



## INTRODUCTION

On July 1, 2019, Navajo Energy Storage Station, LLC (“NES”) filed an application for a preliminary permit for the Navajo Energy Storage Station Pumped Storage Project (“the Project”) (Project Number 15001-000). On January 14, 2020, the Federal Energy Regulatory Commission (“the Commission”) filed the Notice of Successive Preliminary Permit Application Accepted for Filing and Soliciting Comments, Motions to Intervene, and Competing Applications. On January 15, 2020, the Commission issued an Errata correcting the Notice title. Pursuant to the Notice and Rule 214 of the Commission’s Rules of Practice and Procedure, 18 C.F.R. § 385.214, Save the Colorado and WildEarth Guardians hereby timely move to intervene in the preliminary permit proceeding and oppose the requested license.

## INTERESTS OF INTERVENORS

### I. Save the Colorado’s Interest

Save the Colorado is a grassroots, non-profit 501(c)(3) environmental organization dedicated to the protection and restoration of the Colorado River and its tributaries. Save the Colorado has approximately 20,000 members, supporters, and followers throughout the Colorado River Basin, including within Arizona. Save the Colorado’s mission is to promote the conservation of the Colorado River and its tributaries through science, public education, advocacy, and litigation, by opposing new dams and diversions. Save the Colorado has actively opposed every proposed new dam, diversion, and pipeline in the Colorado River basin—including in Colorado, Wyoming, and Utah—through litigation and pre-permitting processes. Recently, Save the Colorado opposed the Bureau of Reclamation’s management plan for Glen Canyon Dam, which regulates the Colorado River’s flows through the Grand Canyon. *See, e.g.,* Compl., ECF No. 1, *Save the Colo. v. U.S. Dep’t of the Interior*, No. 3:19-cv-08285-MTL (D. Ariz. Oct. 1, 2019).

## **II. WildEarth Guardians' Interest**

WildEarth Guardians is a regional non-profit dedicated to protecting and restoring the wildlife, wild places, wild rivers, and health of the American West. Guardians has over 275,000 members and activists nationwide and maintains offices in Santa Fe, Denver, Missoula, Portland, Seattle and Tucson. For over 30 years, Guardians has worked to safeguard and restore dynamic flows in western rivers, advocated for western water policy reform, ensured protection of imperiled fish and wildlife, and fought to undam and restore healthy and sustainable aquatic and riparian ecosystems for future generations. Recently, Guardians and its allies filed federal court litigation challenging the permitting of two water development projects in the Upper Colorado River Basin including the Windy Gap Firming Project and Moffat Collection System Project. In addition, Guardians recently intervened in the preliminary permit applications for the Navajo Nation Salt Trail Canyon Pumped Storage Project (No. 14992-000) and the Navajo Nation Little Colorado River Pumped Storage Project (No. 14994-000). Guardians has devoted significant resources over the past 30 years to advocate for living rivers, combat the extinction crisis, and promote climate resilience.

## **III. Save the Colorado's and WildEarth Guardians' Intervention is in the Public Interest**

Save the Colorado's and WildEarth Guardians' intervention is in the public interest. *See* 18 C.F.R. § 385.214(b)(2)(iii). Each organization represents a cross-section of members that have unique and direct interests in the Little Colorado River, the Glen Canyon National Recreation Area, and Lake Powell that the Project will harm if it proceeds. The organizations have direct and tangible interests in protecting the Little Colorado River and Lake Powell, and in preserving the wildlife and recreation activities that rely on healthy rivers and lakes. Their members use and enjoy the areas affected by the proposed pumped storage project for aesthetic

enjoyment, spiritual renewal, and recreation, including rafting, fishing, camping, hiking, photography, wildlife viewing, and enjoyment of the outdoors. Many members rely on these waterways and the nearby lands for their recreational, scientific, educational, cultural, conservation, and economic interests.

The Project would harm these interests. Save the Colorado and WildEarth Guardians are concerned that climate change affecting the Colorado River Basin renders unviable Lake Powell and any hydroelectric project dependent on Lake Powell. Save the Colorado's and WildEarth Guardians' experiences with climate change and its effects on the Colorado River Basin position them to offer important scientific information that will help to inform the Commission in making the decision whether to permit the Project. Specifically, Save the Colorado and WildEarth Guardians are concerned that the Proposal does not consider how climate change will render an already-depleted Lake Powell a non-viable water source for a hydroelectric project. No other party can adequately represent these same interests.

