

**PUBLIC UTILITIES COMMISSION**505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298**FILED**08-11-09  
02:26 PM

August 11, 2009

Agenda ID #8757

and

Alternate Agenda ID #8758

Ratesetting

TO PARTIES OF RECORD IN APPLICATION 08-12-021

Enclosed are the proposed decision of Commissioner Timothy Alan Simon and the alternate proposed decision of Administrative Law Judge Timothy Kenney. The proposed decision and the alternate proposed decision will not appear on the Commission's agenda for at least 30 days after the date it is mailed.

Pub. Util. Code § 311(e) requires that the alternate item be accompanied by a digest that clearly explains the substantive revisions to the proposed decision. The digest of the alternate decision is attached.

When the Commission acts on these agenda items, it may adopt all or part of the decision as written, amend or modify them, or set them aside and prepare its own decision. Only when the Commission acts does the decision become binding on the parties.

Parties to the proceeding may file comments on the proposed decision and alternate decision as provided in Pub. Util. Code §§ 311(d) and 311(e) and in Article 14 of the Commission's Rules of Practice and Procedure (Rules), accessible on the Commission's website at [www.cpuc.ca.gov](http://www.cpuc.ca.gov). Pursuant to Rule 14.3, opening comments shall not exceed [15] pages.

Comments must be filed either electronically pursuant to Resolution ALJ-188 or with the Commission's Docket Office. Comments should be served on parties to this proceeding in accordance with Rules 1.9 and 1.10. Electronic and hard copies of comments should be sent to ALJ Kenney at [tim@cpuc.ca.gov](mailto:tim@cpuc.ca.gov) and Commissioner Simon's advisor, Robert Mason, at [rim@cpuc.ca.gov](mailto:rim@cpuc.ca.gov). The current service list for this proceeding is available on the Commission's website at [www.cpuc.ca.gov](http://www.cpuc.ca.gov).

/s/ PHILIP S. WEISMEHL for  
Karen V. Clopton, Chief  
Administrative Law Judge

KVC:jt2  
Attachment

## **ATTACHMENT**

### **Digest of differences between the Assigned Commissioner's Proposed Decision (*Proposed Decision*) and the Alternate Proposed Decision (*Alternate*) of ALJ Kenney**

This digest is provided pursuant to Pub. Util. Code § 311(e). The main substantive differences between the Proposed Decision and the Alternate Proposed Decision are as follows:

The Proposed Decision authorizes San Diego Gas & Electric Company (SDG&E) to implement an Emergency Power Shut-Off (EPSO) Plan on a pilot basis and with numerous conditions. In addition, the Proposed Decision establishes procedures to (1) review the performance of the pilot EPSO, and (2) revise and authorize a revised EPSO, if appropriate. The Alternate Proposed Decision denies, without prejudice, SDG&E's application to implement its EPSO, and provides only general guidance regarding the contents of a subsequent application, if any, filed by SDG&E for Commission approval of an EPSO Plan.

The Proposed Decision also grants in part and denies in part SDG&E's request for Commission approval of SDG&E's proposed revisions to Electric Tariff Rule 14. The Alternate Proposed Decision denies all of SDG&E's proposed revisions to Tariff Rule 14.

**(END OF ATTACHMENT)**

ALJ/TIM/jt2

**ALTERNATE DRAFT**

Agenda ID#8758  
Alternate to Agenda ID#8757  
Ratesetting

Decision **ALTERNATE PROPOSED DECISION OF ALJ KENNEY**  
(Mailed 8/11/2009)

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA**

Application of San Diego Gas & Electric  
Company for Review of its Proactive  
De-Energization Measures and Approval  
of Proposed Tariff Revisions (U902E).

Application 08-12-021  
(Filed December 22, 2008)

**DECISION DENYING WITHOUT PREJUDICE  
SAN DIEGO GAS & ELECTRIC COMPANY'S APPLICATION TO  
SHUT OFF POWER DURING PERIODS OF HIGH FIRE DANGER**

## TABLE OF CONTENTS

<u>Title</u>	<u>Page</u>
1. Summary of Decision .....	2
2. Summary of SDG&E's Application.....	2
3. Procedural Background and Chronology .....	3
4. Summary of Parties' Positions .....	7
5. Commission Jurisdiction and Standard of Review.....	7
6. Summary of SDG&E's Community Fire Safety Program.....	9
6.1. Hardening of Facilities.....	9
6.2. Power Line Re-Closers .....	10
6.3. Inspection of Overhead Power Lines.....	11
6.4. Vegetation Management.....	11
6.5. Staging Personnel.....	12
6.6. Emergency Power Shut-Off Plan.....	12
6.6.1. Power Shut-Off Criteria .....	12
6.6.2. Re-Energization of Power Lines .....	15
6.6.3. Power Shut-Off Areas.....	15
6.6.4. Number of Affected People and Customers .....	16
6.6.5. Customer Education .....	18
6.6.6. Customer Notice of Power Shut-Off Events .....	20
6.6.7. Mitigation of Adverse Impacts on Customers.....	21
6.6.8. Cost of the Power Shut-Off Plan.....	23
7. Review of SDG&E's Power Shut-Off Plan .....	23
7.1. Position of the Parties.....	23
7.1.1. SDG&E.....	23
7.1.2. Opposition Parties.....	30
7.1.3. SCE .....	40
7.2. Discussion .....	41
7.2.1. Impact on the Number of Wildfires .....	42
7.2.2. Historical Data on Power-Line Fires .....	45
7.2.3. Shutting Off Power During Major Wildfires .....	47
7.2.4. SCE's Power Shut-Off Program .....	51
7.2.5. Costs and Benefits .....	51
7.2.6. Conclusion.....	54

**TABLE OF CONTENTS (cont.)**

<u>Title</u>	<u>Page</u>
8. Electric Tariff Rule 14 .....	57
8.1. Position of the Parties.....	57
8.1.1. SDG&E.....	57
8.1.2. SCE .....	58
8.1.3. The Opposition Parties.....	58
8.2. Discussion .....	58
9. Proceeding Category and Need for Hearings .....	59
10. Comments on the Alternate Proposed Decision .....	60
11. Assignment of the Proceeding .....	60
Findings of Fact.....	60
Conclusions of Law .....	61
ORDER .....	63
Appendix A: Map of the 2009 Power Shut-Off Areas	

**DECISION DENYING WITHOUT PREJUDICE  
SAN DIEGO GAS & ELECTRIC COMPANY'S APPLICATION TO  
SHUT OFF POWER DURING PERIODS OF HIGH FIRE DANGER**

**1. Summary of Decision**

This decision denies, without prejudice, San Diego Gas & Electric Company's (SDG&E) application to shut off power to certain areas when hazardous fire conditions are present. SDG&E has not met its burden to demonstrate that the benefits of shutting off power outweigh the significant costs, burdens, and risks that would be imposed on customers and communities in the areas where power is shut off.

**2. Summary of SDG&E's Application**

In Application (A.) 08-12-021, SDG&E asks the Commission to review its Emergency Power Shut-Off Plan (referred to hereafter as "the Power Shut-Off Plan").<sup>1</sup> Under its Power Shut-Off Plan, SDG&E will turn off electricity to certain regions during periods of high fire danger in order to prevent its overhead power lines from igniting potentially catastrophic wildfires. SDG&E intends to implement its Power Shut-Off Plan in time for the 2009 autumn fire season in Southern California.

SDG&E anticipates that providers of essential services, such as police departments and hospitals, may need to increase their use of electricity in the hours leading up to an announced power shut-off event in order to prepare for

---

<sup>1</sup> We interpret SDG&E's request for Commission review of its Power Shut-Off Plan as a request for Commission authorization to implement the Power Shut-Off Plan.

the event. SDG&E requests that electric usage by these customers during the period immediately preceding a shut-off event be exempted from (1) the determination of peak demand changes, (2) critical peak pricing, and (3) the demand response program.

Finally, SDG&E requests authority to revise Electric Tariff Rule 14. The existing Tariff Rule 14 states that SDG&E is not liable to its customers for an interruption in service “caused by inevitable accident, act of God, fire, strikes, riots, war or any other cause not within its control.” SDG&E seeks to revise Tariff Rule 14 to explicitly state that SDG&E will not be liable for any costs or adverse impacts that customers experience due to the Power Shut-Off Plan.

### **3. Procedural Background and Chronology**

SDG&E filed A.08-12-021 on December 22, 2008. Notice of A.08-12-021 appeared in the Daily Calendar on December 30, 2008. SDG&E served copies of A.08-12-021 on the San Diego Office of Emergency Services; the San Diego County Red Cross; and all State Legislators and members of Congress who represent any part SDG&E’s service territory. SDG&E also mailed a notice of A.08-12-021 to (1) all cities and counties in SDG&E’s service territory, and (2) all customers in areas subject to the Power Shut-Off Plan. In addition, SDG&E published notice of A.08-12-021 in newspapers of general circulation.

The following parties filed protests to A.08-12-021: Pacific Bell Telephone Company d/b/a/ AT&T California and affiliated entities (together, “AT&T”)<sup>2</sup>;

---

<sup>2</sup> The entities filing the AT&T protest were Pacific Bell Telephone Company (U-1001-C); AT&T Communications of California, Inc. (U-5002-C); TCG San Francisco (U-5454-C); TCG Los Angeles, Inc. (U-5462-C); TCG San Diego

*Footnote continued on next page*

the California Cable and Telecommunications Association (CCTA); CTIA-The Wireless Association (CTIA); the Commission's Consumer Protection and Safety Division (CPSD); the Commission's Division of Ratepayer Advocates (DRA); and a consortium of six municipal water districts (together, "the Water Districts").<sup>3</sup> SDG&E filed a reply on February 9, 2009.

A prehearing conference (PHC) was held on February 10, 2009. The following parties filed PHC statements: AT&T; CCTA; CoxCom, Inc., and Cox California Telecom, L.L.C. (together, "Cox"); CPSD and DRA (together, "CPSD/DRA"); CTIA; Disability Rights Advocates (DisabRA); the Mussey Grade Road Alliance (the Alliance); the San Diego County Superintendent of Schools ("the School Districts"); SDG&E; Southern California Edison Company (SCE); Time Warner Cable Inc. (Time Warner); Utility Consumers Action Network (UCAN); and the Water Districts. An Assigned Commissioner's Ruling and Scoping Memo was issued on February 26, 2009, pursuant to Rule 7.3 of the Commission's Rules of Practice and Procedure (Rule).

There were no evidentiary hearings. The formal record was developed primarily through the direct written testimony submitted by SDG&E with its

---

(U-5389-C); AT&T Mobility LLC; New Cingular Wireless PCS, LLC (U-3060-C); Cagal Cellular Communications Corporation (U-3021-C); Santa Barbara Cellular Systems, Ltd. (U-3015-C); and Visalia Cellular Telephone Company (U-3014-C) d/b/a AT&T Mobility LLC.

<sup>3</sup> The Water Districts are Valley Center Municipal Water District, Ramona Municipal Water District, Padre Dam Municipal Water District, Rainbow Municipal Water District, Fallbrook Public Utilities District, and Yuima Municipal Water District.



Application,<sup>4</sup> informational filings submitted by SDG&E, and written comments submitted by all the parties. The factual assertions in these documents were verified in accordance with Rule 1.11. The following table shows the chronology of the informational filings and written comments.

<b>Date 2009</b>	<b>Document</b>	<b>Party Filing Document</b>
March 13	Informational Filing	SDG&E
March 27	Opening Comments	AT&T; the Alliance; CCTA and Time Warner (together, CCTA); CPSD/DRA; Cox; CTIA; DisabRA; SDG&E; SCE; the School Districts; the Water Districts; and UCAN
April 3	Informational Filing	SDG&E
April 10	Reply Comments	AT&T; the Alliance; CCTA; CPSD/DRA; Cox; the California Farm Bureau (CFA); DisabRA; SDG&E; SCE; the School Districts; the Water Districts; and UCAN
April 10	Informational Filing	SDG&E
April 17	Reply to Informational Filing on April 10	DisabRA; and jointly by the School Districts and the Water Districts
May 12	Comments re: Portable Backup Generators to Pump Water for Fire Fighting Purposes	SDG&E and CPSD/DRA

---

<sup>4</sup> SDG&E provided the direct written testimony of the following witnesses with their subject topics in parentheses: David L. Geier (Policy); Sohrab A. Yari (engineering and Operations); Joe Velasquez (Customer Issues); and Greg Lawless (Special Needs and Low-Income customer Issues).

