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

Application of San Diego Gas & Electric Company (U902E) for Authorization to Recover Costs Related to the 2007 Southern California Wildfires Recorded in the Wildfire Expense Memorandum Account (WEMA).

Application 15-09-010

**DECISION DENYING APPLICATION**

**Table of Contents**

<b>Title</b>	<b>Page</b>
DECISION DENYING APPLICATION.....	1
Summary .....	2
1. Factual Background.....	2
2. Procedural Background .....	3
3. Legal Standards Applied.....	9
4. Discussion and Analysis.....	11
4.1. Witch Fire .....	11
4.1.1. Witch Fire Background .....	11
4.1.2. SDG&E’s Position on its Operation and Management of its Facilities Prior to the Witch Fire .....	15
4.1.3. ORA’s Position on SDG&E’s Operation and Management of its Facilities Prior to the Witch Fire .....	21
4.1.4. Intervenors’ Position on SDG&E’s Operation and Management of its Facilities Prior to the Witch Fire .....	24
4.1.5. Reasonableness Review: SDG&E’s Operation and Management of its Facilities Prior to the Witch Fire .....	27
4.2. Guejito Fire .....	29
4.2.1. Guejito Fire Background.....	29
4.2.2. SDG&E’s Position on its Operation and Management of its Facilities Prior to the Guejito Fire .....	31
4.2.3. ORA’s Position on SDG&E’s Operation and Management of its Facilities Prior to the Guejito Fire .....	33
4.2.4. Reasonableness Review: SDG&E’s Operation and Management of its Facilities Prior to the Guejito Fire.....	35
4.3. Rice Fire .....	36
4.3.1. Rice Fire Background .....	36
4.3.2. Legal Requirements.....	37
4.3.3. Issues and Party Positions .....	38
4.3.3.1. FF1090’s Inspection and Trimming Schedule .....	38
4.3.3.2. FF1090’s latent defect and the issue of Reliability Trees .....	40
4.3.4. Discussion .....	41
4.3.4.1. SDG&E’s Tree Inspection and Trimming Schedule..	42
4.3.4.2. FF1090’s Latent Defect and the Issue of Reliability Trees .....	47
4.4. Commission Precedent.....	49

**Table of Contents**

<b>Title</b>	<b>Page</b>
4.5. Wind and Weather Conditions in October 2007.....	55
4.6. Reconsideration of Threshold Issues.....	61
5. Conclusion.....	61
6. Intervenor Compensation.....	64
7. Comments on Proposed Decision.....	64
8. Assignment of Proceeding.....	65
Findings of Fact.....	65
Conclusions of Law.....	69
ORDER.....	72

## DECISION DENYING APPLICATION

### Summary

This decision finds that San Diego Gas & Electric Company did not reasonably manage and operate its facilities prior to the 2007 Southern California Wildfires and therefore denies the utility's request to recover costs recorded in its Wildfire Expense Memorandum Account. Because we deny this application on its merits, the issue preliminarily scoped for phase two of this proceeding is moot.

This proceeding is closed.

### 1. Factual Background

Beginning on October 21, 2007, a fire storm ripped through portions of Southern California. This fire storm, which was comprised of more than a dozen fires, spread over portions of Orange, San Diego, Los Angeles, San Bernardino, Ventura, Santa Barbara, and Riverside counties. These wildfires caused extensive damage to properties in the region, widespread evacuations, and fatalities.<sup>1</sup> Investigative reports issued in the aftermath of the 2007 wildfires by the California Department of Forestry and Fire Protection (Cal Fire) and the Commission's Consumer Protection and Safety Division (CPSD) (now the Safety and Enforcement Division), attributed the ignition of three of these wildfires to San Diego Gas & Electric Company (SDG&E) facilities. These three fires, the Witch, Guejito and Rice wildfires (2007 Wildfires), are the subject of the instant proceeding.

On September 25, 2015, SDG&E filed Application (A.) 15-09-010 seeking Commission approval to recover \$379 million recorded in its Wildfire Expense

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<sup>1</sup> Application (A.) 15-09-010 at 2.

Memorandum Account (WEMA). The WEMA is an account established per Resolution E-4311, to track costs associated with the Witch, Guejito, and Rice wildfires. The \$379 million represents a portion of the total \$2.4 billion in costs and legal fees incurred by SDG&E to resolve third-party damage claims arising from the Witch, Guejito and Rice Wildfires.<sup>2</sup> When translated into typical residential rates, the WEMA costs would lead to an increase of \$1.67 per month when amortized over six years.

## **2. Procedural Background**

The 2007 Wildfires were the subject of two prior proceedings before the Commission. Investigation (I.) 08-11-007<sup>3</sup> concluded with Decision (D.) 10-04-047, which approved a settlement agreement between the Commission's CPSD and SDG&E. Pursuant to the settlement agreement, SDG&E paid penalties (\$14.75 million) but did not admit to any safety violation or role in the cause of the 2007 wildfires.<sup>4</sup> Subsequently, SDG&E, alongside Southern California Gas Company and Pacific Gas and Electric Company, filed A.09-08-020 to seek authority to establish a Wildfire Expense Balancing Account (WEBA) to record future recovery costs associated with the 2007 Wildfires. D.12-12-029 ultimately denied the utilities' request to open the WEBA.<sup>5</sup>

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<sup>2</sup> A.15-09-010 at 1. Portions of the \$2.4 billion were recovered from liability insurance coverage (\$1.1 billion) and settlement payments from third parties (Cox Communications and three contractors totaling \$824 million). Other portions of the costs were allocated to Federal Energy Regulatory Commission jurisdictional rates. In addition, SDG&E proposes to voluntarily contribute \$42 million. (*Id.* at 7.)

<sup>3</sup> Investigation on the Commission's own Motion into the Operations and Practices of SDG&E Regarding the Utility Facilities linked to the Witch and Rice Fires in 2007.

<sup>4</sup> D.10-04-047 at 5.

<sup>5</sup> Ordering Paragraph 1 of D.12-12-029.

D.12-12-029 additionally ordered the memorandum accounts (WEMA), authorized by Commission Resolution E-4311, to remain open pending a reasonableness review<sup>6</sup> in an appropriate proceeding.<sup>7</sup> Following this order, SDG&E filed A.15-09-010 on September 25, 2015.

Between October 23 and October 30, 2015, protests were timely filed and served by San Diego Consumers' Action Network (SDCAN), the Utility Consumers' Action Network (UCAN), The Utility Reform Network, Center for Accessible Technology (TURN/CforAT), Protect Our Communities Foundation (POC), Office of Ratepayer Advocates (ORA), and Mussey Grade Road Alliance (MGRA). TURN/CforAT argued that the proceeding should be phased, with the first phase addressing whether SDG&E had prudently managed its facilities and operations and the second phase addressing the reasonableness of the and timing of the amounts requested.<sup>8</sup> Under this proposal, Phase 2 would only be reached if it was determined that SDG&E had prudently managed its facilities. Ruth Henricks (Henricks) filed and served a Motion for Party Status on October 2, 2015 that was subsequently granted.

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<sup>6</sup> There is usually a significant distinction between a balancing account and a memorandum account as used by the Commission. Both accounts are typically employed to ensure the accurate recovery of the actual cost of a regulatory program. The goal is to avoid the risk of over- or under-recovery in retail rates of reasonably incurred program costs. Balancing accounts have an associated expectation of recovery. They have been pre-authorized by the Commission, and it is the amounts -- and not the creation of the accounts themselves -- that the Commission reviews for reasonableness. Memorandum accounts, in contrast, are accounts in which the utilities record amounts for tracking purposes. While the utilities may later ask for recovery of the amounts in those accounts, recovery is not guaranteed. *See* D.03-06-013 at 4-5.

<sup>7</sup> Ordering Paragraph 2 of D.12-12-029.

<sup>8</sup> TURN/CforAT Protest at 4.

In its November 9, 2015 reply, SDG&E opposed phasing A.15-09-010 and the protestors' request to incorporate the record from the prior proceedings as part of the record for the instant proceeding. Additionally, SDG&E stated that the reasonableness standard should only be applied to: (1) its decision to pursue the settlement of the claims stemming from the 2007 Wildfires litigation; (2) the process SDG&E employed in settling the claims; and (3) its efforts in reducing the costs.<sup>9</sup>

On February 19, 2016, a Joint Proposed Schedule was served by MGRA, ORA, POC, Henricks, SDCAN, TURN, and UCAN (collectively, the Joint Intervenors). The Joint Proposed Schedule requested that A.15-09-010 be litigated in phases as proposed by TURN/CforAT, and that parties be provided with the opportunity to brief certain threshold legal and policy issues in relation to the appropriateness of the rate recovery.

The assigned Administrative Law Judge (ALJ) convened a prehearing conference on February 22, 2016. Subsequently the assigned Commissioner issued a Scoping Memorandum and Ruling (Scoping Ruling) on April 11, 2016.

The Scoping Ruling implemented a two-phase approach for this proceeding with a separate reasonableness review for each phase. Phase 1 was to address whether any threshold legal issues raised by the Joint Intervenors should be a bar to the application and prudent operation of the facilities. Specifically, Phase 1 was scoped as:

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<sup>9</sup> SDG&E Reply at 3; Scoping Ruling at 3.

- (1) Whether any of the Threshold Issues<sup>10</sup> serves as a bar to recovery; and
- (2) Whether SDG&E's operation, engineering and management the facilities alleged to have been involved in the ignition of the fires was reasonable and prudent. Each of the three fires should be addressed separately.<sup>11</sup>

The Scoping Ruling stated that prior Commission decisions indicate that a reasonableness standard should entail a review of the prudence of SDG&E's actions leading up to the fire. The Scoping Ruling specifically referenced D.14-06-007 in which the Commission held that for costs to be found reasonable, the utility must prove that they were:

prudently incurred by competent management exercising the best practices of the era, and using well-trained, well-informed and conscientious employees who are performing their jobs properly...[T]he Commission can and must disallow those costs: that is unjust and unreasonable costs must not be recovered in rates from ratepayers.<sup>12</sup>

The Scoping Ruling further stated that this standard is consistent with the Commission's obligation under Pub. Util. Code § 451 to ensure that resulting rates will be just and reasonable and that service is provided in a safe manner.

Opening briefs on Threshold Issues were filed by SDG&E, ORA and UCAN on May 11, 2016. On May 26, 2016, Reply briefs were filed by SDG&E

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<sup>10</sup> The Threshold Issues are: Whether rate recovery would create a moral hazard . . . the fairness of imposing rate increases on San Diego customers, particularly those who were already victims of the fires . . . , and whether SDG&E has already been compensated for such risks in its rates and whether it warrants special recovery outside of the normal general rate case process . . . : (Scoping Ruling at 6 citing the Joint Intervenors Joint Proposed Schedule).

<sup>11</sup> Scoping Ruling at 6.

<sup>12</sup> Scoping Ruling at 6 citing D.14-06-007 at 31.

and UCAN. The assigned ALJ reviewed the arguments posed by the intervening parties to dismiss the application on the basis of the Threshold Issues as a motion for summary judgment. On August 11, 2016, the assigned ALJ issued a ruling against the intervening parties and confirming the procedural schedule set forth in the Scoping Ruling. The August 11, 2016 ruling allowed for the re-consideration of the arguments in the briefs after the development of an evidentiary record.<sup>13</sup>

If the proceeding was not dismissed during the first phase, the second of A.15-0-010 would have the Commission consider whether SDG&E's actions and decision making in connection with settling of legal claims and costs in relation to the wildfires were reasonable.<sup>14</sup>

In October 2016, this proceeding was reassigned to ALJ S. Pat Tsen and ALJ Pro Tem Sasha Goldberg. Following this reassignment, ORA filed a motion for change of venue, which was ultimately denied.<sup>15</sup> In accordance with the procedural schedule set by the Scoping Ruling, the newly assigned ALJs and Commissioner scheduled and held two Public Participation Hearings (PPHs) in Escondido, California, on January 9, 2017.<sup>16</sup> Over 200 residents of San Diego County attended the PPHs, as well as several local news outlets.

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<sup>13</sup> Ruling Confirming Procedural Schedule Following Briefs on the Threshold Issues, August 11, 2016 at 4.

<sup>14</sup> *Id.* at 5.

<sup>15</sup> Administrative Law Judges' Ruling Denying the Office of Ratepayer Advocates' Motion to Change Venue (December 21, 2016).

<sup>16</sup> Administrative Law Judges' Ruling Setting Public Participation Hearings (November 11, 2016).

Evidentiary Hearings for Phase 1 of this proceeding were held at the Commission's San Francisco hearing rooms the week of January 23, 2017. In response to requests from SDG&E and ORA, the assigned ALJs issued a ruling on February 10, 2017 modifying the post-hearing briefing schedule for Phase 1. In addition to modifying due date(s) for briefs, this ruling directed parties to obtain confirmation that the Cal Fire investigative reports on the 2007 Wildfires were in fact final and/or closed.<sup>17</sup>

On March 17, 2017, ORA served an affidavit from the Unit Chief for Cal Fire's MVU Unit affirming that Cal Fire considers the investigative reports into the 2007 Wildfires final, with no plans to re-open or supplement any of these investigations.<sup>18</sup> Opening briefs for Phase 1 were filed and served on March 24, 2017 by SDG&E, ORA, SDCAN, UCAN, POC, and Henricks. Reply briefs were filed and served on April 14, 2017 by SDG&E, ORA, MRGA, UCAN, and SDCAN. The record for Phase 1 of this proceeding was submitted<sup>19</sup> for Commission consideration on July 6, 2017 after Henricks filed a motion to accept the late filing of Henricks' Opening Brief.

On August 22, 2017 a proposed decision (PD) denying SDG&E's recovery in this proceeding was served on the service list to A.15-09-010. Opening comments on the PD were filed on September 11, 2017, along with motions by Pacific Gas and Electric Company (PG&E) and Southern California Edison Company (SCE) for party status. The filing of motions by PG&E and SCE at this

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<sup>17</sup> Ruling Administrative Law Judges' Ruling Modifying Procedural Schedule and Requiring Supplemental Information at 4.

<sup>18</sup> ORA Response regarding Cal Fire Affidavit (March 17, 2017).

<sup>19</sup> Rules of Practice and Procedure, Rule 13.14(a).

late juncture triggered responses from the intervenors and ORA in this proceeding. After evaluating the motions and responses, the assigned ALJs granted PG&E and SCE limited party status<sup>20</sup> on September 26, 2017. This limited party status gave PG&E and SCE the opportunity to comment on the legal issue of inverse condemnation. PG&E and SCE filed joint comments on the issue of inverse condemnation on October 4, 2017. SDG&E, ORA, POC, UCAN and MGRA filed replies to the joint comments on October 11, 2017.

