December 27, 2004

California Public Utilities Commission c/o Nicolas Procos Aspen Environmental Group 235 Montgomery St. - Suite 395 San Francisco, Ca 94104

#### Dear Commissioners,

The Diablo Canyon nuclear power plant is an extremely valuable resource to California. Its exceptionally low power production costs continue to save ratepayers nearly one billion dollars annually. It produces no significant air pollution and greenhouse gases, helping California to meet its clean air goals. It is a very reliable source of high quality electricity and does not rely upon imported fossil fuels. Its huge 2250 MW capacity plays an important role in helping California avoid continuing rotating blackouts.

PG&E's plan to replace the steam generators is essential for consumers to continue benefiting from this resource. Steam generator replacement has been successfully accomplished at dozens of nuclear power plants around the country. In many cases it was accomplished in only slightly longer time than required for a typical refueling outage.

The Diablo Canyon plant produces reliable emission-free electricity to over 2 million California residents. It's power production costs are among the lowest of any source in the state, averaging just 1.57 cents per kilowatt hour (1999-2001 average; www.nei.org/index.asp?catnum=2&catid=282). In 2002 alone Diablo Canyon avoided the generation of 14 thousand tons of nitrogen oxide and 10 thousand tons sulfur dioxide air pollutants. DCPP also avoided emissions of 11 million tons of carbon dioxide greenhouse gases. The reduction in air pollution is equivalent to removing two million cars from the roads. And its fuel is not imported. Low costs, cleaner air and a reduced trade deficit are among the reasons the President's energy policy relies upon increased use of nuclear energy to meet our expanding electricity needs. Furthermore several public opinion polls, including a recent Field poll, confirm that the vast majority of Californians support nuclear energy.

The costs of replacing the steam generators amortized over several years will amount to only a few tenth of one cent per kilowatt hour. This aggregate production cost is far, far lower than any alternative available in California.

Therefore the commission should support the steam generator replacement project and rule soon that reasonable costs incurred in this endeavor are prudent.

California faces a real possibility of rotating blackouts in coming years. Commisioner there is no technology available that could replace Diablo Canyon's huge 2250 MW capacity reliably and at reasonable cost, without producing large amounts of greenhouse gases and air pollution. Generating power from natural gas instead would cost far more, at least 6 cents per kilowatt hour, and perhaps much higher as natural gas prices continue to increase. Sizeable costs would also be incurred for the construction for new gas plants, assuming they could be sited, and not violate the clean air act. Rotating blackouts would result if sufficient new generating capacity could not be constructed.

Windmills cannot replace the plant's generating capacity. Windmills produce low quality, unreliable power. Power dispatchers must always work to maintain the delicate balance between power generation and consumption. Dispatchers can compensate for fluctuations in wind power only when wind farms supply no more than about 10 percent of the power in a large grid. The multi-state blackout of the northeast in 2003 reminds us of the necessity of maintaining grid stability. There are times when the wind is calm everywhere. At these times the power must come from somewhere else. While wind turbines do reduce use of fuel, they do not allow a utility to retire so much as one power plant. The utilities must maintain full reserve to handle the situation when the wind does not blow. In other words, wind turbines do not add meaningful capacity to a system. Wind power electricity costs are far higher than electricity production costs for Diablo Canyon.

There is also the problem of enormous land usage and visual blight associated with wind farms. At prime locations wind farms generate an average of 1.2 W/m<sup>2</sup>. Producing average power equal to the combined output of the Diablo Canyon and San Onofre plants, if such sites could be found, would require covering a swath of land about 5 miles wide stretching from San Francisco to Los Angeles. The already large problems with many thousands of bird deaths annually at California wind farms would soar. Such a project might change the state's weather patterns. Its stochastic wind power would generate anywhere between zero to 70% of the state's demand, with wild, unpredictable, uncontrollable fluctuations in between. Again the grid operators could not adjust for such large wild fluctuations. We would

be stuck with more expensive, stochastic wind power and an environmental impact on a scale biblical proportions.

Solar photovoltaics have similar problems with reliability and enormous land usage. With an electricity cost of 25 cents per kilowatt hour photovoltaics remain one of the most expensive methods for producing electricity, which is precisely why so little of it is in use.

Denying PG&E's ability to replace the steam generators would burden ratepayers with BILLIONS of dollars in needless increased costs.

Finally I must comment on the ignoble brief filed by the group Mother's for Peace. Their legal brief is filled with falsehoods. For example it claims "In fact no governmental agency, including this commission or the NRC, has taken a hard look at this facility ... to ensure the DCNPP does not pose a substantial risk of danger to the people and the environment of this state." The truth is the Diablo Canyon is among the most studied power plants in history. During the rigorous NRC licensing process, lasting 17 years, every component of the plant's design and construction was analyzed and tested. Some of the nation's brightest scientific minds are responsible for the sophisticated engineering embodied in this plant, a level of sophistication that Grueneich is apparently incapable of even appreciating. One wonders how a reasonable, rational person could read through the reams of technical documents generated during the NRC's licensing process and conclude the plant's safety has never been reviewed.

Diablo Canyon is engineered to the most demanding specifications and designed to withstand extremely strong earthquakes. In fact its design enables it to withstand earthquakes a full two levels higher on the Mercalli scale than the largest fault in the area could produce. The NRC asserts the plant is safe from all earthquake effects. Indeed the plant handled the December 2003 magnitude 6.5 earthquake in the area exceptionally well. It was not even necessary to reduce the plant's power output. Yet the MFP brief claims, "The costs to our county and to ratepayers from inadequate seismic and safety measures at Diablo Canyon are immeasurable." Really? Diablo Canyon is designed to withstand shaking 20 times as strong as the December 2003 earthquake. While the earthquake caused millions of dollars in damages elsewhere in San Luis Obispo County, Diablo Canyon sustained no damage and continued to produce its low cost, reliable power. It's electricity assisted in the county's recovery efforts, helping the county get

"back on it's feet." Diablo Canyon is consistently ranked among the safest and most productive nuclear plants by the NRC and the Institute of Nuclear Power Operations.

These are but two examples of the numerous egregious falsehoods contained within the MFP brief. These underhanded smear tactics and legal harassments of California's energy producers are not the work of a balanced objective mind. Rather these are the words of strident radical ideologues who will not let mere facts stand in the way of their pronouncements. Commissioners you have a responsibility to protect the electricity customers and producers of this state from these vampires. I believe PG&E should be allowed to sue Mother's for Peace for defamation.

We must preserve the Diablo Canyon power plant because it reduces electricity rates, and helps California achieve its required reductions in air pollution. Diablo Canyon adds important diversity to the state's electricity resources, reducing both our dependence on imported fuels and our foreign trade deficit. It's high quality, reliable power is needed to avoid future rotating blackouts.

Sincerely,

Michael M. Marinak, Ph.D.

Michael Marink

49 Arbolado Drive Walnut Creek, CA

94598

#### **Diablo Canyon EIR Project**

From: churadogs@aol.com

Sent: Tuesday, March 29, 2005 6:15 AM

To: diablocanyon@aspeneg.com

Subject: Diablo canyon update hearings

Input red Diablo Canyons steam generator replacement:

Please spend the \$700 million, plus more, to switch Diablo to alternative power sources. Perfect place for solar arrays, windmills and undersea tidal generators. (no neighbor's to complain about ruining the view)

Oil's running out, nuclear storage will simply continue to become a bigger and more expensive problem, so it's time to shift gears and Diablo's the perfect place to do it.

As for the \$333 million additional need to make the switch? In 30 years, \$333 million will be chump change.