Date 2009	Document	Party Filing Document
May 19	Reply to Comments Filed on May 12	SDG&E and DisabRA
May 26	Additional Comments re: Portable Backup Generators	The Alliance, CPSD/DRA, and SDG&E
June 10	Further Comments re: Portable Backup Generators	SDG&E and the Water Districts
June 30	Comments re: (1) Use of San Diego County's Reverse 911 System, and (2) County Oversight of Portable Backup Generators	The Alliance, SDG&E, and the Water Districts
July 2	Reply to the Comments Filed on June 30, 2009	DisabRA; SDG&E; and jointly by CCTA, Cox and CTIA

Two public participation hearings (PPHs) were held in San Diego County. One was held in Alpine on April 7, 2009, and the second in Valley Center on April 8, 2009. Both PPHs were held in areas subject to the Power Shut-Off Plan. In addition, a public workshop was held in Valley Center on April 8, 2009, to obtain input from local governmental agencies regarding the impact of the Power Shut-Off Plan on public health, safety, and welfare. Workshop participants included the San Diego County Sheriff Department, the San Diego County Office of Emergency Services, the San Diego County Air Pollution Control District, the School Districts, and the Water Districts.

There was considerable public participation in this proceeding. More than 100 members of the public, elected representatives, government officials, and representatives of community organizations spoke at the PPHs and public workshop, and there were many letters and email sent to the Commission. The public's input was carefully considered in crafting today's decision.

#### **4. Summary of Parties' Positions**

All the intervening parties except SCE oppose SDG&E's Power Shut-Off Plan. Most of the comments received from the public also oppose the Plan. Those who oppose the Plan believe it will do little to prevent wildfires while increasing the risk of wildfires from other sources. They also contend that shutting off power will impose burdens on SDG&E's customers that outweigh any likely benefit.

Those who support SDG&E's Power Shut-Off Plan believe that shutting off power when fire risks are high is a reasonable precaution against the possibility of catastrophic wildfires being ignited by power lines.

#### **5. Commission Jurisdiction and Standard of Review**

SDG&E's Application to shut off power under specified circumstances in order to eliminate the risk of power-line fires is subject to Pub. Util. Code § 451<sup>5</sup> which states, in relevant part, as follows.

Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities ... as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.

SDG&E has a duty under § 451 to provide electric service in a way that protects the safety of its customers, employees, and the public at large. The central issue in this proceeding is whether SDG&E should be relieved of its duty when, as SDG&E asserts, there is a heightened risk that its power lines could ignite a catastrophic wildfire.

---

<sup>5</sup> All statutory references are to the Public Utilities Code unless otherwise indicated.

The California Constitution<sup>6</sup> and the Public Utilities Code<sup>7</sup> provide the Commission with broad jurisdiction on matters regarding the safety of electric utility facilities and operations, including authority to promulgate regulations regarding the safety of overhead power lines.<sup>8</sup> Electric utilities are required by § 702 to “obey and comply” with such requirements.

The provision of electricity to the public carries some risk. Every year, people are injured and killed by contact with power lines, and numerous fires are started when foreign objects (e.g., balloons and tree branches) contact power lines. Despite the risks, electric utilities have a duty to provide electricity to the public because, as stated in § 330(g), “electric service is of utmost importance to the safety, health, and welfare of the state's citizenry and economy.” To minimize the risks, the Commission has promulgated safety regulations governing electric utility operations and facilities.<sup>9</sup> In addition, electric utilities may suspend service when necessary to protect public safety. For example, if a vehicle crashes into a utility pole, the electric utility may shut off the power line until the accident is cleared and pole is repaired.

SDG&E’s Application to shut off power under certain conditions in order to prevent wildfires places two fundamental goals in conflict: the need for continuous electric service versus the need for public safety. While there are

---

<sup>6</sup> Cal. Constitution, Article XII, §§ 3 and 6.

<sup>7</sup> Pub. Util. Code §§ 216, 701, and 768.

<sup>8</sup> Pub. Util. Code §§ 8037 and 8056. See also Pub. Util. Code §§ 761, 768, and 770.

<sup>9</sup> See, for example, General Orders 95 and 128.

always trade offs, today's decision endeavors to achieve both goals using our judgment, experience, and expertise in regulating electric utilities.

## **6. Summary of SDG&E's Community Fire Safety Program**

Santa Ana winds occur annually in Southern California during the fall and early winter. These strong, dry, offshore winds have led to some of California's largest and most damaging fires. Over the past decade, wildfires fanned by Santa Ana winds have burned hundreds of thousands of acres in San Diego County, caused billions of dollars of damage, and killed numerous people. In October 2003 and 2007, wildfires driven by Santa Ana winds spiraled out of control to become devastating firestorms.

SDG&E is currently implementing a multi-pronged program to reduce the likelihood of strong winds causing power-line fires. The major elements of the program, which SDG&E calls the Community Fire Safety Program, are summarized below. SDG&E represents that it developed its Community Fire Safety Program after consulting with local governments, public safety agencies, the Red Cross, various community groups, and other stakeholders.

### **6.1. Hardening of Facilities**

SDG&E uses the term "hardening of facilities" to describe physical improvements to its overhead electric transmission and distribution system in areas that are prone to wildfires. Once hardened, SDG&E's system will be better able to withstand Santa Ana winds, which should lessen the risk of keeping

power on during windy conditions.<sup>10</sup> The hardened facilities will also be more resistant to damage from wildfires, potentially reducing the time needed to restore power after a fire.

The steps SDG&E is taking to harden its overhead power lines include the replacement of wood poles with steel poles, use of heavier wire conductors, increased spacing between conductors, and expanded use of conductor spacers. The hardened facilities are designed to withstand wind gusts of 85 miles per hour (mph). SDG&E is also implementing limited conversion of overhead power lines to underground lines in order to make electric service to essential public service facilities, such as water utility pump stations, less susceptible to outages from Santa Ana winds and wildfires.

## **6.2. Power Line Re-Closers**

Many of SDG&E's power lines have switches known as "re-closers" that automatically de-energize circuits if unusually high electric currents are detected, and then automatically restore power. Under the Community Fire Safety Program, SDG&E will modify the operation of re-closers for overhead power lines in the areas of high fire risk. When an Elevated Fire Condition<sup>11</sup> is present, SDG&E will adjust the operation of re-closers to allow either one or two re-energization attempts, depending on the location. If a circuit fails to re-close

---

<sup>10</sup> SDG&E intends to exclude hardened facilities from its Power Shut-Off Plan. As facilities are hardened, the number of customers potentially impacted by the Power Shut-Off Plan should decrease over time.

<sup>11</sup> SDG&E defines an "Elevated Fire Condition" as occurring when live vegetation fuel moisture is 75% or less as measured by the California Department of Forestry and Fire (Cal Fire).

following the specified one or two attempts, the re-closer will be turned off remotely until the line is inspected and the re-closer is manually reset. Re-closers that cannot be monitored remotely will be turned off.<sup>12</sup>

SDG&E will turn off re-closers when a Red Flag Warning is declared by the National Weather Service for high winds and/or low humidity. When an outage occurs due to the operation of a re-closer, there will be a visual patrol of the line to ensure that it is safe to restore power. Although inspecting the line will increase the duration of the outage, SDG&E believes this step is warranted by the heightened fire risk conditions, especially since high-wind conditions increase the likelihood of damage to overhead facilities.<sup>13</sup>

### **6.3. Inspection of Overhead Power Lines**

As part of its Community Fire Safety Program, SDG&E has implemented expanded inspections of overhead power lines and associated facilities in areas of high fire risk. The expanded inspections exceed current regulatory requirements.

### **6.4. Vegetation Management**

SDG&E maintains clearance for approximately 72,000 trees located near overhead power lines in areas of high fire risk. SDG&E is working with local governments, public safety agencies, the Commission, and the legislature to modify laws and regulations to allow for increased vegetation management.

---

<sup>12</sup> Turning off re-closers prevents automatic attempts to re-energize the line.

<sup>13</sup> SDG&E is considering the use of a new technology that sends a low-energy pulse through faulted power lines to determine if it is safe to re-energize. These devices might reduce restoration time.

### **6.5. Staging Personnel**

As part of its Community Fire Safety Program, SDG&E will stage personnel in or near Power Shut-Off Areas<sup>14</sup> when an Elevated Fire Condition is present or a Red Flag Warning for high winds and/or low humidity is declared. The purpose of staging personnel is to provide quicker response times.

### **6.6. Emergency Power Shut-Off Plan**

The final element of SDG&E's Community Fire Safety Program is the Power Shut-Off Plan. The purpose of this Plan is to de-energize overhead power lines when certain criteria are met in order to eliminate power lines as an ignition source when fire risks are high. SDG&E intends to implement its Plan on September 1, 2009. Power shut-off events will most likely occur during the September - December fire season in Southern California, but power will be shut off whenever the criteria are met.

#### **6.6.1. Power Shut-Off Criteria**

SDG&E's Power Shut-Off Plan calls for power to be shut off in certain areas when all five of the following criteria are met in those areas.

**Criterion 1: Live Fuel Moisture.** The less moisture in living plants, the higher the fire risk. SDG&E intends to use a live fuel moisture level of 75% or less as one of the five criteria for initiating a power shut-off event.<sup>15</sup> SDG&E will obtain measurements of live fuel moisture from Cal Fire and the United States (U.S.) Forest Service.

---

<sup>14</sup> The term "Power Shut-Off Areas" is defined later in today's decision.

<sup>15</sup> Live fuel moisture is the amount of moisture, expressed as a percentage of weight, in a living fuel sample compared to that sample when oven dry.



**Criterion 2: Non-Living Fuel Moisture.** The less moisture in dead vegetation, the higher the fire risk. SDG&E intends to use a non-living fuel moisture level of less than 10% as the second criterion for initiating a power shut-off event.<sup>16</sup> Measurements of this criterion are made hourly at Remote Automatic Weather Stations (RAWS) operated by Cal Fire, the U.S. Forrest Service, and the U.S. Bureau of Land Management.

**Criterion 3: Relative Humidity.** The risk of wildfires is inversely proportional to the amount of moisture in the air, also known as relative humidity.<sup>17</sup> The lower the relative humidity, the higher the fire risk. SDG&E intends to use a relative humidity of 20% or less as the third criterion for initiating a power shut-off event. Measurements of relative humidity are readily available from RAWS.

**Criterion 4: Red Flag Warning.** The risk of wildfires increases when there is low humidity, high winds, and/or dry lightning. The National Weather Service declares a “Red Flag Warning,” its highest fire alert, when any of the following conditions are forecasted:

- Relative Humidity is 10% or less (for a duration of 10 hours or more) with no associated wind criteria.
- Relative Humidity is 15% or less, with sustained winds of 25 mph or more and/or frequent gusts of 35 mph or more (for duration of 6 hours or more).

---

<sup>16</sup> Non-living fuel moisture is the amount of moisture in a non-living wood dowel expressed as a percent of the dry weight of that wood.

<sup>17</sup> Relative humidity is the ratio of actual moisture in a given volume of air at a given temperature compared to the total amount of moisture that volume of air could hold.

- Dry lightning that is not accompanied by enough precipitation to significantly wet fuels that are critically dry.

SDG&E plans to use Red Flag Warnings for low humidity and/or high winds, but not dry lightning, as the fourth criterion for initiating a power shut-off event.

**Criterion 5: High Winds.** High winds are a significant fire hazard for power lines. High winds can topple utility poles, detach power lines, blow flammable debris onto power lines, and cause trees to fall onto power lines. Power-line fires that occur during high winds spread faster and are more difficult to extinguish.

SDG&E intends to use wind speed as the final criterion for initiating a power shut-off event. The criterion is sustained winds of 35 mph, or gusts of 55 mph accompanied by sustained winds of 30 mph.<sup>18</sup> These wind speeds are at 10 meters above ground level, which corresponds to the top of utility poles. However, the actual measurements of wind speeds will be made by the RAWs at six meters above ground level. SDG&E estimates that wind speeds at 6 meters are 15% less than wind speeds at 10 meters. The wind-speed criterion at 6 meters, where the actual measurements will be made, is sustained winds of 30 mph, or gusts of 48 mph accompanied by sustained winds of 25 mph.

