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MEETING NOTICE AND AGENDA

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ENERGY WORKING GROUP

The Energy Working Group may take action on any item appearing on this agenda.

September 28, 2006

11:30 a.m. to 2 p.m.

SANDAG, 7th Floor Conference Room
 401 B Street, Suite 800
 San Diego, CA 92101-4231

Staff Contact: Susan Freedman
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AGENDA HIGHLIGHTS

- PROPOSITION 87: CALIFORNIA CLEAN ALTERNATIVE ENERGY INITIATIVE
- SUNRISE TRANSMISSION PROJECT
- EWG LEGISLATIVE FORUM

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ENERGY WORKING GROUP

Thursday, September 28, 2006

ITEM #		RECOMMENDATION
1.	WELCOME AND INTRODUCTIONS	
+2.	MEETING SUMMARY FOR THE AUGUST 24, 2006, MEETING	APPROVE
	Please review the attached meeting summary and provide any comments.	
3.	PUBLIC COMMENT AND COMMUNICATIONS	COMMENT
	Anyone who would like to address the Energy Working Group (EWG) on a topic not on the agenda should do so at this time.	
4.	REPORTS FROM EWG SUBCOMMITTEES	INFORMATION
	A. Public Policy Subcommittee: Chair to provide update on 2006 legislation and planning for the EWG Legislative Forum to be held on December 1, 2006.	
	B. Resources Subcommittee: Chair to present framework for EWG assessment of Sunrise Transmission Project.	
	C. ICLEI Review Committee: Chair to discuss status of climate change recommendation.	
+5.	PROPOSITION 87: CALIFORNIA CLEAN ALTERNATIVE ENERGY INITIATIVE	DISCUSSION/ APPROVAL
	At the July 27, 2006, EWG meeting, members heard pro and con arguments on Proposition 87. Chairman Abarbanel requested that two EWG members, Scott Anders and Steve Zolezzi, review the proposition and make a recommendation to the working group.	
+6.	SUNRISE TRANSMISSION PROJECT	DISCUSSION
	Continuation from August 24, 2006, meeting including supplemental presentations and discussion. Please see attachment for further item description and San Diego Gas & Electric's (SDG&E's) response to EWG questions.	
+7.	ADVANCED METERING INFRASTRUCTURE (AMI) LETTER	INFORMATION
	SDG&E submitted a letter to SANDAG in response to comments made by UCAN at the August EWG meeting. The letter is attached for your information.	

8. SUGGESTED MEETING TOPICS FOR NEXT MEETING

INFORMATION

EWG members should suggest items to be discussed at the next or future meeting. Action will likely be taken regarding the Sunrise Transmission Project.

9. ADJOURN

The next EWG meeting is scheduled for October 19, 2006, from 11:30 a.m. to 2 p.m. The October meeting is being held one week prior to the regular meeting date to avoid conflicts with the EPIC Smart Grid Summit.

+ next to an agenda item indicates an attachment

San Diego Association of Governments

ENERGY WORKING GROUP

September 28, 2006

AGENDA ITEM NO.: **2**

Action Requested: APPROVE

August 24, 2006, Meeting Summary

File Number: 3003000

MEMBERS IN ATTENDANCE:

Henry Abarbanel, Co-Chair, City of Del Mar, North County Coastal
Art Madrid, Co-Chair, La Mesa, Eastern Suburban Communities
Steve Castaneda, City of Chula Vista, South County
Donna Frye, City of San Diego
Scott Anders, EPIC
Alan Sweedler, SDSU
Irene Stillings, San Diego Regional Energy Office
Michael Shames, Utility Consumer's Action Network
Rob Anderson, San Diego Gas & Electric
Jim McCollum, IEA
Paul O'Neal, SDREDC
Dave Carey, Port of San Diego

OTHERS IN ATTENDANCE:

Dan Perkins, Energy Smart Homes
Don Wood, C-3/PEPC
Curt Gonzalez, County of San Diego
Richard Caputo, Resources
Linda Wagner, City of Chula Vista
Dahvia Locke, County of San Diego
Jason Wells, San Ysidro Chamber of Commerce
David Lawhead, CA Dept. of Parks & Recreation
Juanita Hayes, SDG&E
Suzanne Wilson, Pacific Crest Trail Association
Denis Trafecanty, Santa Ysabel resident
Harvey Payne, Rancho Penasquitos Concerned Citizens
Jose Cervantes, County of San Diego
Buz Schott, Stirling Energy
Chuck Angyal
Kay Stewart, CNPS

J.C. Thomas, SDG&E
Dave Roberts, City of Solana Beach
David Ott, City of Solana Beach
Keith Davidson, DE Solutions
Bryce Wilson, City of Encinitas
Devon Lomayesva, Santa Ysabel Tribe
Frank Tierney, City of Coronado
Glenda Kimmerly, Santa Ysabel resident
Kurt Kammerer, KDK&A
Al Figueroa, Esolution Consulting
Rob Rundle, SANDAG
Trisha Rominger, SANDAG
Jennifer Porter, SDREO
Julie Gelfat, IBEW 569
Alexandra Hart, IBEW 569
Bob Resly, Resley Consulting

1. WELCOME

Co-Chair Henry Abarbanel called the meeting to order.

2. MEETING SUMMARY OF THE JULY 27, 2006, MEETING

Co-chair Abarbanel asked that if any member had any issues or concerns with the July 27, 2006, meeting summary, that they contact Rob Rundle.

3. PUBLIC COMMENT

None.

4. RECOMMENDATIONS TO SDG&E LONG-TERM RESOURCE PLAN

A motion to approve the proposed letter in support of the Long-Term Resource Plan was made by Mr. Steve Hoffmann. Mr. Paul O'Neal seconded the motion. The motion carried unanimously.

5. SUNRISE TRANSMISSION PROJECT

Co-Chair Abarbanel introduced the panel of speakers that made presentations regarding the Sunrise Transmission Project. Co-Chair Abarbanel reminded the audience that the Energy Working Group (EWG) is not a subsidiary of San Diego Gas & Electric (SDG&E), nor is SDG&E a subsidiary of the Energy Working Group. Co-Chair Abarbanel also stated that the Working Group would not vote on a position during this meeting. The presentations were solely to provide the Working Group with information.

Co-Chair Abarbanel stated that when the presentations were completed, questions would be taken from the Working Group members, directed to the speakers. Afterwards, the Working Group and panel of presenters would entertain questions from the public. Co-Chair Abarbanel informed the audience and Working Group that in neither case would position statements or speeches be entertained. The Working Group's goal is to understand the role of the proposed topics and discussion regarding the implementation of the Regional Energy Strategy. Co-Chair Abarbanel reminded the audience that there were speaker slips available and that three minutes is allotted for each request.

Ms. Laura Hunter stated that she is concerned with not letting the public make comments or position statements regarding the topic. She asked for indulgence, minimally, for the public members that they be allowed to share their thoughts and any information that they had. The Working Group would hear the presentations and ask questions of the panel. The public will be also allowed to ask questions of the panel. These questions will then be addressed at the September 28, 2006, meeting.

Ms. Porter, San Diego Regional Energy Office (SDREO), presented the audience with the focus of the EWG decision, specifically the need to draw conclusions based on the correlation between the Sunrise Powerlink and the Regional Energy Strategy 2030. She provided background history of the Regional Energy Infrastructure Study that was conducted in 2002. Ms. Porter also discussed the creation of the Energy Working Group and the responsibilities it was given. Ms. Porter also discussed the justifications SDG&E gave for the need to construct the Sunrise Powerlink transmission

line. Ms. Porter further discussed several goals that were formulated in the Regional Energy Strategy 2030. Ms. Porter stated that the question for SANDAG's Energy Working Group is whether "SDG&E's long-term goals, of which the Sunrise Powerlink is a part, match the overall goals of the Regional Energy Strategy (RES) 2030?" Ms. Porter presented an overview of alternatives to the Sunrise Powerlink, which included 24 proposed alternatives that were studied by the California Independent Systems Operator Corporation (CAISO). In the CAISO study's findings, it stated that, "The preferred alternatives do not provide comparable increase in import or anticipated long-term benefits as the 'Sun Path' project."

Mr. Jim Avery, SDG&E Senior Vice President of Electric, gave a presentation. Mr. Avery discussed that the Sunrise Powerlink implements key sections of the SANDAG's RES. He added that the RES clearly acknowledges need for expansion of the transmission system to improve reliability and access renewables. He added that the remainder of the RES goals would be implemented via other components of SDG&E's Long-Term Resource Plan (LTRP), such as energy efficiency, renewables, and generation. He reminded the Working Group that it has reviewed SDG&E's LTRP and agreed in concept with the plan. The LTRP and Sunrise Powerlink are also in line with Energy Action Plan II and state's loading order.

Mr. Avery discussed RES Goal #5, which stated, "Increase the transmission system capacity as necessary to maintain required reliability and promote better access to renewable resources and competitively priced supply." Mr. Avery also discussed that in Goal #5's implementation strategy it stated, "Identify a project as soon as possible and complete construction by 2008." Mr. Avery stated that the Sunrise Powerlink project does implement key sections of the RES. The RES clearly identifies the need for the expansion for the transmission line system to improve reliability and access renewables. The remainder of the goals implemented really deal with the types of things that the Working Group is trying to address specifically, including energy efficiency and renewables generation. Mr. Avery added that it is his opinion that accomplishing the goal cannot be done by 2008, as indicated within the goal itself.

Mr. Avery provided an update on the Sunrise Powerlink's status. He stated that SDG&E filed an amended application and Proponent's Environmental Assessment (PEA) with California Public Utilities Commission (CPUC) on August 4, 2006. The amended application included:

- Refined cost estimate - \$1.265 billion
- Updated "need" assessment
- Description of IID partnership

The PEA included:

- Preferred and alternate routes
- Underground options (Ramona/RPQ) preferred
- 150 mile line
- Assessments of environmental impacts

Mr. Avery discussed the issue of reliability. Mr. Avery stated that improving energy reliability is the primary driver for the Sunrise Powerlink transmission project and that renewables and economics are added benefits. He added that San Diego is severely deficient in its transmission capabilities.

Both transmission corridors (230kV SONGS/SWPL) are nearing capacity. A U.S. Department of Energy report (*Southern CA "Critical Congestion Area"*) states that only two regional nationwide are identified as "critical." It is believed that the Sunrise Powerlink project would help fill a forecasted energy reliability deficiency (N-1/G-1) forecasted for 2010.

Mr. Avery discussed the need assumptions SDG&E used. These assumptions included:

- California Energy Commission "90/10" load forecast
 - Forecasted need includes savings (2010-2015) from:
 - Uncommitted Energy Efficiency – 86-316 megawatts (MW)
 - DG/QFs* - 279-285 MW
 - Solar/CA Solar Initiative* - 20-300 MW
 - Committed Renewables* - 110 MW
 - Demand Response* - up to 250 MW (Counted for Stage II response and econ analysis)
- *Capacity based on installed capacity value, value counted for grid reliability may be lower.*

Mr. Avery went over two charts that reflected SDG&E's forecast of a Reliability Outlook with and without Sunrise.