In addition to the comment period for inverse condemnation, on September 18, 2017, the assigned ALJs noticed an All Party Meeting. The All Party Meeting, held by Commissioner Liane Randolph, took place in Chula Vista, California, immediately after the conclusion of the September 28, 2017 Commission Meeting. The All Party meeting provided parties with the opportunity to address the Commission. Participants in the All Party Meeting included SDG&E, PG&E, SCE, ORA, MGRA, POC, SDCAN, Henricks, and UCAN.

Due to the scheduling of the All Party Meeting, and building in time for replies to PG&E and SCE's comments on inverse condemnation, the statutory deadline for this proceeding was extended by D.17-09-038 to April 11, 2018.

### **3. Legal Standards Applied**

The appropriate standard in a ratesetting matter is preponderance of the evidence.<sup>21</sup> As the Applicant, SDG&E bears the burden of proof. Preponderance of the evidence usually is defined "in terms of probability of truth, e.g., 'such

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<sup>20</sup> See A.15-09-010 E-mail Ruling Granting Limited Party Status to Southern California Edison Company; A.15-09-010 E-mail Ruling Granting Limited Party Status to PG&E.

<sup>21</sup> D.16-12-063 at 9, citing D.12-12-030 at 44.

evidence, when weighed with that opposed to it, has more convincing force and the greater probability of truth’.”<sup>22</sup> In short, SDG&E must present more evidence that supports the requested result than would support an alternative outcome.

The Commission’s standard for reasonableness reviews, reaffirmed in a series of decisions, is as follows:

The term reasonable and prudent means that at a particular time any of the practices, methods and acts engaged in by a utility follows the exercise of reasonable judgment in light of the facts known or which should have been known at the time the decision was made. The act or decision is expected by the utility to accomplish the desired result at the lowest reasonable cost consistent with good utility practices. Good utility practices are based upon cost effectiveness, safety and expedition.<sup>23</sup>

We have analyzed SDG&E’s management and operation of its facilities prior to the ignition of the Witch, Guejito and Rice Wildfires within the rubric of the Commission’s prudent manager standard. In comments to the proposed decision, SDG&E contends that the Commission is imposing a perfection standard. That is not the case. Our decision today analyzes the Witch, Guejito, and Rice fires separately, taking into account extensive records submitted by the parties, industry practice in 2007, and contemporaneous information available to SDG&E at the time of the separate ignitions. Each analysis is fact specific and has been reached after careful consideration of the record. Contrary to SDG&E’s assertion, holding utilities accountable under the reasonable and prudent manager standard in no way imposes a standard of perfection. The Commission

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<sup>22</sup> D.12-12-030 at 42, *aff’d* D.15-07-044 at 28-30.

<sup>23</sup> 24 CPUC 2d 476, 486.

was prepared in this case, as it will in the future, to find SDG&E's conduct is reasonable and prudent, if the facts warrant such a conclusion.

#### **4. Discussion and Analysis**

In this section, the Commission analyzes the Witch, Guejito, and Rice fires separately and determines SDG&E's prudence in managing its facilities. As the Applicant seeking recovery, SDG&E must affirmatively satisfy the Commission that it acted prudently. We weigh evidence presented by SDG&E that it acted prudently, against evidence presented by the intervenors that SDG&E did not act prudently. In each analysis, we find SDG&E to have failed its burden of proof to show by a preponderance of the evidence, that it complied with the Commission's prudent manager standard.

##### **4.1. Witch Fire**

###### **4.1.1. Witch Fire Background**

The Witch Fire, which later merged with the Guejito Fire, was the second largest fire to occur in San Diego County in 2007.<sup>24</sup> The SDG&E facility involved in the ignition of the Witch Fire was Tie Line (TL) 637.<sup>25</sup> TL 637 is a 69 kilovolt (kV) transmission line that connects the Santa Ysabel and Creelman substations.<sup>26</sup> TL 637 is approximately 14 miles long and runs along a remote backcountry section of San Diego County.<sup>27</sup>

Although there were no eyewitnesses to the ignition of the fire, the Cal Fire investigator determined that a fault on TL 637 between poles Z416675 and

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<sup>24</sup> ORA-01 at 6.

<sup>25</sup> SDGE-11-A at 2.

<sup>26</sup> *Id.*

<sup>27</sup> *Id.* at 3

Z416676 on October 21, 2007 led to arcing of the lines, which dispersed hot particles to land in the grassy field below the powerlines.<sup>28</sup> These particles were determined to have ignited the Witch Fire which was then spread by wind.<sup>29</sup> There was a Red Flag Warning<sup>30</sup> in place at 4:45 a.m., prior to the Witch Fire’s ignition on October 21, 2007.<sup>31</sup>

The following chart depicts a timeline of the events occurring the day of the Witch Fire ignition:

**Timeline of Events on October 21, 2007 on TL 637<sup>32</sup>**

Time	Description of Event
<b>8:53 a.m.</b>	<b>Fault 1 occurred on TL 637</b>
9:05 a.m. and 9:08 a.m.	The Transmission System Operator dispatched Electric Troubleshooters to either end of TL 637(Santa Ysabel and Creelman substations) to gather additional information about the 8:53 a.m. fault
9:30 a.m.	SDG&E’s Grid Operations were responding to the Harris Fire which burned in southern San Diego County near the vicinity of SDG&E’s 500 kV transmission line, the Southwest Powerlink
10:00 a.m.	Electric Troubleshooters reported back to the Transmission System Operator at Grid Operations
<i>The Troubleshooters found that the protection devices at each end of the line operated and opened the circuit breakers, which remained opened for ten seconds, and then reclosed the line, because the faults had cleared within the ten seconds The Troubleshooters learned that the faults were</i>	

<sup>28</sup> *Id.* at 3; ORA-01 at 6 to 7.

<sup>29</sup> SGDE-11-A at 3-4, citing Cal Fire Report (Witch) at 2, 14, and 19.

<sup>30</sup> ORA-01 at 45: The National Weather Service issues a Red Flag Warning “to call attention to limited weather conditions of particular importance that may result in extreme burning conditions. It is issued when it is an on-going event or the fire weather forecaster has a high degree of confidence that Red Flag criteria will occur within 24 hours of issuance.” (Citing the National Weather Service Glossary, Red Flag Warnings.)

<sup>31</sup> ORA-02-A.

<sup>32</sup> SDGE-11-A at 6-7, referencing Appendices 3 and 4 (Appendix 3 is the Operations Shift Supervisor Daily Log from October 21, 2007), (Appendix 4 is the Electric Switching Order for TL 637 on October 21, 2007).

Time	Description of Event
<i>temporary because they had cleared within 10 seconds, and so the flow of electricity was restored.<sup>33</sup></i>	
<b>11:22 a.m.</b>	<b>Fault 2 occurred on TL 637</b>
11:42 a.m.	Cal Fire requests Grid Operations to de-energize the Southwest Powerlink to allow air drops of fire retardant in the area.
12:01 p.m.	Electric Troubleshooters dispatched to the Santa Ysabel and Creelman substations
12:15 p.m.	SDG&E's Grid Operations opened the Southwest Powerlink as a Forced Outage
12:19 p.m.	Electric Troubleshooter reported back to Grid Operations from the Santa Ysabel substation that the circuit breakers had again operated and had reclosed.
<b>12:23 p.m.</b>	<b>Fault 3 occurred on TL 637</b> , while the Troubleshooters were at the Santa Ysabel and Creelman substations.
<i>Under SDG&amp;E's Transmission Monitoring &amp; Control Procedure 1100, when a line faults and immediately recloses and the cause for the trip is unknown, the line should be patrolled by either a vehicle or aurally, via a helicopter.</i>	
<b>12:29 p.m.</b>	<u>Witch Fire observed</u> by Air Tanker Pilot (according to the Cal Fire Report)
12:33 p.m.	Patrolman was sent to patrol TL 637
12:39 p.m.	Patrolman informed the Grid Operations Transmission System Operator that he would go out to patrol TL 637 in person rather than by air.
12:56 p.m.	Electric Troubleshooter reported back to Grid Operations from the Creelman substation that the circuit breakers had again operated and had reclosed.
<b>1:10 p.m.</b>	<b>Grid Operations became aware of the Witch Fire</b>
1:14 p.m.	SDG&E's Transmission Construction and Maintenance Manager rerouted a Construction Supervisor to Santa Ysabel
1:59 p.m.	SDG&E's Transmission Construction and Maintenance Manager requested that Grid Operations disable automatic reclosing on TL 637
2:01 p.m.	Grid Operations Transmission System Operator turned-off automatic reclosing at the Santa Ysabel substation
2:05 p.m.	Grid Operations Transmission System Operator requested a

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<sup>33</sup> SDGE-11-A at 7.

Time	Description of Event
	Troubleshooter be dispatched to the Creelman substation to turn-off automatic reclosing.
3:00 p.m.	An SDG&E Construction Supervisor with SDG&E's Transmission Construction and Maintenance Manager met a Cal Fire crew at the Santa Ysabel substation
<b>3:25 p.m.</b>	<b>Fault 4 occurred on TL 637</b> , automatically reclosed at the Creelman substation
3:27 p.m.	TL 637 became de-energized by the Grid Operations Transmission System Operator

A series of four faults occurred on TL 637 on October 21, 2007: the first fault at 8:53 a.m.; the second fault at 11:22 a.m.; the third fault at 12:23 p.m.; and the fourth fault at 3:25 p.m.<sup>34</sup> Cal Fire concluded that the Witch Fire ignited after the third fault occurred on TL 637 at 12:23 p.m. on October 21, 2007 because an Air Tanker Pilot first observed the fire at 12:29 p.m.<sup>35</sup> SDG&E Grid Operations became aware of the Witch Fire at 1:10 p.m., and de-energized TL 637 after the fourth fault at 3:27 p.m.<sup>36</sup>

Ultimately, the Witch Fire led to the destruction of 1,141 homes, 509 outbuildings, and 239 vehicles.<sup>37</sup> Once combined with the Guejito Fire, the Witch Fire burned a total of 197,990 acres.<sup>38</sup> The combination of the Witch and Guejito Fires led to two fatalities and injured 40 firefighters.<sup>39</sup>

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<sup>34</sup> SDGE-11-A at 6 to7.

<sup>35</sup> SDGE-11-A at 6 to 7.

<sup>36</sup> SDGE-11-A at 6 to 7.

<sup>37</sup> ORA-01 at 7, citing Cal Fire Report (Witch) at 2.

<sup>38</sup> *Id.*

<sup>39</sup> *Id.*

#### **4.1.2. SDG&E's Position on its Operation and Management of its Facilities Prior to the Witch Fire**

SDG&E maintains that its operation and management of its facilities linked to the Witch Fire prior to October 21, 2007 were reasonable.<sup>40</sup> SDG&E supports its position by claiming: (1) SDG&E's response to the faults along TL 637 was reasonable given the information available at the time of the faults; (2) SDG&E's recloser policy was reasonable and prudent; and (3) the Witch Fire was not foreseeable.<sup>41</sup>

##### **SDG&E's Response to Faults along TL 637**

SDG&E maintains that the facts surrounding the Witch Fire do not show that SDG&E acted unreasonably or imprudently in its response to the four faults occurring along TL 637 on October 21, 2007.<sup>42</sup> SDG&E does not dispute the fact that its facilities were directly involved in the ignition of the Witch Fire, SDG&E put forth Mr. Ali Yari (Mr. Yari), SDG&E's Director of Electric Grid Operations, to testify as to SDG&E's reasonable and prudent monitoring of the faults along TL 637.<sup>43</sup>

First, SDG&E contends that its actions and response to the faults occurring along TL 637 were reasonable given the information it had available in real time on October 21, 2007.<sup>44</sup> Mr. Yari testified that in 2007, SDG&E did not have the capability to determine in real-time the exact location of the faults occurring

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<sup>40</sup> SDG&E Phase 1 Opening Brief at 30.

<sup>41</sup> SDG&E Phase 1 Reply Brief at 30 to 31.

<sup>42</sup> SDG&E Phase 1 Reply Brief at 37.

<sup>43</sup> SDGE-11-A at 1.

<sup>44</sup> SDG&E Phase 1 Reply Brief at 37.

along the 14-mile stretch of TL 637.<sup>45</sup> SDG&E maintains that the relay equipment at the substation stores voltage and current information, and not specific fault locations.<sup>46</sup> Mr. Yari testified that it would have taken at least one hour to get the protection engineer in a position to dial into the relay, plus about 30 additional minutes to download and process the information.<sup>47</sup> SDG&E asserts that this need for engineering intervention to analyze the data stored in the relay showed that SDG&E acted prudently in responding to the faults on TL 637.<sup>48</sup> SDG&E contends its response to the faults along TL 637 was reasonable because its interpretation of the data stored in the relay along TL 637 was both analytical and appropriate, given the standards in 2007.<sup>49</sup>

Second, SDG&E maintains its Grid Operations' response time to inspect TL 637 was reasonable given the threat to the Southwest Powerlink on October 21, 2007.<sup>50</sup> In his direct testimony, Mr. Yari explains how the threat of the Harris Fire to the Southwest Powerlink impacted SDG&E's monitoring of TL 637. Mr. Yari notes, the threat to the Southwest Powerlink "was a major event consuming SDG&E resources - including the attention of Grid Operations personnel and the resources available to conduct patrols....SDG&E was particularly concerned about the outage of this major transmission line since it was essential to grid stability across Southern California....SDG&E was also

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<sup>45</sup> *Id.*

<sup>46</sup> *Id.* at 41.

<sup>47</sup> SDG&E Phase 1 Reply Brief at 43.

<sup>48</sup> *Id.* at 42.

<sup>49</sup> *Id.*

<sup>50</sup> *Id.* at 37, SDGE-11-A at 1-13.

taking seriously the faults on TL 637 but there was no indication of any kind of emergency...since faults are not particularly unusual on a windy day...”<sup>51</sup>

SDG&E maintains that even though its Grid Operations de-energized the Southwest Powerlink at 12:15 p.m., Grid Operations was appropriately monitoring the faults along TL 637.<sup>52</sup> SDG&E argues that its dispatch of troubleshooters to investigate the faults on TL 637 was all that was required to be reasonable.<sup>53</sup>

Third, SDG&E argues that, because it had not previously experienced fires related to transmission lines coming into contact with one another, SDG&E’s level of concern about the faults along TL 637 was appropriate.<sup>54</sup> Through Mr. Yari, SDG&E stressed that conductor-to-conductor activity is “relatively rare” and on windy days a fault is not unusual given the potential for debris to come into contact with a conductor.<sup>55</sup> Because of this “relatively rare” activity, SDG&E asserts it was reasonable not to suspect that hot particles were being emitted from the activity along TL 637.<sup>56</sup>

As such, SDG&E maintains that its monitoring of the faults on TL 637 was reasonable and prudent.

