

**AMENDMENT TO THE AMENDMENT IN THE
NATURE OF A SUBSTITUTE TO H.R. 3935
OFFERED BY MR. JOHNSON OF GEORGIA**

At the end of title VIII, add the following:

1 **SEC. ____ . HYDROGEN-POWERED AIRCRAFT.**

2 (a) FAA AND DEPARTMENT OF ENERGY LEADER-
3 SHIP ON USING HYDROGEN TO INCREASE AVIATION
4 DECARBONIZATION.—

5 (1) IN GENERAL.—The Secretary of Transpor-
6 tation, acting primarily through the Administrator
7 of the Federal Aviation Administration, and jointly
8 with the Secretary of Energy, shall exercise leader-
9 ship in the creation of Federal and international
10 policies, and shall conduct studies, relating to the
11 safe and efficient use of hydrogen to increase avia-
12 tion decarbonization and reduce air and noise pollu-
13 tion.

14 (2) EXERCISE OF LEADERSHIP.—In carrying
15 out paragraph (1), the Secretary of Transportation,
16 the Administrator, and the Secretary of Energy
17 shall—

1 (A) establish positions and goals for the
2 use of hydrogen to increase aviation
3 decarbonization;

4 (B) through grant, contract, or interagency
5 agreements, study the contribution the use of
6 hydrogen would have on aviation
7 decarbonization, including hydrogen as an input
8 for conventional jet fuel, sustainable aviation
9 fuel, and power to liquids or synthetic fuel, and
10 on air pollution and noise pollution, and study
11 ways of accelerating introduction of hydrogen-
12 powered aircraft;

13 (C) review grant eligibility requirements
14 and other policies and requirements of the Fed-
15 eral Aviation Administration and the Depart-
16 ment of Energy to identify ways to increase the
17 use of hydrogen;

18 (D) consider the needs of the aerospace in-
19 dustry, aviation suppliers, hydrogen producers,
20 airlines, and other stakeholders when creating
21 policies that enable the safe commercial deploy-
22 ment of hydrogen in aviation;

23 (E) obtain input from the National Aero-
24 nautics and Space Administration, the aero-
25 space industry, aviation suppliers, hydrogen

1 producers, airlines, airport sponsors, fixed base
2 operators, and other stakeholders regarding—

3 (i) the efficient use of hydrogen to
4 decarbonize aviation within United States
5 airspace, including—

6 (I) updating or modifying exist-
7 ing policies on such use;

8 (II) barriers to, and benefits of,
9 the introduction of aircraft powered
10 with hydrogen;

11 (III) the operational differences
12 between aircraft powered with hydro-
13 gen and aircraft powered with other
14 types of fuels;

15 (IV) impacts on aircraft emis-
16 sions; and

17 (V) public, economic, and noise
18 benefits of the operation of aircraft
19 powered with hydrogen and associated
20 aerospace industry activity; and

21 (ii) other issues identified by the Sec-
22 retary of Transportation, the Adminis-
23 trator, the Secretary of Energy, or the ad-
24 visory committee established under sub-
25 paragraph (F) that must be addressed to

1 enable the safe and expeditious commercial
2 deployment and safe and efficient oper-
3 ation of aircraft powered with hydrogen;
4 and

5 (F) establish an advisory committee com-
6 posed of representatives of the National Aero-
7 nautics and Space Administration, the aero-
8 space industry, aviation suppliers, hydrogen
9 producers, airlines, airport sponsors, fixed base
10 operators, and other stakeholders to advise the
11 Secretary of Transportation, the Administrator,
12 and the Secretary of Energy on the activities
13 carried out under this section and subsection
14 (b).

15 (3) INTERNATIONAL LEADERSHIP.—The Sec-
16 retary of Transportation, the Administrator, and the
17 Secretary of Energy, in the appropriate international
18 forums, shall take actions that—

19 (A) demonstrate global leadership in car-
20 rying out the activities required by paragraphs
21 (1) and (2);

22 (B) address the needs of the aerospace in-
23 dustry, aviation suppliers, hydrogen producers,
24 airlines, airport sponsors, fixed base operators,

1 and other stakeholders identified under para-
2 graph (2); and

3 (C) preserve the United States aviation
4 competitiveness.

