Decision 14-05-020 May 15, 2014

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Revise and Clarify Commission Regulations Relating to the Safety of Electric Utility and Communications Infrastructure Provider Facilities.	Rulemaking 08-11-005 (Filed November 6, 2008)

DECISION GRANTING IN PART AND DENYING IN PART THE PETITION TO MODIFY DECISION 12-01-032

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1. Summary

In response to the petition to modify Decision (D.) 12-01-032 that was filed jointly by Bear Valley Electric Service, Pacific Gas and Electric Company, and Southern California Edison Company, today's decision adopts the following modifications to the fire-prevention plans (FPPs) that certain investor-owned electric utilities ("electric IOUs") must prepare pursuant to D.12-01-032 and General Order (GO) 166. First, D.12-01-032 and GO 166 require an electric IOU's FPP to address the situation where all three of the following conditions occur simultaneously: (1) The force of 3-second wind gusts exceeds the structural design standards for the affected overhead power-line facilities; (2) these 3-second gusts occur during a period of high fire danger; and (3) the affected facilities are located in a high fire-threat area. Today's decision requires an electric IOU's FPP to identify the specific parts of the utility's service territory where all three of these conditions may occur simultaneously.

Second, today's decision authorizes, but does not require, electric IOUs to address other fire hazards in their FPPs.

Finally, the requirement that FPPs must specify how an electric IOU will identify in real time the occurrence of 3-second wind gusts that exceed design standards is eliminated. This requirement is not necessary because electric IOUs may implement effective fire-prevention measures that do not rely on real-time observations of wind speed.

The modified FPPs adopted by today's decision will enhance the ability of electric IOUs to prepare and implement these plans efficiently. This should help such entities to fulfill their obligation under Public Utilities Code Section 451 to

"furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities…as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public." Today's decision may affect the costs that electric IOUs incur to prepare and implement FPPs, but the potential cost impact is unknown.

The petition to modify D.12-01-032 is granted to the extent it is consistent with the revisions to the FPPs adopted by today's decision. The petition is denied in all other respects.

This proceeding remains open to address the remaining issues within the scope of Phase 3 of this proceeding.

2. Background

In October 2007, strong Santa Ana winds swept across Southern California and caused dozens of wildfires. The resulting conflagration burned more than 780 square miles, killed 17 people, and destroyed thousands of homes and buildings. Hundreds of thousands of people were evacuated at the height of the fire siege. Transportation was disrupted over a large area for several days, including many road closures. Portions of the electric power network, public communication systems, and community water sources were destroyed.

Several of the worst wildfires were reportedly ignited by power lines. These included the Grass Valley Fire (1,247 acres), the Malibu Canyon Fire (4,521 acres), the Rice Fire (9,472 acres), the Sedgewick Fire (710 acres), and the Witch Fire (197,990 acres). The total area burned by these five power-line fires exceeded 334 square miles.

In response to the widespread devastation, the Commission issued Order Instituting Rulemaking (R.) 08-11-005 to consider and adopt regulations to reduce the fire hazards associated with overhead power lines and aerial communication facilities in close proximity to power lines.

R.08-11-005 was split into three phases. The focus of Phase 1 was to adopt fire-prevention measures that could be implemented in time for the 2009 autumn fire season in Southern California. Phase 1 concluded with the issuance of Decision (D.) 09-08-029. The purpose of Phase 2 was to address matters that required more time to consider and implement. Phase 2 concluded with the issuance of D.12-01-032, as modified by D.13-06-011.[1] The purpose of Phase 3, which is currently in progress, is to consider and develop additional fire-safety regulations regarding the specific matters identified in D.12-01-032.[2]

Among the fire-safety regulations adopted by D.12-01-032 is the requirement for certain investor-owned electric utilities (hereafter, "electric IOUs") to prepare and submit FPPs as set forth in Ordering Paragraphs (OPs) 2 - 5 of the decision:

> 2. Each investor-owned electric utility in Southern California shall (i) prepare a fire-prevention plan, and (ii) file and serve a copy of its fire-prevention plan by December 31, 2012, via a Tier 1 Compliance Advice Letter.
> 3. Each investor-owned electric utility in Northern California shall take the following steps to determine the risk of catastrophic power-line fires in its service territory and prepare a fire-prevention plan, if necessary:

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[1] The modifications to D.12-01-032 that were adopted by D.13-06-011 are not relevant to today's decision.

[2] Two decisions have been issued in Phase 3 thus far (D.14-02-015 and D.14-01-010).

i. Identify its overhead power-line facilities that are located in high fire-threat areas on the fire-threat maps adopted by [D.12-01-032].

ii. Make a good-faith effort to obtain historical records of Red Flag Warnings issued by the National Weather Service that applied to areas occupied by facilities identified in the previous Item (i).

iii. Make a good-faith effort to obtain historical wind records of Remote Automatic Weather Stations located within 25 miles of the facilities identified in Item (i).

iv. Use the information from Items (ii) and (iii) to estimate how often, if ever, 3-second wind gusts occur during a Red Flag Warning that exceed the maximum working stress specified in General Order 95 [GO 95], Section IV, for facilities identified in Item (i).

v. Develop a fire-prevention plan if the utility determines, after completing the previously identified tasks, that it has overhead power-line facilities in a high fire-threat area where it is reasonably foreseeable that the probability of 3-second wind gusts exceeding the maximum working stresses for such facilities during a Red Flag Warning is 3% or more during a 50-year period.

vi. File a Tier 1 Compliance Advice Letter… that either (a) contains a copy of the fire-prevention plan, or (b) provides notice that a fire-prevention plan is not required by today's decision.

4. The fire-prevention plans… shall address situations where all three of the following conditions occur simultaneously: (i) 3-second wind gusts exceed the structural or mechanical design standards for the affected overhead power-line facilities, (ii) these 3-second gusts occur during a period of high fire danger, and (iii) the affected facilities are located in a high fire-threat area. For the purpose of this Ordering Paragraph , the following definitions apply: (a) structural and mechanical design standards are the maximum working stresses set forth in Section IV of [GO 95]; (b) period of high

fire danger is the period covered by a Red Flag Warning issued by the United States National Weather Service; and (c) high fire-threat areas are areas designated as such on the fire-threat maps adopted by [D.12-01-032].

5. The fire-prevention plans required by [D.12-01-032] shall specify (i) how the investor-owned electric utility will identify the occurrence of 3-second wind gusts that exceed the structural or mechanical design standards for overhead power-line facilities; and (ii) the countermeasures the utility will implement to mitigate the threat of power-line fire ignitions.

The requirements of OP 4 were added to General Order (GO) 166 which requires, among other things, that every electric utility subject to the Commission's jurisdiction to annually prepare and submit a plan that sets forth the utility's anticipated responses to emergencies and major outages.[3]

In accordance with the previously cited OPs of D.12-01-032, each of the following electric IOUs filed a Tier 1 Advice Letter containing its fire-prevention plan (FPP): Bear Valley Electric Services (BVES), California Pacific Energy Company (CalPeco),[4] Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), and Southern California Edison Company (SCE). PacifiCorp filed an Advice Letter stating that it was not required to prepare a fire-prevention plan pursuant to OP 3 of D.12-01-032.

