

GNSC TOPIC AREAS, BACKGROUND INFO & QUESTIONS for each candidate to address

TOPIC AREA I:

AIR QUALITY and PM2.5

Background

Air Quality has been a growing concern of Benicia residents over many years. The public's interest to know what's in our urban, ambient air in real time has become more pronounced, not only with concern about daily exposures to refinery emissions at Valero and the four other North Bay refineries, but increasingly, about health effects of breathing smoke.

The lengthening duration and strengthening intensity of fall fire season, as these last four consecutive years prove, is indeed worrisome. The West is becoming hotter, drier and more drought stricken. According to scientists these conditions are largely owing to global warming's immediate and long-range projected impacts. Annually, we can expect more intense, catastrophic fire in our region, and thus more acute and chronic public health risks associated to smoke inhalation, stress, etc.

About fires: Public health advisories are generated by County health officials and the San Francisco Bay Air Quality Management District [BAAQMD]. The City's website posts warnings and announcements, as does Mayor Patterson through her public emails and messaging board.

The current fire season, which began in August, resulted in 30 consecutive days of dangerous levels of bad, smoky air that blanketed Benicia and the whole Bay region. Acute and chronic exposures pose health risks from breathing smoky air. Compounding those risks, are more days of intense heat, let alone the threats of developing a Covid-19 infection.

From a public health perspective, the culprit in smoke is "PM2.5"—tiniest, invisible particulates of soot—chains of carbon molecules measuring 2.5 microns or less that attach to other toxic gases in the air from other burning material. As the smoke travels, the particulates pick up other toxic gases in air, including from sources such as vehicle emissions (from cars, ships, trains), refineries, natural gas energy sources, diesel generators, agricultural industries and farmlands.

I. QUESTION:

Because acute and chronic exposure to PM2.5 is a serious health risk, especially for children with developing lungs, the elderly, and people with pre-existing health conditions, what responsibility will you take as an elected official to ensure that Benicians are well informed of the multiple health risks associated to chronic exposures to toxic air pollution, including PM2.5?

TOPIC AREA II

Developing relations between the City of Benicia and the Bay Area Air Quality Management District [BAAQMD] involving community air monitoring and public health concerns; Valero's property tax assessment.

Background:

The Cooperation Agreement negotiated between Valero and the City was established to improve relations and encourage better communication, and also, to avoid the creation of an Industrial Safety Ordinance, which was not deemed necessary by Valero. A new deputy fire chief position was created and funded by Valero (\$238k) to facilitate 2-way communication between Valero and the City to address safety and emissions issues. A new deputy chief was appointed; but after 3 months he retired. At this writing, a replacement has not yet been hired.

In 2019, the BAAQMD committed to completely fund the establishment and operations of a new community-based air monitoring station in Benicia for public benefit. The BAAQMD recommended as best location, the Semple School campus. The BUSD Superintendent rejected that site and all school sites. Now BAAQMD will consider an alternative site, coordinating with the City regarding availability of City properties that would be suitable and feasible for an air monitoring station. In so doing, the City will presumably be developing closer ties to the Air District over time.

The BAAQMD board of directors meets monthly, as do other committees relevant to refinery issues of concern. Benicia is represented by Solano County Supervisor Spering, who is not a Benicia resident. To our knowledge, there is no effective communication by Mr. Spering with the City that directly addresses Benicia residents' concerns.

Valero has consistently appealed its property tax assessments. At the time of acquiring the Benicia Refinery in 2000, Valero appealed its \$734M assessment. The County reassessed Valero for \$921M, which Valero contested. In 2006, the appeal of the \$921M assessment was approved, and the assessment reverted back to \$734M, resulting in a major revenue loss to the City of Benicia.

II. QUESTIONS:

As an elected official, what actions would you take to ensure that the City/Valero Cooperation Agreement's terms are fulfilled?

What will you do to ensure the City's cooperation with the Air District to fulfill the District's commitment, in a reasonable time frame, to wholly fund, locate, establish and operate a community-based air monitoring station in Benicia for public benefit?

Would you consider appointing a council member to attend occasional BAAQMD board meetings and/or other Air District committee meetings when agendas include items pertaining to refinery operations? (such as: emissions reductions, state targets for GHG and carbon emissions reductions; status of fence-line air monitoring and reporting; community-based air monitoring evaluations?)

What will you do to ensure that Valero is properly and fairly assessed?

TOPIC AREA III.

