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HOUSE BILL NO. 746  
AMENDMENT IN THE NATURE OF A SUBSTITUTE  
(Proposed by the House Committee on Labor and Commerce  
on \_\_\_\_\_)  
(Patron Prior to Substitute--Delegate Webert)

A BILL to amend and reenact §§ 56-576 and 56-596.2 of the Code of Virginia, relating to energy efficiency programs; incremental annual savings.

**Be it enacted by the General Assembly of Virginia:**

**1. That §§ 56-576 and 56-596.2 of the Code of Virginia are amended and reenacted as follows:**

**§ 56-576. Definitions.**

As used in this chapter:

"Affiliate" means any person that controls, is controlled by, or is under common control with an electric utility.

"Aggregator" means a person that, as an agent or intermediary, (i) offers to purchase, or purchases, electric energy or (ii) offers to arrange for, or arranges for, the purchase of electric energy, for sale to, or on behalf of, two or more retail customers not controlled by or under common control with such person.

The following activities shall not, in and of themselves, make a person an aggregator under this chapter:

- (i) furnishing legal services to two or more retail customers, suppliers or aggregators;
- (ii) furnishing educational, informational, or analytical services to two or more retail customers, unless direct or indirect compensation for such services is paid by an aggregator or supplier of electric energy;
- (iii) furnishing educational, informational, or analytical services to two or more suppliers or aggregators;
- (iv) providing default service under § 56-585;
- (v) engaging in activities of a retail electric energy supplier, licensed pursuant to § 56-587, which are authorized by such supplier's license; and
- (vi) engaging in actions of a retail customer, in common with one or more other such retail customers, to issue a request for proposal or to negotiate a purchase of electric energy for consumption by such retail customers.

26 "Business park" means a land development containing a minimum of 100 contiguous acres  
27 classified as a Tier 4 site under the Virginia Economic Development Partnership's Business Ready Sites  
28 Program that is developed and constructed by a locality, an industrial development authority, or a similar  
29 political subdivision of the Commonwealth created pursuant to § 15.2-4903 or other act of the General  
30 Assembly, in order to promote business development.

31 "Combined heat and power" means a method of using waste heat from electrical generation to  
32 offset traditional processes, space heating, air conditioning, or refrigeration.

33 "Commission" means the State Corporation Commission.

34 "Community in which a majority of the population are people of color" means a U.S. Census tract  
35 where more than 50 percent of the population comprises individuals who identify as belonging to one or  
36 more of the following groups: Black, African American, Asian, Pacific Islander, Native American, other  
37 non-white race, mixed race, Hispanic, Latino, or linguistically isolated.

38 "Cooperative" means a utility formed under or subject to Chapter 9.1 (§ 56-231.15 et seq.).

39 "Covered entity" means a provider in the Commonwealth of an electric service not subject to  
40 competition but does not include default service providers.

41 "Covered transaction" means an acquisition, merger, or consolidation of, or other transaction  
42 involving stock, securities, voting interests or assets by which one or more persons obtains control of a  
43 covered entity.

44 "Curtailment" means inducing retail customers to reduce load during times of peak demand so as  
45 to ease the burden on the electrical grid.

46 "Customer choice" means the opportunity for a retail customer in the Commonwealth to purchase  
47 electric energy from any supplier licensed and seeking to sell electric energy to that customer.

48 "Demand response" means measures aimed at shifting time of use of electricity from peak-use  
49 periods to times of lower demand by inducing retail customers to curtail electricity usage during periods  
50 of congestion and higher prices in the electrical grid.

51 "Distribute," "distributing," or "distribution of" electric energy means the transfer of electric  
52 energy through a retail distribution system to a retail customer.

53 "Distributor" means a person owning, controlling, or operating a retail distribution system to  
54 provide electric energy directly to retail customers.

55 "Electric distribution grid transformation project" means a project associated with electric  
56 distribution infrastructure, including related data analytics equipment, that is designed to accommodate or  
57 facilitate the integration of utility-owned or customer-owned renewable electric generation resources with  
58 the utility's electric distribution grid or to otherwise enhance electric distribution grid reliability, electric  
59 distribution grid security, customer service, or energy efficiency and conservation, including advanced  
60 metering infrastructure; intelligent grid devices for real time system and asset information; automated  
61 control systems for electric distribution circuits and substations; communications networks for service  
62 meters; intelligent grid devices and other distribution equipment; distribution system hardening projects  
63 for circuits, other than the conversion of overhead tap lines to underground service, and substations  
64 designed to reduce service outages or service restoration times; physical security measures at key  
65 distribution substations; cyber security measures; energy storage systems and microgrids that support  
66 circuit-level grid stability, power quality, reliability, or resiliency or provide temporary backup energy  
67 supply; electrical facilities and infrastructure necessary to support electric vehicle charging systems; LED  
68 street light conversions; and new customer information platforms designed to provide improved customer  
69 access, greater service options, and expanded access to energy usage information.

70 "Electric utility" means any person that generates, transmits, or distributes electric energy for use  
71 by retail customers in the Commonwealth, including any investor-owned electric utility, cooperative  
72 electric utility, or electric utility owned or operated by a municipality.

73 "Energy efficiency program" means a program that reduces the total amount of electricity that is  
74 required for the same process or activity implemented after the expiration of capped rates. Energy  
75 efficiency programs include equipment, physical, or program change designed to produce measured and  
76 verified reductions in the amount of electricity required to perform the same function and produce the  
77 same or a similar outcome. Energy efficiency programs may include, but are not limited to, (i) programs  
78 that result in improvements in lighting design, heating, ventilation, and air conditioning systems,  
79 appliances, building envelopes, and industrial and commercial processes; (ii) measures, such as but not

80 limited to the installation of advanced meters, implemented or installed by utilities, that reduce fuel use or  
81 losses of electricity and otherwise improve internal operating efficiency in generation, transmission, and  
82 distribution systems; and (iii) customer engagement programs that result in measurable and verifiable  
83 energy savings that lead to efficient use patterns and practices. Energy efficiency programs include  
84 demand response, combined heat and power and waste heat recovery, curtailment, or other programs that  
85 are designed to reduce electricity consumption so long as they reduce the total amount of electricity that  
86 is required for the same process or activity. Utilities shall be authorized to install and operate such  
87 advanced metering technology and equipment on a customer's premises; however, nothing in this chapter  
88 establishes a requirement that an energy efficiency program be implemented on a customer's premises and  
89 be connected to a customer's wiring on the customer's side of the inter-connection without the customer's  
90 expressed consent.

91 "Generate," "generating," or "generation of" electric energy means the production of electric  
92 energy.

93 "Generator" means a person owning, controlling, or operating a facility that produces electric  
94 energy for sale.

95 "Historically economically disadvantaged community" means (i) a community in which a majority  
96 of the population are people of color or (ii) a low-income geographic area.

97 "Incremental annual savings" means the total combined kilowatt-hour savings achieved by electric  
98 utility energy efficiency and demand response programs and measures in the program year in which they  
99 are installed.

100 "Incumbent electric utility" means each electric utility in the Commonwealth that, prior to July 1,  
101 1999, supplied electric energy to retail customers located in an exclusive service territory established by  
102 the Commission.

103 "Independent system operator" means a person that may receive or has received, by transfer  
104 pursuant to this chapter, any ownership or control of, or any responsibility to operate, all or part of the  
105 transmission systems in the Commonwealth.