In addition, many of the members of Save the Colorado and WildEarth Guardians have special knowledge of the Commission's preliminary permit proceedings, as they intervened in the preliminary permit applications for the Navajo Nation Salt Trail Canyon Pumped Storage Project (No. 14992-000) and the Navajo Nation Little Colorado River Pumped Storage Project (No. 14994-000). Save the Colorado also intervened in the Wyco Power and Water preliminary permit proceeding for the Flaming Gorge Pipeline and successfully opposed a preliminary permit for that project. *See Wyco Power & Water, Inc.*, 138 FERC ¶ 62,150 (2012) (denying preliminary permit application). These groups and their members have developed knowledge and relevant experience regarding preliminary permits and hydropower projects that will benefit the public interest in this proceeding.

Save the Colorado and WildEarth Guardians will actively participate in this preliminary permit process and in any subsequent licensing proceeding to ensure the protection of the Little Colorado River, Lake Powell and the Glen Canyon National Recreation Area. This participation will lead to more informed decision making, develop a more complete record, and be in the public interest. Accordingly, Save the Colorado and WildEarth Guardians request intervention on behalf of themselves and their members.

### **FACTUAL BACKGROUND**

The Colorado River is one of our nation's largest rivers and supplies water to residents of seven states in the American Southwest. The river begins in the Rocky Mountains in Colorado and flows 1,450 miles until reaching Mexico. Its basin covers an immense 246,000 square miles. The Colorado River is an important waterway that supports a wide range of ecologically significant species and communities, has a long cultural history, and is a critical source of water for millions of people and numerous water-dependent industries.

The Colorado River was, until the construction of the Dam, free-flowing through Glen Canyon, renowned for its massive sandstone cliffs and vistas. In 1963, the construction of the Glen Canyon Dam was completed. The Dam's reservoir, Lake Powell, is located on the northward side of the facility.

Climate change and its respective environmental impacts, such as water scarcity due to climate change-related droughts, have contributed to drastic declines in the water levels of Lake Powell in recent years. Lake Powell is now surrounded by a "bathtub ring" indicating the water body's former high-water mark. The Lake currently sits more than 80 feet below this mark. Rising global temperatures transform what would have been "modest droughts" historically "into

severe ones.” Recent research indicates that the precipitation levels needed to offset rising temperatures in the Colorado River Basin are highly unlikely to occur.<sup>1</sup>

## LEGAL BACKGROUND

The purpose of the Federal Power Act (FPA) is to promote balanced and responsible hydropower development. The FPA authorizes the Commission to license private hydropower projects, but requires the Commission to weigh the power generation and developmental goals of a project against impacts to fish, wildlife, recreation, and other resources before issuing a license. 16 U.S.C. § 797(e); *Udall v. Fed. Power Comm’n*, 387 U.S. 428, 450 (1967); *Am. Rivers v. Fed. Energy Regulatory Comm’n*, 201 F.3d 1186, 1191 n.6 (9th Cir. 2000); *Symbiotics, LLC*, 99 FERC ¶ 61,100, at 61,417 (2002).

The FPA also authorizes the Commission to issue preliminary permits for potential hydropower projects. 16 U.S.C. § 798; 18 C.F.R. § 4.80. According to the Commission, the “purpose of a preliminary permit is to encourage hydroelectric development” by providing a permit holder a first-in-time right to file a license application to construct and operate a hydropower project while the permit holder determines the feasibility of the project and prepares the license application. *Mt. Hope Waterpower Project LLP*, 116 FERC ¶ 61,232, at ¶ 4 (2006).

The Commission has “broad discretion” to determine whether to issue a preliminary permit. *Symbiotics, LLC*, 100 FERC ¶ 61,010, at 61,018 (2002); *see also Preliminary Permits for Wave, Current, and Instream New Technology Hydropower Projects* (Docket No. RM07-08-000), at 3 n.9 (Feb. 15, 2007) (“[N]othing in the FPA requires the Commission to issue a preliminary permit; whether to do so is a matter solely within the Commission’s discretion.”). Although the Commission’s general policy is to defer analysis of a project’s impacts until the

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<sup>1</sup> Bradley Udall & Jonathan Overpeck, *The twenty-first century Colorado River hot drought and implications for the future*, 53 WATER RESOURCES RES. 2402, 2408 (2017). (Attachment 1).

later licensing proceedings, the Commission has discretion to deny a preliminary permit application at any time, so long as “it articulates a rational basis for not issuing the permit.” *Wyco Power & Water, Inc.*, 139 FERC ¶ 61,124, at 61,852 (2012); *see also Mt. Hope Waterpower*, 116 FERC ¶ 61,232, at ¶ 4 (“We may, however, make exceptions to established policies if we articulate a rational basis for doing so, and we have recently done so with regard to issuance of preliminary permits in other proceedings.”). The Commission has exercised this discretion on a number of occasions.