5 (4) REPORT TO CONGRESS.—Not later than 1
6 year after the date of enactment of this section, the
7 Secretary of Transportation, acting primarily
8 through the Administrator, and jointly with the Sec-
9 retary of Energy, shall submit to the appropriate
10 committees of Congress a report detailing—

11 (A) the Secretary of Transportation’s, Ad-
12 ministrators’, and Secretary of Energy’s actions
13 to exercise leadership in the creation of Federal
14 and international policies, and of studies con-
15 ducted, relating to the safe and efficient use of
16 hydrogen to increase aviation decarbonization
17 and improve air and noise pollution;

18 (B) planned, proposed, and anticipated ac-
19 tions to update or modify existing policies re-
20 lated to hydrogen in the aviation sector, includ-
21 ing those identified as a result of consultation
22 with, and feedback from, the aerospace indus-
23 try, aviation suppliers, hydrogen producers, air-
24 lines, airport sponsors, fixed base operators,
25 and other stakeholders; and

1 (C) a timeline for any actions to be taken
2 to update or modify existing policies related to
3 hydrogen.

4 (b) FAA LEADERSHIP ON THE CERTIFICATION OF
5 HYDROGEN-POWERED AIRCRAFT TO INCREASE AVIATION
6 DECARBONIZATION.—

7 (1) IN GENERAL.—The Administrator shall ex-
8 ercise leadership in the creation of Federal regula-
9 tions, standards, and guidance relating to the safe
10 and efficient use of hydrogen to increase aviation
11 decarbonization, and reduce air and noise pollution.

12 (2) EXERCISE OF LEADERSHIP.— In carrying
13 out paragraph (1), the Administrator shall—

14 (A) establish a viable path for the certifi-
15 cation of hydrogen-powered aircraft that con-
16 sider existing frameworks;

17 (B) review certification regulations and
18 other requirements of the Federal Aviation Ad-
19 ministration to identify ways to facilitate the
20 use of hydrogen;

21 (C) consider the needs of the aerospace in-
22 dustry, aviation suppliers, hydrogen producers,
23 airlines, airport sponsors, fixed base operators,
24 and other stakeholders when creating regula-

1 tions and standards that enable the safe com-
2 mercial deployment of hydrogen in aviation;

3 (D) obtain the input of the aerospace in-
4 dustry, aviation suppliers, hydrogen producers,
5 airlines, airport sponsors, fixed base operators,
6 and other stakeholders regarding—

7 (i) the appropriate regulatory frame-
8 work and timeline for permitting the safe
9 and efficient use of hydrogen within
10 United States airspace, including updating
11 or modifying existing regulations on such
12 use;

13 (ii) how to accelerate the resolution of
14 issues related to standards and regulations
15 for the type certification and safe oper-
16 ation of aircraft powered with hydrogen;
17 and

18 (iii) other issues identified by the Ad-
19 ministrators or the advisory committee es-
20 tablished under subsection (a)(2)(F) that
21 must be addressed to enable the safe and
22 expeditious commercial deployment and
23 safe and efficient operation of aircraft
24 powered with hydrogen.

1 (c) AIRPORT IMPROVEMENT PROGRAM USE OF
2 FUNDS.—Section 47102 of title 49, United States Code,
3 is amended—

4 (1) in paragraph (3), by adding at the end the
5 following:

6 “(W) acquiring land for, or work necessary
7 for constructing, reconstructing, repairing, or
8 improving, or otherwise modifying an airport or
9 airport facilities, or property adjacent to, or in
10 the vicinity of, an airport but intended to sup-
11 port the airport to store and distribute hydro-
12 gen, sustainable aviation fuel, or electrification
13 to power aircraft.”; and

14 (2) in paragraph (13) (as redesignated by sec-
15 tion 401), by inserting “, including hydrogen and
16 electrification,” after “alternative fuels”.

17 (d) CLEEN ENGINE AND AIRFRAME TECHNOLOGY
18 PARTNERSHIP.—Section 47511(a) of title 49, United
19 States Code, is amended by striking “jet fuels for civil
20 subsonic airplanes” and inserting “jet fuels, hydrogen,
21 and batteries for aircraft”.

22 (e) CENTER OF EXCELLENCE FOR ALTERNATIVE
23 JET FUELS AND ENVIRONMENT (ASCENT).—

24 (1) IN GENERAL.—The Center of Excellence for
25 Alternative Jet Fuels and Environment (ASCENT)

1 shall conduct research on hydrogen to increase avia-
2 tion decarbonization. Such research shall be in addi-
3 tion to any other research authorized to be carried
4 out by the Center, including other research relating
5 to hydrogen.

6 (2) NATIONAL AVIATION RESEARCH PLAN.—Be-
7 ginning with the first National Aviation Research
8 Plan published after the date of enactment of this
9 section, as required under section 44501(c) of title
10 49, United States Code, the Administrator of the
11 Federal Aviation Administration shall include re-
12 search on hydrogen to increase aviation
13 decarbonization in such plan.