106 "In the public interest," for purposes of assessing energy efficiency programs prior to the 2029  
107 program year, describes an energy efficiency program if the Commission determines that the net present  
108 value of the benefits exceeds the net present value of the costs as determined by not less than any three of  
109 the following four tests: (i) the Total Resource Cost Test; (ii) the Utility Cost Test (also referred to as the  
110 Program Administrator Test); (iii) the Participant Test; and (iv) the Ratepayer Impact Measure Test. Such  
111 determination shall include an analysis of all four tests, and a program or portfolio of programs shall be  
112 approved if the net present value of the benefits exceeds the net present value of the costs as determined  
113 by not less than any three of the four tests. For programs proposed for the 2029 program year and all  
114 subsequent years, the Commission shall establish targets pursuant to subdivision B 4 of § 56-596.2, and a  
115 program shall be approved if the Commission determines it is cost-effective pursuant to applicable  
116 Commission regulations. If the Commission determines that an energy efficiency program or portfolio of  
117 programs is not in the public interest, its final order shall include all work product and analysis conducted  
118 by the Commission's staff in relation to that program, including testimony relied upon by the  
119 Commission's staff, that has bearing upon the Commission's decision. If the Commission reduces the  
120 proposed budget for a program or portfolio of programs, its final order shall include an analysis of the  
121 impact such budget reduction has upon the cost-effectiveness of such program or portfolio of programs.  
122 An order by the Commission (a) finding that a program or portfolio of programs is not in the public interest  
123 or (b) reducing the proposed budget for any program or portfolio of programs shall adhere to existing  
124 protocols for extraordinarily sensitive information. In addition, an energy efficiency program may be  
125 deemed to be "in the public interest" if the program (1) provides measurable and verifiable energy savings  
126 to low-income customers or elderly customers or (2) is a pilot program of limited scope, cost, and duration,  
127 that is intended to determine whether a new or substantially revised program or technology would be cost-  
128 effective.

129 "Low-income geographic area" means any locality, or community within a locality, that has a  
130 median household income that is not greater than 80 percent of the local median household income, or  
131 any area in the Commonwealth designated as a qualified opportunity zone by the U.S. Secretary of the  
132 Treasury via his delegation of authority to the Internal Revenue Service.

133 "Low-income utility customer" means any person or household whose income is no more than 80  
134 percent of the median income of the locality in which the customer resides. The median income of the  
135 locality is determined by the U.S. Department of Housing and Urban Development.

136 "Measured and verified" means a process determined pursuant to methods accepted for use by  
137 utilities and industries to measure, verify, and validate energy savings and peak demand savings. This may  
138 include the protocol established by the United States Department of Energy, Office of Federal Energy  
139 Management Programs, Measurement and Verification Guidance for Federal Energy Projects,  
140 measurement and verification standards developed by the American Society of Heating, Refrigeration and  
141 Air Conditioning Engineers (ASHRAE), or engineering-based estimates of energy and demand savings  
142 associated with specific energy efficiency measures, as determined by the Commission.

143 "Municipality" means a city, county, town, authority, or other political subdivision of the  
144 Commonwealth.

145 "New underground facilities" means facilities to provide underground distribution service. "New  
146 underground facilities" includes underground cables with voltages of 69 kilovolts or less, pad-mounted  
147 devices, connections at customer meters, and transition terminations from existing overhead distribution  
148 sources.

149 "Peak-shaving" means measures aimed solely at shifting time of use of electricity from peak-use  
150 periods to times of lower demand by inducing retail customers to curtail electricity usage during periods  
151 of congestion and higher prices in the electrical grid.

152 "Percentage of Income Payment Program (PIPP) eligible utility customer" means any person or  
153 household whose income does not exceed 150 percent of the federal poverty level.

154 "Person" means any individual, corporation, partnership, association, company, business, trust,  
155 joint venture, or other private legal entity, and the Commonwealth or any municipality.

156 "Previously developed project site" means any property, including related buffer areas, if any, that  
157 has been previously disturbed or developed for non-single-family residential, non-agricultural, or non-  
158 silvicultural use, regardless of whether such property currently is being used for any purpose.

159 "Previously developed project site" includes a brownfield as defined in § 10.1-1230 or any parcel  
160 that has been previously used (i) for a retail, commercial, or industrial purpose; (ii) as a parking lot; (iii)  
161 as the site of a parking lot canopy or structure; (iv) for mining, which is any lands affected by coal mining  
162 that took place before August 3, 1977, or any lands upon which extraction activities have been permitted  
163 by the Department of Energy under Title 45.2; (v) for quarrying; or (vi) as a landfill.

164 "Qualified waste heat resource" means (i) exhaust heat or flared gas from an industrial process that  
165 does not have, as its primary purpose, the production of electricity and (ii) a pressure drop in any gas for  
166 an industrial or commercial process.

