



CSU Bakersfield

## California Energy Research Center

Director



Leadership Profile

## The Opportunity



[Tehachapi Wind Farm](#)

The School of Natural Sciences, Mathematics, and Engineering (NSME) at the California State University, Bakersfield (CSUB) announces a search for the Director of the California Energy Research Center (CERC). The primary mission of CERC is to support, promote, and expand interdisciplinary energy-related research at CSUB. The CERC Director will achieve this mission by organizing interdisciplinary faculty-student teams to compete for extramural grant funding; by working with University Advancement to promote the activities of the Center to potential supporters and donors; and by developing partnerships with other universities and local energy industries.

In addition to supporting research activities, CERC supports the educational mission of the University by offering energy-related courses and other programming and by creating opportunities for students to work in internships or on grant funded research projects. The CERC Director will teach energy-related classes, organize periodic energy-related events, and develop energy-related educational opportunities in collaboration with local industries.

The CERC Director will be a visionary leader whose entrepreneurial spirit will develop and grow the activities and impact of the center. Reporting to the Dean of NSME, s/he will build strong relationships with CERC-affiliated faculty and community partners and chair the CERC Community Advisory Board. The CERC Director will have experience in bringing together interdisciplinary teams in pursuit of grant funding. S/he will have budget and management experience, along with experience working effectively in an academic environment. The Director will be a public spokesperson and advocate for CERC and will work to increase the visibility of CERC and CERC activities both on campus and in the community, so excellent communication, interpersonal, and organizational skills will be essential for success.

This search is underway and will continue until the position is filled.

## About CSUB

California State University, Bakersfield (CSUB) is a growing, comprehensive regional university located north of Los Angeles in the southern San Joaquin Valley. Founded in 1965, this member of the California State University system has over 11,000 enrolled students in more than 50 bachelor's and master's degree programs. CSUB is the only four-year degree granting institution within a hundred-mile radius, serving a vast region in the southern San Joaquin Valley. The service area covers nearly 25,000 square miles and encompasses Kern, Tulare, Inyo, and Mono counties, along with parts of Los Angeles and Kings Counties. The majority of CSUB students come from, and reflect, the surrounding community; they are majority underrepresented minorities, first-generation, and Pell grant eligible.



Areas of pride for CSUB include:

- **Education Changing Lives**: U.S. News and World Reports ranked CSUB 22<sup>nd</sup> out of Western regional universities for positively impacting socioeconomic status of graduates;
- **Regional Workforce Development**: Over 70% of CSUB alumni live and work in the San Joaquin Valley;
- **Faculty Quality**: Nearly 75% of faculty, and nearly all tenured/tenure-track faculty, hold terminal degrees in their respective fields;
- **A Student Focus**: CSUB boasts small class sizes, close interactions between faculty and students, and an emphasis on high-impact practices in teaching;
- **Quality Research**: The quality of CSUB faculty research programs is evidenced by millions of dollars in National Science Foundation and other grant funding and by regular faculty publications;
- **Research in the Service of Education and the Region**: With an emphasis on student engagement in research, faculty projects address issues of regional interest – for example, Valley

Fever, smart-home energy efficiencies, and the use of mist cooling in agriculture, among others;

- **Community Resource:** From open hours at the Fab Lab to public lecturers and performances to science summer camps for kids, CSUB is a resource for the community.

CSUB has four schools – Arts and Humanities; Business and Public Administration; NSME; and Social Sciences and Education – and an extension campus about 90 miles away in the Antelope Valley. CERC affiliated faculty come primarily, but not exclusively, from NSME. NSME has seventy-five tenure track or tenured faculty members in seven departments –



Biology; Chemistry and Biochemistry; Computer and Electrical Engineering and Computer Science; Geological Sciences; Mathematics; Nursing; and Physics and Engineering. The departments offer twelve undergraduate degrees and as well as master's degrees in biology, geology, and nursing. Despite high teaching loads, NSME faculty maintain active research programs with an emphasis on involving students, both graduates and undergraduates, in their work.

NSME is growing, with four expansion faculty hires planned for next year and two degrees – an undergraduate degree in public health and a master's degree in computer science – under development. Three new engineering degrees – computer and electrical engineering and general engineering – received ABET accreditation in 2018, the first year in which they were eligible. Planning is currently underway for a new campus facility – the 60,000 square foot Energy and Engineering Innovation Building.



The CSUB campus is located in southwestern Bakersfield.