Ann Calhoun 1698 16th St. Los Osos, CA 93402

#### **Diablo Canyon EIR Project**

From: Valairart@aol.com

Sent: Tuesday, March 29, 2005 1:22 PM

To: diablocanyon@aspeneg.com

Subject: Above ground storage

#### Dear Diablo Friends:

I see by the paper that you will soon have public meetings regarding Diablo's replacement of steam generators. I believe the article also opened up the possibilities for suggestions on other problems regarding Diablo. I would like to address the problem of above ground storage of spent fuel.

I attended a PUC meeting some time ago, and made this suggestion. I feel that the idea is falling on deaf ears. I hope you can give the idea thoughtful consideration.

As I have many contacts in the SLO County I have asked these people what would make them feel more at ease in the storage problem, and then told them my idea. I have had almost 100% positive response to the suggestion. Most of them agreed that if my idea were carried out, it would relieve much of the anxiety that now exist regarding the longer term storage that may be needed.

The idea is a simple one. In the hill, directly in back of the Diablo plant, dig a large cave at the base of the hill. Make it big enough to hold the current and possible future storage needs of Diablo. Why is this a good idea?

- 1. With a few hundred feet of earth over the storage it would be much safer against attacks.
- 2.- Heavy, radiation proof doors over the entrance would help in case of a radiation leak.
- 3.- This type of storage would ease the concerns of citizens of SLO, and the 5 cities area and cities to the North, who would be in the area of wind driven fallout.
- 4.- Diablo is uniquely situated, with large hills close by for such a project.
- 5.- A large amount of earth could be moved quickly with today's earth moving equipment.

Please, give this idea some real thought, it may solve many problems and lead to a longer production life. Thank you for your attention in this matter, Sincerely,

#### Val R. McClure

Val R. McClure 285 Sunrise Drive Arroyo Grande, CA. 93420 (805) 474 4158 vrmairart@aol.com Andrew Barnsdale, CPUC c/o Aspen Environmental Group 235 Montgomery Street, Suite 935 San Francisco, CA 94104 April 5, 2005

Subject: Environmental Impact Report for Diablo Canyon Power Plant Steam Generator Replacement Project.

This project would extend the operable life of the power plant far beyond the expiration of its current license to operate. Facing opposition from a community that will be delighted when their license expires, PG&E's plan is to invest over \$700 million of ratepayer money in new generators - then they'll be able to claim a need to upgrade the rest of the plant and renew their license so they can recover the cost of our investment. This piecemeal process is intended to avoid the scrutiny that would be involved in an EIR that analyzed the impact on the environment that will result from their plan to extend the plant's life.

Investing in new generators that will have an operating life far exceeding the rest of the parts of the plant will result in future projects and activity. This result is foreseeable because it will be necessary to upgrade other aging components so their life expectancy matches that of the new generators. These projects are identifiable and there is credible and substantial evidence on which to base an environmental review. PG&E's claim that they have not adequately developed the information necessary to anticipate future projects and activities that will result from this project is not believable and should be investigated.

CEQA guidelines require that all these probable future projects and activities must be analyzed in an EIR, either as a project impact or a cumulative impact. PG&E should not be permitted to limit the scope of the EIR to only analyzing the process of removing, transporting, and storing the existing generators and transporting, staging, and installing the new replacement generators. What the community is concerned about, and wants analyzed in an EIR, are the consequences of the future projects that will be necessary to make the operating life of the entire plant compatible with the extended life of the new steam generators.

The community is not going to get the inclusive environmental review they want in this EIR because the CPUC has claimed lead agency status and their single authorized responsibility is to establish the cost recovery ratemaking for the project. They have no jurisdiction to regulate or condition this project with respect to safety issues; or with respect to nuclear materials handling and storage issues, including design. Their role in this project is very limited and does not satisfy the CEQA guidelines for identifying the agency that should have lead agency status. Their claim to this status is not legitimate and is an obvious attempt to suppress public knowledge and comment by limiting the scope of the project's EIR. This EIR process is being manipulated to benefit PG&E.

Perry Martin
P.O. Box 75

Avila Beach, CA 93424

Phone: 805-783-1121 or 831-425-1121

#### Re: DCPP Steam Generator Replacement Project D.14 Visual Resources

Throughout the twelve pages of this section's written text, the temporary nature of the visual impact on the environment is emphasized repeatedly, granting a slim total of eleven sentences to the only permanent change that will result to the DCPP site—the OSG Storage Facility. This 10,000 square foot concrete storage facility is proposed to be built without windows or any other architectural amenities. In other words this is going to be one ugly building.

Concerning both the aesthetically challenged storage facility and how the overall visual impact on the environment will be affected by the replacement project, the analysis repeatedly begs the question. Here is one example from the text: "Despite the picturesque natural setting of the facility, the existing industrial character of the facility represents an already visually compromised condition, and therefore, the employees' level of viewer concern at the workplace is already considered to be low" (D.14-25). Here the report implies that because the plant has already compromised the site environment, further compromise is not an issue worth considering. The proceeding quote also points to a significant omission regarding point of view. There is never, in section D.14 of the document, a reference to the potential **future** viewer who might well happen upon this coastal setting after the eventual decommission of the DC Nuclear Plant. The visual resources analysis is written as if future tomorrows do not exist. Unfortunately, this omission of future impacts or consideration of future California residents, leaves huge holes in the integrity of the EIR. And I can't think of an area where this is more clear than in the relationship between steam generator replacement and the corresponding tons of nuclear waste that will continue to be manufactured and stored on this piece of beautiful and volitile coast. If we are so lucky as to escape an affecting earthquake, or a terrorist attack, a tsumani—all more real possibilities than ever, future generations will most likely not escape the ancient observation that containers eventually leak.

We have come here tonight, your constituents, perhaps against reasonable hope, that you will listen carefully to our concerns at this important juncture. I urge you to at least insist that PG&E draft a more honest and comprehensive EIR. And I hope, that in the final sum, you will spend your energy supporting PGE's movement forward into a future both safer and more sustainable.

Michele Hom

#### California Public Utilities Commission:

On pages ES-2 & ES-23 of the Draft Environmental Impact Report dated March, 2005, prepared for the Commission, it states: "The No Project Alternative represents a continuation of current environmental conditions, with the foreseeable closure of Diablo Canyon Power Plant, forced by the deterioration of the steam generators. The surroundings would experience beneficial environmental effects by shutting down the routine operation of DCPP, most notably in the areas of marine biological resources and public saftey."

Any replacement power source that would be implemented would be safer for the public, the environment and future generations. As far as expense – if you take into account all the costs, both financial and environmental, of nuclear generation, from replacement of expensive generators and other parts and machinery, security, storage, transport and so on – it is by far the most costly method of producing electricity. This doesn't take into account the cost of any accidents, natural disasters or terrorist attacks. The cost would be astronomical in every way.

Who pays these costs? We do – the rate payers. We also bear the weight of untold tons of highly radioactive waste with no end in sight. I don't want it in my neighborhood, but I don't want it to be shipped to someone's else's either.

We don't want you to allow PG & E to replace the steam generators. We want a clean technology to be the replacement generation. Every effort should be made to identify a method that does not create air pollution or hazardous waste.

Respectfully submitted,

Marty Brown

8455 Graves Creek Road

Atascadero, Ca. 93422

#### **Diablo Canyon EIR Project**

From: Steve Lorence [stevelorence@hotmail.com]

Sent: Friday, April 22, 2005 8:27 AM

To: diablocanyon@aspeneg.com

Subject: Diablo Canyon Draft EIR Comment in Support

From: <postmaster@mail.hotmail.com>

Sent: Thursday, April 21, 2005 8:05 PM

To: stevelorence@hotmail.com

Subject: Delivery Status Notification (Failure)

Dear Mr. Andrew Barnsdale:

We have reviewed the draft EIR for the Diablo Canyon Steam Generator Replacement project and have decided that Pacific Gas and Electric should be allowed to proceed with the project. They have met all conditions and the money is well spent on this project. It is a cost effective and environmental friendly project. We request that the CPUC approve the project ASAP.

