Docket No.: A.22-09-018

Exhibit No.: CHRC-02

Date: June 16, 2023

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company (U39E) and Pacific Generation LLC for Approval to Transfer Certain Generation Assets, for a Certificate of Public Convenience and Necessity, for Authorization to File Tariffs and to Issue Debt, and for Related Determinations.	**Application 22-09-018**

PREPARED OPENING TESTIMONY OF CHRIS SHUTES

ON BEHALF OF

CALIFORNIA HYDROPOWER REFORM COALITION

JUNE 16, 2023

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The California Hydropower Reform Coalition (CHRC) submits the following testimony in the proceeding on "Application of Pacific Gas and Electric Company (U39E) and Pacific Generation LLC for Approval to Transfer Certain Generation Assets, for a Certificate of Public Convenience and Necessity, for Authorization to File Tariffs and to Issue Debt, and for Related Determinations." This testimony response to Commissioner Alice Reynolds' January 20, 2023 Scoping Memo and is timely filed and served in accordance with Administrative Law Judge Sophia J. Park's March 30, 2023 Ruling Modifying Schedule.

This testimony is provided for the Commission's consideration in determining whether the transaction as proposed by Pacific Gas and Electric Company (PG&E) is consistent with the public interest and will ensure the availability of the transferred generations to maintain the reliability of California electrical supply system, *see* Public Utilities Code §§ 851, 362, and focuses on response to specific scoping issues as described below:

- Scoping Issue 1. Whether the requests comply with applicable statutes, Commission decisions, and other legal requirements;
- Scoping Issue 2. Whether the requests are adequately justified, reasonable, and in the public interest;
- Scoping Issue 4. Potential Impacts on ratepayers and rates over time, including potential revenue requirement impacts;
- Scoping Issue 10. Impacts of the proposed transaction on the future financial condition of PG&E and Pacific Generation;
- Scoping Issue 12. Potential impacts on the Commission's jurisdiction and existing regulatory proceedings, processes, and requirements;
- Scoping Issue 14. Whether the proposed transaction will enable PG&E and Pacific Generation to operate and maintain utility assets safely and reliably; and
- Scoping Issue 15. Potential impacts on system reliability.

TESTIMONY OF CHRIS SHUTES

I. Introduction

My name is Chris Shutes. I began hydropower advocacy as an "unaffiliated stream fisheries advocate" in 2000. Since 2006, I have worked on contract as a hydropower advocate for the California Sportfishing Protection Alliance (CSPA). From 2006-2022, my titles with CSPA were FERC Projects Director and Water Rights Advocate. As of January 10, 2023, my title is also Executive Director. I am providing this testimony on behalf of the California Hydropower Reform Coalition (CHRC).

My testimony is organized as follows: Section I is an introduction; Section II summarizes the purpose, preliminary conclusions, and recommendations; Section III summarizes my experience with hydropower; Section IV states my concern that PG&E has not shown the proposed transaction will ensure safe, reliable, and cost-effective operation and management of the transferred projects; Sections V through VII describe specific projects as case studies; and Section VIII concludes the testimony and summarizes recommendations for further consideration by the Commission.

II. Purpose, Preliminary Conclusions, and Recommendations

The purpose of my testimony is to present the California Public Utilities Commission (CPUC) with information regarding operating conditions of certain hydropower facilities owned and operated by Pacific Gas and Electric Company (PG&E), and the associated potential costs, liabilities, and risks. I base this testimony on both my general experiences in hydropower advocacy over the last 20 years and on my advocacy related to PG&E projects in particular.

My testimony responds primarily to Scoping Issues 1 (compliance with applicable legal requirements), 2 (whether the requests are justified, reasonable, and in the public interest), 4 (potential impacts on ratepayers and rates over time), 10 (impacts of the proposed transaction on the future financial condition of PG&E and Pacific Generation), 12 (potential impacts on the Commission's jurisdiction and existing regulatory proceedings, processes, and requirements), and 14 (whether the proposed transaction will enable PG&E and Pacific Generation to operate and maintain utility assets safely and reliably).

Through this testimony, I bring attention to PG&E's corporate practice of deferral and delay and how it has affected the current condition of its portfolio of hydroelectric generation assets. I focus on three PG&E hydropower projects as case studies: DeSabla-Centerville, Potter Valley, and Battle Creek. I bring attention to current practice because I believe it raises concerns that the proposed transaction, which will add layers of corporate decisionmaking and complexities related to inter-company agreements, will lead to more inefficiencies and delays that impact safe and reliable operation of the projects, increase ratepayer costs, and make effective regulatory oversight more difficult.

I conclude that PG&E's commitment to continue PG&E's existing operation and management of its hydropower assets, with PG&E personnel, following transfer to Pacific Generation does not meet PG&E's burden to show that the proposed transfer of generation assets is in the public interest *and* will ensure PG&E's and Pacific Generation's ability to operate and maintain the generation assets safely and reliably. I also conclude that the proposal to transfer certain assets that are not economically viable may impact the estimated benefits of the proposed sale to minority investors, may create a financial incentive to prolong the partial or full decommissioning of these assets, and may adversely affect ratepayers by increasing the costs of the partial or full decommissioning of these assets.

In consideration of the public interest in the speedy disposition of PG&E's non-economic assets due to concerns regarding public safety and cost to ratepayers, I recommend that the Commission consider the following options:

- Disallow the transfer of the DeSabla – Centerville, Potter Valley, and Battle Creek projects to Pacific Generation, keeping PG&E fully and solely liable and responsible for the effects of these projects and their disposition;
- Allow the transfer of the DeSabla – Centerville, Potter Valley, and Battle Creek projects to Pacific Generation, but place special conditions on Pacific Generation relating to these assets.
- Appoint, or require Pacific Generation to appoint and report annually to the Commission, an independent overseer to promote speedy disposition of these projects.

- Provide financial incentives for the speedy disposition of these projects by allowing rate recovery on actions associated with future but as yet incomplete regulatory processes.
- Provide financial disincentives for delay in the speedy disposition of these projects through limitations on rate recovery or additional reporting requirements, such as limitations on costs incurred for these projects that do not contribute to safe operation or speedy disposition of these facilities, or on costs over a prolonged time period.

III. Qualifications and Experience

My primary responsibility for CSPA has been managing and executing its hydropower advocacy. I have also been the lead advocate for much of CSPA's water rights advocacy. Since I became Executive Director, I have added the management of CSPA's organizational needs and, at least temporarily, CSPA's water quality program to my areas of responsibility.

In my capacity as CSPA's FERC Projects Director, I engage in the Federal Energy Regulatory Commission's (FERC) relicensing and in some cases original licensing of hydropower projects.[1] I also participate in several established committees whose purpose is to oversee and/or provide advice about the implementation of hydropower licenses post-issuance.

I also represent CSPA on the steering committee of the CHRC, of which I am Vice-Chair. I also represent CSPA on the steering committee of the national Hydropower Reform Coalition (HRC). CHRC and HRC are coalitions of non-governmental organizations (NGOs). Both coalitions enable member NGOs to combine resources, share information, coordinate efforts, and, to the degree possible, speak with a unified voice in hydropower advocacy.

On behalf of both CSPA and the CHRC, I also work closely and share information with staff from state and federal resources agencies in all aspects of hydropower advocacy. These most commonly include staff from the California State Water Resources Control Board (SWRCB), the California Department of Fish and Wildlife (CDFW), the National Marine Fisheries Service (NMFS), the U.S. Fish

[1] For ease of description, reference in this testimony to "licensing" refers both to FERC's relicensing and original licensing proceedings.

and Wildlife Service USFWS), the U.S. Forest Service (Forest Service), the Bureau of Land Management (BLM), and the National Park Service (NPS).

