

CALIFORNIA GOVERNOR'S OFFICE OF EMERGENCY SERVICES

INITIAL STATEMENT OF REASONS

PROBLEM STATEMENT AND PURPOSE

While existing Federal Communications Commission (FCC) and California Public Utilities Commission (CPUC) impose certain reporting requirements for major telecommunications service outages, they are not specifically tailored to address risks to public health and safety resulting from outages that limit access to 911 or emergency notifications. For example, reporting is generally not required unless the outage affects at least 900,000 user minutes. As a result, significant outages affecting rural communities may not be reported, leaving those residents at risk of not being able to call 911 or receive emergency notifications. Similarly, the CPUC requires certain periodic reports pursuant to its General Order 133-D, including out-of-service reporting. But these reports are submitted long after reportable events occur, and are not intended to provide the type of information needed to support situational awareness near in time to outages.

In particular, in the absence of a mandate to submit outage notifications to the California Governor's Office of Emergency Services (Cal OES), the State, county offices of emergency services, county sheriffs, and public safety answering points have not received timely information relating to telecommunications service outages impacting the ability of people in California to make 911 calls or receive emergency notifications.

The lack of reporting requirements leaves a significant communication gap between telecommunications service providers and Cal OES. For example:

- In July 2019, there was a significant, nationwide outage for wireless calls for approximately three hours, but Cal OES did not receive notice of the outage.
- Between October and November 2019, Cal OES received inconsistent reports of telecommunications service outages, including in areas where residents were being evacuated because of risks posed by dangerous wildfires. In addition, information provided to Cal OES did not include community-specific data that could have aided Cal OES and local agencies in making operational decisions to protect lives and property.

To address unmet needs in California relating to telecommunications service outages, the Legislature passed Senate Bill 670 (2019 – 2020) (SB 670), which was approved by the Governor and chaptered by the Secretary of State on October 2, 2019. SB 670 added section 53122 to the Government Code as an urgency statute to take effect immediately. This new provision of law requires telecommunications service providers, among other things:

- To notify the California Governor's Office of Emergency Services (Cal OES) of a community isolation outage within 60 minutes of discovery of the outage;
- To include, in the notice to Cal OES, the telecommunications service provider's contact name, calling number, and a description of the estimated area affected by the outage and the approximate communities, including cities, counties, and regions, affected by the outage;
- To notify Cal OES of the estimated time to repair the outage and, when achieved, the restoration of service; and
- To ensure that the calling number provided to Cal OES with the community isolation outage notification is staffed by a contact person who shall be available to respond to inquiries about the outage at all times until the provider notifies Cal OES that services has been restored.

In addition, Government Code section 53122 requires Cal OES to adopt regulations that (1) set thresholds for determining whether a telecommunications service outage constitutes a community isolation outage based on the risks to public health and safety resulting from the outage, and (2) specify the medium by which telecommunications service providers notify Cal OES.

Before SB 670 was enacted, the need for improved outage reporting causing community isolation outages was well known to Cal OES, and Cal OES worked informally with stakeholders to assess the needs of the State emergency management relative to such outages before any mandate existed for reporting community isolation outages.

Since SB 670 went into effect, Cal OES took the following regulatory actions pertaining to community isolation outages:

- On December 20, 2019, Cal OES issued a Notice of Proposed Rulemaking in compliance with the Administrative Procedure Act, opening a 45-day written comment period through February 4, 2020. Cal OES also held a public hearing on February 4, 2020, to accept and consider additional comments. The notice was published in the California Regulatory Notice Register, December 20, 2019, Number 51-Z, at pages 1691 – 1694, notice file number Z-2019-1210-04, sent to all interested parties, and was posted on Cal OES's website along with the proposed text of the regulations and Initial Statement of Reasons.
- After the close of the comment period and public hearing, Cal OES carefully reviewed the submitted comments, made further modifications to the proposed text, and provided notice to the public and all interested parties on March 16, 2020. The notice provided an additional written

comment period through April 1, 2020. The notice and modified text were also posted to Cal OES's website.

- After the close of the additional 15-day written comment period, Cal OES carefully reviewed the submitted comments, and in response to those comments made further modifications to the proposed text of the regulations. Cal OES provided notice to the public and all interested parties on May 12, 2020, with an additional written comment period through close of business on May 28, 2020. The notice and modified text were also posted to Cal OES's website.
- Despite Cal OES's adherence to the rulemaking process required by the Administrative Procedures Act (APA), Cal OES would not have been able to adopt regulations by July 1, 2020, unless adopted as emergency regulations as authorized by Government Code section 53122.
- On June 8, 2020, Cal OES distributed a notice of proposed emergency rulemaking to adopt California Code of Regulations, title 19, sections 2480.1, 2480.2, and 2480.3. The Office of Administrative Law (OAL) approved the action, and the regulations became effective June 25, 2020, and will expire on April 13, 2021, pursuant to OAL Matter No. 2020-0616-02. In adopting the emergency regulations, Cal OES considered all regulatory actions up to that point regarding the community isolation outage regulations, including public comments submitted in the last round of public comments through May 28, 2020.

Since the adoption of the emergency regulations, Cal OES received outage reporting data from telecommunications providers that enabled it to assess the effectiveness of the regulations, and to determine if the regulations achieved the requirements and goals. The emergency regulations have generally been effective in furthering the requirements and purpose of SB 670, and for that reason Cal OES does not intend to make significant alterations to the emergency regulations in this action. Two substantive changes to the emergency regulations are contemplated in these proposed regulations, along with non-substantive changes.