Protests to the Advice Letters were filed by AT&T of California, the Commission's Safety and Enforcement Division (SED), and the Mussey Grade Road Alliance (MGRA). MGRA's protest asserted, among other things, that most of the FPPs failed to comply with the requirement in OP 5(i) of D.12-01-032 to

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[3] GO 166, Standard 1, preamble.

[4] CalPeco is now known as Liberty Utilities LLC.

specify how the utility will identify the occurrence of 3-second wind gusts that exceed the structural or mechanical design standards for the utility's overhead power-line facilities.

In response to the Advice Letters, the California Public Utilities Commission (Commission) issued Resolution E-4576 on May 24, 2013. Of relevance to today's decision, Resolution E-4576 addressed MGRA's protest, in part, as follows:

> MGRA… argues that all the FPPs except SDG&E's fail to address the requirement in OP 5(i) to specify how the utility will identify the occurrence of 3-second wind gusts that exceed the structural or mechanical design standards for overhead power-line facilities. The utilities in question contend that it is unnecessary to comply with OP 5(i) because the FPPs apply regardless of wind speed. We find that although there may be some merit to the utilities' position, they should not have used their Tier 1 Compliance Advice Letters… to obtain a waiver from OP 5(i). To resolve this matter, we will provisionally accept the ALs filed by BVES, CalPeco, PG&E, and SCE with the requirement that the updated FPPs they submit with their next updated Emergency Response Plans pursuant to GO 166 comply fully with OP 5(i), or, alternatively, they **file a petition to modify OP 5(i)**. If they choose the latter, we will continue to accept on a provisional basis the FPPs included in their updated Emergency Response Plans pending the disposition of the petition to modify. (Resolution E-4576 at 21. Emphasis added.)

As authorized by Resolution E-4576, on October 17, 2013, the following electric IOUs jointly filed a petition to modify OP 5(i) of D.12-01-032: BVES, PG&E, and SCE (together, "the IOU Petitioners"). MGRA and SED filed responses on November 18, 2013. The IOU Petitioners filed a reply on December 2, 2013.

3. Summary of the Petition to Modify Decision (D.) 12-01-032

3.1. Purpose of the Proposed Modifications

The IOU Petitioners aver that the purpose of their FPPs is to identify periods of high fire danger so they can initiate fire-prevention and fire-mitigation measures in a timely manner. To this end, the IOU Petitioners use the following nationally recognized fire-threat indicators in their FPPs to identify periods of high fire danger:

- BVES – National Weather Service (NWS) Red Flag Warnings and U.S. Forest Service warnings.
- PG&E – California Department of Forestry and Fire Protection (Cal Fire) fire adjective index and Red Flag Warnings.
- SCE – Red Flag Warnings.

The IOU Petitioners contend that D.12-01-032 forecloses their ability to use the above-listed fire-threat indicators because the Decision requires FPPs to specify "how the utility will identify the occurrence of 3-second gusts that exceed the structural or mechanical design standards for overhead power-line facilities."[5] The IOU Petitioners assert that the Decision's requirement to use 3-second wind gusts as a fire-threat indicator, to the exclusion of other indicators, is problematic for several reasons. First, the IOU Petitioners state that "3-second wind gusts" is a narrow and markedly inferior fire-threat indicator compared to the broadly based fire-threat warnings issued by government agencies. In particular, the NWS's Red Flag Warnings are based on concurrent conditions of wind, humidity, fuel moisture, and dry lightning. Similarly, Cal Fire's fire adjective index combines weather forecast data (wind, precipitation, etc.) and

[5] D.12-01-032, at 51 and OP 5(i) at 175.

surface fuels to classify the daily fire threat from low to extreme using the National Fire Danger Rating System.

Second, notices of Red Flag Warnings and the fire adjective index are issued on both a forecast and real time basis, which enables electric IOUs to prepare for hazardous fire conditions. In contrast, D.12-01-032 requires electric IOUs to rely on 3-second gusts that exceed design standards. This does not enable electric IOUs to take precautions until hazardous fire conditions are in progress. The IOU Petitioners believe that safety would be enhanced by using fire-threat indicators that trigger precautionary countermeasures before hazardous fire conditions occur.

Finally, the IOU Petitioners argue that because their FPPs use fire-threat indicators that will trigger countermeasures when it is reasonably foreseeable that the specific fire hazards specified in OP 5(i) of D.12-01-032 will occur, the Decision's requirement to identify specific wind speeds in real time will needlessly increase costs to utility customers. SCE estimates that the cost of deploying a weather station network for its service territory would be nearly $18 million, assuming one weather station for every 28 square miles of service territory at a hypothetical unit installation cost of $10,000.

3.2. Text of the Proposed Modifications

The IOU Petitioners request that D.12-01-032 be modified to provide electric IOUs with discretion to determine the appropriate fire-threat indicators for their FPPs. Rule 16.4(b) of the Commission's Rules of Practice and Procedure requires "specific wording to carry out all requested modifications to the decision." The IOU Petitioners request the following modifications to D.12-01-032. The text to be added is underlined, and the text to be removed is struck through.

Modified dicta at page 51 of D.12-01-032:

> A utility's fire-prevention plan must specify (A) the indicators a utility will use to timely identify periods of extreme fire-weather conditions that may increase the risk of fire associated with overhead power-line facilities [New footnote added. See below.] ~~how the utility will identify the occurrence of 3-second gusts that exceed the structural or mechanical design standards for overhead power-line facilities~~; and (B) the countermeasures the utility will implement to mitigate the threat of power-line fire ignitions. Today's decision does not require any particular countermeasures.

New Footnote at page 51:

> Such indicators might include, but are not limited to, for example, the occurrence of 3-second wind gusts that exceed the structural or mechanical design standards for overhead power-line facilities.

Modified dicta at pages 54-55:

> Several parties express concern that electric utilities cannot predict hazardous wind conditions or power-line fires. Today's decision does not require such predictions. Rather, today's decision requires electric IOUs to monitor fire threat warnings, weather reports, weather stations or other such indicators to determine when wind conditions are likely to exceed GO 95 design standards during extreme fire-weather conditions so as to be able ~~and~~ to timely implement countermeasures to reduce the ~~likelihood~~ possibility of power-line fires during these conditions.

