

HOUSE BILL 650

C5, M5

9lr1189
CF SB 573

By: **Delegates Korman and Barve**

Introduced and read first time: February 6, 2019

Assigned to: Economic Matters

A BILL ENTITLED

1 AN ACT concerning

2 **Energy Storage Pilot Project Act**

3 FOR the purpose of requiring the Public Service Commission to establish an energy storage
4 pilot program; providing for the structure and operation of the program; requiring
5 the Commission to require each investor-owned electric company to solicit offers to
6 develop energy storage projects for certain commercial and regulatory models;
7 requiring each investor-owned electric company to submit an application for projects
8 from a certain number of models; establishing that a proposed project must be able
9 to meet reasonably the program's timelines and data collection requirements;
10 requiring an investor-owned electric company to prioritize projects that defer or
11 replace certain needs under certain circumstances; requiring an investor-owned
12 electric company to describe in a project application whether a project demonstrates
13 certain attributes; requiring an investor-owned electric company to include certain
14 information in a project application; authorizing the Commission, for a certain
15 purpose, to determine how to address cost recovery for certain models; authorizing
16 the Commission, for a certain purpose, to allow certain program activity on a
17 project-by-project basis; providing for the beginning and termination of the pilot
18 program; requiring an investor-owned electric company to submit certain
19 information or data on or before a certain date; requiring an investor-owned electric
20 company to make certain data available to the public; requiring certain data to be
21 seasonally adjusted; authorizing an investor-owned electric company, under certain
22 circumstances, to apply for an extension of the pilot program on or before a certain
23 date; requiring the Commission to evaluate certain matters and report certain
24 findings and recommendations to the General Assembly on or before a certain date;
25 establishing that the pilot program does not preclude any other investments in
26 energy storage by a public service company; defining certain terms; and generally
27 relating to pilot energy storage projects.

28 BY adding to
29 Article – Public Utilities
30 Section 7-216

EXPLANATION: CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.

[Brackets] indicate matter deleted from existing law.



1 Annotated Code of Maryland
2 (2010 Replacement Volume and 2018 Supplement)

3 SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND,
4 That the Laws of Maryland read as follows:

5 **Article – Public Utilities**

6 **7–216.**

7 **(A) (1) IN THIS SECTION THE FOLLOWING WORDS HAVE THE MEANINGS**
8 **INDICATED.**

9 **(2) (I) “ENERGY STORAGE DEVICE” MEANS A RESOURCE CAPABLE**
10 **OF ABSORBING ELECTRICAL ENERGY, STORING IT FOR A PERIOD OF TIME, AND**
11 **DISPATCHING THE ENERGY FOR USE AT A LATER TIME AS NEEDED, REGARDLESS OF**
12 **WHERE THE RESOURCE IS LOCATED ON THE ELECTRIC DISTRIBUTION SYSTEM.**

13 **(II) “ENERGY STORAGE DEVICE” INCLUDES ALL TYPES OF**
14 **ELECTRIC STORAGE TECHNOLOGIES, REGARDLESS OF THEIR SIZE, STORAGE**
15 **MEDIUM, OR OPERATIONAL PURPOSE.**

16 **(3) “INVESTOR–OWNED ELECTRIC COMPANY” MEANS AN ELECTRIC**
17 **COMPANY THAT IS NOT A MUNICIPAL ELECTRIC UTILITY OR AN ELECTRIC**
18 **COOPERATIVE.**

19 **(B) (1) THE COMMISSION SHALL ESTABLISH AN ENERGY STORAGE**
20 **PILOT PROGRAM.**

21 **(2) THE CUMULATIVE SIZE OF THE PILOT PROJECTS UNDER THE**
22 **PROGRAM SHALL BE BETWEEN 5 AND 10 MEGAWATTS, WITH A MINIMUM OF 15**
23 **MEGAWATT–HOURS.**