Thank you for taking our comments.

Steve and Janal Lorence 807 Meadowlark Arroyo Grande, CA 93420 April 17, 2005

Andrew Barnsdale CPUC, c/o Aspen Environmental Group 235 Montgomery Street, Suite 935 San Francisco, CA 94104

Dear Mr. Barnsdale,

This letter is written in support of PG&E 's request to be allowed to go ahead with their plans to replace the existing steam generators. The EIR that has been released by the California Public Utilities Commission discloses the environmental impacts expected as a result of this project.

I would only like to address the unloading of the replacement steam generators. Based on the EIR, both points of unloading would meet the needs of PG&E. As an interested party I would suggest the unloading be accomplished at the Diablo Cove. At this point it would have no adverse effects to the operations at Port San Luis, or to the users of the Pier at the Port, and also have no impact on traffic into or out of Port San Luis.

Thank you for taking my comments into your consideration of the approval of the replacement the steam generators at Diablo Canyon.

Sincerely,

George E. Galvan 14825 El Camino Real

Atascadero, CA 93422

#### **Diablo Canyon EIR Project**

From: Betty McElhill [bmcelhil@slonet.org]

Sent: Friday, April 22, 2005 4:11 PM

To: diablocanyon@aspeneg.com

Subject: Comments on Draft EIR

Comments on Draft EIR
Proposed Diablo Canyon Power Plant Steam Generator Replacement Project

From: Betty McElhill 2440 Coburn Lane, #7 Pismo Beach, CA 93449

bmcelhil@slonet.org

To: diablocanyon@aspeneg.com

The steam generators are used in a nuclear power plant. Thus the greatest environmental hazard is from nuclear contamination. The statement "CPUC is preempted from imposing upon the operators any requirements concerning radiation hazards and nuclear safety." (Noted on page ES-24 of the Draft Summary) renders this study useless in determining environmental impact for replacing the steam generators at the Diablo Canyon Power Plant.

The study however, gives multiple examples of dangerous conditions that would be created or already exist at the plant site. Examples include

"Greater likelihood of being affected by potential bluff instabilities over Diablo Creek" ES-50

- "- more likely to be affected by overflow Diablo Creek" ES-50
- "- less likely of hazardous material spill during transportation shorter distance to OSG Storage Facility" ES51
- more potential/less likely for exposure to general public (depending on alternative) ES-51
- greater likelihood/reduced likelihood of encountering unstable locations during transport ES-48
- greater distance/close to potential landslide area at Patton Cove ES-49.

In fact, the report acknowledges that the OSGs are nuclear hazards. Replacement of the OSGs with new steam generators will, of course, create more OSGs. And more waste fuel. And increased potential for nuclear accidents for ten to thirty years beyond the replacement date.

Nuclear accidents not only affect people close by, but those thousands of miles from the accident. The affects are long term. It is senseless to spend funds on an environmental impact report that does not consider nuclear safety and radiation hazards.



# CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC) Comments on Draft EIR

**Proposed Diablo Canyon Power Plant Steam Generator Replacement Project** 

Tuesday, April 19, 2005			
Name*: Gabor Bethlenfalray			
Affiliation ( <i>if any</i> ):* USDA – A-RS			
Address:* 255 Hermosa Way			
City, State, Zip Code: * San Luis Obispo, CA 93405			
Telephone Number:* 865 574 5017			
Email:* gabor @ bethlenfalvay.net			
Please do not waste my money on extending the life of the DCPP. Spend it on building a natural gas plant and on Hydrogen researed SIBellefury			
*Please print. Your name, address, and comments become public information and may be released to interested parties if requested			
Please either deposit this sheet at the sign-in table before you leave today, or fold, stamp, and mail. Inseradditional sheets if needed. Comments must be postmarked by May 5, 2005. Comments may also be faxed the project hotline at (805) 888-2750 or emailed to diablocanyon@aspeneg.com.			



#### CALIFORNIA PUBLIC UTILITIES COMMISSION (CPUC)

#### **Comments on Draft EIR**

Proposed Diablo Canyon Power Plant Steam Generator Replacement Project

Tuesday, April 19, 2005			
Name*: Marina Bethlenfalvay			
Affiliation (if any):* Mothers for Peace			
Address:* 255 Hermosa Way			
City, State, Zip Code: * San Luis Obispo CA 93405			
Telephone Number:* (805) 544- 5017			
Email: * Lmarina a bethlen falvay. net >			
In Considering the environmental impact of the proposed			
replacement of the Diablo Canyon steam generators			
it is insufficient to address only the immediate impact			
of the replacement procedure and disposal of the old			
of the nuclear power plant and its longterm impact on			
the environment. Given the enormores cost of this replace.			
ment the possibility of re-licensing looms and with it the			
prospect of many years of increasing amounts of radioachive			
Waste which are pazardons in any case and constitute a			
De. the Seir mic to tration since the Dec. 2003 earthquak			
2) the threat of terrorism after 9/11			
I strongly were the PUC not to approve the proposed replacement			
*Please print. Your name, address, and comments belome public information and make be released to interested parties if requested.			
Please either deposit this sheet at the sign-in table before you leave today, or fold, stamp, and mail. Insert			

additional sheets if needed. Comments must be postmarked by May 5, 2005. Comments may also be faxed to

the project hotline at (805) 888-2750 or emailed to diablocanyon@aspeneg.com.

Comments on draft EIR
Diablo Canyon Power Plant Steam Generator Replacement Project
Application No. A.04.01.009
SCH No. 2004101001

Submitted to: Andrew Barnsdale, CPUC C/o Aspen Environmental Group 235 Montgomery Street, Suite 935 San Francisco, CA 94104

Submitted by:
David Weisman
375 Surf Street, # C
Morro Bay, CA 93442
Davidweisman@charter.net

April 19, 2005

On the operating table before us is the DRAFT Environmental Impact Report on the project to replace the aging and leaking steam generators at the Diablo Canyon Nuclear Power Plant. I have reviewed this draft EIR and executive summary, and find it to be woefully lacking in both its thoroughness and detail. In certain instances, the information is simply erroneous. I take these errors and omissions very seriously, for at stake is our safety and well being in this county, and the continued production and storage of high level radioactive waste here on the seismically active central coast deserves the closest scrutiny. In addition to the safety and security of our environment, there is a great cost associated with this project, and while the scope of the EIR is not specifically to address the economics of this project, it is required under California law to explore an option known as the "No Project Alternative," which examines what happens if this steam generator project is not approved, and what alternatives can be explored and implemented.

In October of last year, a "scoping session" was held here in San Luis, and members of the team preparing this EIR came to hear our comments and suggestions. They did not bring a transcriber nor a recorder with them, and though we were promised they were taking notes, they appear not to have heard much of what the dozens of people who offered comments were saying. Their draft EIR accepts assertions made by PG&E, the applicant, without question.

They report on the "aging" steam generators, but fail to note that these pieces of equipment were meant to last the entire 40 year license of the plant...and their "aging" may in fact be due either manufacturing defects, poor maintenance, or at the very least, poor planning in that these problems were not foreseen nor addressed earlier in the life

of this nuclear power plant. If this major technological "glitch" was unexpected, what future ones may be anticipated...or worse, are *failing* to be anticipated?

