



June 6, 2024

Dear Stakeholders,

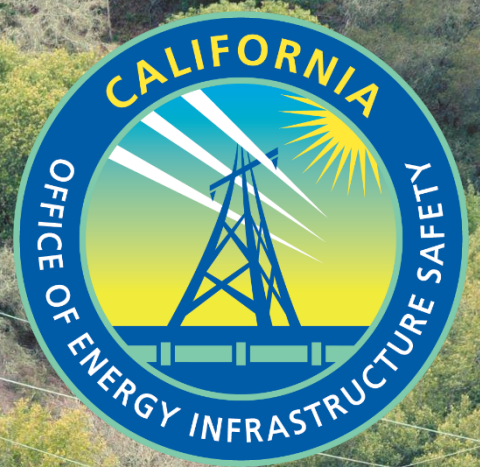
Enclosed is the Office of Energy Infrastructure Safety's Annual Report on Compliance regarding Trans Bay Cable's execution of its 2021 Wildfire Mitigation Plan.

This Annual Report on Compliance is hereby published as of the date of this letter. Trans Bay Cable may, if it wishes to do so, file a public response to this Annual Report on Compliance within 14 calendar days of the date of publication. Comments must be submitted to the Office of Energy Infrastructure Safety's E-Filing system in the 2021 Annual Report on Compliance docket.

Sincerely,

*Patrick Doherty*

Patrick Doherty  
Program Manager | Compliance Assurance Division  
Electrical Infrastructure Directorate  
Office of Energy Infrastructure Safety



**OFFICE OF ENERGY INFRASTRUCTURE SAFETY**  
**ANNUAL REPORT ON COMPLIANCE**  
**TRANS BAY CABLE**  
**2021 WILDFIRE MITIGATION PLAN UPDATE**

June 2024

# TABLE OF CONTENTS

- Executive Summary ..... 1
- 1. Introduction and Background ..... 2
  - 1.1 Legal Authority ..... 2
  - 1.2 Annual Compliance Process Cadence ..... 3
- 2. ARC Compliance Framework ..... 5
- 3. TBC’s 2021 WMP Update ..... 6
  - 3.1 2021 WMP Update Objectives ..... 6
  - 3.2 2021 WMP Update Initiatives ..... 6
- 4. Information Sources Used for ARC Assessment..... 10
  - 4.1 Electrical Corporation (EC) ARC ..... 10
    - 4.1.1 Background ..... 10
    - 4.1.2 Relevant Information ..... 11
  - 4.2 Independent Evaluator (IE) ARC ..... 12
    - 4.2.1 Overview ..... 12
    - 4.2.2 Relevant Information ..... 13
  - 4.3 Inspections..... 14
    - 4.3.1 Overview ..... 14
    - 4.3.2 Relevant Information ..... 14
  - 4.4 Audits ..... 15
    - 4.4.1 Overview ..... 15
    - 4.4.2 Relevant Information ..... 15
  - 4.5 Data ..... 15
    - 4.5.1 Overview ..... 15
    - 4.5.2 Relevant Information ..... 15
  - 4.6 Third-Party Reports..... 16
    - 4.6.1 Overview ..... 16

5.	Discussion.....	17
5.1	Criterion 1: 2021 WMP Initiative Implementation .....	17
5.1.1	Completion of 2021 WMP Qualitative Targets .....	18
5.1.2	2021 WMP Update Initiative Funding .....	18
5.2	Criterion 2: 2021 WMP Update Objectives .....	19
5.2.1	Objective 1: Harden Pittsburg facility through capital improvements.....	19
5.2.2	Objective 2: Evaluate new fire risk reduction opportunities.....	20
5.3	Criterion 3: Wildfire Risk Reduction and Performance .....	20
5.4	Criterion 4: Satisfaction of 2021 WMP Update Goals .....	21
5.5	Criterion 5: Execution, Management, and Documentation .....	21
6.	Conclusion.....	23

## LIST OF TABLES

Table 1:	TBC’s 2021 WMP Update Planned Expenditure by Category .....	7
Table 2:	TBC's Planned Expenditure by Year .....	8
Table 3:	TBC's 2021 WMP Update Top Two Planned Expenditure Initiatives.....	9
Table 4:	Summary of TBC’s IE ARC Findings .....	13

## Executive Summary

The Office of Energy Infrastructure Safety (Energy Safety) is charged with completing an annual review of California's electrical corporations' compliance with their approved Wildfire Mitigation Plans (WMP) and WMP Updates. Energy Safety's Annual Reports on Compliance (ARC) are produced 18 months after the electrical corporations complete a self-review of compliance of their approved plans and 15 months after an independent evaluator completes their own review of electrical corporation compliance with approved plans.

Energy Safety's evaluation found that Trans Bay Cable (TBC) completed two of three (67%) of its 2021 WMP initiatives, and that the two completed initiatives constituted 85% of its planned expenditure.

While TBC did not meet all targets for its WMP initiatives, the failure to meet one target did not materially hinder TBC's ability to mitigate its wildfire risk given its low inherent risk.

TBC's scope and size limits its ability to apply all wildfire mitigation strategies employed by other electrical corporations. Moreover, because its equipment is largely underwater, TBC does not track ignition risk and outcome metrics. However, where applicable, TBC prioritized and addressed areas of meaningful impact for wildfire risk reduction and achieved most of its objectives and targets.

Energy Safety considered all compliance assessments completed with respect to TBC's approved WMP Update, including audits, field inspections, and analysis of data submitted by TBC to Energy Safety. Energy Safety considered TBC's self-assessment in its Electrical Corporation Annual Report on Compliance and the findings of its independent evaluator.

On balance, TBC was largely successful in executing an actionable and tailored plan for wildfire risk mitigation. However, there are areas for improvement and continued learning. These include setting distinct, quantitative targets for its programs to better assess effectiveness and improving consistency in record keeping and documentation.

# 1. Introduction and Background

This Annual Report on Compliance (ARC) presents the Office of Energy Infrastructure Safety's (Energy Safety's) assessment of Trans Bay Cable's compliance with its 2021 Wildfire Mitigation Plan (WMP) Update.<sup>1</sup>

TBC submitted its 2021 WMP Update on March 5, 2021. Energy Safety approved TBC's WMP on July 20, 2021.<sup>2</sup>

## 1.1 Legal Authority

Energy Safety is responsible for overseeing compliance with electrical corporations' WMPs.<sup>3</sup> Energy Safety has broad authority to obtain and review information and data and to inspect property, records, and equipment of every electrical corporation in furtherance of its duties, powers, and responsibilities.<sup>4</sup> In addition to performing an overall assessment of compliance<sup>5</sup> with the WMP, Energy Safety audits each electrical corporation's vegetation management work for compliance with WMP requirements<sup>6</sup> and performs other reviews and audits. Energy Safety may rely upon metrics<sup>7</sup> to evaluate WMP Compliance, including performance metrics adopted by the California Public Utilities Commission (CPUC).<sup>8</sup> Annually, in consultation with Energy Safety, the CPUC adopts a wildfire mitigation plan compliance process.<sup>9</sup> The CPUC adopted the 2021 Compliance Process via Resolution M-4860 on December 2, 2021.<sup>10,11</sup>

---

<sup>1</sup> California Public Utilities Code § 8386.3(c).

