LETTER OF NOTIFICATION – 2

ESTABLISHMENT OF ADMINISTRATIVE UNIT

(Center, Division or Institute not offering primary faculty appointments or certificate/degree programs)

1. Institution submitting request: University of Arkansas, Fayetteville

2. Contact person/title: Dr. H. Alan Mantooth, Distinguished Professor

3. Phone number/e-mail address: (479) 575-4838 / mantooth@uark.edu

4. Name of Proposed Administrative Unit: NSF Engineering Research Center on Power Optimization for Electro-Thermal Systems (POETS)

5. Proposed Location: POETS will be headquartered at the Cato Springs Research Center (CSRC) on the University of Arkansas campus. Other center activities will occur at the National Center for Reliable Electric Power Transmission (NCREPT), the High-Density Electronics Center (HiDEC), the Institute for Nanoscience and Engineering, and in individual professor's labs.

6. Distance of proposed unit from main campus: under 1 mile.

7. Reason for proposed action: Recognition of a National Science Foundation Engineering Research Center, a university-based center, with all of the rights and privileges therein.

8. Mission and role for proposed unit:

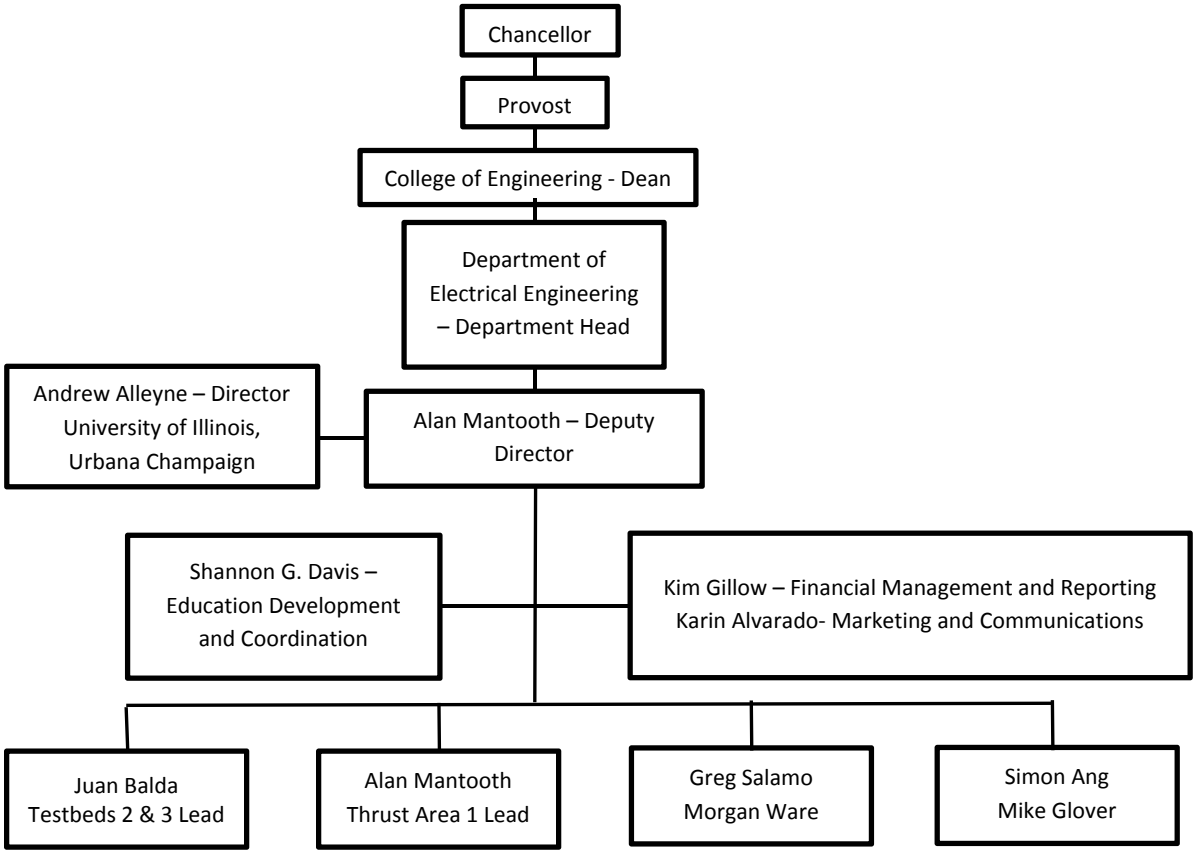
POETS is an Engineering Research Center won by the University of Illinois at Urbana Champaign, The University of Arkansas at Fayetteville, Stanford University and Howard University. POETS is the first Engineering Research Center ever awarded in the state of Arkansas. These four universities include a multi-disciplinary team that will create new paradigms for power flow in complex systems. POETS long term goal is to increase the power density of current mobile electrified systems by 10-100 times over current state of the art systems. While ambitious, this would have profound impact on a mobile electrified infrastructure of the U.S. and beyond. On-highway vehicles could save between 100-300 million liters of fuel per year and could nearly double the range of all-electric vehicles. Off-highway vehicles could save on the order of 100 billion liters of fuel since their electrification is starting from a less mature point than current on-highway vehicles. Similarly, aircraft could see 10-30 billion liters of fuel saved as well as up to 10 million tons of CO2 saved from going into the high altitude atmosphere. These economic and environmental impacts are just the beginning of the art of the possible with the achievement of the POETS vision. This center is a multi-disciplinary center involving several fields of study including Mechanical Engineering, Electrical Engineering and Physics. The center functions under the assumption that a single discipline could not achieve the goals set by this team and must integrate multiple disciplines and domains to achieve such success.

The University of Arkansas serves a major research role for the Center. POETS will conduct an NSF REU (Research Experiences for Undergraduates) Site Program, an RET (Research Experiences for Teachers) program and other activities throughout the life of the center. As the Deputy Director of the Center, Dr. Mantooth plays a critical role in the central administration of the center. In addition to providing

administrative leadership, UA faculty are also providing research leadership. Dr. Mantooth serves as the lead for Thrust Area 1 and Dr. Juan Balda serves as the lead for testbeds 2 and 3.

9. Provide current and proposed organizational chart.

University of Arkansas internal center organization is illustrated below:



10. Copy of e-mail notification to other institutions in the area of proposed location and their responses; include your reply to the institutional responses.

Not required.

11. Provide additional program information if requested by ADHE staff.

See attachment.

President/Chancellor Approval Date:

Board of Trustees Approval or Notification Date:

Chief Academic Officer: Date: