Date: October 27, 2014

To: Curriculum Programs Committee

From: Academic Programs Working Group

Re: Level II Program Proposal for Minor in Building Energy Systems

The APWG received the program proposal for a minor in Building Energy Systems from the Curriculum Programs Committee on 10/7/14 and posted it on the Faculty Senate web page for comments. No comments were received via email or the Faculty Senate forum prior to our review.

The proposed Minor in Building Energy Systems addresses a growing need for engineers and architects to work together to produce sustainable, energy efficient, and high-performing buildings. The proposed minor is designed to provide a student majoring in Mechanical, Electrical, or Civil Engineering, Construction Engineering Technology, Mechanical Engineering Technology, or Architecture with the cross-disciplinary knowledge and skills necessary for building design within contemporary architecture and engineering design methodologies. The minor requirements include cross-departmental and cross-college courses in Integrated Building Design, Power Systems, Environmental Controls/HVAC, Building Construction/Design, and Building Information Modeling.

While the program design is complicated due to the various course options and multiple majors that could benefit from this minor, the proposed requirements and how they could be satisfied by students with different majors are well laid out. Suggestions from APWG on potential ways to improve clarity in the program description were passed on to the proposers, but no changes in the program itself were seen as necessary for success of the program. The resources needed are in hand, with the exception of resources needed for the development of two new courses: a 1-credit energy audit lab and a 2-credit building information modeling lab. One-time course development funds will likely come from external sources or an internal grant. The proposed minor is unique in Montana and surrounding states, it satisfies a clear current and future need of society, and the minor will likely be in high demand. A search of MSU database for similar MUS programs in the areas of sustainable architecture, building design, or energy efficient buildings did not produce any results.

The members of the APWG unanimously recommend the proposal be approved.