<sup>2</sup> Office of Energy and Infrastructure Safety, "Evaluation of 2021 Wildfire Mitigation Plan Update Trans Bay Cable," Jul. 20, 2021. [Online]. Available: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=51671&shareable=true>.

<sup>3</sup> California Public Utilities Code § 8386.3(c).

<sup>4</sup> Government Code, § 15475.

<sup>5</sup> California Public Utilities Code § 8386.3(c)(4).

<sup>6</sup> California Public Utilities Code § 8386.3(c)(5)(A).

<sup>7</sup> California Public Utilities Code §§ 326(a)(2), 8389(b)(1).

<sup>8</sup> California Public Utilities Code § 8389(d)(4).

<sup>9</sup> California Public Utilities Code § 8389(d)(3).

<sup>10</sup> California Public Utilities Commission, "Resolution M-4860," Dec. 02, 2021. [Online]. Available: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M428/K722/428722129.PDF>.

<sup>11</sup> Office of Energy Infrastructure Safety, "Attachment 3: 2021 Wildfire Mitigation Plan Compliance Process," Oct. 13, 2021. [Online]. Available: <https://energysafety.ca.gov/wp-content/uploads/docs/compliance-process/docs/compliance-process-for-2021-wmps.pdf>.

## 1.2 Annual Compliance Process Cadence

Pursuant to Public Utilities Code section 8385(a)(1), a "compliance period" means a period of approximately one year. In its Compliance Operational Protocols issued on February 16, 2021, Energy Safety defined the compliance period for 2020-2022 WMPs as January 1 to December 31 for each calendar year of the three-year WMP.<sup>12</sup>

Public Utilities Code section 326(a)(3) requires Energy Safety to utilize visual inspection of electrical corporation infrastructure and wildfire mitigation programs as means of assessing WMP compliance. Furthermore, Public Utilities Code section 8386.3(c) outlines the baseline statutory framework for assessing WMP compliance through a series of audits, reviews, and assessments performed by Energy Safety, independent evaluators, and the electrical corporations themselves. The statutory framework also lays out a defined timeframe for several of the compliance assessment components, as follows:

- Three months after the end of an electrical corporation's compliance period, each electrical corporation must submit an Electrical Corporation Annual Report on Compliance (EC ARC) addressing the electrical corporation's compliance with its plan during the prior calendar year.<sup>13</sup>
- Six months after the end of an electrical corporation's compliance period, an independent evaluator must submit an Independent Evaluator Annual Report on Compliance (IE ARC). The independent evaluators are engaged by each electrical corporation to review and assess the electrical corporation's compliance with its plan for the prior year. As a part of this report, the independent evaluator must determine whether the electrical corporation failed to fund any activities included in its plan.<sup>14</sup>
- In parallel with the above assessments, Energy Safety audits vegetation management activities. The results of the audit must specify any failure of the electrical corporation to fully comply with the vegetation management requirements in the WMP. Energy Safety then grants the electrical corporation a reasonable amount of time to correct and eliminate any deficiency specified in the audit.<sup>15</sup> Subsequently, Energy Safety issues a report describing any failure of the electrical corporation to substantially comply with the substantial portion of the vegetation management requirements in the electrical corporation's WMP.<sup>16</sup>
- Within 18 months after the electrical corporation submits its compliance report pursuant to Public Utilities Code section 8386.3(c)(1), Energy Safety must complete its

---

<sup>12</sup> California Public Utilities Commission, "Compliance Operational Protocols," Feb. 16, 2021. p. 1. [Online]. Available: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52615&shareable=true>.

<sup>13</sup> California Public Utilities Code § 8386.3(c)(1).

<sup>14</sup> California Public Utilities Code § 8386.3(c)(2)(B)(i).

<sup>15</sup> California Public Utilities Code § 8386.3(c)(5)(A).

<sup>16</sup> California Public Utilities Code § 8386.3(c)(5)(C).

annual compliance review.<sup>17, 18, 19</sup> Energy Safety memorializes the findings of its compliance review in this Annual Report on Compliance (ARC).

---

<sup>17</sup> California Public Utilities Code § 8386.3(c)(4).

<sup>18</sup> California Public Utilities Commission, "Resolution M-4860," Dec. 02, 2021. [Online]. Available: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M428/K722/428722129.PDF>.

<sup>19</sup> Office of Energy Infrastructure Safety, "Attachment 3: 2021 Wildfire Mitigation Plan Compliance Process," Oct. 13, 2021. p. 2. [Online]. Available: <https://energysafety.ca.gov/wp-content/uploads/docs/compliance-process/docs/compliance-process-for-2021-wmps.pdf>.



## 2. ARC Compliance Framework

Pursuant to Government Code section 15475.1, Energy Safety's primary objective is to ensure that electrical corporations reduce wildfire risk and comply with energy infrastructure safety measures. Each electrical corporation is required to construct, maintain, and operate its infrastructure in a manner that will minimize the risk of catastrophic wildfire.<sup>20</sup>

Energy Safety's compliance assessment examines the totality of data and findings before the department. Compliance is the successful implementation of the electrical corporation's stated narratives, actions, targets, outcome metrics, and objectives in the electrical corporation's approved WMP, including providing supporting documentation. Energy Safety aims to ensure WMP implementation through the authorities and requirements outlined in Public Utilities Code sections 8386 – 8389.<sup>21, 22, 23</sup>

Energy Safety considers the following as part of its assessment:

1. Whether the electrical corporation implemented the wildfire mitigation initiatives in its approved WMP, including evaluating whether the electrical corporation funded and performed the commitments stated for each initiative. Further, whether the electrical corporation prioritized completion of work with the highest potential for reducing wildfire risk.<sup>24</sup>
2. Whether the electrical corporation achieved or sufficiently progressed its WMP objectives.
3. Wildfire risk reduction, including the performance of the electrical corporation's infrastructure relative to its wildfire risk, as measured by changes in the occurrence of events that correlate to wildfire risk.
4. Whether the electrical corporation made a good faith attempt to achieve its goals and comply with its WMP.
5. Whether the electrical corporation exhibited issues related to its execution, management, or documentation in the implementation of its WMP. This analysis may expand beyond the scope of any single WMP initiative.<sup>25</sup>

---

<sup>20</sup> California Public Utilities Code § 8386(a).

<sup>21</sup> California Public Utilities Code § 8386.3(c)(4).

<sup>22</sup> California Public Utilities Commission, "Resolution M-4860," Dec. 02, 2021. [Online]. Available: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M428/K722/428722129.PDF>.

<sup>23</sup> Office of Energy Infrastructure Safety, "Attachment 3: 2021 Wildfire Mitigation Plan Compliance Process," Oct. 13, 2021. p. 4. [Online]. Available: <https://energysafety.ca.gov/wp-content/uploads/docs/compliance-process/docs/compliance-process-for-2021-wmps.pdf>.

<sup>24</sup> Energy Safety evaluates funding data to ensure electrical corporations are dedicating resources to their initiative commitments. Energy Safety does not evaluate whether the cost of implementing each electrical corporation's plan was just and reasonable.

<sup>25</sup> Office of Energy Infrastructure Safety, "Compliance Guidelines (Section 7.1)," Sept. 2023. p. 16. [Online]. Available: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=55586&shareable=true>.

## 3. TBC 2021 WMP Update

This section provides a summary of TBC's commitments in its 2021 WMP Update. This section organizes the electrical TBC's commitments into two major categories:

1. 2021 WMP Update Objectives
2. 2021 WMP Update Initiatives

### 3.1 2021 WMP Update Objectives

The 2021 WMP Guidelines required each electrical corporation to describe the specific objectives of its 2021 WMP Update with respect to the following timeframes: Before the next Annual WMP Update; within the next three years; and within the next 10 years – long-term planning beyond the three-year cycle.<sup>26</sup>

In reviewing compliance with TBC's 2021 WMP Update, Energy Safety considered whether TBC achieved or sufficiently progressed the objectives it set out to achieve before the next Annual WMP Update.

TBC's stated objectives to achieve before the next Annual WMP Update were:

- To further harden TBC's Pittsburg facility through capital improvements for enhanced fire suppression, awareness capabilities, and hardening substation and infrastructure elements to mitigate the potential fire risk from equipment derangement resulting from environmental or man-made events which could result in fire.
- Continue to periodically evaluate new technologies, materials, and methods for further reducing fire risk at its facilities.<sup>27</sup>

### 3.2 2021 WMP Update Initiatives

The 2021 WMP Update Guidelines required each electrical corporation to group its discussion of wildfire mitigation initiatives into the 10 categories listed in Table 1 below.

---

<sup>26</sup> California Public Utilities Commission, "Resolution WSD-011 Attachment 2.2: 2021 Wildfire Mitigation Plan Guidelines Template," Nov. 2020. p. 29. [Online]. Available: <https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/attachment-2.2-to-wsd-011-2021-wmp-guidelines-template.pdf>.

<sup>27</sup> Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. pp. 40-41. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

TBC's 2021 WMP Update included a total of three initiatives allocated across two of the 10 categories.<sup>28, 29</sup>

Table 1 below provides a summary of TBC's allocation of WMP initiatives across categories, its reported planned expenditure in each category for 2021, and the percentage of the total 2021 WMP Update budget the expenditure in each category comprised. Due to the limited size and scope of its operations, many established WMP categories and initiatives were not applicable to TBC (e.g., any categories and initiatives related to community engagement do not apply to TBC as it does not have any retail customers).

All initiatives provided qualitative measures (e.g., assess the need to train personnel on the use of foam trailers).

*Table 1: TBC's 2021 WMP Update Planned Expenditure by Category*

Initiative Category	No. of Initiatives	2021 Planned Expenditure (\$K)	% Of 2021 WMP Update Planned Budget
<b>1. Risk assessment and mapping</b>	-	-	-
<b>2. Situational awareness and forecasting</b>	-	-	-
<b>3. Grid design and system hardening</b>	1	\$5,100	85%
<b>4. Asset management and inspections</b>	-	-	-
<b>5. Vegetation management and inspections</b>	-	-	-
<b>6. Grid operations and protocols</b>	2	\$900	15%
<b>7. Data governance</b>	-	-	-
<b>8. Resource allocation methodology</b>	-	-	-

<sup>28</sup> Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. pp. 55-68. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

<sup>29</sup> The 2021 WMP Update Guidelines provided ten initiatives categories: 1. Risk assessment and mapping, 2. Situational awareness and forecasting, 3. Grid design and system hardening, 4. Asset management and inspections, 5. Vegetation management and inspections, 6. Grid operations and protocols, 7. Data governance, 8. Resource allocation methodology, 9. Emergency planning and preparedness, and 10. Stakeholder cooperation and community engagement. California Public Utilities Commission, "Attachment 2.2: 2021 Wildfire Mitigation Plan Guidelines Template," Nov. 2020. p. 43. [Online]. Available: <https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/attachment-2.2-to-wsd-011-2021-wmp-guidelines-template.pdf>.

Initiative Category	No. of Initiatives	2021 Planned Expenditure (\$K)	% Of 2021 WMP Update Planned Budget
<b>9. Emergency planning and preparedness</b>	-	-	-
<b>10. Stakeholder cooperation and community engagement</b>	-	-	-
<b>Total</b>	<b>3</b>	<b>\$6,000<sup>30</sup></b>	<b>100%</b>

Table 2 provides an overview of TBC's planned 2020-2022 WMP expenditure.

*Table 2: TBC's Planned Expenditure by Year<sup>31</sup>*

Year	Planned Expenditure (\$K)
<b>2020</b>	\$11,322
<b>2021</b>	\$6,000
<b>2022</b>	\$100 <sup>32</sup>
<b>2020-2022 Plan Period</b>	<b>\$17,422</b>

<sup>30</sup> Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 23. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

<sup>31</sup> Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 23. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

<sup>32</sup> Table 3-2 of the WMP displays an incorrect planned expenditure of \$300 in the total for 2022. This has been corrected by Energy Safety to align with Table 3-1, which correctly displays \$100. Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 23. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

Table 3 lists the top two initiatives by planned expenditure.<sup>33</sup> The last row in Table 3 shows that the two listed initiatives (out of three total) make up 100% of TBC's total 2021 WMP Update planned expenditure.

*Table 3: TBC's 2021 WMP Update Top Two Planned Expenditure Initiatives<sup>34</sup>*

Initiative Number	Initiative	2021 Planned Expenditure (\$K)	% of WMP Planned Budget
7.3.3.12	Other corrective action	\$5,100	85%
7.3.6.6 <sup>35</sup>	Stationed and on-call ignition prevention and suppression resources and services	\$900	15%
<b>Total</b>		<b>\$6,000</b>	<b>100%</b>

<sup>33</sup> While TBC reports on three initiatives within its 2021 WMP Update, 7.3.6.6.a and 7.3.6.6.b do not have planned expenditure disaggregated between them. It has planned expenditure allocated under the umbrella of initiative 7.3.6.6. Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 23. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

<sup>34</sup> Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 23. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

<sup>35</sup> TBC includes two sub-activities within initiative number 7.3.6.6 (7.3.6.6.a – Training for use of foam trailers, and 7.3.6.6.b – Cylinder enclosures and auxiliary room thermal barrier). Trans Bay Cable LLC, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 66. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

## 4. Information Sources Used for ARC Assessment

Energy Safety relied upon the following sources of information to conduct its analysis for TBC's ARC:<sup>36, 37, 38</sup>

- Information provided by TBC via the EC ARC and quarterly initiative update (QIU).
- Information provided by the TBC independent evaluator via the IE ARC.
- Findings from Energy Safety field inspections.
- Findings from Energy Safety audits and assessments of the electrical corporation.
- Data submitted to Energy Safety by TBC, including responses to data requests.<sup>39</sup>
- Information provided by third parties also engaged in assessment activities of TBC.

This section provides the most relevant information from the sources listed above for the purposes of Energy Safety's assessment of TBC's compliance with its 2021 WMP.

### 4.1 Electrical Corporation (EC) ARC

#### 4.1.1 Background

Three months after the end of the compliance period, the electrical corporation must submit its EC ARC. The Compliance Operational Protocols outline the minimum requirements and structure for each electrical corporation's 2021 EC ARC.<sup>40</sup> The 2021 EC ARCs must include:

- An assessment of whether the electrical corporation achieved its risk reduction intent by implementing all of its approved WMP initiatives, i.e., the degree to which initiative activities have reduced ignition probabilities. If the electrical corporation failed to achieve the intended risk reduction, Energy Safety required the electrical corporation to provide a detailed explanation of why and reference where associated corrective actions were incorporated in its most recently submitted WMP.

---

<sup>36</sup> California Public Utilities Code § 8386.3(c)(4).