Modified Conclusion of Law (COL) 8:

> Each electric IOU's fire-prevention plan should address situations where: ~~all three of~~ (1) the following conditions occur simultaneously: (i) 3-second wind gusts exceed the structural and mechanical design standards for overhead power-line facilities; (ii) these 3-second gusts occur during a period of high fire danger; and (iii) the affected facilities are located in high fire-threat areas; or (2) periods of extreme fire-weather conditions increase the risk of fire associated with overhead power-line facilities. The FPP should also specify (a) either:

> (i) how the utility will identify the occurrence of 3-second gusts that exceed the design standards for overhead power-line facilities; or (ii) the indicators that a utility will use to timely identify periods of extreme fire-weather conditions that may increase the risk of fire associated with overhead power-line facilities; and (b) the countermeasures the utility will implement to mitigate the threat of power-line fire ignitions.[6]

Modified Ordering Paragraph (OP) 5:

> The FPP required by today's decision shall specify (i) the indicators that a utility will use to timely identify periods of extreme fire-weather conditions that may increase the risk of fire associated with overhead power-line facilities ~~how the investor-owned electric utility will identify the occurrence of 3-second wind gusts that exceed the structural or mechanical design standards for overhead power-line facilities)~~; and (ii) the countermeasures the utility will implement to mitigate the threat of power-line fire ignitions.

3.3. Reply to Other Parties

The IOU Petitioners disagree with SED and MGRA's contention, summarized below, that allowing electric IOUs to use other fire-threat indicators such as Red Flag Warnings would reduce safety. The IOU Petitioners believe that expanding the array of fire-threat indicators that may be used to trigger fire-prevention measures necessarily increases safety.

The IOU Petitioners state that SED and MGRA mistakenly suppose that electric IOUs' fire-prevention measures would change if other fire-threat indicators were used instead of 3-second wind gusts. The IOU Petitioners reply that replacing the fire-threat indicator of "3-second wind gusts that exceed

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[6] Incongruously, the proposed modifications COL 8 are not carried forward to OP 4 or GO 166, even though the text of COL 8 is similar to OP 4 and GO 166. Nor are the proposed modifications to COL 8 carried back to the dicta at pages 51-52 of D.12-01-032, which also has text that is similar to COL 8.

design standards" with nationally recognized fire-threat indicators such as Red Flag Warnings that have a lower wind-threshold will simply cause electric IOUs to activate their fire-prevention measures at a lower wind threshold. The fire-prevention measures themselves would not change.[7]

The IOU Petitioners dispute MGRA's assertion, summarized below, that the petition would eliminate severe wind as a trigger for fire-prevention measures. The IOU Petitioners reply that broad fire-threat indicators such as Red Flag Warnings include severe wind. While Red Flag Warnings may be issued at a relatively low wind threshold when other hazardous fire conditions are present, there is no upper limit on wind speed for a Red Flag Warning.

Finally, the IOU Petitioners disagree with SED's assertion, summarized below, that using nationally recognized fire-threat indicators rather than severe wind gusts may negatively affect the development of fire-threat maps in Phase 3 of this proceeding. The IOU Petitioners reply that their petition is focused on the appropriate triggers for fire-prevention measures, and is unrelated to how wind data might be used in creating fire-threat maps.

4. Responses to the Petition

4.1. Mussey Grade Road Alliance

MGRA supports the proposed modifications to D.12-01-032 to the extent they would clarify the Commission's intent in the Decision that severe winds should be used in conjunction with other fire-threat indicators to trigger fire-prevention measures. MGRA opposes the proposed modifications to the

[7] The IOU Petitioners submit that the only reason a utility might need to measure 3-second wind gusts in real time would be to support a decision to shut-off power. The IOUs posit that they do not have this option in the normal course of business. (12-01-032 at COL 9 and OP 6.)

extent they would replace severe winds with routine fire-threat hazards.

MGRA believes the IOU Petitioners' request to replace severe 3-second wind gusts with unspecified fire-threat indictors would weaken public safety. This is because wind speed is directly related to the ignition and propagation of power-line fires. MGRA cites data released by SDG&E in A.08-12-021 which shows that the number of outages increases by a factor of ten with every 20 mph increase in wind speed. MGRA states that wind-caused outages can ignite fires through several mechanisms such as clashing power lines and falling trees limbs. Once ignited, strong winds can cause power-line fires to spread rapidly. This is why the average size of power-line fires is ten times larger than fires ignited by other sources, according to MGRA. Strong winds also explain why multiple power-line fires occur at nearly the same time, as was observed in Southern California in 2007 and Australia in 2009.

MGRA is also concerned that the proposed modifications would weaken public safety by allowing electric IOUs to limit their fire-prevention measures to routine fire-weather events and ignore the fire hazard posed by severe winds. In particular, MGRA notes there are multiple Red Flag Warnings annually in California. MGRA declares that electric IOUs are already required by GO 95 to build and maintain their power-line facilities to operate safely in these regularly occurring conditions. Moreover, the wind conditions that can trigger a Red Flag Warning can range from zero miles per hour (mph) to 35 mph, depending on other concurrent fire-weather conditions. MGRA states it is not clear how fire-prevention measures aimed at the relatively low wind thresholds in Red Flag Warnings would reduce the extreme fire risks associated with severe winds.

4.2. Safety and Enforcement Division

SED opposes the petition for two reasons. First, SED believes the proposed modifications to D.12-01-032 would weaken safety by eliminating the requirement to implement fire-prevention measures that are specifically designed to mitigate the risks of severe fire-weather. Second, SED is concerned that allowing electric IOUs to use fire-threat indicators that do not incorporate severe winds may affect the development of fire-threat maps in Phase 3, Track 3 of this proceeding. SED cautions against using Red Flag Warnings as the sole basis for fire-threat maps, as severe wind gusts are a primary fire hazard for overhead power-line facilities.

5. Discussion

A threshold issue is whether the petition to modify D.12-01-032 complies with Rules 16.4(b) and 16.4(d) of the Commission's Rules of Practice and Procedure. Rule 16.4(b) states:

> A petition for modification of a Commission decision must concisely state the justification for the requested relief and must propose specific wording to carry out all requested modifications to the decision. Any factual allegations must be supported with specific citations to the record in the proceeding or to matters that may be officially noticed. Allegations of new or changed facts must be supported by an appropriate declaration or affidavit.

The IOU Petitioners have satisfied Rule 16.4(b). Their petition provides justification for the requested relief and specific wording to carry out the requested modifications to D.12-01-032. All factual allegations in the petition are supported with citations to the record of this proceeding.

Rule 16.4(d) states:

> [A] petition for modification must be filed and served within one year of the effective date of the decision proposed to be modified. If more than one year has elapsed, the petition must also explain why the petition could not have been presented within one year of the effective date of the decision. If the Commission determines that the late submission has not been justified, it may… issue a summary denial of the petition.

The IOU Petitioners were authorized by Resolution E-4576 to file their petition to modify D.12-01-032 more than one year after the decision.[8] Accordingly, the petition complies with Rule 16.4(d).

We next consider the merits of the petition. As set forth in D.12-01-032, an electric IOU's FPP must:

1. Address situations where all three of the following conditions occur simultaneously: (i) 3-second wind gusts exceed the structural or mechanical design standards for the affected overhead power-line facilities, (ii) these 3-second gusts occur during a Red Flag Warning, and (iii) the affected facilities are located in a high fire-threat area.
2. Specify how the electric IOU will identify the occurrence of 3-second wind gusts that exceed the structural or mechanical design standards for overhead power-line facilities
3. Specify the countermeasures the electric IOU will implement to mitigate the threat of power-line fire ignitions.