Mr. Avery discussed the dilemma of deciding between either transmission or generation. Mr. Avery feels that the San Diego region needs both transmission and new in-basin generation. He added that more transmission is needed even with the construction of the Sunrise Powerlink. Mr. Avery added that 1000 MW of in-basin generation still needed beyond Palomar and Otay Mesa's coming on-line. Mr. Avery explained that there are inherent dangers in relying solely on in-basin generation. These risks included a limited diversity in fuel and access to renewables, as well as no guarantee that resources will come on-line as "planned" or "proposed".

Mr. Avery also spoke about access to renewables. Mr. Avery explained that the Sunrise Powerlink will unlock renewable potential in Imperial Valley and Eastern San Diego County. The Sunrise Powerlink transmission line would deliver new renewable resources to San Diego. This would include resources that are under contract, such as Stirling (solar) and Esmerelda (geothermal). It would also include resources that are still under consideration, such as additional geothermal, solar, and wind. Mr. Avery explained that he believed that the Sunrise Powerlink was needed to cost-effectively deliver new renewables. Mr. Avery added that Renewable Energy Credits (RECs) are not viable options because they do not deliver energy to San Diego. Mr. Avery explained that there were two studies that identified the need for new transmission capacity to deliver renewables to load centers.

Mr. Avery went over the economic issues of the Sunrise Powerlink transmission project. Mr. Avery stated that the Sunrise Powerlink project is an economic project for CAISO customers. Mr. Avery added SDG&E's economic analysis used CAISO Transmission Economic Assessment's (TEAM's) technology.

Mr. Avery discussed routing issues in regards to the Sunrise Powerlink transmission project. SDG&E filed its PEA with the CPUC on August 4, 2006. The CPUC is now responsible for the Environmental

Impact Report development and route selection. The transmission line is expected to be 150 miles long. Mr. Avery added that routing changes that have occurred since March 20, 2006, include:

- Underground Option through RPQ and Ramona is now preferred
- Eastern alignment through IV is now preferred
 - Department of Defense and Bureau of Land Management request
- New "central substation" site
- New preferred route near Santa Ysabel

Mr. Avery also discussed project alternatives to the Sunrise Powerlink transmission project. These projects include:

- In-Area Combined Cycle
- Roof Top Solar
- Distributed Generation

Mr. Avery explained that the In-Area Combined Cycle option would be more costly, provide less net Reliability Must Run (RMR)/Grid efficiency benefits and have a lower cost/benefit ratio. Mr. Avery added that in addition, other reasons the Sunrise Powerlink is superior to in-area combined cycles only alternative include:

- Access to renewable resources in eastern San Diego County and IV
- Fuel diversity
- Air emission reductions
- Uncertainty of new generators coming on-line by 2010

Mr. Avery stated that SDG&E is very supportive of using more rooftop solar and supports the California Solar Initiative. Mr. Avery added that the California Solar Initiative has targeted 332 MW of solar capacity for San Diego between 2007-2016. Given the existing photovoltaic (PV) manufacturing capabilities, goals will be difficult. Mr. Avery added that 1,000 MW of peak capacity using PV would cost approximately \$21 billion.

Mr. Avery also discussed the obstacles to distributed generation as a viable alternative. At this time, there are 61 distributed generation units installed (105 MW nameplate capacity). Mr. Avery added that a typical distributed generation unit produces between 40-60 percent of capacity at time of system peak. Mr. Avery also stated that SDG&E would require 1667 MW of Distributed Generation Services (DG) to meet the 1,000 MW capacity of the Sunrise Powerlink transmission project. This would require an average of 105-7000 installations each year to reach the 1,000 MW requirement by 2010.

Mr. Avery stated that in closing, the Sunrise Powerlink is an economic project that will dramatically improve the reliability of the San Diego region and expand access to renewable resources. He added that the Sunrise Powerlink transmission project is the only project that can accomplish and address all three goals of reliability, renewables, and lower costs. The Sunrise Powerlink transmission project

is strongly supported by the experts that have carefully the project proposal. Mr. Avery also stated that he believed that the Sunrise Powerlink transmission line was in-line with the RES and EAPII.

Mr. Steve Hoffmann presented on behalf of the Resources Subcommittee. Mr. Hoffmann stated that the subcommittee has met to discuss solutions for the San Diego region to create a balanced portfolio. Mr. Hoffmann stated that the region has to act and build infrastructure to obtain a balanced portfolio. He added that he agrees with Mr. Avery that no single source can be relied upon. Mr. Hoffmann went over local resource adequacy options, which included:

- Demand Management/Energy Efficiency
- Increase Transmission Access
 - Renewables
 - Remote gas-fire “merchant” plants
- In-region Generation
 - Peakers
 - Combined Cycle
 - Renewables
 - Distributed Generation
- Do Nothing

Mr. Hoffmann explained that there are several local resource adequacy issues that concern the subcommittee. These issues include:

- Reliability
- Costs of new resources
- Community preferences and objections
- Fit to SDG&E load profile
- Speed of commercial availability
- Options to satisfy the RPS
- Location of in-region resources
- Alternative strategies to remove Southwest Powerlink (SWPL) congestion

The justification for the Sunrise Powerlink project includes:

- Meet 2010 reliability shortage
- Reduce costs
- Satisfy RPS

Mr. Hoffmann also discussed viable alternatives to the Sunrise Powerlink project. These would include:

- Repower/replace existing in-region generation and build new peakers
- Build in-region renewables or connect renewables to SWPL
- Build the LEAPS line

Mr. Dariush Shirmohammadi, California Independent System Operators Corporation (CAISO) gave a presentation. Mr. Shirmohammadi stated that CAISO was asked to assess three major transmission projects in Southern California, which included the Tehachapi Project, Lake Elsinore Advanced Pump Storage (LEAPS) Project and the Sun Path Project (combination of Sunrise Powerlink and Green Path projects). CAISO then established the CAISO South Regional Transmission Planning Process (CSRTP-2006) in order to expeditiously assess the need and value for these projects while accounting for their interactions and interdependence. CAISO brought forth the Sun Path project as their recommendation. Many significant changes were made to the Tehachapi project's scope of work. In addition, CAISO was awaiting direction from the Federal Energy Regulatory Commission (FERC) on the control of the LEAPS power plant before making a recommendation to the Board. CAISO presented their findings and recommendations for the Sun Path project under three scenarios:

- Scenario 1: Sun Path project considered alone
- Scenario 2: Sun Path project considered in presence of the Tehachapi project
- Scenario 3: Sun Path project considered in presence of the Tehachapi and LEAPS projects

In its studies, the CAISO determined that significant work was performed by SDG&E, IID and Citizens Energy on the plan of service for the Sun Path project. In addition, it was determined that there were no tariff complications with this project. Ms. Shirmohammadi added that SDG&E was geographically remote from most sources of renewable energy and needed an additional 15 percent of its load to be served from renewable energy by 2010. Mr. Shirmohammadi stated that the Sun Path project would provide access to renewable resources in the Salton Sea area where there are plans for extensive development of renewable resources, such as 445 MW of geothermal and 300 MW of Solar by 2010 and 1,600 MW of geothermal and 900 MW of Solar by 2015.

Mr. Shirmohammadi explained the study's reliability assessment of the Sun Path Project. The Sun Path project increases the SDG&E import capability by about 1000 MW which helps address expected shortfall in the import capability into the San Diego area by 2010. The study found that there were no adverse reliability impact results from the project.

Mr. Shirmohammadi explained the study's economic assessment of the Sun Path Project. The economic benefits consist of:

- Energy Benefits
 - Ability to import low cost renewable and other resources into the CAISO-controlled grid
 - Calculated using TEAM methodology under deterministic scenario analysis from the basecase results
 - Many sensitivity studies were performed to validate basecase results
- Local Capacity Requirements (LCR) Benefits
 - Savings in various "mandatory" capacity payments to generators in San Diego area.

Mr. Shirmohammadi also discussed the study's RPS assessment for the Sun Path Project. The study found that meeting the state RPS goal as well as meeting the San Diego reliability needs are strong incentives for the Sun Path project to come on line by the summer of 2010. Further, the Sun Path project provides the needed access to renewable energy resources in Salton Sea area without hindering economic imports into the CAISO system. In addition, development of renewable energy resources in the Imperial Valley area is expected to slow down as California utilities may not want their economy imports to be curtailed by renewable resources.

Mr. Shirmohammadi concluded his presentation by providing the CAISO recommendation on the Sun Path project. Based on CAISO findings, it was recommended that the Board approve the Sun Path project as it:

- Provides positive net economic value for the CAISO ratepayers
- Solves San Diego's known reliability problems for 2010 and beyond
- Enables SDG&E and other California utilities to comply with the state mandates RPS requirement without curbing economic imports to California.

Mr. Michael Shames, Utility Consumers' Action Network (UCAN), spoke about his views of the Sunrise Powerlink transmission project. Mr. Shames stated that he feels "truly clueless" when it comes to the Sunrise Powerlink transmission project. The only consolation that he gains is that nobody else at the meeting knows either. He feels that no one, except for Mr. Avery, can speak with any expertise on the topic. Mr. Shames stated that he feels that Mr. Avery can speak with expertise on the topic because he has a staff of employees, working for approximately a year and a half to develop and hone his presentation. Mr. Avery's staff have crunched the numbers, checked their facts, working full-time to become experts on this topic. Mr. Shames stated that SDG&E has delivered a very enticing package. Mr. Shames stated that he believes that, if he went to Mr. Avery and presented a proposal similar to SDG&E's Sunrise Powerlink transmission project, Mr. Avery would study his proposal before supporting it. Mr. Shames believes that it is odd that SDG&E is coming to the Working Group with their proposal asking that it be accepted as given, without analyzing it.

Mr. Shames pointed out that in the past, CAISO warned that without the Valley Rainbow line, "lights would go out." Even without the Rainbow Valley line, the "lights" remained on. CAISO study stated that from a state-wide basis, the Sunrise Powerlink transmission line looks good. Mr. Shames stated that he tried to see CAISO's analysis of the project but could not until the day before they made their decision. Mr. Shames stated that perhaps CAISO was right, perhaps they were wrong in their findings.

Mr. Shames posed the question "Why is SDG&E pushing so hard for this power line?" Mr. Shames stated that SDG&E stands to gain about \$1.8 billion profit from the Sunrise Powerlink transmission project, which is expected to cost \$1.3 billion to build. Mr. Shames asked how is it that SDG&E could profit \$1.8 billion. Mr. Shames stated that compound interest would allow SDG&E to profit this amount. Mr. Shames speculates that SDG&E is guaranteed approximately a 12-14 percent rate of return on this investment (\$1.3 billion invested, paid over 40 years).

Mr. Shames asked the group what their motivations should be with accepting and supporting the Sunrise Powerlink transmission project. Mr. Shames stated that there are three major arguments made in support of the Sunrise Powerlink transmission project: economics, reliability and renewables.

Renewables

The study itself says the line is not needed for renewables. Renewables can be brought in over the Southwest transmission line.