### **SDG&E’s Recloser Policy**

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<sup>51</sup> SDGE-11-A at 9.

<sup>52</sup> *Id.*

<sup>53</sup> SDG&E Phase 1 Reply Brief at 37 to 38.

<sup>54</sup> SDG&E Phase 1 Reply Brief at 38, citing SDGE-11-A at 15-16.

<sup>55</sup> *Id.* and SDGE-11-A at 8.

<sup>56</sup> SDGE-11-A 8 to 9.

SDG&E asserts its recloser policy<sup>57</sup> in effect on October 21, 2007 as both reasonable and prudent.<sup>58</sup> SDG&E maintains ORA fails to show how SDG&E's awareness of the 2001 Power Line Fire Prevention Field Guide (2001 Field Guide) put SDG&E on notice of the risks of its recloser policy prior to October 2007. SDG&E notes the 2001 Field Guides' excerpt, "automatic reclosers re-energizing the line into the fault may cause repeated arcing and increase the probability of igniting vegetation," does not show SDG&E's imprudence in utilizing its recloser policy in response to the faults along TL 637.<sup>59</sup> SDG&E asserts that even if it were possible to turn off TL 637's automatic reclosers after the second fault, such an action would not have avoided the Witch Fire's ignition.<sup>60</sup> Moreover, Mr. Yari testified that disabling automatic reclosers after the second fault would have been imprudent "given the important of keeping [TL 637] in service to serve the

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<sup>57</sup> SDG&E Recloser Policy: Similar to all electric utilities across the country, SDG&E uses protection devices on all of its transmission lines to ensure that the electric system detects and responds to fault activity and isolates the faulted line. Those protection devices measure currents and voltages and detect any abnormal system conditions or faults, on the associated lines. If a transmission system line faults, the protective relays operate to open the circuit breakers (de-energizing the line), and the circuit breakers remain open for ten seconds before the reclosers attempt to reclose them. If the circuit breakers do not reclose successfully, which would indicate that the fault has not cleared after 10 seconds, the recloser "locks out" and prevents further automatic reclose attempts. If the circuit breakers reclose successfully, the circuit is restored. As an additional protection, even if the circuit breakers reclose successfully after 10 seconds, the recloser will lockout if the lines faults again within 120 second of the initial fault. If no additional faults occur within that 120-second period, the recloser resets. ORA-18 at 2, citing Geier Testimony Excerpts (I.08-11-006).

<sup>58</sup> SDG&E Phase 1 Reply Brief at 49.

<sup>59</sup> SDG&E Phase 1 Reply Brief at 49 to 50.

<sup>60</sup> SDG&E Phase 1 Reply Brief at 50.

backcountry during a very windy day” and that the recloser policy was industry practice.<sup>61</sup>

### **Foreseeability of Witch Fire**

SDG&E maintains that the facts surrounding the Witch Fire do not show that SDG&E acted unreasonably or imprudently based on what SDG&E knew at the time.<sup>62</sup> More specifically, SDG&E argues that Henricks, MGRA, UCAN and POC fail to show how the Witch Fire was foreseeable.<sup>63</sup>

First, SDG&E put forth Mr. David Geier (Mr. Geier) to testify as to SDG&E’s fire preparedness in 2007.<sup>64</sup> Mr. Geier, SDG&E’s Vice President of Electric Transmission and System Engineering, discussed the 2003 Wildfires<sup>65</sup> in his direct testimony and the steps SDG&E took in the aftermath of the 2003 Wildfires to reduce the risk of wildfires in its service territory.<sup>66</sup> Mr. Geier explained how post-2003 SDG&E focused on improving the integrity and reliability of the utility’s transmission and distribution systems, especially in the areas subject to the extreme Santa Ana winds.<sup>67</sup> Through Mr. Geier, SDG&E showed that it created a full-time fire coordinator position to provide training to its employees on fire risk, in addition to creating a database to track fire causes

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<sup>61</sup> SDG&E Phase 1 Reply Brief at 51, citing Reporter’s Transcript Volume 3 at 384.

<sup>62</sup> SDG&E Phase 1 Reply Brief at 30 to 31.

<sup>63</sup> SDG&E Phase 1 Reply Brief at 30.

<sup>64</sup> SDG&E Phase 1 Reply Brief at 31.

<sup>65</sup> SDGE-05 at 15, 2003 Wildfires: In San Diego County alone, the 2003 Wildfires burned over 400,000 acres, destroyed more than 2,400 homes, and caused extensive damage to SDG&E facilities.

<sup>66</sup> SDG&E Phase 1 Reply Brief at 31.

<sup>67</sup> SDGE-05 at 16.

and patterns.<sup>68</sup> Despite the newly created fire coordinator position and database, SDG&E maintains that there was no information available that could have been used to predict the Witch Fire ignition.<sup>69</sup>

Second, SDG&E maintains that there has not been a credible showing that there has ever been a comparable event to the 2007 Wildfires.<sup>70</sup> SDG&E contends that while the 2003 Wildfires were significant, the 2007 Wildfires happened under different circumstances.<sup>71</sup> Specifically, SDG&E contends that the 2007 Wildfires involved over a dozen major fires igniting over a short period of time, including ignitions to powerlines, which was not the case in 2003.<sup>72</sup> Accordingly, SDG&E maintains there was no way to have foreseen what occurred in October 2007 based on historical data.<sup>73</sup>

Third, SDG&E contends that the Witch Fire was not foreseeable because SDG&E designed, engineered, maintained and inspected TL 637 in compliance with the Commission's industry standards.<sup>74</sup> General Order (GO) 95 requires that all infrastructure be designed, constructed, rebuilt and maintained to account for known local conditions.<sup>75</sup> And while MGRA and other intervenors have raised SDG&E's compliance with GO 95 in regards to the foreseeability of the Witch Fire, SDG&E maintains those arguments fail to discredit SDG&E's

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<sup>68</sup> SDGE-05 at 16.

<sup>69</sup> SDG&E Phase 1 Reply Brief at 32 citing SDGE-12 at 25.

<sup>70</sup> SDG&E Phase 1 Reply Brief at 32.

<sup>71</sup> SDG&E Phase 1 Reply Brief at 32.

<sup>72</sup> SDG&E Phase 1 Reply Brief at 32.

<sup>73</sup> SDG&E Phase 1 Reply Brief at 33.

<sup>74</sup> SDG&E Phase 1 Reply Brief at 33.

<sup>75</sup> MGRA Phase 1 Reply Brief at 8.

showings of compliance and prudence.<sup>76</sup> Specifically, SDG&E asserts MGRA fails to show how rebuilding TL 637 to a higher wind loading standard would have prevented the Witch Fire.<sup>77</sup>

As such, SDG&E maintains that its operation and management of TL 637 was reasonable.

#### **4.1.3 ORA's Position on SDG&E's Operation and Management of its Facilities Prior to the Witch Fire**

ORA maintains that SDG&E has not shown by a preponderance of the evidence that SDG&E's operation and management of its facilities prior to the ignition of the Witch Fire were reasonable.<sup>78</sup> ORA argues that SDG&E's response to the faults occurring on TL 637 was unreasonable.<sup>79</sup> Within this argument, ORA contends: (1) the timing of SDG&E's response to the faults along TL 637 was not appropriate; and (2) SDG&E did not effectively use fault location information available at the relays in response to the faults.<sup>80</sup> ORA additionally argues that SDG&E's recloser policy in effect on October 21, 2007 imprudently increased fire risk.<sup>81</sup>

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<sup>76</sup> SDG&E Phase 1 Reply Brief at 33.

<sup>77</sup> SDG&E Phase 1 Reply Brief at 33.

<sup>78</sup> ORA Phase 1 Reply Brief at 13.

<sup>79</sup> *Id.*

<sup>80</sup> *Id.*

<sup>81</sup> ORA Phase 1 Reply Brief at 28.

### **SDG&E's Response to Faults along TL 637**

ORA contends that SDG&E has not shown it acted prudently in connection to the ignition of the Witch Fire.<sup>82</sup> ORA maintains SDG&E's failure to use fault location information effectively demonstrates that the utility failed to act reasonably regarding the faults along TL 637.<sup>83</sup>

First, ORA maintains that SDG&E should have responded sooner to investigate the faults occurring on TL 637 on the morning of October 21, 2007.<sup>84</sup> ORA points to SDG&E's dispatch of troubleshooters in support of this argument: "the dispatch time for the second trip was almost four times as long as for the first trip that occurred less than three hours before. Multiple line trips of TL 637 in a single day should have been a concern to the utility, especially since this was a rare event that had occurred only 9 times in the previous 24 years."<sup>85</sup> ORA argues that SDG&E's response time was slow, noting that over 6 hours passed from the time of the initial fault on TL 637 to its de-energization.<sup>86</sup> ORA argues that SDG&E should have had the resources in place to communicate the need for patrol; and that SDG&E's failure to have resources available constituted imprudent management.<sup>87</sup> ORA maintains that this imprudent management lead to the ignition and spread of the Witch Fire.<sup>88</sup>

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<sup>82</sup> ORA Phase 1 Reply Brief at 13.

<sup>83</sup> ORA Phase 1 Reply Brief at 13.

<sup>84</sup> ORA Phase 1 Opening Brief at 10.

<sup>85</sup> *Id.* citing ORA-03 at 1-3 (TL 637 Fault History).

<sup>86</sup> ORA Phase 1 Opening Brief at 11.

<sup>87</sup> ORA Phase 1 Opening Brief at 12.

<sup>88</sup> ORA Phase 1 Opening Brief at 34.

Second, ORA maintains that SDG&E did not effectively use the fault location information it had available to respond to the faults along TL 637.<sup>89</sup> ORA contends that SDG&E could have obtained the location of faults in time to be in a better position to respond to the faults on TL 637.<sup>90</sup> Specifically, ORA refers to the following fault time and location information obtained through discovery to rebut SDG&E's argument that it could not analyze the data stored in the relay without engineering intervention.<sup>91</sup>

Fault Time	Fault Location
8:53 a.m.	2.73 miles / 2.74 miles
11:22 a.m.	2.73 miles / 2.75 miles
12:23 p.m.	2.79 miles / 2.76 miles
3:25 p.m.	2.82 miles / 2.84 miles

ORA notes that SDG&E did not retrieve the above mileage data until October 22, 2007, a day after the ignition of the Witch Fire.<sup>92</sup> Additionally, ORA highlights the testimony of Mr. Yari, that had SDG&E looked at the mileage data, it would have been in a better position to respond to the faults.<sup>93</sup> In sum, ORA asserts it was imprudent of SDG&E to not effectively use data that was available at the relays in responding to the faults. Moreover, ORA contends that had

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<sup>89</sup> ORA Phase 1 Reply Brief at 13.

<sup>90</sup> *Id.* at 17.

<sup>91</sup> ORA Phase 1 Opening Brief at 13.

<sup>92</sup> ORA Phase 1 Opening Brief at 13 to 16, referencing ORA-19.

<sup>93</sup> ORA Phase 1 Reply Brief at 17, citing Reporter's Transcript Volume 3 at 349.

SDG&E used the fault location data on October 21, 2007, rather than the day after ignition, it would have assisted SDG&E in having a quicker response time.<sup>94</sup>

### **SDG&E's Recloser Policy**

ORA maintains SDG&E's recloser policy in effect during the faults along TL 637 imprudently increased fire risk.<sup>95</sup> Under cross-examination by ORA, Mr. Geier acknowledged and essentially agreed with the 2001 Field Guide's assertion, "Automatic reclosers reenergizing the line into the fault may cause repeated arcing and increase the probability of igniting vegetation."<sup>96</sup> ORA contends this assertion put SDG&E on notice of the risks posed by automatic reclosers to ignite vegetation, as early as 2001.<sup>97</sup> ORA asserts that these risks and the fact that there was a Red Flag Warning in place on October 21, 2007, and that there were an unusual number of trips shows that SDG&E was imprudent when it did not anticipate that its facilities posed a fire risk on October 21, 2007.<sup>98</sup>

As such, ORA maintains the record established SDG&E did not act prudently on October 21, 2007.

#### **4.1.4. Intervenors' Position on SDG&E's Operation and Management of its Facilities Prior to the Witch Fire**

Many of the intervenors to this proceeding contend that SDG&E fails to prove by a preponderance of the evidence that SDG&E's operation and

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<sup>94</sup> ORA Phase 1 Opening Brief at 17.

<sup>95</sup> ORA Phase 1 Opening Brief at 28.

<sup>96</sup> Hearing Reporter's Transcript Volume 2 at 197; ORA Phase 1 Opening Brief at 29, citing ORA-20.

<sup>97</sup> ORA Phase 1 Opening Brief at 32.

<sup>98</sup> ORA Phase 1 Reply Brief at 15.

management of its facilities prior to the ignition of the Witch Fire were reasonable.<sup>99</sup> Henricks, MGRA, UCAN and POC assert that the fact that SDG&E had prior experience with catastrophic fires, renders SDG&E imprudent when SDG&E failed to adequately address the faults on TL 637.<sup>100</sup>

### **Foreseeability of Witch Fire**

Henricks, MGRA, UCAN and POC maintain that the facts show SDG&E did not operate its facilities reasonably prior to the ignition of the Witch Fire.<sup>101</sup>

Henricks asserts that SDG&E was familiar with the 2003 Wildfires, and thus was on notice that a fire could spread to the extent to which the Witch Fire spread.<sup>102</sup> Henricks highlights the testimony of SDG&E's witness Lee Schavrien (Mr. Schavrien) to show that SDG&E had knowledge of the catastrophic events linked to 2003 Wildfires.<sup>103</sup> Henricks maintains that SDG&E's knowledge of the 400,000 acres burned, 16 lives lost, and 2400 homes destroyed by the 2003 Wildfires put SDG&E on notice that such an event could occur again.<sup>104</sup> As such, Henricks maintains SDG&E did not act reasonably because the 2007 Wildfires were foreseeable.<sup>105</sup>

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<sup>99</sup> Henricks Phase 1 Opening Brief at 5.

<sup>100</sup> Henricks Phase 1 Opening Brief at 4; MGRA Phase 1 Reply Brief at 13 to 15.

<sup>101</sup> *See generally* Henricks Phase 1 Opening Brief.

<sup>102</sup> Henricks Phase 1 Opening Brief at 4.

<sup>103</sup> Henricks Phase 1 Opening Brief at 4, referencing Reporter's Transcript Volume 2 at 264 to 271.

<sup>104</sup> Henricks Phase 1 Opening Brief at 5, referencing Reporter's Transcript Volume 2 at 264 to 271.

<sup>105</sup> Henricks Phase 1 Opening Brief at 5.