The IOU Petitioners seek to modify Items 1 and 2 above (but not Item 3). We address the proposed modifications to Item 1 and Item 2 below. In deciding whether to grant the petition, the primary standard we will use is whether the proposed modifications to D.12-01-032 will enhance fire safety. We must also

[8] E-4576 at 1, 2, 20, and OP 1 at 21.

keep in mind the costs and public-safety benefits of our regulations. If the proposed modifications to D.12-01-032 reduce the cost of our regulations with no adverse effect on public safety, the modifications should be adopted.

5.1. Scope of Fire Prevention Plans

The IOU Petitioners seek to modify the requirement in D.12-01-032 that that FPPs shall address the situation where all of the following conditions occur simultaneously: (i) 3-second wind gusts exceed the structural or mechanical design standards for the affected overhead power-line facilities, (ii) these 3-second gusts occur during a Red Flag Warning, and (iii) the affected facilities are in a high fire-threat area. The petition seeks to give electric IOUs the option of addressing in their FPPs either (1) the previously identified situation, or (2) the "periods of extreme fire-weather conditions [that] increase the risk of fire associated with overhead power-line facilities.[9]"

We decline to grant the petition to the extent it does not require FPPs to explicitly address the situation described in D.12-01-032. This situation is a worst case scenario for weather-related ignitions of power-line fires to occur and burn out of control. The Commission held in D.12-01-032 that the central purpose of the FPPs required by the Decision is to ensure that electric IOUs prepare for this worst-case scenario:

> We agree with MGRA that electric utilities should develop and implement FPPs to address situations where it is reasonably foreseeable that strong winds may exceed the structural limits of overhead electric facilities during periods of high fire danger. The need for FPPs is demonstrated by the events of October 2007 when strong Santa Ana winds in Southern California caused power

[9] Petition at 9.

> lines to ignite wildfires at multiple locations. Together, these power-line fires burned more than 334 square miles and caused immense devastation and disruption, including the largest evacuation in California's history. It is virtually certain that Southern California will continue to experience Santa Ana windstorms. Thus, there is a grave and ongoing risk that Santa Ana windstorms will again cause power lines to ignite catastrophic wildfires unless electric utilities plan and prepare for such events. (D.12-01-032 at 48. Footnote omitted. See also Finding of Fact 3.)
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> Consistent with MGRA's proposal, the FPPs shall address situations where all three of the following conditions occur simultaneously: (1) 3-second wind gusts exceed the structural or mechanical design standards for the affected overhead power-line facilities, (2) these wind gusts occur during a period of high fire danger, and (3) the affected facilities are located in a high fire-threat area. We define "structural or mechanical design standards" as the maximum working stresses set forth in GO 95, Section IV. We define "period of high fire danger" as the period covered by a Red Flag Warning issued by the United States National Weather Service. We define high fire-threat areas as areas designated as such on the fire-threat maps adopted later in today's decision. (D.12-01-032 at 50-51. Footnote omitted. See also Conclusions of Law 6-8 and Ordering Paragraphs 2-5.)

We conclude that public safety would be diminished if electric IOUs did not plan for, and take steps to mitigate, the worst case fire-threat scenario identified in D.12-01-032. Such a result would be contrary to both the goals of this proceeding and the public interest. We affirm our determination in E-4576

that electric IOUs should work aggressively to put into place a comprehensive suite of fire-prevention measures to address this worst case fire-threat scenario.[10]

We are not convinced by the IOU Petitioners that their proposed modifications to D.12-01-032 are benign with respect to public safety because the modifications would not change the IOU Petitioners' fire-prevention measures.[11] While that may be true today, the only way to ensure that the IOU Petitioners' FPPs will continue to address the worst case scenario identified in D.12-01-032 is to retain this requirement.

We are not persuaded by the IOU Petitioners that their proposed modifications to D.12-01-032 would enhance safety by expanding the range of fire threats that may be addressed in FPPs. The Decision already allows, but does not require, electric IOUs to address other fire hazards in their FPPs, in addition to the worst case scenario identified in D.12-01-032.[12] Thus, the proposed modifications do not enhance fire safety. To the contrary, we believe the proposed modifications would weaken fire safety by eliminating the requirement in D.12-01-032 that FPPs must address the worst case fire-threat scenario identified in the Decision.[13]

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[10] E-4576 at 20.

[11] Today's decision does not reach the issue of whether the IOUs' FPPs are adequate for the worst case scenario specified in D.12-01-032.

[12] D.12-01-032 at 51, Footnote 43. ("Electric utilities may develop FPPs that address a broader array of situations than required by today's decision.")

[13] The IOU Petitioners' modifications would require FPPs to address "periods of extreme fire-weather conditions [that] increase the risk of fire-associated with overhead power-line facilities." We find this text to be vague and potentially unenforceable, as it does not establish specific objectives for fire-prevention plans.

We strongly encourage electric IOUs to use the discretion provided by D.12-01-032 to address other fire hazards in their FPPs, in addition to the worst case scenario identified in D.12-01-032. As noted by MGRA, most Red Flag Warnings fall into the "other fire hazards" category.[14] So that our intent is clear, we will modify GO 166 to explicitly authorize, but not require, electric IOUs to address other fire hazards in their FPPs.[15] As contemplated by the petition, an electric IOU's FPP shall identify the other fire hazards addressed by the plan.[16]

5.2. Identification of 3-Second Wind Gusts

In D.12-01-032, the Commission held that an electric IOU's FPP must provide the following information:

> A utility's fire-prevention plan must specify (A) how the utility will identify the occurrence of 3-second gusts that exceed the structural or mechanical design standards for overhead power-line facilities; and (B) the countermeasures the utility will implement to mitigate the threat of power-line fire ignitions. Today's decision does not require any particular countermeasures. Each utility should implement the countermeasures it deems appropriate for its circumstances. We anticipate that countermeasures will include both operational responses to high winds (e.g., adjusting the settings on automatic re-closers) and physical changes to utility facilities (e.g., strengthening facilities). Some countermeasures can likely be implemented relatively quickly, such as operational countermeasures, while other countermeasures that involve physical alternations to overhead power-line facilities may take years or decades to implement completely. (D.12-01-032 at 51. See also Conclusion of Law 8 and Ordering Paragraph 5.)

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[14] MGRA Response filed on November 18, 2013, at 4.

[15] Although D.12-01-032 allows electric IOUs to address other fire hazards in their FPPs, this discretionary authority does not appear in GO 166.

[16] Petition at 8 and 9.

