

**STATE OF CALIFORNIA**  
**Capital Outlay Budget Change Proposal (COBCP) - Cover Sheet**  
 DF-151 (REV 07/20)

<b>Fiscal Year</b> 2022-23	<b>Business Unit</b> 3790	<b>Department</b> Department of Parks and Recreation	<b>Priority No.</b>
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<b>Budget Request Name</b> 3790-031-COBCP-2022-GB	<b>Capital Outlay Program ID</b> 2860	<b>Capital Outlay Project ID</b> 0003197
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**Project Title**  
 Picacho SRA: Park Power System Upgrade

**Project Status and Type**  
 Status:  New  Continuing      Type:  Major  Minor

**Project Category (Select one)**

<input type="checkbox"/> CRI <i>(Critical Infrastructure)</i>	<input type="checkbox"/> WSD <i>(Workload Space Deficiencies)</i>	<input type="checkbox"/> ECP <i>(Enrollment Caseload Population)</i>	<input type="checkbox"/> SM <i>(Seismic)</i>
<input type="checkbox"/> FLS <i>(Fire Life Safety)</i>	<input checked="" type="checkbox"/> FM <i>(Facility Modernization)</i>	<input type="checkbox"/> PAR <i>(Public Access Recreation)</i>	<input type="checkbox"/> RC <i>(Resource Conservation)</i>

<b>Total Request (in thousands)</b> \$ 262	<b>Phase(s) to be Funded</b> Working drawings	<b>Total Project Cost (in thousands)</b> \$ 2,886
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**Budget Request Summary**

The Department of Parks and Recreation (Department) requests \$262,000 from the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access Fund (Proposition 68) for the working drawings phase of the Picacho State Recreation Area (SRA): Park Power System Upgrade project in Imperial County. This project will evaluate the park's current and future electrical power needs, including redundant backup, and determine sustainable options for providing reliable and cost-effective electrical power at this remote location. Options to be considered include, but are not limited to, photovoltaic (PV) panels on existing buildings and/or new shade structures, replacing existing diesel generators, or other mixes of conventional and renewable electrical sources.

<b>Requires Legislation</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>Code Section(s) to be Added/Amended/Repealed</b> N/A	<b>CCCI</b> 7712
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<b>Requires Provisional Language</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<b>Budget Package Status</b> <input type="checkbox"/> Needed <input checked="" type="checkbox"/> Not Needed <input type="checkbox"/> Existing
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**Impact on Support Budget**

One-Time Costs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Swing Space Needed <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Future Savings <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Generate Surplus Property <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Future Costs <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

**If proposal affects another department, does other department concur with proposal?**  Yes  No  
*Attach comments of affected department, signed and dated by the department director or designee.*

<b>Prepared By</b>	<b>Date</b>	<b>Reviewed By</b>	<b>Date</b>
<b>Department Director</b>	<b>Date</b>	<b>Agency Secretary</b>	<b>Date</b>

Department of Finance Use Only	
<b>Principal Program Budget Analyst</b> Michael McGinness	<b>Date submitted to the Legislature</b> 1/10/2022

**A. COBCP Abstract:**

Picacho SRA: Park Power System Upgrade – \$262,000 for Working Drawings. The project includes upgrading the park's power generation and distribution system, based on the studies conducted to determine the peak demand for current and future anticipated needs. Total project costs are estimated at \$2,886,000, including Study (\$200,000), Preliminary Plans (\$387,000), Working Drawings (\$262,000), and Construction (\$2,037,000). The construction amount includes \$1,531,000 for the construction contract, \$107,000 for contingency, \$155,000 for architectural and engineering services, \$145,000 for agency retained items, and \$99,000 for other project costs. The current project schedule estimates Preliminary Plans will begin in July 2021 and will be completed by June 2022. The Working Drawings are estimated to begin in August 2022 and will be approved by June 2023. Construction is scheduled to begin in September 2023 and will be completed by June 2024.