<sup>37</sup> California Public Utilities Commission, "Resolution M-4860," Dec. 02, 2021. [Online]. Available: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M428/K722/428722129.PDF>.

<sup>38</sup> Office of Energy Infrastructure Safety, "Attachment 3: 2021 Wildfire Mitigation Plan Compliance Process," Oct. 13, 2021. [Online]. Available: <https://energysafety.ca.gov/wp-content/uploads/docs/compliance-process/docs/compliance-process-for-2021-wmps.pdf>.

<sup>39</sup> Energy Safety receives data from the electrical corporation through three main paths: quarterly advice letter/quarterly notification submissions, quarterly data request submissions, and quarterly initiative updates.

<sup>40</sup> California Public Utilities Commission, "Compliance Operational Protocols," Feb. 16, 2021. pp. 10-12. [Online]. Available: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52615&shareable=true>.

- A full and complete listing of all change orders<sup>41</sup> and any other operational changes, such as initiative location changes, made to WMP initiatives, with an explanation of why the changes were necessary, and an assessment of whether the changes achieved the same risk reduction intent.
- Descriptions of all planned WMP initiative expenditures versus actual WMP initiative expenditures and an explanation of any differentials between the planned and actual expenditures.
- A description of whether the implementation of WMP initiatives changed the threshold(s) for triggering a Public Safety Power Shutoff (PSPS) event and/or reduced the frequency, scale, scope, and duration of PSPS events.
- A summary of all defects identified by Energy Safety within the annual compliance period, the corrective actions taken and the completion and/or estimated completion date.

#### 4.1.2 Relevant Information

TBC timely submitted its EC ARC on March 31, 2022. In its EC ARC, TBC reported that it did not meet its targets for one of its three initiatives.

The initiative with a missed target was:

1. Stationed and on-call ignition prevention and suppression resources and services – Installation of compressed gas cylinder housing, auxiliary room thermal barrier, and spare parts building suppression system (7.3.6.6.b):
  - a. TBC completed 0% of this work, and delayed progress on this initiative until 2022.<sup>42</sup>

For its initiative with a missed target, TBC reported the following:

- Two projects within 7.3.6.6.b, spare part building fire suppression system installation and compressed gas cylinder enclosure, were delayed due to challenges with scoping and availability of vendors and required materials in 2021. As a result, no expenditure occurred in 2021, however these projects remain scheduled for completion in 2022.

---

<sup>41</sup> See WSD-002 for detail regarding the 2020 WMP change order process. California Public Utilities Commission, "Resolution WSD-002," Jun. 11, 2020. pp. 32-35 [Online] Available: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M340/K859/340859823.PDF>.

<sup>42</sup> Trans Bay Cable, "Annual Report on Compliance for 2021," Mar. 31, 2022. p. 3. [Online]. Available: [https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC\\_ARC](https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC_ARC).

- The auxiliary power room fire-rated separation project is under additional evaluation and needs further assessment—currently it has been indefinitely delayed.<sup>43</sup>

In addition to the information regarding the missed initiative, TBC also reported the following:

- TBC completed seismic upgrades to all its transformers in August 2021. The seismic upgrades included the positioning of all site transformers on base isolators which significantly improves the capability of the transformers to resist derangement during a seismic event; thus, reducing the likelihood of instigation of a transformer fire.
- TBC implemented a transformer oil control system which provided new control and flow sensing on its main transformers. This system allows station personnel to have improved access to oil flow indication and controls which allows for more accurate preventative maintenance.<sup>44</sup>

Additional information from the EC ARC is included in Appendix A and is discussed, as relevant, in Section 5 of this report.

## 4.2 Independent Evaluator (IE) ARC

### 4.2.1 Overview

Each year before March 1, Energy Safety, in consultation with the Office of the State Fire Marshal, must publish a list of qualified independent evaluators.<sup>45</sup> An electrical corporation must engage an independent evaluator from the list to review and assess its compliance with its approved WMP.<sup>46</sup> The independent evaluator must issue its IE ARC by July 1 of each year, covering the previous calendar year.<sup>47</sup> Energy Safety considered the independent evaluator's findings in this ARC. However, the independent evaluator's findings are not binding on Energy Safety's final determination of WMP compliance.<sup>48</sup>

---

<sup>43</sup> All three projects under 7.3.6.6.b were originally scheduled for completion by 2022 in the WMP. However, TBC stated that expenditure and development of these projects would begin in 2021 in the WMP. Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 67. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

<sup>44</sup> Trans Bay Cable, "Annual Report on Compliance for 2021," Mar. 31, 2022. p. 3. [Online]. Available: [https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC\\_ARC](https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC_ARC).

<sup>45</sup> California Public Utilities Code § 8386.3(c)(2)(A).

<sup>46</sup> California Public Utilities Code § 8386.3(c)(2)(B).

<sup>47</sup> California Public Utilities Code § 8386.3(c)(2)(B).

<sup>48</sup> California Public Utilities Code § 8386.3(c)(2)(B)(ii).



## 4.2.2 Relevant Information

TBC selected Bureau Veritas as the independent evaluator to assess its compliance with its 2021 WMP Update. Bureau Veritas (henceforth referenced as the “the IE”) issued an IE ARC on June 30, 2022.

The IE evaluated four initiatives.<sup>49, 50</sup> Of those, the IE found TBC noncompliant with one of the four initiatives.

Table 4 below provides a summary of the IE’s findings.

*Table 4: Summary of TBC’s IE ARC Findings*

Finding Category	# of Initiatives
<b>Compliant</b>	3
<b>Noncompliant</b>	1
<b>Undetermined</b>	0
<b>Total</b>	4

The one initiative with an IE finding of noncompliance is provided below.

- 7.3.6.6.b - Stationed and on-call ignition prevention and suppression resources and services – Installation of compressed gas cylinder housing, auxiliary room thermal barrier, and spare parts building suppression system
  - IE Finding: installation of compressed gas cylinders and the spare parts building suppression system are delayed until 2022. The auxiliary room thermal barrier is delayed indefinitely.<sup>51</sup>
  - TBC self-identified this initiative as noncompliant.

<sup>49</sup> The IE evaluated two initiatives mentioned in the WMP. However, both initiatives were completed in 2020 and have no associated expenditure in 2021. These initiatives are 7.3.1.5 and 7.3.2.2. Bureau Veritas, “Final Independent Evaluator ARC,” June 30, 2022. pp. 19-20. [Online]. Available:

<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52687&shareable=true>.

<sup>50</sup> The IE ARC listed initiative 7.3.6.6.a work within “Initiative Activities Not Explicitly Categorized in WMP,” but determined the applicable work to be compliant. Bureau Veritas, “Final Independent Evaluator ARC,” June 30, 2022. pp. 21-22. [Online]. Available:

<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52687&shareable=true>.

<sup>51</sup> Bureau Veritas, “Final Independent Evaluator ARC,” June 30, 2022. pp. 19-22. [Online]. Available:

<https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52687&shareable=true>.

Energy Safety agrees with the IE's one finding of noncompliance.

Additional information from the IE ARC is discussed, as relevant, in Section 5 of this report.

## 4.3 Inspections

### 4.3.1 Overview

Pursuant to Public Utilities Code section 326(a)(3), Energy Safety conducts field inspections of each electrical corporation's infrastructure to ensure WMP compliance. In 2021, Energy Safety conducted field inspections of each electrical corporation's infrastructure to validate WMP compliance and assess infrastructure for deficiencies, errors, or conditions with the potential to increase ignition risk.