The IOU Petitioners seek to replace the current requirement that FPPs must specify how the electric IOU will identify the occurrence of 3-second wind gusts that exceed the design standards for overhead power-line facilities with a new requirement to specify the indicators the utility will use to timely identify extreme fire-weather conditions. We conclude the requirement to identify the occurrence of 3-second wind gusts is not necessary to the extent it compels electric IOUs to monitor wind gusts in real time. Electric IOUs have authority under D.12-01-032 to deploy fire-prevention measures that can effectively mitigate the fire hazards associated with severe winds without real time information on 3-second wind gusts. Such measures may include, for example, disabling re-closers during periods of forecasted extreme fire weather, attaching line spacers, reinforcing and/or replacing utility poles, and undergrounding power lines. We see no point in requiring electric IOUs to identify 3- second wind gusts in real time if they do not deploy fire-prevention measures that rely on real time observations of wind gusts.

On the other hand, in order to deploy fire-prevention measures that can effectively mitigate the worst case fire-threat scenario, electric IOUs must be able to identify the specific parts of their service territories where it is reasonably foreseeable that all of the following conditions may occur simultaneously: (i) 3-second wind gusts exceed the structural or mechanical design standards for the affected overhead power-line facilities, (ii) these 3-second gusts occur during a Red Flag Warning, and (iii) the affected facilities are in a high fire-threat area.

For the preceding reasons, we will modify D.12-01-032 and GO 166 so that the requirement for FPPs to specify how electric IOUs will identify the occurrence of 3-second wind gusts that exceed the design standards applies only with respect to a utility's determination of the parts of its service territory where

all three of the specified conditions may occur simultaneously.[17] Consistent with D.12-01-032, electric IOUs shall make this determination using a minimum probability of 3% over a 50-year period that 3-second wind gusts which exceed the design standards for the affected facilities will occur during a Red Flag Warning in a high fire-threat area.[18]

6. Implementation

The adopted modifications to GO 166 are shown in Appendix A and Appendix B of this decision. SED shall revise GO 166 to incorporate these modifications and publish the amended General Order on the Commission's website within 60 days from the effective date of today's decision. The adopted modifications include (i) replacing the placeholder "Decision 14-XX-YYY" in Appendix A with the decision number for today's decision; and (ii) replacing the placeholder "[Month and Day]" in Appendix A with the date of today's decision.

The FPPs that electric IOUs submit to the Commission pursuant to D.12-01-032 and GO 166 shall incorporate the modifications adopted by today's decision. The next submission is due on October 31, 2014.

7. California Environmental Quality Act

The California Environmental Quality Act (CEQA) applies to any project that has the potential to cause a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment unless the

[17] Electric IOUs may be able to fulfill this requirement eventually with the fire-threat map(s) that we intend to develop and adopt in Phase 3, Track 3 of this proceeding pursuant to D.12-01-032, OP 8, and D.14-01-010.

[18] D.12-01-032 at 50 and OP 3.v.

project is exempt from CEQA by statute or regulation.[19] The Commission is the lead agency under CEQA with respect to the modifications to D.12-01-032 and GO 166 adopted by today's decision.

No party suggests, and we do not find, that the modifications to D.12-01-032 and GO 166 adopted by today's decision will cause a physical change in the environment, either directly or indirectly. Therefore, the adopted modifications are exempt from CEQA pursuant to Pub. Res. Code § 21065 and 14 Cal. Code Regs. Sec. 15378.

8. Need for Hearing

Public Utilities Code Section (Pub. Util. Code §) 1708.5(f) provides that "the commission may conduct any proceeding to adopt, amend, or repeal a regulation using notice and comment rulemaking procedures, without an evidentiary hearing, except with respect to a regulation being amended or repealed that was adopted after an evidentiary hearing, in which case the parties to the original proceeding shall retain any right to an evidentiary hearing accorded by Section 1708." The regulation amended by today's decision was adopted by D.12-01-032 without an evidentiary hearing. Consequently, there is no need for an evidentiary hearing pursuant to Pub. Util. Code § 1708.5(f).

[19] California Public Resources Code Section (Pub. Res. Code §) 21000 et seq., and 14 California Code of Regulations Section (14 Cal. Code Regs. Sec.) 15378.

9. Comments on the Proposed Decision

The proposed decision (PD) was mailed to the parties on March 24, 2014, in accordance with Pub. Util. Code § 311, and comments were allowed in accordance with Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on April 25, 2014, by MGRA, and on April 28, 2014, by SCE, SED, and jointly by BVES and PG&E. Reply comments were filed on May 5, 2014, by MGRA and SED.[20]

MGRA and SED support the PD. The IOU Petitioners oppose Ordering Paragraph (OP) 1.c of the PD, which requires the IOU Petitioners to:

> Identify the specific parts of the utility's service territory where all three of the conditions listed in OP 1.a may occur simultaneously.[21] In making this determination, the utility shall use a minimum probability of 3% over a 50-year period that 3-second wind gusts which exceed the design standards for the affected facilities will occur during a Red Flag Warning in a high fire-threat area.

The IOU Petitioners argue that the 3%/50-year wind-gust standard in OP 1.c should be deleted for several reasons. First, they contend that the PD errs by relying on D.12-01-032 as precedent for using the 3%/50-year wind-gust standard to define the geographic scope of FPPs. The IOU Petitioners assert that D.12-01-032 used this standard for the sole purpose of determining whether

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[20] SCE submitted a motion by e-mail pursuant to Rule 11.6 for a two-week extension of time to file comments and reply comments on the PD. The assigned Administrative Law Judge granted the motion on April 7, 2014, in an e-mail to service list.

[21] The three conditions listed in OP 1.a are: (i) 3-second wind gusts exceed the structural or mechanical design standards for the affected overhead power-line facilities, (ii) these 3-second gusts occur during a period of high fire danger, and (iii) the affected facilities are located in a high fire-threat area.

electric IOUs in Northern California should prepare a FPP. This standard was not used by D.12-01-032 to define the geographic scope of FPPs.

Second, the IOU Petitioners note that in Phase 3, Track 3 of this proceeding the Commission is currently in the process of developing statewide fire-threat maps that accurately designate geographic areas where power-line fires are more likely to ignite and spread rapidly. The Commission intends to use these fire-threat maps in Track 3 for the following purposes:

i. Revise GO 95 to incorporate (a) a new High Fire-Threat District, (b) one or more maps of the High Fire-Threat District, and (c) fire-safety standards for the design and construction of utility facilities in the High Fire-Threat District.

ii. Assess whether any of the new fire-safety standards developed pursuant to the previous Item i.c should apply to existing facilities in the High Fire-Threat District in light of cost-benefit considerations and Rule 12 of GO 95 and, if so, develop a plan, timeline, and cost estimate for upgrading existing facilities in the High Fire-Threat District to meet the new standards. (D.12-01-032, OPs 8.iii and 8.iv.)

The IOU Petitioners argue that ordering them to use the 3%/50-year wind-gust standard to determine the geographic scope of their FPPs may cause them to waste time and resources in areas that may not be included in the High Fire-Threat District that is ultimately adopted in Track 3. Moreover, because Track 3 may adopt new fire-safety design standards for facilities in the contemplated High Fire-Threat District, the IOU Petitioners question whether it is prudent to implement their FPPs using current design standards.

