Nevada EPSCoR Advisory Committee

Agenda
March 10, 2014
Minutes

In attendance: ○ Dave Archer, ● Greg Bortolin, ● Lori Botelho, ● Heidi Gansert, ● Greg Ihde, ● Dan Klaich, ● Rob Nielsen, ● Mike Skaggs, ○ John White, ● Joyce Woodhouse, ○ Missy Young
Other Participants: ● Crystal Abba, ● Lori Brazfield, ● Gayle Dana, ○ Alan Gertler, ○ Mridul Gautam, ● Tom Piechota

1. Welcome and Introductions (Klaich)
   a. Those in attendance are noted above
   b. Quorum was present (50% of committee members + State EPSCoR Director)
2. Purpose and Importance of NVEAC (Klaich)
   a. Purpose was described and included in Charter
   b. Importance of committee members from industry, state, academia, and government
3. Nuts and Bolts of NVEAC (Brazfield)
   a. Rationale for membership makeup
   b. Expectation of committee members
   c. Expectation of Chair, Vice Chair
   d. Term limits
      i. Terms were decided to be through a drawing and were determined from 1, 2 or 3 years for rotations. This was moved by H. Gansert, approved.
   e. Expectations EPSCoR Office and State Director were discussed to include all communications, scheduling meetings, set meeting topics
   f. Meeting frequency – quarterly
4. EPSCoR 101 (Dana)
   a. Overview/History of National EPSCoR Programs
      i. Power Point was provided, and attached
   b. Overview/History of Nevada EPSCoR Programs
   c. Nevada EPSCoR Projects: Highlighted a couple of past key projects, currently funded projects, upcoming proposals (e.g. DOE)
   d. Impacts of EPSCoR Program: Return on investment and other impact information – included as attachment
5. Committee Chair and Vice Chair nominations (Klaich)
   a. Motion was made to adopt Charter, moved by H. Gansert and seconded by G. Bortolin
   b. Motion was made for Chair nomination for Heidi Gansert and Vice Chair nomination for Mike Skaggs was moved by D. Klaich and seconded by L. Botelho. Moved for Nomination.
   c. Set next meeting date (Dana)
      i. months were suggested for July, October, January and dates are being set
Handouts:
EPSCoR 101 Power Point
NVEAC Organization Chart
Charter
Return on Investment - EPSCoR
Nevada EPSCoR Advisory Committee Meeting
March 10, 2014    NSHE System Offices
Outline

1. National EPSCoR Programs
2. Nevada’s EPSCoR Programs
3. Current Nevada EPSCoR Projects
4. New Opportunities
National EPSCoR Programs

- National Science Foundation (NSF)
- National Aeronautics and Space Administration (NASA)
- Department of Energy (DOE)
- Department of Defense (DOD)
- United States Department of Agriculture (USDA)
- National Institutes of Health (NIH) – Institutional Development Award (IDeA)
EPSCoR History

- Initiated in 1979 by Congress to avoid undue geographical concentration of federal funding
- Authorized by the America Competes Act
- Draws on all the talents of the U.S.
  - Aging workforce
  - US lagging in global S&E
EPSCoR Goals

- Increase state R&D capacity and competitiveness
- Advance state S&E capabilities for discovery, innovation, and knowledge-based prosperity
- Programs offered tied to agency’s mission
EPSCoR States

- <0.75% of NSF’s funding
  - Nevada = 0.24%
  - California = 14%
- 28 states + 3 jurisdictions
  - Hold 20% of U.S. academics
  - Receive 10% of federal research dollars
EPSCoR/IDeA Impacts

Ensuring the benefits of scientific research in all states

Bolstering

NATIONAL RESEARCH COMMUNITY
Employing the expertise, experience, and efforts of all states to advance innovation and the quality of life

Building

STATES’ PARTICIPATION
Integrating 25 states and 3 territories more fully into federal research opportunities and benefits
 Guaranteeing that all states and regions benefit from the U.S. research investment

Benefiting

INDIVIDUALS AND COMMUNITIES
Training our students for high-paying jobs in today’s ‘high tech’ workforce
Bringing science and engineering solutions to state and local issues
Enhancing knowledge and research potential of our world class faculty and graduate students
Nevada’s EPSCoR Programs