MRGA argues that SDG&E fails to show it acted reasonably in its operation and management of TL 637.<sup>106</sup> MGRA contends that SDG&E fails to establish it had no reason to suspect the faults occurring along TL 637 were the result of unusual conductor to conductor contact.<sup>107</sup> More specifically, MGRA contends that had SDG&E applied SDG&E's prior knowledge of load standards and the Santa Ana wind conditions differently, the Witch Fire could have been prevented, or at the very least foreseen.<sup>108</sup>

UCAN and POC maintain that SDG&E failed to act reasonably prior to the Witch Fire's ignition because fires were foreseeable given the history in SDG&E's service territory.<sup>109</sup> Although UCAN's arguments as to wind and weather conditions are addressed in more detail in Section 4.4 of this decision (Wind and Weather Conditions in October 2007), UCAN's assertions touch on how SDG&E failed to act reasonably in regards to the Witch Fire.<sup>110</sup> UCAN contends that the Santa Ana wind conditions were a foreseeable, known local condition and SDG&E should have been prepared for the possibility that its electrical equipment might spark wildfires during a Santa Ana windstorm.<sup>111</sup> And although UCAN does not dispute the fact that SDG&E's facilities were not linked to the 2003 Wildfires, UCAN does contend that the events surrounding the 2003 Wildfires put SDG&E on notice of the fire potential years prior to the

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<sup>106</sup> MGRA Phase 1 Reply Brief at 13.

<sup>107</sup> MGRA Phase 1 Reply Brief at 15 to 16.

<sup>108</sup> MGRA Phase 1 Reply Brief at 16.

<sup>109</sup> UCAN Phase 1 Opening Brief at 3; POC Phase 1 Opening Brief at 3.

<sup>110</sup> UCAN Phase 1 Opening Brief at 3.

<sup>111</sup> UCAN Phase 1 Opening Brief at 3.

ignition of the 2007 Wildfires.<sup>112</sup> As such, UCAN maintains that SDG&E cannot prove by a preponderance of the evidence that its management and operation of its facilities prior to the ignition of the Witch Fire were reasonable.<sup>113</sup>

#### **4.1.5. Reasonableness Review: SDG&E's Operation and Management of its Facilities Prior to the Witch Fire**

In evaluating SDG&E's operation and management of its facilities in connection with the Witch Fire, the Commission must determine whether SDG&E employed reasonable judgement in its operation and management of its facilities in the period leading up to the ignition of the Witch Fire.

SDG&E's response to the faults along TL 637 was unreasonable when viewed in light of the record of this proceeding. The threat of the Harris Fire to the Southwest Powerlink, does not excuse SDG&E's failure to monitor the faults on TL 637. The fact that there are other wind related wildfires in the area should put a prudent manager on notice to anticipate wind related events to its facilities. Also, in the 24 year history of FL 637, there were only nine days with multiple faults. While compliance with industry practice is relevant to our reasonableness review, SDG&E must also show it acted reasonably in light of the circumstances at the time. The Red Flag Warning indicating high wind conditions, other fires in the vicinity, the request by Cal Fire to de-energize another transmission line, and three faults over a period of 3.5 hours, all alerted SDG&E to the potential for fires and should have caused SDG&E to act more proactively on

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<sup>112</sup> UCAN Phase 1 Opening Brief at 3.

<sup>113</sup> UCAN Phase 1 Reply Brief at 5.

October 21, 2007.<sup>114</sup> Mr. Yari testified it would take 1.5 hours for a protective engineer and computer to calculate the exact location of the fault(s) on TL 637. Had SDG&E de-energized TL 637 or sent a protective engineer out to either end of TL 637 before the third fault occurred, it may have prevented the third fault from igniting the Witch Fire at 12:23 p.m. Moreover, it would have been more reasonable for SDG&E to send a protective engineer to calculate the fault mileage information on the date the faults occurred and the fire ignited.

While SDG&E's recloser policy was industry practice, it knew as early as 2001 that automatic reclosers energizing into the fault may cause arcing and increase fire risk. SDG&E fails to show how it was reasonable for its Grid Operations to take 6.5 hours to de-energize TL 637 after the initial 8:53 a.m. fault. This 6.5 hour lapse does not show that SDG&E was engaged in reasonable utility practice. It would have been more reasonable to force an outage before the Witch Fire ignited at 12:23 p.m. However, the fact that SDG&E did not de-energize TL 637 until 3:27 p.m., does not show how SDG&E acted reasonably in its decision to not de-energize the line immediately at 1:10 p.m. Even though SDG&E management was aware of the 2001 Field Guide's assertion that automatic reclosers increase the risk to ignite vegetation, SDG&E still failed to take more proactive steps to prevent the Witch Fire's ignition.

There were multiple events happening on October 21, 2007 which show SDG&E was unreasonable not to foresee the Witch Fire or to assert now that that it was not foreseeable. The Red Flag Warning in effect on October 21 2007 coupled with the 9:30 a.m. ignition of the Harris Fire put SDG&E on notice that

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<sup>114</sup> ORA-01 at 10:13-15; ORA-03 at 1-3.

wind and weather could cause the ignition of another fire in its territory on October 21, 2007. The four faults on a line that did not have a history of faults combined with SDG&E's knowledge of the destruction caused by the 2003 Wildfires, including the Cedar Fire, contradicts the argument that the Witch Fire was unforeseeable.

As such, SDG&E fails to prove by a preponderance of the evidence that it acted prudently in its operation and management of its facilities linked to the ignition of the Witch Fire.

## **4.2. Guejito Fire**

### **4.2.1. Guejito Fire Background**

The Guejito Fire was first reported by Cal Fire at 01:00 on October 22, 2007 near the City of Escondido, in San Diego County.<sup>115</sup> The SDG&E facility involved in the ignition of the Guejito Fire was a 12 kV overhead conductor. CPSD and Cal Fire attributed the ignition of the Guejito Fire to a Cox Communications (Cox) lashing wire coming into contact with an SDG&E 12 kV overhead conductor, between SDG&E poles P196387 and P196394.<sup>116</sup> The SDG&E conductors were located above the Cox lines.<sup>117</sup>

GO 95, within the California State Rules for Overhead Electric Line Construction, sets the basic minimum allowable clearance of wires from other wires at crossings.<sup>118</sup> Rule 38 of GO 95 specifies a minimum clearance of

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<sup>115</sup> ORA-01 at 17.

<sup>116</sup> ORA Phase 1 Opening Brief at 34, citing ORA-05 at 926.

<sup>117</sup> ORA Phase 1 Opening Brief at 34, citing ORA-50.

<sup>118</sup> General Order 95 at Table 2.

6 feet with a maximum reduction of ten percent under wind conditions.<sup>119</sup> On November 2, 2007 an SDG&E engineering contractor, Nolte Associates, Inc. performed an engineering survey on the facilities linked to the Guejito Fire's ignition.<sup>120</sup> The Nolte Survey documented a 3.3-foot clearance between the SDG&E conductors and Cox lines prior to any repair work being completed after the ignition of the Guejito Fire.<sup>121</sup>

The Cox facilities involved in the Guejito Fire were installed in August of 2001.<sup>122</sup> SDG&E purports that it is not known when the 3.3-foot clearance violation occurred, as there were no pre-fire surveys completed on the facilities in question.<sup>123</sup> At hearings however, SDG&E presented Mr. Greg Walters, a former manager of SDG&E's Compliance Management Group and Joint Facilities Department, to testify that it was his belief that the Cox facilities involved in the Guejito Fire were not in compliance with GO 95, Rule 38, Table 2 at the time of installation.<sup>124</sup>

In its opening brief, ORA notes that CPSD found SDG&E to be in violation of the following statutory provisions at the time it conducted its post-fire survey of the SDG&E facilities involved in the Guejito Fire:

- Public Utilities Code Section 451 ("Failing to detect/repair a broken lashing wire and/or failing to maintain required clearances.");

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<sup>119</sup> *Id.*

<sup>120</sup> *Id.*

<sup>121</sup> *Id.* at 18-19.

<sup>122</sup> ORA Phase 1 Reply Brief at 18.

<sup>123</sup> SDG&E Phase 1 Reply Brief at 59.

<sup>124</sup> A.15-09-010 at 15; Reporter's Transcript Volume 5 at 793.

- GO 95, Rule 31.1 (“Failing to detect/repair a broken lashing wire and/or failing to maintain required clearances, in consideration of the given local conditions such as the well-known Santa Ana winds.”); and
- GO 95, Rule 38 (“As supported by the Nolte Survey, the clearances between Cox’s and SDG&E’s facilities were noncompliant before/during and after the Guejito [F]ire ignition, which occurred during conditions that did not justify the noncompliance.”)<sup>125</sup>

SDG&E’s expert, Mr. Darren Weim (Mr. Weim), testified that detailed inspections prior to the Guejito Fire were conducted on June 22, 2007 (for Pole P196394) and April 8, 2005 (for Pole P196394).<sup>126</sup> Mr. Weim noted, “[o]ther than missing or damaged high voltage or warning signs (which were repaired), no [other] conditions were noted in these inspections.”<sup>127</sup>

As referenced above, the Guejito Fire, which later combined with the Witch Fire, burned a total of 197,990 acres before being contained.<sup>128</sup> Once combined, the Guejito and Witch Fires led to two fatalities and 40 injured firefighters.<sup>129</sup>

#### **4.2.2. SDG&E’s Position on its Operation and Management of its Facilities Prior to the Guejito Fire**

SDG&E does not dispute that GO 95 required a 6-foot clearance; however, SDG&E maintains that its operation and management of its facilities involved in

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<sup>125</sup> ORA Phase 1 Opening Brief at 25; citing ORA-05 at 1238:3-4.

<sup>126</sup> SDGE-06 at 11.

<sup>127</sup> SDGE-06 at 11.

<sup>128</sup> ORA-01 at 7.

<sup>129</sup> ORA-01 at 18.

the Guejito Fire prior to October 22, 2007 were reasonable.<sup>130</sup> SDG&E argues that it appropriately inspected the facilities linked to the ignition Guejito Fire.<sup>131</sup> Furthermore, SDG&E contends ORA fails to show how a compliant clearance between the Cox line and the SDG&E overhead conductors could have prevented the ignition of the Guejito Fire.<sup>132</sup>

### **GO 95 Clearance Requirements and SDG&E's Inspections**

At hearings, SDG&E presented Mr. Darren Weim (Mr. Weim), SDG&E's Manager of Northeast Construction & Operations, to discuss the utility's design, construction, and maintenance standards that were in place prior to 2007.<sup>133</sup> While SDG&E does not dispute GO 95's 6-foot clearance requirement, Mr. Weim's testimony was used to show the programmatic approach SDG&E takes in its inspection and maintenance of its facilities.<sup>134</sup> Mr. Weim testified regarding SDG&E's Corrective Maintenance Program. He elaborated on two of the inspections carried-out under SDG&E's Corrective Maintenance Program.<sup>135</sup> A "patrol inspection" involves visual inspections, designed to identify obvious structural problems and hazards.<sup>136</sup> A "detailed inspection" requires trained employees to perform thorough checks on distribution poles and all attachment facilities to identify GO 95 clearance violations.<sup>137</sup> Mr. Weim noted that the most

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<sup>130</sup> SDG&E Phase 1 Reply Brief at 59-60.

<sup>131</sup> *Id.*

<sup>132</sup> SDG&E Phase 1 Reply Brief at 3.

<sup>133</sup> A.15-09-010 at 15.

<sup>134</sup> SDG&E Phase 1 Reply Brief at 60.

<sup>135</sup> SDGE-06 at 4.

<sup>136</sup> SDGE-06 at 4 to 5.

<sup>137</sup> SDGE-06 at 5.

recent patrol inspection was completed on August 30, 2007, with no hazards identified.<sup>138</sup> The most recent detailed overhead inspections were conducted on June 22, 2007 and April 8, 2005, but did not uncover design or construction issues with respect to poles P196387 and P196394.<sup>139</sup>

SDG&E maintains that “if the 3.3 foot clearance pre-dated SDG&E’s inspections, and those inspections did not uncover the problem, those facts merely show that SDG&E was not perfect.”<sup>140</sup> SDG&E maintains that the Commission’s prudence standard “is not a ‘perfection’ standard: it is a standard of care that demonstrates all actions were well planned, properly supervised and all necessary records retained.”<sup>141</sup> Furthermore, SDG&E maintains that ORA failed to show that the 3.3-foot clearance contributed to the Guejito Fire’s ignition.<sup>142</sup>

As such, SDG&E maintains that its management and control of its facilities prior to the ignition of the Guejito Fire were reasonable.

#### **4.2.3. ORA’s Position on SDG&E’s Operation and Management of its Facilities Prior to the Guejito Fire**

ORA maintains that SDG&E has failed to prove by a preponderance of the evidence that SDG&E’s operation and management of its facilities linked to the

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<sup>138</sup> SDGE-06 at 10.

<sup>139</sup> SDGE-06 at 11.

<sup>140</sup> SDG&E Phase 1 Reply Brief at 60.

<sup>141</sup> *Id.* citing D.14-06-007 at 36.

<sup>142</sup> SDG&E Phase 1 Reply Brief at 63.

Guejito Fire were reasonable.<sup>143</sup> ORA cites to the facts surrounding the ignition of the Guejito Fire as well as the applicable clearance requirements per GO 95.

### **GO 95 Clearance Requirements and SDG&E's Inspections**

ORA argues that SDG&E's failure to comply with GO 95 renders the utility's operation and management of its facilities imprudent.<sup>144</sup> ORA contends that the lack of records documenting when the 3.3-foot clearance violation occurred does not mean that SDG&E met the prudent manager standard.<sup>145</sup> ORA maintains that the fact that Mr. Walters testified, under oath, that the clearance violation occurred at the time of the 2001 Cox line installation is evidence of imprudent utility management.<sup>146</sup> Additionally, ORA contends that the longstanding clearance violation was a safety risk, rendering SDG&E imprudent.<sup>147</sup> Bolstering this argument, ORA highlights the specific statutory violations CPSD found during its post-fire investigation of the facilities linked to the Guejito Fire.<sup>148</sup> ORA contends that CPSD's finding that SDG&E failed to maintain its facilities in compliance with Public Utilities Code § 451, GO 95 Rule 31.1, and GO 95 Rule 38 , shows SDG&E was imprudent in managing its facilities linked to the Guejito Fire.<sup>149</sup>

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<sup>143</sup> ORA Phase 1 Reply Brief at 18.

<sup>144</sup> *Id.*

<sup>145</sup> *Id.*

<sup>146</sup> *Id.* citing Reporter's Transcript Volume 5 at 792.

<sup>147</sup> *Id.* at 24.

<sup>148</sup> ORA Phase 1 Opening Brief at 24.

<sup>149</sup> ORA Phase 1 Opening Brief at 24.