Finally, SCE asserts that the 3%/50-year wind-gust standard has no demonstrable benefit and will be prohibitively expensive with respect to long-run fire-prevention measures. SCE provided an illustrative example of the cost impact of the 3%/50-year wind-gust standard using pole replacements. In

particular, SCE states that it has approximately 322,849 utility poles in high fire-threat areas. To determine which of these poles may be subject to strong winds, SCE identified high fire-threat areas where sustained 3-second wind gusts of 48, 56, 68, 84, and 96 miles per hour (mph) have a mean return interval of 30 years (hereafter, "30-year return interval"). Using this data, SCE determined that it has 76,243 poles in high fire-threat areas that need to be replaced at an estimated cost of $1.029 billion. By comparison, the 3%/50-year wind-gust standard equates to a 1,642-year return interval and would require SCE to replace 114,460 poles in high fire-threat areas. SCE estimates that the incremental costs to replace an additional 38,217 poles (114,460 – 76,243) is $516 million.

We find the IOU Petitioners have not demonstrated any factual, legal, or technical errors in the PD. Their criticisms of the 3%/50-year wind-gust standard presume incorrectly that this is a newly adopted standard. It is not. In D.12-01-032, the Commission required FPPs to address situations where all three of the following conditions occur simultaneously: (i) 3-second wind gusts exceed the structural design standards for the affected overhead power-line facilities, (ii) these 3-second gusts occur during a period of high fire danger, and (iii) the affected facilities are located in a high fire-threat area.[22] These parameters encompass all 3-second wind gusts that exceed the structural design standards for facilities in a high fire-threat area during a period of high fire danger. There is no exemption for 3-second wind gusts that fit these parameters but have a 3% probability of occurring during a 50-year period.

Perhaps more telling is the Commission's determination in D.12-01-032 that an electric IOU which serves Northern California must prepare a FFP if,

[22] D.12-01-032, Ordering Paragraph 4.

among other things, the utility "has overhead power-line facilities in a high fire-threat area where it is reasonably foreseeable that the probability of 3-second wind gusts exceeding the maximum working stresses for such facilities during a Red Flag Warning is 3% or more during a 50-year period."[23] It makes little sense to interpret D.12-01-032 as ordering an electric IOU in Northern California to prepare a FPP if it has facilities that meet the 3%/50-year wind-gust standard and then exempting these same facilities from the utility's FPP.

We disagree with the IOU Petitioners that it is imprudent to use the 3%/50-year wind-gust standard to determine the geographic scope of their FPPs because in Track 3 of this proceeding the Commission may adopt new boundaries for high fire-threat areas and new design standards for power-line facilities in high fire-threat areas. While we recognize that Track 3 could affect the IOU Petitioners' FPPs, the outcome of Track 3 may not be known for another two to three years. For the reasons set forth in D.12-01-032, we conclude that it is essential to public safety that electric IOUs implement their FPPs as soon as possible using existing fire-threat maps and fire-prevention measures:

> We agree with MGRA that electric utilities should develop and implement fire-prevention plans to address situations where it is reasonably foreseeable that strong winds may exceed the structural limits of overhead electric facilities during periods of high fire danger. The need for fire-prevention plans is demonstrated by the events of October 2007 when strong Santa Ana winds in Southern California caused power lines to ignite wildfires at multiple locations. Together, these power-line fires burned more than 334 square miles and caused immense devastation and disruption, including the largest evacuation in California's history. It is virtually certain that

[23] D.12-01-032, Ordering Paragraph 3.v, at 174.

> Southern California will continue to experience Santa Ana windstorms. Thus, there is a grave and ongoing risk that Santa Ana windstorms will again cause power lines to ignite catastrophic wildfires unless electric utilities plan and prepare for such events. For the preceding reasons, we will require investor-owned electric utilities… in Southern California to develop plans to reduce the risk of **severe windstorms** igniting power-line fires during periods of high fire danger. (D.12-01-032 at 48. Footnote omitted. Emphasis added.)

Until Track 3 is complete, we believe the 3%/50-year wind-gust standard provides a reasonable interim basis for identifying areas where "severe windstorms" may occur. As MGRA and SCE note in their comments on the PD,[24] the 3%/50-year standard encompasses severe 3-second wind gusts with a 1,642-year return interval and is consistent with the American Society of Civil Engineers (ASCE) Standard 07-10, *Minimum Design Loads for Buildings and Other Structures*. This ASCE standard establishes a wind-load design standard based on severe 3-second wind gusts with a 1,700-year return interval for structures designated as Risk Category III or IV.[25]

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[24] MGRA Comments at 2. SCE Comments at 7.

[25] ASCE 07-10 at pp. 246, 388, 510, and Figure 26.5-1B at p. 248a. The primary basis for determining a structure's risk category is the number of people whose lives would be endangered or whose welfare would be affected if the structure failed. (ASCE 07-10 at pp. 381-2.) Risk Category III typically includes (i) buildings where a large number of people congregate, such as schools and prisons; (ii) structures associated with utilities required to protect the health and safety of a community, such as power plants and water-treatment plants; and (iii) structures that house hazardous substances that if released in quantity could endanger neighboring communities. Risk Category IV typically includes structures whose failure would hinder essential services needed to cope with an emergency, such as hospitals and police stations. Ancillary structures required for the operation of Risk Category IV facilities during an emergency are included in this risk category. The catastrophic power-line fires of October 2007 suggest that it may be appropriate to classify as Risk

Footnote continued on next page

We are not persuaded by SCE that the 3%/50-year wind-gust standard has no demonstrable benefit. According to SCE, this standard may require SCE to replace an additional 38,217 poles in high fire-threat areas at a cost of $516 million compared to SCE's preferred standard of severe 3-second wind gusts with a 30-year return interval. SCE's calculation of the additional poles that may need to be replaced and the associated cost is reproduced below:

SCE Estimate of Pole Replacement Costs in High Fire-Threat Areas							
3-Second Wind Gusts (miles per hour)	Number of Poles			Failing Poles		Replacement Cost	
	30 year interval	1,642 yr. Interval	Failure Rate	30 year interval	1,642 yr. interval	30 year interval	1,642 yr. interval
48 mph	121,629	115,623	19%	23,110	21,968	$312 M	$297 M
56 mph	48,225	6,265	15%	7,234	940	$98 M	$13 M
68 mph	107,660	25,627	22%	23,685	5,638	$320 M	$76 M
84 mph	44,056	73,672	49%	21,587	36,099	$291 M	$487 M
96 mph	1,279	101,662	49%	627	49,814	$8 M	$672 M
Total	**322,849**	**322,849**		**76,243**	**114,460**	**$1,029 M**	**$1,545 M**
Source: SCE Comments on the PD, at page 7.							

