

23106695D

HOUSE BILL NO. 2026

AMENDMENT IN THE NATURE OF A SUBSTITUTE
(Proposed by the Senate Committee on Commerce and Labor
on February 13, 2023)

(Patron Prior to Substitute—Delegate O'Quinn)

A *BILL to amend and reenact § 56-585.5 of the Code of Virginia, relating to renewable energy; biomass-fired facilities; Department of Forestry advisory panel; report.*

Be it enacted by the General Assembly of Virginia:

1. That § 56-585.5 of the Code of Virginia is amended and reenacted as follows:

§ 56-585.5. Generation of electricity from renewable and zero carbon sources.

A. As used in this section:

"Accelerated renewable energy buyer" means a commercial or industrial customer of a Phase I or Phase II Utility, irrespective of generation supplier, with an aggregate load over 25 megawatts in the prior calendar year, that enters into arrangements pursuant to subsection G, as certified by the Commission.

"Aggregate load" means the combined electrical load associated with selected accounts of an accelerated renewable energy buyer with the same legal entity name as, or in the names of affiliated entities that control, are controlled by, or are under common control of, such legal entity or are the names of affiliated entities under a common parent.

"Control" has the same meaning as provided in § 56-585.1:11.

"Falling water" means hydroelectric resources, including run-of-river generation from a combined pumped-storage and run-of-river facility. "Falling water" does not include electricity generated from pumped-storage facilities.

"Low-income qualifying projects" means a project that provides a minimum of 50 percent of the respective electric output to low-income utility customers as that term is defined in § 56-576.

"Phase I Utility" has the same meaning as provided in subdivision A 1 of § 56-585.1.

"Phase II Utility" has the same meaning as provided in subdivision A 1 of § 56-585.1.

"Previously developed project site" means any property, including related buffer areas, if any, that has been previously disturbed or developed for non-single-family residential, nonagricultural, or nonsilvicultural use, regardless of whether such property currently is being used for any purpose. "Previously developed project site" includes a brownfield as defined in § 10.1-1230 or any parcel that has been previously used (i) for a retail, commercial, or industrial purpose; (ii) as a parking lot; (iii) as the site of a parking lot canopy or structure; (iv) for mining, which is any lands affected by coal mining that took place before August 3, 1977, or any lands upon which extraction activities have been permitted by the Department of Energy under Title 45.2; (v) for quarrying; or (vi) as a landfill.

"Total electric energy" means total electric energy sold to retail customers in the Commonwealth service territory of a Phase I or Phase II Utility, other than accelerated renewable energy buyers, by the incumbent electric utility or other retail supplier of electric energy in the previous calendar year, excluding an amount equivalent to the annual percentages of the electric energy that was supplied to such customer from nuclear generating plants located within the Commonwealth in the previous calendar year, provided such nuclear units were operating by July 1, 2020, or from any zero-carbon electric generating facilities not otherwise RPS eligible sources and placed into service in the Commonwealth after July 1, 2030.

"Zero-carbon electricity" means electricity generated by any generating unit that does not emit carbon dioxide as a by-product of combusting fuel to generate electricity.

B. 1. By December 31, 2024, except for any coal-fired electric generating units (i) jointly owned with a cooperative utility or (ii) owned and operated by a Phase II Utility located in the coalfield region of the Commonwealth that co-fires with biomass, any Phase I and Phase II Utility shall retire all generating units principally fueled by oil with a rated capacity in excess of 500 megawatts and all coal-fired electric generating units operating in the Commonwealth.

2. By December 31, 2028, each Phase I and II Utility shall retire all biomass-fired electric generating units that do not co-fire with coal.

3. By December 31, 2045, except for biomass-fired electric generating units that do not co-fire with coal, each Phase I and II Utility shall retire all other electric generating units located in the Commonwealth that emit carbon as a by-product of combusting fuel to generate electricity.

4. 3. A Phase I or Phase II Utility may petition the Commission for relief from the requirements of this subsection on the basis that the requirement would threaten the reliability or security of electric service to customers. The Commission shall consider in-state and regional transmission entity resources and shall evaluate the reliability of each proposed retirement on a case-by-case basis in ruling upon any

60 such petition.