The Commission has routinely dismissed preliminary permit applications when there is a legal bar that would prevent the Commission from granting a license for the project. *See, e.g., Energie Grp.*, 511 F.3d at 164; *Seneca Nation of Indians*, 134 FERC ¶ 62,148, at 64,246 (2011); *Appalachian Rivers Res. Enhancement, LLC*, 113 FERC ¶ 62,100, at 64,288. Similarly, the Commission will deny a permit where the “information already available indicates no license will result.” *Energie Grp.*, 511 F.3d at 164. For example, the Commission properly denied a preliminary permit when it found a prior environmental analysis for a project was “analogous” to a legal barrier, as the analysis indicated the project was not appropriate for the site and thus no license would likely result. *Symbiotics, L.L.C. v. Fed. Energy Regulatory Comm’n*, 110 F. App’x 76, 81 (10th Cir. 2004).

The Commission will also deny a preliminary permit if the applicant is unlikely to receive the necessary authorizations to develop the project, as “there would be no purpose in issuing a preliminary permit” in those circumstances. *Freedomworks, LLC*, 167 FERC ¶ 62,026 at ¶ 11 (2019); *see also Advanced Hydropower, Inc.*, 160 FERC ¶ 62,213, at ¶ 6 (2017) (denying permit where a federal agency had already stated that the proposed project was incompatible with federal purposes); *Symphony Hydro LLC*, 150 FERC ¶ 62,092, at 64,165 (2015) (same);

*Owyhee Hydro, LLC*, 154 FERC ¶ 61,210, at ¶¶ 22–25 (2016) (affirming denial of permit where the relevant agency stated the applicant’s proposed use was unacceptable and would not be permitted).

Finally, the Commission has denied preliminary permits where it found that the proposed project—or further study of the proposed project—would be contrary to the public interest. *See, e.g., Stillaquamish River Hydro*, 40 FERC ¶ 62,207, at 63,356 (1987) (proposed project not in the public interest because it would interfere with military communications and threaten national security); *Mt. Hope Waterpower*, 116 FERC ¶ 61,232, at ¶¶ 5, 12, 13, 15–17 (public interest served by denying preliminary permit to allow competition).

#### **ARGUMENT AND STATEMENT OF POSITION**

On July 1, 2019, NES filed the application for the preliminary permit, proposing to analyze the feasibility of building the Project at Lake Powell in San Juan County, Arizona. The permit would give NES priority in filing a licensing application, but does not give the permit holder any land rights. Specifically, the permit holder may not engage in land-distribution or otherwise enter land or water owned by others without the owner’s permission.

The proposed Project would use the Lake Powell Reservoir, created by the Glen Canyon Dam, and would consist of: (1) a 15,150-foot-long, 131-foot-high rockfill concrete dam with a storage capacity of 18,600 acre feet; (2) an approximately 6,550-foot-long water conveyance structure between the reservoir and Lake Powell, including one 35-foot diameter tunnel, eight 11-foot diameter penstocks, eight 15-foot diameter draft tubes, and two 31-foot diameter tailrace tunnels; (3) a powerhouse containing eight turbine generating units with a combined capacity of 2,210 megawatts; (4) an 18-mile long, 500 kilovolt transmission line connecting to the existing

230 kilovolt power lines; and (5) appurtenant facilities. The Project's estimated annual power generation is 3,365 gigawatt hours.

The Project Application fails to provide meaningful information and Project feasibility in light of the impacts that climate change and its concomitant drought conditions will have on flow, water levels, and water availability of the Colorado and Little Colorado Rivers, and Lake Powell. Therefore, the Project Application is incomplete and inaccurate and should be denied.

First, the Application fails to acknowledge that the Colorado River's average annual flow has decreased within the past two decades by approximately 20% compared to 20th century flows, half of which is due to climate change since 2000. This decrease equals 1.5 billion tons of unavailable water in the River.<sup>2</sup> Thus, the Project may not be feasible in light of already-reduced river flows.

Second, the Application fails to acknowledge how close Lake Powell is to extinction, potentially rendering infeasible any reliance on being able to withdraw water from Lake Powell. The General Manager of the Colorado River District recently proposed an increase of electric rates across the Southwest U.S.<sup>3</sup> This increase would enable the District to lease 500,000-acre feet of water from Colorado farmers to ensure that dwindling Lake Powell has sufficient water to create hydropower and to meet its discharge requirements. The District's concerns about Lake Powell stem from reduced water levels caused by climate change. This ill-conceived plan would only enable Glen Canyon Dam to release the required discharge for water for 22 days. Any

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<sup>2</sup> P.C.D. Milly & K.A. Dunne, *Colorado River flow dwindles as warming-driven loss of reflective snow energizes evaporation*, SCIENCE MAGAZINE (2020). (Attachment 2).