24 **(C) THE COMMISSION SHALL REQUIRE EACH INVESTOR–OWNED ELECTRIC**
25 **COMPANY TO SOLICIT OFFERS TO DEVELOP ENERGY STORAGE PROJECTS FOR EACH**
26 **OF THE FOLLOWING COMMERCIAL AND REGULATORY MODELS:**

27 **(1) A “UTILITY–ONLY” MODEL UNDER WHICH THE ELECTRIC**
28 **COMPANY WOULD OWN THE PROJECT, CONTROL THE PROJECT FOR GRID**
29 **RELIABILITY, AND OPERATE THE PROJECT IN WHOLESALE MARKETS OR OTHER**
30 **APPLICATIONS WHEN NOT PROVIDING GRID SERVICES;**

31 **(2) A “UTILITY AND THIRD–PARTY” MODEL UNDER WHICH THE**
32 **ELECTRIC COMPANY WOULD OWN THE PROJECT AND CONTROL THE PROJECT FOR**

1 GRID RELIABILITY, AND A THIRD PARTY WOULD OPERATE THE PROJECT IN
2 WHOLESALE MARKETS OR OTHER APPLICATIONS WHEN THE PROJECT IS NOT
3 PROVIDING GRID SERVICES;

4 (3) A “THIRD-PARTY OWNERSHIP” MODEL UNDER WHICH THE
5 ELECTRIC COMPANY WOULD CONTRACT WITH A PROJECT OWNED BY A THIRD PARTY
6 FOR GRID RELIABILITY; AND

7 (4) A “VIRTUAL POWER PLANT” MODEL UNDER WHICH:

8 (I) THE ELECTRIC COMPANY WOULD AGGREGATE OR USE A
9 THIRD-PARTY AGGREGATOR TO RECEIVE GRID SERVICES FROM DISTRIBUTED
10 ENERGY STORAGE PROJECTS OWNED BY CUSTOMERS OR A THIRD PARTY; AND

11 (II) THE PROJECTS WOULD BE USED BY THE CUSTOMERS OR
12 THIRD PARTY FOR OTHER APPLICATIONS WHEN THE PROJECTS ARE NOT PROVIDING
13 GRID SERVICES.

14 (D) (1) EACH INVESTOR-OWNED ELECTRIC COMPANY SHALL SUBMIT AN
15 APPLICATION FOR COMMISSION APPROVAL TO DEPLOY ENERGY STORAGE
16 PROJECTS FROM AT LEAST TWO OF THE MODELS DESCRIBED UNDER SUBSECTION
17 (C) OF THIS SECTION.

18 (2) A PROPOSED PROJECT MUST BE ABLE TO MEET REASONABLY THE
19 PROGRAM’S TIMELINES AND DATA COLLECTION REQUIREMENTS.

20 (3) AN INVESTOR-OWNED ELECTRIC COMPANY SHALL GIVE PRIORITY
21 TO PROJECTS THAT DIRECTLY DEFER OR REPLACE AN EXISTING OR ANTICIPATED
22 DISTRIBUTION NEED.

23 (4) AN INVESTOR-OWNED ELECTRIC COMPANY MAY PROPOSE A
24 PROJECT THAT DOES NOT DIRECTLY DEFER OR REPLACE AN EXISTING OR
25 ANTICIPATED DISTRIBUTION NEED IF THE PROJECT INCLUDES GRID BENEFITS,
26 RATEPAYER BENEFITS, OR OTHERWISE HELPS MEET THE STATE’S POLICY GOALS.

27 (5) AN INVESTOR-OWNED ELECTRIC COMPANY SHALL DESCRIBE IN
28 THE COMPANY’S APPLICATION WHETHER A PROJECT DEMONSTRATES AN
29 OPPORTUNITY TO REDUCE SYSTEM COSTS OR OTHERWISE OFFERS NET SOCIETAL
30 BENEFITS.

