RAMONA COMMUNITY PLANNING GROUP

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From: Ramona Community Planning Group Attn: Kristi Mansolf, Secretary 15873 Highway 67 Ramona, CA 92065

Cc: **Dianne Jacob, Supervisor Second District** San Diego County Board of Supervisors 1600 Pacific Highway, Room 335 San Diego, CA 92101-247

Date: August 20, 2008

Subject: SDG&E Application for the Sunrise Powerlink Project, SCH No. 2006091071, DOI Control No. DES-07-58; General Comments Submitted in Connection with the Recirculated Environmental Impact Report

Dear CPUC/BLM,

The Ramona Community Planning Group (RCPG), composed of elected representatives of the Ramona Community Planning Area in San Diego County, submits the following comments in the above-referenced matter. As the deadline for comments is August 25, 2008, these comments are submitted timely.

The Project has evolved from transmitting renewable energy from Imperial County to San Diego and Los Angeles County, to the addition of a connection to the La Rumorosa project in Mexico.

The RCPG states here for the record that the RCPG is opposed to the San Diego Gas and Electric (SDG&E) proposed Sunrise PowerLink Project (SPL). Its 50

significant unmitigatable impacts raise great concern to us, including the unmitigatable and significant impact of potential wildfire ignition.

The RCPG is very concerned about the potential for catastrophic wildland fires ignited by powerlines in Santa Ana wind conditions, particularly as the Ramona community suffered greatly in the 2007 Witch Creek Fire, determined to have been caused by SDG&E powerlines by CALFIRE (California Department of Forestry and Fire Protection) in its recently released report. While the company maintains that the larger transmission lines do not start fires, the RCPG is aware of testimony that identifies two 230kV power line fires in 2006 and 2007. The proposed project will be made up of 54 miles of 230kV lines, 16 miles of which would directly cross the Ramona Planning Area. The RCPG is also concerned about maintenance issues of any and all powerlines crossing the Ramona planning group area due to past experience with power line fires.

We believe that the proposed project's negative impacts would far outweigh any benefits gained. We are not convinced that the project will access renewable energy, as promised by SDG&E. SDG&E, despite its recent announcement of a local solar project, is continuing to engage in the antiquated technology of transmission expansion with the proposed SPL project, instead of addressing the issue of energy provision through local conventional and renewable generation. SDG&E is failing to seriously and genuinely address large scale development of solar rooftop installations in urbanized areas along the existing power grid (such as the recent Southern California Edison announced project of 250 megawatts of rooftop solar) – an option that would meet the advertised project goals of promoting reliability, cost efficiency and the use of renewable energy.

In reference to the Recirculated Draft Environmental Impact Report (RDEIR) and the host of issues this report raises, we ask the Commission to honor its top two alternatives of local generation by prioritizing in-basin resources above major transmission-dependent projects, power which may not be intended for San Diego County. Additionally, San Diego County's environment should not be compromised by energy generated in a foreign country (Mexico) where different standards apply. We suggest that SDG&E familiarize themselves with the innovative developments being made by other entities, such as Massachusetts Institute of Technology (MIT) as a step toward learning how to develop effective renewable energy planning. [See Appendix A]

On September 27, 2006 California's Governor Arnold Schwarzenegger signed Assembly Bill 32 (AB32), the Global Warming Solutions Act of 2006. This resulted in committing California to the goal of attaining an 80 percent reduction of greenhouse gas emissions by the year of 2050. The project, while being proposed as necessary to access renewable energy, would result in causing an overall net increase in greenhouse gas emissions and a significant climate change impact.

The RCPG is opposed to the Sunrise PowerLink project purposes and goals, and to the addition of the La Rumoroso element of the project. We recommend local, inbasin generation, preferably renewable local solar generation on rooftops, and support the Commission's top two alternatives as outlined in the DEIR

Respectfully submitted,

HELENE RADZIK, Chair Ramona Community Planning Group

APPENDIX A

'Major discovery' from MIT primed to unleash solar revolution

Scientists mimic essence of plants' energy storage system

Anne	Trafton,	News	Office
July 31, 2008			

In a revolutionary leap that could transform solar power from a marginal, boutique alternative into a mainstream energy source, MIT researchers have overcome a major barrier to large-scale solar power: storing energy for use when the sun doesn't shine.