As such, ORA maintains that SDG&E's operation and management of its facilities prior to the ignition of the Guejito Fire were not reasonable.<sup>150</sup>

#### **4.2.4. Reasonableness Review: SDG&E's Operation and Management of its Facilities Prior to the Guejito Fire**

In evaluating SDG&E's operation and management of its facilities in connection to the Guejito Fire, the Commission must determine whether SDG&E employed reasonable judgment in its operation and management of its facilities in the period leading up to the ignition of the Guejito Fire.

The record shows that SDG&E utilized its Corrective Maintenance Program to perform patrol and detailed (overhead) inspections of P196387 and P196394 prior to the Guejito Fire ignition. SDG&E asserts its failure to identify the 3.3-foot clearance violation merely shows the utility was not perfect; we disagree. SDG&E's use of patrol and overhead inspection protocols may be reasonable. The repeated failure of these patrols to identify the clearance violation is not reasonable. While SDG&E's testimony highlights its Corrective Maintenance Program, the existence of the Corrective Maintenance Program is not sufficient to establish that SDG&E fulfilled its duty to be a reasonable and prudent manager. At the same time, the lack of inspection records indicates a failure to act prudently. The fact that the Cox line was installed in 2001, six years before the fire, and that no inspection records affirmatively reference compliance with GO 95 clearance requirements is problematic. Moreover, we find the six-year gap in inspection records (from 2001 to 2007) to be indicative of imprudent management. SDG&E asserts that to find its failure imprudent would

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<sup>150</sup> ORA Phase 1 Reply Brief at 30.

be to interpret the prudence standard as a perfection standard. We disagree. Documentation of compliance with objective clearance standards at some point during the many years the Cox line was installed is not equivalent to perfection.

As such, SDG&E fails to prove by a preponderance of the evidence that it acted prudently in its operation and management of its facilities prior to the ignition of the Guejito Fire.

### **4.3. Rice Fire**

#### **4.3.1. Rice Fire Background**

The Rice Fire ignited on October 22, 2007 in Fallbrook, California.<sup>151</sup> The Cal Fire Investigation Report into the Rice Fire concluded that the cause of the fire was a downed powerline.<sup>152</sup> CPSD determined that a limb from sycamore Tree FF1090 (FF1090) broke and fell onto SDG&E 12 kV overhead conductors on October 22, 2007, which in turn caused the conductors to break and fall to the ground.<sup>153</sup>

In comments to the proposed decision, SDG&E alleges that the weight of the evidence shows it could not have prevented the Rice Fire, because it had no way to know of a defect in the broken tree branch that fell onto the conductors. SDG&E reiterates its claim that the broken branch was not marked for trimming and would not have been removed.<sup>154</sup> We revise our discussion below to address these comments with further support from the evidentiary record of this proceeding. The Commission finds that SDG&E failed to trim FF1090 on a timely

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<sup>151</sup> SDGE-08 at 2.

<sup>152</sup> ORA-01 at 22.

<sup>153</sup> SDGE-08 at 2.

<sup>154</sup> See SDG&E's Comment

basis and failed to keep adequate records for FF1090. SDG&E failed to show that it was prudent in its management of FF1090, or that it could not have identified the defective branch with proper management. We find the evidence inconclusive as to the growth direction and the growth pattern of the broken branch.

#### **4.3.2. Legal Requirements**

The Commission's GO 95, Rule 35 sets the general clearance requirements for vegetation around powerlines.<sup>155</sup> Rule 35 requires that where dead, rotten or diseased trees or dead, rotten, or diseased portions of otherwise healthy trees overhang or lean toward power conductors, those trees or portions are to be removed. In 2007, GO 95 required a radial clearance of 18 inches, and Public Resources Code Section 4293<sup>156</sup> required a radial clearance of 4 feet, between

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<sup>155</sup> SDGE-08 at 2.

<sup>156</sup> Public Resources Code § 4293: Except as otherwise provided in Sections 4294 to 4296, inclusive, any person that owns, controls, operates, or maintains any electrical transmission or distribution line upon any mountainous land, or in forest-covered land, brush-covered land, or grass-covered land shall, during such times and in such areas as are determined to be necessary by the director or the agency which has primary responsibility for the fire protection of such areas, maintain a clearance of the respective distances which are specified in this section in all directions between all vegetation and all conductors which are carrying electric current: (a) For any line which is operating at 2,400 or more volts, but less than 72,000 volts, four feet; (b) For any line which is operating at 72,000 or more volts, but less than 110,000 volts, six feet; (c) For any line which is operating at 110,000 or more volts, 10 feet. In every case, such distance shall be sufficiently great to furnish the required clearance at any position of the wire, or conductor when the adjacent air temperature is 120 degrees Fahrenheit, or less. Dead trees, old decadent or rotten trees, trees weakened by decay or disease and trees or portions thereof that are leaning toward the line which may contact the line from the side or may fall on the line shall be felled, cut, or trimmed so as to remove such hazard. The director or the agency which has primary responsibility for the fire protection of such areas may permit exceptions from the requirements of this section which are based upon the specific circumstances involved. (Amended by Stats. 1976, Ch. 1300.)

vegetation and 12 kV conductors.<sup>157</sup> To comply with both Commission rules and State law, SDG&E designed and implemented its Vegetation and Management Program (VMP ) and Tree Pre-inspection procedures.<sup>158</sup> In this decision, we review the VMP that was in place on October 22, 2007. SDG&E's VMP manual describes SDG&E's Tree Pre-inspection procedures in detail. The document provides an overview of the VMP, inventory criteria for vegetation, instructions to the Vegetation Management System, factors affecting reliability, procedure to escalate issues, updating inventory of vegetation, tree growth rates and the Vegetation Management Areas (VMAs). The manual is comprehensive and indicates that SDG&E had a robust VMP in 2007.

#### **4.3.3. Issues and Party Positions**

Although no party disputes that the Rice Fire started when a broken limb from FF0190 fell onto SDG&E's conductors, parties dispute whether SDG&E prudently marked, inspected and trimmed FF1090 pursuant to its VMP. Parties focused their litigation efforts on the tree inspections, trimming schedule and activities related to the clearance requirements. ORA and SDG&E also introduced testimony and evidence regarding Reliability Trees and FF1090's latent defect.

##### **4.3.3.1. FF1090's Inspection and Trimming Schedule**

FF1090 is a fast growing sycamore tree inventoried by the VMP in its Vegetation Management System (VMS) in 1999. The VMS is a software application designed by SDG&E to record tree data within a dynamic inventory

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<sup>157</sup> SDGE-08 at 16.

<sup>158</sup> SDG&E-08, Appendix 3.

of vegetation having the potential to grow into or fall into SDG&E electric power lines and facilities.<sup>159</sup> SDG&E pre-inspectors update information contained within certain fields in the database based on their evaluation of the tree. One of the fields in the VMS database is called “Months to next trim”, and the inspector can choose 0-3, 3-6, 6-9 months, etc. from the drop down menu. SDG&E’s VMS considers the tab “0-3 months” as setting a timeline that begins during the subsequent trim cycle, which in this case meant between September to November 2007.

The record shows that FF1090 was inspected on July 18, 2007 and the SDG&E inspector chose the 0-3 months tab to remove direct overhang. On October 22, 2007, three months later, when the Rice Fire ignited, FF1090 had not been trimmed. ORA and SDG&E heavily litigated the issues of when FF1090 should have been trimmed, whether FF1090 exhibited a clearance violation, and whether the trim would have prevented the branch from falling onto the conductors.

ORA argues that FF1090 should have been trimmed before October 18, 2007, three months from the July 18, 2007 pre-inspection. ORA believes that failure to trim FF1090 led directly to the branch breaking off and falling on the conductors. SDG&E states that the “Months to next trim” tab should be used to estimate how many months will elapse before the tree grows out of compliance. According to SDG&E, a selection of 0-3 months would mean that the tree should be trimmed in the upcoming trim cycle, which in this case, would have been between September and November of 2007.<sup>160</sup> SDG&E further

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<sup>159</sup> *Ibid* at 8.

<sup>160</sup> See SDG&E-13 Prepared Rebuttal Testimony of Don Akau at 10-11.

alleges that the broken off branch was growing away from the power lines, and as such would not necessarily have been subject to trimming.

#### **4.3.3.2. FF1090's latent defect and the issue of Reliability Trees**

The parties did not focus on some other aspects of the VMP manual that are nevertheless important in determining whether SDG&E acted prudently prior to the fire. Don Akau, SDG&E's Vegetation Management Program Manager, testified about the hidden defect he observed in the broken branch after the fire. Mr. Akau referred to "staining" at the point where the fallen branch broke from the main trunk<sup>161</sup> and proposed that the staining could be an indicator of "included bark", or "internal structural stressing and cracking in the branch union" which in his opinion contributed to the failure of the limb in the winds.<sup>162</sup>

Throughout this proceeding, SDG&E claimed that the included bark was hidden, and could not have been discovered by its personnel during their inspections. According to SDG&E's VMP manual, a Reliability Tree is "Any Tree, located inside or outside the utility right-of-way, that has a reasonably good potential for interrupting service to an overhead circuit (excluding secondary) with the current routine cycle."<sup>163</sup> When a pre-inspector identifies a Reliability Tree, it is mandatorily marked in the VMS as a Reliability Tree and for trimming.<sup>164</sup> A Reliability Tree exhibits one or more factors listed in the VMP

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<sup>161</sup> SDG&E-08 at 19 and SDG&E-13 at 8.

<sup>162</sup> *Ibid.*

<sup>163</sup> SDG&E-08, Appendix 3 at 7.

<sup>164</sup> *Ibid.* at 30.

manual, and per SDG&E's inspection procedures, must be marked, pruned and inspected to ensure grid reliability. FF1090 was not marked as a Reliability Tree before the Rice Fire.

#### **4.3.4. Discussion**

In evaluating SDG&E's operation and management of its facilities in connection with the Rice Fire, the Commission must determine whether SDG&E employed reasonable judgment in its operation and management of its facilities in the period leading up to the ignition of the Rice Fire. The general purpose of routine pre-inspections is to identify vegetation for pruning and removal that will not maintain required clearance for a full cycle (fourteen months). As part of the inspection process, the pre-inspector is also tasked to identify and mark Reliability Trees. A Reliability Tree is "Any Tree, located inside or outside the utility right of way, that has a reasonably good potential for interrupting service to an overhead circuit within the current routine cycle." According to the VMP manual, "a majority of tree related outages that occur in the utility right-of-way are the result of tree or limb failure, not tree growth."<sup>165</sup> When a Reliability Tree is identified the pre-inspector *shall* [emphasis added] check both the reliability and trimming required box in the tree tab.<sup>166</sup>

As part of its VMP, SDG&E relies on its inspectors to select the appropriate fields in the VMS and to identify potential Reliability Trees. It is essential for

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<sup>165</sup> *Ibid.*

<sup>166</sup> *Ibid.*

SDG&E personnel and contractors to be well trained in the procedures of the VMP so that they accurately select the drop down menus in the VMS.<sup>167</sup>

Based on an exhaustive review of the record and informed primarily by SDG&E's own VMP manual, the Commission finds SDG&E acted imprudently in its management of FF1090. First, we find SDG&E to have deviated from its usual timeline in trimming FF1090. Secondly, SDG&E's pre-inspector mistook the 'months to next trim' menu to mean that a selection of 0-3 months means that an actual trimming would take place within 0-3 months of the pre-inspection. The contractor's misunderstanding of the VMS led him to incorrectly select a menu item that delayed the trimming beyond three months from the inspection date. Thirdly, SDG&E did not identify FF1090 as a "Reliability Tree" even though FF1090 seems to have exhibited at least two characteristics on the "Tree Hazard Checklist."<sup>168</sup> Each of these elements of the record is discussed below. In each of these instances, SDG&E failed to demonstrate that it employed reasonable judgment in its operation and management of its facilities in the period leading up to the ignition of the Rice Fire.

#### **4.3.4.1. SDG&E's Tree Inspection and Trimming Schedule**

The record shows that at the time of the Rice Fire's ignition, SDG&E had a VMP in place whereby FF1090 was inspected and trimmed. A summary of all available pre-inspections and subsequent trim dates recorded in the VMS Tree Information Sheet up to the Rice Fire are shown in the table below:

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<sup>167</sup> The Vegetation Management System (VMS) is a database which tracks all of the inventoried vegetation within SDG&E's territory. The VMS has various drop down menus which allow an inspector to identify issues with a tree and recommend the proper course of action.

<sup>168</sup> *Ibid.*

### Tree FF1090 Inspection and Prune dates

Tree FF1090	Inspection Date	Prune date
	05/07/1999	05/01/2000
	01/25/2001	No trim record
	01/02/2002	04/29/2002
	01/13/2003	05/07/2003
	11/11/2003	02/17/2004
	11/17/2004	02/11/2005
	07/12/2005	No trim record
	07/19/2006	No trim record
	07/18/2007	
	(10/15/2007)*	
	(10/19/2007)*	10/22/2007

\* SDG&E states that Davey Tree Surgery Company and SDG&E personnel performed follow up inspections on October 15, 2007 and October 19, 2007 respectively, and that FF1090 was in compliance with clearance requirements on those two visits. However, these additional inspection dates are not shown in the tree information sheet submitted by SDG&E. SDG&E asserts the October 15, 2007 inspection by a data request response submitted by Davey.<sup>169</sup>

The Tree Information Sheet identifies FF1090 as a fast growing sycamore tree with a growth rate of between four to six feet every year. FF1090 was inventoried on May 7, 1999 and pruned on May 1, 2000. It was inspected again on January 25, 2001 and January 2, 2002. Having not been trimmed for 20 months, the January 2, 2002 inspection documents FF1090 as having between 1.5 to 4 foot clearance to the conductors and SDG&E pruned FF1090 on

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<sup>169</sup> See SDGE-08, Appendix 7.

April 29, 2002.<sup>170</sup> In 2002, SDG&E had notice that, because of FF 1090's growth rate, not trimming the tree annually resulted in FF1090 being out of clearance compliance. Subsequent to the 2002 violation, FF1090 was inspected and pruned annually until the inspection on July 12, 2005. FF1090 was not trimmed after July 12, 2005, nor was it trimmed after the inspection on July 19, 2006. By the July 18, 2007 inspection, FF1090 had not been trimmed for over 29 months.<sup>171</sup>

There were only two instances in FF1090's inventoried history in which it was not trimmed on an annual basis. The first instance in which SDG&E failed to trim FF1090 annually was in 2002, when the tree was recorded as being within 4 feet of conductors. The Rice Fire marks the end of the second time period during which SDG&E fell out of the annual trimming schedule. At the time of the Rice Fire ignition, SDG&E had not trimmed FF1090 for 29 months. The fact that SDG&E deviated from its own standard time table, and allowed more than two years to elapse without pruning this fast-growing tree, shows that SDG&E was not reasonable or prudent in its management of FF1090.

