**Description of Qualifier Exam**

**for the Ph.D. Program in**

**Wind Energy Science, Engineering and Policy (WESEP)**

**July 1, 2013**

**Objective of exam**: The objective of the qualifier exam is to determine if the student is able to perform research at the level required by the Ph.D. degree.

**Expected timeframe of exam**: The qualifier exam is to be administered during the third full semester following the student’s entry into the program.

**Evaluation committee**: The evaluation committee is comprised of four members of the WESEP graduate faculty. The initial committee (for academic year 2013-2014) will be composed of members of the WESEP Core Committee (Jackman, McCalley, Sarkar, Takle). Two members will be replaced at the end of every academic year; two members from the WESEP core committee will be retained to ensure consistency. The evaluation committee will be the same for all students taking the qualifier exam during a given academic year. Aside from maintaining consistency, this procedure facilitates faculty understanding of the breadth of ongoing research within the WESEP program. A member of the evaluation committee who is also the major professor of a particular student being examined will be recused during committee deliberations in the case of that particular student.

**Exam format**: The student submits a 5-7 page paper one week in advance of the exam date and provides a 15-minute oral summary of the paper, followed by approximately 15 minutes of questioning by the evaluation committee. The qualifier exam is “open” (i.e., anyone may attend the sessions). The major professor is particularly encouraged to be present. The student may be questioned on the content of the submitted paper and presented materials, information from graduate courses taken to date (particularly related to fundamental concepts), and research methods and approaches.

**Problem to be addressed**: The student should develop a research problem related to the dissertation. This may include an articulation of the dissertation problem itself or a sub-problem within the dissertation topic. Some amount of literature review is appropriate. The student will be asked to expound on a research problem and its significance, list the main questions to be answered, propose the method(s), identify needed resources and potential issues that might emerge, and explain expected outcomes. The student should drive the idea and area of work with guidance from the major professor.

**Exam result**: The result of the exam will be either pass or fail. A student not passing can repeat once. No third attempt is allowed.