In November 2021, Energy Safety transitioned from Inspection Program v1 to Inspection Program v2. Inspections conducted in 2021 under Inspection Program v1 were general inspections of the electrical corporation's infrastructure including WMP initiatives and general wildfire safety. During Inspection Program v1, all findings were issued to the electrical corporations as defects. Inspections conducted under Inspection Program v2 were comprised of two types of inspections: WMP inspections and General Wildfire Safety (GWS) inspections. WMP inspections are specific to WMP initiative completeness and utilize information contained in the electrical corporations' quarterly data report (QDR) submissions. During WMP inspections, Energy Safety ensures that the data reported by the electrical corporation is accurate, that the electrical corporation completed the initiative activity as reported, and that the electrical corporation adhered to the applicable initiative protocols and procedures. If Energy Safety finds inaccurate data, incomplete work, or that the electrical corporation failed to adhere to protocols or procedures, it issues a Notice of Violation (NOV) to the electrical corporation.

GWS inspections assess electrical corporation infrastructure for deficiencies, errors, or conditions with the potential to increase ignition risk. If Energy Safety finds a deficiency, error, or condition with the potential to increase the risk of ignition, a Notice of Defect (NOD)<sup>52, 53</sup> is issued. An NOD is defined as "A deficiency, error, or condition increasing the risk of ignition posed by electrical lines and equipment."

### 4.3.2 Relevant Information

Energy Safety performs inspections utilizing an electrical corporation's initiative activity data applicable to the WMP year compliance period. Energy Safety conducted three inspection activities in TBC's service territory in 2021.

---

<sup>52</sup> Government Code § 15475.2

<sup>53</sup> 14 California Code Regulations § 29302(b)(1).

Under Inspection Program v1, Energy Safety identified zero defects.

Energy Safety did not conduct any inspection activities under Inspection Program v2.

## 4.4 Audits

### 4.4.1 Overview

Public Utilities Code section 8386.3(c)(5) requires Energy Safety to perform an audit to determine whether the electrical corporation "substantially complied with the substantial portion"<sup>54</sup> of its vegetation management requirements in its WMP. Energy Safety refers to this audit as the Substantial Vegetation Management (SVM) audit.

### 4.4.2 Relevant Information

Pursuant to Public Utilities Code section 8386(c)(5), Energy Safety acknowledges that TBC did not have a formal vegetation management program in 2021. Due to the limited nature of TBC's facilities and associated ignition risk, Energy Safety approved TBC's 2021 WMP without requiring a dedicated vegetation management program. Therefore, Energy Safety did not conduct an SVM audit for TBC.

## 4.5 Data

### 4.5.1 Overview

Energy Safety analyzed performance metrics and other data when assessing whether the electrical corporation complied with its 2021 WMP Update.<sup>55, 56</sup> Energy Safety required each electrical corporation to submit spatial and non-spatial data through QIUs, QDRs, and Quarterly Notifications (QNs).

### 4.5.2 Relevant Information

Energy Safety analyzed whether TBC met its 2021 WMP Update qualitative initiative targets.

Energy Safety's Initiative Performance Analysis is detailed in Appendix B.

Findings from this analysis is included, as relevant, in Section 5 of this report.

---

<sup>54</sup> Public Utilities Code § 8386.3(c)(5)(C).

<sup>55</sup> California Public Utilities Commission, "Resolution M-4860," Dec. 2, 2021. [Online] Available: <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M428/K722/428722129.PDF>.

<sup>56</sup> Office of Energy Infrastructure Safety, "Attachment 3: Energy Safety's Proposed Compliance Process for 2021 WMPs," Oct. 13, 2021. pp. 4-5,9. [Online]. Available: <https://energysafety.ca.gov/wp-content/uploads/docs/compliance-process/docs/compliance-process-for-2021-wmps.pdf>.

## 4.6 Third-Party Reports

### 4.6.1 Overview

When available, Energy Safety also utilizes authoritative, third-party reports to inform its compliance assessment. For example, Energy Safety may utilize CPUC and CAL FIRE wildfire investigation reports, CAL FIRE Wildfire Activity Statistics, and other reports to supplement and corroborate the evidence collected during its compliance assessment of the electrical corporation.

## 5. Discussion

This section provides Energy Safety's assessment of TBC's performance in 2021 in relation to each of the evaluation criteria set forth in Energy Safety's Compliance Guidelines:

1. Whether the electrical corporation implemented the wildfire mitigation initiatives in its approved WMP, including evaluating whether the electrical corporation funded and performed the commitments stated for each initiative. Further, whether the electrical corporation prioritized completion of work with the highest potential for reducing wildfire risk.<sup>57</sup>
2. Whether the electrical corporation achieved or sufficiently progressed its WMP objectives.
3. Wildfire risk reduction, including the performance of the electrical corporation's infrastructure relative to its wildfire risk, as measured by changes in the occurrence of events that correlate to wildfire risk.
4. Whether the electrical corporation made a good faith attempt to achieve its goals and comply with its WMP.
5. Whether the electrical corporation exhibited issues related to its execution, management, or documentation in the implementation of its WMP. This analysis may expand beyond the scope of any single WMP initiative.

### 5.1 Criterion 1: 2021 WMP Initiative Implementation

This section considers whether TBC implemented the wildfire mitigation initiatives in its approved WMP, including whether TBC funded and performed the commitments stated for each initiative.

To accomplish this, Energy Safety assessed:

1. Whether TBC met the quantitative and qualitative targets provided in its 2021 WMP Update, and
2. The extent to which TBC funded each initiative.

---

<sup>57</sup> Energy Safety evaluates funding data to ensure electrical corporations are dedicating resources to their initiative commitments. Energy Safety does not evaluate whether the cost of implementing each electrical corporation's plan was just and reasonable.

### 5.1.1 Completion of 2021 WMP Qualitative Targets

Based on Energy Safety's analysis, in conjunction with the department's review of the EC ARC and IE ARC, Energy Safety finds that TBC met or exceeded its targets for two of its three 2021 WMP Update initiatives. All three initiatives all contained qualitative targets.

Appendix B provides detail at the initiative level on Energy Safety's comprehensive assessment of TBC's performance against its stated initiatives.

The following is the qualitative initiative for which TBC did not meet or substantively meet its targets:

#### Grid Operations & Protocols

1. Stationed and on-call ignition prevention and suppression resources and services – Installation of compressed gas cylinder housing, auxiliary room thermal barrier, and spare parts building suppression system (7.3.6.6.b):
  - Started zero of three projects slated to begin in 2021.
  - TBC reported it was unable to start these projects due to challenges with scoping and availability of vendors and required materials in 2021.

In terms of total count of completed initiatives, overall, TBC completed 67% of its initiatives.

### 5.1.2 2021 WMP Update Initiative Funding

Energy Safety evaluated the extent to which TBC funded its initiative targets in its 2021 WMP Update, utilizing data from TBC's EC ARC and IE ARC.

Each EC ARC includes descriptions of all planned WMP initiative expenditure versus actual expenditure and an explanation of any differences between the planned and actual expenditure.<sup>58</sup>

TBC's planned expenditure for 2021 was approximately \$6 million. TBC's actual reported expenditure was approximately \$5.8 million, representing an under-expenditure of approximately \$200,000.<sup>59</sup>

The under-expenditure was primarily driven by an underspend of \$900,000 for the Grid Operations initiative category.

