

FY10 Research & Development

Staff Summaries and Recommendations

July 2009

The R&D Committee met in April and invited start-up operating proposals from five research centers previously funded by the Commission for construction of facilities. The following requests for Research & Development grant funds were received by June 15, 2009, requesting \$5.25 million (these are listed and described below).

Request #	Organization Name	Project Title	Request Amount	Staff recommendation
1824	Halifax Educational Foundation	Riverstone Energy Center	\$750,000	\$375,000
1831	Institute for Advanced Learning and Research	Operating Funds for Sustainable Energy Technology Center	\$750,000	\$750,000
1845	Region 2000 Research Institute	Operating Support for the CAER Research & Education Facility	\$750,000	\$750,000
1830	Southern Virginia Higher Education Center	R&D Advanced Manufacturing Center at SVHEC	\$1,500,000	\$375,000
1829	Southwest Virginia Higher Education Center	Southwest Virginia Clean Energy Research & Development Field Lab Operations	\$750,000	\$750,000
1840	Wise County IDA	Appalachia America Energy Research Center	\$750,000	\$750,000
Grand Totals			\$ 5,250,000	\$3,750,000
Amount available			\$53,300,000	\$49,550,000

Halifax Education Foundation

Riverstone Energy Center (#1824)

\$750,000

The Riverstone Energy Center located in Halifax County's Riverstone Technology Park is focused on modeling, simulation and visualization in the energy and environmental sectors. The Center's resources are intended to be available for use in providing proof of concept for new and emerging technology before they are scaled to the pilot phase of commercialization. The Center has successfully attracted five company partners to date and anticipates adding five new partners over the next three years. Funds are requested to support two years of salaries and benefits for the director and fiscal administrator (\$343,337); two years of contractual services for telecommunications (\$121,200), travel (\$33,400), and IT support (\$74,000); continuous charges for lease of building (\$123,063); and equipment to furnish the center (\$55,000).

Total project cost is \$750,000. Other funds include: VDOE unspecified for 59% of fiscal administrator's salary.

Staff comments and recommendation: The Energy Center is one of two components of the research center construction proposal funded by Special Projects in July 2008 for the South Boston/Halifax site. A previous TICR grant of \$1,196,532 was awarded in January 2008 for this Center from FY08 SSED. Of that previous award, \$215,532 is budgeted for these positions and contractual operating costs over the past 18 months. **Staff recommends award of \$375,000 to assist in operating costs over the next 18 months.**

Institute for Advanced Learning and Research

Operating Funds for Sustainable Energy Technology Center (#1831)

\$750,000

The IALR, located in Danville/Pittsylvania, will initiate a research and development program contributing to a biobased economy in the tobacco region. The vision of the SEnTeC, which will be built adjacent to IALR, is to serve as a primary tool for the development and growth of a biobased energy industry in Southside Virginia and the surrounding region. SEnTeC intends to expand IALR capabilities in plant biology for optimizing material conversion to biofuels and biobased products, building regional capacity for bioenergy crop development, establishing laboratory and pilot-scale facilities to evaluate and optimize energy crop conversion, enhance business environment for bioenergy technology enterprises, and to commercialize bioenergy and bioproduct technologies. Funds are requested over three years for a marketing and business development specialist, a research scientist, and an administrative assistant (\$405,000); travel for staff associated with SEnTeC to attend conferences and meet with potential sponsors (\$41,000); supplies and materials (\$32,000); and continuous charges for rent in the Hawkins Center in the interim while the new building is being constructed, and then to support operating costs of the new Center (\$272,000).

Total project cost is \$1,387,500. Other funds include: \$100,000 annually (\$300,000 over 3 years) Higher Education Equipment Trust Fund for research and development equipment; \$156,250 Economic Development Administration proposal for marketing and business development professional to be submitted in Fall 2009.

Staff comments and recommendation: Staff recommends award of \$750,000.

Region 2000 Research Institute dba CAER

Operating Support for the CAER Research & Education Facility (#1845)

\$750,000

CAER's Energy Research Center in Region 2000 (Bedford, Campbell and Appomattox Counties) will focus on nuclear energy research and development, and applications of wireless technologies to Smart Grid and energy efficiency. A new structure for the Energy Research Center will be built in Bedford County's New London Business & Technology Center. Funds requested over a three year period will be used for personnel including a research program manager, facility manager, administrative staff, and to engage local engineering students as interns (\$357,800); for contractual services to support travel and marketing needed to build partnerships with universities and federal

laboratories (\$205,000); supplies and materials (\$27,200); and continuous charges and to help with initial facility operating costs (\$160,000).