---

<sup>18</sup> Wind speeds are measured at RAWs and are reported once per hour. The reported sustained wind speed is the average wind speed during the ten-minute interval prior to the hourly report. The reported maximum gust speed is the maximum wind speed recorded for any six-second interval since the prior hourly report.

### **6.6.2. Re-Energization of Power Lines**

After SDG&E shuts off power, SDG&E will not re-energize until sustained winds drop to 25 mph or less for two hours and the affected power lines have been visually inspected to ensure that it is safe to re-energize. SDG&E will monitor weather data to determine when inspections can begin.

If requested by an outside agency, SDG&E will re-energize prior to sustained winds staying at 25 mph or less for two hours, but only after SDG&E has deemed it safe to re-energize. SDG&E anticipates the process of re-energizing its lines, including inspections, could take up to two hours.

### **6.6.3. Power Shut-Off Areas**

Except as noted below, SDG&E's Power Shut-Off Plan applies to all circuits with overhead facilities that pass through any region designated by Cal Fire as a moderate, high, or very high fire risk area. Circuits are excluded from the Power Shut-Off Plan if they have been hardened or the areas the circuits pass through have burned in the last five years.

The geographic areas served by the circuits that are included in the Power Shut-Off Plan are called "Potential De-Energization Areas" (referred to hereafter as "Power Shut-Off Areas"). The Power Shut-Off Areas extend beyond the regions designated by Cal Fire as moderate, high, or very high fire risk because circuits do not stop at the boundaries of these regions.

There are 17 Power Shut-Off Areas. Each Area is associated with its own RAWS that is located in or near the Area, for a total of 17 RAWS.<sup>19</sup> Appendix A

---

<sup>19</sup> The RAWS monitor and automatically report three of the five criteria used by SDG&E's Power Shut-Off Plan. The two criteria that are not monitored by the RAWS

*Footnote continued on next page*

of today's decision contains a map that shows the 17 Power Shut-Off Areas and the 17 RAWs. There is some overlap of Power Shut-Off Areas. Thus, individual customers may be in two or more Power Shut-Off Areas.

SDG&E will be able to turn off power in each Power Shut-Off Area without affecting other Areas. SDG&E believes it is extremely unlikely there will be a need to shut off power to all 17 Areas simultaneously. Should the need to shut off power occur, SDG&E believes it will be limited to only a few Areas, which will minimize the number of people affected by an outage.

#### **6.6.4. Number of Affected People and Customers**

SDG&E estimates there are 59,130 electric customers (meters) and 129,976 people living in the Power Shut-Off Areas, or about 4% of the total electric customers and population served by SDG&E. In addition, there are approximately 160 SCE customers served by SDG&E "fringe area circuits" who may be subject to SDG&E's Power Shut-Off Plan. SDG&E and SCE are taking steps to ensure inter-utility coordination on this matter.

The following table shows the estimated number of customers (meters) and people (residents) subject to the Power Shut-Off Plan in 2009, broken down by the 17 Power Shut-Off Areas.

---

are (1) the Red Flag Warnings declared by the National Weather Service, and (2) live fuel moisture, which is provided periodically by Cal Fire and the U.S. Forrest Service.

<b>Number of Meters and Residents in Power Shut-Off Areas</b>					
<b>Area by RAWS Name</b>	<b>Total Meters</b>	<b>Residential Meters</b>	<b>Commercial Meters</b>	<b>Industrial Meters</b>	<b>Residents</b>
Alpine	18,566	15,615	2,943	8	42,205
Ammo Dump	1,736	1,139	597	0	3,289
Bell Canyon	68	7	56	5	81
Cameron	4,231	3,363	865	3	7,908
Camp Elliott	2,882	2,565	317	0	8,199
Descano	8,436	6,806	1,624	6	17,089
Goose Valley	18,027	15,136	2,885	5	45,580
Julian	3,294	2,393	901	0	4,001
Mount Laguna	286	226	60	0	391
Oak Grove	640	394	246	0	1,272
Palomar	1,310	885	424	1	1,126
Pine Hills	2,387	1,659	728	0	3,706
Potrero	2,471	1,890	581	0	5,423
Ranchita	1,116	747	369	0	1,802
San Miguel	2,298	1,977	321	0	6,119
Talega	19	0	17	2	19
Valley Center	13,886	10,815	3,062	9	29,932
<b>Total <sup>1</sup></b>	<b>81,653 <sup>1</sup></b>	<b>65,617</b>	<b>15,996</b>	<b>39</b>	<b>178,142 <sup>1</sup></b>
<b>Note 1:</b> Due to overlapping Areas, the sum of the meters in individual Areas (81,653) is greater than the total meters (59,130), and the sum of the residents in individual Areas (178,142) is greater than the total residents (129,976).					

SDG&E has identified approximately 902 Medical Baseline customers in the Power Shut-Off Areas. Of these, 590 require life support equipment. There are also approximately 5,700 customers in the Power Shut-Off Areas who participate in the California Alternative Rates for Energy (CARE) program.

Some customers will be removed from the Power Shut-Off Plan in 2009 due to a project that is currently underway to place certain overhead power lines underground. When the project is complete, it will remove approximately 2,300 customers from the Power Shut-Off Plan, including 14 water pumping stations, leaving 56,830 customers affected by the Plan.

SDG&E estimates that the duration of power shut-off events will range from 12 to 72 hours, and that the average number of residents affected by each event will be 18,600. This estimate of residents excludes approximately 160 SCE customers (meters) subject to SDG&E's Power Shut-Off Plan.

#### **6.6.5. Customer Education**

SDG&E believes it is important for customers to understand the Power Shut-Off Plan so they can prepare for power shut-off events before they occur. To this end, SDG&E has mailed information packets to all customers in the Power Shut-Off Areas. The package included a cover letter, program fact sheet, list of frequently asked questions, map of the impacted areas, a guide for developing an emergency plan, an unplanned outage fact sheet, a portable generator fact sheet, and a customer contact form. SDG&E will continue to mail a package annually to customers in Power Shut-Off Areas that contains the previously identified information.

SDG&E will survey its Special Needs Customers<sup>20</sup> to ascertain each customer's readiness for a power shut-off event and any transportation needs they may have. Special Needs Customers with mobility restrictions who cannot

---

<sup>20</sup> SDG&E defines Special Needs Customers as those who participate in the Medical Baseline Allowance and/or Life Support programs.

remain in their homes without electricity (as identified through customer surveys) will be provided round trip transportation to appropriate facilities. Similarly, customers with special needs for diet, medication, and medical equipment will be provided round trip transportation to acute care facilities or hospitals in accordance with their needs and insurance restrictions. All transportation will be at SDG&E's expense.

SDG&E has made significant outreach efforts to Essential Customers, i.e., customers who provide services that are essential to public health, safety, and welfare. SDG&E defines Essential Customers as including the following:

- A. Fire, police, and prison facilities.
- B. Lighting for streets, highways, and other public areas.
- C. National defense agencies.
- D. Hospitals and convalescent homes.
- E. Public, private, and municipal utilities that provide services that are essential for public health and safety (i.e., electric, gas, water, communication, and sewage disposal utilities).
- F. Public transportation.
- G. Radio and broadcasting stations that transmit emergency information.
- H. Residential customers who use medical life support equipment.
- I. Schools K-12.

Essential Customers are not exempt from the Power Shut-Off Plan. Due to the nature of their loads, most Essential Customers are prepared to operate during outages. For example, hospitals and skilled nursing facilities have back-up generation to support critical load for 12 to 72 hours.

SDG&E has contacted all Essential Customers in the Power Shut-Off Areas to discuss the Power Shut-Off Plan. SDG&E will continue to contact all Essential Customers prior to each fire season to help them plan for power shut-off events.

#### **6.6.6. Customer Notice of Power Shut-Off Events**

SDG&E will attempt to provide all customers with two notices when a power shut-off event appears likely. The first notice will occur at approximately four to six hours prior to the forecasted shut-off event. SDG&E will use its outbound dialer system to send telephone alerts to affected customers. The outbound dialing system can make more than 20,000 calls per hour, including calls to communications devices commonly used by persons with hearing, speech, and/or vision disabilities. The first notice will indicate that high fire risk conditions are forecast to occur, that SDG&E may shut off power, and that customers should prepare for a power shut-off event.

The second notice will occur two to three hours prior to the forecasted shut-off event. This second notice will have a more urgent tone about the need to prepare for the expected shut-off event. If the forecast changes and SDG&E determines that a power shut-off event is no longer likely, SDG&E will use its outbound dialer system to notify customers.

Essential Customers will be notified at the same times as other customers, but through phone calls and e-mails consistent with the individual customer preferences. SDG&E will also alert the Red Cross and 2-1-1 when a shut-off event is forecasted.

It is possible that the first forecast that SDG&E receives indicates a shut-off event could occur in three hours or less. In this situation, only one notice will be provided. In the unlikely event that a shut-off event occurs with no warning,



SDG&E will notify customers as soon as practicable. Customers with functioning land lines or registered cell phones will receive a call.

#### **6.6.7. Mitigation of Adverse Impacts on Customers**

SDG&E acknowledges that shutting off power imposes hardships on customers, particularly low income customers and customers with medical needs. SDG&E will implement a variety of measures to mitigate the hardships, such as providing advance warning of an impending shut off event whenever possible so customers can prepare; providing \$250 debit cards to customers participating in the CARE and/or Medical Baseline programs; opening evacuation centers in the areas where power is shut off; and transporting customers who depend on life support equipment to appropriate medical facilities when a shut-off event is declared. SDG&E's shareholders will absorb the costs of these mitigation efforts in 2009.

SDG&E will contact all impacted Special Needs Customers in person or by telephone to discuss their emergency readiness and medical transportation needs in the case of a power shut-off event. Because Special Needs Customers are recertified bi-annually, SDG&E will use this opportunity to again discuss their emergency readiness and medical transportation needs. Once the power shut-off event is over and the Special Needs Customers are back home, there will be an in-person visit by an SDG&E employee to deliver assistance, followed by a live-person phone call to discuss the service level and overall experience.

SDG&E also recognizes that shutting off power will prevent the Water Districts from using many of their electric-powered pumps, which could disrupt the supply of water used to fight fires. To mitigate this adverse impact, SDG&E will procure a pool of six portable backup generators (four 400 kW and two 750 kW) that can be dispatched to the Water Districts during power shut-off

events. The six portable generators are intended to support 20 critical pump stations with loads of 100 kW or greater. SDG&E will install and own the wiring and permanent electric transfer safety switches at these 20 facilities. The total estimated cost of the six generators and wiring is \$3.9 million.<sup>21</sup>

If more than six generators are needed to provide water for fire-fighting purposes, SDG&E will re-energize any part of its system if ordered to do so by the incident commander. For example, if all six generators have been deployed to Water District facilities and additional Water District pump stations need to be brought on line at locations that remain de-energized, SDG&E could re-energize the circuit(s) serving the pump stations after conducting a safety inspection.

SDG&E is willing to own and maintain a pool of six generators for a two-year period. SDG&E believes that two years is enough time for the Water Districts to procure and install emergency back-up generation they should have for any of a number of emergency situations.

SDG&E does not intend to procure a pool of portable generators or install wiring for critical pump stations with a load of less than 100 kW. SDG&E believes that back-up generators for loads of less than 100 kW should be the responsibility of the individual Water Districts.

---

<sup>21</sup> At the all-party meeting held on July 6, 2009, SDG&E stated that it would procure a pool of 31 portable generators. Six would be for the Water Districts, ten for evacuation centers, and 15 for schools. SDG&E also proposed to pre-wire 110 sites to accept the portable generators. Ten of these sites would be evacuation centers, 20 sites would be critical pump stations, and the remainder would be schools. SDG&E did not state who will ultimately pay for the generators and wiring. (Reporter's Transcript, pp. 39-40.)

### **6.6.8. Cost of the Power Shut-Off Plan**

SDG&E states that the costs for its Power Shut-Off Plan will depend on the frequency and scope of shut-off events. Assuming two events per year, the annual costs will be in the range of \$7 - \$11 million. Startup costs will be in the range of \$14 - \$24 million.<sup>22</sup> These estimates do not include any costs that result from Commission requirements that are adopted in this proceeding. SDG&E does not seek ratepayer funding for costs incurred in 2009.<sup>23</sup>

The above costs for the Power Shut-Off Plan are incremental to normal operating and maintenance costs and do not include other expenses for SDG&E's Community Fire Safety Program such as system hardening.