Energy Safety's review of TBC's EC ARC found one initiative for which TBC both missed its targets and expended less than originally projected. This initiative, Stationed and on-call ignition prevention and suppression resources and services – Installation of compressed gas

---

<sup>58</sup> California Public Utilities Commission, "Compliance Operational Protocols," Feb. 16, 2021. pp. 10-12. [Online]. Available: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52615&shareable=true>.

<sup>59</sup> Trans Bay Cable, "Annual Report on Compliance for 2021," Mar. 31, 2022. p. 3. [Online]. Available: [https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC\\_ARC](https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC_ARC).

cylinder housing, auxiliary room thermal barrier, and spare parts building suppression system (7.3.6.6.b), did not incur any of the planned spend allocated to it to start work on these projects in 2021.

While initiative 7.3.3.6.b is an instance where TBC missed its target and expended less than forecast, given the underspend was driven by challenges in the request for proposal process and availability of materials, Energy Safety did not consider this miss a substantial failure to fund its planned activities.

In terms of significance of completed initiatives relative to expenditure, TBC completed targets for 85% of its planned 2021 expenditure falling within the initiative category Grid Design and System Hardening.

## 5.2 Criterion 2: 2021 WMP Update Objectives

This section considers whether TBC achieved or sufficiently progressed its 2021 WMP objectives.

TBC's specific objectives for its 2021 WMP year (i.e., before the next Annual WMP Update) were:

- Objective 1: To further harden TBC's Pittsburg facility through capital improvements for enhanced fire suppression, awareness capabilities, and hardening substation and infrastructure elements to mitigate the potential fire risk from equipment derangement resulting from environmental or man-made events which could result in fire.
- Objective 2: To continue to periodically evaluate new technologies, materials, and methods for further reducing fire risk at its facilities.

TBC's performance relative to these objectives is discussed below.

### 5.2.1 Objective 1: Harden Pittsburg facility through capital improvements

Energy Safety finds that TBC provided evidence of its efforts to harden its Pittsburg facility through capital improvements to mitigate fire risk from environmental or man-made events, despite not meeting all targets of its WMP initiatives.

In 2021, TBC noted that enhanced seismic hardening was an area of primary focus, as dislocation of equipment during an earthquake was assessed as one of the primary modalities in which TBC facilities and infrastructure could pose a wildfire risk.

TBC established initiative 7.3.3.12 – Other corrective action (transformer hardening) in support of this goal and assigned \$5.1 million (or 85%) of planned expenditure to this activity. TBC successfully completed the planned seismic upgrades to transformer pads in 2021.<sup>60</sup> The

---

<sup>60</sup> Trans Bay Cable, "Annual Report on Compliance for 2021," Mar. 31, 2022. p. 4. [Online]. Available: [https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC\\_ARC](https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC_ARC).

upgrades were completed for TBC's Pittsburg and San Francisco facilities. Through completion of these upgrades, TBC expects to improve its ability to resist derangement during seismic events and reduce the likelihood of a transformer fire. Additionally, with respect to awareness capabilities, TBC implemented a transformer oil control system at its Pittsburg facility to improve flow sensing which allows personnel improved access to oil flow indication for more accurate preventative maintenance.<sup>61</sup>

In 2021, TBC also sought several upgrades to its Pittsburg facility through initiative 7.3.6.6.b. While TBC maintained its existing fire prevention plan and associated procedures and training in 2021, it did not accomplish its objectives to start the removal of compressed gas cylinders, implement a fire suppression system, and install a 2-hour fire rated separation between the two auxiliary power rooms in its spare parts building. TBC had identified these as efficient fire risk reduction projects in its WMP.<sup>62</sup> Despite not meeting this initiative, the significance of TBC's completed hardening activities via initiative 7.3.3.12 relative to this initiative (in terms of planned expenditure) indicates TBC substantially progressed on its objective to harden the Pittsburg facility.

## **5.2.2 Objective 2: Evaluate new fire risk reduction opportunities**

Energy Safety finds that TBC provided limited evidence of its efforts to assess new fire risk reduction opportunities through new technology, materials, and methods.

Based on the information available, Energy Safety was unable to determine whether TBC took discrete measures to evaluate new opportunities for fire risk reduction. While TBC did install seismic upgrades and a transformer oil control system in 2021, these were part of ongoing projects and TBC provided little additional information regarding the ways in which TBC sought out and evaluated new technologies and opportunities.

## **5.3 Criterion 3: Wildfire Risk Reduction and Performance**

Due to the limited size and scale of TBC's operations, combined with the fact that TBC has no overhead transmission or distribution lines and most of its infrastructure is either underground or underwater, an analysis of risk reduction and performance is not applicable to TBC.

---

<sup>61</sup> This was unplanned expenditure as part of initiative category Situational Awareness and Forecasting.

<sup>62</sup> Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 66. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).



TBC's wildfire risk exposure is limited and provides a relatively low initial wildfire risk upon which TBC can improve. TBC had no reported risk events or foreseeable need for PSPS.

## 5.4 Criterion 4: Satisfaction of 2021 WMP Update Goals

This section considers whether TBC made a good faith attempt to achieve its goals and comply with its WMP.

The goal of the WMP is to reduce the risk of catastrophic wildfires caused by utility infrastructure. Based on a review of the evidence presented in this ARC, Energy Safety finds that TBC made a good faith effort to comply with its WMP.

In its evaluation of TBC's compliance with its 2021 WMP, Energy Safety considered the small scope and scale of TBC's operations, that most of TBC's infrastructure is located under water, and TBC's lack of retail customers and distribution assets with no foreseeable need for PSPS use.

TBC was largely successful in achieving its initiatives, having met two of its three targets (67%). TBC's one missed target, and the impacts of that missed target, did not substantially hinder TBC's ability to meet its overarching objective to mitigate the risk of wildfire caused by its equipment. In terms of significance relative to expenditure, missed targets comprised 15% of the planned budget. TBC's success in completing the other initiatives making up 85% of the planned budget resulted in significant progress for seismic hardening.

Overall, the information that Energy Safety has evaluated suggests TBC is taking steps to mitigate the risk of wildfires. However, TBC has several areas for improvement, including better managing of its vendors for planned projects, greater clarity and consistency in record keeping, and the creation of quantitative metrics to track yearly progress.

## 5.5 Criterion 5: Execution, Management, and Documentation

This section considers whether TBC exhibited issues related to its execution, management, or documentation in the implementation of its WMP.

To accomplish this, Energy Safety undertook a holistic evaluation of all relevant information sources and assessments, including field verifications, for any systemic failings that may have hindered TBC's ability to reduce the risk of igniting a catastrophic wildfire. Energy Safety did not find any systemic issues that hindered TBC's ability to adequately implement its WMP in 2021.

While TBC did exhibit some data consistency issues in the WMP compliance process, those issues did not rise to the level of being considered systemic. Consistency and clarity of information is vital to ensuring that wildfire mitigation efforts can be effectively

implemented, and that Energy Safety and other stakeholders have a clear understanding of TBC's plans, commitments, and progress.

Energy Safety notes that more granular initiative management and tracking across reports and better planning of WMP-related projects may have provided greater opportunity for TBC to progress on its 2021 objectives. Energy Safety cannot overemphasize the importance of accurate recordkeeping and data management to achieving wildfire risk reduction.

