

16 May 2022

Goleta City Council
130 Cremona Drive, Suite B
Goleta, California 93117
Via email: cityclerkgroup@cityofgoleta.org

Re: Support for General Plan Amendment accommodating battery storage on undeveloped land next to Ellwood gas peaker plant.

Dear Mayor Perotte & Councilmembers:

The Clean Coalition strongly supports the staff recommendation to adopt a General Plan Amendment to accommodate the battery storage that is proposed to be sited next to the Ellwood gas peaker plant, for the following reasons:

1. Battery storage projects are key to the Community Microgrid that will provide renewables-driven energy resilience to the highly transmission-vulnerable Goleta Load Pocket, which spans 70 miles of coastline surrounding the City of Goleta.¹
2. This battery storage project will accelerate the transition away from natural gas, which is neither safe nor resilient.²
3. This battery storage project will help obviate the Ellwood gas peaker plant and keep it on schedule for decommissioning. Note that all gas peakers pose major health and safety threats, and the Ellwood gas peaker is sited adjacent to this proposed battery storage project.

Battery Storage is key to Energy Resilience in the Goleta Load Pocket

The Goleta Load Pocket (GLP) spans 70 miles of coastline, from Point Conception to Lake Casitas, encompassing the cities of Goleta, Santa Barbara, and Carpinteria.



¹ “A battery storage project could have the benefit of providing better electricity grid resiliency at the northern most section of Southern California Edison’s (SCE) jurisdiction by storing clean energy and addressing constrained grid operations.” (Consideration of Initiation of a General Plan Amendment, at page 25)

² Approving this General Plan amendment is a logical next step, following the City’s laudable passage of an all-electric reach code for new constructions.

Because the GLP is a highly transmission-vulnerable, disaster-prone region, the GLP Community Microgrid is being designed to deliver an unparalleled trifecta of economic, environmental, and resilience benefits to the GLP. Important to know is that the GLP's only connection to the transmission system is routed through the heart of fire, landslide, and earthquake zones via the Goleta Substation, which is located atop Glen Annie Rd. The highly vulnerable transmission route is shown as a purple line in the maps above and below, and as can be seen in the fire risk map below, the GLP's transmission connection is routed through a treacherous fire zone.



In order to achieve indefinite renewables-driven backup power that provides 100% protection to the GLP against a complete transmission outage (known as an “N-2 event”), 200 megawatts (MW) of solar and 400 megawatt-hours (MWh) of energy storage needs to be sited within the GLP.

At 30 MW, the GenOn battery storage project alone will fulfill close to 10% of the 400 MWh of energy storage needed for the GLP Community Microgrid. Extensive details about the GLP Community Microgrid are available at this website:

<https://clean-coalition.org/community-microgrids/goleta-load-pocket/>

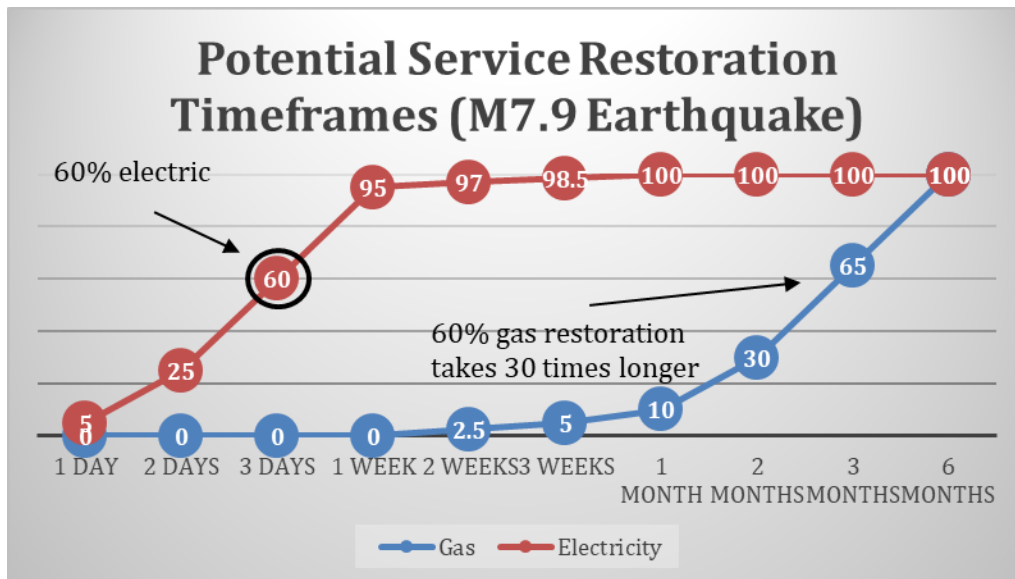
Natural gas is neither safe nor resilient