- Became an EPSCoR state in 1985
- Successful with NSF, NASA, DOE, DOD EPSCoR and NIH IDeA
- Currently has active NSF, NASA, NIH awards
- DOE:
  - No offering from DOE since 2010
  - New solicitation released in 2014
- DOD: no appropriations since 2009
Nevada System of Higher Education (NSHE)
Nevada EPSCoR Funding

Return on investment from past projects = $143,518,340
Current NV EPSCoR Projects
Three Research Infrastructure Improvement (RII) awards started in 2013:

- Track-1
- Track-2
- Track-3
The Solar Energy-Water-Environment Nexus in Nevada (Track-1)

- 5 years (2013-2018)
- $20M
- Research on solar energy generation technology, its environmental impacts and associated water issues, accelerated by cyberinfrastructure
Major Impacts

- Significant S&T improvements to Nevada
- Innovative research
- Diverse pool of STEM graduates
- Sustainable STEM workforce
- Stakeholder collaborations
- Contribute to intellectual capital of the US
Western Consortium for Watershed Analysis, Visualization, and Exploration (Track-2)

- 3 years (2013 – 2016)
- $2M
- Advance watershed science, workforce development, and education with cyberinfrastructure (CI)-enabled discovery and innovation
Cyber-Learning Activities to Scaffold STEM Practices (Track-3)

- 3 years (2013-2016)
- $749,700
- Cyber-learning methodologies/trainings for teachers to enhance STEM learning opportunities and achievement for underrepresented minorities and rural students
Current NASA EPSCoR Awards

- Three CAN* Awards ($2.25M)
  - Topic specific addressing high-priority NASA research and technology needs
- Two RID** Awards ($1.1M)
  - Enables states to build and strengthen relationships with NASA researchers

*Cooperative Agreement Notice
**Research Infrastructure Development
EPSCoR CANs

1. Aerospace Robotic
   - 3 years (2013-2016)
   - $750,000

2. Remote Sensing Aerosols
   - 4 years (2010-2014)
   - $750,000

3. Planetary Exploration
   - 6 years (2009-2015)
   - $750,000
New Opportunities

- DOE Implementation Program
- Three years
- Up to $2.5M per year
- Topics: clean energy, e.g.
  - New battery technologies
  - Innovative energy storage and energy efficiency
- Proposals due 4/15/14
Questions?
Charter
Nevada EPSCoR Advisory Committee

ARTICLE I
NAME
The name of the organization shall be the Nevada EPSCoR Advisory Committee.

ARTICLE II
NATURE
The Nevada EPSCoR Advisory Committee (herein referred to as the Committee) is an independent body responsible for providing guidance to Nevada’s EPSCoR programs by identifying potential research and development (R&D) improvement strategies and activities that are consistent with Nevada’s Science and Technology Plan and most likely to advance the further development of a nationally competitive academic R&D capability.

ARTICLE III
DEFINITIONS
The Committee has established the following definitions for the interpretation of the charter and other documents related to Nevada’s EPSCoR programs.

Experimental Program to Stimulate Competitive Research (EPSCoR): EPSCoR is a program authorized by Congress that provides strategic programs and opportunities for EPSCoR participants that stimulate sustainable improvements in their R&D capacity and competitiveness; and advances science and engineering capabilities in EPSCoR jurisdictions for discovery, innovation, and overall knowledge-based prosperity.

Minority-serving Institutions (MSI): A federal designation of institutions serving high proportions of minority students. UNLV meets the requirements as an Asian American, Native American, and Pacific Islander-Serving Institution (AANAPISI) and is an emerging Hispanic Serving Institution (HSI). Nevada State College is an AANAPISI, and College of Southern Nevada is an HSI.

Nevada System of Higher Education (NSHE): NSHE oversees all state-supported higher education in Nevada. Two doctoral-granting research universities, one state college, four community colleges and one research institute comprise the System.