61 C. Each Phase I and Phase II Utility shall participate in a renewable energy portfolio standard
 62 program (RPS Program) that establishes annual goals for the sale of renewable energy to all retail
 63 customers in the utility's service territory, other than accelerated renewable energy buyers pursuant to
 64 subsection G, regardless of whether such customers purchase electric supply service from the utility or
 65 from suppliers other than the utility. To comply with the RPS Program, each Phase I and Phase II
 66 Utility shall procure and retire Renewable Energy Certificates (RECs) originating from renewable energy
 67 standard eligible sources (RPS eligible sources). For purposes of complying with the RPS Program from
 68 2021 to 2024, a Phase I and Phase II Utility may use RECs from any renewable energy facility, as
 69 defined in § 56-576, provided that such facilities are located in the Commonwealth or are physically
 70 located within the PJM Interconnection, LLC (PJM) region. However, at no time during this period or
 71 thereafter may any Phase I or Phase II Utility use RECs from (i) renewable thermal energy, (ii)
 72 renewable thermal energy equivalent, *or* (iii) biomass-fired facilities that are outside the Commonwealth,
 73 *or* (iv) ~~biomass-fired facilities operating in the Commonwealth as of January 1, 2020, that supply 10~~
 74 ~~percent or more of their annual net electrical generation to the electric grid or more than 15 percent of~~
 75 ~~their annual total useful energy to any entity other than the manufacturing facility to which the~~
 76 ~~generating source is interconnected.~~ From compliance year 2025 and all years after, each Phase I and
 77 Phase II Utility may only use RECs from RPS eligible sources for compliance with the RPS Program.

78 In order to qualify as RPS eligible sources, such sources must be (a) electric-generating resources
 79 that generate electric energy derived from solar or wind located in the Commonwealth or off the
 80 Commonwealth's Atlantic shoreline or in federal waters and interconnected directly into the
 81 Commonwealth or physically located within the PJM region; (b) falling water resources located in the
 82 Commonwealth or physically located within the PJM region that were in operation as of January 1,
 83 2020, that are owned by a Phase I or Phase II Utility or for which a Phase I or Phase II Utility has
 84 entered into a contract prior to January 1, 2020, to purchase the energy, capacity, and renewable
 85 attributes of such falling water resources; (c) non-utility-owned resources from falling water that (1) are
 86 less than 65 megawatts, (2) began commercial operation after December 31, 1979, or (3) added
 87 incremental generation representing greater than 50 percent of the original nameplate capacity after
 88 December 31, 1979, provided that such resources are located in the Commonwealth or are physically
 89 located within the PJM region; (d) waste-to-energy or landfill gas-fired generating resources located in
 90 the Commonwealth and in operation as of January 1, 2020, provided that such resources do not use
 91 waste heat from fossil fuel combustion ~~or forest or woody biomass as fuel~~; *or* (e) biomass-fired facilities
 92 in operation in the Commonwealth and in operation as of January 1, ~~2020~~ 2023, that (1) supply no more
 93 than 10 percent of their annual net electrical generation to the electric grid or no more than 15 percent
 94 of their annual total useful energy to any entity other than the manufacturing facility to which the
 95 generating source is interconnected *and are fueled by forest-product manufacturing residuals, including*
 96 *pulping liquor, bark, paper recycling residuals, biowastes, or biomass, as described in subdivisions A 1,*
 97 *2, and 4 of § 10.1-1308.1, provided that biomass as described in subdivision A 1 of § 10.1-1308.1*
 98 *results from harvesting in accordance with best management practices for the sustainable harvesting of*
 99 *biomass developed and enforced by the State Forester pursuant to § 10.1-1105, or (2) are owned by a*
 100 *Phase I or Phase II Utility, have less than 52 megawatts capacity, and are fueled by forest-product*
 101 *manufacturing residuals, biowastes, or biomass, as described in subdivisions A 1, 2, and 4 of*
 102 *§ 10.1-1308.1, provided that biomass as described in subdivision A 1 of § 10.1-1308.1 results from*
 103 *harvesting in accordance with best management practices for the sustainable harvesting of biomass*
 104 *developed and enforced by the State Forester pursuant to § 10.1-1105. Regardless of any future*
 105 *maintenance, expansion, or refurbishment activities, the total amount of RECs that may be sold by any*
 106 *RPS eligible source using biomass in any year shall be no more than the number of megawatt hours of*
 107 *electricity produced by that facility in 2019 2022; however, in no year may any RPS eligible source*
 108 *using biomass sell RECs in excess of the actual megawatt-hours of electricity generated by such facility*
 109 *that year. In order to comply with the RPS Program, each Phase I and Phase II Utility may use and*
 110 *retire the environmental attributes associated with any existing owned or contracted solar, wind, or*
 111 *falling water, or biomass electric generating resources in operation, or proposed for operation, in the*
 112 *Commonwealth or solar, wind, or falling water resources physically located within the PJM region, with*
 113 *such resource qualifying as a Commonwealth-located resource for purposes of this subsection, as of*
 114 *January 1, 2020, provided that such renewable attributes are verified as RECs consistent with the*
 115 *PJM-EIS Generation Attribute Tracking System.*