Below, I describe my experience with the regulatory processes and general administration of non-federal hydropower projects, like those proposed for transfer here.

A. Experience with the FERC Licensing Process

Much of my knowledge and experience with operations, maintenance, and regulatory compliance at hydropower dams comes from participating in proceedings administered by FERC under the Federal Power Act. FERC has jurisdiction over hydropower projects nationwide, with the exception of those projects owned by the federal government; but, relevant here, FERC and the Commission have concurrent jurisdiction over certain aspects of hydropower generation assets in California.

FERC issues licenses that last 30-50 years to non-federal hydropower operators. Five years before an existing hydropower license expires, the license holder or "licensee" must apply for a new license.

FERC licensing is an administrative hearing open to public participation. The "Integrated Licensing Process" (ILP) is FERC's default hydropower licensing process.[2] The ILP has a series of specific deadlines and milestones, many of which offer defined public comment periods. For example, upon acceptance of the application for filing, FERC will issue a Notice of Ready for Environmental Analysis, which solicits mandatory conditions and/or recommendations from resource agencies and stakeholders, as appropriate, and motions to intervene to become a legal party to the licensing proceeding. A substantial part of my hydropower advocacy on behalf of CSPA is to provide timely comments at each key licensing milestone.

Generally, licensing proceedings also involve meetings convened by the licensee, as directed by FERC or voluntarily. The licensing meetings afford parties the opportunity to directly discuss hydropower projects and their operations with the licensee's staff, including project operations personnel. I have gained considerable insight into hydropower operations by faithfully attending

[2] 18 C.F.R. § 5.3.

licensing meetings. This experience has allowed me to more effectively advocate for CSPA's interests, and also to better understand the interests and operational considerations of the various licensees.

Since 2000, I have represented CSPA, and in some cases been the lead negotiator representing the interests of several environmental NGOs, for 11 PG&E hydropower projects and 14 hydropower projects owned by other licensees.

A table that summarizes my hydropower licensing experience is included in my statement of qualifications as Attachment 1.

B. Experience with Hydropower Advocacy after License Issuance

I represent CSPA on seven implementation committees involving hydropower project licenses, four of which are for PG&E projects.[3] Through these committees, I have learned many of the day-to-day and longer-term considerations and problems, including technical and facilities issues, that hydropower operators face. I have engaged with licensee personnel in numerous collaborative problem-solving exercises to implement resource protection measures that ultimately required facilities modifications or technical upgrades. For those projects where I have served on license implementation committees, I have also provided institutional memory regarding prior agreements, choices, and events relevant to ongoing license implementation. *See* Attachment 1.

C. Subscriptions to the FERC Docket

I actively follow the filings related to PG&E's FERC-licensed hydroelectric projects. I have electronically subscribed to the FERC dockets for most of the projects on which I work or have worked to receive electronic notice of all filings made to those dockets.[4] As part of my normal course of

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[3] Many hydropower licenses include conditions that provide a formal consultation role for certain parties, like resource agencies and in some cases NGOs, in the implementation of license conditions. These consultation opportunities are the product of various instruments, including settlement agreements and mandatory license conditions issued by resource agencies pursuant Section 4(e) of the Federal Power Act or Section 401 of the Clean Water Act. Such consultation can range from monthly meetings to annual meetings. General discussion topics may include: review of recent hydrology; monitoring design and analysis of monitoring data; compliance issues; differences in interpretation of license conditions or settlement agreements; facilities issues and outages; and adaptive management discussions and decisions.

[4] Each hydropower project has a docket attached to it in FERC's electronic library, or "eLibrary," that catalogues all official correspondence that passes through FERC regarding that project. Through FERC's electronic subscription service, subscribers receive an email each time a new document is filed in a subscribed-to docket; the email provides an identifying "accession number" and a link to the filed document. The accession number consists of an 8-digit date (yyyymmdd) followed by a dash and a 4-digit number specific to the document.

business, I routinely quickly review each electronic subscription email I receive. I selectively review and file on my computer filings related to operations and maintenance, dam safety, requests for time extensions or variances, and similar correspondence, which is generally between a licensee and either FERC's Division of Dam Safety and Inspections or FERC Division of Hydropower Administration and Compliance. Since the near-failure of the crest of Oroville Dam near Oroville, California in 2017, I have increased my attention to correspondence between FERC and licensees and the extent to which I review and file material relating to hydropower operations and facilities.

D. "Critical Energy Infrastructure Information" (CEII)

This testimony is offered relying on direct experience and on publicly available information. It does not consider dam safety information designated by PG&E or FERC as Critical Energy Infrastructure Information (CEII), which FERC defines as "specific engineering, vulnerability, or detailed design information about proposed or existing critical infrastructure …."[5]

Information filed as CEII is not available to the public. However, a publicly available cover sheet that describes the subject matter of the CEII filing, is filed on the docket at the same time as the non-public filing. This provides the public, including hydropower advocates like me, with a very general sense of the facility or facilities, and the issues at hand, that a CEII filing discusses.

Leaving aside the relative merits of the general CEII category and of the application of CEII in particular cases, the non-public nature of a whole class of information about energy infrastructure make the job of public interest hydropower advocates significantly more difficult. There is a public interest in disclosure of information sufficient to demonstrate that hydropower facilities and their operation are protective of human health and safety and of the affected environment.[6]

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[5] 18 C.F.R. § 388.113(c)(2). CEII is further defined as specific information that "(i) Relates details about the production, generation, transportation, transmission, or distribution of energy; (ii) Could be useful to a person in planning an attack on critical infrastructure; (iii) Is exempt from mandatory disclosure under the Freedom of Information Act …; and (iv) Does not simply give the general location of the critical infrastructure." *Id.* Following the terrorist attacks on New York City and Washington D.C. on September 11, 2001, FERC implemented a policy of limiting public access to information regarding hydropower and other energy infrastructure. FERC has classified a substantial portion of correspondence regarding hydropower infrastructure as CEII. A licensee may also file certain information as non-public, CEII on its own initiative, but is supposed to provide a justification for such classification.

[6] FERC may share CEII information voluntarily or upon request, but in almost all cases will require any entity receiving such information to sign a non-disclosure agreement. *Id.* at § 388.113(f),(g).

E. Participation in Organized and Informal Site Visits

I have participated in many site visits organized by FERC and the licensee as part of licensing or license implementation activities. These site visits provide an opportunity for access to project areas that are otherwise not publicly accessible, including the insides of powerhouses and operations buildings, and an opportunity to evaluate on-site conditions and operations during or post-licensing. I have also had occasion to visit hydropower projects, including both facilities and affected waters, separate from official visits. I have made such visits across northern and central California. These informal visits are of course limited to publicly accessible locations. I have generally combined such informal site visits with other trips or with fishing excursions.

IV. PG&E Has Not Demonstrated the Proposed Transaction Will Comply with Requirements under the Public Utilities Code to Ensure Safe, Reliable, and Cost-Effective Operation and Management of the Transferred Hydropower Projects Consistent with Ratepayers' and the Public's Interests.