Reliability

"Need it because the lights will go out." Mr. Shames reiterated that CAISO stated that the Valley Rainbow line was supposedly needed or the "lights would go out." Mr. Shames stated that there are a lot of complicated factors to decide what options to pursue to address the energy problems. Mr. Shames feels that the power line does not necessarily need to be built by 2010.

Economics

Mr. Shames pointed out that it will cost \$1.3 billion dollars to build the Sunrise Powerlink transmission line, which will not produce one kilowatt of energy. The power line will not produce any power. SDG&E is depending on the power line going to areas that will sell them power. Mr. Shames feels that SDG&E is assuming that those who can sell power, primarily gas generators and coal generators in Arizona and Nevada, are going to sell power at significantly lower prices than local power plants would sell. Mr. Shames feels that it is all speculation because no one knows for sure how much power from outside exporters will sell for.

Mr. Shames spoke about two transmission lines that were almost damaged by wild fires, which could have resulted in the county being "blacked-out." Mr. Shames asked if transmission lines were more reliable than having power plants in-region or alternatively producing power in-region using alternative means.

Mr. Shames stated that he will be engaging in a study over then next six months. The Public Utilities Commission (PUC) staff will be engaging in a study over the next six months. Six months ago SDG&E came before the EWG and stated that they were going to deploy advanced metering; real-time meters; and will only cost \$450 million, which will pay off in 15 years. Mr. Shames sent a letter, carbon copied the EWG, stating that he did not feel that the numbers matched up. Two weeks ago, UCAN filed testimony in a case regarding the advanced meters, as well as the PUC staff. Mr. Shames stated that the actual costs were \$1.2 billion dollars over 32 years. Mr. Shames states that because of this, he will not merely trust Mr. Avery's proposal without independently evaluating the information first.

Mr. Shames warns that the group should evaluate and research the proposal the same way SDG&E would if they were considering pursuing the same type of proposal using objective analysis.

Discussion

Co-Chair Abarbanel stated that the Energy Working Group represents various regions and stakeholders. When members are participating on the Working Group, they are considering issues regionally.

Co-Chair Madrid asked Mr. Shirmohammadi (CAISO) what the level of expertise (in a variety of disciplines) of the members of CAISO. Mr. Shirmohammadi stated that the members of the team cannot be indicated one by one because there are several members. There are several PhD members with backgrounds in Power Engineering, Economics and several that have Masters Degrees with

many years of experience in doing transmission planning studies. And then as a part of CS RTP-2006, individuals came from varying backgrounds with differing views of the proposed projects, many with significant experience in the field. Mr. Shirmohammadi stated that he is not used to engaging in non-technical discussions. He added that one of the main contributors to the study's work was UCAN, which gave very good recommendations on the direction the study preceded. Mr. Shirmohammadi stated that he does not have any qualms about the members' qualifications. Mr. Shirmohammadi stated that CAISO did not use any data from SDG&E in their study. CAISO independently developed all of their assumptions and data through a team with competing interests and completed all of the studies internally. The only time that CAISO relied on SDG&E for information was when they needed to evaluate whether or not SDG&E had reviewed the proposed alternatives carefully. But all economic and reliability studies were conducted by CAISO, using very qualified researchers.

Co-Chair Madrid stated that the study's staff qualifications were indeed incredible. Co-Chair Madrid asked Mr. Shirmohammadi what the CAISO Board members' qualifications and subject area understanding were. Mr. Shirmohammadi stated that he did not know the CAISO Board members' backgrounds because he has only been with CAISO for the last eight months. Mr. Shirmohammadi stated that he had known one of the Board members personally for a great amount of time, Edward Cazalet. Mr. Cazalet has very relevant background, possessing a PhD and has done many years of market design and analysis.

Ms. Irene Stillings asked for clarification regarding the topic of congestion. Ms. Stillings asked Mr. Avery to explain the idea of transmission line congestion and why that costs the region money. Mr. Avery explained that congestion comes about very similarly to that of congestion on a highway. As rush hour comes about, everyone is getting on the road to go to work or home and the highways get congested. Mr. Avery explained that the same concept occurs on the transmission system. At 3 or 4 p.m. on a hot summer day, a host of things occur such as air conditioners being turned on, appliances being used to prepare dinner, all at the same time, which is relatively predictable. Mr. Avery stated that the San Diego region experienced an all time high system peak on July 22, 2006. The all time system peak essentially was on a system that was relatively uncongested. In other words, congestion today, in San Diego, there is not a lot of it. SDG&E has upgraded its system in the last several years and eliminated a lot of that. Yet, that congestion does not eliminate the need for Reliability Must Run (RMR). Ms. Stillings added that more effort needs to be made in load shifting.

Ms. Laura Hunter asked questions regarding in-basin base loads. Ms. Hunter asked if Encina and South Bay are repowered, will they have to be reloaded in their current locations? Also, Ms. Hunter asked if Encina and South Bay are brought on-line, would a mix of in-basin generate enough to address demand? Mr. Hoffmann responded that Encina is close to the end of its commercial life. At this time, Encina is deficient and expensive to operate. Mr. Hoffmann explained that he believes that generation could be built somewhere else and could be move inland.

Ms. Hunter asked Mr. Avery if the \$3,000 per kilowatt estimate included power that would be built or just the transmission line itself. Mr. Avery responded that the number is wrong. Mr. Hoffmann added that the subcommittee did not look at any specific project numbers from CAISO studies, yet just shows reliability issues. Ms. Hunter asked whether options to close the gap were evaluated in the CAISO study. Mr. Shirmohammadi explained that there is a multitude of ways to address this issue but that large powerplants were not the solution to the problem. Mr. Shirmohammadi stated

that if building more powerplants were the decided route, building several smaller ones would be the better option.

Ms. Hunter asked why the Energy Working Group could not wait until it had all of the information they needed to take a position on this issue. Chair Abarbanel stated that that option was plausible.

Dr. Alan Sweedler stated that there is not a mechanism of evaluation. Dr. Sweedler stated that the Energy Working Group does not have the time or resource to conduct studies as in depth as CAISO or UCAN has. Dr. Sweedler stated that if the Working Group was considering doing its own analytical studies, it would cost money. Dr. Sweedler suggested that SANDAG should really consider conducting professional analysis of this issue. Dr. Sweedler added that he believes that the Working Group does not have objective information to take a position on this project. Dr. Sweedler asked Mr. Shames how much, in his opinion, would a study or analysis cost SANDAG. Mr. Shames stated that he believes it would cost approximately \$350,000.

Mr. Scott Anders stated that the region will pay 10 percent of the cost to construct the line. Mr. Anders added that he understands that SDG&E will get full return on the line as stated by Mr. Shames. Mr. Avery replied that the entire project is not just SDG&E, that \$300 million is from the Imperial Irrigation District for their costs. SDG&E will take the profits and put back into rate base.

Mr. Steven Castaneda asked for clarification on reliability in the San Diego region. Mr. Shirmohammadi stated that San Diego cannot build a 750 MW powerplant. Mr. Castaneda then asked how a transmission line can shorten the 750 MW gap, adding that transmission lines are also vulnerable to outages. Mr. Shirmohammadi stated that a G-1 outage of a single generation is if you have only a single line into a region and if that line and plant goes out.

Mr. Shirmohammadi added that the addition of resources in the Salton Sea area reduces rates to Western America. He summarized that the transmission line addition will help bring rates down in California.

Ms. Donna Frye asked Mr. Avery how one would measure a reduction in costs. Mr. Avery stated that there would be a reduction in rates, estimated to be about \$100 million the first year. Ms. Frye asked for an estimate of what the average household's savings would be. Mr. Avery stated the average household would see a savings of about \$25-35 a year, or \$3 a month. Mr. Shames interjected that SDG&E is currently preparing a rate increase proposal which would nullify the savings.

Ms. Frye also asked about energy's relationship to water consumption. Ms. Frye asked how water conservation and energy use affect each other. Co-Chair Abarbanel stated that 10 percent of energy consumption is due to water pumping.

Mr. Paul O'Neal asked about the LEAPS project. Mr. O'Neal stated that the LEAPS project is pretty far along in the process. He asked if it was more economic to construct the LEAPS line and whether it could become the default transmission line. Mr. Avery responded that it could not become the default line because the City of Los Angeles has already stated that the Green Path line is being built to meet its needs not the markets. Mr. Shirmohammadi added that the Sun Path project, along with LEAPS, would not alleviate problems in San Diego. Mr. O'Neal stated that the LEAPS project is

the same as the Valley Rainbow project. Mr. Avery agreed, yes, the LEAPS project is comparable to the Valley Rainbow project. Mr. Shirmohammadi stated that both projects would add to the region.

Mr. Alan Ball stated that Mr. Shirmohammadi had made a statement indicating that CAISO had sought public comment in San Diego regarding the Sunrise Powerlink, but he believes that, in reality, CAISO presented their findings after they had already sought approval from its Board, and did not ask for input. Mr. Shirmohammadi replied that presentations were made in San Diego and did not present findings ten days before it was presented to the CAISO Board for approval. Mr. Ball stated that public comment was taken after findings were concluded. Mr. Shirmohammadi stated that the findings are what they are and they would have been the same, even after public comment. Mr. Shirmohammadi added that the most important factor is that CAISO shared the assumptions and this was given to the public one month before going before the CAISO Board. The public was also invited to present before the board.

Mr. Shirmohammadi stated that the LEAPS project will be presented to the CAISO Board in September 2006.

Public Discussion

Mr. Scott Alevy, San Diego Regional Chamber of Commerce (SDRCC), commented that Mr. Castaneda, Chula Vista has been discussing with him the need for renewable energy for years. He reiterated that the problem of obtaining adequate renewable capacity still exists. He stated that the SDRCC Board of Directors support the Sunrise Powerlink.

Ms. Frye, San Diego, asked how the Chamber came to its decision, and Mr. Alevy replied that the project had been vetted by its Energy, Public Policy Committee and Infrastructure Committees over two months.

Mr. David Lawhead, California Department of Parks and Recreation Colorado Desert District, including the Anza-Borrego Desert State Park, stated that due to miscommunication between EWG members, staff and speakers, he was not adequately informed of his role at the meeting, and submitted he was available to speak at a future meeting, if requested. He also stated the State Parks would submit comments to the CPUC on the proceeding.

Co-Chair Madrid, La Mesa, stated the EWG is interested in hearing all comments and invited Mr. Lawhead to comment at the September 2006 meeting.

Mr. Dave Allen, City of La Mesa commented on the need to address public safety and cool zones when power is scarce in the region.