They report that Diablo Canyon Power Plant provides "low-cost, zero-emission power to the California power supply." In a short time it is not possible to discuss how extraordinarily expensive nuclear power is, given subsidies that have ranged from research and development to free—yet inadequate—insurance, courtesy of *our* tax dollars. Suffice to say, as a nation we were originally promised "power too cheap to meter" and I think the fact that electric bills continue to increase will attest to the fact that that promise remains unmet. Not to mention that "zero-emission" does not include tons of highly radioactive spent fuel... a solid emission.

While the EIR does not evaluate the impacts that could occur if Diablo Canyon is relicensed to operate beyond its original licenses that end in 2021 and 2025, the replacement of the steam generators as proposed in this project are required to make that possible. This draft EIR states "At this time PG&E has not formally proposed to renew the licenses, and license renewal is speculative and not a reasonably foreseeable outcome of the Proposed Project."

In response, first of all, the Nuclear Regulatory Commission has itself stated that it fully expects all reactor sites in the nation to apply for license renewal, in fact a transcript of their public meeting on July 15, 2003, at Anaheim, California hears them saying, "All indications are that multiple license renewal applications will continue to be filed with the Commission over the next decade and eventually the entire fleet of nuclear plants will request license renewal." PG&E acknowledges that it is performing "feasibility studies" for license renewals at DCNPP. In addition, we have this overhead projection from their presentation at the DCISC meeting of just a couple years ago.... It says, "50 More Years of Generation Begins with 1 R 11" which means refueling outage 11, Unit 1. Well, 50 more years from 2003 is 2053, and that certainly would require a license renewal. What will be the safety consequences of running a 65 year old reactor?

On the matter of the DEIR's consistency: At D.3.1.5.1 the DEIR presents the "Consent Judgment" on the continuing marine impacts of DCNPP's cooling water entrainment and thermal discharge and their proposed mitigation as though this were a matter of settled fact. As we note of D.3.1.5.1, there is, as yet, no Consent Judgment, and the issuance of an NPDES permit is therefore in doubt. If the DEIR wishes to cite PG&E's relicensing as "remote and speculative" because an actual request has not yet been filed, it must find the terms of the not-yet-entered Consent Judgment equally "remote and speculative," and cannot cite these terms as mitigation for the impacts of the plant's continued operation as facilitated by the Proposed Project. If CPUC considers the prospect of a consent judgment and NPDES permit likely, then the prospect of PG&E's request for relicensing is also likely. The DEIR cannot have it both ways.

Perhaps the most glaring omission in the more than 500 pages that comprise this draft EIR is found under the No Project Alternative section of the document. The authors first write. "The surroundings would experience beneficial environmental effects by

shutting down the routine operation of DCPP, mostly notably in the areas of marine biological resources and public safety. CONSIDER THAT CAREFULLY: They acknowledge that there is an environmental benefit to shutting down Diablo Canyon. And yet, when it comes to determining how California will meet its energy needs without Diablo Canyon, they are short-sighted and negligent. Here is what they write: "At this time, it would be remote and speculative to predict exactly how replacement power would be provided; given the wide range of possibilities, the types, sizes, number or location of replacement power projects that might be constructed under the No Project Alternative. Because of these limitations, the environmental assessment for the No Project Alternative does not analyze specific replacement power scenarios. The analysis discusses potential replacement power solutions in a more general manner and at a lesser level of detail than the proposed project."

How much less a level of detail? Here is your answer: Out of a 500 page document, I found 6 pages on possible safe, renewable and alternative energy sources... and the footnotes for more than ¾ of it come from PG&E, the applicant. Those residents who were at the scoping meetings back in October heard as one person after another stressed the importance of evaluating the No Project Alternatives. In essence, we have been ignored.

This draft EIR is in need of serious life-support. It cannot at once conclude that shutting down Diablo Canyon is best for the environment, and then dismiss and disregard all potential for its replacement. To do so flies in the face of just a few of the following: This report from Texas, by The Union of Concerned Citizens and Public Citizen "Increasing the Texas Renewable Energy Standard: Economic and Employment Benefits," and this citation was submitted to the CPUC and Aspen in October, it does not appear in their footnotes; or this example from Lamar, Colorado, which was also submitted but does not even appear to have been considered.

Or the fact that in our own state, the Governor has supported our SB 1 legislation, which would mandate 3 gigawatts of power by the year 2018 provided by independent, rooftop solar panels on homes. Those 3 gigawatts equals approximately all the power from Diablo Canyon plus almost 50 percent more thrown in for future growth... and the governor wants all that accomplished before the current license on these nuclear plants expires!

Where is the foresight? Where is the vision? Continued reliance on nuclear power is unreliable in a post 9/11 environment... one event at a nuclear power plant... anywhere in the country, and you can bet they will all be shut down—like the grounding of our entire airline fleet in those days following the dreadful attacks. What will that do for the 20 percent of our nation's power that is provided by nuclear sources? The time to begin planning for this is now. This is not the time to ignore the No Project Alternative as if it were some kind of placebo.

People are worried about keeping the lights on...they want a steady state stream of electricity, and remind you that the wind doesn't always blow when you need it most.

OK, how about something simple, like "efficiency" (pull out compact fluorescent bulb)... efficiency works almost immediately, and it works 24/7. It is dismissed in one paragraph in this EIR.

How many of you have a multi-outlet power strip under your desk or behind the sofa, brimming with small AC to DC converters that power cel phone chargers, answering machines, laptop computers, CD players and the like? Do you feel the heat coming from these transformers? That is lost energy. These little devices are called "vampires" in the energy world, because most of them are left "on" all night long, slowly draining small amounts of energy that add up over an entire state. Switch these off and make energy efficiency work... again, a formula not explored in this E.I.R.

Solar energy is equally ignored in this report. And yet, Germany has the first office building with photovoltaic cells built into the windows... and where was this system manufactured? By Sunpower Corp., right here in our state of California. So, Europeans are buying our advanced solar systems and putting money into our economy... and where does PG&E plan to buy their new steam generators? Europe! That is sending our jobs and economy in the wrong direction!

But most importantly, let's not forget the cost of all this: PG&E wants \$800 million or more dollars to replace these aging steam generators. And they want it from the rate payers. You might ask, if this is a corporation, and this is a business venture which they claim is necessary for years to come—and they must be hoping that it will make them a profit for years to come, because what successful business wouldn't?—why don't they pay for it, and then reap the rewards when they come in?

That question was asked at the last CPUC forum held here in San Luis. And do you know what CPUC Commissioner Geoff Brown answered? "That \$800 million would be too big a bit for the PG&E shareholders to undertake and it would threaten the company's international bond rating, and as you know, Standard and Poor's rules the world."

"Standard and Poor's rules the world?" Excuse me, but do we California rate payers have the reliability and security of our energy system subject to the speculation of manipulative cartels and international investors? Haven't we seen how that worked out in the last deregulation fiasco, the false energy crisis of 2000, and the disgrace of Enron?

This is not the time to throw our money down the sinkhole of old, dead-end technology. Nuclear power is, so Twentieth Century.... The time has come to join other states and indeed other nations in looking towards renewable, safe and secure energy independence. The precedents and examples are out there, and this EIR needs to address that. I want to make sure the CPUC and its consultants know that we support the No Project Alternative and that we want to see an EIR that actually takes into account the comments they have come here to hear from us.

#### Renewing Texas' Economy

### A National Renewable Electricity Standard Will Create Jobs and Save Consumers Money

A national renewable electricity standard (RES)<sup>1</sup> would require electric utilities to supply a set percentage of their electricity from renewable sources such as wind, solar, geothermal, and bioenergy. Similar programs have already been put in place in Texas and 15 other states.