Cal OES proposes to adopt these regulations to further the purpose and goals of SB 670, specifically to establish appropriate thresholds for determining when an outage constitutes a community isolation outage, and to establish the medium required for submitting notices to Cal OES.

BENEFITS ANTICIPATED FROM THE REGULATORY ACTION

Cal OES anticipates this regulatory action is consistent with and furthers the goals of Government Code section 53122. In establishing appropriate thresholds, the regulatory action will contribute to increased timely sharing of information about community isolation outages with Cal OES, county offices of emergency services, county sheriffs, and public safety answering points.

Sharing information about outages is also anticipated to result in making actionable data available about communities impacted by outages, which can be used by state and local agencies to assess whether communities are in potential risk of being unable to access 911 services or receive emergency notification. In addition, reporting community isolation outages will increase situational awareness at the state and local level during disasters, and further inform when alternate forms of communication and notification are needed due to a communication isolation outage.

The proposed regulatory action is also anticipated to further the objectives of Government Code section 53122 to obtain consistent reporting of community isolation outages. Information obtained from the reports may facilitate trend and gap analysis of telecommunications systems, and may help state and local agencies identify and establish alternate methods of communication between residents and emergency responders to mitigate risks caused by community isolation outages. Prompt notifications to Cal OES are anticipated to result in increased emergency mitigating actions necessary to protect lives and property.

In addition, emergency regulations regarding community isolation outages have been in effect since June 25, 2020, and those emergency regulations followed, and were informed by, public review of, and input regarding, proposed thresholds and mediums for reporting outages. The emergency regulations have generally succeeded in ensuring Cal OES obtains community isolation outage data. Cal OES anticipates the regulations will continue to benefit the ability of the state and local government entities to be aware of, prepare for, and respond to community isolation outages. At the same time, Cal OES will continue to gather outage data through reports made pursuant to these regulations, and will continue to assess the overall effectiveness of the adopted regulations. If Cal OES later identifies a more effective and feasible threshold or modification to the adopted thresholds, Cal OES may initiate future rulemaking actions to amend the thresholds.

PURPOSE AND NECESSITY OF THE PROPOSED REGULATIONS

Purpose

Section 2480.1: Adopt the section originally added as an emergency regulation to establish definitions.

Section 2480.2: Adopt the section originally added as an emergency regulation to specify outage thresholds affecting access to 911 services or the ability to receive emergency notifications that require notification to Cal OES, and to make a non-substantive correction to the current emergency regulations.

Section 2480.3: Adopt the section originally added as an emergency regulation, with modifications, to specify notification requirements to ensure Cal OES receives timely, accurate, and reliable information in a consistent format, and to make associated, non-substantive modifications to the regulations adopted as emergency regulations.

Necessity

Section 2480.1

This section establishes definitions, and where appropriate adopts the definitions of terms that are identical to other state and federal definitions of the same terms, in order to avoid conflicting definitions, and to promote clarity and consistency. The necessity for each definition is set forth separately below.

Subdivision (a) defines “community isolation outage,” and is necessary to to further the purpose of SB 670 by specifying that the term is defined in reference to reportable thresholds required by Government Code section 53122, and established by the proposed regulations.

Subdivision (b) defines “office,” and is necessary to clarify that references to the “office” in the regulations means the Governor’s Office of Emergency Services.

Subdivision (c) defines “outage,” and is necessary to clarify that the thresholds established by the regulations are based on the types of outages described in Government Code section 53122. In particular, significant degradation in the ability of an end user to establish and maintain a channel of communications to make 911 calls or to receive emergency notifications.

The phrase “significant degradation” appears in this definition, and is a well-known term in the regulated industry that appears in other regulations governing other types of outages, and does not need to be separately defined. In particular, the phrase and definition closely tracks federal regulations relating to reporting major outages, located at Code of Federal Regulations, title 47, section 4.5, subdivision (a), which currently reads “Outage is defined as a significant degradation in the ability of an end user to establish and maintain a channel of communications as a result of failure or degradation in the performance of a communications provider’s network.”

In addition, the modifier “significant” in the phrase “significant degradation” clarifies that not every instance of degradation results in a degree of impairment sufficient enough to reasonably conclude the degradation is an “outage.” The ordinary meaning of “degradation” could cover degradation of a minimal

degree. For example, minimal static on a phone line might be an inconvenience or a nuisance, but may not actually prevent or seriously impair an end user from accessing 911 services or receiving emergency notifications. The modifier “significant” clarifies that the mere presence of some degradation does not automatically constitute an outage, and that the degradation must be of such degree that it adversely impacts the ability of an end user to establish and maintain a channel of communications to make 911 calls or to receive emergency notifications as a result of a failure or degradation in the performance of a communications provider’s network.

The definition of outage also includes the term “end user,” which is also a well-known term in the regulated industry that does not require a separate and distinct definition. The term refers to an actual user of a provider’s services. The regulations refer to end users because the purpose of Government Code section 53122 is to identify circumstances where individuals are unable to access emergency services. The number of end users a provider has depends on the information available to, and known to, the provider. For example, a student in Southern California who uses a wireline phone is the end user of the service, even if the account is billed to, and paid for by, the student’s parent in Northern California. If the service to the student in Southern California experience an outage, that student would be counted among potentially impacted users, not the person paying the bill at from a separate location unaffected by the outage. Similarly, if a provider has four separate residential phone lines at a single household address, a would be could reasonably estimate at least four end users could be at the residence at any given time, and estimate that up to four end users would be impacted by an outage affecting that address, even if, unbeknownst to the provider, more end users reside in the residence who would be impacted by the outage, or some of all of the end users happen to be on vacation when an outage occurs.

In addition, the definition of “outage” was informed by public comments submitted to Cal OES in its previous rulemaking actions pursuant to SB 670, including notice number Z-2019-1210-04.

Subdivision (d) defines “telecommunications service,” and is necessary to clarify that the regulations utilize the same definition enacted by SB 670 and established in Government Code section 53122.

Subdivision (e) defines “ZIP Code,” and is necessary to define the scope of the term as it is used the meaning of these regulations. The term “ZIP Code” is an otherwise universally understood term by the regulated industry that refers to the nationwide address coding system established and continuously used by the

United States Postal Service since 1963,¹ and would not ordinarily need to be separately defined. However because the proposed regulations define reportable outages as defined in part based on the geographic areas associated with ZIP Codes, this definition is needed to specify that term, for purposes of these regulations, does not include ZIP Codes associated with a single physical address, or a Post Office Box. ZIP Codes falling into either of these categories are to be deemed as part of the nearest ZIP Code that is neither a Post Office Box nor a ZIP Code affiliated with a single physical address. This definition is further informed by public comments submitted to Cal OES in its previous rulemaking actions pursuant to SB 670, including notice number Z-2019-1210-04.

Section 2480.2, subdivision (a)

Government Code section 53122 requires outage thresholds to be set in a manner that ensures an impairment to a community's ability to make 911 calls or receive emergency notifications that pose risks to the public health and safety is reported to Cal OES. This provision is necessary to ensure those outages that could isolate communities are appropriately reported to Cal OES and thereafter forwarded to any applicable county office of emergency services, the sheriff of any county, and any public safety answering point affected by the outage. In establishing the minimum number of potentially affected individuals, the proposed regulations are intended to strike an appropriate balance for determining when an objective criteria may be indicative of a threat to public health and safety, without setting the threshold so low that outage reports would serve no useful purpose. The proposed thresholds also identify a minimum duration of time an outage must last for the affected individuals before it would be considered a community isolation outage, such that outages of very short durations are not required to be reported. The time period before an outage mirror the time period in federal threshold criteria for reporting significant outages impacting the communications infrastructure.

This provision also identifies, by subdivision paragraphs, four types of outages that constitute community isolation outages that must be reported, described in more detail below.

Paragraphs (1) – (3) define outages according to the type of service being provided. This separation is necessary to define thresholds taking into account fundamental differences in how the services are provisioned and operate, and to contemplate future flexibility if thresholds for a specific type of service need to be changed to reflect developments in that type of service.

¹ See United States Postal Service Publication 100 – “*The United States Postal Service – An American History 1775 – 2006.*”

Each of paragraphs (1) – (2) establish a minimum number of end users who are potentially effected by an outage for purposes of outage reporting. As noted above, the term “end user” is a well-known term by the regulated industry, and is necessary to further the purpose of Government Code section 53122 to identify circumstances where individuals in communities are unable to access 911 services or receive emergency notifications. The number of end users a provider has depends on information available to and known to the provider, as discussed above pertaining to Section 2308.1.

Each of paragraphs (1) – (3) of subdivision (a) also use the phrase “potentially affects” in reference to determining when an outage constitutes a reportable threshold. The term “potentially affects” is a commonly understood concept in the regulated industry, taking into account the practical reality that telecommunications service providers may initially review evidence of a certain type of failure or other event causing an outage in a given area, but have yet to possess actual knowledge of the true extent of the outage. (For an example of federal regulations using this same phrase, see 47 C.F.R. § 4.5, subd. (e).) Further, Government Code section 53122 recognizes the public health and safety harms caused when communities are unable to access 911 or receive emergency notifications, and requires providers to notify Cal OES within an established timeframe from discovery of the outage. The qualifying term “potentially” is necessary to prevent delays to reporting caused by waiting for providers to obtain exact knowledge of the extent of an outage, which would frustrate the purpose of Government Code section 53122. For example, if a wireline provider detects significant degradation in a given area, and knows it has exactly 100 separate residential accounts associated within a ZIP Code impacted by the outage, the wireline provider knows the outage potentially affects 100 end users. The regulations would require this outage to be reported, even if at the time of submitting the report the provider did not know, for example, who within the affected area was not actually at the affected service addresses at the time of the outage. If the regulations required reporting only when the provider was certain that at least 100 end users were actually impacted by the outage, notice requirements may be delayed for so long that Cal OES would not learn of the outage until well after provider fully investigated and fixed the outage.

In addition, **paragraph (1)** defines reportable thresholds for facilities-based carriers, other than mobile telephone service or Voice over Internet Protocol (VoIP) service. These thresholds are established in reference to the duration of the outage and a baseline number of individuals affected within an identifiable geographic area. Structuring the threshold in this manner is necessary to ensure outage thresholds are appropriately tailored to respond to potential risks to public health and safety to geographically dense, and to geographically

dispersed communities. Existing threshold criteria for major outage reporting in other contexts, namely FCC and CPUC requirements, serve different purposes and are not specifically tailored to the requirements of Government Code section 53122, which mandate outage reporting when outages isolate communities and inhibit their ability to make 911 calls or receive emergency notifications. Government Code section 53122 was enacted to address gaps not addressed by existing reporting requirements, including the need to ensure outages affecting residents in rural and semi-rural communities are reported.