(Ms. Diane Conklin requested her verbatim comments be recorded and transcribed)

Diane Conklin: Good morning. I want to tell you a little bit about myself since you've never seen me before, so it's not a question yet. My name is Diane Conklin. I live in Ramona, one of the dozen communities affected by this proposed power line. I am a community organizer; I began working in my community seven years ago when I moved there. I started the Mussey Grade Road Alliance and I head up the Ramona Tree Trust, a 501(C)3 organization which has planted 60 trees on our main street. I'm also an organizing member of Communities United for Sensible Power, a grassroots citizen organization that stands for sustainable, renewable, reliable and economical energy for San Diego County and we are made up of twelve communities from the coast to desert. We are

opposed to Sunrise Powerlink. I wanted to say that we have talked to Jennifer. She was kind enough to call me and asked if I wanted to speak during the three-minute public agenda portion. I did ask her, because I am aware of how this works, that you don't speak during public portions non-agenda items on the agenda items but I was told that it was a little bit loose and fast here so I could do that. Well I'm sorry it didn't work out that way and we hope to come back on that public portion on September 28 so I ask right now for a 15-minute presentation on behalf of CUSP at your September 28 meeting request. So I'm going to ask a bunch of questions because that's the way you like to do it. These are not rhetorical, but I do not expect answers. The first question is:

Is SDG&E Sempra? The second question is: Did Sempra settle a class action law suit earlier this year based on allegations of its' activities during the so-called "California Energy Crisis?" Did the corporation pay out some \$350 million rather than defend its honor and integrity in court? Was that their choice? Yes. But is it something to keep in mind? Is it true, because they settled the case, it is impossible to calculate what may have been extracted by the corporation from our area versus what tax and job revenues the company provides so we are left uninformed regarding these issues? Didn't SDG&E serve in an advisory capacity to the working group that produced the Energy's 2030 San Diego Regional Energy Strategy "Creating a More Secure Energy Future for the San Diego Region" prepared for SANDAG? Isn't transmission one of the nine goals and not the only goal, and is it not helping in the County's generation or conservation or even the reduction of peak demand, but rather manages to bypass the other recommendations? Is it one way to see it, that SDG&E's so-called "Sunrise Powerlink" is the SUV of electricity going backwards, not forward? Isn't so that the company wants to run its power line through or adjacent to a half a dozen or more county and city open space preserves and our unique desert state park because they figure no one will notice or care enough to object? Aren't our tax dollars paying for supporting these preserved open spaces and don't we care, don't we object?

Chair Abarbanel: Diane, 5 seconds on Sunrise.

Diane Conklin: Fine. I summarize by saying we need to remember that the 26,000 miles of power lines in California didn't save us in the 2001 energy crisis. We are still paying the \$30 billion price as rate payers and citizens we do look forward to seeing you next month. Thank you.

*Co-Chair Abarbanel: Laura Copic followed by Rod Jones
(Ms. Laura Copic requested her verbatim comments be recorded and transcribed)*

Laura Copic: Hi, my name is Laura Copic, and I'm a member of the Carmel Valley Community Planning Board and Carmel Valley Concerned Citizens, which in turn is also a member of Communities United for Sensible Power. I would like to second Allen's comments which basically go on to say that, in your agenda packet, there was a list of questions, three pages worth, which I really wanted to hear the answer to today and I did not get the answer to and I don't think he'll ever get the answer to unless you have somebody unbiased to evaluate this line. My ongoing concern is that there is no one entity that looked at the overall power equation and has enough independent power to guide us with the best possible and most aggressive solution. Regulatory agencies like the CAISO and the CPUC only react to proposals offered by investor-owned utilities. As profit-making entities, these investor-owned utilities have the goal to maximize shareholder values, not ratepayer values and these two goals are often at odds. They therefore don't have the proper incentives to offer the best possible solutions for ratepayers and our energy future and we, therefore, cannot trust them with this responsibility. This was also apparent with the manipulation of the power market during the energy crisis. The most pro-active energy strategy that we have

developed here locally is the San Diego Regional Energy Strategy, which this group is tasked with implementing. As you know, that strategy emphasizes first and foremost in-county and renewable energy resources as the most effective and efficient way of addressing our future energy needs. I believe the strategy is being ignored with SDG&E, and the Sunrise Powerlink application. Sunrise Powerlink allows SDG&E to avoid using or supporting in-county generation sources that are already available from their competition. I understand this is one of the main reasons why SDG&E and the power plants are having trouble securing a buyer for the energy they can already produce and the support they need to update their facilities. If the goal is to secure a noble resource in the Imperial Valley, then the plan has already begun with the southwest Powerlink transmission line provided it isn't congested with Sempra's fossil fuel-congested energy traveling from Mexico to San Diego to points north; or the independently proposed "Green Pass" transmission line. The \$1.2 billion of ratepayer's money that would be spent on the Sunrise Powerlink can be better spent for developing local distributive generation and renewable resources like rooftop solar to more efficiently add power at the San Diego region and make us less dependent upon power imported from outside the region, thereby alleviating the congestion problem with the transmission lines as well. I believe there are more efficient local alternatives that will better add reliability and renewables for our energy mix and that have fewer harmful impacts on our parks, preserves and communities and that approving this project will squelch the momentum and incentive to pursue these superior alternatives. I'm acutely aware of the power and influence that Sempra wields in San Diego but I urge you, however, to seek an unbiased evaluation of this project and examine if this is truly the best solution for San Diego's future energy needs or simply the only solution that SDG&E and Sempra are willing to offer at this time. Thank you.

Mr. Rod Jones asked why the plan omitted potential routes that did not go through the park, why the U.S. wilderness area is being potentially compromised, why SDG&E has not addressed California Environmental Quality Act processes adequately regarding bighorn sheep (federally endangered) and other animals travel corridors, and about paleontological and geological features that will be drastically compromised. The U.S. Department of the Interior has designated the Anza-Borrego State Park to be among "America's Critical Lands." The New York Times says that "Its' complexity is like a Zen garden.

Mr. Richard Caputo, EWG Resources Committee volunteer in the renewables area, asked if the CAISO economic data would be made available for all the transmission routes evaluated, especially for the "outside the park" alternatives.

Mr. Shirmohammadi, ISO, replied that the CAISO did not look at routing, but did look at economics. She stated, at Mr. Caputo's suggestion, that he could get that information to the EWG.

Mr. Buz Schott, Stirling Energy, stated he could provide a presentation on the project proposed in the Imperial Valley. Stirling plans to file an application with the California Energy Commission next year, with the potential for bringing 900 MW of PV into San Diego. He stated the project needs 5,000 acres

Ms. Kay Stewart, California Native Plant Society, asked for clarification on SDG&E's application regarding the scope of the project (if it included Mexico power plants). She also stated that detail in the biological study is very inadequate (Proponents Environmental Assessment). She reiterated that SANDAG needed to evaluate its mission and preserve conservation lands.

She also stated that the resources subcommittee did not address rooftop solar in its analysis of local resources.

Mr. Avery stated that SDG&E has not solicited resources outside of those mentioned in the application (specifically renewable resources in Imperial Valley).

Mr. Hoffmann mentioned that solar rooftops were not counted as a guaranteed option, but figured into the mix. He mentioned the line can provide benefit.

Denis Trafecanty discussed the impact on the migration patterns of the bighorn sheep, from which the state park gets its name. He encouraged members of the EWG to consider the sources of comments before taking a position.

Chairman

Ms. Rebecca Handlesman, Westfield Horton Plaza, supported the Sunrise Powerlink for reliability reasons, in that it will continue to provide electricity for all the businesses within the shopping mall and beyond.

Councilmember Downey, City of Coronado, environmental and energy attorney, and chair of SANDAG Environmental Mitigation Program, mentioned the Imperial Valley Study Group, which reviewed renewable potential and whether or not the LEAPS project could provide the connection to renewables as well as other options. He offered to return to the group with an official report if needed.

Mr. Harvey Payne, Rancho Penasquitos Concerned Citizens, asked about the questions submitted to SDG&E re: the Sunrise Powerlink by the EWG.

He asked Mr. Shirmohammadi to clarify a statement about a disagreement; Mr. Shirmohammadi replied that the discussion was on differing points of view and interests in the STEP process, not the CAISO employees. Unknown

Oh, yes. It was almost a meeting a week where we got together since April. We wanted to use the groups to come up to a list of assumptions an approach as opposed to arguing about whether something renewables are good or bad or so on, so the focus was that. Then we had the broader average, which was not as often, I must say, in which UCAN and others tried to

Mr. Bill Powers disagreed with statements on a public process at the CAISO.

Mr. Don Wood asked if SDG& E would provide written answers to the 30 EWG questions. He also asked if SDG&E would contract with local power plants if the Sunrise Powerlink were approved and if they are able to provide peak power at or below what they are currently paying for power from the new (Palomar) plant.

Second question I had was if the Sunrise Powerlink is approved and built, does SDG& E plan to contract with new local power plants if they're able to provide peak power at or below what SDG & E is currently paying for power from the new power plant?

Ms. Laura Hunter stated her strong interest in ensuring that public comment be allowed to continue at the next meeting.

Ms. Irene Stillings, San Diego Regional Energy Office (SDREO), stated that SDREO can host public forums on the Sunrise Powerlink.

6. SUGGESTED TOPICS FOR NEXT MEETING

None.

7. ADJOURN

Co-Chair Abarbanel adjourned the meeting at 2:47 p.m. The next EWG meeting will be on September 28, 2006.

Prop 87: Clean Alternative Energy Act

1. WHAT DOES THE INITIATIVE PROPOSE TO DO?

Proposition 87 amends the California Constitution to create a severance tax¹ on in-state oil production. Revenues from the tax would be used to develop alternative energy.

More specifically, the initiative would:

1. Create a severance tax on oil production that could generate up to \$4 billion over 10 years, depending on how language in the proposition is interpreted.
2. Create the California Energy Alternative Program Authority ("Authority") to administer the funds. The agency would have nine members including the Secretary of the California EPA, Chair of the CEC, Treasurer, and other individuals appointed by the Governor and legislature and other executive branch officials.
3. Create the California Energy Independence Fund ("Fund") to hold revenues generated by the severance tax. The Fund would not be subject to state appropriations limits, would not be eligible for loan to GF, and would continuously appropriate (not subject to annual state budget process).
4. Spend the tax revenues on research and production initiatives for alternative energy programs targeting ethanol, bio-diesel, clean-burning electricity, and alternative fuel vehicles.
5. Create, in consultation with the CA Air Resources Board, CEC, and CPUC, and adopt an Integrated Resource Plan for petroleum reduction in CA.

1.1. Proposition 87 Goals

The stated goal of Proposition 87 is to reduce petroleum transportation fuels use by ten billion (10,000,000,000) gallons over 10 years.

In Section 26056 (a) of the Proposition further states that the goal is to reduce petroleum transportation fuel used by twenty-five percent (25%) within ten years of the date of the authority's adoption of an initial strategic plan, as compared with California's current sixteen billion (16,000,000,000) gallon annual rate of consumption, or roughly four billion (4,000,000,000) gallons of petroleum transportation fuels per year by 2017, and causing permanent and long-term reductions in petroleum consumption in California.

2. CALIFORNIA ENERGY ALTERNATIVE PROGRAM AUTHORITY

The Proposition provides for the California Energy Alternative Program Authority, which would comprise nine members:

- The Secretary of the California Environmental Protection Agency;
- The Chairperson of the California Energy Commission;
- The Treasurer;

¹ A severance tax is a tax imposed by a state on the extraction of natural resources. Note that proponents do not use the word "tax" in the language of the proposition or their literature. The Legislative Analyst's Office referred the proposed assessment as a "severance tax."