**B. Purpose of the Project:**

Picacho SRA is located along the California-Arizona border approximately 26 miles north of Yuma, Arizona in Imperial County. With eight miles of the lower Colorado River on the park's eastern boundary, Picacho SRA offers year-round opportunities for boaters, hikers, anglers and campers, as well as wildlife such as wild burros, bighorn sheep, and migratory waterfowl travelling along the Pacific Flyway.

Picacho SRA's remote location and extreme climate, which can range from a low of 20 degrees in the winter to 120 degrees in the summer, places heavy demand on the park's power generation and distribution equipment. Currently, all electrical power in the park comes from two diesel-powered generators. However, given the age of the generators, location in a harsh desert environment and the power needs of the park, the current system is insufficient, as evidenced by regular reports of electrical spikes in the park office, which is extremely hard on sensitive office electronics. In addition, the diesel generators are costly to operate and emit large amounts of greenhouse gases.

The purpose of this project is to upgrade the park's power generation and distribution system, based on the studies conducted to determine the peak demand for current and future anticipated needs. Work includes the design, permitting, and construction of a roof-mounted PV array above parking shade structures, supplying energy to a battery bank, and gas-powered back-up generators in the event the array is not able to generate power. Existing facilities will be used to the extent feasible, however replacement of some existing electrical distribution, equipment, and fixtures is anticipated.

The appropriation for this project will be funded from Public Resources Code 80070.

**C. Relationship to the Strategic Plan:**

The mission of the Department is to provide for the health, inspiration, and education of the people of California by helping to preserve the state's extraordinary biological diversity, protecting its most valued natural and cultural resources and creating opportunities for high-quality outdoor recreation.

This project furthers the California State Parks Strategic Action Plan 2013-14 of the Department's mission by contributing to the following goals:

- Protect and preserve resources and facilities in the existing State Park System  
This project will upgrade and replace critical infrastructure necessary to preserve the park's operations and ability to serve the public.

**D. Alternatives:**

The following alternative solutions were considered to address the identified deficiencies:

Alternative 1: Generators, PV, and batteries (this project). This project includes the introduction of a centralized battery bank. Both the PV system and the generators would supply power to the battery

bank and the park facilities would draw power from the batteries as needed. The batteries provide a safety buffer in case the PV system and generators are non-operational. The PV system has a lifespan of approximately 20 years, the batteries have a lifespan of ten years, and the generators could last 9-10 years with limited use. While the batteries add an initial capital cost, the overall cost of the system as measured over a 20-year lifespan is less when the reduced need to depend on fossil fuels is factored in.

Alternative 2: Generators plus PV, no batteries. This alternative would replace the two generators as described in Alternative 1, providing direct feed PV energy but with no battery bank to store energy for later use. As long as the PV system is generating power, it can completely power the facilities. In the event the PV system is down due to lack of sun or maintenance, the generators will provide power. This alternative is a compromise between cost and efficiency. The PV system has a lifespan of approximately 20 years and the generators could last 6 to 7 years with moderate use. While the Department saves costs on not having to buy or replace batteries, there would still be some degree of dependence on fossil fuels.

Alternative 3: Generators only. The existing 60-kilowatt generators serving the park have been recorded at 20,000 hours of service each, nearing the end of their life cycle. This alternative would replace the generators with new ones of comparable size. Newer generators with greater efficiency would provide approximately 80,000 hours of lifespan each and would most likely need to be overhauled after 4 to 5 years of continuous use. While this is a cheaper alternative, the Department would continue to depend on fossil fuel for all electrical needs.

Alternative 4: No Project. This alternative would leave the current system as is. The park would continue to rely on aging and inefficient generators, fossil fuels, and outdated and non-complaint distribution system while also experiencing high operational costs.

#### **E. Recommended Solution:**

##### *1. Which alternative and why?*

The recommended solution is Alternative 1: Generators, PV, and batteries (this project). This project includes the introduction of a centralized battery bank. Both the PV system and the generators would supply power to the battery bank and the park facilities would draw power from the batteries as needed. The batteries provide a safety buffer in case the PV system and generators are non-operational. The PV system has a lifespan of approximately 20 years, the batteries have a lifespan of 10 years, and the generators could last 9 to 10 years with limited use. While the batteries add an initial capital cost, the overall cost of the system as measured over a 20-year lifespan is less when the reduced need to depend on fossil fuels is factored in.