167 "Renewable energy" means energy derived from sunlight, wind, falling water, biomass,  
168 sustainable or otherwise, (the definitions of which shall be liberally construed), energy from waste, landfill  
169 gas, municipal solid waste, wave motion, tides, and geothermal power, and does not include energy  
170 derived from coal, oil, natural gas, or nuclear power. "Renewable energy" also includes the proportion of  
171 the thermal or electric energy from a facility that results from the co-firing of biomass. "Renewable  
172 energy" does not include waste heat from fossil-fired facilities or electricity generated from pumped  
173 storage but includes run-of-river generation from a combined pumped-storage and run-of-river facility.

174 "Renewable thermal energy" means the thermal energy output from (i) a renewable-fueled  
175 combined heat and power generation facility that is (a) constructed, or renovated and improved, after  
176 January 1, 2012, (b) located in the Commonwealth, and (c) utilized in industrial processes other than the  
177 combined heat and power generation facility or (ii) a solar energy system, certified to the OG-100 standard  
178 of the Solar Ratings and Certification Corporation or an equivalent certification body, that (a) is  
179 constructed, or renovated and improved, after January 1, 2013, (b) is located in the Commonwealth, and  
180 (c) heats water or air for residential, commercial, institutional, or industrial purposes.

181 "Renewable thermal energy equivalent" means the electrical equivalent in megawatt hours of  
182 renewable thermal energy calculated by dividing (i) the heat content, measured in British thermal units  
183 (BTUs), of the renewable thermal energy at the point of transfer to a residential, commercial, institutional,  
184 or industrial process by (ii) the standard conversion factor of 3.413 million BTUs per megawatt hour.

185 "Renovated and improved facility" means a facility the components of which have been upgraded  
186 to enhance its operating efficiency.

187 "Retail customer" means any person that purchases retail electric energy for its own consumption  
188 at one or more metering points or nonmetered points of delivery located in the Commonwealth.

189 "Retail electric energy" means electric energy sold for ultimate consumption to a retail customer.

190 "Revenue reductions related to energy efficiency programs" means reductions in the collection of  
191 total non-fuel revenues, previously authorized by the Commission to be recovered from customers by a  
192 utility, that occur due to measured and verified decreased consumption of electricity caused by energy  
193 efficiency programs approved by the Commission and implemented by the utility, less the amount by  
194 which such non-fuel reductions in total revenues have been mitigated through other program-related  
195 factors, including reductions in variable operating expenses.

196 "Rooftop solar installation" means a distributed electric generation facility, storage facility, or  
197 generation and storage facility utilizing energy derived from sunlight, with a rated capacity of not less  
198 than 50 kilowatts, that is installed on the roof structure of an incumbent electric utility's commercial or  
199 industrial class customer, including host sites on commercial buildings, multifamily residential buildings,  
200 school or university buildings, and buildings of a church or religious body.

201 "Solar energy system" means a system of components that produces heat or electricity, or both,  
202 from sunlight.

203 "Supplier" means any generator, distributor, aggregator, broker, marketer, or other person who  
204 offers to sell or sells electric energy to retail customers and is licensed by the Commission to do so, but it  
205 does not mean a generator that produces electric energy exclusively for its own consumption or the  
206 consumption of an affiliate.

207 "Supply" or "supplying" electric energy means the sale of or the offer to sell electric energy to a  
208 retail customer.

209 "Total annual energy savings" means (i) the total combined kilowatt-hour savings achieved by  
210 electric utility energy efficiency and demand response programs and measures installed in that program  
211 year, as well as savings still being achieved by measures and programs implemented in prior years, or (ii)



212 savings attributable to newly installed combined heat and power facilities, including waste heat-to-power  
213 facilities, and any associated reduction in transmission line losses, provided that biomass is not a fuel and  
214 the total efficiency, including the use of thermal energy, for eligible combined heat and power facilities  
215 must meet or exceed 65 percent and have a nameplate capacity rating of less than 25 megawatts.

216 "Transmission of," "transmit," or "transmitting" electric energy means the transfer of electric  
217 energy through the Commonwealth's interconnected transmission grid from a generator to either a  
218 distributor or a retail customer.

219 "Transmission system" means those facilities and equipment that are required to provide for the  
220 transmission of electric energy.

221 "Waste heat to power" means a system that generates electricity through the recovery of a qualified  
222 waste heat resource.