Under California Public Utilities Code Section 851, the Commission determine that a request to dispose of utility assets be in the public interest. Section 362(b) further states: "The commission shall require that generation facilities located in the state that have been disposed of in proceedings pursuant to Section 851 are operated by the persons or corporations who own or control them in a manner that ensures their availability to maintain the reliability of the electric supply system."

PG&E's testimony claims it will comply with Section 362(b) because PG&E personnel will continue to operate the transferred assets as PG&E personnel does today: "While Pacific Generation will own the facilities, they will continue to be operated by PG&E's experienced personnel using the same processes and guidelines employed today. Pacific Generation's facilities will continue to operate in a manner that makes them 'availabl[e] to maintain the reliability of the electric supply system.'"[7]

Based on my experience of PG&E's current management of its portfolio of hydropower projects, as described below, I do not believe that PG&E's proposal to continue operating the hydro generation

[7] PG&E Testimony, Revised Chapter 4, p. 4-16.

assets, as it does today, following transfer of ownership to Pacific Generation is adequate to ensure these assets will be operated and maintained safely and reliably.

In CHRC's Data Request No. 4 to PG&E, CHRC requested: "Please explain what specific mechanisms would be put in place to provide oversight and accountability for the costs associated with the enhanced scope of authority, operations, and support services that PG&E intends to provide to PACIFIC GENERATION." Similar to its representations in Revised Chapter 4 of its testimony that continuation of PG&E's existing practices would assure availability of facilities for electric supply, PG&E responded to CHRC's Data Request No. 2 regarding costs and accountability: "Because PG&E operates, maintains, schedules, and dispatches the Generation Facilities today, existing mechanisms for oversight and accountability of such work that are in place today will continue to apply in substantially the same manner following the closing of the proposed transaction."[8]

Again, it is my experience that PG&E's current operations do not provide adequate mechanisms for oversight and accountability, particularly, but not exclusively, regarding costs. Further, PG&E has not shown that the proposed transaction, which will increase the complexity of corporate governance, responsibility, and decisionmaking for operation and management of these generation assets, will not worsen the status quo.

PG&E further represents that Pacific Generation will both hold the line on costs and assure its solid financial condition because it will operate as a regulated utility and recover costs pursuant to general rate cases before the CPUC. "Pacific Generation's assets will be regulated by the CPUC based on cost of service, just as they are today. Pacific Generation would have a CPUC-authorized revenue requirement that it collects in rates, inclusive of operating expenses and capital-related revenue requirements established in the General Rate Case (GRC), as well as fuel costs and other variable costs recorded in ERRA."[9] As a further protection from liability, PG&E adds: "Pacific Generation will be

[8] PG&E Generation Asset Transfer, A.22.09.018 California Hydropower Reform Coalition Data Request No. 1 (Attachment 2), Question and Answer 4.
[9] *Id.* at Question and Answer 2.

added as an additional insured to PG&E's existing property/casualty and liability insurances policies that relate to PG&E's existing generation business."[10]

In my experience, PG&E's status as a regulated utility, compliance with the CPUC's requirements for the rates it charges customers, and revenues realized through rate recovery have not provided sufficient income to respond to catastrophic events outside the normal course of business. Moreover, PG&E's insurance policies have not provided near adequate protection. On the contrary, PG&E recently emerged from its second bankruptcy in two decades.

In addition, compliance with the CPUC's existing requirements has not assured PG&E's operation in a cost-efficient manner. On the contrary, PG&E's practice of deferring major capital investments in some of its hydropower facilities has increased the long-term costs of maintenance and infrastructure upgrades of these facilities.

Below, I discuss three PG&E hydropower projects that PG&E has acknowledged are not profitable. After over ten years in relicensing and related proceedings, PG&E tried for five years to sell the DeSabla-Centerville Project (FERC no. P-803); for alleged lack of performance by the prospective buyer, PG&E decided in 2022 to resume relicensing of the project. PG&E has begun decommissioning proceedings for the Potter Valley Project (FERC no. P-77) and the Battle Creek Project (FERC no. P-1121).

In my opinion, PG&E's recent operation of each of these projects disproves PG&E's claim that its commitment to continue the status quo in itself provides adequate assurance that the transferred generation assets will be operated, or eventually decommissioned, in a manner consistent with the public interest in maintaining the reliability of the State's electrical supply system. On the contrary, PG&E's operation, management, and regulatory direction of each project described below show patterns of delay, short-term fixes over long-term reliability, and inadequate consideration of public safety. Further PG&E has not shown the proposed transaction will not worsen the status quo.

[10] *Id.*.

V. PG&E's Deferrals of Maintenance and Upgrades at its DeSabla-Centerville Project Have Decreased Reliability and Increased Costs for Ratepayers.

I was contracted by CSPA in 2006 specifically to work on the relicensing of PG&E's DeSabla-Centerville Project ("DeSabla"). I have been waiting 17 years for this relicensing to conclude.

A. PG&E has delayed rebuilding or decommissioning Centerville Powerhouse for 40 years.

DeSabla is a 26.4-megawatt run-of-river project located in the Butte Creek and West Branch Feather River watersheds in Butte County. The Project stores water in two small reservoirs (Philbrook and Round Valley) in the West Branch Feather River watershed. It diverts flow (including some previously stored water) from the West Branch Feather River through the Hendricks Canal to Toadtown Powerhouse, and thence through the Toadtown canals to DeSabla Forebay. Just upstream of DeSabla Forebay, the water from the West Branch Feather River joins water diverted from Butte Creek into the Butte Canal. Water in DeSabla Forebay is released through a pressurized pipe or "penstock" through DeSabla Powerhouse, from which it is discharged into Butte Creek. Just downstream of DeSabla Powerhouse, the project diverts water into the Lower Centerville Canal, which bypasses an eight-mile reach of Butte Creek. At the bottom end the Lower Centerville Canal, the project drops water through the Centerville Powerhouse, which discharges water back into Butte Creek. A map and rough project description is shown in Attachment 3.

CSPA's interest in the DeSabla Project is that the project's import of water from the West Branch Feather River to Butte Creek improves flow and water temperature conditions for spring-run Chinook salmon that hold, spawn, and rear in Butte Creek.

From the time I entered the DeSabla relicensing in early 2006, PG&E repeatedly reported the marginal economics of the project. In June 2006, PG&E persuaded senior managers from three fisheries agencies and the Forest Service to sign a "Letter of Understanding" that stated, "PG&E's forecast of the Project's post-relicensing economics indicate a potential for its cost-of-production to increase to a level such that future operation of the Project, and the beneficial uses resulting from that operation are at risk." As a result, the signers of the Letter affirmed they would work "collaboratively … to achieve all of the objectives set forth below," including, "[t]he Project would be relicensed with a forecast cost-of-production that is competitive with market alternatives for renewable power." Attachment 4.

In a presentation to relicensing participants on April 24, 2007, PG&E produced figures showing "cost of production" values with a suite of variables, including new license conditions and the cost of decommissioning Centerville Powerhouse ($17.3 million) or rebuilding it ($39.8 million). *See* Attachment 5, pp. 6-7. This conclusion was consistent with an analysis PG&E sent to FERC on June 15, 1994, including the projected cost of a rebuild. In that 1994 analysis, PG&E referred to a proposed license amendment in 1983, the purpose of which was to rebuild Centerville Powerhouse. *See* Attachment 6, p. 3. The license amendment was in fact granted by FERC on January 31, 1992. *See Pac. Gas & Elec. Co.*, 58 FERC ¶ 62,093 (1992). FERC issued a second amendment on revised on April 27, 1995, removing (pursuant to PG&E's June 15, 1994 request) the Centerville Powerhouse rebuild. *See Pac. Gas & Elec. Co*., 71 FERC ¶ 62,073 (1995).