## 6. Conclusion

Overall, TBC had positive outcomes related to implementation of its 2021 WMP. It met its targets for two of three initiatives (67%) identified in its WMP, and the two completed initiatives constituted 85% of its planned expenditure.

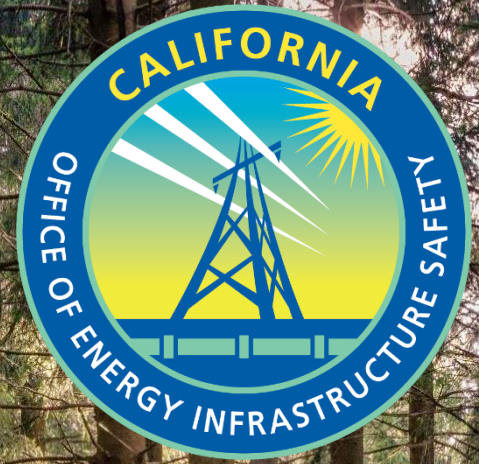
While TBC did not meet all targets for its WMP initiatives, the failure to meet one target did not materially hinder TBC's ability to mitigate its wildfire risk given its low inherent risk.

On balance, TBC was largely successful in executing an actionable and tailored plan for wildfire risk mitigation. However, there are areas for improvement and continued learning. These include setting distinct, quantitative targets for its programs to better assess effectiveness and improving consistency in record keeping and documentation.

Energy Safety will continue to monitor TBC's implementation of its ongoing wildfire mitigation activities and push TBC to improve its ability to ultimately achieve the elimination of utility-caused catastrophic wildfires in California.

**DATA DRIVEN**  
**FORWARD-THINKING**  
**INNOVATIVE**  
**SAFETY FOCUSED**





# APPENDICES

# TABLE OF CONTENTS

- 1. Appendix A..... 1
  - 1.1 EC ARC ..... 1
    - 1.1.1 Achievement of Risk Reduction ..... 1
    - 1.1.2 Planned vs Actual WMP Update Initiative Expenditures ..... 2
- 2. Appendix B..... 4
  - 2.1 Initiative Performance..... 4
    - 2.1.1 2021 Quarterly Reporting Initiative Performance Analysis ..... 4
    - 2.1.2 Initiative Performance Results ..... 5
    - 2.1.3 2021 Grid Design and System Hardening Initiatives Analysis ..... 6

## LIST OF TABLES

- Table 1: TBC's Planned Versus Actual Expenditure by Year (in thousand \$) ..... 2
- Table 2: TBC Number of 2021 WMP Update Initiatives with Quantitative and Qualitative Targets ..... 4
- Table 3: Energy Safety's Analysis of TBC's 2021 WMP Grid Design and System Hardening Targets ..... 6

# 1. Appendix A

## 1.1 EC ARC

TBC timely submitted its EC ARC on March 31, 2022. TBC's EC ARC included the five components required by Energy Safety. The subsections below summarize relevant portions of TBC's EC ARC.

### 1.1.1 Achievement of Risk Reduction

In its EC ARC, each electrical corporation is required to provide an assessment of whether the electrical corporation achieved its risk reduction intent by implementing all of its approved WMP Update initiatives, i.e., the degree to which initiative activities have reduced ignition probabilities. If the electrical corporation failed to achieve the intended risk reduction, it must provide a detailed explanation of why and a reference to where associated corrective actions are incorporated into its most recently submitted WMP.

TBC timely submitted its EC ARC on March 31, 2022. In its EC ARC, TBC reported that it did not meet its targets for one of its three initiatives.

The one initiative with a missed target was:<sup>1</sup>

1. Stationed and on-call ignition prevention and suppression resources and services – Installation of compressed gas cylinder housing, auxiliary room thermal barrier, and spare parts building suppression system (7.3.6.6.b):
  - a. TBC has delayed progress for the compressed gas cylinder housing and spare parts building suppression system until 2022. TBC has indefinitely delayed progress for the auxiliary room thermal barrier.

For its one initiative with a missed target TBC reported the following:

- Two projects within 7.3.6.6.b, spare part building fire suppression system installation and compressed gas cylinder enclosure, were delayed due to challenges with scoping and availability of vendors and required materials in 2021. These projects were scheduled for completion in 2022. The third project under this initiative (auxiliary power room fire-rated separation) is under additional evaluation and needs further assessment.<sup>2</sup>

---

<sup>1</sup> Trans Bay Cable, "Annual Report on Compliance for 2021," Mar. 31, 2022. p. 3. [Online]. Available: [https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC\\_ARC](https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC_ARC).

<sup>2</sup> Though all three projects under 7.3.6.6.b were originally scheduled for completion by 2022 in the WMP, TBC stated that expenditure and development of these projects would begin in 2021 in the WMP. Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 67. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

In addition to the information regarding its missed initiative, TBC also reported the following:

- TBC implemented a transformer oil control system which provided new control and flow sensing on its main transformers.<sup>3</sup>
- TBC completed seismic upgrades to all its transformers. This included positioning all site transformers on base isolators.<sup>4</sup>

TBC reported the following regarding the degree to which initiative activities reduced ignition probabilities:<sup>5</sup>

- TBC's completion of seismic upgrades to its transformers in 2021 improved its ability to resist dislodgment during seismic events and reduces the likelihood of a transformer fire. The upgrades positioned all site transformers on base isolators.
- TBC's implementation a transformer oil control system to improve flow sensing allows personnel improved access to oil flow indication for more accurate preventative maintenance.
- TBC notes that its limited size and scope does not make it at risk for wildfires, resulting in it not specifically targeting wildfire mitigation initiatives. As such, the above activities were normal operational initiatives which have the benefit of fire mitigation as a secondary effect.

### 1.1.2 Planned vs Actual WMP Update Initiative Expenditures

In its EC ARC, each electrical corporation is required to provide descriptions of all WMP initiative planned expenditure versus WMP initiative actual expenditure and an explanation of any differences between the planned and actual expenditure.

TBC reported the following regarding planned vs actual WMP Update expenditure:

*Table 1: TBC's Planned Versus Actual Expenditure by Year (in thousand \$s)<sup>6</sup>*

Year	Planned Cost (\$K)	Actual Cost (\$K)	Difference (\$K)
2020	\$11,322	\$11,300	\$22

<sup>3</sup> Trans Bay Cable, "Annual Report on Compliance for 2021," Mar. 31, 2022. p. 3. [Online]. Available: [https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC\\_ARC](https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC_ARC).

<sup>4</sup> Trans Bay Cable, "Annual Report on Compliance for 2021," Mar. 31, 2022. p. 3. [Online]. Available: [https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC\\_ARC](https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC_ARC).

<sup>5</sup> Trans Bay Cable, "Annual Report on Compliance for 2021," Mar. 31, 2022. p. 3. [Online]. Available: [https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC\\_ARC](https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC_ARC).

<sup>6</sup> Office of Energy Infrastructure and Safety, "Decision on TBC's 2022 Wildfire Mitigation Plan Update," Aug. 30, 2022. p. 13. [Online]. Available: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=53894&shareable=true>.



2021	\$6,000	\$5,800	(\$200)
------	---------	---------	---------

As identified in Table 1, TBC expended \$200,000 less on a net basis than planned in 2021.