ORA and SDG&E focus their arguments on the definition of 0-3 months and whether it meant that FF1090 should have been trimmed by October 18, 2007. The Commission reviews all available data as a whole. SDG&E's inspector described his reasoning in selecting 0-3 months: "And I listed from zero months to three months as when it should be trimmed. I chose that option on the drop-down menu." "[I]t had strong growth towards the lines,

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<sup>170</sup> SDGE-08 at Appendix 6. SDG&E argues that ORA failed to prove FF1090 was out of compliance, we note that it is SDG&E who carries the burden of proof to show it was acting prudently and reasonably, not the other way around.

<sup>171</sup> *Ibid.*

and I felt it would encroach in the 4 foot distance from the primary line in the facilities within three months.”<sup>172</sup>

In light of this testimony, SDG&E’s claim that “0-3 months” did not set a deadline for trimming is unpersuasive. SDG&E’s contract requires Davey to train its pre-inspectors on many topics in the VMP manual and to use the VMS. But, in this instance, the pre-inspector did not have a clear understanding of the drop down menu functions in the VMS. The inspector’s misunderstanding of SDG&E’s tree trimming program underscores the need for proper training. If the contractor made a mistake due to insufficient or improper training, SDG&E is still responsible for acts, omissions, or failures of its agents under PUC Section 2109.<sup>173</sup>

In comments on the proposed decision, SDG&E further asserted that the broken off branch grew away from the powerline, and was not marked for trimming. SDG&E did not carry its burden to show that the broken branch grew away from the powerline. Rather, the growth direction of the broken branch is inconclusive from the record. Testimony from Mr. Akau states that the branch was positioned toward the northeast, growing away from the powerline;<sup>174</sup> testimony from Mr. Ronald Hay states that the broken branch grew to the south, toward the utility lines;<sup>175</sup> and testimony from Mr. David Kracha states that

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<sup>172</sup> ORA-44, Transcript excerpts of the March 25, 2008 Examination Under Oath of Mark Clemens.

<sup>173</sup> California Public Utilities Code section 2109: “In construing and enforcing the provisions of this part relating to penalties, the act, omission, or failure of any officer, agent, or employee of any public utility, acting within the scope of his official duties or employment, shall in every case be the act, omission, or failure of such public utility.”

<sup>174</sup> See SDG&E-08 at 18.

<sup>175</sup> See ORA-40, Transcript excerpts of May 28, 2008 examination under oath of Ronald Hay.

broken limb grew completely vertically and did not grow toward or away from the powerlines.<sup>176</sup>

Next, assuming that the broken branch grew away from the powerline, a second evidentiary issue emerges. SDG&E presented multiple witnesses stating that the broken branch was part of co-dominant leader growth- with two similar-sized branches growing from the same union point. SDG&E has argued throughout this proceeding that due to the co-dominant nature of these branches, the breaking of one necessitated the removal of the other. After observing the broken branch on October 22, 2007, before Cal Fire could inspect the ignition site, SDG&E's Chris Thompson ordered the removal of the remaining leader branch, and reduction of FF1090's entire canopy to prevent additional failures.<sup>177</sup> SDG&E justifies the reduction of the entire canopy of FF1090 by stating it was necessary to prevent further failures. Applying the same rationale, the evidence indicates that that trimming of FF1090's overhang would have required balanced trimming throughout the canopy. Thus, even if the broken branch did not have clearance problems, a prudent manager trimming on a regular schedule likely would have trimmed FF1090 to balance the other branches that did have clearance issues.

According to SDG&E, two additional inspections of FF1090 took place on October 15, 2007 and October 19, 2007, and those inspections found FF1090 to be in compliance with clearance requirements.<sup>178</sup> The October 19, 2007 inspection

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<sup>176</sup> See ORA-41, Transcript excerpts of May, 28, 2008 Examination under oath of David Kracha.

<sup>177</sup> See SDG&E-13, Appendix 4 at 4.

<sup>178</sup> We note the October 15, 2007 inspection is not recorded on SDG&E's own Tree Information Sheet, but reported by Davey as part of a data response in SDG&E-08, appendix 7.

was conducted by SDG&E personnel, but also is not shown in the Tree Information sheet.

#### **4.3.4.2. FF1090's Latent Defect and the Issue of Reliability Trees**

In addition to FF1090's inspection and trim history, the Commission also considers whether SDG&E has met the burden of showing that it could not have identified the defect in FF1090. The Commission's analysis of the record and the VMP concludes that SDG&E has not met its burden: There is insufficient evidence to show that acting responsibly SDG&E could not have identified the defect in FF1090. The broken branch with included bark exhibited at least two factors which could warrant FF1090 being marked as a Reliability Tree.

To begin, Section 5 of SDG&E's VMP manual discusses Reliability Trees. The five-page section defines Reliability Trees and provides a Hazard Tree Checklist for evaluating trees for reliability and six sample photos.<sup>179</sup> Two checklist items are relevant to FF1090: 1) "are there multiple vertical branches originating from one point that may indicate weak attachment?" and 2) "are there narrow-angled branch crotches that may indicate included bark?"<sup>180</sup>

Section 5 of SDG&E's VMP manual is consistent with General Order 95, Rule 35, which requires that diseased and rotten portions of otherwise healthy trees growing toward or hanging over powerlines be removed.

SDG&E presents evidence of the included bark and the limb's growth direction through Mr. Akau's testimony, a hand drawn diagram by Mr. Akau, and testimony from Ronald Matranga and Chris Thompson, SDG&E arborists

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<sup>179</sup> *Ibid.*

<sup>180</sup> SDG&E-08, Appendix 3 at 30.

who visited the Rice Fire site after the fire. According to SDG&E, the broken limb which caused the ignition contained hidden ‘included bark’, which could not be observed during routine inspections. In his direct and rebuttal testimony, Mr. Akau referred to the presence of “staining” at the point where the fallen branch broke from the main trunk.<sup>181</sup> Mr. Akau proposes that the staining could be an indicator of “included bark”, or “internal structural stressing and cracking in the branch union” which in his opinion contributed to the failure of the limb in the winds.<sup>182</sup>

The record, however, does not clearly support that SDG&E did not have advance notice of the structural defect.

Mr. Akau testified regarding SDG&E’s Vegetation Management Program and presented inspection protocol for “Reliability Trees,” and stated that no structural defects were noted by SDG&E’s contractors during the July 18, 2017 inspection.<sup>183</sup> SDG&E’s Chris Thompson testified in I.08-11-006 that the cause of the included bark was co-dominant leader branches in FF1090.<sup>184</sup> Mr. Thompson states in his testimony that FF1090’s included bark occurred “when two separate leaders start growing together and pushing against each other as they grow in diameter.”<sup>185</sup> Further corroboration of FF1090’s growth pattern can be found in the transcribed testimony of Ronald Hay, which described the broken branch as

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<sup>181</sup> SDG&E-08 at 19 and SDG&E-13at 8.

<sup>182</sup> *Ibid.*

<sup>183</sup> SDGE-13 at 9, citing “Direct Testimony of Ronald Matranga” in I.08-11-006, June 6, 2009 at 3-5.

<sup>184</sup> SDG&E-13, Appendix 4 at 4.

<sup>185</sup> *Ibid.*

part of “a healthy clutter[spelling per transcript] of branches that grew straight up.”<sup>186</sup>

While as discussed above, SDG&E personnel provided conflicting testimony on the growth direction of the broken branch, in contrast SDG&E personnel have been consistent in their recollection of the growth pattern of the broken limb.

The testimony indicates that the broken branch was part of at least two vertical branches, possibly more, growing closely together. This testimony indicates that the tree appeared to have some physical characteristics that would have warranted further attention. Based on the testimony of SDG&E’s personnel, SDG&E has not met its burden of showing that it could not have identified the defect in FF1090.

#### **4.4. Commission Precedent**

The Commission has a long history of cases that apply the reasonable and prudent manager standard to after-the-fact reviews of costs incurred by utilities. In each case, the facts showed that the costs the Commission denied were directly attributable to clear and identifiable utility failures or errors.

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<sup>186</sup> See ORA-40, Transcript excerpts of May 28, 2008 Examination under oath of Ronald Hay at 23.

### **Mohave**

The facts of I.86-04-002 have similarities to the facts of the instant proceeding. On June 9, 1985, a weld in a high-pressure steam pipe at the Mohave Coal Plant (Mohave) ruptured, blasting steam hotter than 1,000 degrees Fahrenheit through an employee breakroom and Mohave's control room.<sup>187</sup> As a result, six people were killed and ten others were severely injured.<sup>188</sup> The steam caused extensive damage to the control room, as well as other portions of the plant.<sup>189</sup> The Commission ultimately concluded that Southern California Edison Company (SCE) acted unreasonably in failing to implement an inspection program to ensure that the portion of the piping system that ultimately failed was maintained in a safe condition.<sup>190</sup> In reaching its decision, the Commission offered, "[e]vidence of accepted industry practices will often be relevant to a reasonableness inquiry, but compliance with such practices will not relieve the utility of [its] burden of showing that its conduct was reasonable."<sup>191</sup> Furthermore, the Commission noted "guidelines are only advisory in nature and do not relieve the utility of its burden to show that its actions were reasonable." I.86-04-002 concluded with D.94-03-048, which held it was not reasonable to pass costs resulting from the accident to SCE's ratepayers.

Similar to Mohave, where SCE's facilities were directly involved killing six people and injuring ten others, SDG&E's facilities were directly involved in

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<sup>187</sup> D.94-03-048 at 2.

<sup>188</sup> D.94-03-048 at 2.

<sup>189</sup> D.94-03-048 at 2.

<sup>190</sup> D.94-03-048 at 2.

<sup>191</sup> D.94-03-048 at 37, citing D.88-03-036 at 527.

the ignition and subsequent destruction caused by the 2007 Wildfires. Although SDG&E had industry recognized policies and programs in place (recloser policy, Corrective Maintenance Program, and Vegetation Management Program) prior to October 2007, such practices do not relieve SDG&E of its burden to show that its actions were reasonable. As discussed above, SDG&E fails to show its actions were reasonable when SDG&E allowed 4 faults to occur on TL 637 over a period of 6.5 hours; SDG&E failed to uncover the 3.3 feet clearance violation for 6 years after utilizing its Corrective Maintenance Program's patrol and detailed inspections; and SDG&E did not show by a preponderance of the evidence that it properly monitored and trimmed FF1090 before the ignition of the Rice Fire. SDG&E did not train its contractors to properly mark the VMS and has not shown it could not have identified a defective limb. SDG&E is responsible for its contractor's failure to appropriately mark the VMS and ensure that Tree FF1090 was trimmed on a timely basis. The Commission is also concerned with records suggesting that FF1090 may have been a Reliability Tree warranting immediate attention.

### Helms

In A.82-04-12 and I.82-01-01 (Helms), the Commission reviewed whether the costs incurred by Pacific Gas & Electric Company (PG&E) in building the Helms Project<sup>192</sup> prior to the Lost Canyon pipe failure constituted reasonable and

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<sup>192</sup> D.85910 defines the Helms Project as: The Helms Pumped Storage Project is a combination pumped storage and conventional hydroelectric project. The project allowed for the utilization of the water power resources of the North Fork Kings River and Helms Creek. The project completes development of the available head between Courtright Lake, maximum water surface elevation 8,184 feet, and the U.S. Army Corps of Engineers' Pine Flat Reservoir, maximum water surface elevation 952 feet. The maximum head developed by the project between Courtright Lake and Lake Wishon is 1,744 feet. The power potential will be developed

*Footnote continued on next page*

prudent utility expenditures.<sup>193</sup> On September 29, 1982, the Lost Canyon pipe crossing failed during testing of the Helms Project.<sup>194</sup> In April 1983, PG&E filed an amendment to A.82-04-12 asking the Commission: (1) to place \$738.5 million cost for the Helms Project incurred before the Lost Canyon pipe failure into rate base; and (2) to defer any review of the additional reconstruction cost until PG&E resolved all litigation arising from the Lost Canyon pipe failure.<sup>195</sup> In reaching its conclusion, the Commission found PG&E failed to appreciate the risks associated with the construction of the Helms Project, and that PG&E also failed “to take seriously the repeated safety citations and work shutdowns issued and ordered by the State Department of Occupational Safety and Health.”<sup>196</sup> Ultimately, the Commission found PG&E failed to perform at the appropriate standard of performance, rendering PG&E imprudent.<sup>197</sup> D.85-08-102 specified that ratepayers would not be required to indemnify PG&E for losses arising from the Lost Canyon pipe failure.<sup>198</sup>

Similar to Helms, where the Commission found PG&E failed to take into account the risks associated with building the Helms Project, SDG&E failed to take into account the risks associated with its automatic recloser policy. As ORA

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by constructing a conduit consisting of two tunnels, a short pipe section and a penstock between Courtright Lake and an underground powerhouse. Total length of the conduit, which is entirely underground except for the 140-foot pipe section, is 20,408 feet. The trailrace tunnel connects the underground powerhouse with Lake Wishon.

<sup>193</sup> D.85-08-102 at 6 to 7.

<sup>194</sup> D.85-08-102 at 5.

<sup>195</sup> D.85-08-102 at 5 to 6.

<sup>196</sup> D.85-08-102 at Findings of Fact 6 and 10.

<sup>197</sup> D.85-08-102 at Conclusions of Law 5 and 6.

<sup>198</sup> D.85-08-102 at Conclusion of Law 9.

showed, SDG&E had knowledge of the 2001 Field Guide's caution that automatic reclosers increase the risk of igniting vegetation. As such, it was imprudent of SDG&E to not take into account the risk factors associated with re-energizing TL 637 after three faults occurred within a span of 3.5 hours.

### SONGS

D.84-09-120 addressed the reasonableness of SCE's cost of power purchased to replace power lost because of the diesel generator fire at San Onofre Nuclear Generating Station (SONGS) Unit 1.<sup>199</sup> On July 14, 1981, a fire caused by a small oil leak in a section of piping attached to a diesel engine caused two emergency diesel generators at SONGS 1 to be out from July 17, 1981 to August 16, 1981.<sup>200</sup> Although a small oil leak had been reported near the piping in question, maintenance personnel could not find the source of the leak, even with the diesel shutdown.<sup>201</sup> Unfortunately, during the next monthly scheduled load-test, the unidentifiable leak caused oil to spray out and ignite a fire.<sup>202</sup> The coordinated effort between SONGS 1 control room operators and the fire personnel limited the fire to only 7 minutes, thereby reducing damage to the diesel generator.<sup>203</sup> In reviewing SCE's conduct, the Commission applied its reasonableness standard, and found that the replacement energy costs associated

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<sup>199</sup> D.84-09-120 at 2.