- A Californian who has expertise in economics, energy markets, and energy efficiency technologies, appointed by the Governor;
- A Californian who has expertise, and who has demonstrated leadership, in public health, appointed by the Governor;
- A Californian who has expertise in finance, start-ups, and venture capital, preferably with experience in enterprises comparable in scale and purpose to those that would be eligible for funding pursuant to the Clean Alternative Energy Act, appointed by the Controller;
- A renewable energy or energy efficiency expert from a California university that awards doctoral degrees in the sciences who is either a member of the National Academy of Sciences, the National Academy of Engineering, or a Nobel Prize laureate, appointed by the Speaker of the Assembly;
- The dean or a tenured faculty member of a major, nationally-recognized California business school that awards post-graduate degrees who has significant experience in as many as possible of new technology ventures, entrepreneurship, consumer marketing, consumer adoption of new trends, and enterprises comparable in scale and purpose to those that would be eligible for funding pursuant to the Clean Alternative Energy Act, appointed by the Senate Rules Committee; and,
- A Californian who has expertise, and who has demonstrated leadership, in consumer advocacy, preferably with substantial experience in consumer marketing and business, appointed by the Attorney General.

The Authority would be directed by a CEO selected by its members.

The Authority can be terminated by the legislature only after January 1, 2027 or after the assets of the Authority have been fully expended, whichever is later.

The Authority would have the ability to issue bonds with a maturity of less than 25 years.

3. STRUCTURE OF THE PROPOSED SEVERANCE TAX

Proposition 87 proposes the following sliding scale approach.

Prop. 87 Sliding Scale	
Price of Oil (\$/bbl)	% of gross value
\$10 to \$25	1.50%
\$25.01 to \$40	3.00%
\$40.01 to \$60	4.50%
\$60.01 to \$80	6%

It is unclear how the proposed sliding scale will be applied in practice. The Legislative Analyst's Office notes that the tax rates could be applied on a marginal basis or a constant tax rate basis. On a marginal rate basis producers would pay the applicable tax rate to the price ranges indicated (i.e., each barrel would be assessed 1.5% on the price between \$10-\$25/bbl, 3% on the price between \$25.01-\$40/bbl, and so on up to the total price of the barrel). Using the constant tax method, the single rate that applies to the price of a barrel of oil would apply to the

entire barrel. As the LAO points out in their assessment of Proposition 87, the interpretation of how to apply the tax, the price of oil, and the production of oil will determine the total amount of revenue that the proposed tax will generate. Given the uncertainty of all of these factors, it is not possible to predict how much revenue the tax will generate.

4. WHO WOULD PAY THE TAX?

Oil producers would be required to pay the tax on oil produced in California. Proposition 87 would require stripper wells to pay the tax only if the price of oil is above \$50/bbl. The proposition provides the following definitions:

- **Producer** – any person who takes oil from the earth or water in this state in any manner, any person who owns, controls, manages, or leases any oil well in the earth or water of this state, any person who produces or extracts in any manner any oil by taking it from the earth or water in this state, any person who acquires the severed oil from a person or agency exempt from property taxation under the Constitution or laws of the United States or under the Constitution or laws of the State of California, and any person who owns an interest, including a royalty interest, in oil or its value, whether the oil is produced by the person owning the interest or by another on his behalf by lease, contract, or other arrangement.
- **Stripper Well** – a well that has been certified by the board as an oil well incapable of producing an average of more than ten barrels of oil per day during the entire taxable month. Once a well has been certified as a stripper well, such stripper well shall remain certified as a stripper well until the well produces an average of more than 10 barrels of oil per day during an entire taxable month.

4.1. Would Consumers Pay Higher Prices for Gasoline and Diesel?

Proposition 87 states that the “assessment imposed...shall not be passed on to consumers through higher prices for oil, gasoline, or diesel fuel. At the request of the authority, the [Board of Equalization] shall investigate whether a producer, first purchaser, or subsequent purchaser has attempted to gouge consumers by using the assessment as a pretext to materially raise the price of oil, gasoline, or diesel fuel.” According to the LAO’s analysis of Proposition 87, it is unclear whether BOE would be able to enforce this prohibition.

Opponents of Proposition 87 state that the costs will inevitably be passed on to consumers. Supporters of Proposition 87 claim that since the price of oil is set on a global market, a statewide tax would not affect the price of oil, and that all not all retailers of crude oil are producers in the state.

5. ALLOCATION OF FUNDS

Revenues generated by the proposed tax would be allocated proportionately to the following four accounts.

Proposition 87 Subaccounts	% Revenue
Gasoline and Diesel Use Reduction Account	57.50%
Research and Innovation Acceleration Account	26.75%
Commercialization Acceleration Account	9.75%
Vocational Training Account	2.50%
Public Education and Administration Account	3.50%
Total	100.00%

5.1. Gasoline and Diesel Use Reduction Account (57.5%)

The proposition would allocate 57.5% of revenues to the Gasoline and Diesel Use Reduction Account. The Authority could use these funds for the following.

- Alternative Fuel Vehicle Incentives – including loans, loan guarantees, credits, and buydowns to fleets and individuals for the purchase of clean alternative fuel vehicles sold in California.
- Alternative Fuel Production Incentives – including loans, loan guarantees, and credits for clean alternative fuel production in California, excluding the production of electricity, except clean fuel cell based electricity production.
- Alternative Fuel Station Incentives – including loans, loan guarantees, credits, and grants for the construction of publicly accessible clean alternative fuel refueling stations, including refueling stations that sell ethanol blends consisting of at least eighty-five percent (85%) ethanol ("E-85").
- Clean Fuel Infrastructure Incentives – including loans, loan guarantees, and grants for the installation of publicly accessible clean alternative fuel infrastructure.
- Clean Fuels Research – including grants and loans to private enterprises for research involving clean alternative fuels and clean alternative fuel vehicles in California.

5.2. Research and Innovation Acceleration Account (26.75%)

The proposition would allocate 26.75% of the revenues to the Research and Innovation Acceleration Account. The Authority could use these funds to make grants to California universities for facilities, post-baccalaureate student research training grants, and research to improve the economic viability and accelerate the commercialization of renewable energy technologies, and energy efficiency technologies in buildings, equipment, electricity generation, and vehicles.

5.3. Commercialization Acceleration Account (9.75%)

The proposition would allocate 9.75% of the revenues to the Commercialization Acceleration Account. The Authority could use these funds to provide incentives including, loans, loan guarantees, and grants to fund the one-time or start-up costs of introducing petroleum reduction and renewable energy technologies, energy efficiency technologies, clean alternative fuels, and clean alternative fuel vehicles including the certification of products, vehicles, and distribution systems, and for other costs that will accelerate the production and distribution of commercially viable products and technologies to the market.

5.4. Vocational Training Account (2.5%)

The proposition would allocate 2.5% of the revenues to the Vocational Training Account. The Authority could use these funds to provide grants administered through the Office of the Chancellor of Community Colleges to California community colleges for:

- Staff development and facilities to train students to work with renewable energy technologies, energy efficiency technologies, and clean alternative fuels.
- Tuition assistance for low-income students and former fossil fuel energy workers and certified vehicle mechanics to obtain training to work with renewable energy technologies, such as solar, geothermal, wind, and wave technologies, clean alternative fuels, and energy efficiency technologies.

5.5. Public Education and Administration Account (3.5%)

The proposition would allocate 3.5% of the revenues to the Public Education and Administration Account. The Authority could use these funds to

- Educate the California public about the importance of energy efficiency technologies, renewable energy technologies, and full fuel-cycle petroleum reduction.
- Administer the Authority.
- Monitor the implementation of the proposed severance tax to determine if oil producers are attempting to pass the tax on to consumers in the form of higher prices for oil, gasoline, or diesel fuel.

6. FISCAL AND ECONOMIC EFFECTS OF THE TAX

The tax could have fiscal and economic effects on the state of California.

6.1. Fiscal Effect

The LAO's analysis includes several potential fiscal effects that the implementation of Proposition 87 could have on California state and local governments:

- Education Funding Shortfall Requirement – Current law requires the state to offset reductions in property tax revenues experienced by K-12 and community college districts. If the new oil severance tax reduces property tax revenues, the state might be obligated to cover the revenue reduction.
- Possible Reduction in Income Tax Revenues - Oil producers would be able to deduct the tax from earned income, which could reduce income tax liability (reduce income tax revenue to CA)
- Possible Reduction in Gasoline and Diesel Excise and Sales Tax Revenues – If program is successful in reducing petroleum consumption, the amount of gasoline and diesel excise taxes paid to the state would decline. A reduction in petroleum consumption also would reduce sales and use tax to local governments receive, though such a reduction could be offset by sales and excise taxes on alternative fuels.

6.2. Economic Impact

The LAO's analysis includes several potential economic effects that the implementation of Proposition 87 could have on California's economy. The LAO notes that imposition of a severance tax could reduce economic activity if oil producers reduce production or investment in new production technologies. On the other hand, LAO points out that the oil tax revenues could spur new technologies, which could increase or at least offset a reduction in economic activity.

6.3. Effect on Education

Proposition 87 exempts revenues generated by the proposed severance tax from being counted as general revenue for the purpose of allocating K-12 and Community College funding, as provided for in Article XVI, §8 and §8.5. These sections of the California Constitution were added by Proposition 98 in 1988 and further amended by Proposition 111. The formulas to determine education funding created as a result of Proposition 98 are complex and it is unclear what impact this provision of Proposition 98 would have on education funding.

7. ACCOUNTABILITY

Proposition 87 includes a section on Accountability that provides for the following:

- Report per Public Resources Code 26017. The authority, no later than March 1 of each year, would be required to submit to the Legislature a report of its activities for the preceding calendar year ended December 31. Such report shall include (1) a listing of the applications received, (2) a listing of the applications accepted for financing, (3) a specification of bonds sold, interest rates thereon, and whether bond sales were pursuant to public bid or were negotiated, (4) a specification of the amount of bonds authorized but currently unsold, (5) a projection of the authority's needs and requirements for the coming year, and (6) a report of revenues and expenditures for the preceding fiscal year.
- Annual Report – The Authority would be required to submit a report (in addition to the report above) to the Governor, the Legislature, and the public which sets forth its activities, its accomplishments, and future program directions. Each annual report shall include, but not be limited to, the following: the number and dollar amounts of incentives including, but not limited to, grants, loans, loan guarantees, credits, and buydowns; the recipients of incentives for the prior year; the authority's administrative expenses; a summary of research findings, including promising new research areas and technological innovations; and an assessment of the relationship between the authority's award of incentives and the authority's strategic plan.
- Independent Financial Audit - The authority shall annually commission an independent financial audit of its activities from a certified public accountant which shall be provided to the State Controller, who shall review the audit and annually issue a public report of that review.
- Citizen's Financial Accountability Oversight Committee – The Proposition would create a Citizens' Financial Accountability Oversight Committee chaired by the State Controller to review the annual financial audit and the State Controller's report and evaluation of that audit. The State Controller, the State Treasurer, the President Pro Tem of the Senate, the Speaker of the Assembly, and the chairperson of the authority shall each appoint a public member of the committee.

8. SUPPORT/OPPOSITION

Supporters and opponents of Proposition maintain a list of groups and individuals endorsing each position.

