

SENATE RESOLUTION No. 14

STATE OF NEW JERSEY

219th LEGISLATURE

PRE-FILED FOR INTRODUCTION IN THE 2020 SESSION

Sponsored by:

Senator JOSEPH PENNACCHIO

District 26 (Essex, Morris and Passaic)

SYNOPSIS

Urges Congress and President to increase funding for fusion energy research.

CURRENT VERSION OF TEXT

Introduced Pending Technical Review by Legislative Counsel.



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1 **A SENATE RESOLUTION** urging Congress and the President to
2 increase funding for fusion energy research.

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4 **WHEREAS**, Nuclear fusion is a method of producing energy by fusing
5 atoms of one or more elements together to create atoms of another
6 element; and

7 **WHEREAS**, Fusion requires temperatures of 150,000,000 degrees
8 Celsius, so successfully containing a fusion reaction has proven to
9 be a substantial engineering challenge; and

10 **WHEREAS**, Fusion promises to be a sustainable source of energy
11 which is environmentally benign, producing neither atmospheric
12 pollutants nor long-term radioactive waste; and

13 **WHEREAS**, Energy generation from fusion may result in improved
14 global political stability, since it would represent an inexpensive,
15 long-term energy source; and

16 **WHEREAS**, New Jersey is a leader in fusion energy research, and it is
17 home to the Princeton Plasma Physics Laboratory (PPPL), one of
18 the foremost centers for fusion energy research in the world; and

19 **WHEREAS**, The PPPL currently houses one of the most powerful
20 electromagnets in the world, which is needed to contain the high-
21 temperature plasma that allows for fusion, and the design of the
22 PPPL is currently thought to be the top contender for practical
23 fusion energy production; and

24 **WHEREAS**, Advancing fusion research is not only important because
25 of its direct applications, it also requires the development of new
26 technologies and materials that have unexpected beneficial
27 applications in other fields; and

28 **WHEREAS**, There is also a growing interest in fusion from the private
29 sector, and increased funding for public-private partnership
30 ventures could lead to economic benefits to the State; and

31 **WHEREAS**, The International Thermonuclear Experimental Reactor
32 (ITER) – which, when completed, will be the world's largest
33 magnetic confinement plasma physics experiment – is currently
34 under construction in France, and needs continued financial support
35 from the United States government in order to become operational;
36 and

37 **WHEREAS**, Congress should increase its appropriations to the Fusion
38 Energy Sciences program in the Department of Energy, in order to
39 support the PPPL, ITER, as well as private enterprises pursuing this
40 promising and potentially revolutionary technology; now, therefore,
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42 **BE IT RESOLVED** *by the Senate of the State of New Jersey:*

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44 1. This House urges Congress and the President to increase
45 funding for fusion energy research, in order to facilitate the
46 development of this promising energy source.

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1 2. Copies of this resolution, as filed with the Secretary of State,
2 shall be transmitted by the Secretary of the Senate to the President
3 of the United States, the Majority and Minority Leaders of the
4 United States Senate, the Speaker and Majority and Minority
5 Leaders of the United States House of Representatives, and each
6 member of the United States Congress elected from this State.

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STATEMENT

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11 This resolution urges Congress and the President to increase
12 funding for fusion energy research. Fusion promises to be an
13 inexpensive, sustainable, and environmentally friendly source of
14 energy, and facilitating its development could produce great
15 economic and environmental benefits for the country. In addition,
16 New Jersey is home to the Princeton Plasma Physics Laboratory
17 (PPPL), one of the foremost centers for fusion energy research in
18 the world.