<sup>200</sup> D.84-09-120 at 72.

<sup>201</sup> D.84-09-120 at 73 to 74.

<sup>202</sup> D.84-09-120 at 74 to 75.

<sup>203</sup> D.84-09-120 at 74 to 75.

with the SONGS I diesel generator fire were incurred on account of SCE's unreasonableness and were therefore unrecoverable.<sup>204</sup>

Similar to SONGS, where the Commission found costs incurred for replacement energy costs were unrecoverable due to the unreasonableness of SCE's actions, the costs of the 2007 Wildfires were incurred due to unreasonable management by SDG&E. Even though SCE limited the diesel fire to 7 minutes, thereby substantially reducing the fire's damage, the Commission still found SCE's actions leading up to the diesel fire to be unreasonable. Similarly, it was imprudent of SDG&E to allow a fourth fault to occur on TL 637 more than two hours after SDG&E's Grid Operations became aware of the Witch Fire. Similar to SONGS, where maintenance personnel could not locate the oil leak, SDG&E's Corrective Maintenance Program failed to identify the almost 3-foot clearance violation between SDG&E's overhead conductors and the below-installed Cox Communication Line. While SONGS involved the prompt deployment of maintenance personnel to address its oil leak, SDG&E was unable to locate and address the clearance issue for almost six years, even after personnel completed inspections on April 8, 2005, June 22, 2007 and August 30, 2007.

Applying the above case analysis to the facts of the instant proceeding, it is reasonable for the Commission to find SDG&E's actions leading up to the 2007 Wildfires imprudent. Moreover, it is reasonable for the Commission to deny those costs which were incurred by SDG&E to resolve third-party damage claims arising from the Witch, Guejito and Rice Wildfires.

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<sup>204</sup> D.84-09-120 at Conclusion of Law 2.

#### **4.5. Wind and Weather Conditions in October 2007**

Per the Scoping Ruling, the Commission has analyzed SDG&E's operation and management of its facilities prior to the ignition of the 2007 Wildfires by each fire. Regardless of the varying facts surrounding the Witch, Guejito and Rice wildfire ignitions, a common issue amongst the three fires exists. While no party disputes the fact that the Santa Ana winds are a known local condition in San Diego County, dispute remains as to whether the winds credited with the ignition and spread of the 2007 Wildfires were unprecedented.<sup>205</sup> If the wind and weather patterns present in October of 2007 were not unprecedented, then a prudent manager would have used the weather information to reasonably manage and operate its facilities.

The parties to this proceeding have put forth extensive arguments and expert witness testimony on the issue of the wind and weather conditions in October 2007. While both SDG&E and UCAN presented highly recognized wind and weather experts, the opinions encompass a variety of the methodologies to estimate the peak wind speeds during the ignition of each of the 2007 Wildfires. While reviewing the experts' showings, we have applied the following principle:

[I]n administrative proceedings before an agency composed of trained specialists and before expert examiners or hearing officers, the burden of evaluating the weight and probity of testimony and evidence covering technical subject matter is primarily that of sifting and evaluating the evidence based upon the agency's expertise. Expert opinion does not bind the

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<sup>205</sup> ORA-01 at 36; SDGE-05 at 3.

Commission. The Commission may form its own conclusions without the aid of expert opinions.<sup>206</sup>

### **SDG&E's Experts' Showings**

SDG&E put forth Mr. Steve Vanderburg (Mr. Vanderburg) and Dr. Jon Peterka (Dr. Peterka) to show that the October 2007 weather conditions were unprecedented.

Mr. Vanderburg, a Senior Meteorologist with SDG&E, testified that the 2007 Wildfires occurred during the most severe weather event in San Diego County since 1984.<sup>207</sup> Mr. Vanderburg presented a statistical analysis comparing wind gusts from the Julian Remote Automated Weather Station (RAWS) and the West Santa Ysabel weather station to show that the wind gust speeds would have been 92 miles per hour (mph) during the peak of October 2007 weather season.<sup>208</sup> Mr. Vanderburg utilized data from the West Santa Ysabel weather station because it was the closest source to the Witch Fire ignition point.<sup>209</sup> In briefs, SDG&E stressed that even though the West Santa Ysabel weather station did not exist in 2007, "Mr. Vanderburg was still able to determine what the wind gust speeds would have been at the West Santa Ysabel weather station during the peak of the late October 2007 wind event."<sup>210</sup>

Dr. Peterka, a Professional Engineer and Professor Emeritus in Fluid Mechanics and Wind Engineering at the Department of Civil Engineering at

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<sup>206</sup> D.90642, 2 CPUC2d 89, 102 (1979), citing *Market Street Railway v. Railroad Commission*, 324 U.S. 548, 560-561 (1945). See *City of Los Angeles v. Public Utilities Commission*, 7 Cal. 3d 331, 351 [\*34] (1972).

<sup>207</sup> SDGE-09 at 2.

<sup>208</sup> SDG&E Phase 1 Opening Brief at 91 to 92.

<sup>209</sup> SDG&E Phase 1 Opening Brief at 91.

<sup>210</sup> SDG&E Phase 1 Opening Brief at 91 to 92.

Colorado State University, testified as to the mean wind speeds at the time and location of the ignition of each of the 2007 Wildfires.<sup>211</sup> Dr. Peterka used a two-pronged approach, WRF (Weather Researching and Forecasting) Modeling and a model of the local terrain, to compute peak wind gusts speeds of: 78 to 87 miles per hour (mph) for the Witch fire ignition; 59 to 68 mph for the Guejito fire ignition; and 70 to 75 mph for the Rice fire ignition.<sup>212</sup> In his direct testimony, Dr. Peterka elaborated on his methodology. Essentially, Dr. Peterka explained that he validated his WRF results with 2007 observed data from the Automated Surface Observing System (ASOS) located at the Ramona Airport.<sup>213</sup> Dr. Peterka stated, “the largest 3-second gust measured at the Ramona Airport during [October 2007] was 55 mph. Based on the ESDU procedure used to estimate the 3-second gust from the WRF simulations, the gusts are predicted to be between 60 and 76 mph, or 9 to 38 percent higher than the actual measurements. The validation exercise is dependent on the overall match between ASOS and WRF wind speeds and directions....as well as the comparison of peak gusts. This validation supports my methodologies.”<sup>214</sup> Dr. Peterka explained that he believed the RAWS and ASOS data were obtained from stations that were improperly sited. Dr. Peterka asserts that the improper siting resulted in recorded wind

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<sup>211</sup> SDG&E Phase 1 Opening Brief at 98.

<sup>212</sup> SDG&E Phase 1 Opening Brief at 98, citing SDGE-10 at 1 and Appendix 1.

<sup>213</sup> Reporter’s Transcript Volume 5 at 735 to 740.

<sup>214</sup> SDGE-10 at 12.

speeds that are too low.<sup>215</sup> For this reason, Dr. Peterka discarded the 2007 RAWS and ASOS and came up with a result that is 9 to 38 percent higher.<sup>216</sup>

In addition to providing analyses of the wind and weather events surrounding the ignition of the 2007 Wildfires, SDG&E's experts highlighted the utility's involvement in developing the Santa Ana Wildfire Threat Index (SAWTI).<sup>217</sup> SDG&E notes, "to develop the SAWTI, SDG&E and UCLA worked to configure the WRF model by calibrating it against actual observations of temperatures, winds, and dew points collected from SDG&E weather stations during Santa Ana wind events."<sup>218</sup> SDG&E highlights that the SAWTI allows an individual to understand the fire potential by comparing it to past and present conditions.<sup>219</sup> As such, SDG&E's experts utilized the SAWTI in testifying that the wind and weather conditions in San Diego County in 2007 had the largest fire potential since 1984.<sup>220</sup> Because of this, SDG&E maintains that it had no way to know how the strong winds in October 2007 would affect SDG&E's service territory and fire danger.<sup>221</sup>

### **UCAN's Experts' Showings**

UCAN put forth Dr. Janice Coen (Dr. Coen) and Dr. Alexander Gershunov (Dr. Gershunov) to rebut the claims made by SDG&E's weather experts. Dr. Coen, a Project Scientist with the National Center for Atmospheric Research

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<sup>215</sup> UCAN Phase 1 Opening Brief at 9.

<sup>216</sup> Reporter's Transcript Volume 5 at 739.

<sup>217</sup> SDG&E Phase 1 Opening Brief at 94.

<sup>218</sup> SDG&E Phase 1 Opening Brief at 94.

<sup>219</sup> SDG&E Phase 1 Opening Brief at 95.

<sup>220</sup> SDG&E Phase 1 Opening Brief at 95.

<sup>221</sup> SDG&E Phase 1 Opening Brief at 95.

in Colorado, and Dr. Gershunov, from University of San Diego in the Climate, Atmospheric Science and Physical Oceanography Division at the Scripps Institute of Oceanography, assert that SDG&E's experts' analysis is flawed.<sup>222</sup>

Dr. Gershunov testified regarding his methodologies in calculating the wind gust speeds for each of the 2007 Wildfires, and how his findings show that the 2007 Wildfires cannot be attributed to an unprecedented weather event.<sup>223</sup>

Dr. Gershunov's estimates for the Witch fire ignition were 43.1 mph, 56.7 mph at the time of the Guejito Fire's ignition, and 34.4 mph at the time of the Rice Fire's ignition.<sup>224</sup> UCAN argues that "when looking at these numbers from both SDG&E's wind expert and UCAN's wind expert, the differences seem huge. However, as Dr. Gershunov testified, the difference is that [Dr. Gershunov] used the recorded data from 2007 to validate and bias correct his model results and that SDG&E did not."<sup>225</sup> Dr. Gershunov utilized data recorded by the RAWS and ASOS stations in calculating his wind speed estimates.<sup>226</sup> As noted by Dr. Gershunov, "not only was there a stronger wind event on record [in San Diego County], but there were 3 other wind events that were within 10-percent of the wind speeds of the 2007 Santa Ana event that occurred in the last 30 years."<sup>227</sup> Furthermore, UCAN notes that SDG&E's use of the SAWTI to

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<sup>222</sup> UCAN Phase 1 Opening Brief at 8, 18; UCAN Phase 1 Reply Brief at 8.

<sup>223</sup> UCAN Phase 1 Reply Brief at 9.

<sup>224</sup> UCAN Phase 1 Reply Brief at 9.

<sup>225</sup> UCAN Phase 1 Reply Brief at 9.

<sup>226</sup> UCAN Phase 1 Reply Brief at 9.

<sup>227</sup> UCAN Phase 1 Opening Brief at 19, citing Reporter's Transcript at 1004 to 1005.

advance its theory that the 2007 Wildfires' ignition and spread were beyond the utility's control is not supported by SDG&E's experts' theories.<sup>228</sup>

### **Analysis of Parties' Experts**

The presentation of UCAN's and SDG&E's expert witnesses added tremendous value to the record of this proceeding. SDG&E's attempt to explain why the contemporaneous data collected from San Diego County's RAWs and ASOS should be discarded were not persuasive. We find the wind estimates of Dr. Gershunov to be more reflective of the actual wind and weather conditions during the ignitions of the Witch, Guejito and Rice Wildfires in October 2007. We find Dr. Gershunov's utilization of the actual recorded weather data from 2007 to validate his wind speed estimates to be more reliable than Dr. Peterka's methodologies. Furthermore, the Commission is not persuaded by SDG&E's use of the SAWTI to try to establish that the wind and weather conditions in San Diego County in October 2007 created the largest wildfire threat since 1984 because of more refined testimony provided by the other parties.

Because we find the methodologies that UCAN's experts utilized in developing its testimony to be more consistent with the actual weather and wind conditions in San Diego County in October 2007, the Commission does not find that the 2007 Wildfires were spread under unprecedented wind and weather conditions. SDG&E fails to show how the wind and weather conditions impacted its operation and management of its facilities involved in the 2007 Wildfires.

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<sup>228</sup> UCAN Phase 1 Opening Brief at 19.

#### **4.6. Reconsideration of Threshold Issues**

While the August 11, 2016 ruling rejected the Joint Intervenors' briefs requesting the dismissal of this application based on the aforementioned Threshold Issues, the ruling did allow for the re-consideration of the Threshold Issues after the development of the evidentiary record. Since the August 11, 2016 ruling, there have been no additional testimonies or briefs submitted referencing the Threshold Issues. With this decision, the Commission denies A.15-09-010 based on SDG&E's imprudent management of its facilities. As such, the Threshold Issues should be denied as moot.

#### **5. Conclusion**

Almost 10 years have passed since the Witch, Guejito, and Rice Wildfires ripped through San Diego County in October 2007. The parties to this proceeding have produced a voluminous record on which the Commission must base its decision. And although ORA and UCAN were not present at Grid Operations on October 21, 2007, or at the August 30, 2007 patrol inspection of P196394 and P196387, or privy to the implementation of SDG&E's Vegetation Management Program, ORA, UCAN, MGRA and Henricks have presented evidence which paints a clearer picture of SDG&E's utility management prior to the ignition of the 2007 Wildfires.

As to the Witch Fire, the Commission is not persuaded that SDG&E utilized good utility practice when it allowed three faults to occur within a span of 3.5 hours, on a line with a history of 9 multiple fault days in a 24-year period. Multiple faults on TL 637 on a single day during a Red Flag Warning should have been of more concern to SDG&E than the threat of the Harris Fire to the Southwest Powerlink. Additionally, while SDG&E's recloser policy was industry practice, it was unreasonable for SDG&E to allow 6.5 hours to elapse

between the initial fault at 8:53 a.m. on TL 637 and the de-energizing of TL 637 at 3:27 p.m.

As to the Guejito Fire, SDG&E cannot just point to its Corrective Maintenance Program to show it fulfilled its duty to be a reasonable and prudent manager. SDG&E did not utilize good utility practice when it failed to discover the 3.3-foot clearance violation after conducting what it purported to be thorough patrol and visual inspections prior to October 22, 2007. And although the record shows SDG&E completed inspections prior to the Guejito Fire ignition, it is unreasonable for six years to have elapsed without finding or addressing the clearance violation between the SDG&E overhead conductor and the Cox line.

As for the Rice Fire, SDG&E fails to explain why it ignored its own contractor's recommendation to trim FF1090 within 0 to 3 months of Davey's July 2007 inspection. Furthermore, SDG&E's utilization of its Vegetation Management Program does not absolve SDG&E of its responsibility to act reasonably in light of specific information. Because SDG&E had labeled FF1090 as a fast grower, SDG&E should have trimmed FF1090 before October 22, 2007.