31 (E) AN APPLICATION UNDER SUBSECTION (D) OF THIS SECTION SHALL
32 INCLUDE INFORMATION CONCERNING:

1 **(1) BEST ESTIMATES OF COSTS AND SAVINGS FOR EACH PROJECT,**
2 **INCLUDING:**

3 **(I) ESTIMATED PERMITTING AND INTERCONNECTION COSTS;**

4 **(II) AN APPROXIMATION OF THE POTENTIAL BENEFITS,**
5 **INCLUDING COST SAVINGS;**

6 **(III) AN ESTIMATE OF FUNDS EXPECTED TO BE RECEIVED FROM**
7 **WHOLESALE MARKET TRANSACTIONS;**

8 **(IV) AN ESTIMATE OF THE VALUE OF ANY DISTRIBUTION**
9 **INVESTMENT DEFERRAL OR REPLACEMENT DUE TO THE PROJECT, SUCH AS THE**
10 **PRESENT VALUE OF THE COSTS AVOIDED BY INSTALLING THE STORAGE SYSTEM;**
11 **AND**

12 **(V) ESTIMATES OF OTHER SOCIETAL BENEFITS ACHIEVED BY**
13 **THE PROJECT, SUCH AS INCREMENTAL RELIABILITY AND RESILIENCY,**
14 **GREENHOUSE GAS EMISSION REDUCTIONS, AND LEARNING BENEFITS;**

15 **(2) PROJECT LOCATION;**

16 **(3) PROJECT SIZE IN WATTS AND DURATION IN WATT-HOURS;**

17 **(4) PRIMARY AND SECONDARY APPLICATIONS;**

18 **(5) THE BUSINESS MODEL SELECTED FOR THE PROJECT UNDER**
19 **SUBSECTION (C) OF THIS SECTION;**

20 **(6) THE PROJECT DEVELOPER OR ENGINEERING, PROCUREMENT,**
21 **AND CONSTRUCTION FIRM SELECTED FOR THE PROJECT;**

22 **(7) THE TYPE OF ENERGY STORAGE TECHNOLOGY;**

23 **(8) THE PROCESS THE INVESTOR-OWNED ELECTRIC COMPANY USED**
24 **TO SOLICIT OFFERS FOR THE PROJECT, INCLUDING FEEDBACK ON MODELS NOT**
25 **SELECTED AND AN EXPLANATION FOR WHY THE CHOSEN MODEL WAS SELECTED;**
26 **AND**

27 **(9) ANY OTHER INFORMATION REQUIRED BY THE COMMISSION.**

28 **(F) FOR PURPOSES OF THE PILOT PROGRAM ONLY, THE COMMISSION MAY**
29 **DETERMINE HOW TO ADDRESS COST RECOVERY FOR THE MODELS DESCRIBED**

1 UNDER SUBSECTION (C)(3) AND (4) OF THIS SECTION.

2 (G) FOR PURPOSES OF THE PILOT PROGRAM ONLY, THE COMMISSION MAY,
3 ON A PROJECT-BY-PROJECT BASIS, ALLOW:

4 (1) AN INVESTOR-OWNED ELECTRIC COMPANY TO OWN OR OPERATE
5 AN ENERGY STORAGE DEVICE;

6 (2) AN ENERGY STORAGE DEVICE OWNED OR OPERATED BY AN
7 INVESTOR-OWNED ELECTRIC COMPANY TO PARTICIPATE IN ALL AVAILABLE PJM
8 WHOLESALE REVENUE MARKETS IN ORDER TO REALIZE BENEFITS FOR
9 INVESTOR-OWNED ELECTRIC COMPANY CUSTOMERS;

10 (3) FULL AND TIMELY COST RECOVERY BY THE INVESTOR-OWNED
11 ELECTRIC COMPANY, AT THE RATE OF RETURN AUTHORIZED BY THE COMMISSION
12 IN THE MOST RECENT BASE RATE PROCEEDING FOR THE INVESTOR-OWNED
13 ELECTRIC COMPANY, TAKING INTO ACCOUNT ANY USE OF AN ASSET THAT MAY NOT
14 BE INCLUDED IN BASE RATES;

15 (4) AN INVESTOR-OWNED ELECTRIC COMPANY TO COORDINATE THE
16 USE OF AN ENERGY STORAGE DEVICE;

