

SENATE COMMITTEE OF REFERENCE REPORT

	March 26, 2025
Chair of Committee	Date

Committee on Transportation & Energy.

After consideration on the merits, the Committee recommends the following:

SB25-127 be amended as follows, and as so amended, be referred to the Committee of the Whole with favorable recommendation:

1 Amend printed bill, strike everything below the enacting clause and
2 substitute:

3 "SECTION 1. Short title. The short title of this act is the
4 "Colorado Grid Optimization Act".

5 SECTION 2. In Colorado Revised Statutes, 40-2-125.5, add (5.5)
6 and (5.7) as follows:

7 40-2-125.5. Carbon dioxide emission reductions - goal to
8 eliminate by 2050 - legislative declaration - interim targets -
9 submission and approval of plans - definitions - cost recovery -
10 reports - rules. (5.5) (a) (I) EXCEPT AS PROVIDED IN SUBSECTION
11 (5.5)(a)(II) OF THIS SECTION, ON AND AFTER SEPTEMBER 1, 2025, A
12 QUALIFYING RETAIL UTILITY'S ELECTRIC RESOURCE PLAN MUST INCLUDE
13 AN EVALUATION OF ADVANCED TRANSMISSION TECHNOLOGIES. THE
14 EVALUATION MUST INCLUDE:

15 (A) A TECHNICAL FEASIBILITY ASSESSMENT;

16 (B) A COST-EFFECTIVENESS ANALYSIS;

17 (C) A BASE MODELING SCENARIO AND A MODELING SCENARIO
18 THAT INCORPORATES ADVANCED TRANSMISSION TECHNOLOGIES THAT MAY
19 INCREASE SYSTEM CAPACITY, INCREASE CAPACITY TO CONNECT TO NEW
20 RENEWABLE ENERGY AND ZERO-CARBON RESOURCES, AND LOWER COSTS;
21 AND

22 (D) AN INVENTORY OF THE UTILITY'S EXISTING AND PLANNED
23 ADVANCED TRANSMISSION TECHNOLOGIES.

24 (II) IF A QUALIFYING RETAIL UTILITY DOES NOT INCORPORATE AN
25 EVALUATION OF ADVANCED TRANSMISSION TECHNOLOGIES IN ITS
26 ELECTRIC RESOURCE PLAN, THE QUALIFYING RETAIL UTILITY SHALL
27 SUBMIT A DETAILED EXPLANATION OF WHY AN EVALUATION WAS NOT

1 INCORPORATED, WHICH EXPLANATION MUST INCLUDE RELEVANT
2 ANALYSES DEMONSTRATING WHY ADVANCED TRANSMISSION
3 TECHNOLOGIES WERE NOT FOUND TO OFFER A MORE COST-EFFECTIVE
4 STRATEGY, WHETHER IN COMBINATION WITH OR INSTEAD OF OTHER
5 CAPITAL INVESTMENTS, TO ACHIEVE ONE OR MORE OF THE FOLLOWING:

- 6 (A) AN INCREASE IN TRANSMISSION SYSTEM CAPACITY,
7 EFFICIENCY, RELIABILITY, OR RESILIENCY;
- 8 (B) A REDUCTION OF TRANSMISSION SYSTEM CONGESTION;
- 9 (C) A REDUCTION OF CURTAILMENT OF RENEWABLE AND
10 ZERO-CARBON RESOURCES;
- 11 (D) A REDUCTION OF THE RISK OF IGNITING WILDFIRES; AND
- 12 (E) AN INCREASE IN CAPACITY TO CONNECT NEW RENEWABLE
13 ENERGY AND ZERO-CARBON RESOURCES.

14 (b) AS NEEDED, THE COMMISSION MAY CONSULT WITH THE
15 COLORADO ELECTRIC TRANSMISSION AUTHORITY, SUBJECT TO AN
16 INTERGOVERNMENTAL AGREEMENT, TO EVALUATE THE PLANS SUBMITTED
17 PURSUANT TO THIS SUBSECTION (5.5) AND TO DESIGN INCENTIVES
18 PURSUANT TO SUBSECTION (5.7) OF THIS SECTION.

