



COLORADO HIGHER EDUCATION COMPETITIVE RESEARCH AUTHORITY

University of Colorado: Colorado State University: University of Northern Colorado: Colorado Schools of Mines: State of Colorado

March 3, 2014

Honorable Members of the House and Senate Education Committees
State Capitol
200 East Colfax
Denver, CO 80203

Re: Annual Report of the Colorado Higher Education Competitive Research Authority
(CHECRA)

Dear Senators and Representatives:

Colorado Revised Statute §23-19.7-103(3) requires the Colorado Higher Education Competitive Research Authority (CHECRA) to report annually to the Education Committees of the Colorado House of Representatives and Senate on research projects funded by the CHECRA in the previous calendar year. This letter reports on calendar year 2013.

The CHECRA was created to provide a source of matching funds for National Science Foundation (NSF) and other federal grants that require a state match. CHECRA funding has helped to bring significant research dollars to Colorado. Cumulatively, CHECRA funding over six years of \$9.5 million has brought in \$45 million over the same time period.

CHECRA provided funding for the following six projects in 2013:

1. The National Science Foundation (NSF) awarded a Materials Research Science and Engineering Center (MRSEC) grant in 2008 to the Colorado School of Mines. The Center is focused on investigating emerging renewable energy materials, such as the next generation of solar panels and fuel cells. It is the first NSF-funded center dedicated solely to renewable energy technologies. The CHECRA has pledged \$400,000 per year to this Center and has made 5 of six payments; CHECRA will make the final payment in early 2014.
2. Also in 2008, the NSF awarded a second MRSEC grant to the University of Colorado for a continuation of CU's Liquid Crystal Research Center. This Center's research is contributing to a number of different fields, including better liquid crystals for solar panels and the origins of DNA. The CHECRA has pledged \$400,000 per year to this Center and made the final of six payments to CU in 2013.

3. Colorado State University's Extreme Ultraviolet Engineering Research Center is a world leader in the generation and application of extreme ultraviolet light to challenging scientific and industrial problems. The CHECRA has made three payments of \$400,000 each and will make the final of four pledged payments to CSU in early 2014.
4. The Colorado School of Mines Re-inventing the Nation's Urban Water Infrastructure (ReNEWIt) Engineering Research Center received the third of five payments of \$400,000 from the Authority in 2013. With this grant, the School of Mines joins leading universities in tackling the acute water problems and needed infrastructure changes facing the West.
5. The Center for Multiscale Modeling of Atmospheric Processes (CMMAP) at Colorado State University received the third of five payments of \$150,000 from the Authority in 2013. CMMAP is a partnership of research and educational institutions, government agencies, and industry, and it focuses its research on improving the representation of cloud processes in climate models.
6. A research project at Colorado School of Mines called Water Quality and Supply Impacts from Climate-induced Insect Tree Mortality and Resource Management in the Rocky Mountain West. This five-year effort will determine potential water resource changes resulting from the mountain pine beetle epidemic. The CHECRA made the first of 5 payments of \$75,000 in calendar year 2013.

Attachments A-F include detailed information on each of these projects.

During calendar year 2013, the Authority received quarterly distributions from the waste tire recycling fees totaling \$411,108. The Authority also received a single distribution of Limited Gaming Funds of \$2.1 million. Interest earnings on those funds totaled \$16,091, for a total income of \$2,527,199 in 2013.

Please contact me if you have any questions.

Sincerely yours,



Lt. Gov. Joseph A. Garcia
Chair