Bakersfield is a city of almost 400,000 residents. Close to a million people live in the greater Bakersfield-Delano area. A diverse and [affordable](#) city, Bakersfield has good schools, sunny weather, and a small community feel. [Outdoor opportunities](#) abound within a hundred-mile radius – including at Sequoia National Park, Lake

Isabella, and the Wind Wolves Preserve, among many others – and the city boasts many [attractions](#) including restaurants, nightlife, and family focused [events and activities](#). Los Angeles and the beaches and other attractions of Southern California are within a short drive.



## About CERC

CERC was created in May 2014 and formally opened a year later. The mission of CERC is as follows:

*The California Energy Research Center shall have as its purpose to expand the capabilities of CSUB faculty, research scientists, post-docs and students to conduct research in the area of sustainable and affordable energy production and generation.*

CERC achieves its mission through three primary objectives: 1) supporting and increasing energy-related student and faculty research; 2) creating meaningful partnerships between CSUB, other area institutions of higher education, the energy industry, and associated agencies; 3) serving as a resource on energy issues for the CSUB community and for area schools, policy makers, and public.



It is well known that California is the third highest oil and gas producing state, and Kern County produces 70% of the oil and gas in California. It may be less well known that the region is also the home of significant wind, solar, geothermal, and biofuels energy generation, earning it the nickname of [“the Energy Capital of California.”](#) Kern County has:

- [More wind turbines](#) than any other county in the nation;
- The [world’s largest solar plant](#) with other [projects in the works](#);
- The [state’s largest biofuels plant](#) and other [biofuels innovations](#); and
- The [Cosco Geothermal Project](#).

There are over [thirty major energy companies](#) in the area, and CSUB and CERC have strong existing partnerships with many of these companies.

Kern County is also one of the [top agricultural producing counties](#) in the state making it an ideal laboratory for the many scientific challenges at the nexus of agriculture, energy, and water. Thus, a focus on meeting these challenges is naturally consistent with the CSUB mission to increase overall educational attainment, enhance the quality of life, and support economic development in the region.

A focus on energy also capitalizes on existing CSUB resources and expertise. CSUB has established programs in biology, biochemistry, chemistry, computer science, computer and electrical engineering, economics, geological sciences, general engineering, mathematics and statistical science, and physics. CSUB faculty members from multiple departments have energy-related research expertise and an impressive track-record of peer-reviewed publications and grant writing; areas of specialization include energy economics, exploration, production, generation, and impact, among others. CSUB students have access to courses centered on energy issues across the curriculum, including Renewable Energy Production, Fundamentals of Power Systems, Fundamentals and Transport in Petroleum Engineering, and Energy Economics and Policy, to name but a few.

NSME maintains the California Well Sample (Core) Repository, the Fab Lab, and a wide variety of state-of-the-art laboratories. Specialized labs and equipment available to CSUB faculty and students include a high-resolution computer tomography system, a scanning electron microscope, a geomaterial properties testing system, a sediment analysis laboratory, a hardware-in-the-loop real-time simulator, and an X-Ray diffractometer. Computer labs and workstations are equipped with state-of-the-art software for the simulations, mapping, and interpretations used in the study of petroleum engineering, petroleum geology, internet security, and geographic information systems among others.



The planned Energy and Engineering Innovation Building (EEIB) includes three, large, state-of-the-art, flexible-use CERC research labs. These new labs will be a valuable resource in support of interdisciplinary, project-focused, CERC-sponsored research. The new CERC director will have the opportunity to participate in the design of these labs and in the development of their programming. The EEIB will also include a visible presence for CERC in its main entry foyer.

CERC is a new initiative, and much of its potential is as yet unrealized. The new CERC Director has the opportunity to grow and expand this new center and to help shape its role in CSUB research and education and in the local community.

## Opportunities and Expectations for Leadership

The University and its leadership recognize the significant potential of CERC to increase energy-focused research support and productivity; to enhance educational opportunities for undergraduate and graduate students; and to elevate the role and image of the institution as a source of energy-related research and expertise. We seek a collaborative, visionary, organized, and goal-oriented leader who shares the recognition of this potential, and who has the enthusiasm, energy, and personal skills needed to develop CERC into a recognized and impactful campus and community resource. Specifically, the Director will contribute to the growth and development of CERC as described below:

- **Cultivate Interdisciplinary Research:** The successful CERC Director will develop a thorough knowledge of CSUB faculty expertise in order to build research connections within the CSUB faculty. S/he will also build CSUB faculty connections with external researchers by developing relationships with other area colleges, research universities, and institutes.
- **Expand Energy-Focused Grant Writing:** In collaboration with interdisciplinary teams and CSUB's Office of Grants and Sponsored Programs, the CERC Director will facilitate and coordinate grant writing that supports research and increases opportunities for CSUB faculty and students. S/he may serve as principal investigator and grant manager if appropriate while primarily facilitating proposal writing and grant acquisition for other faculty teams and principal investigators.
- **Increase Student Opportunities:** CSUB prides itself on the many transformative educational experiences available to its undergraduate and graduate students. Through grant writing and the cultivation of community connections, the CERC Director will look to expand these opportunities, particularly in the areas of student-faculty research and internships.
- **Position CERC as a Community Energy Resource:** The research activities of CSUB faculty and students are not well understood in the local community, and the CERC Director will develop relationships with local companies and media in order to position CERC as a source of energy-related expertise. S/he will organize and host occasional community focused events, such as energy-related roundtables or speakers.

- **Raise CERC Visibility:** The CERC Director will have the opportunity to elevate awareness of the center, both internally and externally. S/he will meet periodically with departments and the NSME Chairs Council, publicize CERC accomplishments, and host occasional campus and community energy-focused events. These events will include an annual showcase of energy-related research. S/he will participate as appropriate in community organizations and events – for example, the Kern Economic Development Corporation’s annual [energy summit](#).
- **Revitalize and Expand CERC Advisory Boards:** The successful CERC Director will recognize the importance of broad support and collaborative decision making to the success of the center. To that end, and with the NSME dean and University Advancement, the CERC director will articulate and refine the roles of a newly created faculty advisory board and the existing community advisory board. S/he will seek to engage actively and productively with these boards.
- **Contribute to Energy-Related Curricula:** There are no teaching expectations for the CERC Director in the first year, and s/he will teach one course in the second year. Teaching load in subsequent years will depend on the activities of the center but is expected to be about one course per year. Through his/her teaching, and through his/her encouragement and support of others, the CERC Director will enhance the existing energy-related courses at all levels.
- **Support Fundraising Efforts:** Many area energy industries are strong supporters of CERC; for example, the center is now managing a \$250K grant from Chevron in support of student-faculty research. The CERC Director will work closely with University Advancement to cultivate and increase this support on behalf of the center and its activities.

## Personal Qualifications and Qualities

The next director of CERC will have a strong record as an academic and a scholar and a track-record of grant-acquisition and management. S/he will be the face of CERC to both the campus and the community. As such, s/he must be personable, professional, and enthusiastic. Strong oral and written communication skills are required, as is the ability to develop positive, productive relationships with a wide variety of stakeholders. A strong work ethic and the ability to independently set and achieve milestones and goals, meet deadlines, and follow-through on commitments is required.

Ideally the next director will have experience in an environment similar to the one in which CERC operates, namely a primarily undergraduate, regional, Hispanic- and minority-serving university. S/he



must understand the role of research and the constraints on faculty and students in such an environment. The successful candidate will be a flexible leader who finds personal success and gratification in supporting the success of others and who is able to facilitate accomplishments by inspiring others to work collaboratively and cooperatively.

Budget and financial management experience will be helpful, particularly related to developing and funding collaborative research projects that involve multiple institutions. Fundraising experience and experience with staff and program management is also preferred.

The next CERC Director will have a doctorate in a field represented by one of the following departments in NSME: biology, computer and electrical engineering and computer science, geological sciences, mathematics, and physics and engineering. S/he will have accomplishments and experience meriting appointment with tenure at the associate or full-professor level. The position of director is an academic year appointment with a preferable start date of August 2020.

### Procedure for Candidacy

Inquiries, nominations, and applications are invited. An application must include a curriculum vitae, a list of at least three references, and a letter detailing the candidate's qualifications and experience relative to the position. Applications may be sent to Katie Van Grinsven at: [kvan-grinsven@csub.edu](mailto:kvan-grinsven@csub.edu). Questions about the position may be directed to the NSME dean at: [nsme@csub.edu](mailto:nsme@csub.edu)

Applications will be accepted until the position is filled. However, review of applications will begin on February 3, 2020; applications must be received by that date in order to be guaranteed full consideration.

Appointment will be contingent on a background check. CSUB offers a competitive salary and an excellent package of benefits.

*California State University, Bakersfield is committed to Equal Opportunity. Applicants will be considered without regard to gender, race, age, color, religion, national origin, sexual orientation, marital status, disability or covered veterans' status.*

