



Testimony

of

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before the

**Committee on Natural Resources
Subcommittee on Water, Power and Oceans**

of the

United States House of Representatives

on

**Hearing: “Realizing the Potential of Hydropower as a Clean,
Renewable and Domestic Energy Resource.”**

April 27, 2016

Good afternoon Chairman Fleming, Ranking Member Huffman and members of the Water, Power and Oceans Subcommittee. My name is Debbie Powell, and I serve as Senior Director of Power Generation Operations at Pacific Gas and Electric Company (PG&E).

I am pleased to appear before the subcommittee on the issue of “Realizing the Potential of Hydropower as a Clean, Renewable and Domestic Energy Resource.” PG&E appreciates the time and consideration the Natural Resources Committee and Congress are giving to the need to invest in and modernize our nation’s energy infrastructure to make it more reliable, more resilient and better able to support the 21st century economy. Hydropower licensing reform is a critical component of this effort, given the important role that water plays in energy production and consumption, combating climate change, renewable energy integration, habitat restoration, and recreation, to name just a few.

PG&E is one of the largest combined natural gas and electric utilities in the United States. Based in San Francisco, with more than 23,000 employees, the company delivers some of the nation’s cleanest energy to nearly 16 million people – or one in 20 Americans – throughout a 70,000-square-mile service area in Northern and Central California.

PG&E also owns and operates one of the nation’s largest investor-owned hydroelectric systems, which is built along 16 river basins and stretches more than 500 miles. PG&E’s 67 powerhouses, including a pumped storage facility, have a total generating capacity of 3,888 megawatts (MW) – enough to meet the needs of nearly four million homes with carbon-free energy. The system relies on approximately 100 reservoirs located primarily in the higher elevations of California’s Sierra Nevada and Southern Cascade mountain ranges.

PG&E’s hydroelectric system consists of 26 federally licensed projects. Since 2000, PG&E has completed 10 hydropower relicensing proceedings representing 1,140 MW. PG&E has 7 “active” hydropower relicensing proceedings, which represent an additional 1,131 MW.

PG&E actively manages its hydroelectric system to ensure the safety of the public and our workforce; protect wildlife habitat and sensitive species; and maintain access to popular recreation areas, including campgrounds, picnic areas, boat launches, walking and hiking trails, fishing, and whitewater flows. We know first-hand, the infrastructure needs, responsibilities and challenges related to maintaining, operating and relicensing this clean, reliable and valuable resource.

As required by federal and State regulatory agencies, PG&E evaluates and mitigates the projects’ impacts on natural resources and the environment. We have made it a priority to work collaboratively with stakeholders, including federal and State agencies, local community members, environmental organizations, fishing interests and other recreationalists, and agricultural landholders, among others, during the relicensing process. Together, we work to assess the impacts of these projects, identify the issues

of importance, develop plans to protect fish and wildlife habitat, enhance recreational uses, and improve water quality and flow management. We believe this collaborative approach best serves the public interest, as we recognize that many entities and individuals rely on the various watersheds, which include our facilities.

As it stands today, however, the prescribed licensing processes in place are overly complex, unnecessarily protracted, insufficiently coordinated, and needlessly expensive. In the simplest terms, we strongly support greater efficiency and transparency in the relicensing process, and the expeditious conclusion of the relicensing process so that the environmental protections and benefits negotiated during that process can be implemented faster and more efficiently.

Hydropower is an invaluable, renewable resource that our country can and should do more to capitalize on to help us meet greenhouse gas goals necessary to avert the worst impacts of climate change. Hydroelectricity is a greenhouse gas-free source of energy that provides important benefits to the overall power system, particularly systems with significant amounts of intermittent renewable generation, such as wind and solar, as well as to energy consumers across the country. According to the National Hydropower Association, using hydropower avoids approximately 200 million metric tons of carbon pollution in the United States each year – the equivalent of 42 million cars. It is a flexible resource, a domestic resource and a carbon-free resource. And we believe it is a resource that we must continue to use now and in the future.

We appreciate all the efforts made to date by Congress to advance hydroelectric generation, and we believe that today's hearing by the Natural Resources Committee is another very important step to continue this progress. Moreover, we applaud the 114th Congress for advancing comprehensive energy bills that have included provisions to modernize the hydropower licensing process. We remain hopeful the House and Senate bills can be reconciled between leaders of both chambers and presented to the president for his signature in 2016. PG&E fully supports this process and will remain an active voice in the sharing of our experiences related to realizing the full potential of hydroelectric power.

While these steps on the federal legislative front have been encouraging, the regulatory approval process still remains a significant challenge, and future action at the federal level is necessary to ensure the continued operation of existing hydropower and support for growth of new hydropower. Improving the efficiency of the licensing and relicensing processes is paramount. PG&E believes that it is critical for hydroelectric power generators to be able to move through the relicensing process more efficiently and more affordably, so that we can implement environmental protections, community improvements and facility upgrades proposed during relicensing much more quickly than we can today. Delays in the relicensing process serve only to delay such needed improvements and add costs, which are ultimately borne by the energy consumer.