In February 2011, Centerville Powerhouse went off line, and it has been offline ever since. *See* Attachment 4. Shortly thereafter, PG&E determined that the Powerhouse was not repairable. PG&E also ceased operating the Lower Centerville Canal in 2014. *See* Attachment 7, pdf p. 7.

In a letter from PG&E's Director of hydropower licensing to FERC on October 11, 2016, PG&E stated: "Condition 10 of the WQC [water quality certification] requires a 10 year study after the DeSabla Forebay temperature device is installed. This requirement alone will prevent PG&E from making a determination of whether to refurbish or retire the Centreville development by 10 to 12 years." Attachment 8, p. 1. Note that this would be 10 to 12 years after a new project license is issued, which has not yet occurred.[11]

In sum, PG&E began looking at making the Centerville Powerhouse more reliable and efficient 40 years ago. Thirty years ago, FERC described Centerville Powerhouse as follows: "The original powerhouse was built in 1899 and the units were replaced in 1904 and 1907; the powerhouse has exceeded its expected life and would require a large investment to remain useful for the remaining term of the license …" *Pac. Gas & Elec. Co.*, 58 FERC ¶ 62,093 (1992), p. 17. Centerville Powerhouse has

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been completely off line for 12 years. Over six years ago, PG&E informed FERC that it would not make a decision about the disposition of the Centerville Powerhouse and associated canal for another 10 to 12 years after a new license is issued. This means that absent regulatory intervention, PG&E by its own estimation is likely to have the Centerville Powerhouse off-line for 25 years or more.

B. PG&E Delayed Relicensing the DeSabla Project by Six Years in an Unsuccessful Effort to Sell It.

In February 2017, following issuance of an amended final water quality certification for the DeSabla Project in August 2016, PG&E sent a letter to FERC seeking to withdraw its application for a new license for the DeSabla Project. *See* Attachment 9. On March 2, 2017, FERC issued an Order disallowing PG&E's withdrawal and soliciting interest in taking over the project, noting: "PG&E has actively pursued relicensing, including studies and consultation, for over 13 years. Given the significant effort in both time and expense made by the company, federal and state agencies, and other stakeholders toward relicensing the project, it would not be consistent with the public interest to allow withdrawal of the license application …" Attachment 10.

On May 1, 2017, CHRC steering committee members CSPA, American Whitewater, and Friends of the River, plus local watershed organization Friends of Butte Creek (collectively in the context of DeSabla, "Conservation Groups"), responded to FERC, requesting that FERC convene a meeting of stakeholders regarding the disposition of Butte Creek and that FERC require regular reports from PG&E to stakeholders regarding the sale of the project. *See* Attachment 11. FERC required PG&E to file quarterly "progress reports" on the sale of the project. *See* Attachment 12.

PG&E subsequently met with prospective buyers and selected one in June 2018. Thereafter, subsequent PG&E quarterly progress reports were perfunctory and largely copied from prior reports without reporting any substantive progress. *See* Attachment 13.

On August 16, 2022, PG&E submitted a Final Progress Report to FERC, announcing the sale of the DeSabla project was off and that PG&E would renew its effort to relicense it. *See* Attachment 14. After what is now 18 years and counting of relicensing, there are serious questions that information in the record is no longer sufficiently current to defend the environmental analysis of the project under the

National Environmental Policy Act (NEPA) or to support consultation under the Endangered Species Act; it would be very resource intensive to supplement or redo these analyses.

C. Lower Centerville Canal Is Deteriorating while Off Line.

Though Centerville Powerhouse went off line in 2011, PG&E, in consultation with resource agencies, kept the Lower Centerville Canal on line until 2014, a severe drought year, due to a perceived potential benefit to salmon in the release of slightly cooler water at the outfall from Centerville Powerhouse. Since 2014, PG&E and consulting resource agencies have left the Lower Centerville Canal off line. Thus, all flow from DeSabla Powerhouse, plus the flow in Butte Creek upstream of the outfall of DeSabla Powerhouse, has since 2014 flowed from Lower Centerville Diversion Dam down Butte Creek.

The Lower Centerville Canal dates to the early 1900s, and parts of it are older. A number of metal flumes that cross ravines connect sections of the canal. The land along the canal is wooded and steep in many places. Treefalls into the canal and loss of sidewall integrity are regular hazards, especially in high water years. A series of fires in the Butte Creek canyon over the last two decades has decreased slope stability in many locations.

A dewatered canal does not wear well generally. Dewatering upsets the equilibrium established by the weight of the water in the canal, subjecting the canal bottom to hydrostatic pressure from groundwater or underground streams. A dewatered canal is also not subject to the same level of patrol or sense of urgency in repair as functioning canals, nor is there an immediate test of how well the canal holds water. A watered canal performs a drainage function during storms; a canal that is not flowing is less efficient in providing drainage. Things fall into dewatered canals; removal does not have the benefit of using water and canal drainage points. In the limiting case, things grow in dewatered canals.

Wet water years in 2019 and 2023 have significantly compromised the Lower Centerville Canal. As a limited example, *see* photos in Attachment 15. The Lower Centerville Canal cannot transport water in its present condition. Remediation would require significant testing to assure its integrity.

D. PG&E's Relicensing Delay Has Deferred a Needed Facilities Improvement at DeSabla Forebay.

In 2006, the National Marine Fisheries Service (NMFS) issued a "Preliminary Biological Opinion" (Preliminary BiOp) for the relicensing of the DeSabla project. The primary measure the Preliminary BiOp recommended was a facilities modification at DeSabla Forebay to reduce the heating of water ("thermal loading") in the Forebay between its discharge from project canals and its entry into the intake to the DeSabla Powerhouse.[12]

On December 26, 2007, a consortium of resource agencies (USFS, BLM, USFWS, CDFW) and NGOs (CSPA, Friends of the River, Friends of Butte Creek) sent a letter to FERC objecting to PG&E's proposal in its Final License Application, without agency and other stakeholder consultation, to carry out a limited facilities modification at DeSabla Forebay. The letter specifically objected to PG&E's stated objective "to reduce temperature increases (ΔT) in the DSF [DeSabla Forebay] by 50%." Instead, the letter countered: "To assure adequate protection for salmon and steelhead in Butte Creek, the objective should be to evaluate alternatives that virtually eliminate heating in the DeSabla Forebay." *See* Attachment 17.

PG&E objected to numeric objective for limiting thermal loading in DeSabla Forebay in comments on the draft water quality certification for the project in 2013 and in a petition for reconsideration of the final water quality certification for the project in 2015. In its 2013 comments, PG&E also objected to the level of effort of "DeSabla Forebay Water Temperature Improvements," claiming:

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[12] The Preliminary BiOp found that prompt implementation of remedial actions to reduce thermal loading at the project was necessary to protect listed species:

> Regardless, thermal loading through the DeSabla Forebay occurs at a higher rate per distance than anywhere else in the action area and modifications to the forebay may represent the best opportunity to reduce thermal loading during summer months. …
> c. Based on the results of the study regarding the potential for reducing the thermal loading in DeSabla Forebay, FERC shall require PG&E to develop a DeSabla Forebay Water Temperature Improvement Plan within 2 years of issuing the license.
> d. FERC shall require PG&E to implement measures recommended in the DeSabla Forebay Water Temperature Improvement Plan as soon as practicable after approval of the plan.