In establishing the minimum number of potentially affected individuals and the minimum duration of the outage, this provision intends to strike an appropriate balance for determining when objective criteria may be indicative of a threat to public health and safety, without setting the threshold so low that outage reports would serve no useful purpose for county office of emergency services, county sheriffs, or public safety answering points. The minimum duration of the outage is necessary to ensure timely reporting of outages, and is consistent with similar federal threshold criteria for significant outages. In addition, including a ZIP Code as an element of the criteria ensures outage thresholds appropriately address the needs of residents of rural and semi-rural communities, as well as densely populated areas. Further, the ZIP Code is a well-known and commonly used identifier.

In order to ensure communities of fewer than 100 individuals that may be impacted by outages are covered by the reporting thresholds, the proposed regulations include a provision that is necessary to ensure those communities are included in reporting thresholds, such that for any ZIP Code consisting of fewer than 100 end users, the applicable threshold is an outage affecting at least 50% of the end users in the ZIP Code.

In addition, **paragraph (2)** defines reportable outage thresholds for Voice over Internet Protocol (VoIP) or Internet Protocol enabled service. These thresholds mirror the reportable thresholds for paragraph (1), but are expressed separately to clearly identify thresholds according to the type of service provided, and to provide future capability to amend thresholds specific to one type of service, without needing to later separate the thresholds. The reasons for the specific thresholds are the same as those identified above for paragraph (1).

In addition, **paragraph (3)** defines reportable outages for mobile telephony service. Unlike wireline or VoIP communications, wireless communications depend on the ability of wireless infrastructure to provide coverage within the geographic areas of the wireless infrastructure. Individual users of wireless communications services do not originate or receive calls from fixed locations, and may travel throughout the state. Because of these features of mobile telephony service, significant degradation within any coverage area poses a risk

to public health and safety, regardless of how many individuals may or may not be able to access the service. The proposed regulations intend to identify appropriate, identifiable, and measurable criteria that reasonably indicates a limitation to make 911 calls or receive emergency notifications that poses a risk to public health and safety. The proposed threshold of 50% of a carrier's coverage within a ZIP Code is a reasonable metric. The threshold also identifies a minimum duration of an outage at 30 minutes. This period of time is necessary to ensure timely reporting or outages, and is a period of time familiar to regulated entities and already used for other reporting purposes, such as federal criteria for reporting significant outages.

Finally, **paragraph (4)** defines, as a reportable threshold, circumstances when Cal OES determines an outage meeting any of the criteria in the regulations exists, and provides notice of that determination to a telecommunications service provider, along with identification of the ZIP Code or ZIP Codes impacted by the outage. This provision is necessary to address circumstances where a provider may not yet be aware of an outage, but where Cal OES learns information indicative of a community isolation outage. Upon Cal OES providing notice of its determination, the provider will be deemed to have discovered an outage for purposes of the outage regulations. This provision also makes clear that in so providing notice to providers, Cal OES will apply the same thresholds defined in the regulations.

The proposed regulations also make a non-substantive correction to this provision currently in effect as an emergency regulation.

Section 2480.2, subdivision (b)

This subdivision is necessary to clarify that providers may still submit a notice of an outage to Cal OES even if the technical threshold of an outage has not been met and notice is not required under the regulations. This provision is intended to encourage, but not require, a provider to submit a notice even if a provider has not discovered an outage, but has suspects a community isolation outage may exist.

Section 2480.3

Subdivision (a) is necessary to specify a single email address where notices are to be submitted electronically. The subdivision also provides that notices will be submitted in a format prescribed by Cal OES, and that Cal OES may implement an alternative online submission method, including through an application program interface, and once implemented, providers may choose to use the alternative submission method in lieu of the office's format. The provision is necessary to ensure Cal OES receives notices via a predictable and consistent

medium, while retaining flexibility to increase efficiency and accuracy of reporting by implementing more efficient and effective reporting methods in the future.

Subdivision (b) is necessary to interpret the requirements of Government Code section 53122 so that outage reporting include sufficient and consistent information. In particular, the subdivision is necessary to clarify that for purposes of the statutory requirement that every notice include “a description of the estimated area affected by the outage and the approximate communities, including cities, counties, and regions, affected by the outage,” identifying each affected ZIP Code(s) with an associated, readily-identifiable descriptive term that will enable validation of the ZIP Code is an appropriate proxy for the statutory requirement pertaining to describing the estimated affected area.

In addition, to further the purpose of Government Code section 53122 to understand the extent to which communities may be prevented from accessing 911 services or receiving emergency notifications, this subdivision would also specify that for wireline and VoIP outages, the notices include an estimate of the number of impacted end users, and for wireless providers, the percentage of coverage degradation of the impacted area. This is necessary to understand, to the extent possible, the potential magnitude of the outage, and the extent to which an “approximate community,” as provided in Government Code section 53122, is potentially affected. The number of impacted users is generally known by wireline and VoIP providers, and during the period that the emergency regulations have been in effect, providers have been supplying this information to Cal OES. Similarly, wireless providers have information readily available about the impact that an outage will have on the percentage of coverage degradation in an area, and that information can be readily provided to Cal OES. Including this information as a requirement would not impose an additional burden on providers, and would benefit Cal OES and local agencies by providing additional information that may help assess the impact and needs associated with an outage. This change is a new addition to the emergency regulations currently in effect. In addition, this subdivision would be renumbered from subdivision (c) to subdivision (b), pursuant to the proposed elimination of the current subdivision (b), noted below.