17 (5) AN INVESTOR-OWNED ELECTRIC COMPANY TO USE FULLY UNTIL
18 THE END OF THE DEVICE'S USEFUL LIFE, AN ENERGY STORAGE DEVICE OWNED OR
19 OPERATED BY THE INVESTOR-OWNED ELECTRIC COMPANY; AND

20 (6) AN INVESTOR-OWNED ELECTRIC COMPANY TO OFFER REBATES
21 OR OTHER INCENTIVES FOR ENERGY STORAGE DEVICES BEHIND OR IN FRONT OF
22 THE METER THAT CAN BE CONFIGURED TO PROVIDE TEMPORARY BACKUP POWER
23 TO A CUSTOMER.

24 (H) (1) THE PILOT PROGRAM SHALL BEGIN ON OR BEFORE FEBRUARY 28,
25 2020.

26 (2) ON OR BEFORE FEBRUARY 28, 2021:

27 (I) EACH INVESTOR-OWNED ELECTRIC COMPANY SHALL
28 SOLICIT PROPOSALS AND APPLY FOR COMMISSION APPROVAL;

29 (II) THE COMMISSION SHALL DETERMINE WHICH PROJECTS TO
30 APPROVE; AND

31 (III) EACH INVESTOR-OWNED ELECTRIC COMPANY SHALL

1 NEGOTIATE CONTRACTS TO IMPLEMENT PROJECTS.

2 (3) (I) EXCEPT AS PROVIDED IN SUBPARAGRAPH (II) OF THIS
3 PARAGRAPH, ON OR BEFORE FEBRUARY 28, 2022, ALL APPROVED PROJECTS SHALL
4 BECOME OPERATIONAL.

5 (II) THE COMMISSION MAY, FOR GOOD CAUSE SHOWN, GRANT
6 AN EXTENSION FROM THE DEADLINE ESTABLISHED IN SUBPARAGRAPH (I) OF THIS
7 PARAGRAPH FOR UNANTICIPATED PROJECT DEVELOPMENT DELAYS.

8 (4) (I) ON OR BEFORE FEBRUARY 28, 2023, AN INVESTOR-OWNED
9 ELECTRIC COMPANY SHALL SUBMIT TO THE COMMISSION INFORMATION OR DATA
10 CONCERNING:

- 11 1. ESTIMATED PROJECT COSTS;
- 12 2. FINAL PROJECT COSTS;
- 13 3. THE NUMBER OF DAYS NECESSARY TO ACHIEVE
14 PROJECT INTERCONNECTION;
- 15 4. THE TOTAL COST OF PROJECT INTERCONNECTION;
- 16 5. THE NUMBER OF DAYS NECESSARY TO ACHIEVE
17 PROJECT PERMITTING;
- 18 6. THE TOTAL COST OF PROJECT PERMITTING;
- 19 7. THE CONTRACTUAL OR COMMITTED COMMERCIAL
20 OPERATION DATE;
- 21 8. THE ACTUAL COMMERCIAL OPERATION DATE;
- 22 9. THE NAME AND ADDRESS OF THE PROJECT
23 DEVELOPER;
- 24 10. THE LOCATION AND ADDRESS OF THE PROJECT;
- 25 11. THE SIZE OF THE ENERGY STORAGE PROJECT IN
26 WATTS;
- 27 12. THE DURATION OF THE ENERGY STORAGE PROJECT
28 IN WATT-HOURS;