116 The RPS Program requirements shall be a percentage of the total electric energy sold in the previous
 117 calendar year and shall be implemented in accordance with the following schedule:

118 Phase I Utilities

Phase II Utilities

119
120 Year

RPS Program Requirement

Year

RPS Program
Requirement

121

| | | | | |
|-----|---------------------|------|---------------------|------|
| 122 | 2021 | 6% | 2021 | 14% |
| 123 | 2022 | 7% | 2022 | 17% |
| 124 | 2023 | 8% | 2023 | 20% |
| 125 | 2024 | 10% | 2024 | 23% |
| 126 | 2025 | 14% | 2025 | 26% |
| 127 | 2026 | 17% | 2026 | 29% |
| 128 | 2027 | 20% | 2027 | 32% |
| 129 | 2028 | 24% | 2028 | 35% |
| 130 | 2029 | 27% | 2029 | 38% |
| 131 | 2030 | 30% | 2030 | 41% |
| 132 | 2031 | 33% | 2031 | 45% |
| 133 | 2032 | 36% | 2032 | 49% |
| 134 | 2033 | 39% | 2033 | 52% |
| 135 | 2034 | 42% | 2034 | 55% |
| 136 | 2035 | 45% | 2035 | 59% |
| 137 | 2036 | 53% | 2036 | 63% |
| 138 | 2037 | 53% | 2037 | 67% |
| 139 | 2038 | 57% | 2038 | 71% |
| 140 | 2039 | 61% | 2039 | 75% |
| 141 | 2040 | 65% | 2040 | 79% |
| 142 | 2041 | 68% | 2041 | 83% |
| 143 | 2042 | 71% | 2042 | 87% |
| 144 | 2043 | 74% | 2043 | 91% |
| 145 | 2044 | 77% | 2044 | 95% |
| 146 | 2045 | 80% | 2045 and thereafter | 100% |
| 147 | 2046 | 84% | | |
| 148 | 2047 | 88% | | |
| 149 | 2048 | 92% | | |
| 150 | 2049 | 96% | | |
| 151 | 2050 and thereafter | 100% | | |

152 A Phase II Utility shall meet one percent of the RPS Program requirements in any given compliance
 153 year with solar, wind, or anaerobic digestion resources of one megawatt or less located in the
 154 Commonwealth, with not more than 3,000 kilowatts at any single location or at contiguous locations
 155 owned by the same entity or affiliated entities and, to the extent that low-income qualifying projects are
 156 available, then no less than 25 percent of such one percent shall be composed of low-income qualifying
 157 projects.

158 Beginning with the 2025 compliance year and thereafter, at least 75 percent of all RECs used by a
 159 Phase II Utility in a compliance period shall come from RPS eligible resources located in the
 160 Commonwealth.

161 Any Phase I or Phase II Utility may apply renewable energy sales achieved or RECs acquired in
 162 excess of the sales requirement for that RPS Program to the sales requirements for RPS Program
 163 requirements in the year in which it was generated and the five calendar years after the renewable
 164 energy was generated or the RECs were created. To the extent that a Phase I or Phase II Utility
 165 procures RECs for RPS Program compliance from resources the utility does not own, the utility shall be
 166 entitled to recover the costs of such certificates at its election pursuant to § 56-249.6 or subdivision A 5
 167 d of § 56-585.1.