## **7. Review of SDG&E's Power Shut-Off Plan**

### **7.1. Position of the Parties**

#### **7.1.1. SDG&E**

SDG&E asserts that its Power Shut-Off Plan is needed to address the serious fire danger that occurs when strong Santa Ana winds blow across SDG&E's service territory. The severity of the danger is demonstrated by the firestorms of October 2003 and October 2007. In October 2007, Santa Ana winds reportedly caused SDG&E's overhead power lines to ignite the Witch Fire, the

---

<sup>22</sup> At the all-party meeting held on July 6, 2009, SDG&E stated that its startup costs would be in the range of \$24 - \$36 million. (Reporter's Transcript, pp. 39 - 40.)

<sup>23</sup> SDG&E does not state if or when it will request ratepayer funding of costs incurred in 2010 and future years.

Guejito Fire, and the Rice Fire.<sup>24</sup> The Witch Fire and Guejito Fire combined into a single wildfire that burned 197,990 acres and 1,624 buildings (including 440 homes), and killed two people. The Rice Fire burned 9,000 acres and 248 buildings (including 240 homes). There were no deaths. SDG&E is concerned that failure to shut off power during severe conditions could lead to firestorms like those in 2003 and 2007.

SDG&E used historical data to “backcast” the number of times it would have shut off power had its Power Shut-Off Plan been in effect in prior years. The following table lists the backcast of shut-off events, with an “event” defined as any calendar day in which power would have been shut off. A single calendar day in which power is shut off at multiple locations is counted as one event.

Backcast of Power Shut-Off Events During Red Flag Warnings							
Event Date/ Time	RAWS	Vegetation Fuel Moisture		Relative Humidity	Sustained Wind or Gusts @ 6 Meters	Duration (Hours)	# Meters/ # of People
		Non-Living	Living				
		< 10%	< 75%	< 20%	<u>At 6 meters</u> • Sustain > 30 mph, <u>or</u> • Sustain > 25 mph + gusts > 48 mph		
<b>Event 1</b>							
2/9/02 @ 1500	Cameron	Note 1	71%	12%	Sustain 26 mph Gusts 48 mph	24 hours	4,231/ 10,587
2/9/02 @ 2230	Descanso	4%	71%	11%	Sustain 27 mph Gusts 59 mph	18 hours	8,436/ 21,299

<sup>24</sup> The Commission is currently investigating the Witch Fire and Guejito Fire in Investigation (I.) 08-11-006 and the Rice Fire in I.08-11-007. Today’s decision does not prejudice any issues being addressed in those Investigations.

Backcast of Power Shut-Off Events During Red Flag Warnings							
Event Date/ Time	RAWS	Vegetation Fuel Moisture		Relative Humidity	Sustained Wind or Gusts @ 6 Meters	Duration (Hours)	# Meters/ # of People
		Non-Living	Living				
		< 10%	< 75%	< 20%	<u>At 6 meters</u> • Sustain > 30 mph, <u>or</u> • Sustain > 25 mph + gusts > 48 mph		
<b>Event 2</b>							
2/10/02 @ 0050	Alpine	5%	71%	7%	Sustain 28 mph Gusts 52 mph	13 hours	18,566/ 48,078
2/10/02 @ 0410	Potrero	Note 1	71%	10%	Sustain 26 mph Gusts 53 mph	12 hours	2,471/ 6,043
<b>Event 3</b>							
2/25/02 @ 1720	Ammo Dump	10%	58%	10%	Sustain 37 mph Gusts 37 mph	3 hours	1,736/ 3,889
<b>Event 4</b>							
1/5/03 @ 2320	Ammo Dump	6%	74%	12%	Sustain 33 mph Gusts 45 mph	11 hours	1,736/ 3,889
<b>Event 5</b>							
1/6/03 @ 0130	Bell Canyon	7%	74%	7%	Sustain 38 mph Gusts 62 mph	7 hours	68/ 81
1/6/03 @ 0220	Talega	0%	74%	8%	Sustain 36 mph Gusts 39 mph	7 hours	19/ 19
<b>Event 6</b>							
1/7/03 @ 1220	Bell Canyon	7%	74%	20%	Sustain 38 mph Gusts 65 mph	3 hours	68/ 81
<b>Event 7</b>							
10/26/03 @ 1230	Descanso	Note 1	64%	4%	Sustain 27 mph Gusts 56 mph	6 hours	8,436/ 21,299
<b>Event 8</b>							
12/16/04 @ 1820	Ammo Dump	4%	66%	18%	Sustain 34 mph Gusts 39 mph	13 hours	1,736/ 3,889
12/16/04 @ 1500	Cameron	6%	66%	18%	Sustain 26 mph Gusts 50 mph	3 hours	4,231/ 10,587

Backcast of Power Shut-Off Events During Red Flag Warnings							
Event Date/ Time	RAWS	Vegetation Fuel Moisture		Relative Humidity	Sustained Wind or Gusts @ 6 Meters	Duration (Hours)	# Meters/ # of People
		Non-Living	Living				
		< 10%	< 75%	< 20%	<u>At 6 meters</u> • Sustain > 30 mph, <u>or</u> • Sustain > 25 mph + gusts > 48 mph		
<b>Event 9</b>							
12/24/04 @ 0900	Cameron	7%	66%	4%	Sustain 28 mph Gusts 49 mph	5 hours	4,231/ 10,587
<b>Event 10</b>							
2/8/06 @ 0630	Bell Canyon	2%	72%	4%	Sustain 29 mph Gusts 48 mph	17 hours	68/ 81
<b>Event 11</b>							
11/30/06 @ 0520	Ammo Dump	9%	58%	8%	Sustain 31 mph Gusts 37 mph	3 hours	1,736/ 3,889
<b>Event 12</b>							
10/21/07 @ 2222	Ammo Dump	9%	66%	7%	Sustain 30 mph Gusts 35 mph	38 hours	1,736/ 3,889
10/21/07 @ 2303	Cameron	0%	66%	9%	Sustain 28 mph Gusts 51 mph	18 hours	4,231/ 10,587
10/21/07 @ 1933	Descanso	3%	66%	10%	Sustain 26 mph Gusts 52 mph	28 hours	8,436/ 21,299
10/21/07 @ 2058	Goose Valley	8%	66%	8%	Sustain 29 mph Gusts 50 mph	13 hours	18,027/ 46,634
10/21/07 @ 1214	Potrero	0%	66%	8%	Sustain 27 mph Gusts 51 mph	49 hours	2,471/ 6,043
<b>Event 13</b>							
10/22/07 @ 0653	Alpine	4%	66%	9%	Sustain 27 mph Gusts 51 mph	5 hours	18,566/ 48,078
10/22/07 @ 0014	Julian	6%	66%	15%	Sustain 29 mph Gusts 57 mph	30 hours	3,294/ 7,817
10/22/07 @ 0313	Valley Center	6%	66%	0%	Sustain 26 mph Gusts 50 mph	10 hours	13,886/ 34,326

Backcast of Power Shut-Off Events During Red Flag Warnings							
Event Date/ Time	RAWS	Vegetation Fuel Moisture		Relative Humidity	Sustained Wind or Gusts @ 6 Meters	Duration (Hours)	# Meters/ # of People
		Non-Living	Living				
		< 10%	< 75%	< 20%	<u>At 6 meters</u> • Sustain > 30 mph, <u>or</u> • Sustain > 25 mph + gusts > 48 mph		
<b>Event 14</b>							
10/14/08 @ 0403	Cameron	0%	73%	13%	Sustain 30 mph Gusts 40 mph	7 hours	4,231/ 10,587
<b>Note 1:</b> Data for the "Non-living Fuel Moisture" was not available at the RAWS at that time. However, nearby RAWS reported data that met the criterion.							

SDG&E's backcast shows that power shut-off events would have occurred 14 times in the last eight years. The duration of the backcast events ranges from 3 hours to 49 hours, with an average of 13 hours.<sup>25</sup> Duration includes the time that power is shut off due to exceeding the shut-off criteria plus the time required for the inspection and restoration process. The number of customers (meters) affected by each backcast event ranges from 68 to 35,746, with an average of 9,475 customers. The number of residents (people) affected by each event ranges from 100 to 90,221, with an average of 23,826 residents. SDG&E believes this information shows that an average shut-off event will be far less disruptive to the public than the devastating firestorms that could occur if power is not shut off.

---

<sup>25</sup> The average duration of 13 hours is the resident-weighted average.

SDG&E identified 167 fires from August 2003 through early 2009 that in some way relate to its power lines. Most fires were insignificant. Of the 167 incidents, 13 are associated with high winds. SDG&E provided the following information for each of the 13 wind-related power-line fires: (a) date the fire started; (b) location; (c) size in acres; (d) injuries and/or property damage, if known; (e) how the fire was ignited; (f) why the fire is associated with high winds; and (g) whether shutting off power might have prevented the fire.

The information for (a) – (f) is provided in the following table. For (f), SDG&E does not know the exact wind speed at the time of the fire. The rationale for labeling a fire as wind related comes from incident reports for each fire. With respect to (g) regarding whether the Power Shut-Off Plan might have prevented the fire, SDG&E does not know for 10 of the fires because of a lack of data. In three cases (Fire Event Nos. 2, 11, and 13 in the following table), SDG&E is confident that all five criteria of its Power Shut-Off Plan were met.

<b>Historical Data for Wind-Related Power-Line Fires</b>					
<b>Fire Event</b>	<b>Date Started</b>	<b>Location</b>	<b>Size in Acres</b>	<b>Injuries &amp; Property Damage</b>	<b>Wind-Related Cause of Fire</b>
1	12/16/04	Wynola	5	None noted	Power line down from heavy winds
2	12/16/04	Descanso	1	None noted	Power line down from heavy winds
3	12/17/04	Ramona	1	None noted	Power line down from heavy winds
4	2/19/05	Fallbrook	1	None noted	Tree branch into power line from high winds
5	2/7/06	Laguna Niguel	1	None noted	Tree branch into power line from high winds
6	6/27/06	Fallbrook	1	None noted	Tree branch into power line from high winds
7	10/27/06	Boulder Creek	2	None noted	Power line down from heavy winds



Historical Data for Wind-Related Power-Line Fires					
Fire Event	Date Started	Location	Size in Acres	Injuries & Property Damage	Wind-Related Cause of Fire
8	11/30/06	San Ysabel	130	Damage to bridge; loss of pasture land	Power line down. High winds of 40 mph w/gusts to 60 mph
9	12/27/06	Camp Pendleton	3	None noted	Power line down from heavy winds
10	3/3/07	Jamul	0.1	None noted	Tree branch into power line from high winds
11	10/21/07	Guejito, San Pasqual	197,990*	Extensive damage & injuries*	Alleged contact w/conductor. High winds observed in area.
12	10/21/07	Witch, Ramona	197,990*	Extensive damage & injuries*	Alleged arcing between power lines. Santa Ana winds in area.
13	10/22/07	Rice, Rainbow	9,472	Extensive damage & injuries	Alleged tree branch into power line from high winds
* Witch and Guejito acreage, injuries, and damage are aggregated.					

SDG&E cautions that while past experience is instructive, future power shut-off events and power-line fires may not follow historical patterns. SDG&E anticipates there will be fewer power-line fires in the future due to its Community Fire Safety Program and Power Shut-Off Plan.<sup>26</sup>

SDG&E believes that the parties who oppose its Power Shut-Off Plan overestimate the risk of fires being ignited by candles, barbeques, portable

---

<sup>26</sup> At the all-party meeting held on July 6, 2009, SDG&E stated for the first time that the re-closer policy it is implementing as part of its Community Fire Safety Program would have prevented the Witch Fire in October 2007 had the re-closer policy been in effect at that time. (Reporter's Transcript, p. 68.) The new re-closer policy is separate from SDG&E's Power Shut-Off Plan. SDG&E did not address whether its new re-closer policy would be just as effective at preventing wildfires as its Power Shut-Off Plan, but with considerably fewer impacts on customers and communities.

generators, and other sources when SDG&E shuts off power. To illustrate the small risk of fires from other sources, SDG&E cited statistical information maintained by the State Fire Marshal that shows during the five-year period of 2003 – 2007 there were 55,636 equipment-related fires in all of California, of which 71 were ignited by generators and 243 by grills, hibachis, and barbeques.