Though TBC did not identify planned versus actual expenditure at the initiative level, it described planned versus actual expenditure by initiative category.

There was one category for which TBC expended less than planned: Grid Operations & Operating Protocols. There was one initiative in this category with a missed target. Although TBC did not provide a further explanation for why it expended less than planned at the initiative level, TBC provided a high-level explanation for the overall variance, stating that fire mitigation measures did not occur in 2021 and were instead delayed. As a result, the \$900,000 allocated to Grid Operations under initiative 7.3.6.6.b was not funded.<sup>7</sup>

Actual expenditure was \$700,000 above planned expenditure in the remaining two (out of three) categories.<sup>8</sup> TBC did not provide an explanation for these differences in its 2021 EC ARC, however, this overspend is associated with the completed initiative 7.3.3.12 and the transformer oil control system TBC implemented that was not a part of a WMP initiative.<sup>9</sup>

---

<sup>7</sup> Trans Bay Cable, "Annual Report on Compliance for 2021," Mar. 31, 2022. p. 4. [Online]. Available: [https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC\\_ARC](https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC_ARC).

<sup>8</sup> Trans Bay Cable, "Annual Report on Compliance for 2021," Mar. 31, 2022. p. 4. [Online]. Available: [https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC\\_ARC](https://efiling.energysafety.ca.gov/Search.aspx?docket=2021-EC_ARC).

<sup>9</sup> In its 2021 EC ARC, TBC reports actual expenditure in this category. This was not tied to an initiative with a target discussed in the 2021 WMP Update and was instead an additional activity completed by TBC.

## 2. Appendix B

### 2.1 Initiative Performance

Energy Safety assessed whether TBC achieved its 2021 WMP Update qualitative and quantitative commitments through multiple analyses and information sources.

Energy Safety verified compliance to qualitative and quantitative commitments within TBC's 2021 WMP Update for its System Hardening, Asset Management and Inspections, and Vegetation Management initiatives. For each electrical corporation, the initiatives for compliance verification comprised >60% of the total WMP Update Proposed Expenditures.

Energy Safety also analyzed TBC's Q4 2021 QIU submission from February 1, 2022 and TBC's EC ARC to assess whether TBC achieved its 2021 WMP Update qualitative initiative commitments.

#### 2.1.1 2021 Quarterly Reporting Initiative Performance Analysis

TBC submitted three of its 2021 QIUs. The QIUs contained four initiatives, though it is noted that of these four, one initiative was disaggregated in the QIU to account for three different projects.<sup>10</sup> Additionally, TBC omitted one initiative from its QIU even though a qualitative target was established per the WMP.<sup>11</sup> Therefore, for the purposes of this analysis, Energy Safety considers a total of three initiatives for evaluation.

As shown in Table 2 below, of TBC's three WMP initiatives, all three contained qualitative targets.

Table 2: TBC Number of 2021 WMP Update Initiatives with Quantitative and Qualitative Targets

TBC's 2021 WMP Update Initiatives	Numbers
Initiatives with Quantitative Targets	0
Initiatives with Qualitative Unspecified Targets	3

<sup>10</sup> 7.3.6.6.b Stationed and on-call ignition prevention and suppression resources and services – Installation of compressed gas cylinder housing, aux room thermal barrier, and spare parts building suppression system.

<sup>11</sup> Initiative 7.3.6.6.a Stationed and on-call ignition prevention and suppression resources and services (foam trailer training).

<b>Initiatives with Both Quantitative and Qualitative Targets</b>	0
<b>Total Initiatives</b>	3

## 2.1.2 Initiative Performance Results

### Results for Initiatives with Qualitative Targets

TBC met or exceeded the targets for two of three initiatives (or 67%) with qualitative targets.

In its 2021 Quarter 4 QIU, TBC reported that it had completed one of its 2021 WMP Update initiatives with qualitative targets, and did not report on one initiative with a qualitative target that Energy Safety later determined had been met. TBC's QIU reporting indicated that the met initiative was:

- Completing seismic upgrades to all transformers (7.3.3.12)

TBC reported that it did not complete one out of three of its 2021 WMP Update qualitative initiatives:

- Stationed and on-call ignition prevention and suppression resources and services – Installation of compressed gas cylinder housing, auxiliary room thermal barrier, and spare parts building suppression system (7.3.6.6.b). For this initiative, TBC established in its WMP that these three projects would be completed in 2022, with the initial stages of development to begin in 2021 including \$900,000 of planned expenditure.<sup>12</sup> TBC reported in the QIU, which was later supported by the EC ARC, that the compressed gas cylinder housing and spare parts building suppression system projects were delayed entirely until 2022 due to vendor and scoping issues. The auxiliary room thermal barrier project was reported to be delayed indefinitely.

TBC did not report on one of three WMP qualitative initiative in the QIU or EC ARC, that Energy Safety later determined had been met:

- Stationed and on-call ignition prevention and suppression resources and services – Foam trailers maintenance (7.3.6.6.a). For this initiative, TBC established in its WMP that it would assess the need to train responding stations on the use of foam trailers and conduct such training if deemed necessary.<sup>13</sup> The QIU and EC ARC did not report on this aspect of the initiative. However, the IE reported that within its emergency

<sup>12</sup> Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 67. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

<sup>13</sup> Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 66. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

planning and preparedness, TBC provided documentation on who has received operational training on the foam trailers. The IE validated that onsite and fire agency personnel participated in hands-on training on multiple dates for the operation of the foam trailers.<sup>14</sup> As such, Energy Safety finds TBC compliant for initiative 7.3.6.6.a, but finds its record keeping practices in need of improvement.

### 2.1.3 2021 Grid Design and System Hardening Initiatives Analysis

TBC's Grid Design and System Hardening initiatives represented 85% of TBC's total planned expenditure for its 2021 WMP Update.<sup>15</sup>

Energy Safety assessed whether TBC met its qualitative commitments in its 2021 WMP Update for its Grid Design and System Hardening (Section 7.3.3)<sup>16</sup> initiatives.

Energy Safety found that in 2021, TBC implemented its qualitative commitments for the single Grid Design and System Hardening initiative commitment reviewed, as detailed in Table 3 below.

*Table 3: Energy Safety's Analysis of TBC's 2021 WMP Grid Design and System Hardening Targets*

Initiative Number and Name	2021 WMP Update Quantitative Target	2021 Actual Reported	2021 WMP Update Qualitative Target	2021 Actual Reported	Method of Verification	Energy Safety Finding
<b>7.3.3.12 Other Corrective Action</b>	N/A	N/A	Transition substations to Gas Insulated Substation Technology.  Implement seismic improvements to transformers.	Completed transitioning substations.  Completed seismic improvements to transformers.	Data Request, QIU, EC ARC	Commitment met

<sup>14</sup> Bureau Veritas, "Final Independent Evaluator ARC," June 30, 2022. pp. 21-22. [Online]. Available: <https://efiling.energysafety.ca.gov/eFiling/Getfile.aspx?fileid=52687&shareable=true>.

<sup>15</sup> Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 23. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).

<sup>16</sup> Trans Bay Cable, "Health & Safety Plan-TBC-HS-103: Fire Prevention Plan- Annex A- Wildfire Mitigation Plan," Mar. 5, 2021. p. 62. [Online]. Available: [https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc\\_2021\\_wmp.pdf](https://energysafety.ca.gov/wp-content/uploads/docs/wmp-2021/tbc_2021_wmp.pdf).