168 D. Each Phase I or Phase II Utility shall petition the Commission for necessary approvals to procure
 169 zero-carbon electricity generating capacity as set forth in this subsection and energy storage resources as
 170 set forth in subsection E. To the extent that a Phase I or Phase II Utility constructs or acquires new
 171 zero-carbon generating facilities or energy storage resources, the utility shall petition the Commission for
 172 the recovery of the costs of such facilities, at the utility's election, either through its rates for generation
 173 and distribution services or through a rate adjustment clause pursuant to subdivision A 6 of § 56-585.1.
 174 All costs not sought for recovery through a rate adjustment clause pursuant to subdivision A 6 of
 175 § 56-585.1 associated with generating facilities provided by sunlight or onshore or offshore wind are
 176 also eligible to be applied by the utility as a customer credit reinvestment offset as provided in
 177 subdivision A 8 of § 56-585.1. Costs associated with the purchase of energy, capacity, or environmental
 178 attributes from facilities owned by the persons other than the utility required by this subsection shall be
 179 recovered by the utility either through its rates for generation and distribution services or pursuant to
 180 § 56-249.6.

181 1. Each Phase I Utility shall petition the Commission for necessary approvals to construct, acquire,
 182 or enter into agreements to purchase the energy, capacity, and environmental attributes of 600 megawatts
 183 of generating capacity using energy derived from sunlight or onshore wind.

184 a. By December 31, 2023, each Phase I Utility shall petition the Commission for necessary approvals
 185 to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental

186 attributes of at least 200 megawatts of generating capacity located in the Commonwealth using energy
187 derived from sunlight or onshore wind, and 35 percent of such generating capacity procured shall be
188 from the purchase of energy, capacity, and environmental attributes from solar or onshore wind facilities
189 owned by persons other than the utility, with the remainder, in the aggregate, being from construction or
190 acquisition by such Phase I Utility.

191 b. By December 31, 2027, each Phase I Utility shall petition the Commission for necessary approvals
192 to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental
193 attributes of at least 200 megawatts of additional generating capacity located in the Commonwealth
194 using energy derived from sunlight or onshore wind, and 35 percent of such generating capacity
195 procured shall be from the purchase of energy, capacity, and environmental attributes from solar or
196 onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate,
197 being from construction or acquisition by such Phase I Utility.

198 c. By December 31, 2030, each Phase I Utility shall petition the Commission for necessary approvals
199 to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental
200 attributes of at least 200 megawatts of additional generating capacity located in the Commonwealth
201 using energy derived from sunlight or onshore wind, and 35 percent of such generating capacity
202 procured shall be from the purchase of energy, capacity, and environmental attributes from solar or
203 onshore wind facilities owned by persons other than the utility, with the remainder, in the aggregate,
204 being from construction or acquisition by such Phase I Utility.

205 d. Nothing in this subdivision 1 shall prohibit such Phase I Utility from constructing, acquiring, or
206 entering into agreements to purchase the energy, capacity, and environmental attributes of more than 600
207 megawatts of generating capacity located in the Commonwealth using energy derived from sunlight or
208 onshore wind, provided the utility receives approval from the Commission pursuant to §§ 56-580 and
209 56-585.1.

210 2. By December 31, 2035, each Phase II Utility shall petition the Commission for necessary
211 approvals to (i) construct, acquire, or enter into agreements to purchase the energy, capacity, and
212 environmental attributes of 16,100 megawatts of generating capacity located in the Commonwealth using
213 energy derived from sunlight or onshore wind, which shall include 1,100 megawatts of solar generation
214 of a nameplate capacity not to exceed three megawatts per individual project and 35 percent of such
215 generating capacity procured shall be from the purchase of energy, capacity, and environmental attributes
216 from solar facilities owned by persons other than a utility, including utility affiliates and deregulated
217 affiliates and (ii) pursuant to § 56-585.1:11, construct or purchase one or more offshore wind generation
218 facilities located off the Commonwealth's Atlantic shoreline or in federal waters and interconnected
219 directly into the Commonwealth with an aggregate capacity of up to 5,200 megawatts. At least 200
220 megawatts of the 16,100 megawatts shall be placed on previously developed project sites.

