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UC San Diego Shows Extraordinary Commitment to Climate Solutions

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San Diego, California - University of California, San Diego, one of the nation's greenest college campuses, has begun construction on a sustainable energy program that's among the largest in the nation by a university.

The far-reaching program, which includes solar, biogas fuel cells and wind energy, began with the first installation of solar photovoltaic panels atop a campus utility plant. Soon, buildings and parking garages across the 1,200-acre campus next to the Pacific Ocean will feature solar panels. UC San Diego's green energy capacity will eventually produce 29 million kilowatt hours a year, which is enough to provide electricity for more than 4,500 homes a year, and remove an equivalent of 10,500 tons of carbon dioxide from the atmosphere each year. That's the equivalent of removing 1,500 cars a year from the roads, which means UC San Diego is doing more than its part to limit pollution.

Across UC San Diego, scientists, students and university staff work together on solutions to climate change.

"This photovoltaic installation marks an historic event for a campus that has become a living laboratory for climate change solutions," said Steve Relyea, Vice Chancellor of Business Affairs. "Our sustainable energy program is the result of a campuswide commitment by students, faculty and administration to advance environmental sustainability on a local, national and global level."

As Scripps Institution of Oceanography at UC San Diego celebrates the 50th anniversary of the Keeling Curve, the first measurement of greenhouse gas build-

up which was conducted by Scripps scientist Charles David Keeling, the university will soon be generating 7.4 megawatts of green energy, providing 10-15 percent of its annual electrical usage. Producing green energy reduces the university's use of greenhouse gas-generating fossil fuels that are warming the planet and polluting the air we breathe.

Researchers and students at UC San Diego are working on a wide range of environmental sustainability projects, including developing biofuels from algae and wood debris. Planners design green dorms with automatic sun shading to save energy and drainage systems that stop all storm runoff from flowing into the nearby ocean. Students and fleet managers have begun a biofuel shuttle bus line, which decreases UC San Diego's reliance on greenhouse gas-generating fossil fuels. The world's top climate change researchers and post-docs discover the impact of Asian brown cloud pollution on global climate and of rising temperatures on the western U.S. water supply.

UC San Diego's green energy program will continue to unfold over the next year, as the first 1 megawatt of solar photovoltaic panels is constructed and a second megawatt is planned and implemented.

In addition to the solar photovoltaic project, UC San Diego will produce another 2.4 megawatts of energy from fuel cells powered by renewable methane. The methane fuel will be transported to UC San Diego from the Point Loma sewage treatment plant, where it is produced. Construction begins this fall. Not only does this produce green energy that replaces carbon-based energy, but it also removes pollutants from local air, since the methane is currently flared into the atmosphere at the sewage plant.

UC San Diego also begins a unique program to swap fossil fuel-generated energy for wind power. The university will throttle back its natural gas-powered cogeneration plant at night and replace the power with electricity purchased from California wind farms. This project, the first of its kind in California, will generate up to 3 megawatts of green energy.

The solar photovoltaic and biogas fuel cell construction projects are cost-free for the university. UC San Diego has negotiated power purchase agreements, in which investors construct, install and maintain the photovoltaic panels and fuel cells on campus property, and the university then buys the power from investors through long-term contracts.

UC San Diego has teamed up with local, national and international companies on its sustainable energy project. Three partners are working with the university on the solar photovoltaic project. Borrego Solar, Inc., a national solar power contractor based in El Cajon, California, is the installer; Envision Solar, Inc., of San Diego, designer of the solar "trees" that will be built on top of UC San Diego parking structures, also is involved. Solar Power Partners (SPP™), Inc., of Mill Valley, CA, is the financier and owner of the solar photovoltaic arrays. The biogas fuel cells are financed, constructed and owned by The Linde Group, an international industrial gases and engineering company.

The work to bring discovery, solutions, and practical application to the climate change challenges affecting our world are being confronted by the best and brightest at UC San Diego.