223 **§ 56-596.2. Energy efficiency policy and programs; financial assistance for low-income**  
224 **customers.**

225 A. Notwithstanding subsection G of § 56-580, or any other provision of law, each incumbent  
226 investor-owned electric utility shall develop proposed energy efficiency programs. Any program shall  
227 provide for the submission of a petition or petitions for approval to design, implement, and operate energy  
228 efficiency programs pursuant to subdivision A 5 c of § 56-585.1. At least 15 percent of such proposed  
229 costs of energy efficiency programs shall be allocated to programs designed to benefit low-income,  
230 elderly, or disabled individuals or veterans.

231 B. Notwithstanding any other provision of law, each investor-owned incumbent electric utility  
232 shall implement energy efficiency programs and measures to achieve the following total annual energy  
233 savings:

- 234 1. For Phase I electric utilities:
  - 235 a. In calendar year 2022, at least 0.5 percent of the average annual energy jurisdictional retail sales
  - 236 by that utility in 2019;
  - 237 b. In calendar year 2023, at least 1.0 percent of the average annual energy jurisdictional retail sales
  - 238 by that utility in 2019;

239 c. In calendar year 2024, at least 1.5 percent of the average annual energy jurisdictional retail sales  
240 by that utility in 2019; and

241 d. In calendar year 2025, at least 2.0 percent of the average annual energy jurisdictional retail sales  
242 by that utility in 2019;

243 2. For Phase II electric utilities:

244 a. In calendar year 2022, at least 1.25 percent of the average annual energy jurisdictional retail  
245 sales by that utility in 2019;

246 b. In calendar year 2023, at least 2.5 percent of the average annual energy jurisdictional retail sales  
247 by that utility in 2019;

248 c. In calendar year 2024, at least 3.75 percent of the average annual energy jurisdictional retail  
249 sales by that utility in 2019; and

250 d. In calendar year 2025, at least 5.0 percent of the average annual energy jurisdictional retail sales  
251 by that utility in 2019; and

252 3. For the time period 2026 through 2028, the Commission shall, after notice and hearing, establish  
253 new energy efficiency savings targets measured as a percentage of the average annual energy jurisdictional  
254 retail sales by that utility in 2019.

255 4. For the time period 2029 through 2031, and for every successive three-year period thereafter,  
256 the Commission shall establish new energy efficiency savings targets measured as a percentage of the  
257 average annual energy jurisdictional retail sales by that utility in 2019, which shall be the greatest level of  
258 energy savings that the Commission finds is feasible and cost-effective pursuant to the Commission's cost-  
259 effectiveness test regulations. To assist the Commission in setting such targets, the Commission shall  
260 retain a qualified expert, compensated pursuant to subdivision E of § 56-592.1, to independently conduct  
261 an energy efficiency potential study for each Phase I and Phase II Utility's service territory, and each such  
262 utility shall provide to the Commission and its expert any information necessary to complete such study  
263 if such information is reasonably available. For every subsequent three-year period, the Commission shall  
264 retain an expert, compensated pursuant to subdivision E of § 56-592.1, to update the energy efficiency  
265 potential study for each Phase I and Phase II Utility's service territory. In advance of the effective date of

266 such targets, the Commission shall, after notice and opportunity for hearing, initiate proceedings to  
267 establish such targets. As part of such proceeding, the Commission shall consider the feasibility of  
268 achieving energy efficiency goals and future energy efficiency savings through cost-effective programs  
269 and measures. ~~The Commission shall annually review the feasibility of the energy efficiency program~~  
270 ~~savings in this section and report to the Chairs of the House Committee on Labor and Commerce and the~~  
271 ~~Senate Committee on Commerce and Labor and the Secretary of Natural and Historic Resources and the~~  
272 ~~Secretary of Commerce and Trade on such feasibility by October 1, 2022, and each year thereafter.~~