1 **13. THE TYPE OF ENERGY STORAGE TECHNOLOGY;**

2 **14. THE IDENTITIES OF ANY PROJECT OWNERS OR**
3 **LESSORS;**

4 **15. ANY PROJECT FINANCING METHODS;**

5 **16. THE IDENTITY OF ANY ENTITY THAT PROVIDES**
6 **FINANCING FOR THE PROJECT;**

7 **17. THE LENGTH OF ANY PROJECT CONTRACT;**

8 **18. ANY INVERTERS USED FOR THE PROJECT, INCLUDING**
9 **THE TYPE AND MANUFACTURER;**

10 **19. ANY MANUFACTURER WARRANTY, INCLUDING ITS**
11 **DURATION;**

12 **20. ANY DEVELOPER WARRANTY, INCLUDING ITS**
13 **DURATION;**

14 **21. ANY TECHNOLOGY WITH WHICH THE PROJECT IS**
15 **PAIRED;**

16 **22. HOW METERS AND INVERTERS ASSOCIATED WITH THE**
17 **PROJECT ARE CONFIGURED;**

18 **23. ANY SYSTEM INTEGRATOR ASSOCIATED WITH THE**
19 **PROJECT;**

20 **24. PROJECT SAFETY, INCLUDING BATTERY TYPE AND**
21 **CHEMISTRY;**

22 **25. ANY ENERGY MANAGEMENT SYSTEM ASSOCIATED**
23 **WITH THE PROJECT;**

24 **26. ANY ENERGY STORAGE POWER CONVERSION SYSTEM**
25 **ASSOCIATED WITH THE PROJECT;**

26 **27. THE BUSINESS MODEL SELECTED FOR THE PROJECT**
27 **UNDER SUBSECTION (C) OF THIS SECTION;**

1 **28. THE COST RECOVERY MECHANISM FOR THE PROJECT;**

2 **29. THE RATE OF RETURN APPLIED TO THE PROJECT;**

3 **30. FOR A VIRTUAL POWER PLANT PROJECT UNDER**
4 **SUBSECTION (C)(4) OF THIS SECTION, THE NUMBER AND TYPE OF CUSTOMERS**
5 **PARTICIPATING;**

6 **31. FOR A VIRTUAL POWER PLANT PROJECT UNDER**
7 **SUBSECTION (C)(4) OF THIS SECTION, THE IDENTITY OF THE AGGREGATOR;**

8 **32. OPERATIONAL CHALLENGES RELATED TO MULTIPLE**
9 **STAKEHOLDER OR THIRD-PARTY USE OF THE STORAGE ASSET;**

10 **33. THE TYPES OF REVENUE EXPECTED FROM THE**
11 **PROJECT, INCLUDING ANY WHOLESALE MARKET REVENUES;**

12 **34. THE TYPES OF REVENUE PROVIDED BY THE PROJECT,**
13 **INCLUDING ANY WHOLESALE MARKET REVENUES;**

14 **35. THE DISTRIBUTION NEED THE PROJECT ADDRESSED;**

15 **36. THE AMOUNT OF TIME THE PROJECT IS EXPECTED TO**
16 **DEFER THE NEED FOR AN ALTERNATIVE INVESTMENT;**

17 **37. ANY VALUE OF OPTIONALITY ASSOCIATED WITH THE**
18 **AMOUNT OF TIME THE PROJECT IS EXPECTED TO DEFER THE NEED FOR AN**
19 **ALTERNATIVE INVESTMENT;**

20 **38. THE EXPECTED LOAD PROJECTION BEFORE THE**
21 **PROJECT WAS INSTALLED;**

22 **39. ENHANCED GRID RELIABILITY AS A RESULT OF THE**
23 **PROJECT;**

24 **40. FOR A UTILITY AND THIRD-PARTY PROJECT UNDER**
25 **SUBSECTION (C)(2) OF THIS SECTION, THE DOLLAR VALUE OF THE LEASE PAYMENTS**
26 **FROM THE THIRD PARTY TO THE UTILITY;**

27 **41. FOR A UTILITY AND THIRD-PARTY PROJECT UNDER**
28 **SUBSECTION (C)(2) OF THIS SECTION, THE DURATION OF THE LEASE AGREEMENT**
29 **BETWEEN THE THIRD PARTY AND THE UTILITY;**