- A list of supporters is available at <http://www.yeson87.org/index.php/pages/endorsements>
- A list of opponents is available at <http://www.nooiltax.com/keyfacts/whoopposes.htm>

9. AREAS OF UNCERTAINTY

There are several areas of uncertainty regarding Proposition 87.

- Could the goals be achieved given the level and distribution of funding?
- How much money will the tax generate? This includes two embedded areas of further uncertainty: total oil production and the price of oil.
- What would happen if the Authority issued a bond and did not receive predicted tax revenues?
- What fiscal effects will the provisions of Proposition 87 have on state and local governments? And to what extent could success of the program offset any negative effects?

- What effects will the provisions of Proposition 87 have on education funding?

10. FRAMEWORK FOR THE EWG TO DETERMINE A POSITION ON PROPOSITION 87

The following is a framework to help the EWG determine what if any position it should take regarding Proposition 87.

- **Relevance:** Is this proposition relevant to the work of the EWG and the broader work of SANDAG? Does the proposition further goals defined in the Regional Energy Strategy or goals, the initiatives of SANDAG's Energy Planning Program, and other SANDAG Initiatives?
- **Goals:** Do we agree with the goals of Proposition 87?
- **Method:** Are the methods clearly communicated? Do we agree with the proposed method of achieving the goals?
- **Risk Assessment:** Are there any risks associated with approving the proposition?
- **Provisions:** Are there any provisions of Proposition 87 that the EWG does support?
- **Sufficient Information:** Do we have all the information we need to make an informed decision?

Sunrise Transmission Project

EWG discussion will include:

- San Diego Gas & Electric's (SDG&E's) response to the EWG's list of questions on Sunrise. Its response is included on the following pages.
- CAISO response to EWG data requests. (If SANDAG receives this response before September 28, 2006, it will be sent via email prior to the EWG meeting.)
- Next steps in the state proceeding.
- Next steps for the EWG.

Presentations of this meeting include additional stakeholders actively involved in the Sunrise Transmission Project proceeding:

- FourSquare Creative Services, which represents Stirling Energy Systems (SES) in San Diego. SDG&E has contracted to buy 300 MW of solar power in 2010 from SES.
- Bill Powers from Border Power Plant Working Group.
- Diane Conklin from Mussey Grade Road Alliance.
- David Lawhead, CA Dept. of Parks & Recreation
- Paul Blackburn, Sierra Club

CPUC UPDATE: The California Public Utilities Commission (CPUC) held a prehearing conference on September 13, 2006, in Ramona to address the proceeding's scope and schedule. The CPUC also took public comment on this project. A series of Scoping Meetings on the environmental impact report and statement are scheduled in the San Diego region from October 2-5, 2006. This information is from the CPUC's Sunrise Transmission webpage at:

<http://www.cpuc.ca.gov/static/hottopics/1energy/a0512014.htm>

- Oct. 2, 2006, 4:30 to 8 p.m.:
 - El Centro Imperial Co. Board of Supervisors, 940 West Main Street, Suite 219, El Centro
- Oct. 3, 2006, 4 to 6 p.m. and 7 to 9 p.m.:
 - Charles Nunn Performing Arts Center, 1521 Hanson Lane, Ramona
- Oct. 4, 2006, 2 to 4:30 p.m. and 6 to 8:30 p.m.:
 - Borrego Springs Resort, 1112 Tilting T Drive, Borrego Springs
- Oct. 5, 2006, 2 to 5 p.m.:
 - Hilton Hotel, 901 Camino Del Rio South, San Diego
- Oct. 5, 2006, 6:30 to 9 p.m.:
 - Doubletree Golf Resort, 14455 Rancho Peñasquitos Drive, San Diego

Questions to SDG&E from Energy Working Group Members on the Sunrise Powerlink Transmission Project

1. Please provide a comparative table on the alternatives to transmission in meeting the goals of the Regional Energy Strategy (RES) adopted by SANDAG in 2003.

The RES called for the addition of transmission. Goal 5 states:
"Increase the transmission system capacity as necessary to maintain required reliability and to promote better access to renewable resources and competitively priced supply." (RES page 32)

Specific implementation strategies under this goal were to "identify a project as soon as possible and complete construction by 2008." The strategies also called to "complete the necessary upgrades to the transmission system to improve reliability and access new generation in Baja California as well as interconnections with renewable energy development in Imperial County and Eastern San Diego County."

So the addition of transmission was considered and is an integral part of the RES.

2. Is it possible to meet renewable energy goals without transmission lines coming into the San Diego region?

Assuming the phrase "without transmission lines" should read "without new transmission lines" SDG&E responds as follows:

It is theoretically possible, but at a higher cost to customers. Without new transmission, the increases in the costs of accessing renewable energy and other efficient generating sources in the desert Southwest are projected to saddle our customers with hundreds of millions of dollars of additional costs.

3. Is the building of new transmission lines related to reliability of energy delivery in the San Diego region? Are there existing or proposed transmission projects elsewhere in Southern California which might cover San Diego's needs?

Yes, the line is targeted to meet SDG&E's grid reliability needs. But it is also proposed to lower energy costs and expand access to renewables. No other transmission line proposal can do all three.

4. What are the overall benefits of a new transmission route?

A new transmission route will improve system reliability by reducing the risk that a wildfire or other event would cause the San Diego area to lose its only 500 kV connection to the WECC grid during a critical time period; for example, when loads are very high and the largest in-area generator is out of service.

5. What alternatives to the proposed project exist, and how can we as a region evaluate them and recommend to the California Public Utilities Commission (CPUC) which is our preference? What are the routes associated with those alternatives, the costs, and the relation to the RES?

Chapter VI of SDG&E's August 4, 2006 filing with the CPUC discusses alternatives to the Sunrise Powerlink. However none of the identified alternatives will meet the reliability needs of San Diego while also providing access to renewables and reducing system costs. Alternatives have been studied by the CAISO, STEP and IVSG. The CAISO endorsed the Sunrise Project in August.

6. Can one underground the entire project? At what cost, now and in the long run, for maintenance?

No. Undergrounding a 500 kV line over long distances in a desert environment is not possible.

7. During 2005, what percentage of power imported here via the Southwest Powerlink (SWPL) actually was consumed within SDG&E's service area?

Essentially all the power imported here via the Southwest Powerlink is consumed within SDG&E's service area. In most hours of the year, and always on an annual basis, the San Diego area is a net importer of power so it is likely that most of the power delivered to the San Diego area over the Southwest Powerlink is consumed within the San Diego area. On a typical day, anywhere from several hundred megawatts to well over a thousand megawatts of power flow into SDG&E service area along SWPL while at the same time a couple of hundred megawatts flow into the SDG&E service area from San Onofre Nuclear Generating Station (SONGS) along the South-of-SONGS path.

8. During 2005, what percentage of SWPL imported power coming to San Diego was then exported to Southern California Edison (SCE) under Sempra's contract with the State Department of Water Resources?

On a day to day basis, the California Department of Water Resources' (CDWR's) contract with Sempra Energy Resources gives Sempra Energy Resources some flexibility in deciding where the power used to discharge its obligations under the contract will be generated. For this reason, SDG&E does not know where the power that Sempra Energy Resources contractually delivers to SCE (the CDWR contract was allocated to SCE) is actually generated.

In addition, even if SDG&E did have access to this information, it is not possible to determine what portion of the power that is contractually delivered to SCE by Sempra Energy Resources is physically "imported" to and/or physically "exported" from the San Diego area.

9. What were SDG&E's actual regional Reliability Must-Run (RMR) and congestion costs in 2005? What have they been so far in 2006?

\$203,464,245 - 2005 RMR costs

\$89,263,685 - 2006 RMR costs (through June)

10. What impacts on regional RMR costs and congestion will the 2011 expiration of Sempra's contract with the State DWR have? How much less power will need to be imported via SWPL for export to SCE's service area?

The expiration of Sempra Energy Resources contract with the CDWR will have no impact on regional RMR costs. The physical dispatch of generators is based on the variable costs of running each plant. These operating costs are unaffected by the price, terms and conditions of purchase power contracts. Most purchase power contracts, such as the contract between Sempra Energy Resources and the CDWR, are intended to achieve a financial result, not to dictate physical operation. Since the expiration of the Sempra Energy Resources-CDWR contract will not change the variable operating costs of any generating plants, the merit order dispatch of generating plants¹ will not change. The resulting grid powerflows are therefore unaffected and the need for local RMR generation (or its equivalent in 2011) to manage any congestion which may arise is also unaffected.

As indicated in the response to question 8, SDG&E does not know what portion of the power that Sempra Energy Resources contractually delivers to SCE is physically "imported" to and/or physically "exported" from the San Diego area. In addition, SDG&E does not know how SCE intends to meet their bundled customer load requirements in 2011. Accordingly, there is no way to know the amount of power that may be physically "imported" to and/or physically "exported" from the San Diego area in order to serve SCE's bundled customer loads in 2011.

¹ Merit order dispatch works in the following way. Let's say that a supplier has a day-ahead contractual obligation to provide 100 MW of power to a load serving entity (LSE) at a fixed price of \$70/MWh. The supplier owns one 100 MW power plant that can produce power at \$60/MWh. As required by the contract, the supplier will *schedule* 100 MW of power to the buyer and the buyer will pay the supplier \$70/MWh. The supplier and buyer then submit day-ahead schedules to the grid operator for 100 MW of generation and 100 MW of load respectively. Now assume that the LSE has a total of 250 MW of load to serve. In real time the supplier offers its 100 MW unit into the market at \$60/MWh. Assume three other 100 MW generators offer power into the real-time market at prices of \$50/MWh, \$52/MWh and \$55/MWh respectively. The real-time market will clear the supply offers in merit order (100 MW @ \$50/MWh, 100 MW @ \$52/MWh and 50 MW @ \$55/MWh) to meet the LSE's 250 MW of load. All of the exercised offers will be paid the offer price of the highest offer price exercised (\$55/MWh in this example). The offer from the supplier with the contract was not exercised so the \$60/MWh unit will not be run. This means the supplier will have a 100 MW imbalance (the day-ahead scheduled generation of 100 MW minus the actual real-time generation of 0 MW) and will be charged \$55/MWh by the grid operator. But the supplier comes out ahead since it is more economical to supply its contractual obligation from the market at \$55/MWh rather than from its own generator at \$60/MWh. Note that the contract price of \$70/MWh has no effect on the merit order dispatch of generation and therefore no effect on actual use of the transmission grid.

11. On page 1.6 of its earlier incomplete CPUC application, SDG&E provides a chart showing projected increases in regional RMR and congestion costs. That chart shows RMR and congestion costs actually declining, beginning in 2006, due to construction of several power plant and transmission upgrades, including:

- The Miguel to Mission transmission upgrade,
- Operation of the Palomar power plant,
- Operation of the Otay Mesa powerplant, and
- Construction of the Sunrise Powerlink transmission line

For each of these individual projects, please indicate how much each will reduce regional RMR and congestion costs between 2006 and 2010, and clarify the marginal RMR and congestion cost reduction that will be created solely by the construction of the Sunrise Powerlink project.