Future generations will be asking why their preceding generations allowed massive quantities of toxic chemicals to be injected into the earth, and to contaminate ungodly volumes of water, in pursuit of a poisonous and highly flammable gas that would be routed through our neighborhoods and into our homes. In recent years there has been numerous gas pipeline explosions, such as on 13 September 2018 in Merrimack Valley, Massachusetts, where there were over 80 individual fires, 30,000 people forced to evacuate, and even a death. Also, on 17 February 2017 a natural gas pipeline operated by Kinder Morgan in Refugio, Texas exploded creating a massive fire. This explosion shook homes 60 miles away. Not to be forgotten, the 2010 San Bruno gas pipeline explosion obliterated a residential block of homes killing 8 people and injuring 51 more. There are dozens of additional deadly examples just within recent years.



2010 San Bruno gas pipeline explosion

Beyond natural gas being unsafe, it is inherently not resilient. The reality is that major disasters such as earthquakes disable gas infrastructure for far longer periods than electricity infrastructure. As illuminated in the chart below from a San Francisco study, natural gas service requires 30 times longer to restore to the majority of customers than is required for electricity service. Worth repeating is the fact that gas infrastructure is also extremely vulnerable to fires, landslides, as well as terrorism.



Source: The City and County of San Francisco Lifelines Study

Battery Storage will help obviate the Ellwood Gas peaker plant

The battery storage project under consideration will be sited adjacent to the Ellwood gas peaker plant that is scheduled to be decommissioned within the coming years. California regulators, however, have allowed extensions to the decommissioning date before and could allow the Ellwood gas peaker plant to operate until there is a viable alternative for GLP energy resilience.

Although most people agree that renewable energy is the foundation of the energy system of the future, few people know that the GLP offers one of the best opportunities to realize this future within a few years via solar and storage. In addition to the California Building Standards Commission that mandated solar on all newly constructed homes starting in 2020 (and new commercial properties soon thereafter), the GLP has immense solar siting opportunities on existing commercial-scale properties. The Clean Coalition has conducted a preliminary solar siting survey indicating that getting to indefinite renewables-driven backup power for the GLP will require 200 MW of additional solar being sited within the GLP. Importantly, 200 MW represents only about four times more solar than what is already deployed within the GLP today, and attaining this 200 MW will require less than 10% of the solar siting potential on commercial-scale rooftops, parking lots, and parking structures within the GLP.

In order to fully achieve indefinite renewables-driven resilience for the GLP, 400 MWh of energy storage will also be required. The 30 MW battery storage project under consideration makes a significant contribution to meeting the GLP Community Microgrid energy storage requirement, which in turn will accelerate the Ellwood gas peaker plant decommissioning. For a comparison of a similar-sized front-of-meter energy storage project, we suggest that the Council consider the Vallecito Energy Storage Resilience (VESR) project, one of the projects procured by SCE as part of 195 MWh deployed throughout the region over the last few years. VESR was deployed in Carpinteria in January 2021.³

The Clean Coalition believes that the GenOn energy storage project is significant to the GLP Community Microgrid, which is staging to showcase the electricity system of the future while obviating gas peaker plant alternatives. Hence, the Clean Coalition encourages your full support.

Sincerely,

Ben Schwartz
Policy Manager
Clean Coalition

³ <https://clean-coalition.org/news/vallecito-energy-storage-resilience-vesr-project-online-december/>