Total project cost is \$2,467,908. Other funds include: \$30,000 DCHD grant, \$125,418 annually UVA contract for CGEP program, \$30,000 local government council support for FY2010, \$95,615 annually (\$286,845 over 3 years) Region 2000 Partnership campaign, and \$934,809 indirect cost on program revenue.

Staff comments and recommendation: Staff recommends award of \$750,000.

Southern Virginia Higher Education Center

R&D Advanced Manufacturing Innovation Center at the Southern Virginia Higher Education Center (#1830)

\$1,500,000

The Center, which is based in South Boston (Halifax County) will provide industries around the region with a “Smart Factory”, a resource to help solve product design issues and to create prototypes of new products or components. A primary area of focus is on the wood products industry. Funds requested over three years under personal services are for an R&D center coordinator, project manager, wood machine specialist, administrative assistant, receptionist, and a custodian (\$651,000); contractual services include contract for research personnel, research and education expertise to meet industry needs, and for staff travel (\$330,000); supplies and materials for R&D testing (\$76,000); and continuous charges for lease payments made to the Halifax Education Foundation (\$532,000). The Center will begin operations in a portion of the SVHEC before moving into the adjacent former American Tobacco warehouse that will be renovated using TICR funds.

Total project cost is \$1,989,242. Other funds include: \$545,000 SVHEC operations; 700,000 CDBG award for equipment; and an additional \$525,000 pending application with USDA and private funding commitment requests for equipment.

Staff comments and recommendation: The Advanced Manufacturing Center is the second of two components of the research center construction proposal funded by Special Projects in July 2008 for the South Boston/Halifax site. The Center operations to date have been funded by a portion of grant #1274 to SVHEC (an Education grant awarded in January 2007). To date more than \$222,000 has been expended for salaries of wood science faculty, plus related operating expenses for that program since staff was hired in early-2008. The Center has a pending grant request in Special Projects (\$285,000), and additional future operating support is possible through TICR programs including R&D, Southside Economic Development and/or Education. **Staff recommends award of \$375,000 to assist in operating costs over the next 18 months.**

Southwest Virginia Higher Education Center
Southwest Virginia Clean Energy Research & Development Field Lab
Operations (#1829)
\$750,000

Funds are requested for start-up expenses during the first 36 months of operation of the Southwest Virginia Clean Energy R&D Field Lab to be built adjacent to the Higher Education Center in Abingdon (Washington County). The majority of the funding will be used to hire key staff whose primary responsibilities will be to raise operating capital for the Field Lab and to secure research projects. By August 2009 a Director for the Lab will be on board and by fall 2009 a Director of Development will be hired. The Director of Development will be responsible for raising money to sustain ongoing operations and it is through these efforts that all positions will be sustained beyond the initial 36 month period. These initial operating funds will also be used to hire a person (title has yet to be determined) who will be charged with aligning industry needs with university research opportunities. This person is expected to be hired in spring 2010. In addition to personnel expenses, a portion of the start up grant will be used (in FY11) for travel, marketing, and contractual services with industry experts. By FY12, construction will be complete and the facility will be open. Two new positions will be added at that time (full time custodial and a part time lab manager) and grant funds will be used for their salary and benefits. In addition, funds will also be used to purchase equipment, support marketing, contractual services, travel and program support.

Total project cost is \$1,989,242. Other funds include: \$700,000 SwVHEC (budget expenditures); \$32,000 SwVHEC (non-general fund, to be generated); \$51,000 SwVHEC Foundation (to be committed); \$125,000 state and federal grants (pending/future applications)

Staff comments and recommendation: Staff recommends award of \$750,000.

Wise County Industrial Development Authority
Appalachia America Energy Research Center (#1840)
\$750,000

Funds are requested to support the first three years of operations for the 24,000 square foot Appalachia America Energy Research Center to be built on a 16-acre site in Wise County's Lonesome Pine Technology Park. The funds will be used to assist in the recruitment and development of projects and personnel, for staffing, and for general facility maintenance. The Center Director and other staff will pursue public and private investment to ensure the long term viability and sustainability of the Center's operations. The Center's first prospective tenant is NanoChemonics Corp, which is tentatively committed to leasing 14,000 square feet for research purposes.

Total project cost is \$855,000. Other funds include: \$105,000 Wise County IDA (available as needed)

Staff comments and recommendation: Staff recommends award of \$750,000.