19 (c) AS USED IN THIS SUBSECTION (5.5) AND SUBSECTION (5.7) OF
20 THIS SECTION:

- 21 (I) "ADVANCED CONDUCTOR" MEANS A CONDUCTOR THAT HAS A
22 DIRECT CURRENT ELECTRICAL RESISTANCE THAT IS AT LEAST TEN PERCENT
23 LOWER THAN EXISTING CONDUCTORS OF A SIMILAR DIAMETER ON THE
24 ELECTRIC TRANSMISSION SYSTEM AND THAT INCREASES CAPACITY BY AT
25 LEAST SEVENTY-FIVE PERCENT ON THE SYSTEM.
- 26 (II) "ADVANCED TRANSMISSION TECHNOLOGIES" MEANS
27 HARDWARE OR SOFTWARE TECHNOLOGIES THAT INCREASE THE CAPACITY,
28 EFFICIENCY, RELIABILITY, OR RESILIENCY OF AN EXISTING OR A NEW
29 TRANSMISSION FACILITY, INCLUDING:
 - 30 (A) ADVANCED CONDUCTORS;
 - 31 (B) GRID-ENHANCING TECHNOLOGIES; AND
 - 32 (C) OTHER TECHNOLOGY AS DETERMINED BY THE COMMISSION.
- 33 (III) "GRID-ENHANCING TECHNOLOGY" MEANS A HARDWARE OR A
34 SOFTWARE TECHNOLOGY THAT REDUCES CONGESTION OR ENHANCES THE
35 FLEXIBILITY OF ELECTRIC TRANSMISSION AND DISTRIBUTION SYSTEMS BY
36 INCREASING THE CAPACITY OF A TRANSMISSION OR DISTRIBUTION LINE OR
37 REROUTING ELECTRICITY FROM OVERLOADED LINES TO UNCONGESTED
38 LINES, WHILE MAINTAINING INDUSTRY SAFETY STANDARDS.
39 "GRID-ENHANCING TECHNOLOGY" INCLUDES:
 - 40 (A) DYNAMIC LINE RATINGS;
 - 41 (B) ADVANCED POWER FLOW CONTROLLERS;
 - 42 (C) TOPOLOGY OPTIMIZATION;
 - 43 (D) ENERGY STORAGE AS A TRANSMISSION ASSET; AND

1 (E) OTHER TECHNOLOGIES THAT INCREASE GRID RELIABILITY,
2 FLEXIBILITY, AND CAPACITY.

3 (5.7) **Performance-based incentives for advanced transmission**
4 **technologies.** (a) THE COMMISSION MAY EVALUATE NEW INCENTIVES FOR
5 THE UTILIZATION OF ADVANCED TRANSMISSION TECHNOLOGIES THAT
6 DEMONSTRATE AN ABILITY TO:

7 (I) PROVIDE ELECTRIC TRANSMISSION SYSTEM CONGESTION RELIEF;
8 (II) INTERCONNECT NEW LOAD OR GENERATION THAT THE
9 QUALIFYING RETAIL UTILITY IS OTHERWISE UNABLE TO INTEGRATE ONTO
10 THE GRID IN A TIMELY AND PRACTICABLE MANNER THROUGH EXISTING
11 TRANSMISSION OR DISTRIBUTION INVESTMENTS;
12 (III) REDUCE WILDFIRE RISKS AND ENHANCE RESILIENCY TO
13 WILDFIRE IMPACTS AND OTHER EXTREME CONDITIONS, HAZARDS, OR RISKS;
14 OR

15 (IV) AVOID, REDUCE, OR DEFER THE ACTIVATION OF PUBLIC
16 SAFETY POWER SHUT OFFS OR DE-ENERGIZATION EVENTS.