Subdivision (c) is necessary to ensure efficiency in reporting requirements mandated by Government Code section 53122 that notification to Cal OES include “the estimated time to repair the outage” and “when achieved, the restoration of service.” Government Code section 53122, subdivision (d), also requires that providers be available to respond to inquiries at all times about an outage. The proposed regulation establishes a baseline period of time deemed to constitute an inquiry, such that even where Cal OES does not affirmatively

inquire about the status of an outage, such that a provider must, at a minimum, provide updated notifications at least once every 6 hours from the most recent notification until service has been restored, and a final notification once the service has been restored. This provision is necessary to increase efficiency and reduce the need for Cal OES staff to manually inquire once every six hours for additional information during an outage. In addition, this subdivision would be renumbered from subdivision (d) to subdivision (c), pursuant to the proposed elimination of the current subdivision (b), noted below.

Subdivision (d) is necessary to clarify that nothing in the regulations precludes or prevents a provider to provide more frequent updates to Cal OES, and is intended to encourage, but not require, providers to provide any additional information the provider believes may be in furtherance of the purposes of Government Code section 53122, including more frequent updates. In addition, this subdivision would be renumbered from subdivision (e) to subdivision (d), pursuant to the proposed elimination of the current subdivision (b), noted below.

Changes from existing emergency regulations and reasons for changes.

The proposed regulations would eliminate the current subdivision (b) of Section 2480.3, and renumber the existing paragraphs accordingly. The current subdivision (b) requires providers to provide telephonic confirmation of its electronic submission of a notice. The original intent of this provision was to ensure outage information was received by Cal OES personnel. Since the emergency regulations went into effect, Cal OES detected no instances in which telephonic confirmation was necessary to confirm receipt of an electronic notice, or to identify an outage for which a provider believed it submitted electronically, but for which Cal OES had no record of receiving the notice. In addition, the large volume of calls received by Cal OES initially introduced challenges to appropriately tracking incoming calls. Cal OES has since implemented an automated process to ensure electronically submitted notices are tracked and logged, such that any initial benefit anticipated by the provision would be redundant, and is no longer necessary.

The proposed regulations would also further interpret and make specific the description of outages required by Government Code section 53122 to better assess the severity of an outage, by requiring providers to include basic information about the number of wirelines and VoIP users impacted by an outage, and the extent of coverage degradation for wireless outages, as described above.

Finally, the proposed regulations would make associated non-substantive changes by renumbering the affected paragraphs, and correct a grammatical error in Section 2480.2, subdivision (a), paragraph (4) and to clarify that Cal OES

will define the format of the electronic notification in Section 2480.3, subdivision (a).

IDENTIFICATION OF EACH TECHNICAL, THEORETICAL, AND EMPIRICAL STUDY, REPORT, OR SIMILAR DOCUMENT, IF ANY, UPON WHICH THE AGENCY RELIES IN PROPOSING THE ADOPTION

In proposing these regulations, Cal OES relied on the below documents, including documents submitted to Cal OES during its previous rulemaking activities pertaining to community isolation outage regulations:

- Documents pertaining to OAL Matter No. Z-2019-12010-04, including
 - Notice of Proposed Rulemaking and notice form STD. 400;
 - Text of Proposed Regulations initially noticed to the public;
 - Initial Statement of Reasons;
 - Written comments submitted during 45-day comment period;
 - Audio comments recorded at the February 4, 2020, public hearing;
 - Notice of Modifications to Text of Proposed Regulations
 - Comments submitted during the first 15-day comment period
 - Notice of Notice of Modifications to Text of Regulations regarding further modifications to proposed text of regulations.
 - Modified Text of Proposed Regulations
 - Comments submitted during the second 15-day comment period
- Published laws and regulations relative to this subject matter, including the enacting legislation (Sen. Bill. No. 670 (2019 – 2020)), legislative analyses published by the Legislature, and other regulations relating to telecommunications outages, including California Public Utilities Commission (CPUC) General Order 133-D, and CPUC Decision 16-08-021.
- United States Postal Service Publication 100 – *“The United States Postal Service – An American History 1775 – 2006”*
- Documents pertaining to OAL Matter No. 2020-0616-02, including Text of Emergency Regulations, Notice of Emergency Rulemaking and Finding of Emergency, and Addendum to Finding of Emergency

ECONOMIC IMPACT ASSESSMENT/ANALYSIS

SB 670 added section 53122 to the Government Code, which requires telecommunications service providers to notify Cal OES within 60 minutes of discovery of a community isolation outage impacting customers' ability to dial 911 or to access emergency services, and to provide specific information to Cal OES, including the telecommunications service provider's contact name and calling number, a description of the estimated area affected by the outage and approximate communities, including cities, counties, and regions affected by the outage. Government Code section 53122 also requires telecommunications service providers to notify Cal OES of the estimated time to repair the outage and, when achieved, the restoration of the service. Providers

also must ensure the calling number provided is staffed by a contact person who must be available to respond to inquiries about the outage at all times until the provider notifies Cal OES the service has been restored.