See Attachment 16, excerpted pp. 45-46, 70-71 from Preliminary BiOp.

"Construction of this structure is a major undertaking and will require DeSabla Forebay to be drained, dredged, and the work to be completed under dry reservoir bed conditions. There is no feasible way to divert the canal water around the forebay during construction, nor is there a spillway that can accommodate the 50-100 cfs that is normally diverted from the West Branch Feather River. The construction will require 4-6 months and should occur during the late spring to fall period (i.e., during the summer holding period of spring-run Chinook salmon).

Attachment 18, p. 6.

Today, the technical issues of reducing water temperature in DeSabla Forebay are no closer to resolution. PG&E's protracted objections to the water quality certification and subsequent decision to sell the DeSabla project, since rescinded, has delayed the single most important environmental mitigation for the project by ten years.

E. PG&E Has Delayed Effective Spillway Improvements at Philbrook Reservoir for 15 years.

In 2007, I did a site visit to Philbrook Reservoir, the DeSabla project's larger storage reservoir, with a capacity of about 5000 acre-feet. I photographed the reservoir's spill channel, shown as Attachment 19. At that time, the sides were substantially eroded and the bottom of the spill channel contained substantial amounts of rocks and debris.

The Forest Service required PG&E to complete and implement a plan to remediate that Philbrook spill channel during the relicensing. *See* Attachment 20. PG&E undertook this project and completed it by 2012. *See* Attachment 21.

The 2012 spill channel remediation was not durable. In a communication to FERC in 2022, PG&E wrote that the Philbrook spill channel was one of a suite of spill channel remediation actions it would be prioritizing and implementing over a period of 15-20 years. *See* Attachment 22.

F. Summary of Issues with the DeSabla-Centerville Project

PG&E has deferred the expensive and difficult issues presented by the DeSabla-Centerville Project for decades. It has no evident intention to restore the Centerville Powerhouse and Lower Centerville Canal to service of any kind. Yet it also has no plan to remove them, and it has made no effort to work with resource agencies or other stakeholders on the long-term disposition of these facilities.

This deferral has serious environmental consequences. But it also has financial consequences. The longer PG&E spends on operating and patching up the functioning part of the project without resolution and on paying attorneys and consultants to avoid regulatory resolution, the longer it can include these items as part of its rate base and collect the requisite profit on them. Decay of physical features also increases the expense of remediation or decommissioning, adding to the bloating of PG&E's rate base.

The only way this project makes sense to investors in Pacific Generation is by allowing PG&E to continue its practice of deferral. The CPUC should evaluate the public interest in requiring Pacific Generation to turn the page on PG&E's practice of deferral, either by disallowing the inclusion of the DeSabla-Centerville Project in PG&E's asset transfer or by limiting the extent of cost recovery allowed by the inflation of costs due to deferral.

PG&E does not treat its hydropower fleet as a portfolio in which the stronger projects subsidize the marginal ones. On the contrary, PG&E has repeatedly made it very clear during individual relicensing proceedings that each project must stand on its own economic feet. PG&E should not be allowed to subsidize uneconomic assets and associated uneconomic practices through an asset transfer that offers new capital and investment for projects that make economic sense.

VI. PG&E Has Initiated the Decommissioning of the Potter Valley Project, Does Not Plan to Restore the Presently Non-Operating Potter Valley Powerhouse to Service, and Has Limited the Operation of the Project's Seismically Unsafe Scott Dam.

The Potter Valley Project in Mendocino and Lake counties, California is a turn-of-the-20th-century project that generates up to 9.2 megawatts of power with water that is exported from the upper watershed of the mainstem Eel River to the East Branch of the Russian River. An Archimedes screw pump at Van Arsdale Reservoir on the Eel River diverts water into a series of tunnels, conduits, and penstocks that traverse two ridges to deliver water to the Potter Valley Powerhouse, less than two miles from the point of diversion. From the powerhouse at the head of Potter Valley, a portion of the diverted water is delivered under contract to Potter Valley Irrigation District, whose customers are located in the valley to either side of the East Branch Russian River for several miles downstream of the powerhouse. The majority of the water that runs through the powerhouse is "abandoned" and flows downstream to Lake Mendocino, east of Ukiah, CA.

Cape Horn Dam impounds the small (~340 acre-foot) Van Arsdale Reservoir. There is a fish ladder on Cape Horn Dam, though high flow events frequently render it inoperable for extended periods due to blockage by sediment and woody debris. The diversion has two fish screens.

Scott Dam, located seven miles upstream of the Van Arsdale Diversion, impounds Lake Pillsbury, the project's 66,000-acre-foot storage reservoir on the Eel River. Scott Dam is a complete barrier to fish passage.

Many resource agencies and environmental and fisheries organizations would like to see Scott Dam removed to restore access to the headwaters of the mainstem Eel River to help restore severely depleted runs mainstem Eel River salmon and steelhead. Most of the same entities would like to see Cape Horn Dam removed because fish passage there is unacceptably ineffective. Many of those seeking dam removal are willing to allow a modified diversion of water to the Russian River provided that the method of diversion does not adversely affect fish.

A. At PG&E's Request, FERC Has Initiated a License Surrender Proceeding for the Potter Valley Project.

The FERC license for the Potter Valley project expired in 2022.[13] In 2017, PG&E issued a notice of intent to relicense the project, although it was widely understood that the project loses money.

In oral comments at a June 28, 2017 scoping meeting at the beginning of the relicensing process, I entreated PG&E to make a quick decision about the future of the project: "In February of this year, PG&E withdrew its license application for the DeSabla-Centerville Project, about twelve years after the relicensing process began. My first message today is for PG&E. Please, if you're going to back out of

[13] PG&E remains subject to the terms and conditions of the expired license that FERC administratively applies pursuant to the Federal Power Act.

the Potter Valley Project, be kind to yourselves and to everyone else and start that process decisively, and start it soon." Attachment 23.

PG&E nonetheless continued relicensing, filing, receiving FERC approval for, and carrying out a years' work on a study plan. However, on January 25, 2019, PG&E wrote to FERC withdrawing its Notice of Intent to relicense the project, stating:

> Potter Valley has long been recognized by PG&E as uneconomic for PG&E's ratepayers (i.e., the cost of production exceeding the cost of alternative sources of renewable power on the open market). Regrettably, continued declining energy markets, potential increased costs associated with anticipated new license conditions, and challenging financial circumstances have caused PG&E to conclude that it cannot justify further expenditures to its ratepayers associated with the Project.

Attachment 24.

Following the failure of a potential consortium of buyers[14] to raise the funds to complete the relicensing of the project, PG&E announced, on July 8, 2022, a plan and schedule to submit to FERC an application to decommission the project. *See* Attachment 25. On July 27, 2022, FERC accepted PG&E's plan and schedule to submit a license surrender application in anticipation of decommissioning. *See* Attachment 26.

Unlike the FERC Integrated Licensing Process, there is no default process or schedule for a licensee to surrender an existing license. There is also no default set of conditions that may accompany a license surrender. Therefore, there is no set regulatory forcing mechanism to compel PG&E to complete license surrender following submittal of a surrender application.

B. The Potter Valley Project Is Not Presently Generating Power, and PG&E Plans to Not Operate the Potter Valley Powerhouse Prior to Surrendering the Project License.

