**Notice of Intent**

B.S. Energy Science and Technology

Western Washington University

Program Description: Describe the proposed program, including level, focus, overview of the curriculum, and brief rationale for offering the program at this time and/or place.

The BS degree in Energy Science and Technology will give students knowledge and analytic skills in the science and technology of today's diverse energy systems and industries. The degree is designed to prepare graduates to become leaders in Washington's emerging clean energy economy, with an interdisciplinary education that emphasizes applied science and technology, complemented by energy policy and business practices, that industry experts have prioritized among Washington’s energy workforce needs.

Institutional Role and Mission: Note if and, if so, how the new program or location would result in any change in mission.

This program follows directly from Western’s mission and results in no change in mission.

Documentation of Need for the Program: Document the need for the program, with emphasis on student demand. Describe how the program and/or location will support the state’s goals for higher education. Identify similar programs offered by other public or independent institutions in the region, and differentiate it from similar programs. Identify any options for collaboration.

Combined with our existing BA degree in Energy Policy and Management, the proposed BS degree will complete the nation’s first comprehensive, inter-disciplinary, undergraduate energy degree program. The only similar programs are graduate degrees in other states.

This program fills current and emerging needs identified by the Institute for Energy Studies’ advisory board, based on its members’ experience in industry, government and non-profit sectors, and a shared vision of a transition to a sustainable, efficient, clean energy economy. This vision is fully aligned with the Washington clean energy initiative that was recently launched by the Governor and Legislature.

Student interest was first measured via a 2011 survey of student interest in energy classes and majors revealed strong demand for general energy education. The survey included all sophomores and all graduating seniors. Survey results showed that an overwhelming majority (75% – 80%) of those who responded (n=500) indicated that an energy-related program was a good fit for WWU and would be, or would have been, of interest to the student as a primary degree or minor.

Today, student interest is demonstrated by the growing enrollment in all of our energy programs. Our existing programs include about 35 courses offered under the ENRG (Energy) rubric. Enrollment is currently about 120 students in the energy BA major, energy concentrations in the Electrical Engineering BS and the Business & Sustainability BA, and Energy Policy and Energy Science minors. To date, a self-designed BS through the Huxley College of the Environment is the only option for WWU students to pursue a BS in the energy field, and students are seeking a more robust energy BS degree option.

Format and Articulation: Note where and when the program will be offered (day/evening/weekend/campus/distance/etc.) and, for undergraduate programs, the plan for articulation with associate degree programs, including any applicable major‐ready pathways.

Program courses will be taught on the main campus in Bellingham primarily using face-to-face daytime instruction. Some courses will also be offered online, in a synchronous (real-time participation) format. The major has been developed so that transfer students entering with an associate degree can complete the core series and the required electives in two years. This requires them to complete 100 and 200 level preparatory courses in physics, mathematics, chemistry and economics which are widely available in AA programs.

Students: Describe the student population to be served, and project enrollments for five years.

The Energy Science and Technology BS program will serve students with aptitude for the sciences, interest in the transition from inefficient use of fossil fuels to a clean, efficient energy system, and career motivation to help resolve urgent global risks such as climate change. We expect the program will enroll approximately 30 students per graduating class.

Resource Implications: Identify whether the program will be state‐supported or, for graduate and fee‐based programs, the level of tuition to be charged, and any other significant resource implications.

The BS in Energy Science and Technology is a state-supported program.