Over the past four years, an unprecedented surge in natural gas power plant construction has contributed to rising natural gas and electricity prices. Consumer natural gas prices have more than doubled. High gas prices are forcing industrial users such as the petrochemical industry to move their operations overseas. U.S. chemical workers have lost approximately 78,000 jobs since natural gas prices began to rise in 2000.<sup>2</sup> Farmers are also feeling the pain because natural gas accounts for 90 percent of the cost of fertilizer. These prices show no signs of abating.

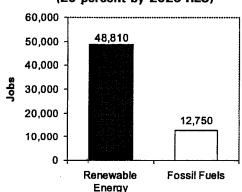
#### Renewable Energy Creates Jobs and Economic Benefits

A new UCS analysis found that under a national 20 percent RES, Texas would increase its total homegrown renewable power to more than 25,900 megawatts (MW) by 2020.<sup>3</sup> The majority of this development would be powered by Texas' strong wind and bioenergy resources. This level of renewable development would

provide the equivalent of nearly 23 percent of electricity sales in the state and reduce the use of imported coal. Texas has the technical potential to generate nearly 8 times its current electricity needs from renewable energy.

Renewable energy development would create new high-paying jobs and other economic benefits in Texas. By 2020, the 20 percent standard would create more than 48,800 new jobs in manufacturing, construction, operation, maintenance, and other industries. Renewable energy would create nearly 4 times more jobs than fossil fuels—a net increase of more than 36,000 jobs by 2020. It would also generate an additional \$860 million in income and \$590 million in gross state product in Texas' economy.

#### Renewable Energy vs. Fossil Fuel Jobs Texas, 2020 (20 percent by 2020 RES)



#### Renewable Energy Boosts Rural Economies

A national RES would also provide a tremendous boost to rural economies in Texas. Many of the jobs identified above would be created in rural areas where the renewable resources and facilities would be located. By 2020, a 20 percent national standard would provide:

- \$10 billion in new capital investment
- \$1.1 billion in payments to farmers and rural landowners from producing biomass energy
- \$665 million in new property tax revenues for local communities
- \$225 million in lease payments to farmers, ranchers, and rural landowners from wind power<sup>5</sup>

#### **Renewable Energy Saves Consumers Money**

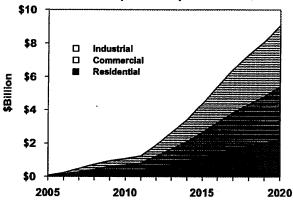
The 20 percent by 2020 national RES would reduce long run energy costs to consumers. Increased competition from renewable energy leads to slightly lower natural gas and electricity prices. By 2020,

total consumer savings in Texas from lower energy prices would be more than \$9 billion. All sectors of Texas' economy would benefit from the national RES, with industrial, commercial, and residential customers total savings reaching \$3.6 billion, \$3.2 billion, and \$2.3 billion respectively by 2020.

#### Renewable Energy Conserves Resources and Provides Environmental Benefits

Increasing renewable energy use will reduce the amount of air pollution from power plants that threaten people's health by burning coal, oil, and natural gas. Carbon dioxide emissions, which trap heat in the atmosphere and cause global warming, would also be reduced. Nationally, the 20 percent RES will reduce about 434 million metric tons of power plant carbon dioxide emissions a year by

#### Cumulative Energy Bill Savings by Sector, Texas (20 percent by 2020 RES)<sup>a</sup>



<sup>a</sup>Excludes transportation.

2020—a reduction of 15 percent below business as usual levels. The RES will also reduce harmful water and land impacts from extracting, transporting, and using fossil fuels and conserve resources for future generations.

#### A 10 Percent National RES Will Provide Important—but Fewer—Benefits

UCS also examined the costs and benefits of the national 10 percent by 2020 RES and renewable energy tax credits passed by the U.S. Senate in July 2003 as part of a comprehensive energy bill (HR 6). Under a 10 percent RES, Texas consumers would still see new job growth, economic and environmental benefits, as well as savings on electricity and natural gas bills. However, these benefits would be less than what would occur under a 20 percent RES. Through 2020, the 10 percent national standard would produce:

- a net increase of 14,200 new jobs
- \$5 billion in new capital investment
- \$4.7 billion in total consumer energy bill savings
- \$349 million in new property tax revenues for local communities
- \$138 million in lease payments to farmers, ranchers, and rural landowners from wind power
- \$90 million in payments to farmers and rural landowners from producing biomass energy

#### Providing jobs, economic development, and a cleaner, safer energy future

A national renewable electricity standard would make Texas' energy supply—and the energy supply of the entire United States—more reliable and secure. It would use homegrown energy sources to create high-skilled homegrown jobs, boost rural economies, and put energy dollars back into the pockets of consumers. The RES is a sensible step toward a balanced approach to meeting future energy demands, and is far more responsible than continuing to rely on unstable and polluting power sources.

For additional information, visit the UCS Clean Energy web site at www.ucsusa.org/clean energy.

<sup>&</sup>lt;sup>1</sup> The renewable electricity standard is also known as a renewable portfolio standard or RPS.

<sup>&</sup>lt;sup>2</sup> Wall Street Journal, February 17, 2004.

<sup>&</sup>lt;sup>3</sup> UCS used a modified version of the U.S. Energy Information Administration's (EIA) National Energy Modeling System computer model to examine the costs and benefits of increasing renewable energy use. We evaluated a 20 percent by 2020 RES proposal by Senator Jeffords (I-VT) and the tax credits for renewable energy that were supported by the Senate energy bill conference committee in November 2003. For the national results, see Renewing America's Economy (September 2004). More information about UCS' modeling approach can be found in the October 2001 report Clean Energy Blueprint: A Smarter National Energy Policy for Today and the Future, which is available at

www.ucsura.org/olean\_energy/renewable\_energy/page.cfm?pageID=44.

We conservatively assume that 33 percent of the manufacturing for the wind and solar technologies installed in Texas is produced by businesses located in the state. We also do not include any jobs or economic development from Texas manufacturers exporting equipment to other states or countries. If Texas is able to attract renewable energy manufacturers to produce equipment for facilities in the state and for export, the jobs and income from the RES would increase significantly.

<sup>&</sup>lt;sup>5</sup> Results are presented in cumulative net present value 2002\$ using a 7 percent real discount rate. Job results are for the year 2020.

#### **Executive Summary**

## Increasing the Texas Renewable Energy Standard: Economic and Employment Benefits

A growing number of states have taken steps to increase their use of renewable energy sources like wind, solar, and bioenergy. Eighteen states, including Texas and the District of Columbia, have enacted renewable energy standards—also known as Renewable Portfolio Standards (RPS)—that require electric companies to increase their use of renewable energy. Fifteen states have created renewable energy funds, which provide financial resources for renewable energy development. Five states have revisited initial standards and have subsequently raised or accelerated them.

In 1999, Texas enacted its RPS—requiring 2,000 megawatts (MW) of new renewable energy capacity by 2009—as part of legislation that restructured the state's electricity market. Today, the Texas RPS is one of the most effective and successful in the nation. The state is ahead of its annual requirement schedule with nearly 1,200 MW of new renewable energy already installed.

Given the success of the existing law and the state's vast renewable energy potential, at least two proposals have been made to increase the state's standard. The Texas Renewable Energy Industries Association (TREIA) and a coalition of Texas environmental organizations are advocating for a long-term 20 percent by 2020 RPS, with one percent of the requirement set aside for distributed resources like solar energy and farm-based technologies. The Texas Energy Planning Council (TEPC) is recommending a more modest increase of the standard to 5,000 MW by 2015 (500 MW from non-wind renewable resources), with a goal of 10,000 MW by 2025. We project that the TEPC proposal would yield approximately 8 percent renewable energy in 2025.