17 (b) IF A COMMISSION EVALUATION CONDUCTED PURSUANT TO
18 SUBSECTION (5.7)(a) OF THIS SECTION CONCLUDES THAT INCENTIVES FOR
19 THE UTILIZATION OF ADVANCED TRANSMISSION TECHNOLOGIES ARE IN THE
20 PUBLIC INTEREST, THE COMMISSION SHALL CONSIDER IMPLEMENTING SUCH
21 INCENTIVES, INCLUDING:

22 (I) SHARED SAVINGS APPROACHES;
23 (II) PERFORMANCE INCENTIVE MECHANISMS; AND
24 (III) APPROPRIATE CONSUMER PROTECTIONS TO ENSURE ANY
25 ADDITIONAL REVENUE OR COST RECOVERY AUTHORIZED AS A RESULT OF
26 THE INCENTIVE IS PRUDENT.

27 **SECTION 3.** In Colorado Revised Statutes, 40-2-134, **amend** (2);
28 and **add** (3) and (4) as follows:

29 **40-2-134. Wholesale electric cooperatives - electric resource**
30 **planning - definitions - rules.** (2) (a) ~~As used in this section, "wholesale~~
31 ~~electric cooperative" means any generation and transmission cooperative~~
32 ~~electric association that provides wholesale electric service directly to~~
33 ~~cooperative electric associations.~~ EXCEPT AS PROVIDED IN SUBSECTION
34 (2)(b) OF THIS SECTION, ON AND AFTER SEPTEMBER 1, 2025, AN
35 INTEGRATED OR ELECTRIC RESOURCE PLAN THAT A WHOLESALE ELECTRIC
36 COOPERATIVE SUBMITS TO THE COMMISSION MUST INCLUDE AN
37 EVALUATION OF ADVANCED TRANSMISSION TECHNOLOGIES, INCLUDING:

38 (I) A TECHNICAL FEASIBILITY ASSESSMENT;
39 (II) A COST-EFFECTIVENESS ANALYSIS;
40 (III) A BASE MODELING SCENARIO AND A MODELING SCENARIO
41 THAT INCORPORATES ADVANCED TRANSMISSION TECHNOLOGIES THAT MAY
42 INCREASE SYSTEM CAPACITY, INCREASE CAPACITY TO CONNECT TO NEW
43 RENEWABLE ENERGY AND ZERO-CARBON RESOURCES, AND LOWER COSTS;

