



June 9, 2020

# DEPARTMENT OF PUBLIC WORKS

Quality, Excellence, Innovation

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**SUBJECT:** Marin Emergency Back-up Power Project at Key County Facilities – Phase 1 Report and Phase 2 Recommendations

Dear Board Members:

**RECOMMENDATION:** 1) Accept Report of Phase 1 Emergency Back-up power implementation 2) Authorize the implementation of Phase 2 Emergency Back-up power installations/purchases 3) Authorize the Department of Finance to increase appropriations per the Fiscal Impact Section.

**SUMMARY:** On January 14, 2020 your Board approved the Marin Emergency Back-up Power Project in the aftermath of PG&E's Public Safety Power Shut-off (PSPS) events throughout Marin County and the state. The primary goal of this project is the evaluation of existing electrical power systems at several key County facilities and the design development for the capability of emergency back-up power in the event of loss of utility power due to unforeseen failures or planned shutoffs such as PSPS. This work also aligned with the Board's "Emergency Preparedness" Working Group, focused on making County facilities and programs more resilient in the face of natural or man-made disasters.

Between January and early May, the Public Works staff and the County's consultant Kitchell, Inc. evaluated the existing electrical systems at various key County facilities, including developing alternatives for back-up power. The facility electrical assessments are complete or nearly complete as follows:

Completed Assessments

- Marin Center Campus
- Health and Human Services (H&HS) Essential Facilities
  - Kerner Campus (3240 to 3270)

Assessments Still in Progress

- 120 North Redwood - H&HS Essential Facility
- North San Pedro Campus – H&HS Essential Facility
- Civic Center Campus

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The January 14<sup>th</sup> Board-authorized project included funding for the physical installation of back-up power capabilities at only one of the key County sites: Marin Center. The assessments included evaluation of alternative back-up power sources such as solar-battery systems in addition to traditional generator back-up power. In addition, the County teamed with Marin Clean Energy (MCE) to perform a deeper evaluation of new Battery Energy Storage System (BESS) technologies at the Marin Center's Exhibit Hall.

Although the installation work at the Marin Center was originally planned for traditional procurement methods, the Exhibit Hall was designated as an Alternate Care Site (ACS) in April under our current COVID-19 pandemic emergency response. This necessitated the use of emergency procurement procedures through the County's Emergency Operation Center (EOC), and on May 1 a transfer switch and related emergency power improvements were installed for use with a portable generator at the Exhibit Hall. The ACS now can rely on emergency power if needed.

MCE is hoping to develop and install a BESS at the Exhibit Hall prior to the 2021 fire season. MCE has reported a potential grant from the state's Self-Generation Incentive Program (SGIP) to install a BESS as part of the Exhibit Hall microgrid system, which includes existing rooftop photovoltaics and the new generator power. The County's potential share for a BESS installation is approximately \$81,500 of the total project cost. Staff will return to your Board at a later date for this project.

For Phase 1 we are continuing with the physical installation of a transfer switch and related emergency power improvements for the Veterans Memorial Administration (VMA) Building by July 2020. We are estimating a remaining cost of \$100,000 to complete VMA backup power capability. This does not include the purchase or installation of a generator dedicated for the VMA, but the site would be generator-ready. In the event the VMA was required as a Fire Base Camp during a major wildfire in Marin County, a leased generator could quickly be connected with the newly installed transfer switch and infrastructure enhancements for emergency power..

Kitchell, Inc. has completed electrical assessments and cost estimates resulting in the following implementation recommendations that we are designating as Phase 2 of the Project:

At an estimated cost of \$132,000 we recommend the purchase one 275 Kw portable generator and related emergency power equipment for immediate use at the Exhibit Hall. The associated power equipment will allow for adjustment of generator output related to actual building electrical loads. When the generator is not in use at the Exhibit Hall it can be deployed for use as needed at other key facilities along with the power equipment. This cost, as well as the \$35,000 cost in infrastructure work, are eligible for use as part of the County's anticipated CARES Act federal stimulus funding.

In order to achieve emergency backup power at H&HS Essential Facilities at the Kerner Campus, we recommend the installation of one 500 Kw permanent generator, transfer switch, and related emergency backup power improvements and equipment for a total cost of \$1,120,000. Although photovoltaics exist battery storage would prove difficult to install due to lack of space for physical placement of battery storage.

For Phase 1 Electrical Assessments in progress we are waiting for final budgetary cost for N. San Pedro and 120 N. Redwood campuses. Civic Center electrical assessment is preliminary with not enough definitive information to report currently. We anticipate that the needed electrical system improvements and associated back-up power supply will be significant and cost several million dollars.

A traditional portable generator and installation of a transfer switch and related emergency backup power improvements and equipment will be recommended for H&HS Essential Facilities at N. San Pedro and 120 N. Redwood Campus. Unfortunately, for N. San Pedro Campus photovoltaics and related battery storage would prove very difficult for several reasons including narrow drive paths and parking bays, shading from adjacent multi-story buildings and vegetation, and insufficient roof area. Although photovoltaics exists at the 120 N. Redwood site, battery storage may prove difficult due to lack of space for physical placement of battery storage, however this option continues to be explored. We also expect to engage with MCE at this site as well.

**FISCAL IMPACT:**

There will be no increase to General Fund net county costs as the project will be funded through previously established General Fund set asides. On March 10, 2020, your Board allocated \$2,000,000 from FY 2018-19 Year End available fund balance for future emergency preparation initiatives such as this. Approval will increase Department of Public Works Miscellaneous Projects fund (1010) expenditure appropriations of \$1,352,000 in the Marin Emergency Back-Up Power project (41MEBUP) for construction and installation expenses, fully offset through a corresponding decrease in General Fund prior year available fund balance (900862).

The total estimated cost for completion of Phase 1 and the initiation of Phase 2 installation and related equipment purchases as described above is approximately \$1,352,000. The County anticipates a \$167,000 reimbursement through the state under the CARES Act stimulus funds distribution to the County for the work associated with the Exhibit Hall ACS, netting to an approximate use of \$1,185,000 of the \$2,000,000 set aside.

The department will return to your Board to recommend additional funding request for the implementation of electrical improvements and emergency backup power solutions to the Civic Center Campus, and HHS essential facilities at 120 N. Redwood and N. San Pedro Campuses once those costs are known.

<b>REVIEWED BY:</b>	<input checked="" type="checkbox"/>	County Administrator	<input type="checkbox"/>	N/A
	<input type="checkbox"/>	Department of Finance	<input checked="" type="checkbox"/>	N/A
	<input checked="" type="checkbox"/>	County Counsel	<input type="checkbox"/>	N/A
	<input type="checkbox"/>	Human Resources	<input checked="" type="checkbox"/>	N/A

Respectfully submitted,

*Dorren Hill*

*DPH*

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Cc: Qiana Davis, Accounting, Kellie Bivin, Accounting

*QD*