On December 9, 2021, PG&E filed with FERC an "Incident Report for Transformer Outage" in the docket for the Potter Valley Project. PG&E classified this report as CEII; however, the notarized

[14] The "Planning Agreement Parties," consisting of California Trout, Humboldt County, the Mendocino County Inland Water & Power Commission, the Round Valley Indian Tribes and Sonoma County Water Agency. *See* studies completed by this entity at http://pottervalleyproject.org/.

statement regarding the incident was filed as a public document. *See* Attachment 27.[15] With the transformer not operating, PG&E cannot use the power generated at Potter Valley Powerhouse. This is further shown in PG&E's 2022 annual generation report to FERC, which shows generation by PG&E project for October 1, 2021 through September 30, 2022, and which reports Potter Valley generation for this time period as 0. *See* Attachment 28, p. 2. Therefore, since at least October 1, 2021, and apparently since July 2021, the Potter Valley Project has not generated power.

On February 7, 2022, PG&E wrote to FERC stating PG&E's intention to file a plan and schedule to bring the disabled transformer online. *See* Attachment 29. On February 3, 2022, the Santa Rosa Times-Standard, reporting on the transformer, quoted PG&E spokesperson Paul Moreno confirming that the Potter Valley Project was not producing power: "PG&E does not have a schedule for returning the powerhouse to service." Mr. Moreno further stated that PG&E anticipated restoring the project to service because operation prior to decommissioning would help "offset" project costs. *See* Attachment 30.

On December 15, 2022, PG&E filed a follow-up letter with FERC stating that PG&E was still evaluating the "the transformer replacement project." *See* Attachment 31. On March 23, 2023, PG&E filed a letter with FERC stating: "PG&E no longer intends to replace the Potter Valley transformer." Attachment 32.

In summary, PG&E's Potter Valley Powerhouse has not produced electricity since December 2021. PG&E does not intend to replace the associated transformer infrastructure that would allow the Potter Valley Powerhouse to resume producing electricity.

C. PG&E Has Restricted the Amount of Water it Stores in Lake Pillsbury Due to Seismic Safety Concerns at Scott Dam.

On March 17, 2023, PG&E filed a letter with FERC titled "Potter Valley Hydroelectric Project, FERC No. 77-CA, Scott Dam, NATDAM No. CA00398. Results of Simplified Seismic Stability

[15] The description of the filing sent out to subscribers to the P-77 FERC docket titled this non-public filing: "Pacific Gas and Electric Company submits Potter Valley Powerhouse Incident Report for Transformer Outage July 2021 for Potter Valley Hydroelectric Project under P-77." In my search of the P-77 docket, I could not locate any PG&E filed specifically regarding the outage of Potter Valley Powerhouse prior to PG&E's December 9, 2021 filing (Attachment 27).

Analysis and Proposed Interim Risk-Reduction Measure." A memorandum presenting the results of the simplified seismic stability analysis (prepared by Gannett and dated March 14, 2023). *See* Attachment 33. PG&E's March 17 letter contained an enclosure, "A memorandum presenting the results of the simplified seismic stability analysis (prepared by Gannett and dated March 14, 2023);" however, the enclosure was marked CEII and not made available for public review. The publicly available letter did nonetheless describe the immediate practical consequence of the memorandum:

> Based on the results of Gannett's analysis, PG&E believes that proactive steps to limit the potential for seismic instability of Scott Dam are necessary at this time. As an interim risk-reduction measure, PG&E has established a 10-foot restriction on the maximum reservoir operating level. Instead of closing the spillway gates to store additional water during the spring and summer months, PG&E will leave the gates open year-round to maintain the water level in Lake Pillsbury at or below the spillway crest elevation. The restriction will remain in place until long-term measures are developed and implemented.

Id. at 2.

Eleven days later, on March 28, 2023, FERC responded to PG&E, stating:

> The unilateral decision to keep the spillway gates at Scott Dam open indefinitely could impact PG&E's compliance with the Reasonable and Prudent Measures (RPMs) made part of the Potter Valley license for the protection of federally listed species. … Should PG&E wish to seek Commission authorization for keeping the gates open indefinitely, it must file an amendment application, pursuant to 18 CFR 4.200.

Attachment 34, p. 1. FERC concluded: "Pending approval of an amendment application, you are required to maintain compliance with your existing license, as amended." *Id.* at 3.

On April 12, 2023, the Division Manager of the California Division of Safety of Dams (DSOD) sent a letter to PG&E agreeing with PG&E's proposed operation of reduced storage in Lake Pillsbury, stating:

> Based on dam safety, DSOD concurs with PG&E's proposed 10-foot reservoir restriction as an interim risk reduction measure. Therefore, DSOD is restricting the year-round operation of the

> reservoir of Scott Dam to Elevation 1900.00, the spillway crest, which is 24.58 feet below the dam crest. This reservoir restriction may be revisited as conditions warrant and will remain in effect until PG&E receives DSOD's written approval authorizing a different level of reservoir storage.

Attachment 35, p. 1. The Division Manager also noted: "Additionally, as discussed with Mr. David Ritzman on March 16, 2023, based on the seismic deficiency identified by Gannett Fleming, DSOD's condition assessment rating for the dam has been changed from "Satisfactory" to "Fair." *Id.*

In order to evaluate the potential consequences of dam failure at Scott Dam, I consulted the DSOD's "Dam Breach Inundation Map Web Publisher," *available at* https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2, and specific evaluation of Scott Dam, *available at*

https://fmds.water.ca.gov/maps/damim/service/document/download/3727. DSOD's Scott Dam report includes a series of inundation maps of the area that would be likely to be inundated if Scott Dam were to fail when there was not storm occurring (a "sunny day" dam failure). *See* Attachment 36[16]

The provenance of DSOD's mapping of inundation from the hypothetical failure of Scott Dam is stated on the first page of the document: "This map is part of the Emergency Action Plan for Scott Dam prepared in general accordance with FERC Chapter 6 - Emergency Action Plans dated July 2015." On each page of the document is a text box with a caveat that states:

> DSOD Note: Dam owner stamped the entire map as CEII/CUI. However, DSOD does not consider information submitted to it, whether it be the entire map or information on the map, to meet the definition of CEII/CUI. DSOD recognizes that the map contains specific security-sensitive information, which is similar in nature to CEII/CUI, and so DSOD has carefully reviewed the map and redacted specific security-sensitive information before making the map available to the public.

[16] The complete file is too large (55 MB) to attach as a supporting document. Attachment 36 is the first 14 pages of the file, consisting of smaller scale maps showing the coverage of larger scale maps, plus larger scale maps of the project area including Lake Pillsbury and Van Arsdale Reservoir.

It is thus notable that the maps reflect the work of PG&E's consultant. It is also notable that the State of California agency DSOD disagrees with the appropriateness of labeling the entirety of the inundation maps as CEII, opting for a much more targeted redaction of information relevant to the public interest.

Based on my review, DSOD's inundation maps show that failure of Scott Dam would inundate five bridges on U.S. Highway 101, the main north-south transportation artery between Santa Rosa and Eureka, California. Dam failure would inundate at least 12 additional bridges, including bridges on state highway 162, the main route to Covelo and the Round Valley Indian Reservation. Dam failure would inundate numerous sections of local roads, several campgrounds and parts of several small hamlets along the mainstem Eel River, much of the Eel River Delta west of Loleta, California, and the project diversion and other facilities at Cape Horn Dam and Van Arsdale Reservoir.