The Union of Concerned Scientists analyzed the costs and benefits of increasing the current Texas RPS based on the proposals made by TREIA and the TEPC, using the Energy Information Administration's (EIA) National Energy Modeling System. Under the more likely scenario that primarily utilizes renewable energy technology cost projections from the Department of Energy's national laboratories, we found that both the 20 percent proposal and the 10,000 MW proposal would result in significant new benefits for Texas' economy and environment (Table ES1). Under the 20 percent proposal, economic development and environmental benefits would be much greater because it stimulates more renewable energy development—a total of 17,820 MW by 2025.

Table ES1. Comparison of Benefits\*, Texas RPS Proposals (More Likely Scenario)

	20 Percent by 2020 RPS	10,000 MW by 2025 RPS
Consumer Benefits		
Electric Bill Savings	\$4.6 billion	\$5 billion
Natural Gas Bill Savings	\$1 billion	\$0.5 billion
Total Energy Bill Savings	\$5.6 billion	\$5.5 billion
Economic Benefits		
New jobs created	38,290	19,950
New capital investment	\$9.4 billion	\$4.7 billion
Biomass energy revenues	\$542 million	\$197 million
School tax revenues	\$1.1 billion	\$628 million
Wind power land lease royalties	\$154 million	\$111 million
Environmental Benefits		
Power plants annual CO <sub>2</sub> emission savings	20 MMT	5 MMT

<sup>\*</sup> Results are in cumulative net present value 2002\$ using a seven percent real discount rate. Job results are for the year 2025.

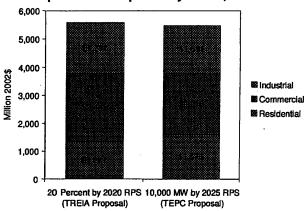
<sup>&</sup>lt;sup>1</sup> TREIA is also recommending a shorter-term expansion of the current RPS to be adopted by the Texas Legislature in 2005, requiring 10,000 MW of renewable energy capacity (500 MW from distributed renewable resources) by 2015. This shorter-term goal is not analyzed in this report.

Renewable Energy Saves Consumers Money. New renewable energy generation would create much needed competition with natural gas power plants, leading to reduced gas demand and lower natural gas and electricity prices. Under the 20 percent standard, average consumer electricity prices would remain virtually unchanged through 2012, with prices beginning to decline thereafter. By 2025,

average electricity prices would be nine percent lower under the 20 percent standard compared with business as usual. Average annual natural gas prices would be as much as three percent lower than business as usual during the forecast period.

Lower natural gas and electricity prices lead to a reduction in the overall cost of energy for consumers. By 2025, total consumer energy bills (natural gas and electric) would be nearly \$5.6 billion lower under the 20 percent standard. All sectors of the economy would benefit, with residential, commercial, and industrial customers' total savings reaching \$1.3 billion, \$2.4 billion, and \$1.8 billion, respectively (Figure ES1).

Figure ES1. Cumu ative Consumer Energy Bill Savings,
Comparison of Proposals by Sector, 2005-2025<sup>a</sup>



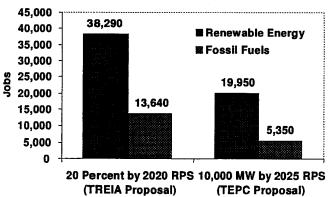
<sup>a</sup>Net present value 2002\$ using a seven percent real discount rate.

New renewable energy generation would also lead to slightly lower natural gas and electricity prices under the 10,000 MW proposal. By 2025, consumers would see cumulative energy bill savings of nearly \$5.5 billion compared with business as usual, with savings reaching residential, commercial, and industrial customers.

If natural gas prices exhibit either short-term price spikes or long-term sustained increases beyond those currently projected by the EIA, or if the federal production tax credit for wind and other renewable resources is extended beyond 2005, consumer savings would be greater under both policy proposals than reported here.

Renewable Energy Creates Jobs and Boosts the Economy. By 2025, the 20 percent RPS would create 38,290 new jobs in manufacturing, construction, operation, maintenance, and other industries. In fact, the amount of renewable energy needed to meet the requirement would create 2.8 times more jobs than fossil fuels—a net increase of 24,650 jobs by 2025 (Figure ES2). These jobs would generate an additional \$950 million in income and \$440 million in gross state product for Texas' economy.

Figure ES2. Renewable Energy vs. Fossil Fuel Jobs, Comparison of Proposals (2025)



Rural Texas would also receive a tremendous boost from increasing the current renewable energy standard. Many of the jobs identified above would be created in rural areas where most of the facilities would be located. By 2025, the 20 percent standard would provide:

- \$9.4 billion in new capital investment
- \$1.1 billion in new property tax revenues for local school districts, and \$750 million in additional new property tax revenues for other local public services
- \$542 million in additional revenues to farmers, rural landowners, and other biomass energy producers
- \$154 million in income to farmers, ranchers, and rural landowners from wind power land leases<sup>2</sup>

The 10,000 MW proposal leads to significantly less development of renewable energy capacity compared with the 20 percent by 2020 standard, resulting in fewer jobs and other economic benefits (See Table ES1 for comparison).

Renewable Energy Diversifies the Electricity Mix. Currently, Texas relies heavily on fossil fuels and nuclear power for most of its electricity. This reliance on fossil fuels—particularly natural gas and coal—for electricity generation will increase if Texas continues on its current path. Increasing the existing state RPS would stimulate additional renewable energy development and help diversify the electricity mix. Under the 20 percent proposal. Texas would increase its total homegrown renewable power to more than 17,800 MW by 2025<sup>3</sup>—producing enough electricity to meet the needs of 4.9 million average-sized homes. Texas strong wind resources would power the majority of this development, with bioenergy and solar resources also making significant contributions to the mix. For much of the 20-year forecast period, renewable energy primarily displaces natural gas generation. In the later years, renewable energy also helps to displace new coal generation.

Under the 10,000 MW proposal, wind power would constitute the majority of development, while nearly all of the 500 MW of non-wind capacity would come from bioenergy by 2015. The 10,000 MW proposal would lead to about 8 percent of statewide electricity sales from renewable energy by 2025. It would also help to displace fossil fuel generation, primarily from natural gas.

Renewable Energy Improves the Environment. Increasing renewable energy use will reduce the amount of air pollution from coal-, oil-, and natural gas-fired power plants, resulting in better air quality and fewer pollution-related illnesses. Carbon dioxide (CO<sub>2</sub>) emissions, which trap heat in the atmosphere and cause global warming, would also be reduced. The 20 percent RPS will reduce about 20 million metric tons (MMT) of power plant CO<sub>2</sub> emissions per year by 2025—a reduction of 7.4 percent below business-as-usual levels. This reduction is equivalent to taking 2.5 million cars off the road or planting 4.8 million acres of trees—an area the size of New Jersey. The 10,000 MW proposal would reduce annual CO<sub>2</sub> emissions from power plants by 5 MMT—a reduction of 1.7 percent below business-as-usual levels. Increasing the RPS will also reduce the impact on water and land resources through extraction, transport, and use of fossil fuels, and conserve resources for future generations.

<sup>&</sup>lt;sup>2</sup> Results are in cumulative net present value 2002\$ using a seven percent real discount ratc.

<sup>&</sup>lt;sup>3</sup> This development includes residential solar water heating systems that offset an estimated 390 MW of peak generating capacity.

<sup>&</sup>lt;sup>4</sup> Based on EIA Electric Sales & Revenue Report 2002 data for residential sector of 1,140 kWh per month.

