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DATE: February 27, 2023

TO: Honorable Mayor and Members of the City Council through City Manager

FROM: Patrick Carter, Assistant to the City Manager

SUBJECT: Resolution Supporting Sonoma Clean Power and Cyrq Energy's U.S. Department of Energy Grant Application for a Geothermal Energy Storage Project in the Geysers Geothermal Opportunity Zone and Finding This Action is Exempt Under the "common sense" Exception in CEQA Guidelines Section 15061(b)(3)

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### **RECOMMENDATION**

It is recommended that the City Council adopt the attached Resolution supporting Sonoma Clean Power and Cyrq Energy's U.S. Department of Energy grant application for a Geothermal Energy Storage Project in the Geysers Geothermal Opportunity Zone.

### **BACKGROUND**

On January 11, 2021, the City Council unanimously adopted Resolution 2021-007 N.C.S. approving the Petaluma Climate Emergency Framework. The Climate Emergency Framework consists of four sections 1) Equity and Climate Justice, 2) Mitigation and Sequestration, 3) Adaptation and Social Resilience, and 4) Community Engagement. The goals listed in the Framework were intended to guide future planning efforts and development of City policy, including the upcoming General Plan update, climate action plans, and actions on future City projects. The Mitigation section of the Framework (page 16) contains the goal to "Eliminate emissions from the building sector through... use of renewably generated clean electricity."

On February 22, 2021, the City Council unanimously adopted Resolution 2021-022 N.C.S. to subscribe to Sonoma Clean Power's (SCP) EverGreen program to 100% renewable energy 24 hours/day 365 days per year to City facilities. Since July 2021, all City accounts have been subscribed to the EverGreen program.

SCP solicited proposals for its Geothermal Opportunity Zone (GeoZone) program to expand local geothermal capacity through new technology and development. Cyrq Energy (Cyrq) was selected as a finalist in that solicitation for its approach to store geothermal heat for use while other renewable energy sources are unable to fulfill generation needs. Under the Cyrq proposal, steam is superheated when renewable energy is abundant and low cost and turned into renewable

electricity when renewables do not produce. Often gas peaker plants, which tend to be less cost effective and much dirtier from greenhouse gas emission standpoint, are used in these circumstances.

## **DISCUSSION**

In an effort to reduce ratepayer costs for Cyrq's clean energy storage project, SCP has requested member agencies provide letters of support for the US Department of Energy's "Non-Lithium-Based Energy Storage Systems" grant. Though initially a pilot project on the scale of 5 – 10 MW of generation capacity, if successful, SCP and Cyrq estimate there may be as much as 750 MW of additional future capacity in the GeoZone. The pilot project may provide up to 20 hours of energy storage.

According to SCP staff "SCP expects substantial growth for both EverGreen and CleanStart as customers electrify their homes and vehicles. In a long-term forecast we completed last year, we see as much as 40% growth in load by 2040. This will require new resources like the proposed demonstration project and deployment of its technology at-scale at the Geysers." SCP staff further believes that this technology will provide more flexibility to provide clean baseload and dispatchable power in the winter and during times of load fluctuation at a larger scale than solar and lithium-ion energy storage, the function currently served by natural gas peaker plants.

Though there are no gas peaker plants in Sonoma County, SCP does rely in part on gas peaker plants located in Central and Southern California on hot summer evenings and cloudy winter days. These facilities tend to be located in disadvantaged communities; having an alternative to those gas peaker plants may allow for retirement of those plants and reduce the pollution burden of those communities.

SCP is still developing its community engagement plan, but expects a proactive engagement program where "most of our effort will be focused locally to design a project that is compatible with community values (e.g. land and water conservation) and creates economic opportunity for our local underserved communities while alleviating the pollution burden from other regions of the state."

## **PUBLIC OUTREACH**

This agenda item was discussed in Council comments during the February 6, 2023 City Council meeting and placed on the agenda in compliance with all public meeting requirements.

## **COUNCIL GOAL ALIGNMENT**

As mentioned in the Background section, adoption of the Resolution approving the City of Petaluma's subscription to SCP's EverGreen program is consistent with the Mitigation section goal in the Climate Emergency Framework to "Eliminate emissions from the building sector through... use of renewably generated clean electricity."

As the EverGreen program is powered by local geothermal and photovoltaic power generation, a positive externality of increased participation will be the creation and maintenance of local, green-collar jobs. The Equity and Climate Justice section of the Climate Emergency Framework includes a goal to “Promote green-collar jobs, job training, and professional development opportunities.” If the grant is successful and SCP proceeds with the project, this project will be consistent with the above goal, as the Geysers Geothermal Plant is local, and construction of photovoltaic systems contribute to the local economy.

### **CLIMATE ACTION/SUSTAINABILITY EFFORTS**

As mentioned above elimination of emissions from the building sector through use of renewable generated clean electricity and promoting local, green-collar jobs are goals listed in the Climate Emergency Framework. Securing grant funding to successfully implement this project would be aligned with those climate action goals.

### **ENVIRONMENTAL REVIEW**

Adoption of the Resolution Supporting Sonoma Clean Power and Cyrq Energy's U.S. Department of Energy Grant Application for a Geothermal Energy Storage Project in the Geysers Geothermal Opportunity Zone is considered a discretionary action that could therefore be a “project” under the California Environmental Quality Act (CEQA). Nonetheless, adoption of this Resolution is exempt under the “common sense” exception in CEQA Guidelines Section 15061(b)(3), which establishes the general rule for projects concerning which it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment. Such activities are not subject to CEQA.

### **FINANCIAL IMPACTS**

There are no financial impacts to the City of Petaluma resulting from SCP and Cyrq Energy's grant application.

### **ALTERNATIVES**

Alternatively, the City Council could decline to approve the attached resolution, in which case, SCP would likely continue to pursue grant funding for this project without the support of the Petaluma City Council.

### **ATTACHMENTS**

1. Resolution with Exhibit A (Letter of Support)
2. Cyrq GeoZone Project Summary