1 AND
2 (IV) AN INVENTORY OF THE WHOLESALE ELECTRIC COOPERATIVE'S
3 EXISTING AND PLANNED ADVANCED TRANSMISSION TECHNOLOGIES.
4 (b) IF A WHOLESALE ELECTRIC COOPERATIVE DOES NOT
5 INCORPORATE AN EVALUATION OF ADVANCED TRANSMISSION
6 TECHNOLOGIES IN ITS INTEGRATED OR ELECTRIC RESOURCE PLAN, THE
7 WHOLESALE ELECTRIC COOPERATIVE SHALL SUBMIT A DETAILED
8 EXPLANATION OF WHY AN EVALUATION WAS NOT INCORPORATED, WHICH
9 EXPLANATION MUST INCLUDE RELEVANT ANALYSES DEMONSTRATING WHY
10 ADVANCED TRANSMISSION TECHNOLOGIES WERE NOT FOUND TO OFFER A
11 MORE COST-EFFECTIVE STRATEGY, WHETHER IN COMBINATION WITH OR
12 INSTEAD OF OTHER CAPITAL INVESTMENTS, TO ACHIEVE ONE OR MORE OF
13 THE GOALS LISTED IN SECTION 40-2-125.5 (5.5)(a)(II).
14 (3) AS NEEDED, THE COMMISSION MAY CONSULT WITH THE
15 COLORADO ELECTRIC TRANSMISSION AUTHORITY, SUBJECT TO AN
16 INTERGOVERNMENTAL AGREEMENT, TO EVALUATE THE PLANS SUBMITTED
17 PURSUANT TO THIS SECTION.
18 (4) AS USED IN THIS SECTION:
19 (a) "ADVANCED TRANSMISSION TECHNOLOGIES" HAS THE MEANING
20 SET FORTH IN SECTION 40-2-125.5 (5.5)(c)(II).
21 (b) "WHOLESALE ELECTRIC COOPERATIVE" MEANS A GENERATION
22 AND TRANSMISSION COOPERATIVE ELECTRIC ASSOCIATION THAT PROVIDES
23 WHOLESALE ELECTRIC SERVICE DIRECTLY TO COOPERATIVE ELECTRIC
24 ASSOCIATIONS.
25 **SECTION 4.** In Colorado Revised Statutes, 40-2-126, **amend** (6)
26 as follows:
27 **40-2-126. Transmission facilities - biennial review - energy**
28 **resource zones - definitions - plans - approval - cost recovery -**
29 **powerline trail consideration.** (6) The commission shall amend its rules
30 requiring the filing of ten-year transmission plans by utilities to also
31 require utilities to:
32 (a) Consider and address plans for the construction of new
33 powerline trails in coordination with applicable local governments in each
34 two-year update to a ten-year transmission plan; ~~and~~
35 (b) Demonstrate compliance with section 33-45-103 (2);
36 (c) CONSIDER ADVANCED TRANSMISSION TECHNOLOGIES, AS
37 DEFINED IN SECTION 40-2-125.5 (5.5)(c)(II), IN EACH TEN-YEAR
38 TRANSMISSION PLAN;
39 (d) ALIGN EACH TEN-YEAR TRANSMISSION PLAN WITH THE
40 UTILITY'S ELECTRIC RESOURCE PLAN AND CLEAN ENERGY PLAN; AND
41 (e) IDENTIFY STRATEGIES TO REDUCE THE CAPITAL AND FINANCING
42 COSTS FOR PROJECTS THAT THE UTILITY IDENTIFIES IN A TEN-YEAR
43 TRANSMISSION PLAN, INCLUDING BY USING THE PUBLIC FINANCING

1 AUTHORITY OF THE COLORADO ELECTRIC TRANSMISSION AUTHORITY.
2 **SECTION 5.** In Colorado Revised Statutes, 40-1-102, **amend**
3 (1.5); and **add** (1.7) as follows:
4 **40-1-102. Definitions.** As used in articles 1 to 7 of this title 40,
5 unless the context otherwise requires:
6 (1.5) ~~"Commission" means the public utilities commission of the~~
7 ~~state of Colorado~~ "COLORADO ELECTRIC TRANSMISSION AUTHORITY"
8 MEANS THE COLORADO ELECTRIC TRANSMISSION AUTHORITY CREATED IN
9 SECTION 40-42-103 (1).
10 (1.7) "COMMISSION" MEANS THE PUBLIC UTILITIES COMMISSION OF
11 THE STATE OF COLORADO.
12 **SECTION 6.** In Colorado Revised Statutes, 40-42-103, **amend**
13 (2)(a) introductory portion, (2)(a)(III), and (2)(a)(IV); and **add** (2)(a)(V)
14 as follows:
15 **40-42-103. Authority - creation - board - open meetings and**
16 **open records.** (2) (a) The powers of the authority are vested in a board
17 of directors, which consists of the following ~~nine~~ TEN members:
18 (III) Three members appointed by the speaker of the house of
19 representatives; ~~and~~
20 (IV) Three members appointed by the president of the senate; AND
21 (V) THE DIRECTOR OF THE COMMISSION OR THE DIRECTOR'S
22 DESIGNEE, WHO SHALL SERVE IN A NONVOTING ROLE.
23 **SECTION 7. Act subject to petition - effective date.** This act
24 takes effect at 12:01 a.m. on the day following the expiration of the
25 ninety-day period after final adjournment of the general assembly; except
26 that, if a referendum petition is filed pursuant to section 1 (3) of article V
27 of the state constitution against this act or an item, section, or part of this
28 act within such period, then the act, item, section, or part will not take
29 effect unless approved by the people at the general election to be held in
30 November 2026 and, in such case, will take effect on the date of the
31 official declaration of the vote thereon by the governor."

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