AMENDMENT TO H.R. 3607

OFFERED BY MR. TONKO OF NEW YORK

Page 21, strike lines 14 through 17 and insert the following:

''(1) High-efficiency turbines in accordance with the program under section 969A–1.''.

Page 22, line 22, insert ''and section 969A–1'' after ''this section''.

Page 23, after line 2, insert the following:

''SEC. 969A–1. HIGH EFFICIENCY GAS TURBINES.

''(a) IN GENERAL.—The Secretary of Energy, through the Office of Fossil Energy, shall carry out a multiyear, multiphase program of research, development, and technology demonstration to improve the efficiency of gas turbines used in power generation systems and to identify the technologies that ultimately will lead to gas turbine combined cycle efficiency of 67 percent or simple cycle efficiency of 50 percent.

''(b) PROGRAM ELEMENTS.—The program under this section shall—

''(1) support first-of-a-kind engineering and detailed gas turbine design for megawatt-scale and utility-scale electric power generation, including—

''(A) high temperature materials, including superalloys, coatings, and ceramics;

''(B) improved heat transfer capability;

''(C) manufacturing technology required to construct complex three-dimensional geometry parts with improved aerodynamic capability;

''(D) combustion technology to produce higher firing temperature while lowering nitrogen oxide and carbon monoxide emissions per unit of output;

''(E) advanced controls and systems integration;

''(F) advanced high performance compressor technology; and

''(G) validation facilities for the testing of components and subsystems;

''(2) include technology demonstration through component testing, subscale testing, and full-scale testing in existing fleets;

''(3) include field demonstrations of the developed technology elements so as to demonstrate technical and economic feasibility; and

''(4) assess overall combined cycle and simple cycle system performance.

''(c) PROGRAM GOALS.—The goals of the multiphase program established under subsection (a) shall be—

''(1) in phase I—

''(A) to develop the conceptual design of advanced high efficiency gas turbines that can achieve at least 65-percent combined cycle efficiency or 47-percent simple cycle efficiency on a lower heating value basis; and

''(B) to develop and demonstrate the technology required for advanced high efficiency gas turbines that can achieve at least 65-percent combined cycle efficiency or 47-percent simple cycle efficiency on a lower heating value basis; and

''(2) in phase II, to develop the conceptual design for advanced high efficiency gas turbines that can achieve at least 67-percent combined cycle efficiency or 50-percent simple cycle efficiency on a lower heating value basis.

''(d) PROPOSALS.—Within 180 days after the date of enactment of this Act, the Secretary shall solicit grant and contract proposals from industry, small businesses, universities, and other appropriate parties for conducting activi-

ties under this Act. In selecting proposals, the Secretary shall emphasize—

''(1) the extent to which the proposal will stimulate the creation or increased retention of jobs in the United States; and

''(2) the extent to which the proposal will promote and enhance United States technology leadership.

''(e) COMPETITIVE AWARDS.—The provision of funding under this section shall be on a competitive basis with an emphasis on technical merit.

''(f) COST SHARING.—Section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352) shall apply to an award of financial assistance made under this section.

''(g) LIMITS ON PARTICIPATION.—The limits on participation applicable under section 999E of the Energy Policy Act of 2005 (42 U.S.C. 16375) shall apply to financial assistance awarded under this section.''.

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