Solely by Sunrise in 2006\$ in millions:

2010	2011	2012	2013	2014	2015	2016
\$70.8	\$72.0	\$79.8	\$81.6	\$80.7	\$83.0	\$87.9

The exact amount by project over time is not known. MM2 saved about \$100M the 1st year by reducing the amount of RMR energy needed to reduce intra-zonal congestion, but Palomar would save part of this amount by itself (by providing market energy at no additional RMR energy cost to push back on SWPL). So MM2 savings in the 2nd year (after Palomar) should be less by sharing some of the RMR savings with Palomar. As more projects are added (like OM) the exact savings by project over time can't be determined even when the total RMR cost reduction is known.

12. If 10 percent of the \$3.2 billion the CPUC has authorized for the California Solar Initiative is spent in SDG&E's service area supporting the development of new solar energy systems, what impacts will that have on projected regional peak demand between now and 2010?

The program is designed to get about 3,000 MW of solar panels installed over the ten year life. If 10% of this gets installed in San Diego, that would be 300 MW. However, PV systems produce only about 50% of their nameplate capacity at the time of system peak, which is late in the afternoon. So that results in about 150 MW of peak reduction after 10 years. There is currently a shortage of panels due to world wide demand and thus SDG&E (and many others) expect it will take some time for production to ramp up and supply the panels needed to meet this goal. Using aggressive assumptions, it is possible that 20 MW of panels could be installed by 2010, ramping up to 300 MW of panels by year 2015.

SDG&E's need calculations assume the full 300 MW of panels will be installed by year 2015. This translates into a 150 MW reduction in peak demand by year 2015.

13. SDG&E's earlier incomplete Sunrise Powerlink application assumes that the existing South Bay Powerplant will be retired by 2010, but Duke has indicated that it, or its successor owner, plans to replace the existing South Bay Powerplant with another powerplant nearby. How would construction of such a new plant, assuming that it would produce 600 MW of combined cycle natural gas-based power, impact SDG&E's regional peak power demand and supply projections?

Table II-8 in SDG&E's August 4, 2006 filing with the CPUC shows the affect on the San Diego area local reliability requirement of repowering South Bay to 620 MW. SDG&E's economic analysis of adding in-area combined cycle generation to meet the CAISO's local area reliability requirement shows that new combined cycle generation is clearly inferior, economically, to building the Sunrise Powerlink.

14. SDG&E's earlier incomplete CPUC application indicates that construction of the Sunrise Powerlink ultimately may be necessary for SDG&E to meet its CPUC mandated renewable power portfolio goals. Would SDG&E be able to meet those goals if the CPUC allows Renewable Energy Credits, and new renewable generated in the Imperial Valley are moved from the valley to coastal areas via the proposed Imperial Irrigation District Green Path transmission line upgrades project? If not, please explain why this model is not feasible.

No studies have been done to determine whether the economics of the IID/LADWP Green Path project are as attractive as the economics of adding the Sunrise Powerlink. However, the IID/LADWP Green Path project does nothing to address the local area reliability deficiency which will exist as early as year 2010 absent new transmission into the San Diego area or new generation within the San Diego area.

The use of Renewable Energy Credits to meet renewable energy goals will not change the need to increase import capability in order to reduce the costs of serving load in the California load centers. Assuming Renewable Energy Credits do not change the type, location or quantity of renewable generation which gets built, the same pattern and magnitude of grid congestion will exist and the economic value of adding the Sunrise Powerlink will be unchanged.

15. Has SDG&E analyzed the option of using the proposed Green Path transmission project to import renewable from Imperial Valley by way of SCE's transmission grid? If not, please explain why this option was not included in SDG&E's assessment of alternatives.

No. At the time SDG&E performed its analysis, the IID/LADWP Green Path project was not sufficiently defined.

16. What impacts does SDG&E believe that Calpine's bankruptcy will have on plans for construction of the Otay Mesa Power plant? Does SDG&E's current contract with Calpine allow SDG&E to take over the project and construct the new plant if Calpine is unable to do so?

SDG&E supports in basin generation and has been working with Calpine to get the plant constructed. After a long series of discussions, SDG&E has reached an agreement that will have Calpine complete the plant by summer 2009. As part of those discussions, we looked at SDG&E completing the plant, but having Calpine complete the plant was the lowest cost option. The CPUC recently approved the new/revised contract. In the event Calpine fails to perform, SDG&E does not currently believe that it would be economically feasible to take over the project and complete construction.

17. The recent settlement in the Continental Forge class action lawsuit calls for Sempra to modify its contract with the State DWR. What impacts will that change have on regional RMR and congestion due to less power being moved through SDG&E's service area to SCE to service Sempra's DWR contacts?

None. See response to question 10 above. The settlement does nothing to change the actual operating costs of any units and will therefore have no affect on the amount of power that may be physically "imported" to and/or physically "exported" from the San Diego area in order to serve SCE's bundled customer loads. Hence, there is no affect on congestion and RMR costs that may be incurred to manage any such congestion.

18. How many MW of peak demand reduction does SDG&E plan to achieve prior to building the new Sunrise Powerlink? What impact will these demand reduction efforts have on SDG&E's projected 2010 peak electric demand levels? Shouldn't those peak demand savings be included in any analysis of the Sunrise Powerlink?

The impacts of demand reduction programs have been accounted for in SDG&E's analysis of San Diego area local reliability requirements. See, for example, Table IV-17 on pages IV-11 and IV-12 of SDG&E's August 4, 2006 filing with the CPUC.

19. Does SDG&E have information on the history of wildfires that disrupted SWPL over the last 20 years, compared to the number of wildfires that have hit the various alternative routes SDG&E is considering for the Sunrise Powerlink? If the key concern over double lining SWPL is wildfires, it would be useful to see how many fires that corridor has had over the last two decades compared to the northern corridors in which you are considering placing the Sunrise Powerlink.

SWPL has had 23 fire related outages since 1995. SDG&E has not researched the incident of fires within the preferred route for the Sunrise Powerlink. However, the key issue is not whether there are fires that affect SWPL separate from Sunrise. The key issue is the potential of losing two lines at approximately the same time during critical system conditions, such as when the largest in-area generator is out of service and the San Diego area is experiencing very high loads. If a second 500 kV line were built adjacent to the SWPL, the probability of a single event, such as a wildfire, taking both 500 kV lines out of service during critical system conditions would likely be deemed credible by the Western Electric Coordinating Council.

20. Also, since one of the key justifications for building the Sunrise Powerlink is to import renewable power from Imperial Valley, would SDG&E be willing to commit to the CPUC that some minimum percentage of power imported to San Diego over the Sunrise Powerlink will come from renewable sources over the life of the line?

At present SDG&E's negotiations for the development of new generation sources in the Imperial Valley are limited to renewable generation technologies. Because the Sunrise Powerlink connects directly to the Imperial Valley and will be a relatively low impedance path, a significant portion of this renewable energy will flow on the Sunrise Powerlink to the San Diego load center. However, the actual flow of power on any particular line depends on each line's relative impedance so power generated at any point on the interconnected grid, including the Imperial Valley, tends to spread out and flow in varying amounts on different lines to reach loads. The physics of interconnected grid operation are incompatible with the notion of ascribing particular sources of generation to particular transmission lines.

21. SDG&E is planning to re-file its Sunrise Powerlink application in early August. What are the differences between this most recent filing and the earlier one?

There are many differences between SDG&E's December 14, 2005 and August 4, 2006 filings with the CPUC. The most significant changes included in the August 4, 2006 filing include:

- the incorporation of the SDG&E/IID/Citizens Energy Memorandum of Agreement (MOA) which contemplates looping the Sunrise Powerlink into a new San Felipe substation to be owned by IID. (This agreement did not exist at the time of the December 14, 2005 filing.)
- the use of the CEC's 2005 Integrated Energy Policy Report (IEPR) load forecast for the San Diego area. (The December 14, 2005 filing used SDG&E's own load forecast for the San Diego area.)
- the use of an in-area gas turbine build-out reference case for purposes of measuring the economic benefits of the Sunrise Powerlink. (The December 14, 2005 filing used a fictional "no-project" reference case.)
- an updated WECC data base that includes a more current grid configuration, more recent assumptions concerning generation additions and projected loads, and more detailed gas-fired heat rate data (the December 14, 2005 filing used a WECC data base that was several years old)

- Explicit modeling of the existing Miguel area import nomogram (the Miguel area import nomogram was not binding in the December 14, 2005 filing)
- The dynamic modeling of losses (Losses were exogenously evaluated in the December 14, 2005 filing)
- Modeling to reflect the extent to which the addition on new import capability mitigates the ability of merchant generators to mark-up offer prices above variable operating costs (the December 14, 2005 filing assumed merchant generators would submit offer prices at their variable operating costs)

22. What is the total project cost for the Sunrise Powerlink, and does this updated cost include the costs of the extensive undergrounding proposals made by SDG&E for much of northern San Diego?

\$1.265 billion. The cost estimate includes the proposed undergrounding.

23. Is it true that the CPUC staff hasn't begun its analysis of the Sunrise Powerlink application, and even has not hired consultants who will do the analysis? If so, when is it expected that the CPUC staff will complete their analysis?

No. Aspen was hired months ago and has been working with SDG&E throughout the development of the PEA. In addition, to evaluate SDG&E's Sunrise Powerlink "purpose and need" application, the CPUC staff has indicated that they have retained the same economic consultants used by the CPUC staff to review SCE's Devers-Palo Verde #2 application.

The CPUC is expected to make a decision on SDG&E's Sunrise Powerlink application by the end of the summer of 2007.

24. The Utility Consumer Action Network (UCAN) has posted five sets of requests for documents and information (data requests) on its Web pages, most of which were given to SDG&E in February and March of this year. According to UCAN, only the first set of data responses have been answered. Most all of its other information requests have not yet been answered by SDG&E. If this is true, when will UCAN be provided complete responses to all of its information requests?

Responses have been provided to UCAN for substantially all of the first five data requests. As of September 15, 2006, UCAN has provided two more data requests. SDG&E expects to provide a response to UCAN data request 6 on September 18, 2006. SDG&E is currently reviewing UCAN data request 7.

25. At its Web pages, UCAN has posted an April 11 memo to the California Independent System Operator (CA ISO) that proposes a series of alternative routes for the transmission upgrades that do not go through Anza Borrego State Park and may be less costly than the SDG&E Sunrise Powerlink proposal. Has SDG&E conducted studies of the UCAN alternatives, and what are its conclusions?

UCAN suggested four transmission alternatives to the CAISO. SDG&E has only looked at these alternatives briefly. The CAISO also conducted their own analysis. These four alternatives are:

“Mexico Light” – a proposal for transmission to connect the TDM and/or Intergen plants to the Mexico system. CAISO found that this alternative overloaded existing lines in Mexico. The CAISO also felt that if this alternative actually provided the 300 MW of incremental increase to SDG&E’s non-simultaneous import level (NSIL), that it would delay the need for the Sunrise Powerlink by only a couple of years. SDG&E is concerned that the Mexico Light alternative circumvents the RAS which is designed to protect Mexico’s system by preventing overloads on their system by taking the TDM and Intergen plants off line in the event of the loss of the Imperial Valley – Miguel 500 kV line. SDG&E feels that even if a scenario could be found with a certain amount of generation that could be safely switched from Imperial Valley Substation to La Rosita Substation without overloading Mexico’s lines, this alternative would still not increase SDG&E’s NSIL as there would still be scenarios under which this power would not reach the San Diego area. SDG&E’s calculation of NSIL must be based on the most conservative assumptions.