<sup>3</sup> Heather Sackett, *Who should pay for water conservation in the West? Water managers wade into discussion*, Aspen Journalism (2019), <https://www.aspenjournalism.org/2019/12/30/who-should-pay-for-water-conservation-in-the-west-water-managers-wade-into-discussion/>. (Attachment 3).

additional hydropower project on Lake Powell, such as the Project at issue in this proceeding, would thus be inefficient and against the public interest given Lake Powell's already low levels.

Third, the Application fails to acknowledge recent research indicating that the water temperature in the Colorado River is rising because of climate change. This warming temperature trend will reduce the quality of water in and flowing from Lake Powell because warmer temperatures may increase the likelihood of algal blooms.<sup>4</sup> The Application does not discuss the impact of water temperature on flows and potential impacts to Project feasibility as a result.

Fourth, the Application fails to acknowledge that climate change models predict that drought intensity and duration will increase along the Colorado River Basin, making the effects of climate change greater than originally assumed.<sup>5</sup> Droughts intensified by climate change could completely drain existing water storage<sup>6</sup> and dramatically reduce Colorado River flow into Lake Powell because of evaporation and evapotranspiration.<sup>7</sup> Furthermore, water temperature in the Colorado River is rising because of climate change.<sup>8</sup> The amount of rain water required to offset rising temperatures is unlikely to occur.<sup>9</sup> Thus, any hydroelectric project along the Colorado River may become infeasible during the life of the project.

Finally, the Application fails to acknowledge that U.S. Bureau of Reclamation projections cite the possibility that Lake Powell may become so low because of climate change that Glen Canyon Dam will be unable to produce hydropower. Furthermore, the Bureau found

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<sup>4</sup> Udall & Overpeck, *supra* at 2404. See also Mu Xiao et al, *On the Causes of Declining Colorado River Streamflows*, 54 WATER RESOURCES RES. 6739 (2018). (Attachment 4)

<sup>5</sup> Udall & Overpeck, *supra* at 2404.

<sup>6</sup> George Rhee & Jimmy Salazar, *How Long Does a 15-Year Drought Last? On the Correlation of Rare Events*, 32 J. OF CLIMATE 1345 (2018). (Attachment 5)

<sup>7</sup> Bureau of Reclamation, *Colorado River Basin Water Supply and Demand Study* (2012).

<sup>8</sup> Udall & Overpeck, *supra* at 2408.

<sup>9</sup> Bradley & Overpeck, *supra* at 2413.

that the imbalances between water supply and demand along the Colorado River Basin will be 3.2 million-acre feet by 2060.<sup>10</sup> These possibilities raise questions about the feasibility of any hydroelectric project at Lake Powell given the increasing demands on Colorado River water and dwindling supply.

The Project is ill-conceived in light of climate change's effects on the Colorado River and Lake Powell. Lake Powell is not a reliable water source under current environmental conditions, barely surviving the detrimental effects of climate change and incapable of recovering. Increasing water temperature, the risk of increasingly intense and long droughts, and decreasing water levels with increasing demand render Lake Powell an infeasible location for any additional hydropower projects. For these reasons, Save the Colorado and WildEarth Guardians urge the Commission to deny the requested preliminary permit for the Navajo Energy Project.

### **SERVICE**

Save the Colorado and WildEarth Guardians request that the Commission include the following representatives to the official service list for this proceeding, along with WildEarth Guardian' undersigned counsel:

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<sup>10</sup> Bureau of Reclamation, *Supra*, Colorado River Basin Water Supply and Demand Study. (Attachment 6).

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## CONCLUSION

WHEREFORE, Save the Colorado and WildEarth Guardians request the Commission grant its motion to intervene in this proceeding (P-15001-0000).

Dated: March 16, 2020.

Respectfully submitted,



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**CERTIFICATE OF SERVICE**

I hereby certify that in accordance with 18 C.F.R. § 385.2010, on March 16, 2020, I served the foregoing document upon each person designated on the official service list compiled by the Secretary of the Federal Energy Regulatory Commission for this proceeding.

A handwritten signature in black ink, reading "Samantha Ruscavage-Barz". The signature is written in a cursive style with a long horizontal flourish at the end.

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Samantha Ruscavage-Barz