A November 2021 study commissioned by the "Planning Group Parties" entitled "Scott Dam and Cape Horn Dam Removal Alternatives" estimated the median construction cost of removing Scott Dam at $118 million, with the upper bound at $236 million. *See* Attachment 37, pp. 12-13.

D. Summary of Issues with the Potter Valley Project.

The Potter Valley Project is not currently producing electricity, and PG&E has stated that it does not intend to restore it to operation prior to decommissioning the project.

Since PG&E is in the process of surrendering the Potter Valley Project, there is an evident public safety interest in removing Scott Dam as expeditiously as safely possible. Both PG&E and the California DSOD have called out seismic risks to Scott Dam. PG&E has reduced the maximum amount of water it stores behind Scott Dam in recognition of the seismic risks, and DSOD has ordered PG&E to maintain this storage reduction.

There is no evident public or corporate interest in having Pacific Generation assume ownership of Scott Dam given the liability associated with potential loss of life, infrastructure, and property that Scott Dam's failure would present. Moreover, there is no evident risk to PG&E in not including the Potter Valley Project among those shielded from liability for wildfire, considering that the Potter Valley Project is itself a set of both short-term and long-term liabilities.

VII. PG&E Does Not Plan to Relicense or Continue Operating the Battle Creek Hydroelectric Project, Is Making an Unplanned Removal of a Project Dam and Permanently Ceasing Operation of an Associated Powerhouse, and Has Delayed and Deferred Maintenance, Improvements, and Agreed-To Restoration Efforts at the Project.

The Battle Creek project is a 37.9-megawatt project located in the Battle Creek watershed, tributary to the Sacramento River, with facilities on North Fork and South Fork Battle Creek. The project stores water in two reservoirs (North Battle Creek and Macumber). Project works include three forebays (Lakes Nora, Grace, and Coleman Forebay), five powerhouses, and associated canals, pipes, and diversion dams. The project has little or no capacity to provide grid-regulation services.

Battle Creek is one of two currently accessible locations with suitable habitat for federally endangered winter-run Chinook salmon. However, 88% of potential winter-run Chinook habitat in Battle Creek has been blocked by watershed development, primarily by PG&E. *See* Attachment 38, pp. 24-25. Several federal resource agencies have adopted strategies and plans to reintroduce and restore populations of winter-run Chinook salmon to the creek as part of overall species recovery. Other at-risk salmonids exist in Battle Creek, including federally threatened Central Valley spring-run Chinook salmon, and Central Valley steelhead.

In 1999, to improve the condition of salmon and steelhead populations in Battle Creek, PG&E reached an agreement with the Bureau of Reclamation (Reclamation), USFWS, CDFW, and NMFS. This agreement, memorialized in a Memorandum of Understanding (MOU), established the Battle Creek Restoration Project, with the initial purpose of restoring habitat for threatened and endangered Chinook salmon and steelhead in Battle Creek and some of its tributaries, while minimizing the loss of hydropower generation.

A. At PG&E's Request, FERC Has Initiated a License Surrender Proceeding for the Battle Creek Project.

On October 23, 2020, PG&E wrote a letter to FERC stating that PG&E would not issue a Notice of Intent to relicense the Battle Creek Project. *See* Attachment 39. On February 16, 2021, FERC issued a notice that PG&E would not seek to relicense, and solicited other parties to file, within 120 days, a Notice of Intent to relicense the project. *See* Attachment 40. No other parties filed a Notice of Intent.

Subsequently, on October 3, 2022, FERC directed PG&E to file a plan and schedule to file an application to surrender the license. *See* Attachment 41. On November 30, 2022, PG&E filed a plan and schedule to file a license surrender application, proposing a 36-month timeline to file an application; however, PG&E proposed that the schedule trigger only after FERC's acceptance of two license amendments regarding pending PG&E dam removal proposals (discussed further below). *See* Attachment 42. On December 6, 2022, FERC accepted PG&E's plan and schedule, including acceptance of the delayed start of the timeline. *See* Attachment 43.

B. PG&E Plans to Remove Rather than Repair the Damaged and Non-Functional Inskip Dam.

On March 29, 2019, PG&E wrote to FERC announcing its planned disposition of Inskip Dam, a Battle Creek Project facility on South Fork Battle Creek: "For facility safety reasons, PG&E plans to either repair or breach the Inskip Diversion Dam." Attachment 44.

On December 1, 2020, after over a year of design work, communications with FERC, and regulatory approvals from NMFS, the Army Corps of Engineers, and the State Office of Historical Preservation, PG&E informed FERC that it would remove Inskip Dam and also the associated Inskip Powerhouse:

> Due to substantial, necessary upgrades to Inskip Powerhouse, the future removal of the Inskip Diversion Dam (Dam), and PG&E's ultimate decision not to relicense the Battle Creek Project, PG&E has concluded that the most cost- effective option for its customers is to cease operation of Inskip Powerhouse.
>
> PG&E has spoken with project agency partners and plans to file a license amendment by the end of 2021 for the full removal of the Dam and, therefore, proposes to include the Inskip Powerhouse as part of that amendment. Removal of the Dam is currently planned for 2023.

Attachment 45.[17]

This decision follows millions of dollars invested by the Battle Creek Restoration Project in facilities modifications to Inskip Dam, Inskip Canal, and Inskip Powerhouse, and seven years of further modifications and regulatory approvals. A summary of the modifications and timelines is provided in the May 2023 quarterly report of the Bureau of Reclamation to the Greater Battle Creek Watershed Working Group. *See* Attachment 46, p. 1. Effectively, all of Phase 1B of the Restoration Plan became a stranded asset with the decision of PG&E to decommission Inskip Dam, Inskip Canal, and Inskip Powerhouse. *See id.* at 6-7 (schematic of the Restoration Project and the hydropower project).

PG&E submitted an application for a license amendment for the Inskip Dam removal on October 28, 2022. *See* Attachments 47, 40. This pending license amendment for Inskip dam removal is one of the two pending license amendments that FERC must approve prior to the starting of the clock for *the submittal* of PG&E's license surrender application. There is no certain schedule for decision on such application.

C. PG&E has delayed the Battle Creek Restoration Project for 24 years.

The Battle Creek Restoration Project originally consisted of three phases (Phases 1A, 1B, and 2). Actions included greater instream flows and a series of modifications of PG&E's hydropower project facilities, including addition of fish passage at several dams. Twenty-four years after the 1999 signing of the MOU, only Phases 1A and 1B are complete. Phase 2, which included a substantial amount of the overall Restoration Project work, has not yet begun.

Phase 1A included the removal of Wildcat Diversion Dam and Wildcat Canal, addition of a weir to prevent mixing of anadromous fish with a pristine trout population on Baldwin Creek, and construction of fish screens and ladders on North Battle Creek Feeder Dam and Eagle Canyon Diversion Dam. Eleven years passed before removal of Wildcat Dam and Canal. Fourteen years passed before construction of the Baldwin Creek weir.

[17] *See also* Attachment 38, pp. 3-4: ("Inskip Canal and Powerhouse are currently offline and there are no plans to bring them back online. As such, there is no need to maintain Inskip Diversion Dam as part of the Battle Creek Hydroelectric Project License to ensure flows are available at Inskip Powerhouse for generation.").