NSHE System Sponsored Programs and EPSCoR Office (NSHE SPO/EPSCoR): This office is a unit within the Nevada System of Higher Education (NSHE), Academic and Student Affairs Department. The office is charged with administrative and financial regulations and compliance requirements that govern grants and contracts for EPSCoR and other statewide programs.
Committee: This council consists of the Vice Chancellor for Academic and Student Affairs (Chair) and the Vice Presidents for Research from the Desert Research Institute (DRI), University of Nevada Reno (UNR), and University of Nevada Las Vegas (UNLV). The mission of the Council is to promote, support and stimulate statewide research efforts in order to maximize and leverage research productivity across NSHE.

Nevada EPSCoR Director: This individual works collaboratively with the Nevada EPSCoR Office and EPSCoR Project Directors to meet Nevada’s EPSCoR needs and is the only recognized official liaison between the Committee and federal agency program officers.

Nevada EPSCoR Project Directors: These individuals are recognized by federal agencies as being responsible for the implementation and management of specific Nevada EPSCoR programs including NSF EPSCoR, NASA EPSCoR, DOE EPSCoR, and DoD EPSCoR. The selection of Project Directors and duration of their terms are specified in procedural documents held in the Nevada EPSCoR office.

State EPSCoR Committee Chair: This individual is responsible for the implementation of policies and procedures as established by the Committee.

EPSCoR Coalition and EPSCoR Foundation: Nevada may have members on the Boards of both the Coalition and the Foundation and may periodically inform the Nevada EPSCoR Advisory Committee on national issues related to EPSCoR programs. The EPSCoR Coalition is a national, non-profit organization whose purpose is to promote expansion of the capacity of the United States and Commonwealths and territories to carry out scientific and engineering research and education. The EPSCoR Foundation Board is a national, non-profit organization aimed at promoting the importance of a vibrant science and technology enterprise.

**ARTICLE IV**

**PURPOSES**

1. The purpose of the Nevada EPSCoR Advisory Committee is to:

   a) Support and assist in the development of science and technology in the State of Nevada, including education, research infrastructure and competitiveness, and technology transfer;

   b) Connect science, technology, engineering and mathematic advancements for a pathway to a diverse well-prepared STEM-enabled workforce and economic development and diversification;

   c) Advise the State EPSCoR Director on strategic directions for sustained health and growth of Nevada’s EPSCoR programs and align them to the Nevada Science and Technology Plan, and the governor’s economic development plan: Moving Nevada Forward: A Plan for Excellence in Economic Development 2012-2014; and

   d) Facilitate linkages of the EPSCoR programs with legislators, businesses, committees, associations and other interested parties about the importance of EPSCoR in Nevada and the critical role science and technology play in development of Nevada’s economy.
2. In accomplishing these purposes, the Committee shall:

   a) Provide guidance and direction on research, education, and economic strategies for EPSCoR programs and proposal themes;
   b) Promote state stakeholder (private sectors, agencies, and legislators) support of, and linkages with Nevada’s EPSCoR programs;
   c) Review quarterly progress reports from EPSCoR office;
   d) Review and provide input to the Nevada Science and Technology Plan;
   e) Ensure proposals are aligned with the Nevada Science and Technology Plan and the governor’s economic development plan: *Moving Nevada Forward: A Plan for Excellence in Economic Development 2012-2014*;
   f) Identify niche and emerging research and economic development opportunities; and
   g) Provide guidance on demonstrating importance of research to state economy.

**ARTICLE V**

**COMMITTEE**

1. *General Powers.* The Committee, in consultation with the designated Nevada EPSCoR Director and the Committee Chair, shall administer with the purposes set forth.

2. *Number and Qualifications:* The Committee shall consist of not more than 15 members, preferably in the following categories:

   a) A representative from the Nevada State Department of Education with STEM/GEAR UP/P-20 background;
   b) A representative from a private sector entity related to Nevada EPSCoR’s technology and/or research focus;
   c) Three representatives from academia: (1 each) from DRI, UNR, and UNLV in the following positions and/or expertise: Provost; government relations; or economic development/technology transfer;
   d) A representative from the Nevada Governor’s Office of Economic Development (GOED);
   e) One member from the Nevada Legislature;
   f) A representative from the aerospace/defense sector (private or federal);
   g) A representative from the business information technology (IT) sector; and
   h) A representative from the business, entrepreneurship and technology sector; and
   i) The Nevada EPSCoR Director as ex officio member.

