

Carl Levin 12⁵⁴ PM
S.L.C.

29)

AMENDMENT NO. _____ Calendar No. _____

Purpose: To provide a budget roadmap for the transition from petroleum to hydrogen in vehicles by 2020.

IN THE SENATE OF THE UNITED STATES—109th Cong., 1st Sess.

H.R. 6

T *Domenici*
for **AMENDMENT No. 0927** and
By *Levin*

To: *HR 6*

Ref: _____
_____ *5* _____
Page(s)

GPO: 2004 97-290(Mac)

AMENDMENT intended to be proposed by Mr. LEVIN

Viz:

- 1 On page 755, after line 25, add the following:
- 2 **SEC. 13. FUEL CELL AND HYDROGEN TECHNOLOGY**
- 3 **STUDY.**
- 4 (a) FINDINGS.—Congress finds that—
- 5 (1) according to the National Academy of
- 6 Sciences, “Greenhouse gases are accumulating in
- 7 Earth’s atmosphere as a result of human activities,
- 8 causing surface air temperatures and subsurface
- 9 ocean temperatures to rise . . . Human-induced

1 warming and associated sea level rises are expected
2 to continue through the 21st century.”;

3 (2) in 2001, the Intergovernmental Panel on
4 Climate Change (IPCC) concluded that the average
5 temperature of the Earth can be expected to rise be-
6 tween 2.5 and 10.4 degrees Fahrenheit in this cen-
7 tury and “there is new and stronger evidence that
8 most of the warming observed over the last 50 years
9 is attributable to human activities”;

10 (3) the National Academy of Sciences has stat-
11 ed that “the IPCC’s conclusion that most of the ob-
12 served warming of the last 50 years is likely to have
13 been due to the increase of greenhouse gas con-
14 centrations accurately reflects the current thinking
15 of the scientific community on this issue” and that
16 “there is general agreement that the observed warm-
17 ing is real and particularly strong within the past
18 twenty years”;

19 (4) a significant Federal investment toward the
20 development of fuel cell technologies and the transi-
21 tion from petroleum to hydrogen in vehicles could
22 significantly contribute to the reduction of carbon di-
23 oxide emissions by reducing fuel consumption;

24 (5) a massive infusion of resources and leader-
25 ship from the Federal Government would be needed

1 to create the necessary fuel cell technologies that
2 provide alternatives to petroleum and the more effi-
3 cient use of energy; and

4 (6) the Federal Government would need to com-
5 mit to developing, in conjunction with private indus-
6 try and academia, advanced vehicle technologies and
7 the necessary hydrogen infrastructure to provide al-
8 ternatives to petroleum.

9 (b) STUDY.—

10 (1) IN GENERAL.—As soon as practicable after
11 the date of enactment of this Act, the Secretary
12 shall enter into a contract with the National Acad-
13 emy of Sciences and the National Research Council
14 to carry out a study of fuel cell technologies that
15 provides a budget roadmap for the development of
16 fuel cell technologies and the transition from petro-
17 leum to hydrogen in a significant percentage of the
18 vehicles sold by 2020.

19 (2) REQUIREMENTS.—In carrying out the
20 study, the National Academy of Sciences and the
21 National Research Council shall—

22 (A) establish as a goal the maximum per-
23 centage practicable of vehicles that the National
24 Academy of Sciences and the National Research

1 Council determines can be fueled by hydrogen
2 by 2020;

3 (B) determine the amount of Federal and
4 private funding required to meet the goal estab-
5 lished under subparagraph (A);

6 (C) determine what actions are required to
7 meet the goal established under subparagraph
8 (A);

9 (D) examine the need for expanded and
10 enhanced Federal research and development
11 programs, changes in regulations, grant pro-
12 grams, partnerships between the Federal Gov-
13 ernment and industry, private sector invest-
14 ments, infrastructure investments by the Fed-
15 eral Government and industry, educational and
16 public information initiatives, and Federal and
17 State tax incentives to meet the goal established
18 under subparagraph (A);

19 (E) consider whether other technologies
20 would be less expensive or could be more quick-
21 ly implemented than fuel cell technologies to
22 achieve significant reductions in carbon dioxide
23 emissions;

1 (F) take into account any reports relating
2 to fuel cell technologies and hydrogen-fueled ve-
3 hicles, including—

4 (i) the report prepared by the Na-
5 tional Academy of Engineering and the
6 National Research Council in 2004 entitled
7 “Hydrogen Economy: Opportunities, Costs,
8 Barriers, and R&D Needs”; and

9 (ii) the report prepared by the U.S.
10 Fuel Cell Council in 2003 entitled “Fuel
11 Cells and Hydrogen: The Path Forward”;

12 (G) consider the challenges, difficulties,
13 and potential barriers to meeting the goal es-
14 tablished under subparagraph (A); and

15 (II) with respect to the budget roadmap—

16 (i) specify the amount of funding re-
17 quired on an annual basis from the Fed-
18 eral Government and industry to carry out
19 the budget roadmap; and

20 (ii) specify the advantages and dis-
21 advantages to moving toward the transi-
22 tion to hydrogen in vehicles in accordance
23 with the timeline established by the budget
24 roadmap.