

## HOUSE FLOOR AMENDMENT

Second Reading

BY REPRESENTATIVE DeGraaf

1 Amend reengrossed bill, page 38, after line 20 insert:

2 "SECTION 2. In Colorado Revised Statutes, **add** 40-2-125.6 as  
3 follows:

4 **40-2-125.6. Electrical generation and distribution resiliency -**  
5 **report.** (1) NOTWITHSTANDING SECTION 40-2-125.5, THE COMMISSION  
6 SHALL PUBLISH A REPORT ON THE COMMISSION'S WEBSITE DETAILING  
7 CONTINGENCY CAPABILITY FOR ELECTRICAL GENERATION AND GRID  
8 RESILIENCE AGAINST GEOMAGNETIC STORMS. THE REPORT MUST INCLUDE  
9 A DESCRIPTION OF:

10 (a) THE ABILITY TO GENERATE ELECTRICITY FROM MULTIPLE  
11 SOURCES, INCLUDING HYDROCARBON-BASED ENERGY;

12 (b) THE ABILITY TO RESTORE ELECTRICAL POWER OPERATION  
13 WITHIN THE FOLLOWING TIMELINES FOR THE FOLLOWING TYPES OF  
14 GEOMAGNETIC STORMS:

15 (I) FOR A G 5 RATED GEOMAGNETIC STORM:

16 (A) POWER GENERATION RESUMING WITHIN FIVE DAYS;

17 (B) RECOVERY OF CRITICAL INFRASTRUCTURE WITHIN ONE WEEK;

18 (C) TRANSMISSION LINES AND NODES OPERATING WITHIN TWO  
19 WEEKS; AND

20 (D) COMMUNITY DISTRIBUTION OF ELECTRICITY WITHIN TWO  
21 WEEKS;

22 (II) FOR A G 4 RATED GEOMAGNETIC STORM:

23 (A) POWER GENERATION RESUMING WITHIN THREE DAYS;

24 (B) RECOVERY OF CRITICAL INFRASTRUCTURE WITHIN THREE  
25 DAYS;

26 (C) TRANSMISSION LINES AND NODES OPERATING WITHIN ONE  
27 WEEK; AND

28 (D) COMMUNITY DISTRIBUTION OF ELECTRICITY WITHIN TWO  
29 WEEKS;

30 (III) FOR A G 3 RATED GEOMAGNETIC STORM:

31 (A) POWER GENERATION RESUMING WITHIN TWO DAYS;

32 (B) RECOVERY OF CRITICAL INFRASTRUCTURE WITHIN TWO DAYS;

33 (C) TRANSMISSION LINES AND NODES OPERATING WITHIN THREE  
34 DAYS; AND

35 (D) COMMUNITY DISTRIBUTION OF ELECTRICITY WITHIN ONE  
36 WEEK; AND

37 (IV) FOR A G 1 OR G 2 RATED GEOMAGNETIC STORM, NO MORE  
38 THAN A BRIEF INTERRUPTION OF ELECTRIC SERVICE;

39 (c) THE ABILITY TO MONITOR THE SPACE WEATHER PREDICTION  
40 CENTER OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

1 IN ORDER TO:  
2 (I) PREPARE TO ISOLATE LARGE POWER TRANSFORMERS AND  
3 POWER GENERATION FROM THE GRID IF A CORONAL MASS EJECTION IS  
4 DETECTED WITH A POTENTIAL EARTH-ORBIT INTERSECTION;  
5 (II) REQUIRE, WITHIN FIVE MINUTES, THE MECHANICAL ISOLATION  
6 OF CRITICAL COMPONENTS IF OR WHEN A CORONAL MASS EJECTION IS  
7 LIKELY TO CAUSE GEOMAGNETICALLY INDUCED CURRENTS; AND  
8 (III) REQUIRE, WHEN APPROPRIATE, RESTRICTING OR CLOSING FUEL  
9 PIPELINE VALVES TO MITIGATE DAMAGE IN A SECTIONAL FAILURE;  
10 (d) THE FEASIBILITY OF THE INSTALLATION OF AUTOMATIC  
11 NEUTRAL GROUND BLOCKING DEVICES IN LARGE POWER TRANSFORMERS;  
12 (e) THE ABILITY TO ENSURE COMPUTER EQUIPMENT CAN BE  
13 MECHANICALLY ISOLATED FROM THE GRID AND SHELTERED FROM  
14 GEOMAGNETICALLY INDUCED SURGES;  
15 (f) THE ABILITY TO REQUIRE ALL NETWORKED SYSTEMS THAT  
16 OPERATE ELECTRICAL GENERATION AND DISTRIBUTION TO BE  
17 ELECTRONICALLY AND PHYSICALLY SEPARABLE FROM OUTSIDE  
18 NETWORKS; AND  
19 (g) THE ABILITY TO REQUIRE CYBER-CERTIFICATION OF HARDWARE  
20 AND SOFTWARE THAT OPERATE ELECTRICAL GENERATION AND  
21 DISTRIBUTION."

22 Renumber succeeding sections accordingly.

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