221 a. By December 31, 2024, each Phase II Utility shall petition the Commission for necessary
222 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and
223 environmental attributes of at least 3,000 megawatts of generating capacity located in the
224 Commonwealth using energy derived from sunlight or onshore wind, and 35 percent of such generating
225 capacity procured shall be from the purchase of energy, capacity, and environmental attributes from
226 solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the
227 aggregate, being from construction or acquisition by such Phase II Utility.

228 b. By December 31, 2027, each Phase II Utility shall petition the Commission for necessary
229 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and
230 environmental attributes of at least 3,000 megawatts of additional generating capacity located in the
231 Commonwealth using energy derived from sunlight or onshore wind, and 35 percent of such generating
232 capacity procured shall be from the purchase of energy, capacity, and environmental attributes from
233 solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the
234 aggregate, being from construction or acquisition by such Phase II Utility.

235 c. By December 31, 2030, each Phase II Utility shall petition the Commission for necessary
236 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and
237 environmental attributes of at least 4,000 megawatts of additional generating capacity located in the
238 Commonwealth using energy derived from sunlight or onshore wind, and 35 percent of such generating
239 capacity procured shall be from the purchase of energy, capacity, and environmental attributes from
240 solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the
241 aggregate, being from construction or acquisition by such Phase II Utility.

242 d. By December 31, 2035, each Phase II Utility shall petition the Commission for necessary
243 approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and
244 environmental attributes of at least 6,100 megawatts of additional generating capacity located in the
245 Commonwealth using energy derived from sunlight or onshore wind, and 35 percent of such generating
246 capacity procured shall be from the purchase of energy, capacity, and environmental attributes from
247 solar or onshore wind facilities owned by persons other than the utility, with the remainder, in the

aggregate, being from construction or acquisition by such Phase II Utility.

e. Nothing in this subdivision 2 shall prohibit such Phase II Utility from constructing, acquiring, or entering into agreements to purchase the energy, capacity, and environmental attributes of more than 16,100 megawatts of generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind, provided the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1.

3. Nothing in this section shall prohibit a utility from petitioning the Commission to construct or acquire zero-carbon electricity or from entering into contracts to procure the energy, capacity, and environmental attributes of zero-carbon electricity generating resources in excess of the requirements in subsection B. The Commission shall determine whether to approve such petitions on a stand-alone basis pursuant to §§ 56-580 and 56-585.1, provided that the Commission's review shall also consider whether the proposed generating capacity (i) is necessary to meet the utility's native load, (ii) is likely to lower customer fuel costs, (iii) will provide economic development opportunities in the Commonwealth, and (iv) serves a need that cannot be more affordably met with demand-side or energy storage resources.

Each Phase I and Phase II Utility shall, at least once every year, conduct a request for proposals for new solar and wind resources. Such requests shall quantify and describe the utility's need for energy, capacity, or renewable energy certificates. The requests for proposals shall be publicly announced and made available for public review on the utility's website at least 45 days prior to the closing of such request for proposals. The requests for proposals shall provide, at a minimum, the following information: (a) the size, type, and timing of resources for which the utility anticipates contracting; (b) any minimum thresholds that must be met by respondents; (c) major assumptions to be used by the utility in the bid evaluation process, including environmental emission standards; (d) detailed instructions for preparing bids so that bids can be evaluated on a consistent basis; (e) the preferred general location of additional capacity; and (f) specific information concerning the factors involved in determining the price and non-price criteria used for selecting winning bids. A utility may evaluate responses to requests for proposals based on any criteria that it deems reasonable but shall at a minimum consider the following in its selection process: (1) the status of a particular project's development; (2) the age of existing generation facilities; (3) the demonstrated financial viability of a project and the developer; (4) a developer's prior experience in the field; (5) the location and effect on the transmission grid of a generation facility; (6) benefits to the Commonwealth that are associated with particular projects, including regional economic development and the use of goods and services from Virginia businesses; and (7) the environmental impacts of particular resources, including impacts on air quality within the Commonwealth and the carbon intensity of the utility's generation portfolio.