The above table shows that (1) using a 1,642-year return interval will result in an additional 38,217 poles (114,460 – 76,243) being replaced in high fire-threat areas, and (2) all of the additional poles are associated with wind gusts of 84 mph or 96 mph. Importantly, because the risk of power-line fires occurring and spreading rapidly is strongly correlated with wind speed,[26] the additional 38,217 poles are associated with wind speeds that pose a much higher risk of

Category III or IV those power-line facilities located in high fire-threat areas where severe winds are known to occur during periods of high fire danger.

[26] MRGA Response to the petition to modify D.12-01-032, at pages 3 – 4.

igniting catastrophic power-line fires. We believe there is demonstrable public-safety benefit in mitigating this risk.

We are not persuaded by SCE that the 3%/50-year wind-gust standard is prohibitively costly.[27] While SCE presents pole-replacement costs as an "illustrative example" of a long-run fire-prevention measure, it has chosen an obviously expensive one. SCE has discretion under D.12-01-032 to select any fire-prevention measures it deems cost-effective based on SCE's assessment of fire risk,[28] including potentially less costly alternatives such as installing stronger poles when existing poles are retired and/or reinforcing existing poles. SCE did not provide cost data for alternative fire-prevention measures or any rationale for presenting pole replacements as an illustrative example of a long-run fire prevention measure instead of (or in addition to) less costly measures.

Finally, SCE indicates that the high fire-threat areas where SCE plans to implement long-run fire-prevention measures is reduced by 98% by using severe 3-second wind gusts with a 30-year return internal instead of a 1,642-year return interval.[29] We are not convinced that it is in the public interest to modify D.12-01-021 to enable SCE to exclude from the scope of its long-run fire-prevention measures nearly all of the high fire-threat areas in SCE's service territory where severe winds may occur.

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[27] SCE did not provide cost data for pole replacements until its comments on the PD. Consequently, MGRA and SED did not have a reasonable opportunity to scrutinize the data and present informed rebuttal.

[28] D.12-01-032 at 51. ("Each utility should implement the countermeasures it deems appropriate for its circumstances.")

[29] SCE Comments at 7. ("Even more concerning is the application of the 1 in 1,642-year return interval… The area affected would increase by 7,849%....")

10. Assignment of the Proceeding

Michel Peter Florio is the assigned Commissioner and Timothy Kenney is the assigned Administrative Law Judge for this proceeding.

Findings of Fact

1. OP 4 of D.12-01-032 and GO 166 require an electric IOU's FPP to address the situation where all of the following conditions occur simultaneously: (i) 3-second wind gusts exceed the structural or mechanical design standards for the affected overhead power-line facilities, (ii) these 3-second gusts occur during a Red Flag Warning, and (iii) the affected facilities are in a high fire-threat area. This is a worst case fire-threat scenario.

2. The petition to modify D.12-01-032 seeks to give electric IOUs the option of addressing in their FPPs either (i) the worst case fire-threat scenario identified in OP 4 of D.12-01-032, or (ii) periods of extreme fire-weather that increase the fire risk associated with overhead power-line facilities.

3. It would diminish public safety and be contrary to the goals of this proceeding if D.12-01-032 were modified so that electric IOUs did not have to plan for, and take steps to mitigate, the worst case fire-threat scenario identified in GO 166 and OP 4 of D.12-01-032.

4. Public safety may be enhanced if GO 166 and OP 4 of D.12-01-032 are modified to provide electric IOUs with discretion to address in their FPPs other hazardous fire conditions in addition to (but not in lieu of) the worst case fire-threat scenario mandated by GO 166 and OP 4.

5. GO 166 and OP 5 of D.12-01-032 require an electric IOU's FPP to specify how the utility will identify the occurrence of 3-second wind gusts that exceed the structural or mechanical design standards for the utility's overhead power-line facilities. The petition to modify D.12-01-032 seeks to replace this requirement with a new requirement to specify the indicators the utility will use to timely identify extreme fire-weather conditions.

6. Under D.12-01-032, electric IOUs may use fire-prevention measures that can effectively mitigate the fire hazards associated with severe winds without real time information on 3-second wind gusts.

7. There is no public safety benefit in requiring electric IOUs to identify 3-second wind gusts in real time if they do not deploy fire-prevention measures that rely on real time observations of wind gusts.

8. In order to implement the fire-prevention plan required by GO 166 and D.12-01-032, as modified by today's decision, an electric IOU will need to identify the parts of its service territory where it is reasonably foreseeable that the following conditions may occur simultaneously: (i) 3-second wind gusts exceed the structural or mechanical design standards for the affected overhead power-line facilities, (ii) these 3-second gusts occur during a Red Flag Warning, and (iii) the affected facilities are in a high fire-threat area.

9. The modifications to the electric IOUs' FPPs adopted by today's decision will not have a significant effect on the environment.

Conclusions of Law

1. For the reasons stated in the dicta and Findings of Fact of today's decision, the petition to modify D.12-01-032 that was filed by IOU Petitioners, should be granted in part and denied in part, as set forth in the following Order.

2. The Commission is the lead agency under CEQA regarding the modifications to the electric IOUs' FPPs adopted by this decision.

3. For the reasons set forth in Finding of Fact 9 of this decision, the modifications to the electric IOUs' FPPs that are adopted by this decision are exempt from CEQA pursuant to Pub. Res. Code § 21065 and 14 Cal. Code Regs. Sec. 15378.

4. The regulation that is amended by today's decision was adopted by D.12-01-032 without an evidentiary hearing. Consequently, there is no need for an evidentiary hearing pursuant to Pub. Util. Code § 1708.5(f).

5. The following order should be effective immediately so the revised FPPs adopted by the order may be implemented expeditiously.

O R D E R

IT IS ORDERED that:

1. The Fire Prevention Plans (FPPs) required by Decision (D.) 12-01-032 and General Order (GO) 166 shall:

   a. Address the situation where all three of the following conditions occur simultaneously: (i) 3-second wind gusts exceed the structural or mechanical design standards for the affected overhead power-line facilities, (ii) these 3-second gusts occur during a period of high fire danger, and (iii) the affected facilities are located in a high fire-threat area. The FPPs may address other situations than required by this order, but not in lieu of this order.

b. List and describe the fire-prevention measures the investor-owned electric utility ("utility") intends to implement, both in the short run and in the long run, to mitigate the threat of power-line fires generally and in the situation where all three of the conditions listed in Order Paragraph (OP) 1.a occur simultaneously.

c. Identify the specific parts of the utility's service territory where all three of the conditions listed in OP 1.a may occur simultaneously. In making this determination, the utility shall use a minimum probability of 3% over a 50-year period that 3-second wind gusts which exceed the design standards for the affected facilities will occur during a Red Flag Warning in a high fire-threat area.

d. List the other fire-threat indicators that the utility elects to use, in addition to those required by OP 1.a, to timely detect and/or forecast elevated fire-weather conditions that increase the risk of fire associated with the utility's overhead power-line facilities.

e. For the purpose of this order, the following definitions apply: (i) structural and mechanical design standards are the maximum working stresses set forth in GO 95, Section IV, for installed overhead electric facilities; (ii) period of high fire danger is the period covered by a Red Flag Warning issued by the United States National Weather Service; and (iii) high fire-threat areas are areas designated as the first or second highest fire-threat areas on the fire-threat maps adopted by D. 12-01-032.

