florida Statutes, is created to read:

403.541 Advanced nuclear reactors.—

(1) As used in this section, the term:

(a) "Advanced nuclear reactor" means a nuclear fusion reactor, or a nuclear fission reactor that uses new or significantly improved designs compared to commercial nuclear

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reactors in operation as of January 1, 2021, including  
improvements such as:

1. Inherent or passive safety features;
2. Lower waste yields;
3. Improved fuel performance or efficiency;
4. Significantly improved designs, materials, fuels, or  
cooling systems;
5. Reduced consumption of cooling water and other  
environmental impacts; or
6. Flexibility in operational output or ability to  
integrate into electric or nonelectric applications.

(b) "Commission" means the Florida Public Service  
Commission.

(c) "Electrical power plant" has the same meaning as  
provided in s. 403.503.

(d) "Nuclear material" means byproduct material, source  
material, and special nuclear material as those terms are  
defined in s. 404.031.

(2)(a) The authority to regulate advanced nuclear reactors  
in this state is granted solely to the commission. At a minimum,  
the commission shall do all of the following:

1. Evaluate and approve designs for advanced nuclear  
reactors.
2. Issue permits for the possession, transportation,  
transfer, and use of nuclear materials in sufficient quantities  
to facilitate advanced nuclear reactor research, design,  
testing, construction, and operation.
3. Prescribe safety and construction standards for the use  
of nuclear materials in the development and operation of

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advanced nuclear reactors.

(b) The Department of Health may exercise its powers and duties granted under chapter 404 for the regulation of advanced nuclear reactors under this section. The Department of Health shall develop appropriate guidelines for nuclear facilities and advanced nuclear reactors to mitigate harm to human health resulting from radiological exposure.

(c) The Department of Environmental Protection may exercise its powers and duties granted under this chapter for the regulation of advanced nuclear reactors under this section. The Department of Environmental Protection shall develop appropriate guidelines for nuclear facilities and advanced nuclear reactors to mitigate environmental harm and promote the efficient and sustainable use of water and other natural resources.

(d) The commission, the Department of Health, and the Department of Environmental Protection shall jointly establish criteria for the certification of laboratories that perform analysis on nuclear materials for the purpose of researching, designing, testing, or otherwise developing technology for nuclear power plants under this section.

(3) A person, a corporation, or an entity may possess nuclear materials for, and in quantities sufficient to facilitate, the research, design, testing, construction, and operation of advanced nuclear reactors. However, except for active military personnel or contractors acting pursuant to a lawful military order, a person, a corporation, or an entity may not possess nuclear materials in quantities that pose a danger to national defense and security or public health and safety.

(4) (a) The operator of a facility conducting research and

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117 testing of advanced nuclear reactors must obtain a permit from  
118 the commission for the use and storage of nuclear materials to  
119 facilitate such research and testing.

120 (b) A person, a corporation, or an entity must obtain a  
121 permit from the commission for the transfer, receipt,  
122 possession, use, or disposal of nuclear materials relating to  
123 the operation of advanced nuclear reactors.

124 (c) Before issuing a permit under this subsection, the  
125 commission shall determine whether the facility or reactor is  
126 equipped with radiation control devices that will abate or  
127 prevent radiological contamination in compliance with the  
128 standards and rules established under this section.

129 (5) (a) The construction or significant design modification  
130 of an advanced nuclear reactor must be certified by the  
131 commission before such construction or modification may begin.

132 (b) Before issuing a certification under this subsection,  
133 the commission must, at a minimum, consider all of the  
134 following:

135 1. The extent to which the design will effectively mitigate  
136 and prevent danger to the public health and safety.

137 2. The compliance of the design with the safety standards  
138 prescribed by the commission.

139 3. The ability of the design to address known or reasonably  
140 foreseeable risks, including system failures, accidents, natural  
141 disasters, and extreme weather events.

142 4. The completeness and accuracy of engineering  
143 calculations and testing data for the design.

144 5. The ability of the design to promote the efficient and  
145 sustainable use of water and other natural resources.

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146       (c) The construction or significant design modification of  
147 an advanced nuclear reactor must include radiation control  
148 devices that will abate or prevent radiological contamination in  
149 compliance with the standards and rules established under this  
150 section.