Hydropower: A Domestic and Clean Resource

At approximately 100 gigawatts of installed capacity, hydropower is America's largest renewable energy resource, producing half of the country's renewable power. In addition to providing tens of millions of American homes with clean and affordable power each year, hydropower also provides benefits to recreation, flood control, irrigation, navigation, and water supply, among others.

In order to capitalize on hydropower's existing capacity and future potential, addressing key challenges within the existing hydropower licensing process is necessary. In PG&E's experience, the process to relicense existing hydroelectric projects requires extensive consultation with multiple State and federal agencies that consistently takes at least seven years, and frequently lasts more than ten years. For example, the relicensing of the Poe Project is now in year eighteen.

Meanwhile, the cost to PG&E customers to obtain a license renewal has routinely exceeded \$20 million per license, and some current proceedings will exceed \$50 million. When, and if, a license is approved and received, implementing the conditions of the license also routinely costs tens-of-millions of additional dollars.

To put this into greater perspective, the cost and duration of the process to relicense an existing hydroelectric project can be just as cumbersome and complex as seeking a license for a new, unbuilt hydroelectric project. In both cases, the cost and duration associated with licensing is typically far greater than any other established electric generation technology.

Licensing Improvements for Hydropower

PG&E appreciates and recognizes the right of and need for federal agencies to place license conditions upon the lands they manage. Similarly, PG&E also appreciates and recognizes the right of federal agencies to prescribe fishways to allow fish to pass licensed dams. Finally, PG&E recognizes and appreciates that different federal agencies have different missions and may therefore have different perspectives on what license conditions are needed. At the same time, we also believe that better coordination of these perspectives is necessary.

The common sense and fair recommendations we advocate to modernize the process will: 1) help improve the timeliness and reduce the cost of renewing a license; 2) ensure all involved agencies use the same underlying data, studies and schedule in exercising their authorities; 3) provide clarity with respect to the extent of agencies' authorities; and 4) provide a process for a single effective challenge opportunity before the Federal Energy Regulatory Commission (FERC) to resolve disputes regarding proposed license conditions.

In addition, none of the above-mentioned recommendations would repeal or undercut the authority of any federal or State resource agency or the Native American community

to administer the Endangered Species Act, Clean Water Act, or other federal environmental laws pertaining to hydropower. And since these measures will encourage an open and collaborative approach with stakeholders, we will achieve better outcomes by working together throughout the licensing and relicensing processes – and hopefully be in a position to effectuate necessary upgrades and improvements more quickly.

To overcome the existing licensing inefficiencies, while maximizing hydropower's potential and promoting additional transparency, Congress should focus on addressing the following four areas:

- Improving coordination between federal and State environmental reviews;
- Better defining the extent of authorities by federal agencies;
- Improving federal agency coordination and transparency; and
- Improving federal and State agency coordination and transparency.

To achieve these basic improvements, we are hopeful Congress will pass meaningful hydropower licensing process reforms based on the following six principles:

- Establishing a defined process at FERC to resolve issues arising from overlapping or conflicting authorities, or overlapping and conflicting license conditions among federal agencies, as well as between federal and State agencies.
- Addressing deficiencies in the licensing process that prohibit a licensee from challenging final conditions or prescriptions.
- Requiring the use of the same studies and data for both federal and State environmental analyses, including defining a disciplined schedule to which all agencies and stakeholders must adhere to.
- Clarifying that the conditioning authority of federal land management agencies should be only on federal or private lands within the project boundary or directly related to the project.
- Empowering FERC to be in a position not to adopt proposed license conditions that do not have a clear nexus with the project being licensed or any actual effect on the federal reservation that is being used.
- Allowing FERC to establish a schedule with respect to all federal authorizations, while considering late filed mandatory conditions and prescriptions as recommendations under Federal Power Act Section 10(a).

In addition to implementing these principles, we recommend the Natural Resources Committee – given its jurisdiction over the federal resource agencies involved in the licensing of hydropower facilities – continue its work to identify criteria that result in sensible mandatory conditions all agencies can embrace. While PG&E generally has had success in working with federal and State resource agencies and others to develop collaborative solutions, the fact remains that some can be narrowly focused on a single resource or unwilling to consider all of the impacts of their mandatory conditions,

including impacts on the economy, the environment and electric reliability. We believe that a bipartisan solution can be reached to address these matters.

PG&E believes these common sense, much-needed improvements to the hydropower licensing process can be accomplished in a responsible and balanced manner that protects and preserves our fisheries and other natural resources, and provides for continued collaboration.

At the same time, such enhancements would bring consistency, predictability and lower costs for projects that support the safe and reliable delivery of hydroelectric power – benefiting utility customers, the environment, American jobs, and energy infrastructure. For example, a license renewal typically results in enhanced habitat and species protections, more access to recreational areas and updated water resource measures. These are improvements that all stakeholders want, but unfortunately they often take too long to put in place because of the length of the relicensing process. A more timely process will continue to provide for these benefits, while also ensuring that they are achieved sooner and at lower cost to energy consumers.

We know that Congress has an important opportunity to modernize the hydropower licensing processes in 2016 and beyond. PG&E looks forward to continuing our efforts – and working with Congress to further advance these long over-due measures – as we strive to operate the safest, cleanest and most reliable hydroelectric system in the nation.

Thank you for the opportunity to testify.