Government Code section 53122 also imposes specific requirements on Cal OES, and as relevant for purposes of the proposed regulations, require Cal OES to establish, by regulation, appropriate outage thresholds for determining whether an outage constitutes a community isolation outage, and the medium by which telecommunications service providers must report community isolation outages. The scope of the proposed regulations is therefore limited. Because Government Code section 53122 establishes the duty to report outages to Cal OES, the information that must be included on outage notifications, and the responsibilities of telecommunications service provider personnel for monitoring outages and being reachable by Cal OES at all times, any potential economic impact caused by the proposed regulations would be limited to potential, indirect effects the thresholds may have on the volume of outage reports, and to potential impacts caused by the medium of reporting proposed by the regulations.

The proposed regulations assume that telecommunications service providers have an interest in ensuring the reliability of their services, and in furtherance of that interest, already have established business practices for detecting, evaluating, and correcting service disruptions, even minor disruptions that would not rise to reportable levels contemplated by the proposed regulations. The proposed regulations further assume that telecommunications service providers that are required to make reports to the FCC and CPUC have established processes in place for generating and submitting reports pertaining to service reliability, including adequate personnel. In addition, the proposed regulations assume telecommunications service providers will have a working computer system, internet connection, and phone system, such that the medium for reporting that would be established by the proposed regulations will not result in any measurable economic impact.

Based on the above assumptions and limited scope of the proposed regulations, Cal OES does not anticipate the proposed regulations will cause significant economic effects, and will therefore not result in adverse economic impacts.

Specifically, the proposed regulations are not anticipated to create or eliminate jobs within the state. The proposed regulations assume existing technologies and business practices of telecommunications service providers enable providers to assess when an outage meets the proposed thresholds and to submit a report of the outage using an internet and phone connection. In addition, because Government Code section 53122 requires telecommunications service providers to ensure staff are available to respond to inquiries at all times during any

community isolation outage, Cal OES does not anticipate the proposed thresholds will have the effect of causing the volume of outage reports to necessitate levels of staffing in addition to, or less than, staffing needs required by Government Code section 53122, irrespective of any particular threshold established by regulation. While a telecommunications service provider could conceivably experience such a high degree of outages causing risks to the public health and safety of its customers that it believes additional staffing would be required to timely submit a volume of outage reports attributable to the reportable thresholds, such a scenario is speculative and unlikely. The proposed regulations presume telecommunications service providers, in their ordinary course of business, already identify, evaluate, and correct service disruptions.

For similar reasons, the proposed regulations are not anticipated to create or eliminate existing businesses within the state, or to expand any business currently doing business within the state. The proposed regulations establish only thresholds that trigger the statutory duty to report, and a simple, no-cost medium of reporting outages to Cal OES. In addition, providers of telecommunications services are already required to make similar reports to the FCC and CPUC, and the proposed regulations contemplate that existing business practices of providers are capable of meeting any needs attributable to the proposed thresholds. Further, the proposed regulations are not anticipated to require significant updates to the reporting and monitoring capabilities of the systems used by the providers of telecommunications services.

In line with the mandate of Government Code section 53122 to establish appropriate thresholds for determining when a community isolation outage exists that causes a risk to public health and safety, the proposed regulations will further the goals and purpose of Government Code section 53122, and are anticipated to contribute to increased availability of information to the state, county offices of emergency services, county sheriffs, and public safety answering points about the ability of residents' abilities to access 911 services and to receive emergency notifications. Access to such information will result in significant potential benefits to public health and safety, because such knowledge will enable emergency responders and law enforcement to identify issues and respond with appropriate measures to protect lives and property, and to mitigate the potential effects of conditions placing residents in peril.

Finally, the proposed regulations are substantially similar to emergency regulations currently in effect, which themselves were based on previous rulemaking initiated by Cal OES, which resulted in substantial public participation and input from the regulated industry. While some of the public comments submitted previously raised general concerns about costs, none

identified specific, measurable anticipated economic impacts that would be caused by the reporting threshold or medium of reporting.

EVIDENCE SUPPORTING FINDING OF NO SIGNIFICANT STATEWIDE ADVERSE ECONOMIC IMPACT DIRECTLY AFFECTING BUSINESS

While the proposed regulations will establish criteria for determining when an outage constitutes a community isolation outage and will specify the medium by which reports must be made, any economic impact on telecommunications service providers directly attributable to the proposed regulations is speculative, and would not reasonably result in economic impacts directly affecting business. As noted above, telecommunications service providers are presumed to monitor their service levels, including for potential significant outages that may trigger reports to the FCC and CPUC. In addition, Government Code section 53122 establishes the requirement to report community isolation outages, and related obligations.

Relatedly, in establishing only the appropriate threshold for determining when a community isolation outage exists and the medium by which reports must be made to Cal OES, the proposed regulations are not expected to have any significant statewide adverse economic impact. As discussed above, providers of telecommunications services are presumed to monitor service levels, and are already required to prepare certain outage reports to the CPUC and FCC. In addition, Government Code section 53122 establishes the mandate to report community isolation outages to Cal OES, and provides that the thresholds for determining when an outage constitutes a community isolation outage will be established by regulation. The proposed regulations, in establishing those thresholds, will not create any new or additional obligations, and will at most affect the potential volume of outage reports, if a provider experiences a significant volume of reports that pose risks to public health and safety. In addition, the established medium requires only an internet connection and phone number, and will therefore not result in the requirement of providers to establish or adopt new technologies to produce and provide reports.