4. In connection with the requirements of this subsection, each Phase I and Phase II Utility shall, commencing in 2020 and concluding in 2035, submit annually a plan and petition for approval for the development of new solar and onshore wind generation capacity. Such plan shall reflect, in the aggregate and over its duration, the requirements of subsection D concerning the allocation percentages for construction or purchase of such capacity. Such petition shall contain any request for approval to construct such facilities pursuant to subsection D of § 56-580 and a request for approval or update of a rate adjustment clause pursuant to subdivision A 6 of § 56-585.1 to recover the costs of such facilities. Such plan shall also include the utility's plan to meet the energy storage project targets of subsection E, including the goal of installing at least 10 percent of such energy storage projects behind the meter. In determining whether to approve the utility's plan and any associated petition requests, the Commission shall determine whether they are reasonable and prudent and shall give due consideration to (i) the RPS and carbon dioxide reduction requirements in this section, (ii) the promotion of new renewable generation and energy storage resources within the Commonwealth, and associated economic development, and (iii) fuel savings projected to be achieved by the plan. Notwithstanding any other provision of this title, the Commission's final order regarding any such petition and associated requests shall be entered by the Commission not more than six months after the date of the filing of such petition.

5. If, in any year, a Phase I or Phase II Utility is unable to meet the compliance obligation of the RPS Program requirements or if the cost of RECs necessary to comply with RPS Program requirements exceeds \$45 per megawatt hour, such supplier shall be obligated to make a deficiency payment equal to \$45 for each megawatt-hour shortfall for the year of noncompliance, except that the deficiency payment for any shortfall in procuring RECs for solar, wind, or anaerobic digesters located in the Commonwealth shall be \$75 per megawatts hour for resources one megawatt and lower. The amount of any deficiency payment shall increase by one percent annually after 2021. A Phase I or Phase II Utility shall be entitled to recover the costs of such payments as a cost of compliance with the requirements of this subsection pursuant to subdivision A 5 d of § 56-585.1. All proceeds from the deficiency payments shall be deposited into an interest-bearing account administered by the Department of Energy. In administering this account, the Department of Energy shall manage the account as follows: (i) 50 percent of total

309 revenue shall be directed to job training programs in historically economically disadvantaged
310 communities; (ii) 16 percent of total revenue shall be directed to energy efficiency measures for public
311 facilities; (iii) 30 percent of total revenue shall be directed to renewable energy programs located in
312 historically economically disadvantaged communities; and (iv) four percent of total revenue shall be
313 directed to administrative costs.

314 For any project constructed pursuant to this subsection or subsection E, a utility shall, subject to a
315 competitive procurement process, procure equipment from a Virginia-based or United States-based
316 manufacturer using materials or product components made in Virginia or the United States, if reasonably
317 available and competitively priced.

318 E. To enhance reliability and performance of the utility's generation and distribution system, each
319 Phase I and Phase II Utility shall petition the Commission for necessary approvals to construct or
320 acquire new, utility-owned energy storage resources.

321 1. By December 31, 2035, each Phase I Utility shall petition the Commission for necessary approvals
322 to construct or acquire 400 megawatts of energy storage capacity. Nothing in this subdivision shall
323 prohibit a Phase I Utility from constructing or acquiring more than 400 megawatts of energy storage,
324 provided that the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1.

325 2. By December 31, 2035, each Phase II Utility shall petition the Commission for necessary
326 approvals to construct or acquire 2,700 megawatts of energy storage capacity. Nothing in this
327 subdivision shall prohibit a Phase II Utility from constructing or acquiring more than 2,700 megawatts
328 of energy storage, provided that the utility receives approval from the Commission pursuant to
329 §§ 56-580 and 56-585.1.

330 3. No single energy storage project shall exceed 500 megawatts in size, except that a Phase II Utility
331 may procure a single energy storage project up to 800 megawatts.

332 4. All energy storage projects procured pursuant to this subsection shall meet the competitive
333 procurement protocols established in subdivision D 3.

334 5. After July 1, 2020, at least 35 percent of the energy storage facilities placed into service shall be
335 (i) purchased by the public utility from a party other than the public utility or (ii) owned by a party
336 other than a public utility, with the capacity from such facilities sold to the public utility. By January 1,
337 2021, the Commission shall adopt regulations to achieve the deployment of energy storage for the
338 Commonwealth required in subdivisions 1 and 2, including regulations that set interim targets and
339 update existing utility planning and procurement rules. The regulations shall include programs and
340 mechanisms to deploy energy storage, including competitive solicitations, behind-the-meter incentives,
341 non-wires alternatives programs, and peak demand reduction programs.