Consumers Still Benefit With EIA's Conservative Renewables Assumptions. Even with EIA's more pessimistic assumptions for renewable energy technology costs, increasing the current RPS under both policy proposals would provide significant benefits for Texas (Table ES2). In fact, our results show that—with a few key exceptions—many of the benefits are comparable with those from our more likely scenario under both proposals. One of the more important differences is that while wind resources still power the majority of the renewable energy development under the less likely scenario, EIA's higher cost assumptions for wind power lead to considerably more generation from new bioenergy facilities under both policy proposals.

Because bioenergy power plants require more jobs to construct and operate than wind power facilities, the additional bioenergy development results in greater job creation under the 20 percent standard for our less likely scenario compared with the more likely scenario. The increased use of bioenergy, combined with less total renewable energy generation in the business as usual case for our less likely scenario compared with our more likely scenario, also leads to larger net reductions in CO2 emissions from power plants under both policy proposals. Bioenergy facilities can directly displace more generation from natural gas and coal plants—which are the greatest source of global warming emissions in the country.

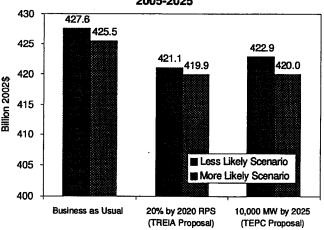
In our less likely scenario, the increased use of renewable energy would still stimulate competition with natural gas facilities under both policy proposals, resulting in significant savings for energy consumers. Cumulative energy bill savings through 2025 under the 20 percent proposal would be \$6.5 billion, when compared with its respective businessas-usual case. These net savings are greater than those achieved for the 20 percent proposal in our more likely scenario. However, cumulative consumer energy bills through 2025 are still the lowest under the 20 percent proposal when using our more likely set of assumptions (Figure ES3).

Table ES2. Comparison of Benefits\*, Texas RPS Proposals (Less Likely Scenario)

rexas nes eroposais (Less Likely Scenario)			
		0,000 MW by 2025 RPS	
Consumer Benefits			
Electric Bill Savings	\$5.9 billion	\$4.5 billion	
Natural Gas Bill Savings	\$0.6 billion	\$0.2 billion	
Total Energy Bill Savings	\$6.5 billion	\$4.7 billion	
Economic Benefits			
New jobs created	45,470	17,060	
New capital investment	\$9.7 billion	\$4.0 billion	
Biomass energy revenues	\$1.5 million	\$433 million	
School tax revenues	\$1.2 billion	\$534 million	
Wind power land lease royalties	\$133 million	\$98 million	
Environmental Benefits			
Power plants annual CO <sub>2</sub> emission savings	27 MMT	9 MMT	

<sup>\*</sup> Results are in cumulative net present value 2002\$ using a seven percent real discount rate. Job results are for the year 2025.

Figure ES3. Cumulative Energy Bills\* Comparison, 2005-2025



\*Excludes Transportation.

# From Snack Bars to Rebar: How Project Development Boosted Local Businesses Up and Down the Wind Energy 'Supply Chain' in Lamar, Colorado Craig Cox March 2004

#### Conducted on behalf of Bob Lawrence & Associates for U.S. DOE under Grant Number SF22339

#### Background: Xcel Energy Rejects Windfarm Proposal

- 1999-2000: Xcel Energy issues RFP for new power generation.
  - Xcel rejects 162MW Enron Wind proposal
  - Xcel opts for all-natural gas portfolio.
- 2001: Advocates take case to Colorado Public Utilities Commission
   Lead plaintiffs: Colorado Renewable Energy Society and Land and Water Fund of the Rockies\* \*The Land and Water Fund is now "Western Resource Advocates"
- February 2001: PUC Orders Xcel to Negotiate Wind Acquisition

"We find that adding Enron's Lamar wind energy bid to [Xcel's] preferred resource plan is in the public interest and comports with the IRP rules, [and will] likely lower the cost of electricity for Colorado's ratepayers... After a careful analysis of the economics of the wind bid, we find that it is justified on purely economic grounds, without weighing other benefits of wind generation that could be considered under the IRP rules." (Colorado PUC, Decision No. C01-295, page 34.)

#### Important Results from Colorado PUC's 2001 Decision

- New wind generation on Xcel's system is predicted to cost less than new gas-fired generation, assuming that gas costs are more than \$3.50 per million cubic feet (mcf)
- New wind power receives a fair capacity value, based on Xcel's method and data
- Ancillary services to back up new wind power are not a major cost.

From NREL/CP-500-30551, "Colorado Public Utility Commission's Xcel Wind Decision The PUC was Right: Xcel Energy Says Wind Energy Will Save Consumers \$4.6 Million

- The new wind farm that Xcel Energy is building near Lamar will save consumers \$4.6 million in their power bills.
- From Xcel Energy testimony by Ronald Damell to FERC, 16 June 2003October 2003: Project Sold by GE Wind Energy to PPM Energy and Shell for \$211 Million... Largest-Ever Capital Investment in Prowers County

#### Economy of Lamar and Prowers County Colorado, Before Windfarm

- · Primarily agricultural
- Alfalfa, corn for grain, corn for silage, grain sorghum
- Farm economy has been depressed
- Population and jobs have fallen since 2000
- Lengthy drought has harmed local economy
- Retail sales down
- Sharp drop in oil and gas production

#### Construction of Windfarm Starts in mid-2003

Herling Construction

- Built 25 miles of roads
- Excavated the project's 108 foundations

- Poured concrete into the bases: 35,000 yards @ 300 yards per turbine
- Gate City Steel did the rebar: 45,000 pounds of rebar in each foundation
- Had 87 people pouring concrete, with "a couple" of locals staying on
- 12-14 people did rebar
- Bottom line: 1.25 million pounds of concrete and rebar in each foundation

#### Christensen

- Installed the backbone of the system: 20 miles of
- Laid the cable to 105 turbines: 590 V converted to 34kV, then stepped up to 230 kV
- Built the substation underground cable
- Had 46 employees at height of construction [Colorado] Land and Environment

#### Southeastern Wilson Construction

- 44 miles of 230 kV poles and transmission lines strung to new Xcel Energy substation
- 50+ miles of direct buried cable laid from the turbines to the substation
- 25 people employed during construction; IBEW 12

#### Ridge Crane of Fort Collins

Kevin MacDougal of Fort Collinsbased company said that the project helped its business "a lot" and provided three months of work for two cranes. Ridge Crane is now expanding its operations.

#### All-Rite Paving & Redi-Mix

"Project has been a lifesaver" The Lamar (pop. 8,800) All-Rite did more business than the company's Pueblo (pop. 141,472) facility, because of project construction. It laid concrete for 32 miles of poles and for the new substation.

At Height of Construction, Subcontractors at Colorado Green Employed Nearly 400 Workers......from Around the Country...And Their Presence Had a Tremendous Impact on Lamar's Economy Local Rental Housing Units Booked Solid owner of Country Acres Motel and RV Park "My rental units have been booked solid because of the windfarm construction." — Brad Semmens.

High Occupancy at Local Motels "Occupancy would normally run at about 20 percent in mid-December, but it hovers from 50% to completely full on some nights."

- Manager James Emrie

Quote from article by Steve Raabe in Denver Post, 14 December 2003
Texaco Food Mart – Doug Johnson, The project was a "shot in the arm...it got so busy in the early morning that I had to bring in more help...I had 60 customers in a half-hour: that's one every 30 seconds!" Owner Hay Stack Restaurant – Jamie, Manager

"We've seen a lot of workers coming in...the project has helped increase our business at least 30 percent." of Hay Stack RestaurantDaylight Donuts "We've had an increase in business, and the windfarm guys come in almost every moming."