Finally, even if we were to find SDG&E's operations reasonable under the circumstances, SDG&E cannot use the wind and weather conditions of October 2007 to mitigate SDG&E's failure to operate as reasonable and prudent manager. SDG&E's witnesses fail to accurately present the wind and weather conditions in October 2007. Moreover, SDG&E does not prove that the Witch, Guejito and Rice Wildfire were due to unforeseeable circumstances beyond SDG&E's control.

Because SDG&E has failed to prove by a preponderance of the evidence that its management and operation of its facilities prior to the ignition of the Witch, Guejito and Rice wildfires were reasonable, we find SDG&E's management and control of its facilities prior to the 2007 Wildfires imprudent.

California law, Commission practice and precedent all essentially require that before ratepayers bear any costs incurred by the utility, those costs must be just and reasonable. Because we find SDG&E's management and control of its facilities prior to the ignition of the Witch, Guejito and Rice Wildfires unreasonable, such costs incurred by the utility in settling third-party damage claims are unjust and unreasonable. As such, those costs must not be recovered through ratepayers. SDG&E's request to recover \$379 million recorded in its WEMA must be denied.

With the denial of SDG&E's application, there is no reason for SDG&E's Wildfire Expense Memorandum Account to remain open to recover: (a) wildfire claims, including any deductibles, co-insurance and other incremental insurance expense paid by SDG&E that are not authorized as part of SDG&E's General Rate Case or any other proceeding; and (b) incremental outside legal costs incurred by SDG&E in the defense of wildfire claims.<sup>229</sup> After the adoption of this decision, it is appropriate for SDG&E to file a Tier 1 Advice Letter with the Commission's Energy Division to implement the denial of \$379 million from its WEMA and to close the account.

Since SDG&E's application is denied based on its unreasonable management and control of its facilities, there is no need to re-consider the Threshold Issues identified in the Scoping Ruling. The Threshold Issues should be denied as moot.

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<sup>229</sup> A.15-09-010 at Attachment B.

## **6. Intervenor Compensation**

Per Public Utilities Code Section 1804(c), following the issuance of a final order or decision by the Commission in the hearing or proceeding, a customer who, or eligible local government entity that, has been found, pursuant to § 1804 (b), to be eligible for an award of compensation may file within 60 days a request for an award.

## **7. Comments on Proposed Decision**

The PD of the ALJs in the matter was mailed to the parties in accordance with Pub. Util. Code § 311 and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Opening Comments to the PD were filed on September 11, 2017 by SDG&E, ORA, POC, MGRA, and Henricks. Reply Comments were filed by SDG&E, Henricks, MGRA, POC, and UCAN on September 15, 2017. This Decision has been revised where appropriate to address relevant comments.

A second round of comments pertaining to the issue of Inverse Condemnation was filed according to the procedural schedule set via e-mail ruling on September 29, 2017.

SDG&E, PG&E and SCE all argue that the PD commits legal error by failing to address Inverse Condemnation. Further, they argue that under Inverse Condemnation principles, SDG&E would be strictly liable for the costs sought in its application. Thus, they argue that the Commission must approve rate recovery of the costs SDG&E requests here regardless of prudence. SDG&E argue that reasonableness review of the WEMA application should be based exclusively on whether the settlement amounts paid by SDG&E were reasonable. We disagree.

First, Inverse Condemnation principles are not relevant to a Commission reasonableness review under the prudent manager standard. Thus, Inverse Condemnation was not a material issue in Phase 1 and did not merit a dedicated discussion. Notably, even SDG&E withdrew its testimony concerning Inverse Condemnation for purposes of Phase 1.

Second, according to SDG&E's application, the Superior Court only went so far as to rule that the plaintiff homeowners could plead Inverse Condemnation claims in their civil actions against SDG&E. We are not aware of any Superior Court determination that SDG&E was in fact strictly liable for the costs requested in its application. Even if SDG&E were strictly liable, we see nothing in the cited case law that would supersede this Commission's exclusive jurisdiction over cost recovery/cost allocation issues involving Commission regulated utilities.

In response to comments, the section of the decision describing the Rice Fire has been modified to provide more of the details of the facts and legal analysis on which the decision is based. Corresponding findings of fact and conclusions of law have been revised to reflect this.

## **8. Assignment of Proceeding**

Liane M. Randolph is the assigned Commissioner and ALJ S. Pat Tsen and ALJ Pro Tem Sasha Goldberg are the presiding officers to this proceeding.

### **Findings of Fact**

1. Intervening parties argued that Threshold Issues on fairness and moral hazard should bar SDG&E from recovering its costs recorded in the WEMA before a reasonableness review.

2. The assigned ALJ rejected early dismissal of the application based on the Threshold Issues but allowed re-consideration of the Threshold issues after the development of an evidentiary record.

3. Parties have served no additional testimony or briefs on the Threshold Issues.

4. The Witch Fire, which later merged with the Guejito Fire, was the second largest fire to occur in San Diego County in 2007.

5. The SDG&E facility involved in the ignition of the Witch Fire was TL 637.

6. TL 637 is a 69 kV line that connects the Santa Ysabel and Creelman substations.

7. Cal Fire determined that a fault on TL 637 between poles Z416675 and Z416676 on October 21, 2007 led to arcing of the lines, which dispersed hot particles to land in the grassy field below the powerlines.

8. A Red Flag Warning was in place at 4:45 a.m. on October 21, 2007.

9. The first fault on TL 637 occurred at 8:53 a.m. on October 21, 2007.

10. The second fault on TL 637 occurred at 11: 22 a.m. on October 21, 2007.

11. The third fault on TL 637 occurred at 12:23 p.m. on October 21, 2007.

12. The Witch Fire ignited at 12:23 p.m., after the third fault on TL 637.

13. SDG&E's Grid Operations became aware of the Witch Fire at 1:10 p.m. on October 21, 2007.

14. The fourth fault on TL 637 occurred at 3:25 p.m. on October 21, 2007.

15. SDG&E's recloser policy was industry practice.

16. On October 21, 2007, it took 6.5 hours for Grid Operations to de-energize TL 637.

17. SDG&E did not calculate the fault location information data stored in the relay until October 22, 2007.

18. It would take a protective engineer 1.5 hours to calculate the exact location of the faults on TL 637.

19. SDG&E was aware of the 2001 Power Line Fire Prevention Field Guide, which put SDG&E on notice that automatic reclosers re-energizing the line increases the probability of igniting vegetation.

20. The Guejito Fire ignited on October 22, 2007 near Escondido, California.

21. The SDG&E facility involved in the ignition of the Guejito Fire was a 12 kV overhead conductor.

22. CPSD and Cal Fire attributed the ignition of the Guejito Fire to a Cox Communications lashing wire coming into contact with an SDG&E 12 kV overhead conductor, between poles P196387 and P196394.

23. Rule 38 of GO 95 sets a minimum clearance of 6 feet for wires from other wires at crossings.

24. The November 2, 2007 survey completed by the SDG&E contractor, Nolte Associates, Inc. documented a 3.3-foot clearance between the SDG&E conductors and the Cox Communications line prior to any repair being completed after the ignition of the Guejito Fire.

25. At the time of the Guejito Fire ignition, SDG&E had in place its Corrective Maintenance Program to conduct patrol and detailed inspections on its facilities.

26. SDG&E completed a patrol inspection on P196387 and P196394 on August 30, 2007 and a detailed inspection on June 22, 2007 and April 8, 2005, but did not uncover the 3.3-foot clearance violation.

27. The Cox Communications Facilities were installed in August 2001.

28. SDG&E presented evidence that it is not known when the clearance violation between the Cox Communications line and the SDG&E overhead conductors first occurred.

29. The Rice Fire ignited on October 22, 2007 in Fallbrook, California.

30. CPSD determined that a limb from sycamore Tree FF1090 broke and fell onto SDG&E 12 kV overhead conductors causing a powerline to fall to ignite the ground below.

31. To track and monitor vegetation around powerline facilities and comply with General Order 95 and Public Resources Code Section 4293, SDG&E designed and implemented a Vegetation Management Program and Tree-Pre-inspection procedures that were in place at the time of the ignition of the Rice Fire.

32. The Tree Information Sheet for Tree FF1090 listed it as a "fast grower" prior to and at the time of the ignition of the Rice Fire, with between 4 and 6 feet of growth per year.

33. The Tree Information Sheet for Tree FF1090 shows that it was trimmed approximately every 12 months except for two occasions: 1) After being trimmed on May 1, 2000, it was next trimmed on April 29, 2002 and 2) after being trimmed on February 11, 2005, it was not trimmed again until the day of the Rice Fire on October 22, 2007.

34. A January 2, 2002 inspection recorded Tree FF1090 with a 1.5 to 4 foot clearance from the conductors and subsequently trimmed on April 29, 2002.

35. A July 18, 2007 inspection of Tree FF1090 advised SDG&E of a direct overhang and marked it for trimming within zero to three months.

36. SDG&E's Vegetation Management System considers the tab 'zero to three months' to begin during the subsequent trim cycle, which in this case meant between September to November, 2007.

37. SDG&E's inspector marked the zero to three months tab in the Vegetation Management System to indicate that the tree needed to be trimmed before the

end of three months due to strong growth toward the powerline, which ends on October 18, 2007.

38. SDG&E's inspector mistook the meaning of the zero to three months tab, and did not follow the instructions for SDG&E's Vegetation Management Program.

39. SDG&E's Vegetation Management Program had an inspection protocol for "Reliability Trees."

40. Reliability Trees are trees which pose a threat to the safe and reliable delivery of electricity that have the potential to fail completely or drop limbs onto powerlines.

41. Trees marked as Reliability Trees are mandatorily marked for trimming and heightened inspections.

42. The broken branch of FF1090 was part of at least two vertical branches, possibly more, growing closely together.

43. SDG&E's testimony indicates that FF1090's broken branch matched the description of two checklist items in the Hazard Tree Checklist.

44. FF1090 was not marked as a Reliability Tree before the Rice Fire.

45. SDG&E failed to trim Tree FF1090 for a 29-month period prior to the ignition of the Rice Fire.

46. Dr. Gershunov's estimates of the peak wind gusts speeds for the 2007 Wildfires are more compelling than Dr. Peterka's because he relied on contemporaneous wind and weather data recorded during October 2007 to validate his estimates.

### **Conclusions of Law**

1. For costs to be found reasonable, the utility must prove that they were prudently incurred by competent management exercising the best practices of

the era, and using well-trained, well-informed and conscientious employees who perform their jobs properly.

2. As required by Public Utilities Code Section 451 all rates and charges collected by a public utility must be “just and reasonable.”

3. The burden of proof is on SDG&E to demonstrate that it is entitled to the relief sought in this proceeding, including affirmatively establishing the reasonableness of all aspects of the application.

4. The standard of proof that SDG&E must meet is that of a preponderance of evidence, which means the evidence presented by SDG&E must be more convincing and have a greater probability of truth when weighed against opposing evidence.

5. SDG&E’s operation and management of its facilities prior to the ignition of the 2007 Wildfires is subject to a reasonableness review.

6. The reasonableness review entails a review on the prudence of SDG&E’s actions leading up to the ignition of the 2007 Wildfires.

7. Evidence of accepted industry practices is relevant to a reasonableness inquiry, but compliance with such practices is not dispositive.

8. Evidence of following accepted industry practices does not relieve SDG&E of the burden of showing that its conduct was reasonable.

9. SDG&E fails to prove by a preponderance of the evidence that its operation and management of its facilities prior the ignition of the Witch Fire were reasonable.

10. The combination of the Red Flag Warning in place on October 21, 2007, three faults on a line over a period of 3.5 hours after having only 9 multiple fault days in that same line’s 24-year history, should have caused SDG&E to act more aggressively.

11. The threat of the Harris Fire to the Southwest Powerlink does not excuse SDG&E's failure to monitor the faults on TL 637.

12. The 2003 Wildfires put SDG&E on notice of the potential for wildfires in its service territory.

13. SDG&E fails to prove by a preponderance of the evidence that its operation and management of its facilities prior to the ignition of the Guejito Fire were reasonable.

14. It was imprudent of SDG&E to not discover the clearance violation between its overhead conductor and the Cox Communication line for 6 years.

15. SDG&E failed to maintain its facilities in compliance with GO 95 Rule 38 clearance requirements prior to the ignition of the Guejito Fire.

16. SDG&E failed to prudently inspect its facilities prior to the ignition Guejito Fire.

17. General Order 95, Rule 35 requires that where dead, rotten or diseased trees or dead, rotten or diseased portions of otherwise healthy trees overhang or lean toward power conductors, those trees or portions are to be removed.

18. Public Resources Code Section 4293 requires radial clearance of 4 feet between vegetation and 12 kV conductors.

19. SDG&E failed to properly train its tree pre-inspectors, causing the inspector to incorrectly mark fields in its Vegetation Management System.

20. SDG&E failed to prove by a preponderance of the evidence that it could not identify the defective limb in Tree FF1090.

21. SDG&E fails to prove by a preponderance of the evidence that its operation and management of its facilities prior to the ignition of the Rice Fire were reasonable.

22. SDG&E failed to prudently manage the facilities connected with the 2007 Wildfires.

23. Because we find Dr. Gershunov's analysis of the wind gust speeds at the time of the ignition of each of the 2007 Wildfires more compelling, the 2007 Wildfires were not spread under extraordinary circumstances.

24. SDG&E has not justified recovering from ratepayers costs incurred to resolve third-party damage claims arising from the Witch, Guejito and Rice Wildfires.

25. SDG&E's requested relief should be denied.

26. SDG&E should file a Tier 1 Advice Letter with the Commission's Energy Division to implement the provisions of this decision.

27. The Threshold Issues identified in the Scoping Memorandum should be denied as moot.

28. This decision should be effective today.

29. Application 15-09-010 should be denied.

## **O R D E R**

**IT IS ORDERED** that:

1. The application by San Diego Gas and Electric Company for Authorization to Recover Costs Related to the 2007 Southern California Wildfires Recorded in the Wildfire Expense Memorandum Account is denied.

2. The Threshold Issues as identified in the Scoping Memorandum are denied as moot.

3. Within 30 days of the effective date of this decision, San Diego Gas and Electric Company shall file a Tier 1 Advice Letter to implement the denial of (a) wildfire claims, including any deductibles, co-insurance and other incremental insurance expense paid by SDG&E that are not authorized as part of SDG&E's General Rate Case or any other proceeding; and (b) incremental outside legal costs incurred by SDG&E in the defense of wildfire claims from its Wildfire Expense Memorandum Account as ordered in this decision, and to close the account.

4. All pending motions in Application 15-09-010 are hereby denied.

5. Application 15-09-010 is closed.

This order is effective today.

Dated November 30, 2017, at San Francisco California.

MICHAEL PICKER  
President  
CARLA J. PETERMAN  
LIANE M. RANDOLPH  
MARTHA GUZMAN ACEVES  
CLIFFORD RECHTSCHAFFEN  
Commissioners