1 **42. ANY OTHER IDENTIFIED BENEFITS, INCLUDING**
2 **RESILIENCY AND SOCIAL BENEFITS;**

3 **43. EXPECTED AND ACTUAL STORAGE SYSTEM CYCLING;**

4 **44. THE PROJECT'S SUCCESS IN SWITCHING BETWEEN**
5 **APPLICATIONS WITHOUT CHALLENGES OR PROBLEMS;**

6 **45. OCCASIONS WHEN THE PROJECT WAS UNABLE TO**
7 **SERVE AN APPLICATION;**

8 **46. ANY PROJECT DELAYS AND THE CAUSES FOR THE**
9 **DELAYS;**

10 **47. ANY EMISSIONS REDUCTIONS EXPECTED AS A RESULT**
11 **OF THE PROJECT; AND**

12 **48. ANY OTHER INFORMATION REQUIRED BY THE**
13 **COMMISSION.**

14 **(II) AN INVESTOR-OWNED ELECTRIC COMPANY SHALL MAKE**
15 **ALL DATA PROVIDED UNDER SUBPARAGRAPH (I) OF THIS PARAGRAPH THAT IS NOT**
16 **PROPRIETARY OR CONFIDENTIAL AVAILABLE TO THE PUBLIC.**

17 **(III) TO THE EXTENT POSSIBLE, ANY ANNUALIZED DATA**
18 **PROVIDED UNDER SUBPARAGRAPH (I) OF THIS PARAGRAPH SHALL BE SEASONALLY**
19 **ADJUSTED.**

20 **(I) ON OR BEFORE APRIL 1, 2023, IF AN INVESTOR-OWNED ELECTRIC**
21 **COMPANY DETERMINES THAT ADDITIONAL TIME TO GATHER DATA WOULD PROVIDE**
22 **ADDITIONAL OPPORTUNITIES FOR LEARNING AND JUSTIFY CONTINUING THE PILOT**
23 **PROGRAM, THE ELECTRIC COMPANY MAY APPLY FOR AN EXTENSION OF THE PILOT**
24 **PROGRAM FROM THE COMMISSION.**

25 **(J) ON OR BEFORE DECEMBER 31, 2023, THE COMMISSION SHALL**
26 **EVALUATE THE PROJECTS APPROVED UNDER THIS SECTION BASED ON:**

27 **(1) THE OVERALL COST OF THE PROJECT;**

28 **(2) WHETHER THE PROJECT WAS OPTIMIZED THROUGH MULTIPLE**
29 **APPLICATIONS;**

30 **(3) WHETHER THE PROJECT MANAGED TO CAPTURE DIFFERENT**

1 VALUE STREAMS;

2 (4) WHETHER THE PROJECT REDUCED SYSTEM COSTS;

3 (5) WHETHER THE PROJECT DEFERRED OR REPLACED ENTIRELY A
4 TRADITIONAL INVESTMENT ON THE DISTRIBUTION SYSTEM, AND ANY VALUE OF
5 SUCH A DEFERRAL OR REPLACEMENT;

6 (6) AN ANALYSIS OF ANY FUNDS GENERATED FROM THE WHOLESALE
7 MARKET;

8 (7) OTHER BENEFITS PROVIDED AS A RESULT OF THE PROJECT;

9 (8) ISSUES THAT THE PROJECT ENCOUNTERED IN IMPLEMENTATION;
10 AND

11 (9) WHETHER THE PROJECT ALTERED THE QUALITY OR
12 AVAILABILITY OF ELECTRICITY SUPPLY.

13 (K) ON OR BEFORE DECEMBER 31, 2023, THE COMMISSION SHALL REPORT,
14 IN ACCORDANCE WITH § 2-1246 OF THE STATE GOVERNMENT ARTICLE, TO THE
15 GENERAL ASSEMBLY ON ITS FINDINGS UNDER SUBSECTION (J) OF THIS SECTION
16 AND ITS RECOMMENDATIONS FOR THE CONTINUED DEVELOPMENT OF ENERGY
17 STORAGE IN THE STATE.

18 (L) THE PILOT PROGRAM MAY NOT PRECLUDE ANY OTHER INVESTMENT BY
19 A PUBLIC SERVICE COMPANY IN ENERGY STORAGE.

20 SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect
21 October 1, 2019.