Go to this web site to see Daniel G. Nocera describe new process for storing solar energy. http://newsoffice.techtv.mit.edu/file/1243/

Until now, solar power has been a daytime-only energy source, because storing extra solar energy for later use is prohibitively expensive and grossly inefficient. With today's announcement, MIT researchers have hit upon a simple, inexpensive, highly efficient process for storing solar energy.

Requiring nothing but abundant, non-toxic natural materials, this discovery could unlock the most potent, carbon-free energy source of all: the sun. "This is the nirvana of what we've been talking about for years," said <u>MIT's Daniel Nocera</u>, the Henry Dreyfus Professor of Energy at MIT and senior author of a paper describing the work in the July 31 issue of Science. "Solar power has always been a limited, far-off solution. Now we can seriously think about solar power as unlimited and soon."

Inspired by the photosynthesis performed by plants, Nocera and Matthew Kanan, a postdoctoral fellow in <u>Nocera's lab</u>, have developed an unprecedented process that will allow the sun's energy to be used to split water into hydrogen and oxygen gases. Later, the oxygen and hydrogen may be recombined inside a fuel cell, creating carbon-free electricity to power your house or your electric car, day or night.

The key component in Nocera and Kanan's new process is a new catalyst that produces oxygen gas from water; another catalyst produces valuable hydrogen gas. The new catalyst consists of cobalt metal, phosphate and an electrode, placed in water. When electricity -- whether from a photovoltaic cell, a wind turbine or any other source -- runs through the electrode, the cobalt and phosphate form a thin film on the electrode, and oxygen gas is produced.

Combined with another catalyst, such as platinum, that can produce hydrogen gas from water, the system can duplicate the water splitting reaction that occurs during photosynthesis.

The new catalyst works at room temperature, in neutral pH water, and it's easy to set up, Nocera said. "That's why I know this is going to work. It's so easy to implement," he said.

'Giant leap' for clean energy

Sunlight has the greatest potential of any power source to solve the world's energy problems, said Nocera. In one hour, enough sunlight strikes the Earth to provide the entire planet's energy needs for one year.

James Barber, a leader in the study of photosynthesis who was not involved in this research, called the discovery by Nocera and Kanan a "giant leap" toward generating clean, carbon-free energy on a massive scale.

"This is a major discovery with enormous implications for the future prosperity of humankind," said Barber, the Ernst Chain Professor of Biochemistry at Imperial College London. "The importance of their discovery cannot be overstated since it opens up the door for developing new technologies for energy production thus reducing our dependence for fossil fuels and addressing the global climate change problem."

'Just the beginning'

Currently available electrolyzers, which split water with electricity and are often used industrially, are not suited for artificial photosynthesis because they are very expensive and require a highly basic (non-benign) environment that has little to do with the conditions under which photosynthesis operates.

More engineering work needs to be done to integrate the new scientific discovery into existing photovoltaic systems, but Nocera said he is confident that such systems will become a reality.

"This is just the beginning," said Nocera, principal investigator for the Solar Revolution Project funded by the Chesonis Family Foundation and co-Director of the Eni-MIT Solar Frontiers Center. "The scientific community is really going to run with this."

Nocera hopes that within 10 years, homeowners will be able to power their homes in daylight through photovoltaic cells, while using excess solar energy to produce hydrogen and oxygen to power their own household fuel cell. Electricity-by-wire from a central source could be a thing of the past.

The project is part of the <u>MIT Energy Initiative</u>, a program designed to help transform the global energy system to meet the needs of the future and to help build a bridge to that future by improving today's energy systems. MITEI Director Ernest Moniz, Cecil and Ida Green Professor of Physics and Engineering Systems, noted that "this discovery in the Nocera lab demonstrates that moving up the transformation of our energy supply system to one based on renewables will depend heavily on frontier basic science."

The success of the Nocera lab shows the impact of a mixture of funding sources - governments, philanthropy, and industry. This project was funded by the National Science Foundation and by the <u>Chesonis Family Foundation</u>, which gave <u>MIT \$10 million</u> this spring to launch the Solar Revolution Project, with a goal to make the large scale deployment of solar energy within 10 years.

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MIT, Chesonis Foundation announce solar revolution

Goal: Bring the sun's power to the people

April 22, 2008

Promising to transform solar power from a "boutique" option to an affordable, dependable, mainstream energy solution, MIT and the Chesonis Family Foundation today launched a "solar revolution" with the ultimate aim of making solar energy America's primary carbon-free fuel.