- Clerk at Daylight Donuts

#### DeLoach's Water Conditioning

.— Jim DeLoach, The project was a "shot in the arm... the workers drank lots and lots of water."

#### Owner Wallace Gas & Oil

- Project has been a "Godsend...it's helped us to keep our heads above water."
   Brett Buxton of Wallace Gas & Oil
- Company has delivered 110-115K gallons to the project, representing about \$250K more than it would otherwise have taken in.

Movie Gallery "We've seen business increase by about 20 percent because of the windfarm workers."

Workforce Colorado [State Job Service Agency] "Because of the drought, the economy has been really bad, and the windfarm has been a real blessing... we would love to see them come back and do more!" - Linda Mulbery, Workforce Colorado

Interest in Business Relocation Soars "Because of the windfarm, business relocation inquiries have begun increasing from small manufacturers and oilfield services firms." - Jan Anderson, Executive Director, Southeast Colorado Enterprise Development, Inc.

Best Made Mattress Company of Denver - Thomas Jay Wacker, Business Manager, Best Made Mattress Company, "The new windfarm project has made us take a second look at relocating four mattress plant to Lamar."

Denver [from Lamar Daily News of 22 January 2004] Thomas Wacker and Jason Lucas of Best Made Mattress Co. Windfarm Instills "New Spirit of Community in Lamar" — Chris Rundell, "The windfarm has instilled a new spirit of community in Lamar...it's ntangible but very real." local rancherTremendous

Local SupportSite Services for a Typical 100MW Windfarm

Man-hours 121,080 72,000 Turbine & Tower Installation Sycs. Concrete Construction Services Equipment Transportation Services 42,650 Project Management Services 36,775 Engineering & Surveying Services 25,300 Vendor Field Services 20,535 Road Building Services 18,940 Underground Cable Installation Svc. 17.250 General Labor Services 15,000 Local Material Delivery Services 12,500 Electrical Installation Services 8,770 Concrete Services 6.800 Equipment Repair & Fueling Svc. 6.000 Inspection & Testing Services 5,000 Food Preparation & Delivery Svcs. 3,500 Housing & Lodging Services 3,000 Real Estate & Legal Services 2.800 Communication System Services 1,120

#### 419.020

The total site services required for construction of a typical 100MW windfarm is about 419,020 man-hours —equivalent to approximately 53,377 days of work at the site. Construction Boosted County Sales Tax Revenues Prowers County Sales Tax Collection Skyrockets \$95,158 October 2002 \$154,452 October 2003

Landowner Payments Boost Entire Region Property owners will receive royalty payments based on the amount of power generated Property owners Kenneth and Michael Emick, characterized as between \$3,000 and \$6,000 for each of the project's 108 turbines, from Pueblo Chieftain Colorado Green Has Brought 15-20 Full-time Permanent "Well Paying" Local Jobs Prowers County Assessor Andy Wyatt Outlines Some of the Windfarm's Benefits... Project Has Increased Prowers County's Tax Base by 29%.....Providing \$917,000 Annually for Re-2 School District General Fund... ...\$203,000 Annually to the School District's Bond Fund....\$189,000 Each Year to the Prowers Medical Center...And New County Revenues of About \$764,000 Annually

#### Summary of Wind's Benefit to Prowers County • \$764,000/year: new county revenues

- \$917,000/year: School General Fund
- \$203,000/year: School Bond Fund
- \$189,000/year: Prowers Medical Center
- 29% Increase in County Tax Base
- Tremendous Support from Community

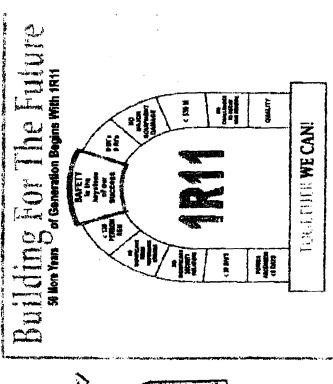
From article by Virgil Cochran in Lamar Daily News, 29 October 2003:

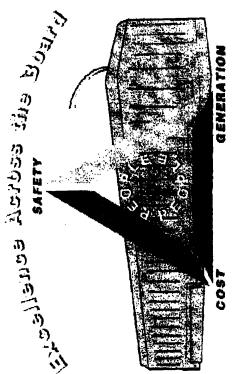
"Wind farm construction an economic boon for county" Windfarm a "Blessing" to the Entire Area "It's the greatest thing that has happened to this area, and it's a blessing to Prowers County and Southeast Colorado." — Leroy Mauch, Prowers County Commissioner Support From Neighboring Baca County Springfield, county seat of Baca County, Colorado "A windfarm in Baca County would provide real benefits to us, too, tax-wise, employmentwise and energy-wise. I hope to see new wind energy development in our county very soon."

- Baca County Commissioner Ray Miller
- Community Wind: Lamar Light & Power, ARPA and Springfield made possible by Colorado Green These Community Projects (five 1.5MW turbines) were Capture the Benefits of Wind in

Your Community
Video clip courtesy GE Wind
Thank You!
Craig Cox
coxcraig@att.net
303-679-9331

# AGENDA





Page 12, line 11-15 "..All indications are that multiple license renewal applications will continue to be filed with the Commission over the next decade and eventually the entire fleet of nuclear plants will request license renewal."

NRC Transcript, July 15, 2003 Anaheim Hilton public meeting.

# Schwarzenegger to unveil compromise plan

would create a 10-year Governor's proposal homes, buildings to incentive fund that install solar power would encourage

Br Don Thompson

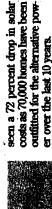
Arnold Schwarzenegger aims to make California a world leader in solar energy with a new proposal he's sending to lawmakers SACRAMENTO -Associáteo Pruss

solar power generated by some

consumers and used by others.

encouraging both residences and commercial buildings to indrop a requirement that half of ar powered. Those changes are controversial provisions that doomed his "million solar create a 10-year incentive fund all new homes eventually be sodesigned to mute opposition from businesses and the build-The plan, which drops some homes" proposal last year, would stall solar power. But it would

STORES centive fund, most likely with a new fee on utility bills. The administration and solar advocates because the fee would be offset by money earned from the extra sion would decide how electricity consumers pay into the ining inclustry. The Public Utility Commissay consumers will save money



percent more than Japan. Hochschild calls California "the sunlight than Germany and 20 California already is the third argest consumer of solar power but gets 40 percent more amua equipment, behind Germany Sandi Arabia of sunlight."

That's part of the appeal for a state that may soon again see a soaring electricity costs in 2000 bell, R.Irvine, who is sponsoring the bill package with Sen. Kevin epeat of the power shortages and 2001, said Sen. John Camp hat led to rolling blackouts and

The sun shines in California it's homegrown. No other state or country can take it from us," Campbell said.

The goal is to have 3,000 noons when electricity is most in by 2018, which amounts to about 5 percent of the state's entire electricity usage at peak periods demand, most expensive, and megawatts worth of solar power generally hot summer after when solar panels are most effi

natural gas plants. One megawatt is enough to power about 750 homes. That's the equivalent of 40 new, \$30 million, 75-megawatt

Murray, D.Culver City. the costs and savings.

California builds about about 15 times the roughly 1,000 The revised proposal requires some larger developers to offer 150,000 new homes a year. Experience shows about 10 percent of homeowners would choose solar homes currently built each solar power as an option by 2010, and to inform home buyers of solar it offered the option rear in the state, said Bernadette Del Chiaro, a solar advocate for the nonprofit Environment Cali-

tious solar initiative ever proposed in the United States," said tor for the nonprofit organization "It's clearly the most ambi-David Hochschild, policy direc-Vote Solar.

modeled on Japan, the world leader in solar power, which has The incentive approach is