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July 6, 2007

Bill Pfanner, Project Manager  
California Energy Commission  
1516 Ninth Street, MS-15  
Sacramento, CA 95814

**We, Mr. and Mrs. S. Vierra are against the proposed Russell City and Eastshore Energy Centers**

We have lived in Castro Valley for 20 years and am **against** the Russell City Energy Center and I am also **against** the Eastshore Energy Center. Densely populated residential neighborhoods consisting of apartments and single-family homes begin just a couple hundred yards east of these proposed plants.

With these sites being on the eastern edge of the San Francisco Bay, wind should be a key consideration. Every day the prevailing winds come across the Bay, moving west to east and often with significant velocity.

Despite the latest in pollution control technology, the exhaust pipes will be emitting airborne toxins and particulates. The winds will carry the exhaust plumes directly over densely populated residential areas across Hayward and up to the equally populated hills.

Despite the proposed sound muffling plan, noise pollution generated by the very high horsepower engines at these power plants will also travel to the east, accentuated by the same wind conditions off the bay.

These power plants will reduce the quality of life not only in Hayward, but in many communities in the East Bay. Their exhaust will increase the already rampant number of asthma cases and other pollution causing lung ailments. Economically the value of homes and business' will decrease in areas affected by these power plants and people will avoid moving into these areas as will many businesses.

The plans for the power plants are seriously flawed. For example, the proposed sites are in a zone where liquefaction is expected from an inevitable Bay Area earthquake. The sites are near the Bay, which has a fragile ecosystem.

The California Energy Commission should deny both the Russell City and the Eastshore Energy applications.

Sincerely,



Mr. and Mrs. S. Vierra  
Castro Valley, Ca 94552

# Hayward power plant plans draw opposition

1 News 1

ulators and the red utility company, etc, the debate — s — has had far less and more to do modate California's y demand while financial, environ- d impacts. een in Pittsburg or rd or San Fran- lorio, an attorney for / group TURN, and l participant in last PG&E process to 50 power plant pro- ven chosen projects. pened to be the ot the bids for these

ld be up and run- ct three years if the es later this year to head. They would o a transmission line j down, the East Bay wother line that ay to the Peninsula. ents say, they would , less efficient and an Francisco and

eaner than the noto- d other states, nei- he sort that would get s declared goal of ble power sources by olar, PG&E points on the weather is

plants would burn f natural gas, supplied ground gas line. The ts, Russell City En- sidered the more ef- uses a combined-cycle g some of the hot ex- om the gas turbine

## Main pollutants

**Nitrogen oxide (NOx):** A general term pertaining to compounds of nitric oxide (NO), nitrogen dioxide (NO2) and other oxides of nitrogen. Nitrogen oxides are typically created during combustion processes, and are major contributors to smog formation and acid deposition. NO2 is a criteria air pollutant, and may result in numerous adverse health effects.

**Carbon monoxide (CO):** A colorless, odorless gas resulting from the incomplete combustion of hydrocarbon fuels. CO interferes with the blood's ability to carry oxygen to the body's tissues and results in numerous adverse health effects. More than 80 percent of the CO emitted in urban areas is contributed by motor vehicles. CO is a criteria air pollutant.

**Organic compounds:** A large group of chemical compounds containing mainly carbon, hydrogen, nitrogen and oxygen. All living organisms are made up of organic compounds. Precursor organic compounds (POC) react with other compounds and can contribute to ozone.

**Sulfur dioxide (SO2):** A strong-smelling, colorless gas that is formed by the combustion of

## Emission rates

Hourly emissions at proposed Hayward power plants.

Measured in pounds per hour	Russell City Energy Center (600-megawatt combined-cycle turbine plant)	Eastshore Energy Center (115-megawatt internal combustion plant)
Nitrogen oxide	33	18.59
Carbon monoxide	40	29.42
Precursor organic compounds	5.72	32.32
Sulfur dioxide	3.1	3.31
Particulate matter (PM10)	23.2	30.8

The emission rates represent enforceable permit limits that are not to be exceeded. Actual emissions may be lower. The rates also reflect normal, ongoing operations at full power. Hours of startup and shutdown cause much higher emissions.

Source: Bay Area Air Quality Management District

fossil fuels. Power plants, which may use coal or oil high in sulfur content, can be major sources of SO2. SO2 and other sulfur oxides contribute to the problem of acid deposition. SO2 is a criteria air pollutant.

**PM10 (particulate matter):** A criteria air pollutant consisting of small particles with an aerodynamic diameter less than or equal

to a nominal 10 microns (about [1/7] the diameter of a single human hair). Their small size allows them to make their way to the air sacs deep within the lungs, where they may be deposited and result in adverse health effects. PM10 also causes visibility reduction.

Source: California Air Resources Board

and circulating it through a high-pressure steam turbine.

But the plant, marked by heat stacks and large cooling towers, would be larger than nearby industries situated where west Hayward's industrial

sector fades off into marshy baylands.

It would emit up to 40 pounds of carbon monoxide and 33 pounds of smog-causing nitrogen oxides during each normal hour of operation,

according to the Bay Area Air Quality

Management District.

The emissions would be even higher during startup and shutdown, a process that takes about six hours at the 600-megawatt plant.

If starting up on a cold day, Russell

City could emit up to 1,348 pounds each hour of carbon monoxide and 97 pounds of nitrogen oxides, according to the Bay Area Air Quality Management District.

In comparison, the typical takeoff/landing of a Boeing 747-400, until recently the world's largest commercial airliner, produces about 47.7 pounds of carbon monoxide and 103 pounds of nitrogen oxide, according to a 2003 study by the U.S. General Accounting Office.

Russell City, overall, would release up to 134 tons of nitrogen oxides each year, 389 tons of carbon monoxide, 28.5 tons of precursor organic compounds, 12 tons of sulfur dioxide and 86 pounds of airborne particulate matter, BAAQMD said. The plant is designed to run round the clock, so the impact of high startup emissions is reduced.

Eastshore Energy Center, which at 115 megawatts would be about a sixth the capacity, is nevertheless not far behind Russell City in its ability to pollute. Eastshore could release up to 54 tons of nitrogen oxide each year, 84 tons of carbon monoxide, 76 tons of precursor organic compounds, six tons of sulfur dioxide and 64 tons of airborne particulate matter, according to BAAQMD.

Eastshore proponents say its efficiency is not as important because it is designed specifically for "peaking" power, or power available at a moment's notice during a period of high demand. The plant could start up no more than 300 times per year and operate no more than 4,000 hours, just less than half the year.

But residents say that's a problem because the peaking plant is so close to where people live.

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