342 F. All costs incurred by a Phase I or Phase II Utility related to compliance with the requirements of
343 this section or pursuant to § 56-585.1:11, including (i) costs of generation facilities powered by sunlight
344 or onshore or offshore wind, or energy storage facilities, that are constructed or acquired by a Phase I or
345 Phase II Utility after July 1, 2020, (ii) costs of capacity, energy, or environmental attributes from
346 generation facilities powered by sunlight or onshore or offshore wind, or falling water, or energy storage
347 facilities purchased by the utility from persons other than the utility through agreements after July 1,
348 2020, and (iii) all other costs of compliance, including costs associated with the purchase of RECs
349 associated with RPS Program requirements pursuant to this section shall be recovered from all retail
350 customers in the service territory of a Phase I or Phase II Utility as a non-bypassable charge,
351 irrespective of the generation supplier of such customer, except (a) as provided in subsection G for an
352 accelerated renewable energy buyer or (b) as provided in subdivision C 3 of § 56-585.1:11, with respect
353 to the costs of an offshore wind generation facility, for a PIPP eligible utility customer or an advanced
354 clean energy buyer or qualifying large general service customer, as those terms are defined in
355 § 56-585.1:11. If a Phase I or Phase II Utility serves customers in more than one jurisdiction, such
356 utility shall recover all of the costs of compliance with the RPS Program requirements from its Virginia
357 customers through the applicable cost recovery mechanism, and all associated energy, capacity, and
358 environmental attributes shall be assigned to Virginia to the extent that such costs are requested but not
359 recovered from any system customers outside the Commonwealth.

360 By September 1, 2020, the Commission shall direct the initiation of a proceeding for each Phase I
361 and Phase II Utility to review and determine the amount of such costs, net of benefits, that should be
362 allocated to retail customers within the utility's service territory which have elected to receive electric
363 supply service from a supplier of electric energy other than the utility, and shall direct that tariff
364 provisions be implemented to recover those costs from such customers beginning no later than January
365 1, 2021. Thereafter, such charges and tariff provisions shall be updated and trued up by the utility on an
366 annual basis, subject to continuing review and approval by the Commission.

367 G. 1. An accelerated renewable energy buyer may contract with a Phase I or Phase II Utility, or a
368 person other than a Phase I or Phase II Utility, to obtain (i) RECs from RPS eligible resources or (ii)
369 bundled capacity, energy, and RECs from solar or wind generation resources located within the PJM
370 region and initially placed in commercial operation after January 1, 2015, including any contract with a

utility for such generation resources that does not allocate to or recover from any other customer of the utility the cost of such resources. Such an accelerated renewable energy buyer may offset all or a portion of its electric load for purposes of RPS compliance through such arrangements. An accelerated renewable energy buyer shall be exempt from the assignment of non-bypassable RPS compliance costs pursuant to subsection F, with the exception of the costs of an offshore wind generating facility pursuant to § 56-585.1:11, based on the amount of RECs obtained pursuant to this subsection in proportion to the customer's total electric energy consumption, on an annual basis. An accelerated renewable energy buyer obtaining RECs only shall not be exempt from costs related to procurement of new solar or onshore wind generation capacity, energy, or environmental attributes, or energy storage facilities, by the utility pursuant to subsections D and E, however, an accelerated renewable energy buyer that is a customer of a Phase II Utility and was subscribed, as of March 1, 2020, to a voluntary companion experimental tariff offering of the utility for the purchase of renewable attributes from renewable energy facilities that requires a renewable facilities agreement and the purchase of a minimum of 2,000 renewable attributes annually, shall be exempt from allocation of the net costs related to procurement of new solar or onshore wind generation capacity, energy, or environmental attributes, or energy storage facilities, by the utility pursuant to subsections D and E, based on the amount of RECs associated with the customer's renewable facilities agreements associated with such tariff offering as of that date in proportion to the customer's total electric energy consumption, on an annual basis. To the extent that an accelerated renewable energy buyer contracts for the capacity of new solar or wind generation resources pursuant to this subsection, the aggregate amount of such nameplate capacity shall be offset from the utility's procurement requirements pursuant to subsection D. All RECs associated with contracts entered into by an accelerated renewable energy buyer with the utility, or a person other than the utility, for an RPS Program shall not be credited to the utility's compliance with its RPS requirements, and the calculation of the utility's RPS Program requirements shall not include the electric load covered by customers certified as accelerated renewable energy buyers.