273 C. The projected costs for the utility to design, implement, and operate such energy efficiency  
274 programs and portfolios of programs shall be no less than an aggregate amount of \$140 million for a Phase  
275 I Utility and \$870 million for a Phase II Utility for the period beginning July 1, 2018, and ending July 1,  
276 2028, including any existing approved energy efficiency programs. In developing such portfolio of energy  
277 efficiency programs and portfolios of programs, each utility shall utilize a stakeholder process, to be  
278 facilitated by an independent monitor compensated under the funding provided pursuant to subsection E  
279 of § 56-592.1, to provide input and feedback on (i) the development of such energy efficiency programs  
280 and portfolios of programs; (ii) compliance with the total annual energy savings set forth in this subsection  
281 and how such savings affect utility integrated resource plans; (iii) recommended policy reforms by which  
282 the General Assembly or the Commission can ensure maximum and cost-effective deployment of energy  
283 efficiency technology across the Commonwealth; and (iv) best practices for evaluation, measurement, and  
284 verification for the purposes of assessing compliance with the total annual energy savings set forth in  
285 subsection B. Utilities shall utilize the services of a third party to perform evaluation, measurement, and  
286 verification services to determine a utility's total annual savings as required by this subsection, as well as  
287 the annual and lifecycle net and gross energy and capacity savings, related emissions reductions, and other  
288 quantifiable benefits of each program; total customer bill savings that the programs and portfolios  
289 produce; and utility spending on each program, including any associated administrative costs. The third-  
290 party evaluator shall include and review each utility's avoided costs and cost-benefit analyses. The findings  
291 and reports of such third parties shall be concurrently provided to both the Commission and the utility,  
292 and the Commission shall make each such final annual report easily and publicly accessible online. Such

293 stakeholder process shall include the participation of representatives from each utility, relevant directors,  
294 deputy directors, and staff members of the Commission who participate in approval and oversight of utility  
295 energy efficiency savings programs, the office of Consumer Counsel of the Attorney General, the  
296 Department of Energy, energy efficiency program implementers, energy efficiency providers, residential  
297 and small business customers, and any other interested stakeholder whom the independent monitor deems  
298 appropriate for inclusion in such process. The independent monitor shall convene meetings of the  
299 participants in the stakeholder process not less frequently than twice in each calendar year during the  
300 period beginning July 1, 2019, and ending July 1, 2028. The independent monitor shall report on the status  
301 of the energy efficiency stakeholder process, including (a) the objectives established by the stakeholder  
302 group during this process related to programs to be proposed, (b) recommendations related to programs  
303 to be proposed that result from the stakeholder process, and (c) the status of those recommendations, in  
304 addition to the petitions filed and the determination thereon, to the Governor, the Commission, and the  
305 Chairmen of the House Committee on Labor and Commerce and the Senate Committee on Commerce and  
306 Labor on July 1, 2019, and annually thereafter through July 1, 2028.

307 D. Nothing in this section shall apply to any entity organized under Chapter 9.1 (§ 56-231.15 et  
308 seq.).

309 **2. That, no later than September 30, 2025, the State Corporation Commission (the Commission)**  
310 **shall promulgate regulations establishing a single, consistent cost-effectiveness test for use in**  
311 **evaluating proposed energy efficiency programs. In developing this test, the Commission shall (i)**  
312 **use the cost-benefit analysis framework and process contained in the National Energy Screening**  
313 **Project's National Standard Practice Manual for Benefit-Cost Analysis of Distributed Energy**  
314 **Resources; (ii) utilize a stakeholder process to develop such regulations, facilitated by an**  
315 **independent monitor with technical assistance provided by a group with experience in the process**  
316 **set forth in the National Practice Manual for Assessing Cost-Effectiveness of Distributed Energy**  
317 **Resources, compensated under the funding provided pursuant to subdivision E of § 56-592.1 of the**  
318 **Code of Virginia; and (iii) design such regulations to further the Commonwealth's energy policy**

319 requirements and goals, including furthering compliance with the standards set forth under § 56-  
320 596.2 of the Code of Virginia, as amended by this act.

321 3. That each Phase I and Phase II Utility, as those terms are defined in subdivision A 1 of § 56-585.1  
322 of the Code of Virginia, shall track, quantify, and report to the State Corporation Commission the  
323 incremental annual savings, as defined in § 56-576 of the Code of Virginia, as amended by this act,  
324 achieved by such utility's energy efficiency programs in such utility's annual evaluation,  
325 measurement, and verification reports.

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