In addition, and as mentioned above, the proposed regulations are substantially similar to emergency regulations currently in effect, which themselves were based on previous rulemaking initiated by Cal OES, which resulted in substantial public participation and input from the regulated industry. None of the public comments submitted in those proceedings identified or described measurable economic impacts of the proposed thresholds and medium of reporting.

REASONABLE ALTERNATIVES TO THE REGULATION AND THE AGENCY'S REASONS FOR REJECTION THOSE ALTERNATIVES

Cal OES considered several alternative to the proposed regulations, including alternatives it considered before it first noticed the public of its intention to

adopt regulations, and including alternatives submitted to Cal OES in public comments in Cal OES's previous rulemaking actions regarding community isolation outages. After carefully considering those alternative, and taking into account the extent to which they would be feasible or further the objectives of Government Code section 53122, Cal OES rejected them in favor of the requirements in the proposed regulations.

Regarding reportable thresholds, Cal OES considered the thresholds for FCC reporting requirements for significant disruptions to communications. However, SB 670 was enacted in large part because existing reporting requirements are not specifically tailored to reporting outages that directly affect the health and safety of communities, including rural communities. Adopting the same standards as the FCC would not be appropriate because outages posing significant risks to health and safety would not be required to report outages to Cal OES, particularly outages that may pose risks to the public health and safety of residents in rural communities.

Cal OES also considered establishing criteria based on percentages of impacted customers within defined geographical areas. In assessing that possibility, Cal OES anticipated such a requirement would involve too many unknown variables that could impair the reliability of outage reports and establish criteria that would not reasonably be measured on a consistent basis. In particular, because percentages of impacted individuals are highly variable and depends on knowing the total number of individuals in a defined area at any given time, Cal OES anticipated such a criteria would be unmanageable for providers of telecommunications services.

Cal OES also considered establishing thresholds in reference to geographic boundaries of counties, cities, and towns. Such geographic boundaries would likely result in a multitude of separately defined thresholds dependent on individualized threshold for localized geographic regions that would make compliance thresholds incomprehensible and unmanageable. Alternatively, if more general base numbers were established for the number of impacted individuals based on broad geographic categories (e.g. county, city, town), the thresholds would be less numerous and understandable, but would reasonably result in both over-inclusive and under-inclusive reporting. For example, if a threshold depends on specific, measurable criteria for all counties in California (e.g. number of individuals affected), the established number may simultaneously result in underreporting in certain rural communities, and over-reporting in more densely populated counties. While it is important and critical to know which communities are affected by an outage, including cities, counties, and regions, the criteria proposed by these regulations is tailored to identify outages that pose a threat to public health and safety in a manner that reasonably results in limiting reporting thresholds to those that pose risks to the

public health and safety, without defining the thresholds so broadly that community isolation outages go unreported.

Alternatives suggested in public comments

Cal OES also considered substantial public input regarding potential threshold reporting criteria, particularly in the form of comments submitted in previous rulemaking actions initiated by Cal OES regarding community isolation outage reported. Some comments suggested the threshold in the emergency regulations are too low, and would result in an inundation of reports to Cal OES. But the comments did not provide evidence about how many such outages actually occur, or why such outages would not create a public safety risk. Another comment suggested an alternative threshold of 300 end users, and another comment suggested a threshold of 50. Taking into account the public comments and the judgment and expertise of Cal OES's California 911 Emergency Communications Branch, and data generated while the emergency regulations have been in place, Cal OES continues to believe an outage potentially affecting at least 100 end users strikes an appropriate balance for determining when objective criteria may be indicative of a threat to public health and safety, without setting the threshold so low that outage reports would serve no useful purpose for county office of emergency services, county sheriffs, or public safety answering points.

Cal OES also received several public comments urging that Cal OES create an exception to an otherwise-reportable outage for any outage caused by a provider's scheduled maintenance. Cal OES considered this exception, and initially anticipated such an exception may be allowable and consistent with the purpose of SB 670, but only if appropriate safeguards were in place to guard against the public safety risks that result from outages. In particular, if end users had sufficient, advance knowledge about when and for how long they would be unable to call 911 or receive emergency notifications, that knowledge could serve to mitigate the risks caused by the outage by adequately preparing affected end users. In those circumstances, reporting would not be necessary because the end users directly affected by the outage would be able to take steps to prepare for their own safety during the outage, including arranging for alternate means of accessing 911. Cal OES made proposed modifications to the text of the regulations adding a definition and exception for outages caused by scheduled maintenance, and invited additional public comment. The scope of this limited exception was the subject of considerable public comment, both in the 15-day comment period, and the second 15-day comment period.

The submitted comments regarding a potential exception for outages caused by scheduled maintenance indicated considerable confusion over the limited exception, and demonstrated such an exception would not be feasible. For

example, some comments misunderstood the exception as an affirmative regulatory mandate governing providers' notification practices, even though nothing in the proposed regulations would have mandated any end user notification practices. Other comments worried that no workable limiting principle existed, and urged Cal OES to adopt a blanket exception for scheduled maintenance, no matter the duration, and without regard to whether a provider's customers had any knowledge of being cut off from accessing 911 services or receiving emergency notifications. Another comment urged the importance of requiring customers to receive advance notice of outages, and asked that if providers are unable to notify customers, they should at least notify Cal OES. Taking into account the submitted comments, Cal OES determined a scheduled maintenance exception would run contrary to the purpose of SB 670. In addition, the underlying cause of an outage is irrelevant for community isolation outage threshold purposes. The scheduled maintenance exception was originally contemplated as permissible if providers choosing to avail themselves of that exception assumed a degree of responsibility for putting their end users on appropriate notice of the impending outage, such that the end users could take preparatory steps to mitigate the risk caused by the outage. Public comments from the regulated industry indicated confusion over this exception, including how the exception would be applied. For these reasons, Cal OES rejected a reporting exception for outages caused by scheduled maintenance.