151       (6) If an applicant has been issued a permit or  
152 certification from another state or a federal agency for the  
153 activities under this section, the commission may issue a  
154 reciprocal permit or certification if the safety standards of  
155 the other state or federal agency are no less stringent than the  
156 standards and rules established under this section.

157       (7) A person, a corporation, or an entity that violates  
158 this section or any rule adopted hereunder is subject to a civil  
159 penalty not to exceed \$100,000 for each violation for each day  
160 the violation persists, except that the maximum civil penalty  
161 may not exceed \$1 million for any related series of violations.

162       (8) The commission, after consultation with the Department  
163 of Health and the Department of Environmental Protection, shall  
164 adopt rules to implement this section. In developing such rules,  
165 the commission shall refer to part II of this chapter and the  
166 rules and regulations established thereunder.

167       Section 2. Present paragraph (j) of subsection (2) of  
168 section 186.801, Florida Statutes, is redesignated as paragraph  
169 (l), and a new paragraph (j) and paragraph (k) are added to that  
170 section, to read:

171       186.801 Ten-year site plans.—

172       (2) Within 9 months after the receipt of the proposed plan,  
173 the commission shall make a preliminary study of such plan and  
174 classify it as "suitable" or "unsuitable." The commission may

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175 suggest alternatives to the plan. All findings of the commission  
176 shall be made available to the Department of Environmental  
177 Protection for its consideration at any subsequent electrical  
178 power plant site certification proceedings. It is recognized  
179 that 10-year site plans submitted by an electric utility are  
180 tentative information for planning purposes only and may be  
181 amended at any time at the discretion of the utility upon  
182 written notification to the commission. A complete application  
183 for certification of an electrical power plant site under  
184 chapter 403, when such site is not designated in the current 10-  
185 year site plan of the applicant, shall constitute an amendment  
186 to the 10-year site plan. In its preliminary study of each 10-  
187 year site plan, the commission shall consider such plan as a  
188 planning document and shall review:

189 (j) The amount of nuclear energy resources the utility  
190 produces or purchases.

191 (k) The amount of nuclear energy resources the utility  
192 plans to produce or purchase over the 10-year planning horizon  
193 and the means by which the production or purchases will be  
194 achieved.

195 Section 3. Subsection (8) of section 366.02, Florida  
196 Statutes, is amended to read:

197 366.02 Definitions.—As used in this chapter:

198 (8) "Public utility" means every person, corporation,  
199 partnership, association, or other legal entity and their  
200 lessees, trustees, or receivers supplying electricity or gas  
201 (natural, manufactured, or similar gaseous substance) to or for  
202 the public within this state; but the term "public utility" does  
203 not include either a cooperative now or hereafter organized and

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existing under the Rural Electric Cooperative Law of the state;  
a municipality or any agency thereof; any entity other than an  
electric utility that produces electricity from an advanced  
nuclear reactor that is not interconnected to this state's  
electrical power grid for its own consumption or supplies such  
electricity for consumption by a single consumer; any dependent  
or independent special natural gas district; any natural gas  
transmission pipeline company making only sales or  
transportation delivery of natural gas at wholesale and to  
direct industrial consumers; any entity selling or arranging for  
sales of natural gas which neither owns nor operates natural gas  
transmission or distribution facilities within the state; or a  
person supplying liquefied petroleum gas, in either liquid or  
gaseous form, irrespective of the method of distribution or  
delivery, or owning or operating facilities beyond the outlet of  
a meter through which natural gas is supplied for compression  
and delivery into motor vehicle fuel tanks or other  
transportation containers, unless such person also supplies  
electricity or manufactured or natural gas.

Section 4. Subsections (1), (2), and (3) of section 366.92,  
Florida Statutes, are amended to read:

366.92 Florida renewable energy policy.—

(1) It is the intent of the Legislature to promote the  
development of clean ~~renewable~~ energy; protect the economic  
viability of Florida's existing clean ~~renewable~~ energy  
facilities; diversify the types of fuel used to generate  
electricity in Florida; lessen Florida's dependence on natural  
gas and fuel oil for the production of electricity; minimize the  
volatility of fuel costs; encourage investment within the state;



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improve environmental conditions; and, at the same time,  
minimize the costs of power supply to electric utilities and  
their customers.

(2) As used in this section, the term:

(a) "Clean energy" includes energy produced by advanced  
nuclear reactors as that term is defined in s. 403.541, and  
renewable energy and renewable natural gas as those terms are  
defined in s. 366.91.

