Background:

Over the past two years, a growing number of experts have called upon the federal government to launch a national program to develop a highly skilled clean energy workforce. In April 2009, President Obama responded by proposing the first national energy education initiative to inspire and train young Americans “to tackle the single most important challenge of their generation — the need to develop cheap, abundant, clean energy and accelerate the transition to a low carbon economy.”

The proposal, called RE-ENERGYSE (Regaining our Energy Science and Engineering Edge), is part of the Obama administration’s 2011 budget request and would represent the nation’s first comprehensive federal program for clean energy education. With oversight by the Department of Energy and National Science Foundation, it would educate thousands of clean energy scientists and engineers, beginning with $74 million for energy-related programs at universities, community and technical colleges, and K-12 schools. It would also include targeted support for under-represented populations and applicants attending Minority Serving Institutions.

RE-ENERGYSE is a critical step toward regaining U.S. leadership in the clean energy industry. As a group of over 100 organizations wrote to Senate leaders in 2009, “RE-ENERGYSE is an innovative program that will train America’s future energy workforce, accelerate our transition to a prosperous clean energy economy, and ensure that we lead the world’s burgeoning clean technology industries.” The FY2011 RE-ENERGYSE proposal comes after Congress rejected the original proposal in the 2010 budget request. Despite this setback and the current budgetary environment, the administration decided not to give up, because it believes this is a significant priority for supporting the nation’s clean energy industry and training the next generation of energy leaders.

Universities, students, and young leaders have a unique opportunity and a significant role to play in advancing this initiative. RE-ENERGYSE needs a much stronger base of support to pass Congress this year, and as the primary stakeholders in the program, young people can be particularly influential in organizing a coalition of supporters and directly voicing their concerns to members of Congress.

Program Summary:

If appropriated by Congress, RE-ENERGYSE will be coordinated by the Department of Energy (DOE) and National Science Foundation (NSF), beginning with an initial investment of $74 million in clean energy-related education at universities, community and technical colleges, and K-12 schools. This will include a new $50 million program within DOE’s Office of Energy Efficiency & Renewable Energy, a $5 million program in DOE’s Office of Nuclear Energy, and a $19 million program within NSF. The program is expected to expand over time.
A summary of each program is included below. DOE’s well-known Solar Decathlon is also proposed to become part of RE-ENERGYSE in FY2011. The primary component of RE-ENERGYSE, proposed by the Department of Energy’s Office of Energy Efficiency & Renewable Energy, is under the jurisdiction of the House and Senate Appropriations Subcommittee on Energy and Water Development. These subcommittee members and some relevant schools are listed here: http://leadenergy.org/reenergyse/key-districts/

**DOE’s Office of Energy Efficiency & Renewable Energy** summarizes its program as follows: “RE-ENERGYSE will develop leading edge undergraduate and graduate programs; help between 3,000 and 6,000 highly educated scientists, engineers, and other professionals enter the clean energy field by 2016; and approximately 7,000 to 13,000 professionals by 2021. By 2016, efforts will result in the development of approximately 75 community college and other training programs to equip thousands of technically skilled workers for clean energy jobs. By 2016, thousands of U.S. residents and students will be educated about clean energy technologies leading and cost saving benefits [from energy efficiency].” See full proposal here:


**DOE’s Office of Nuclear Energy** summarizes its program as follows: “This program will provide important educational support to bolster nuclear engineering and science programs at U.S. universities, which supports continued use of nuclear power… RE-ENERGYSE supports university nuclear engineering programs through scholarships and fellowships. These fellowships will complement existing Federal efforts and will help ensure that the next generation of scientists and engineers are available to support existing and future nuclear energy generation capacity and provide necessary innovation… In FY 2011, the RE-ENERGYSE program plans to fund approximately 88 one-year scholarships and 30 three-year fellowships to students enrolled in nuclear energy-related fields of study of disciplines at U.S. universities and two-year colleges.” See full proposal here:


**National Science Foundation** summarizes its program as follows: “In FY 2011, NSF will invest roughly $19.0 million in RE-ENERGYSE through five existing research and education programs that help develop the future STEM workforce. These programs provide fellowships, traineeships, and research opportunities for undergraduate and graduate students, as well as build collaboration between academia and industry. NSF will contribute at least 5 percent of its support for the following programs towards specific, energy-related awards: Graduate Research Fellowship (GRF); Graduate STEM Fellows in K–12 Education (GK–12); Integrative Graduate Education and Research Traineeship (IGERT); Support for community colleges through Advanced Technological Education (ATE); and Research Experiences for Undergraduates (REU) sites.” See full proposal here:


More information is available here: http://leadenergy.org/reenergyse/