##### *2. Detailed scope description.*

The project includes the design, permitting, and construction of a roof-mounted PV array above parking shade structures, supplying energy to a battery bank, and gas-powered back-up generators in the event the array is not able to generate power. Existing facilities will be used to the extent feasible, however replacement of some existing electrical distribution, equipment, and fixtures is anticipated.

##### *3. Basis for cost information.*

The Department estimated public works contract costs based on the detailed project scope description, schematics, and outline specifications. The estimate is based on RSMean cost data. Costs are then adjusted for general conditions of the contract, the contractor's overhead, profit, and bonds/insurance. The estimate is then adjusted to the midpoint of the anticipated construction period at a rate of 0.42 percent per month to adjust for the effects of inflation.

Agency retained costs are based on the staff effort and associated operating expense required to accomplish the identified tasks. Agency retained costs are calculated based on approved salary rates as of January 2021.

4. Factors/benefits for recommended solution other than the least expensive alternative.

The least expensive alternative would be to do no project. However, under this scenario, the park would continue to experience high operational costs, inefficient power, and high noise. Further, the “do nothing” alternative does not allow the department to meet its mission to create opportunities for high-quality outdoor recreation.

5. Complete description of impact on support budget.

No support budget impact anticipated. Switching the park’s primary energy source from diesel generators to solar or some other mix of electrical generation may achieve ongoing cost savings as fuel and maintenance costs will reflect the reduced usage of the generators and or more efficient generators.

6. Identify and explain any project risks.

The switch from exclusively using generators to solar or a mixture of alternatives as the primary power source for the park will result in reduced greenhouse gas emissions and reduced noise pollution, improving the overall recreational and working environments, and experience for visitors and staff. There are no known risks at present.

7. List requested interdepartmental coordination and/or special project approval (including mandatory reviews and approvals, e.g. technology proposals).

This project will involve several permits requiring coordination with state and federal departments of Fish and Wildlife, as well as possible coordination with the Army Corps of Engineers, Regional Water Quality Control Board, or other agencies yet to be determined. In addition, the Department’s natural and cultural resources staff will be required to identify potential constraints and mitigations during all phases of the project.

8. Attendance history.

Recent annual attendance is as follows:

Year	Day-Use	Camping	Total
2014/15	51,436	12,169	63,605
2015/16	39,400	12,788	52,188
2016/17	8,904	11,860	20,764
2017/18	15,795	9,658	25,453
2018/19	5,185	8,179	13,364

9. Environmental indicators.

Chapter 664, Statutes of 2003 expresses legislative intent that departments within the Resources Agency use environmental indicators, where applicable, in the development of budget proposals. The Environmental Protection Agency and the Resources Agency have jointly developed an initial set of Environmental Protection Indicators for California. This project could result in improvements in the following indicators:

- Transboundary Indicators – Climate Change – Carbon dioxide emissions (Type One): This project will provide renewable energy source for the park.
- Background Indicators – Energy Consumption – Total energy consumption versus Grid Supplied Power and Energy consumption in California by sector (transportation, industrial, residential, and commercial): This project will reduce the park’s energy consumption.

**F. Consistency with Government Code Section 65041.1:**

Does the recommended solution (project) promote infill development by rehabilitating existing infrastructure and how? Explain.

Yes. This project will upgrade the existing electrical power and distribution system to meet current and future demand.

Does the project improve the protection of environmental and agricultural resources by protecting and preserving the state's most valuable natural resources? Explain.

Yes. This project will provide the park with a sustainable and renewable source of electrical power, which reduces greenhouse gas emissions and noise pollution.

Does the project encourage efficient development patterns by ensuring that infrastructure associated with development, other than infill, support efficient use of land and is appropriately planned for growth? Explain.

Yes. The project will upgrade and replace existing critical infrastructure and support planned use and growth for this park unit.