### **7.1.2. Opposition Parties**

SDG&E's Power Shut-Off Plan is opposed by the Alliance, AT&T, CCTA, CFB, Cox, CPSD, CTIA, DRA, DisabRA, the School Districts, the Water Districts, and UCAN (collectively, the "Opposition Parties"). They contend that SDG&E's Power Shut-Off Plan will eliminate one ignition source but create many others. This is because customers without electricity will use other means for lighting and cooking, such as candles, lanterns, fireplaces, barbecues, and camp stoves. In addition, some customers may resort to providing their own power with portable generators that are not maintained and/or operated properly. AT&T notes that the U. S. Fire Administration has issued a warning about the fire hazard posed by generators.<sup>27</sup>

The Opposition Parties assert that SDG&E has presented no evidence that its Power Shut-Off Plan will reduce the overall risk of wildfires. Rather, SDG&E's Plan reduces one risk but increases others. The risk that is reduced is the one for which SDG&E might be held liable - fires caused by its power lines. The risks that are increased are those for which SDG&E would not be held liable.

---

<sup>27</sup> [www.usfa.dhs.gov/citizens/all\\_citizens/co/generator.shtm](http://www.usfa.dhs.gov/citizens/all_citizens/co/generator.shtm).

The Opposing Parties note that SDG&E has identified 13 power-line fires since 2003 that are linked to high-wind events, but only three of these fires would have been prevented had its Power Shut-Off Plan been in effect at the time. The Opposing Parties question the benefit of shutting off power 13 times to prevent three fires. CCTA opines that the three fires could have been prevented by better maintenance, making SDG&E's Power Shut-Off Plan unnecessary.

The Alliance and CPSD contend that SDG&E has selected a wind-speed criterion that is too low, which will cause needless power shut-off events. They state that SDG&E is required by General Order 95 to design, construct, and maintain power lines that can withstand wind speeds well in excess of SDG&E's wind-speed criterion.

Finally, the Opposing Parties believe that the Power Shut-Off Plan will impose many significant costs, burdens, and risks on customers and communities in the areas where power is shut off. They argue that SDG&E has not conducted a cost-benefit analysis of the claimed benefits of its Power Shut-Off Plan versus the many adverse impacts. These adverse impacts are summarized below.

**Disruption of Communications Networks.** Communications providers rely on commercial power to provide landline telephone service, cable TV, internet, and wireless telephone service. Network facilities located in the Power Shut-Off Areas can function when commercial power is shut off by using onsite backup batteries and generators, but service could start to fail for many customers after 4 - 12 hours as batteries are exhausted and generator fuel is consumed. To keep networks functioning, the exhausted batteries would need to be replaced with fresh batteries or portable generators, and the generators would need to be refueled. This could become a herculean task during a widespread

and prolonged power shut-off event, as there are hundreds of sites in the Power Shut-Off Areas where backup power would be needed to keep communications networks functioning.<sup>28</sup> Communications providers are concerned that if backup generators are not installed or refueled in time due to distance, terrain, traffic, blocked roads, or other obstacles, customers could lose communications services, including copper-based landline service, cable TV service, internet service, and/or wireless service.

Communications providers estimate they will incur significant costs to respond to power shut-off events. The actual costs will vary depending on how widespread the shut off is, how long it lasts, and other factors. They will also lose an unknown amount of revenue if service is disrupted.

**Loss of Communications at Customer Premises.** Even if communications networks continue to function during a power shut-off event, the loss of power at customers' premises could cause many customers to lose access to communications services. For example, AT&T provided information that shows approximately 37% of households use only cordless phones for their landline service. Cordless phones rely on commercial power at customers' premises and are not usually sold with back-up batteries. As a result, thousands of households could be without landline service during a power shut-off event. Some of these households may have cell phones, but they might not be able to recharge cell phone batteries when power is shut off.

---

<sup>28</sup> AT&T alone has hundreds of remote terminals in the Power Shut-Off Areas where calls carried by its landline network are aggregated and disaggregated. These remote terminals collectively serve tens of thousands of lines, and have an industry standard of about eight hours of battery backup.

Customers who subscribe to cable voice services receive a modem with battery back-up for up to eight hours. Voice service will be lost after eight hours.

Many residents rely on broadband internet for “over-the-top” phone service (e.g., Vonage, Skype, and MagicJack). However, desktop computers will not function without power, and laptop computers will be unable to access the internet because the Wi-Fi modems that connect laptops to the internet will be without power. Only those customers who subscribe to wireless data services will be able to access the internet with a laptop, but only if the wireless networks are functioning and only for as long as laptop batteries hold out.

Large communications customers such as government agencies, financial institutions, and hospitals are often served by on-site equipment rooms with battery backup for short outages. These equipment rooms usually cannot accommodate portable generators. SDG&E estimates there are about 10,930 commercial customers in the shut-off area. Extended outages could force many commercial customers to curtail or halt their operations.

**Public Safety Impacts of Degraded Communications.** The loss of communications caused by a power shut-off event would adversely affect public health, safety, and welfare. These adverse impacts include:

- The loss of communications would occur during periods of high fire risk. Residents may not be able to call 911 to report fires. The delayed reporting of fires could allow fires to escape initial attack and spiral out of control.
- Residents may not be able to call 911 to report crimes, medical emergencies, and vehicle accidents. The delayed response to emergencies of all types poses a serious risk to lives and public safety in general.
- First responders may not be able to communicate with each other or the public via cell phones. The inability of first

responders to communicate effectively could impede coordinated and timely responses to emergencies.

- Residents may not be able to receive emergency information such as evacuation notices disseminated through reverse 911.
- Health monitoring services and security services that rely on telecommunications may not function. Many seniors and persons with disabilities may not be able to use their “lifeline” emergency button when power is shut off.

**Loss of News and Information.** Government agencies depend on television and the internet to disseminate emergency information. During the 2003 and 2007 firestorms, television and internet media provided around-the-clock coverage of events and disseminated emergency information to residents throughout the area. SDG&E’s Power Shut-Off Plan could cut off this important source of emergency information, since most televisions and computers will not work without external power.

**Customers with Disabilities.** Shutting off power for an extended period would impose a number of hardships on people with disabilities. First, many people with disabilities depend on electric-powered devices. If power is shut off, people who use electric wheelchairs will find their mobility limited once the batteries run down. People with hearing or vision disabilities who rely on specialized communications equipment will not be able to communicate with the outside world.<sup>29</sup> People who take medications that must remain refrigerated may be forced to leave their homes in order to find a location with refrigeration

---

<sup>29</sup> DRA reports that most of the equipment provided by the Deaf and Disabled Telecommunications Program needs external power to operate.

facilities. Similarly, people with medical conditions that require them to maintain their environment at a certain temperature may have to evacuate because the loss of power makes temperature control impossible.

Second, SDG&E estimates there are 902 Medical Baseline Customers in the Power Shut-Off Areas, including 590 customers who rely on life support equipment. Many of these individuals will have to evacuate if there is an extended outage. Because these people have serious medical conditions, any evacuation creates some risk.

SDG&E plans to offer free transportation to medically sensitive customers if a power shut-off event is called. However, any care provided at the hospital or other medical facility would be the customers' responsibility. This will result in hefty medical bills for the customers or their insurance providers.

Third, people with disabilities rely on communications services to stay in contact with caregivers and other essential resources. If an outage occurs, many people with disabilities will need additional assistance. Any breakdown in communications places people with disabilities at risk of having health and medical needs go unmet.

Finally, disabled people are disproportionately low-income and can ill afford the costs of purchasing provisions for power shut-off events, such as landline phones, flashlights, coolers, spare batteries, and backup generators. Consequently, SDG&E's Plan will force many customers with disabilities to evacuate their homes and incur the costs and inconvenience that such evacuation entails. Even if some disabled persons could afford a generator, they may not be able to operate it due to mobility or vision impairments.

**Adverse Impact on Schools.** There are 65 public elementary schools, middle schools, and high schools in the Power Shut-Off Areas that serve

approximately 19,867 students. None of these schools has backup power. All the affected schools use phone systems that need external power to operate.

During a power shut-off event, the schools affected by the event will be without internet, television, and phone service, which creates health and safety issues on three fronts. First, if a student is seriously hurt during an outage, the school may not be able to contact emergency services in a timely manner. Second, if there is an emergency outside of the school, such as a major wildfire, the school may not receive timely warning, thereby compromising the school's ability to protect children and staff. Third, schools without power may not be able to meet health and safety requirements, such as providing water from wells, lighting, and air conditioning. The School Districts estimate that it would cost several million dollars to prepare for power shut-off events.

The School Districts are very concerned about the loss of Average Daily Attendance (ADA) funding from the State, which is the main source of funds for the School Districts. If a lengthy power shut-off event occurs, schools may have to cancel school days, causing a loss of ADA funds. The Education Code provides for waivers of ADA requirements if an emergency is established to the satisfaction of the State Superintendent of Public Instruction. The School Districts are worried that a power shut-off event might not be deemed an emergency, resulting in a loss of ADA funds.

**Adverse Impact on Water Supply.** The Water Districts have 39 "critical pump stations" in the Power Shut-Off Areas that do not have backup power. These pump stations provide water to tens of thousands of customers and for fire fighting purposes. If SDG&E shuts off power, the supply of water in the areas served by the affected critical pump stations will be limited to whatever is on hand in tanks and small reservoirs. If a fire breaks out, the heavy demand for



water to fight the fire could exhaust the available supply within hours. The lack of water to fight fires could be disastrous, as the fires would be occurring during periods of high fire danger (i.e., when winds are high, humidity is low, and vegetation is dry).

The Water Districts estimate that it would cost \$8 million to install backup generators and associated wiring at the 39 critical pump stations. They also state that SDG&E's proposal to procure a pool of six portable generators for use by the Water Districts during power shut-off events is insufficient. SDG&E's backcast shows that during the October 2007 firestorm, SDG&E would have shut off power to more than 30 critical pump stations simultaneously.

**Adverse Impact on Sewage Service.** Several of the Water Districts provide sewer service. In order to avoid spills or unlawful discharges, the Water Districts will need to rent generators during power shut-off events to keep sewer facilities operating.

**Costs to Prepare for a Power Shut-Off Event.** Customers could incur significant costs to prepare for a power shut-off event. Such costs could include the purchase of landline phones; flashlights and portable radios; extra batteries for flashlights, radios, laptop computers, and communications devices; coolers to store perishable foods and medications; candles, camp stoves, and lanterns; and backup generators and fuel.

**Costs Incurred During a Power Shut-Off Event.** Many customers could incur significant costs due to a power shut-off event. Such costs could include the rental of portable generators; lost business revenues; lodging and restaurant costs for residents who leave the area while power is shut off; loss of refrigerated foods and medicines; and general loss of public convenience.

**Impacts on Low Income Customers.** Low income customers might not be able to afford the loss of refrigerated foods and medications, or to take actions to mitigate the impacts of shut-off events, such as evacuating to a hotel, eating at restaurants, or buying batteries, coolers, and generators.

**Portable Generators.** Customers without power may use portable generators to provide electricity for their appliances and lights. The use of portable generators poses a fire risk for the reasons described previously, but that is not the only hazard. UCAN states that owners of portable generators may need to store 20 gallons of fuel on site in order to power a generator through a shut-off event lasting 72 hours. If a wildfire passes through the property, the fuel could explode with deadly consequences for residents and fire crews.

In addition, some residents may connect their generators to the electrical wiring of their homes. If “do-it-yourselfers” do not disconnect their electrical panels from the utility system, the generators would energize utility lines, thereby nullifying SDG&E’s intent to reduce ignitions from power lines. This would also pose a danger to utility employees because power lines would be “hot” when the workers do not expect it.

Finally, generators emit dangerous levels of carbon monoxide (CO). UCAN cites a study that shows portable generators were implicated in 96% of poisonings from CO following hurricanes Charley and Jeanne in Florida in 2004.

**Loss of Traffic Lights and Street Lights.** Traffic lights and street lights depend on commercial power. The loss of traffic lights and street lights during power shut-off events would increase the risk of vehicle accidents, particularly at night. Crash victims may not be able to summon help if the wireless network has ceased functioning. The loss of traffic lights could also delay the arrival of first responders to the scene of the accident or other emergency. If a general

evacuation is declared due to an approaching wildfire, the lack of traffic signals and street lights could slow the evacuation and place many lives at risk.