Cal OES also received public feedback about using ZIP Code as geographic reference points. Cal OES responded to some of those concerns by refining the definition of ZIP Code, including by specifying that ZIP Codes associated with a single physical address or a Post Office Box should not be treated as independent ZIP Codes for outage reporting purposes.

Other feedback generally supported use of ZIP Codes, or urged against using ZIP Codes altogether, without offering alternatives that were both feasible and which furthered the purposed of Government Code section 53122. These comments generally alleged ZIP Codes did not bear logical relationship to network facilities, that ZIP Code thresholds would be difficult to implement as a general matter, and that Cal OES should instead mirror outage thresholds used by the FCC and CPUC.

Comments objecting that ZIP Codes bear no logical relationship to network facilities misunderstand the mandate of SB 670, which is to identify outages that isolate communities. ZIP Codes bear logical relationships to geographic places where California residents access and use services. In addition, the ZIP Code is a commonly used identifier that is universally understood, which will make notifications actionable for Cal OES and recipients of the notices, such as county sheriffs. For these reasons, Cal OES rejected alternatives that were more

focused on telecommunications infrastructure, as opposed to individuals in California who rely on that infrastructure.

Cal OES also received several comments about implementation, including by requesting extensions of time for the regulations to become effective, and including time periods in the regulations for phased implementation. These suggested alternatives misunderstand the purpose of SB 670 and the scope of Cal OES's regulations. SB 670 established the scope of the duty to report community isolation outages, which includes a mandate to report an outage to Cal OES within 60 minutes of discovery of the outage. Cal OES must, by regulation, define the thresholds for determining when an outage constitutes a community isolation outage. Objections to implementation timelines were generally based on concerns by providers that they lacked a means of readily identifying when their end users were without service at the level of specificity defined by the regulations. Whether or not a provider knows an outage has isolated a community, however, is irrelevant to whether a community is in fact isolated and unable to call 911 or receive emergency notifications. In addition, the emergency regulations have been in effect since June of 2020 without any implementation timeline, and the proposed regulations would only serve to continue the obligation created by the emergency regulations.

Cal OES considered comments objecting to ZIP Codes, and determined the ZIP Code threshold is the most effective and reasonable geographic metric for outage threshold purposes. SB 670 was enacted to create new reporting obligations in part to address gaps not addressed by existing frameworks, and to further the State's interest in protecting public health and safety by guarding against the risks to public health and safety caused by outages that isolate communities. Existing threshold criteria for significant outages, as set out by the FCC, address outages impacting the overall security and reliability of the communications infrastructure. Those thresholds are far too high to further the purpose of SB 670 because they would fail to capture a wide range of outages that isolate communities from 911 services and emergency notifications. Thresholds tied to ZIP Codes, on the other hand, are sufficiently granular to further the purpose of SB 670 by identifying communities in densely-populated areas as well as rural areas.

Some public comments also suggested Cal OES collapse reportable thresholds into a single provision, including for those service providers that currently have the same reportable thresholds in the emergency regulations. Cal OES considered and rejected this alternative, so that thresholds can be readily identified by service type, and so that any future changes or developments to technology that may impact the thresholds can be accommodated through subsequent amendment without needing to later split and renumber existing provisions.

Cal OES also received some public comments suggesting alternatives to the minimum number of hours providers would need to give updates to Cal OES during an outage. Cal OES initially adopted, as part of the emergency rulemaking, the present 6-hour requirement in response to public comments. Since the emergency regulations have been in effect, this time period has posed no known obstacles or concerns, and Cal OES does not believe other proposed time periods would be more feasible or further the purpose of Government Code section 53122.

DUPLICATION OR CONFLICT WITH FEDERAL REGULATIONS

The proposed regulations are neither duplicative of, nor in conflict with, federal regulations. As noted above, SB 670 was enacted in part because existing FCC reporting requirements are not tailored to the same public interests as SB 670. Government Code section 53122 requires reporting community isolation outages and requires Cal OES to establish outage thresholds and the medium for reporting outages. The proposed regulations are consistent with, and are not in conflict with, FCC requirements. In particular, Code of Federal Regulations, title 47, part 4, establishes reporting major service interruptions. As relevant for purposes of these proposed regulations, FCC requirements typically involve reporting outages when a certain number of user minutes is impacted by the outage, and when the outage lasts at least 30 minutes. The proposed regulations do not duplicate federal regulations because they establish thresholds, for purposes of Government Code section 53122 reporting requirements, to be based on a specified number of individuals who cannot access special offices or facilities, outages impacting a defined number of individuals within a given ZIP Code, and outages impacting wireless coverage areas in any given ZIP code. The proposed regulations do not conflict with federal regulations, and where possible adopt definitions of terms that are consistent with definitions of terms used in federal regulations relating to service outages. For example, the proposed regulations adopt the duration of a reportable outage as one that last at least 30 minutes, which is the same duration for reportable outages under FCC outage thresholds for significant outages. In proposing to adopt the same duration of time for community isolation outages, the proposed regulations avoid potential conflict with existing federal regulations.