2. Each Phase I or Phase II Utility shall certify, and verify as necessary, to the Commission that the accelerated renewable energy buyer has satisfied the exemption requirements of this subsection for each year, or an accelerated renewable energy buyer may choose to certify satisfaction of this exemption by reporting to the Commission individually. The Commission may promulgate such rules and regulations as may be necessary to implement the provisions of this subsection.

3. Provided that no incremental costs associated with any contract between a Phase I or Phase II Utility and an accelerated renewable energy buyer is allocated to or recovered from any other customer of the utility, any such contract with an accelerated renewable energy buyer that is a jurisdictional customer of the utility shall not be deemed a special rate or contract requiring Commission approval pursuant to § 56-235.2.

H. No customer of a Phase II Utility with a peak demand in excess of 100 megawatts in 2019 that elected pursuant to subdivision A 3 of § 56-577 to purchase electric energy from a competitive service provider prior to April 1, 2019, shall be allocated any non-bypassable charges pursuant to subsection F for such period that the customer is not purchasing electric energy from the utility, and such customer's electric load shall not be included in the utility's RPS Program requirements. No customer of a Phase I Utility that elected pursuant to subdivision A 3 of § 56-577 to purchase electric energy from a competitive service provider prior to February 1, 2019, shall be allocated any non-bypassable charges pursuant to subsection F for such period that the customer is not purchasing electric energy from the utility, and such customer's electric load shall not be included in the utility's RPS Program requirements.

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

J. The Commission shall adopt such rules and regulations as may be necessary to implement the provisions of this section, including a requirement that participants verify whether the RPS Program requirements are met in accordance with this section.

2. That the Department of Forestry (the Department) shall convene an advisory panel to examine the use of forest-related materials, agricultural-related materials, and solid woody waste materials, as those terms are described in § 10.1-1308.1 of the Code of Virginia, for biomass-fired electric generating units in the Commonwealth. The advisory panel shall consist of representatives from the Department of Environmental Quality, the Department of Energy, industry, environmental organizations, and the Virginia Cooperative Extension, and other stakeholders as the Department deems appropriate. The advisory panel shall examine the following factors related to the use of forest-related materials, agricultural-related materials, and solid woody waste materials for biomass-fired electric generating units: (i) policies in the southeastern United States and other states participating in the PJM regional transmission organization interchange as they relate to the use of biomass for electricity generation; (ii) potential benefits for the Commonwealth's hardwood forest health as a result of using biomass resources for electricity generation; (iii) the amount of forest-related materials, agricultural-related materials, and solid woody waste materials that can be

432 sustainably consumed annually without disrupting existing markets; (iv) consideration of
433 technological advances in biomass energy generation; and (v) a life-cycle carbon analysis,
434 developed in coordination with the Department of Environmental Quality and relevant
435 stakeholders, that includes all carbon emissions, including supply chain emissions, forgone
436 sequestration, and the emissions from burning biomass resources for electricity generation. The
437 advisory panel may consider other factors as the Department deems necessary. The Department
438 shall submit a report of the advisory panel's findings and any recommendations to the Chairmen
439 of the House Committee on Commerce and Energy and the Senate Committee on Commerce and
440 Labor no later than December 1, 2024.

441 3. That the Department of Forestry shall develop, no later than December 1, 2023, best
442 management practices for the sustainable harvesting of biomass, as described in subdivision A 1 of
443 § 10.1-1308.1 of the Code of Virginia, for biomass-fired electric generating units that are subject to
444 the provisions of § 56-585.5 of the Code of Virginia, as amended by this act. The best management
445 practices shall include a life-cycle carbon analysis, developed in coordination with the Department
446 of Environmental Quality and relevant stakeholders, that includes all carbon emissions, including
447 supply chain emissions, forgone sequestration, and the emissions from burning biomass resources
448 for electricity generation.