**Hampering Evacuations.** Shutting off power could hamper evacuation efforts because customers might not receive timely notices to evacuate for the reasons stated previously. In addition, elderly and disabled persons may not be able to open their garage doors without electric garage door openers, trapping them in their homes. Evacuations from homes at night will be slower and more difficult without lights. Loss of power to traffic lights and street lights may impede and disrupt evacuations. Loss of power to fueling stations might trap evacuees without sufficient fuel in their vehicles.

The October 2007 firestorm demonstrates that concerns about evacuating during a power shut-off event are warranted. On October 21, 2007, the Witch Fire started at 12:35 p.m. near the community of Ramona. If the Power Shut-Off Plan had been in effect, SDG&E would have shut-off power to Ramona at 8:58 p.m. Sixteen minutes later, at 9:14 p.m., residents of Ramona received reverse 911 calls to evacuate.<sup>30</sup> Fortunately, power was on, and residents were able to receive reverse 911 calls and to evacuate at night with the aid of lights in their homes and on the streets.

**Diversion of Public Safety Personnel.** Shutting off power would divert police and sheriff personnel from their primary missions. For example, officers would need to direct traffic at intersections where traffic lights no longer function until temporary stop signs could be set up. Police and fire department

---

<sup>30</sup> Reporter's Transcript of the all party meeting held on July 6, 2009, p. 47.

personnel might have to drive longer distances to find gas stations with working pumps to refuel emergency vehicles.

Police and sheriff personnel would be diverted at a time when many burglar alarms and security lights would not function, providing increased opportunity for criminal activity.

**Loss of Economic Activity.** Many businesses could not operate without commercial power. For example, some retail businesses could not function without scanners at checkout stands, gas stations could not pump fuel, and many restaurants could not cook. Employees who rely on computers could not work.

**Setting the Stage for Catastrophic Wildfires.** The simultaneous occurrence of the all of the above circumstances under high fire risk conditions (e.g., loss of communications, lack of water, disruption of traffic, disabled and elderly residents trapped in their homes, etc.) would increase the potential for catastrophic wildfires.

### **7.1.3. SCE**

SCE is the only party that supports SDG&E's Power Shut-Off Plan. SCE opines that shutting off power is better than running the risk of igniting catastrophic fires like those that occurred in October 2003 and October 2007.

SCE does not currently have a power shut-off plan in effect. However, in 2003 SCE implemented a temporary program to shut off power to rural areas where the Governor had declared a state of emergency due to the fire risk posed by the large number of dead trees killed by bark beetles. The purpose of SCE's power shut-off program was to protect against the possibility of strong winds causing dead trees to fall onto its power lines and igniting a wildfire. The region affected by SCE's program had 34,500 customers (meters), and was dividend into 11 areas where power could be shut off independently from each other.

SCE implemented its power shut-off program in 2003 on its own initiative and obtained Commission authorization sometime later. SCE terminated the program in August 2005, after the dead and diseased trees had been cleared from the region. During the time SCE's power shut-off program was in effect, SCE shut off power one time. The shut-off occurred on October 26-27, 2003, in the Idyllwild area. It affected approximately 4,000 customers and lasted 26 hours. When SCE inspected its power lines prior to re-energization, it found six locations where trees had fallen onto the lines. SCE views its program as a success because it prevented what could have been a catastrophic wildfire.

## **7.2. Discussion**

We will approve SDG&E's Power Shut-Off Plan only if we are convinced that the need to shut off power to protect public safety takes precedence over the vital necessity of keeping power on. There is a strong presumption that power should stay on. As the California Legislature recognized in § 330(g), "[r]eliable electric service is of utmost importance to the safety, health, and welfare of the state's citizenry and economy."

There are two threshold issues we must consider in deciding whether to approve SDG&E's Power Shut-Off Plan. The first issue is whether shutting off power results in a net reduction in wildfire ignitions during hazardous fire conditions. The second issue is whether the benefits of SDG&E's Power Shut-Off Plan outweigh the adverse impacts. If SDG&E's Power Shut-Off Plan fails either test, then SDG&E's Application for Commission approval of its Plan should be denied. SDG&E has the burden of demonstrating that its Power Shut-Off Plan passes both tests.

### 7.2.1. Impact on the Number of Wildfires

We begin our analysis of SDG&E's Power Shut-Off Plan by assessing whether it will reduce the number of wildfires during periods of high fire danger. There is no doubt that shutting off power eliminates the risk of power lines igniting fires. However, the Opposition Parties have demonstrated that shutting off power increases the risk of fires starting from sources other than power lines. This is because people who do not have power in their homes will light candles or lanterns when the sun goes down; will use barbeques and camp stoves to cook food, especially when faced with the loss of costly groceries in a freezer or refrigerator that is not receiving power<sup>31</sup>; and will use fireplaces for heat, light, and cooking. All of these actions create new ignition sources. In addition, some customers may use portable generators to power their appliances and homes. AT&T cites the following warning from the U. S. Fire Administration regarding the fire hazard posed by generators:

Before refueling the generator, turn it off and let it cool. Fuel spilled on hot engine parts could ignite.<sup>32</sup>

UCAN notes that sparks from vehicles are responsible for 11.6% of fires.<sup>33</sup> Shutting off power could increase the number of miles driven by forcing people in the areas where power is shut off to drive long distances to find restaurants

---

<sup>31</sup> Customers with gas stoves and ovens will still be able to cook but many of these customers will have to use matches to light the cooking fire. The use of matches increases the risk of fire because explosive levels of gas could accumulate if customers cannot light the stove or oven by the second or third try.

<sup>32</sup> [www.usfa.dhs.gov/citizens/all\\_citizens/co/generator.shtm](http://www.usfa.dhs.gov/citizens/all_citizens/co/generator.shtm).

<sup>33</sup> UCAN Comments filed March 27, 2009, p. 5.

and retail stores where power is on so they can eat and buy groceries, batteries, gasoline, and other necessities. The increased driving would exacerbate the risk of vehicle-ignited fires.

The risk of customers igniting fires increases as the number of affected customers increases and the length of the outage increases. SDG&E's backcast shows that SDG&E would have shut off power on October 22, 2007, to 35,746 meters serving 90,221 residents. The meter-weighted average duration of the shut-off would have been 23.8 hours, or about one full day. We believe it is likely that if SDG&E ever shuts off power to 90,211 residents for one full day, the residents would collectively light tens of thousands of candles, lanterns, camp stoves, barbeques, and fireplaces, and turn on numerous portable generators. This would present a significant risk of wildfire ignitions that could equal or exceed the risk of ignitions from power lines.<sup>34</sup>

The Alliance provided information that shows power-line fires constitute about 3% of all wildfires and only 1% of significant wildfires (i.e., fires greater than 100 acres) in Southern California.<sup>35</sup> Thus, wildfires that are not started by power lines constitute 97% to 99% of all wildfires. Anything that increases the number of fires caused by sources other than power lines, even by a small fraction, is a greater threat to public safety than the threat from power-line fires.

---

<sup>34</sup> Fires started by any of these ignition sources could spread to nearby wildlands, especially in Santa Ana wind conditions.

<sup>35</sup> The Alliance's Comments filed March 27, 2009, p. 10, and Appendix A, pp. 14, 16, and 23. See also the Water Districts' Comments filed April 19, 2009, p. 3.

SDG&E provided no evidence or analysis that shows its Power Shut-Off Plan will result in a net reduction in wildfire ignitions during periods of high fire danger. SDG&E suggests that the threat of wildfire ignitions from sources other than power lines will be reduced by its customer education efforts, which will help customers to prepare for power shut-off events. We agree this will help to some extent. Nevertheless, a significant and irreducible risk will remain. When SDG&E shuts off power, customers will have to use alternative means to light their homes at night, cook their food, and power their appliances, all of which increases the risk of wildfire ignitions.

SDG&E downplays the threat of wildfire ignitions from other sources by citing information from the State Fire Marshal that shows during a recent five-year period there were 55,636 equipment-related fires in all of California, of which 71 were caused by generators, 243 were caused by grills, hibachis, and barbeques, and 299 were caused by fireplaces.<sup>36</sup> SDG&E believes its education campaign will reduce what it views as an already meager threat of wildfires from generators and other sources.

We see portable generators, grills, hibachis, and barbeques (referred to hereafter as “other fire sources” or “other sources”) as a much more serious fire risk than SDG&E. The information that SDG&E obtained from the State Fire Marshal shows there were 513 fires caused by generators, grills, hibachis,

---

<sup>36</sup> SDG&E Comments filed June 30, 2009, p. 7, Fn. 3, citing a report titled “Fires by Equipment Involved in Ignition, 2003-2007” prepared by the State Fire Marshall at [http://osfm.fire.ca.gov/cairs/pdf/firesbyeignition2003\\_07.pdf](http://osfm.fire.ca.gov/cairs/pdf/firesbyeignition2003_07.pdf). SDG&E’s motion to take official notice of this information pursuant to Rule 13.9 and Evidence Code §§ 452(c) and 452(h) was granted by the assigned Administrative Law Judge (ALJ) in a ruling issue on August 6, 2009.



barbeques, and fireplaces compared to 343 power-line fires.<sup>37</sup> The reported number of fires from other sources does not reflect the impact of SDG&E's Power Shut-Off Plan because the Plan has never been put into effect. For example, we would expect there would normally be very few generator fires in SDG&E's service territory because there would be little need for SDG&E's customers to use portable generators on a day-to-day basis. However, if a power shut-off event occurs, then every affected customer with a portable generator would have a need to use it. The number of people using generators during a shut-off event may be significant, as SDG&E stated that "a large number of people in the backcountry have portable generators."<sup>38</sup> The upshot is that the risk of fires from other sources would be multiplied manyfold during a power shut-off event, perhaps surpassing the risk of power-line fires.

For the previous reasons, we find that SDG&E has not met its burden to demonstrate that its Power Shut-Off Plan will reduce the overall number of wildfires occurring during hazardous fire conditions. Based on the available information, we conclude that it is more likely than not that SDG&E's Power Shut-Off Plan will increase the risk of wildfire ignitions.

### **7.2.2. Historical Data on Power-Line Fires**

We next review the available historical data on wind-related fires ignited by SDG&E's power lines for insight on weighing the costs and benefits of

---

<sup>37</sup> It is important to keep in mind that the 513 fires from other sources and the 343 power-line fires are categorized as equipment-related fires. There is no information on how many of these fires resulted in wildfires.

<sup>38</sup> Reporter's Transcript of the all party meeting held on July 6, 2009, p. 73.

SDG&E's Power Shut-Off Plan. SDG&E reports that its power lines have been involved in 13 wind-related fires since August 2003. Ten of these fires were minor, burning a total of 145 acres. There were no injuries. Only one of the ten fires caused property damage, which was limited to the loss of pasture land and unspecified damage to a bridge.

The remaining three wind-related fires involving SDG&E's power lines occurred during the October 2007 firestorm. These were the Guejito, Rice, and Witch Fires. All three were major wildfires. We are currently investigating the causes of these fires in Investigation (I.) 08-11-007 and I.08-11-006.

SDG&E's backcast of power shut-off events purports to show that if SDG&E's Power Shut-Off Plan had been in effect in prior years, it would have prevented three of the 13 wind-related fires involving SDG&E's power lines. The three fires that would have been prevented are listed in the following table:

<b>Fires That SDG&amp;E Believes Would have Been Prevented By Its Power Shut-Off Plan</b>		
<b>Date</b>	<b>Location</b>	<b>Acres</b>
12/16/04	Descanso	1
10/21/07	Guejito	197,990*
10/22/07	Rice	9,472
* <b>Note:</b> Includes the area burned in both the Guejito and Witch Fires.		