3. *Method of Selection.* Vacancies will be filled by appointment by the NSHE Research Affairs Council and will serve at the pleasure of the Chancellor.

   a) The initial chair is the NSHE Chancellor.
   b) Subsequent chairs and a vice chair will be nominated by the Committee and approved by the NSHE Research Affairs Council.
   c) The chairperson is responsible for presiding at all committee meetings and signing all charters, resolutions, and minutes. She/he represents the committee and serves as the
visible arm of the state’s EPSCoR project. The vice-chairperson is to preside at all meetings in the absence of the Chairperson.

4. Terms of Office.

a) An elected member will serve for a term of three years, but may be removed with due cause from membership by NSHE Research Affairs Council action.
b) Committee members can be reelected to unlimited consecutive terms, but must be nominated and elected at the end of each term.
c) Initial terms will be staggered so that approximately 1/3 of the members will be rotating off the Committee in any given year.
d) Members receive no compensation for their services. The Nevada EPSCoR office will pay travel and per diem expenses pursuant to NSHE policy and dependent upon availability of funding for such purposes.
e) Terms will expire on October 31st of the year indicated by the appointment action.
f) In the event a vacancy occurs, the NSHE Research Affairs Council may appoint a replacement member to serve the remainder of the term.

5. Removal from Office. The NSHE Research Affairs Council, by majority consensus, may remove any non ex officio member from the Committee. Any member may be removed from the Committee by a majority vote of the Committee.

6. Meeting Schedule. The Committee will meet on a regular basis.

a) Regular Meetings. There shall be at least four (4) regular meetings of the Committee each year. These meetings are to be scheduled approximately every three months.
b) Special Meetings. Special Meetings of the Committee may be called by the Committee Chair, three Committee Members, and the NSHE Research Affairs Council, OR the designated Nevada EPSCoR Director.
c) Place of Meetings. The Committee Chair shall designate the time and place for all regular and special meetings and will typically be via teleconference.
d) Quorum. A quorum is defined by 50% of the specified membership, but must include the Nevada EPSCoR Director.
e) Invited Guests. The Committee Chair may, from time to time, invite special guests to attend Committee meetings.

7. Meeting Conduct. The Committee Chair will preside over the meeting. In the event that the Committee Chair cannot attend a meeting, the Vice Chair will preside.

a) Meeting Agenda. The Committee Chair will distribute an agenda and all materials at least one week before any regular meeting.
b) Conduct. The meeting will be conducted according to Robert’s Rules of Conduct.
c) Minutes. The minutes of each meeting shall be recorded by a person appointed by the Committee Chair and kept on file at the NSHE SPO/EPSCoR office.
d) Staff Support. The NSHE SPO/EPSCoR office will provide staff support for committee meetings.
8. *Special Committees.* The Committee Chair, with the concurrence of the Committee, may designate standing or ad hoc committees as needed. Special committee membership may include members of the Committee as well as selected outside individuals as the Committee deems appropriate.

**ARTICLE VI**

**AMENDMENTS**

Amendments to this Charter may be adopted by a vote of at least seventy-five percent (75%) of the Committee members present at any regular or called (special) meeting provided that at least 30 days written notice is given of the intention to adopt the revised Charter at said meeting. This Charter shall become effective when it is adopted.
*Vacant positions are not currently being searched due to budget constraints*
### Nevada EPSCoR Funding and Follow-on Proposals

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<tr>
<th>Title</th>
<th>Award Period</th>
<th>Award #</th>
<th># of funded proposals</th>
<th>Amount funded</th>
<th>Sponsor Amount</th>
<th>Return on Investment</th>
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| Total                                      | 338                | $157,364,615    | $85,741,330          |               |               |                      |                |

**Notes:**
- These funding amounts only include the federal, no special projects or matching is included in the Sponsor Award amounts.
- Proposals funded after the end date of the award are not captured in these numbers.
- DEPSCoR funds were directly awarded to the institution no reporting with NSH.
- * Means that it did not have a higher return than the federal sponsor.
- * Means project may be incrementally funded per year and project is still active. NSF is funded at $4M/year for a total of $20M.