“SONGS Light” – includes looping one of the North-of-SONGS lines into the Talega Substation, transferring it from the North-of-SONGS path to the South-of-SONGS path. The CAISO found that this alternative did not increase SDG&E’s NSIL because SONGS Light does not address the limiting factor on the South-of-SONGS path. The CAISO also noted some of the very real difficulties in trying to address the limiting factor on the South-of-SONGS path. In addition, the CAISO had concerns about transferring a North-of-SONGS line from SCE to SDG&E. SDG&E, in their preliminary studies, agrees that the SONGS Light alternative would not increase SDG&E’s NSIL for the same reasons stated by the CAISO.

“SONGS Medium” – includes SONGS Light plus adding a new Talega – Escondido 230 kV line or adding a fourth SONGS – San Luis Rey 230 kV line. At the suggestion of UCAN, CAISO did not study SONGS Medium, as studying SONGS Light and SONGS Heavy would provide bookends of a range of possible values. Similar to the CAISO, SDG&E did not study SONGS Medium alternative, but believes that it would not increase SDG&E’s NSIL. This is because neither SONGS Light nor SONGS Heavy increased SDG&E’s NSIL for the simple fact that they do not address the limiting factor for the South-of-SONGS path limit..

“SONGS Heavy” – includes SONGS Light plus adding a new Talega – Escondido 230 kV line and adding a fourth SONGS – San Luis Rey 230 kV line. The CAISO also found that this alternative did not increase SDG&E’s NSIL because SONGS Light does not address the limiting factor on the South-of-SONGS path. SDG&E found in its preliminary studies that SONGS Heavy could result in a range of values for SDG&E’s NSIL, from a slight increase to a slight decrease. It would take a detailed path rating study before a peer review group to fully vet these issues. SDG&E believes pursuing this alternative through a full path rating study would be unproductive because even with the slight increase in NSIL, SDG&E still has a deficiency in 2010 without the Sunrise Powerlink.

26. There is much dispute over whether the proposed transmission lines actually will bring in renewable power. SDG&E entered a large power purchase contract with Stirling to purchase solar thermal-generated power. However, Stirling is proposing to use a technology that is commercially untested. If Stirling is unable to make its machinery work at a mass scale, what other cost-effective renewables is SDG&E planning to bring over the proposed powerlines?

SDG&E has signed a contract with a geothermal supplier and is currently in negotiations for more geothermal and other solar projects that will be based in the Imperial Valley area. The Imperial Valley Study Group identified over 2000 MW of geothermal energy in the region without adequate access to market.

27. Please explain why SDG&E can't bring renewable power from Imperial County over the existing Southwest Powerlink. That link currently is transporting natural gas-generated electricity. Why can't renewables be substituted for the existing gas-generated power currently clogging up that line?

See responses to question 2 and question 10. The CAISO operates the grid on a least cost basis so whenever there is a bottleneck in the transmission grid, the lowest cost power gets access. Because the variable operating costs of gas-generated power is usually higher than the variable operating costs of renewable power (the variable operating cost for wind generation, for example, is close to \$0/MWh), gas-fired generation in the desert Southwest will normally be reduced in order to alleviate congestion; renewable generation output levels will usually be unaffected. However, in granting such access, the CAISO also assesses congestion charges. The analysis done by SDG&E indicates that by building the Sunrise Powerlink, the congestion charges that would otherwise be assessed to renewables will be reduced by an amount that far exceeds the cost of building the new line.

28. SDG&E states that high congestion costs are compelling the building of this new Sunrise Powerlink, yet the Mission-Miguel transmission upgrades are supposed to alleviate most of the high congestion costs. And, with Palomar and Otay coming on line prior to the completion of the Powerlink, won't most of SDG&E's congestion cost issues already have been addressed? If not, then please quantify the amount of congestion costs that will be eliminated specifically by the building of this new Sunrise Powerlink.

The statement above is incomplete. In addition to reducing the costs of congestion that SDG&E projects will otherwise exist, the Sunrise Powerlink is being built to address a local area reliability deficiency that SDG&E expects will begin as early as year 2010, and to reduce RMR costs within the San Diego area.

With respect to congestion, the addition of Miguel-Mission did in-fact alleviate a significant amount of intra-zonal congestion in San Diego. However, the economic studies performed by SDG&E for the August 4, 2006 filing with the CPUC indicate that the anticipated addition of large amounts of renewable generation in the Imperial Valley; and the projected addition of new efficient combined cycle generation, coal generation and renewable resources throughout the other areas of the WECC; will, absent the Sunrise Powerlink, result in high levels of congestion between the desert Southwest and the California load centers. These impacts will be significant by year 2010 and pronounced by year 2015.

The economic benefits that are specifically attributable to the reduction in congestion that occurs with the addition of the Sunrise Powerlink, are described in SDG&E's August 4, 2006 filing with the CPUC. Table IV-2 shows the derivation of the reduction in energy costs that will be realized by CAISO consumers. Net CAISO consumer energy savings are estimated to be \$42 million in 2010 and \$487 million by year 2015. On a levelized basis, SDG&E projects the Sunrise Powerlink will produce \$468 million per year in net CAISO consumer energy savings (2010 through 2049). Note that SDG&E's analysis includes all existing and planned transmission and generation through 2009, so the affects of the Mission-Miguel line, and the Palomar and Otay Mesa combined cycle plants and related transmission additions, are fully reflected.

29. If the LS Energy proposed South Bay repower is constructed, isn't the need for the Sunrise Powerlink pushed off by at least five years?

See SDG&E's response to question 13 above.

30. Please provide a list of all of the other transmission lines proposed to be built in the Southern California region and, in doing so, provide the estimated cost of each of those lines as well as how much of the costs of those transmission lines will be assigned to SDG&E ratepayers to pay.

There are many transmission projects proposed for the Southern California region. Many of these projects are for the purpose of meeting on-going load growth in the SCE and SDG&E service areas. Other proposed transmission projects are associated with the planned interconnection of new generation projects. These proposed transmission projects are reviewed by the CAISO in its annual grid assessment process and through the CAISO's Large Generator Interconnection Procedures (LGIP).

In addition to Southern California transmission additions that are proposed as part of the CAISOs' annual grid assessment process and in connection with the CAISO's new generator interconnection requests, entities have proposed the bulk power transmission upgrades identified in the following table:

Proposed Project	Estimated Capital Cost (millions)	San Diego Area Consumers' Share of Associated Revenue Requirement
Tehachapi Area Transmission Upgrades	\$2000	10%
Palo Verde-Devers #2	\$700	10%
Talega-Escondido/Valley-Serrano (TE/VS) – Lake Elsinore Advanced Pumped Storage Project (LEAPS)	\$1000	10% ^{a/}
Frontier line (note: the points of termination for the Frontier line have not yet been determined and as such, it may or may not be built in the Southern California Region)	?	Not determined
LADWP/IID Green Path project	?	0%
IID internal transmission system upgrades	?	0%

SCE 500 kV Cap at Mira Loma	?	10%
SCE South of Vincent 500 kV Expansion (could be integrated with the Tehachapi project)	?	10%
SCE Magunden-Rector 230 kV Transmission Lines	?	10%
SCE new 230/66 kV sub in San Joaquin Valley	?	10%
SCE new 500/230/115 kV sub in western Riverside	?	10%
SCE 4 th Antelop 230/66 kV Transformer	?	10%
SCE new 230/66 kV sub in northern LA County	?	10%
SCE Valley 500 kV Shunt Caps	?	10%
SCE Rector 200 MVAR 230 kV SVC	?	10%
SCE San Joaquin Rector Loop Project	?	10%
SCE Rancho Vista 500/230 kV Sub	?	10%
SCE Oak Valley 230/66 kV Sub project	?	10%
SDG&E Miguel 230 kV Caps	Confidential	10%
SDG&E Imperial Valley 500 kV switchyard upgrade	Confidential	10%
SDG&E new 230/138 Penasquitos Transformer	Confidential	10%
SDG&E Otay Mesa Powerloop	Confidential	10%
SDG&E new Silvergate 230/69 kV Sub	Confidential	10%

^{a/} It is not known whether the project sponsor's request to include the costs of the LEAPS project in CAISO transmission rates will be approved.

The projects shown in the above table are in various stages of development. The CAISO is currently assessing the technical and economic merits of the Tehachapi area transmission upgrades and the TE/VS – LEAPS project. The Palo Verde-Devers #2 project has been approved by the CAISO and its approval by the CPUC is currently pending. The proposed Frontier line is in the initial exploratory stage. The LADWP/IID Green Path project is in the initial exploratory stages. IID's internal system transmission upgrades were identified by the Imperial Valley Study Group (IVSG). SDG&E does not know how far along in the development and permitting process IID has been able to get these projects.



August 31, 2006

Honorable Mickey Cafagna and
Energy Working Group members
SANDAG
401 B Street
San Diego, CA 92101

Dear Chairman Cafagna and EWG members:

San Diego Gas & Electric in April presented an overview of its smart metering project, Advanced Metering Infrastructure or AMI, to the Energy Working Group (EWG). This new system offers many future benefits including, improved customer service, faster response from SDG&E if there is a power outage and automated meter reading for the fastest, most accurate information possible and reducing the need to visit your property.

SDG&E believes the customer benefits along with actual net savings through reduced operation and maintenance cost is a benefit to all customers. In its filing with the California Public Utilities Commission (CPUC), SDG&E proposed a total capital cost of approximately \$450 million. This figure has not changed significantly since our March 2006 filing with the CPUC or since we supplied additional information to the EWG in May despite what UCAN alleged at the August 24th EWG meeting, at the CPUC and in the press.

One update since our March filing and the last meeting with the EWG has been the addition of approximately 55,000 programmable communicating thermostats for small commercial customers. This addition was made after research was released this summer from the California Energy Commission demonstrating the value of this enabling technology in achieving the best demand response possible from these customers.

SDG&E is already testing AMI technology in three San Diego County communities: Clairemont, downtown San Diego and Fallbrook. Our goal is to test this new technology, including the new meters, in San Diego's unique geographical area and use this information to select the most compatible technology for the region. It is also important that we receive customer feedback on the meter installation and customer programs to ensure a smooth and coordinated transition while providing the greatest value to our customers.

We will continue to provide you updates as AMI moves forward at the CPUC. In the meantime, to learn more about the smart metering project, we invite you to visit our website at www.sdge.com/smartmeter or contact me at 858-654-6402.

Sincerely,

A handwritten signature in black ink that reads "J.C. Thomas III". The signature is written in a cursive style with a horizontal line underneath the name.

JC Thomas III
Governmental Affairs Manager

cc: Honorable Mary Sessom, Vice Chair
Honorable Lori Holt-Pfeiler, Second Vice Chair