The Descanso Fire in the above table was a minor, 1-acre fire. The Guejito and Rice Fires were major wildfires, the causes of which are currently being investigated in I.08-11-007 and I.08-11-006, respectively. Until the investigations

are complete, we cannot say whether SDG&E's Power Shut-Off Plan would have prevented these two fires.<sup>39</sup>

It is important to recognize that SDG&E's Power Shut-Off Plan would not have prevented the Witch Fire, which was allegedly ignited by SDG&E's power lines on October 21, 2007.<sup>40</sup> After it was ignited, the Witch Fire moved west and merged with the Guejito Fire on October 22, 2009.<sup>41</sup> The Witch Fire moved into the Guejito area at the exact time that SDG&E would have shut off power to the Guejito area under its Power Shut-Off Plan. This demonstrates that major wildfires can occur in areas where power is shut off. As discussed in more detail below, shutting off power in areas where major wildfires are burning creates significant risks to public safety.

### **7.2.3. Shutting Off Power During Major Wildfires**

SDG&E's Power Shut-Off Plan does nothing to prevent wildfires started by sources other than power lines, which constitute about 97% of all wildfires and 99% of significant wildfires (i.e., fires greater than 100 acres) in Southern California. The Cedar Fire in San Diego County during the October 2003

---

<sup>39</sup> SDG&E acknowledges that the "role power lines played in [the Witch, Guejito and Rice Fires] has not been determined with certainty." (Joint Comments filed by the School Districts and the Water Districts on April 17, 2009, p. 4, quoting an SDG&E data response provided to DisabRA.)

<sup>40</sup> The cause of the Witch Fire is currently being investigated in I.08-11-006.

<sup>41</sup> See Cal Fire's report "California Fire Siege 2007, An Overview" at [http://www.fire.ca.gov/fire\\_protection/downloads/siege/2007/Overview\\_CompleteFinal.pdf](http://www.fire.ca.gov/fire_protection/downloads/siege/2007/Overview_CompleteFinal.pdf), p. 84. The School Districts and Water Districts' joint motion to take official notice of the report pursuant to Rule 13.9 and Evidence Code § 452(h) was granted by the assigned ALJ in a ruling issue on August 5, 2009.

firestorm demonstrates the serious threat from wildfires ignited by sources other than power lines. The Cedar Fire is the largest fire in California's recorded history. It started when a lost hunter lit a signal fire, and it eventually burned 280,275 acres, destroyed more than 2,200 structures, and killed 14 people.<sup>42</sup>

As discussed previously, the Witch Fire demonstrates that major wildfires can occur in an area at the same time that SDG&E would shut off power to the area under its Power Shut-Off Plan. Shutting off power increases the public safety risk of wildfires, including the 99% of significant wildfires that are not started by power lines. The heightened risks include:

- Shutting off power could disrupt landline and wireless telephone service. SDG&E recognizes this, and warns its customers that they may lose phone service during a power shut-off event.<sup>43</sup> Without phone service, customers may not be able to report fires, which could delay the initial attack by firefighters and thereby increase the chance of wildfires growing to catastrophic size. Such fires would be occurring at the exact time when there is the greatest potential for the rapid spread of wildfires (i.e., when winds are strong, humidity is low, and vegetation is dry).
- Customers without power may not be able to use their telephones, televisions, radios, and computers. Thus, those who work or live in an area where power is shut off will lose their primary means to learn of approaching fires, evacuation notices, and other critical information. A report on the October 2007 firestorm that was jointly prepared by Cal Fire, the U.S. Forest Service, and the San Diego County Office of Emergency Services

---

<sup>42</sup> Cal Fire's report "California Fire Siege 2003, The Story" at ([http://www.fire.ca.gov/fire\\_protection/downloads/2003FireStoryInternet.pdf](http://www.fire.ca.gov/fire_protection/downloads/2003FireStoryInternet.pdf), pp. 72-73.) We take official notice of Cal Fire's report pursuant to Rule 13.9.

<sup>43</sup> Exhibit SDG&E-3, Appendix A, Fact Sheet.

highlighted the vital importance of communications during evacuations and other emergencies. The Report stated: “A vital component in any evacuation or emergency situation is communication. During the October fire siege, the Reverse 911 system was employed on a large scale, and was key to reaching thousands of citizens. Previous evacuation communications, such as those employed in the 2003 fire siege, depended on residents watching the news, listening to radio broadcasts or waiting for a personal visit from law enforcement officials giving evacuation orders. The Reverse 911 system contacted nearly 200,000 citizens with recorded phone messages relevant to their communities.<sup>44</sup>”

- Electric garage door openers will not work when power is shut off. If wildfire forces an evacuation, customers who are elderly or have disabilities may not be able to open their garage doors manually, potentially trapping them in their homes. Trapped customers may not be able to call for help if telephone service is disrupted.
- Loss of power to traffic signals and street lights may cause traffic accidents and impede evacuations, particularly at night.
- The Water Districts have 39 electric-powered pump stations in SDG&E’s Power Shut-Off Areas that are critical to maintaining the supply of water, but which have no backup power.<sup>45</sup> If power is shut off to any of these 39 pump stations while a wildfire is burning, the supply of stored water in the area served by the pump station could be exhausted within hours, leaving no

---

<sup>44</sup> See “California Fire Siege 2007: An Overview,” at p. 86. The School Districts and Water Districts’ joint motion to take official notice of the report pursuant to Rule 13.9 was granted by the assigned ALJ in a ruling issue on August 5, 2009.

<sup>45</sup> Water Districts Comments filed on June 10, 2009, pp. 1-2. The 39 pump stations without backup power excludes pump stations that will be removed from the Power Shut-Off Areas during 2009 after the conversion of certain overhead power lines to underground lines pursuant to SDG&E Advice Letter 2075-E. (Ibid.)

water to fight fires. In order to satisfy the immense demand for water during a major wildfire, the Water Districts must pump around the clock.<sup>46</sup>

SDG&E did not provide any evidence or analysis that shows the benefits from the reduction in the number of power-line fires made possible by its Power Shut-Off Plan exceeds the increase in public-safety risk from wildfires that threaten communities in areas where power is shut off.

SDG&E intends to mitigate the risk of shutting off power to critical pump stations by forming a pool of six large portable generators for use by the Water Districts during power shut-off events. We agree with the Water Districts that six generators are not enough. During the October 2007 firestorm, SDG&E would have shut off power to more than 30 critical pump stations simultaneously.<sup>47</sup>

SDG&E states that it will restore power to any area threatened by a wildfire if ordered to do so by a public-safety agency. However, restoring power to communities already threatened by a wildfire does not mitigate the risk that while power is shut off, residents may not be able to report fires. This could delay the initial attack by firefighters and thereby increase the chance of large scale wildfires. SDG&E also states that it may take as long as two hours to restore power once it is ordered to do so.<sup>48</sup> During that interval, lives and property would be at increased risk from fast-moving wildfires driven by strong Santa Ana winds.

---

<sup>46</sup> Water Districts Comments filed on May 19, 2009, p. 13.

<sup>47</sup> Water Districts Comments filed on June 10, 2009, p. 1 and Appendix A.

<sup>48</sup> SDG&E Comments filed July 2, 2009, p. 2.

#### **7.2.4. SCE's Power Shut-Off Program**

The only precedent for SDG&E's Power Shut-Off Plan is a temporary program that SCE implemented in 2003. The fact that SCE instituted a shut-off program does not mean that SDG&E should be allowed to do the same.

SCE's shut-off program was instituted in response to emergency conditions that arose from the tremendous number of trees that had been killed by bark beetles. On March 7, 2003, the Governor issued an emergency proclamation that, among other things, directed utilities to clear dead and diseased trees near power lines due to the fire hazard. SCE was concerned that until the trees were removed, high winds could cause dead and diseased trees to fall onto its power lines and ignite wildfires. After the dead and diseased trees were removed, SCE ended its power shut-off program in 2005.

The lesson we draw from SCE's power shut-off program is that it may be appropriate to implement a power shut-off program when emergency conditions are present, but the program should end when the emergency is over. SDG&E's Power Shut-Off Plan is not limited to emergency conditions, but applies to situations that occur annually (e.g., sustained winds of 35 mph). SDG&E is required by General Order 95 to design, construct, and maintain its power-line facilities to operate safely under these regularly occurring conditions.<sup>49</sup>

#### **7.2.5. Costs and Benefits**

The Opposition Parties have identified many significant costs, burdens, and risks that shutting off power imposes on customers and communities in the

---

<sup>49</sup> CPSD/DRA Comments filed May 26, 2009, pp. 9-11. There is no dispute that SDG&E may shut off power when high winds exceed General Order 95 design standards.

areas where power is shut off. These adverse impacts were summarized previously and are not repeated here.<sup>50</sup> SDG&E has proposed several measures to mitigate the adverse impacts, including the opening of evacuation centers; offering free medical transport; providing \$250 debit cards to customers participating in the CARE and Medical Baseline Programs; and procuring a pool of six large portable generators for use by the Water Districts. SDG&E's shareholders will absorb much of the costs for these mitigation measures.

We commend SDG&E for its willingness to undertake extensive and costly mitigation measures. However, SDG&E provided no evidence or analysis that shows the benefits of its Power Shut-Off Program, as mitigated, outweigh the many significant adverse impacts on customers and communities. Given this fundamental lack of information, we cannot find that the Power Shut-Off Plan is in the public interest.

SDG&E contends that shutting off power is better than risking the chance of more firestorms like those that devastated San Diego County in October 2003 and October 2007. SDG&E states that unless decisive action is taken, it is only a matter of time before the next catastrophic firestorm.

We agree that every reasonable action should be taken to avoid firestorms. However, SDG&E has not demonstrated that shutting off power is likely to decrease the number of wildfires. Nor did SDG&E cite a single fire during the October 2003 firestorm that was ignited by its power lines. Thus, shutting of power would have done nothing to prevent the October 2003 firestorm.

---

<sup>50</sup> See the previous summary in today's decision of the Opposition Parties' position on SDG&E's Power Shut-Off Plan.



On the other hand, SDG&E's power lines have been implicated in three of the many fires that collectively comprise the October 2007 firestorm. These were the Guejito, Rice, and Witch Fires.<sup>51</sup> We are currently investigating these fires in I.08-11-007 and I.08-11-006. Until the investigations are complete, we decline to speculate on the causes of these fires. At this point in time, there is no basis to conclude that SDG&E's Power Shut-Off Plan is an appropriate response to the October 2007 firestorm.<sup>52</sup>

SDG&E asserts that its Power Shut-Off Plan is not based on costs and benefits. Rather, it is meant to protect public safety. SDG&E observes that several Public Utilities Code sections require SDG&E to operate its system in a safe manner. (§§ 330, 399, 451, 761, 762, 768, and 770).

We agree that the Public Utilities Code ranks public safety as a top priority. We further agree that a safe electric system is one which is operated to prevent fires. However, operating a safe system also includes the reliable provision of electricity. Without power, numerous unsafe conditions can occur. Traffic signals do not work, life support systems do not work, water pumps do not work, and communication systems do not work. As the California Legislature recognized in § 330(g), "[r]eliable electric service is of utmost importance to the safety, health, and welfare of the state's citizenry and

---

<sup>51</sup> SDG&E states that its Power Shut-Off Plan would have prevented the Guejito and Rice Fires, but not the Witch Fire.

<sup>52</sup> SDG&E acknowledges that the "role power lines played in [the October 2007 fires] has not been determined with certainty." (Joint Comments filed by the School Districts and the Water Districts on April 17, 2009, at p. 4, quoting an SDG&E data response to DisabRA.)

economy.” In short, there is a strong presumption that power should remain on for public safety reasons.

#### **7.2.6. Conclusion**

SDG&E’s Power Shut-Off Plan would impose significant costs, burdens, and risks on the customers and communities in the areas where power is shut off. In light of these hardships, SDG&E’s Power Shut-Off Plan should be adopted only if SDG&E demonstrates that its Plan will improve public safety. While the Power Shut-Off Plan will eliminate power lines as a source of ignition during hazardous fire conditions, it will create many new sources of ignition and exacerbate the risk to public safety from fires that occur in areas where power is shut off. SDG&E provided no evidence or analysis that shows its Plan will improve public safety overall. Based on our review of the record, we believe it is more likely than not that SDG&E’s Power Shut-Off Plan would, on balance, negatively affect public health, safety, and welfare.

We conclude for the previous reasons that SDG&E’s Application should be denied without prejudice. Because SDG&E’s application is denied, there is no need to address ancillary issues raised in SDG&E’s application pertaining to demand normalization, critical peak pricing, and demand response.