2. Ordering Paragraph (OP) 1, above, supersedes OPs 4 and 5 of Decision (D.) 12-01-032 and the related dicta, Findings of Fact, and Conclusions of Law in D.12-01-032.

3. The Commission's Safety and Enforcement Division shall revise General Order (GO) 166 to incorporate the revisions shown in Appendices A and B of this decision and publish the revised GO on the Commission's website within 60 days from the effective date of this decision.

4. The Fire Prevention Plans that are submitted to the California Public Utility Commission pursuant to Decision 12-01-032 and General Order (GO) 166 shall incorporate the modifications to GO 166 adopted by today's decision.

5. The petition to modify Decision 12-01-032 that was filed jointly by Bear Valley Electric Service, Pacific Gas and Electric Company, and Southern California Edison Company is granted to the extent set forth in the previous Ordering Paragraphs. The petition is denied in all other respects.

6. Rulemaking 08-11-005 remains open to address all remaining issues within the scope of Phase 3, Track 3 of this proceeding.

This order is effective today.

Dated May 15, 2014, at San Francisco, California.

MICHAEL R. PEEVEY
President
MICHEL PETER FLORIO
CATHERINE J.K. SANDOVAL
CARLA J. PETERMAN
MICHAEL PICKER
Commissioners

Appendix A: Redline Revisions to General Order 166

The adopted revisions to General Order 166 are shown below in redline form (i.e., with strikeout and underline).

General Order (GO) 166, Standard 1.E
Adopted Revisions Shown with Strikethrough and Underline

GO 166 at Page 1:

Standards for Operation, Reliability, and Safety
During Emergencies and Disasters

Adopted July 23, 1998. Effective July 23, 1998.
(D.98-07-097 in R.96-11-004)
Revised May 4, 2000 Effective May 4, 2000
(D.00-05-022 in R.96-11-004)
Revised January 12, 2012 Effective by January 12, 2012
(D.12-01-032 in R.08-11-005)
Revised [Month and Day], 2014 by D.14-XX-YYY in R.08-11-005

GO 166 at Page 6:

E. Fire Prevention Plan

Those investor-owned electric utilities identified below shall have a Fire-Prevention Plan that:

A. Lists and describes the measures the electric utility intends to implement, both in the short run and in the long run, to mitigate the threat of power-line fires ~~ignitions~~ generally and in the specific situations~~s~~ where all three of the following conditions occur simultaneously ~~that meets all of the following criteria~~: (i) The force of 3-second wind gusts exceeds the structural or mechanical design standards for the affected overhead power-line facilities, ~~maximum working stress specified in General Order 95, Section IV, for installed overhead electric facilities;~~ (ii) these 3-second gusts occur during a period of high fire danger, ~~the installed overhead electric facilities affected by these 3-second wind gusts are located in geographic areas designated as the first or second highest fire threat area on a fire-threat map adopted by the Commission in Rulemaking (R.) 08-11-005;~~ and (iii) the affected facilities are located in a high fire-threat area ~~the 3-second wind gusts occur at the time and place of a Red Flag Warning issued by United States National Weather Service~~. A utility's fire-prevention plan may address other situations than required by this General Order, but not in lieu of this General Order.

B. Identifies the specific parts of the electric utility's service territory where all three of the fire-weather conditions listed in Item A, above, may occur simultaneously. In making this determination, the utility shall use a minimum probability of 3% over a 50-year period that 3-second wind gusts which exceed the design standards for the affected facilities will occur during a Red Flag Warning in a high fire-threat area

C. Lists the other fire-threat indicators that the utility elects to use, in addition to those required by Item A, above, to timely detect and/or forecast elevated fire-weather conditions that increase the risk of fire associated with overhead power-line facilities.

D. For the purpose of this Standard, the following definitions apply: (i) Structural and mechanical design standards are the maximum working stresses set forth in General Order 95, Section IV, for installed overhead electric facilities; (ii) period of high fire danger is the period covered by a Red Flag Warning issued by the United States National Weather Service; and (iii) high fire-threat areas are areas designated as the first or second highest fire-threat areas on the fire-threat maps adopted by Decision 12-01-032.

The requirement to prepare a fire-prevention plan applies to:
(1) Investor-owned electric utilities in Imperial, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura counties; and (2) investor-owned electric utilities in all other counties with overhead electric facilities located in areas of high fire risk as determined by such utilities in accordance with Decision 12-01-032 issued in ~~Phase 2 of R.~~ Rulemaking 08-11-005.

(END OF APPENDIX A)

Appendix B: Revised General Order 166

Standard 1.E of General Order 166, as revised by today's decision, is shown below in its final form.

General Order 166, Standard 1.E
Adopted Rule in Final Form

E. Fire Prevention Plan

Those investor-owned electric utilities identified below shall have a Fire-Prevention Plan that:

A. Lists and describes the measures the electric utility intends to implement, both in the short run and in the long run, to mitigate the threat of power-line fires generally and in the specific situation where all three of the following conditions occur simultaneously: (i) The force of 3-second wind gusts exceeds the structural or mechanical design standards for the affected overhead power-line facilities, (ii) these 3-second gusts occur during a period of high fire danger, and (iii) the affected facilities are located in a high fire-threat area. A utility's fire-prevention plan may address other situations than required by this General Order, but not in lieu of this General Order.

B. Identifies the specific parts of the electric utility's service territory where all three of the fire-weather conditions listed in Item A, above, may occur simultaneously. In making this determination, the utility shall use a minimum probability of 3% over a 50-year period that 3-second wind gusts which exceed the design standards for the affected facilities will occur during a Red Flag Warning in a high fire-threat area.

C. Lists the other fire-threat indicators that the electric utility elects to use, in addition to those required by Item A, above, to timely identify and/or forecast elevated fire-weather conditions that increase the risk of fire associated with overhead power-line facilities.

D. For the purpose of this Standard, the following definitions apply: (i) Structural and mechanical design standards are the maximum working stresses set forth in General Order 95, Section IV, for installed overhead electric facilities; (ii) period of high fire danger is the period covered by a Red Flag Warning issued by the United States National Weather Service; and (iii) high fire-threat areas are areas designated as the first or second highest fire-threat areas on the fire-threat maps adopted by Decision 12-01-032.

The requirement to prepare a fire-prevention plan applies to: (1) Investor-owned electric utilities in Imperial, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura counties; and (2) investor-owned electric utilities in all other counties with overhead electric facilities located in areas of high fire risk as determined by such utilities in accordance with Decision 12-01-032 issued Rulemaking 08-11-005.

(END OF APPENDIX B)