(b)~~(a)~~ "Provider" means a "utility" as defined in s.  
366.8255(1) (a).

~~(b) "Renewable energy" includes renewable energy and  
renewable natural gas as those terms are defined in s.  
366.91(2).~~

(3) Each ~~municipal~~ electric utility ~~and rural electric  
cooperative~~ shall develop standards for the promotion,  
encouragement, and expansion of the use of clean ~~renewable~~  
energy resources and energy conservation and efficiency  
measures. On or before April 1, annually, each ~~municipal~~  
electric utility ~~and electric cooperative~~ shall submit to the  
commission a report that identifies such standards.

Section 5. Paragraph (m) is added to subsection (3) of  
section 377.601, Florida Statutes, to read:

377.601 Legislative intent.—

(3) In furtherance of the goals in subsection (2), it is  
the policy of the state to:

(m) Encourage the research, development, demonstration, and  
application of domestic advanced nuclear energy resources.

Section 6. Subsection (1) of section 403.506, Florida  
Statutes, is amended to read:

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403.506 Applicability, thresholds, and certification.—

(1)(a) ~~The provisions of This act applies shall apply to~~  
any electrical power plant as defined herein, except that ~~the~~  
~~provisions of this act does shall not apply to the following,~~  
unless the applicant has elected to apply for certification  
under this act:

1. Any electrical power plant of less than 75 megawatts in  
gross capacity, including its associated facilities, ~~unless the~~  
~~applicant has elected to apply for certification of such~~  
~~electrical power plant under this act.~~

2. ~~The provisions of this act shall not apply to~~ Capacity  
expansions of 75 megawatts or less, in the aggregate, of an  
existing exothermic reaction cogeneration electrical generating  
facility that was exempt from this act when it was originally  
built; however, this exemption shall not apply if the unit uses  
oil or natural gas for purposes other than unit startup.

3. Capacity expansions of 75 megawatts or less, in the  
aggregate, of one or more advanced nuclear reactors as defined  
in s. 403.541 installed within the boundaries of an electrical  
power plant site previously certified under this act.

4. One or more advanced nuclear reactors as defined in s.  
403.541 to be located within the boundaries of an electrical  
power plant site previously certified under this act, provided  
that:

a. The advanced nuclear reactor or reactors are intended to  
replace an existing electrical power plant located on the site.

b. The certificate holder intends to retire the existing  
electrical power plant from service.

c. The gross capacity of the advanced nuclear reactor or

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reactors, in the aggregate, does not exceed the gross capacity of the electrical power plant to be retired.

5. One or more advanced nuclear reactors as defined in s. 403.541 that are not interconnected to this state's electrical power grid and that are owned and operated by an entity other than an electric utility for purposes of producing power for its own consumption or for use by a single consumer of electrical power.

(b) ~~The~~ construction of any new electrical power plant or expansion in steam generating capacity as measured by an increase in the maximum electrical generator rating of any existing electrical power plant may not be undertaken after October 1, 1973, without first obtaining certification in the manner as herein provided, except that this act shall not apply to any such electrical power plant which is presently operating or under construction or which has, upon the effective date of chapter 73-33, Laws of Florida, applied for a permit or certification under requirements in force prior to the effective date of such act.

Section 7. Subsection (3) of section 403.519, Florida Statutes, is amended to read:

403.519 Exclusive forum for determination of need.—

(3) The commission shall be the sole forum for the determination of this matter, which accordingly may ~~shall~~ not be raised in any other forum or in the review of proceedings in such other forum. In making its determination, the commission shall take into account the need for electric system reliability and integrity, the need for adequate electricity at a reasonable cost, the need for fuel diversity and supply reliability,

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whether the proposed plant is the most cost-effective alternative available, and whether nuclear ~~renewable~~ energy resources ~~sources and technologies~~, as well as conservation measures, are used ~~utilized~~ to the extent reasonably available. The commission shall also expressly consider the conservation measures taken by or reasonably available to the applicant or its members which might mitigate the need for the proposed plant and other matters within its jurisdiction which it deems relevant. The commission's determination of need for an electrical power plant shall create a presumption of public need and necessity and shall serve as the commission's report required by s. 403.507(4). An order entered pursuant to this section constitutes final agency action.

Section 8. This act shall take effect July 1, 2026.