SDG&E may file another application for authority to shut-off power during hazardous fire conditions, but any such application should demonstrate with evidence and analysis that the benefits of the proposed shut-off plan exceed the myriad of significant costs, burdens, and risks to customers and communities in the areas where power is shut off. The cost-benefit model proposed by the Alliance may provide a reasonable conceptual framework for SDG&E’s analysis.

Our denial of SDG&E's application does not affect SDG&E's authority under § 451 and § 399.2(a) to shut off power in emergency situations when necessary to protect public safety. These laws state, in relevant part, as follows:

**§ 451:** Every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities...as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public.

**399.2 (a)(1):** It is the policy of this state, and the intent of the Legislature, to reaffirm that each electrical corporation shall continue to operate its electric distribution grid in its service territory and shall do so in a safe, reliable, efficient, and cost-effective manner.

**399.2 (a)(2):** In furtherance of this policy, it is the intent of the Legislature that each electrical corporation shall continue to be responsible for operating its own electric distribution grid including, but not limited to, owning, controlling, operating, managing, maintaining, planning, engineering, designing, and constructing its own electric distribution grid, emergency response and restoration, service connections, service turnons and turnoffs, and service inquiries relating to the operation of its electric distribution grid, subject to the commission's authority.

SDG&E's statutory obligation to operate its system safely requires SDG&E to shut off its system if doing so is necessary to protect public safety. Any decision by SDG&E to shut off power may be reviewed by the Commission pursuant to its broad jurisdiction over matters regarding the safety of public utility operations and facilities.

Our denial of the SDG&E's Application does not signal any diminishment in our resolve to protect Californians from the wildfire-related risks of overhead power lines. We take very seriously our obligation to protect public safety on

matters within the scope of our jurisdiction. There is perhaps no better example of our commitment to protecting the public than General Order 95. This General Order is over 500 pages long and contains comprehensive guidelines for the design, construction, and maintenance of overhead electric lines. These guidelines are specifically intended to provide the public with a high level of protection from the hazards associated with overhead power lines, including fire-related risks.

The paramount importance we place on public safety can be seen by our current investigations of the October 2007 wildfires. (I.08-11-007 and I.08-11-006) The ultimate objective of these investigations is to identify the root causes of the wildfires so that corrective actions can be taken to prevent future wildfires. We have also opened a rulemaking proceeding (Rulemaking 08-11-005) to consider the adoption of additional regulations to reduce the fire hazard associated with utility operations and facilities. There is currently a proposed decision in Rulemaking 08-11-005 adopting such regulations, which will be considered by the Commission at its meeting on August 20, 2009. This is only the first decision to be issued in Rulemaking 08-11-005. Additional regulations will be considered in Rulemaking 08-11-005 as soon as feasible.

We commend SDG&E for its concern for fire safety and its extensive efforts to implement measures to protect the public, both in this proceeding and with its broader Community Fire Safety Program. We encourage SDG&E to continue its efforts, particularly with respect to its inspections of overhead power lines, hardening its facilities in fire-prone areas, and sound vegetation management.

## **8. Electric Tariff Rule 14**

SDG&E's Electric Tariff Rule 14 requires SDG&E to exercise "reasonable diligence and care to furnish and deliver a continuous and sufficient supply of electric energy to the customer, and to avoid any shortage or interruption of delivery of same."<sup>53</sup> Tariff Rule 14 also states that SDG&E will not be held liable for an interruption in service "caused by inevitable accident, act of God, fire, strikes, riots, war or any other cause not within its control."

SDG&E requests authority to amend Tariff Rule 14 to include the statement that SDG&E may shut off power "without liability to Customers" when in "SDG&E's sole opinion such interruption is necessary for . . . [an] [e]mergency affecting or likely to affect SDG&E's distribution system."<sup>54</sup> The text of SDG&E's proposed revisions to Tariff Rule 14 mirrors PG&E's current Tariff Rule 14.

SDG&E's proposed revisions to Tariff Rule 14 are not contingent on Commission approval of SDG&E's Power Shut-Off Plan. Rather, SDG&E sees these as separate matters.

### **8.1. Position of the Parties**

#### **8.1.1. SDG&E**

SDG&E avers that its proposed revisions to Tariff Rule 14 will help customers understand that power may be shut off unexpectedly in order to protect public safety. SDG&E also asserts that customers are currently

---

<sup>53</sup> Tariff Rule 14, Section A.

<sup>54</sup> Exhibit SDG&E-3, Appendix C.

responsible for any losses they might occur when power is shut off for safety reasons, and that the proposed revisions to Tariff Rule 14 will not change that.

SDG&E maintains that PG&E's current Tariff Rule 14 is an appropriate template for revising SDG&E's Tariff Rule 14 even though PG&E's Tariff was not adopted as a part of a fire-safety program. Rather, it was approved in 1997 as part of the Commission's direct access program. SDG&E submits that PG&E's Tariff Rule 14 is not limited to situations involving direct access; it covers safety and interruption of service in a general sense.

### **8.1.2. SCE**

SCE supports SDG&E's proposed revisions to Tariff Rule 14.

### **8.1.3. The Opposition Parties**

The Opposition Parties assert that SDG&E's proposed revisions to Tariff Rule 14 will unfairly shift all costs and liabilities for power shut-off events to the customers and communities in the areas where power is shut off.

The Opposition Parties dismiss SDG&E's assertion that PG&E's Tariff Rule 14 is an appropriate template for revising SDG&E's Tariff Rule 14. They state that PG&E's Tariff Rule 14 was implemented as part of the direct access program, not a fire-safety program.

## **8.2. Discussion**

It appears that the main purpose of SDG&E's proposed revisions to Tariff Rule 14 is to allow SDG&E to shut off power in a manner consistent with its Power Shut-Off Plan, without liability to its customers or others. Because today's decision denies SDG&E's request for authority to implement its Power Shut-Off Plan, we decline to authorize the proposed changes to SDG&E's Tariff Rule 14. Our denial of SDG&E's proposed revisions to Tariff Rule 14 means we do not

have to decide whether the proposed tariff language would permit SDG&E to shut off power under the circumstances described in its Power Shut-Off Plan.

SDG&E argues that the proposed revisions will help its customers understand that SDG&E may need to shut off power unexpectedly in order to protect public safety. SDG&E does not explain why revising Tariff Rule 14 will achieve this objective, particularly if few customers ever read Tariff Rule 14. We believe that most customers already expect that SDG&E will shut off power when necessary to protect public safety, thereby making SDG&E's proposed revisions to Tariff Rule 14 superfluous.

SDG&E also argues that it should be allowed to revise its Tariff Rule 14 to mirror PG&E's Tariff Rule 14. We disagree. As noted by several parties, the revisions to PG&E's tariff were made in a different context. PG&E's Tariff Rule 14 stems from D.97-10-087, which concerned the interruption of energy supplied by energy marketers to direct access customers. Thus, the revisions to PG&E's Tariff Rule 14 were wholly unrelated to the main purpose of SDG&E's proposed revisions to its Tariff Rule 14. Nor does SDG&E explain why a tariff filed by PG&E more than a decade ago to implement direct access is appropriate today given all the ensuing changes to direct access.

## **9. Proceeding Category and Need for Hearings**

In Resolution ALJ 176-3228, dated January 29, 2009, the Commission preliminarily categorized this proceeding as ratesetting and preliminarily determined that hearings were needed. The Assigned Commissioner's Ruling and Scoping Memo (Scoping Memo) dated February 26, 2009, affirmed these preliminary determinations, but left open the possibility that hearings would not be held by requiring parties to file motions for evidentiary hearings by April 10, 2009. The evidentiary hearings, if held, were set to begin on April 30, 2009.

There were no motions for evidentiary hearings. After consulting with the assigned Commissioner, the assigned Administrative Law Judge (ALJ) issued a ruling on April 15, 2009, that canceled the previously scheduled evidentiary hearings.

Rule 7.5 requires that the Commission to approve a change to the preliminary determination on the need for hearings. Today's decision affirms that evidentiary hearings are not needed in this proceeding.

#### **10. Comments on the Alternate Proposed Decision**

The alternate proposed decision of the ALJ in this matter was mailed to the parties in accordance with Pub. Util. Code § 311, and comments were allowed pursuant to Rule 14.3. Comments were filed on \_\_\_\_\_, by \_\_\_\_\_. Reply comments were filed on \_\_\_\_\_, by \_\_\_\_\_.

#### **11. Assignment of the Proceeding**

Timothy Alan Simon is the assigned Commissioner for A.08-12-021 and Timothy Kenney is the assigned ALJ.

#### **Findings of Fact**

1. The purpose of SDG&E's Power Shut-Off Plan is to prevent the ignition of wildfires by shutting off power lines during hazardous fire conditions.

2. Although shutting off power eliminates the risk of power lines igniting fires, it also increases the number of potential ignition sources as people use alternate means for cooking, lighting, and power, such as candles, lanterns, fireplaces, barbeques, hibachis, camp stoves, and portable generators.

3. Wildfires that occur in areas where power is shut off are a much greater threat to public safety than wildfires that occur where power is on.

4. SDG&E's Power Shut-Off Plan imposes significant costs, burdens, and risks on customers and communities in areas where power is shut off.



5. SDG&E did not demonstrate that its Power Shut-Off Plan will result in an overall reduction in the number of wildfires, or that the public safety benefits of its Plan exceed the significant costs, burdens, and risks that are imposed on customers and communities in areas where power is shut off.

6. One purpose of SDG&E's proposed revisions to Tariff Rule 14 is to allow SDG&E to shut off power in a manner consistent with its Power Shut-Off Plan.

7. SDG&E's proposed revisions to Tariff Rule 14 will do little to help its customers understand that power may be shut off unexpectedly in order to protect public safety because most customers will never read the Tariff.

8. Most customers already expect that SDG&E will shut off power when necessary to protect public safety, thereby making SDG&E's proposed revisions to Tariff Rule 14 superfluous.

9. There is no evidence that PG&E's Tariff Rule 14 was filed to implement a power shut-off program like the one proposed by SDG&E.

10. In Resolution ALJ 176-3228, dated January 29, 2009, the Commission preliminarily determined that there was a need for evidentiary hearings in this proceeding. The preliminary determination on the need for hearings was affirmed in the Scoping Memo, but the Scoping Memo also directed parties to file motions for evidentiary hearings.

11. There were no motions for evidentiary hearings.

### **Conclusions of Law**

1. A.08-12-021 should be denied without prejudice because SDG&E has not met its burden to demonstrate that (i) its Power Shut-Off Plan will decrease the number of wildfires, and (ii) the benefits of its Power Shut-Off Plan outweigh the significant costs, burdens, and risks imposed on customers and communities in the areas where power is shut off under the Plan.

2. SDG&E has authority under §§ 451 and 399.2(a) to shut off power in emergency situations when necessary to protect public safety. Any decision by SDG&E to shut off power may be reviewed by the Commission pursuant to its broad jurisdiction regarding the safety of public utility operations and facilities.

3. Any future application filed by SDG&E to implement a power shut-off program should address the deficiencies of A.08-12-021 that are identified in today's decision.

4. Because today's decision does not authorize SDG&E to implement its Power Shut-Off Plan, there is no need to (i) adopt SDG&E's proposed revisions to Tariff Rule 14, or (ii) decide if the proposed revisions would permit SDG&E to shut off power under the circumstances described in its Power Shut-Off Plan.

5. PG&E's Tariff Rule 14 was filed to implement direct access and, therefore, does not constitute a reasonable precedent for revising SDG&E's Tariff Rule 14 for the purpose of implementing a power shut-off program.

6. SDG&E's proposed revisions to Electric Tariff Rule 14 should be denied.

7. There is no need for evidentiary hearings in this proceeding. This changed determination on the need for hearings should be approved by the Commission in accordance with Rule 7.5 of the Commission's Rules of Practice and Procedure.

8. The following Order should be effective immediately.

**O R D E R**

**IT IS ORDERED** that:

1. San Diego Gas & Electric Company's (SDG&E) Application (A.) 08-12-021 is denied without prejudice. Any future application filed by SDG&E to implement a power shut-off program shall address the deficiencies of A.08-12-021 that are identified in the body of today's decision.
2. There is no need for evidentiary hearings in this proceeding.
3. Application 08-12-021 is closed.

This Order is effective today.

Dated \_\_\_\_\_, at San Francisco, California.

Appendix A: Map of the 2009 Power Shut-Off Areas



