111TH CONGRESS
1ST SESSION

S. _____

To amend the Energy Policy Act of 2005 to require the Secretary of Energy to carry out programs to develop and demonstrate 2 small modular nuclear reactor designs, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. BINGAMAN (for himself, Ms. MURKOWSKI, and Mr. UDALL of Colorado) introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To amend the Energy Policy Act of 2005 to require the Secretary of Energy to carry out programs to develop and demonstrate 2 small modular nuclear reactor designs, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Nuclear Power 2021 Act''.

SEC. 2. NUCLEAR POWER 2021 INITIATIVE.

Section 952 of the Energy Policy Act of 2005 (42 U.S.C. 16272) is amended by adding at the end the following:

''(f) NUCLEAR POWER 2021 INITIATIVE.—

''(1) DEFINITIONS.—In this subsection:

''(A) COMBINED LICENSE.—The term 'combined license' has the meaning given the term in section 52.1 of title 10, Code of Federal Regulations (or a successor regulation).

''(B) DESIGN CERTIFICATION.—The term 'design certification' has the meaning given the term in section 52.1 of title 10, Code of Federal Regulations (or a successor regulation).

''(C) SMALL MODULAR REACTOR.—The term 'small modular reactor' means a nuclear reactor—

''(i) with a rated capacity of less than 300 electrical megawatts; and

''(ii) that can be constructed and operated in combination with similar reactors at a single site.

''(2) DUTY OF SECRETARY.—The Secretary shall carry out, through cooperative agreements with private sector partners—

''(A) a program—

"(i) to develop a standard design for each of 2 small modular reactors, at least 1 of which has a rated capacity of not more than 50 electrical megawatts; and

"(ii) to obtain a design certification from the Nuclear Regulatory Commission for each of the 2 standard designs by January 1, 2018; and

"(B) a program to demonstrate the licensing of small modular reactors by—

"(i) developing applications for a combined license for each of the designs certified pursuant to subparagraph (A); and

"(ii) obtaining a combined license from the Nuclear Regulatory Commission for each of the designs by January 1, 2021.

"(3) MERIT REVIEW OF PROPOSALS.—The Secretary shall select proposals for cooperative agreements under this subsection—

"(A) on the basis of an impartial review of the scientific and technical merit of the proposals; and

"(B) through the use of competitive procedures.

"(4) TECHNICAL CONSIDERATIONS.—In evaluating proposals, the Secretary shall take into account the efficiency, cost, safety, and proliferation resistance of competing reactor designs.

"(5) COST-SHARE REQUIREMENTS.—

"(A) DESIGN DEVELOPMENT.—Notwithstanding section 988, the Secretary shall require that not less than 50 percent of the cost of the development of each small modular reactor design under paragraph (2)(A) be provided by a non-Federal source.

"(B) LICENSING DEMONSTRATION.—Notwithstanding section 988, the Secretary shall require that not less than 75 percent of the cost of the licensing demonstration of each small modular reactor design under paragraph (2)(B) be provided by a non-Federal source.

"(C) CALCULATION OF AMOUNT.—Non-Federal contributions under this subsection shall be calculated in accordance with section 988(d).".