The Solar Revolution Project (SRP), funded by a \$10 million gift from the Foundation, will explore new materials and systems that could dramatically accelerate the availability of solar energy. The SRP will complement and interact closely with other large solar projects at MIT, creating one of the largest solar energy clusters at any research university.

The Chesonis gift will allow MIT to explore bold approaches that are essential for transforming the solar industry. Specifically, it will focus on three elements --capture, conversion and storage -- that will ultimately make solar power a viable, near-term energy source.

"Solar is thought of as an ultimate energy technology off in the distant future. The goal of SRP is to move this timeframe nearer to the present. The SRP will make solar a practical alternative, by committing a 10-year timeframe for establishing the new base of scientific knowledge it will take to draw a market-competitive energy supply from the sun," said <u>Daniel Nocera</u>, the Henry Dreyfus Professor of Energy and Professor of Chemistry at MIT, who will direct the SRP. "With SRP, think 'solar' and think 'now.' This is the revolution that is implied in the project name."

Professor Ernest Moniz, director of the <u>MIT Energy Initiative (MITEI)</u>, said, "Climate change makes the search for more environmentally benign sources of energy urgent and hugely important. Many experts have concluded that solar energy is a key, if not the key answer to our global energy challenges in the long term.

"The Chesonis investment -- large, flexible, empowering of highly creative MIT faculty and students -- embodies this conclusion," Moniz continued. "We applaud the vision, generosity and confidence in MIT that this extraordinary gift demonstrates."

Most solar research focuses on known materials and systems, but, thus far, these approaches cannot be implemented on a large scale. The SRP will allow researchers to explore entirely new materials and systems that could transform solar power into a viable, widely deployed and affordable source of energy.

A unique feature of the SRP is its flexibility: The gift's unrestricted funding is aimed at creating a "no holds barred" research environment that will inspire innovations in the field.

The SRP will initially support 30 energy fellowships for students on a range of solar-related studies, from the development of novel materials for energy conversion and storage to using solar energy to produce hydrogen fuel from water.

Each fellowship will span five years, which allows for significant continuity and greater impact. The gift from the Foundation will also help support an integrated study on the future of solar energy, building on the success of two earlier MIT interdisciplinary reports on the future of coal and of nuclear energy in a carbon-constrained world.

"We are at a breakpoint, both in energy supply and environmental consequences. Solar energy has enormous promise as the ultimate answer to our energy problems," said Arunas Chesonis, benefactor of the Foundation. "Solar energy is widely distributed and the fuel cost for solar power is zero. It is our hope that by investing in the people at MIT and giving them the freedom to take risks in the lab, we will enable them to be true game-changers -- advancing the state of the art to a point where solar power is cheaper and more reliable than electricity from coal."

The Foundation will also contribute to the MITEI Energy Seed Fund Program (ESFP), which solicits and funds innovative energy proposals from across the MIT campus. The first round of solicitations for the ESFP (and the related Ignition Grant program for junior faculty) provided close to \$2 million to fund 20 outstanding proposals. The Chesonis gift will provide an additional \$500,000 to supplement funds from MITEI industry partners.

Other large solar projects at MIT include the <u>Eni-MIT Solar Frontiers Center</u>, the <u>MIT-Fraunhofer</u> <u>Center for Sustainable Energy Systems</u>, the <u>Masdar Foundation solar project</u> and a range of solar research grants to MIT from the U.S. Department of Energy and other federal agencies.

MITEI is an Institute-wide initiative designed to help transform the global energy system to meet the challenges of the future. In its first full year of operation, MITEI has attracted more than \$100 million from industry and public partners as well as private donors to fund critical energy research to enhance the environmental performance of conventional energy and enable a sustainable energy future through transformational technologies. The current MITEI program will also support more than 175 graduate energy fellows over the next five years to help develop the next generation of energy scientists, technologists and social scientists. For more information, please visit http://web.mit.edu/mitei/.

The Chesonis Family Foundation is a private philanthropic organization that targets environmental and energy research projects. The foundation is working to address global climate change by supporting high-risk, proof-of-concept technology research and providing funding that allows research to move from development to commercial deployment. The foundation's benefactor, Arunas Chesonis, earned a Bachelor of Science degree in civil engineering from the Massachusetts Institute of Technology in 1984 and is Chairman and CEO of PAETEC Holding Corp. (NASDAQ GS: PAET). The Chesonis Family Foundation is based in Cambridge, Mass.

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