There were extensive delays on the fish screen and ladder facilities at North Battle Creek Feeder and Eagle Canyon Diversion dams. Construction as originally designed was complete by December 2011. *See* Attachment 48, p. 2. By 2013, extensive modifications of the work completed to date were already planned for construction in 2015. *Id.* These additional modifications were completed in only 2018, and were tested through 2019. *See* Attachment 46, p. 1. New criteria added in 2019 created additional delay, with Restoration Project partners taking two years to make a decision regarding the new criteria (2021). *Id.*

Reclamation contracted for the construction of these actions; PG&E's role, in addition to planning, was to accept the new facilities and assume ownership and operation of them once complete. Along with operating the facilities, PG&E was bound by the MOU to increase the flows through the dams and thus in the reaches immediately downstream. By May 2022, PG&E had still not accepted the fish ladders and screens at North Battle Creek Feeder and Eagle Canyon Diversion dams. In its April 28, 2022 Adaptive Management Plan Annual Report, PG&E informed FERC that it had still not initiated adaptive management actions pursuant to a 2009 license amendment. PG&E summarized as follows:

> Facility acceptance at North Fork Screens and Ladders (NFSL), has been delayed due to automation issues at the North Battle Creek Feeder Diversion Dam (NBCFDD) and Eagle Canyon Diversion Dam (ECDD) and design issues at ECDD. Several years ago, during low flow testing a concern was raised by the fisheries [agencies] with the minimum canal gate opening at ECDD. This design criteria had not been incorporated into Reclamation's design of the facility and had to be addressed. Specifically at Eagle Canyon, there have been several problems with automation, the sweeper motor, sensors, and alarms. There are proposed changes in the works, but all have yet to be tested for efficacy in a range of flows. *At this time, it is very uncertain that the facility can guarantee fail-safe fish passage, a criterion for facility acceptance under the MOU*. NBCF has other issues that are necessary to be addressed for fail-safe passage (e.g. fine tuning of automation, sediment loading, and discharge of the fish bypass pipe into a deeper pool), but this facility is likely closer to adequate functionality. PG&E will continue to work with other stakeholders to try to find a solution to the issues at these facilities, but it is likely to take

some time to achieve. Due to these issues the AMP has not commenced beyond the initial planning stages.

Attachment 49, p. 2 (emphasis added).

PG&E finally accepted the fish ladders and screens at North Battle Creek Feeder and Eagle Canyon Diversion dams on April 7, 2023. *See* Attachment 50. PG&E had managed to avoid acceptance of the facilities, and associated increases in instream flows, for over 10 years. The insistence on a "fail-safe" facility, as quoted above, describes, in my opinion, both the general risk aversion of PG&E and how PG&E selectively uses risk aversion and uncertainty to defer unwanted outcomes.

PG&E's acceptance of the fish ladders and screens at North Battle Creek Feeder and Eagle Canyon Diversion dams, and associated facilities, occurred two and a half years after PG&E decided not to relicense the Battle Creek Project. These facilities did not begin to operate until they had officially become stranded assets.

In a September 9, 2022 request to FERC for a license amendment, PG&E scaled back the Phase 2 projects to those that exclusively involve facilities removals. *See* Attachment 51. This additional amendment is the second that must be granted before the 36-month clock for PG&E's submittal of a license surrender application begins to tick.

D. Delay on the Restoration Project Has Increased Costs Threefold.

The anticipated funding total for the Battle Creek Restoration Project in 1999 was $51.6 million. By May 2023, funding allocated to the Restoration Project has reached $166.35 million. *See* Attachment 46, p. 4. The 2023 funding figure includes $37.2 million on hand for remaining Phase 2 actions. *Id*. However, the planned Phase 2 actions have been scaled back to facilities removals, consistent with PG&E's decision to surrender the license for the Battle Creek Project. *See* Attachment 51 and discussion *supra*.

Delays cost money. PG&E bears substantial, but not exclusive, responsibility for the delays relevant to the Restoration Project.

In its response to the Battle Creek Restoration Project, PG&E has shown indifference to cost increases incurred by others. PG&E's response, in part, has been to wait for more outside money. The other part of PG&E’s response has been, in the case of Phase 1A, to defer instream flow increases, and thereby generate power at increased environmental cost.

In the example of the Battle Creek Restoration Program, PG&E has not shown due concern for delays that have contributed to the stranding of a generation asset at what I estimate is an exorbitant cost to ratepayers and stakeholders.

E. Summary of Issues with the Battle Creek Hydroelectric Project.

Shorter-term actions for which PG&E has pending license amendments will reduce the ability of the Battle Creek Project to contribute to the reliability of the electric supply system. PG&E’s longer-term plans will eliminate the Battle Creek Project’s availability to the electrical supply system.

The CPUC should particularly consider PG&E’s lack of concern over how delay and deferral causes increased expense to other entities and, in the limiting case, causes expenditure on stranded assets. In the broadest sense, the CPUC should evaluate this indifference in the context of the principal other entities to whom PG&E should be accountable: its ratepayers.

VIII. Conclusion of Testimony

I have recounted and discussed aspects of the recent history of three PG&E hydroelectric projects: DeSabla-Centerville, Potter Valley, and Battle Creek. Each project has unique and specific characteristics that the CPUC should evaluate when deciding whether or not to allow PG&E to transfer each one of them to Pacific Generation.

The recent history of each of these projects is also more than a case study unto itself. Each case study presents a picture of how PG&E conducts its hydropower business. Based on seventeen years working with and interacting with PG&E on licensing and license implementation of numerous additional hydropower projects, it is my opinion that PG&E’s actions on these projects are consistent with, and not exceptions to, PG&E’s general conduct of its hydropower operations. The CPUC should thus also consider these case studies in evaluating the sufficiency of PG&E’s assurances regarding the continued operation by PG&E personnel of the transferred hydropower assets.

Based on the record of these projects as in the foregoing testimony, it is my opinion that PG&E's current operations do not provide adequate mechanisms for oversight and accountability, particularly but not exclusively regarding costs, and in some cases regarding public safety.

Based on the record of these projects as in the foregoing testimony, it is also my opinion that compliance with the CPUC's requirements has not assured PG&E's operation in a cost-efficient manner. On the contrary, PG&E's practice of deferring major capital investments in some of its hydropower facilities has increased the long-term costs of maintenance and infrastructure upgrades of these facilities. Based on my review, PG&E has not demonstrated that the proposed transaction would not worsen this status quo.

Therefore, in order to address these concerns, I recommend that the CPUC consider the following options:

- Disallow the transfer of the DeSabla – Centerville, Potter Valley, and Battle Creek projects to Pacific Generation, keeping PG&E fully and solely liable and responsible for the effects of these projects and their disposition;
- Allow the transfer of the DeSabla – Centerville, Potter Valley, and Battle Creek projects to Pacific Generation, but place special conditions on Pacific Generation relating to these assets.
- Appoint, or require Pacific Generation to appoint and report annually to the Commission, an independent overseer to promote speedy disposition of these projects.
- Provide financial incentives for the speedy disposition of these projects by allowing rate recovery on actions associated with future but as yet incomplete regulatory processes.
- Provide financial disincentives for delay in the speedy disposition of these projects through limitations on rate recovery or additional reporting requirements, such as limitations on costs incurred for these projects that do not contribute to safe operation or speedy disposition of these facilities, or on costs over a prolonged time period.

VERIFICATION

I, Chris Shutes, hereby attest that the statements in the foregoing document are true and to my own knowledge, except as to matters that are stated on information or belief, and as to those matters, I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Executed at Berkeley, California and respectfully submitted this 16th day of June 2023.

Chris Shutes
Executive Director
California Sportfishing Protection Alliance