The Air District's Reg 12-Rule 15 requiring approved "real time" fenceline monitoring systems at all Bay Area refineries, with reliable public reporting of raw data in real time; status of Valero's compliance

Background:

In April 2016, the BAAQMD's Regulation 12-Rule 15 was approved, requiring Bay Area refineries to install new, state-of-the-art fenceline/perimeter air monitoring systems for public benefit, with web access to raw data collected in real time. ["Raw data" means recorded detections that are "unfiltered, and/or unadjusted"]. The purpose of fenceline monitoring systems is to inform the public of any fugitive emissions that come from the refinery's valves and other equipment — that is, emissions that cross the fenceline and potentially expose residents in the vicinity. In effect, when gases are detected, the fenceline monitors are intended to serve as an "early warning" allowing the public as well as the refinery to respond more quickly to elevated emissions levels when detected. Among Bay Area refineries, there have been various problems with the roll-out and reliability of these systems, including at Valero. The Air District recognizes various problems encountered with Hydrogen Sulfide monitoring systems and has extended "tailored" provisions for refineries to meet deadlines; and thus, by a 2019 Amendment to the Rule, the Air District has extended the date by which a functioning H2S system must be in place and operating.

In late 2019, Valero was encouraged by the City Council to work to get their fenceline systems installed even before the District's original deadline— that is, before the District signed off on their submitted fenceline plan and quality assurance plan. To date, the Air District has not signed off on either plan. With 3 pathway systems installed and a website for public access to data created and operating, there's a hitch: after a more than a year's worth of data collection, the data's reliability is questionable for "signature" gases, including benzene. The reliability of the systems' performance is in doubt. It is implausible that there would be so few reportable detections, as the website routinely reports. Repeatedly, the website indicates that instruments are offline, or data is "pending final review." There is apparently no access to archived data.

Good science requires independent validation of data. Credibility of the systems and the data collection is at stake. Without independent review, public confusion and doubt about the reliability of the monitoring systems will persist. Right now, there is no independent, 3rd party analysis and review required by the Air District. Yet verification of data for accuracy is crucial to public trust.

Under the Amended Valero/Good Neighbor Steering Committee Settlement signed in 2019, a 4th fenceline monitoring pathway was to be installed on the northwest perimeter facing Southhampton neighborhoods. To date, this 4th pathway has not been installed.

III. QUESTIONS:

Good science requires independent validation of data. Under the City of Benicia/Valero Cooperation Agreement, will you commit to asking for independent validation of raw data collected from fenceline monitoring systems and for access to archived data for independent 3rd party review?

Also, what would you do to ensure that the Amended Settlement Agreement's requirement for installing a 4th fenceline pathway system is accomplished and that the system is reliably operating?

TOPIC AREA IV:

Valero's and the Port of Benicia's contributions to GHG and toxic emissions; status of reductions to date; the City of Benicia's Climate Action Plan

Background:

According to the City of Benicia's Climate Action Plan, [CAP, p. 63] "In 2000, the Commercial and Industrial sector was the largest contributor to the City of Benicia's total greenhouse gas emissions. The Emissions Inventory indicated that approximately 95% of the Community's total emissions are related to commerce and industrial uses; 20% of these emissions are attributable to the Valero Refinery and the Port of Benicia."

While the City must account for sources of GHG that are under the City's purview and calculate total GHG emissions and reductions to meet state targets for cities under the Global Warming Solutions Act of 2006 and subsequent legislation, the refinery as a primary source of GHG in the community is not included in the City's computation following GHG inventory protocols followed by cities.

The CAP is meant to guide reductions in emissions of GHG and lays out objectives [p.63] for achieving reductions.

- Objective IC-3: Encourage the Port of Benicia to Implement Emissions Reduction Measures.
- Objective IC-4: Encourage the Valero Refinery to Continue to Reduce Emissions.

IV. QUESTION:

The public has a right to know the current level of GHG emissions and reductions achieved by Valero and the Port of Benicia. As called for under the Climate Action Plan. what will you do to encourage further emissions reductions, including GHG, at Valero Refinery, including its port terminal operations and asphalt plant, as well as to encourage reduction of emissions resulting from Amports' shipping activity at the Port of Benicia?

TOPIC AREA V:

Perspectives on current changing operating conditions among Bay Area Refiners; the future of Valero Refinery in Benicia; State of California climate goals to achieve drastic GHG reductions by 2050 to bring about a "net zero" carbon economy; and the City of Benicia's response to a recently published research report titled, *Decommissioning California Refineries: Climate and Health Paths in an Oil State - A Communities for a Better Environment Report, July 2020*, which proposes annually phased reductions in refinery production capacity to meet state climate goals.

Background:

In the Bay Area, several refineries, including Marathon, (formerly Tosco, located on unincorporated land east of the City of Martinez) and also Phillips66, in Rodeo, have recently announced they would be switching operations to process plant-based biofuels—the switch projected to result in reductions of certain emissions, although the carbon intensity of the source of those plant-sourced fuels must be factored into the eco-cost of biofuel production. (for example: palm oil "farmed" within rainforests in Malaysia and similarly, in Brazil's Amazon rainforest, in both cases requiring eco-evaluation of the environmental destruction of millions of acres of rainforest.)

Many residents over the years have questioned whether Valero's Benicia refinery would ever close, which has raised the question of cleanup costs; and more recently, whether Valero could, or would, shift to processing biofuels and/or reduce production to meet state climate goals.

As presented at the recent Valero Community Advisory Panel meeting, Valero Corporation's statements to investors was presented adding up to a glowing, positive, economic outlook. As the largest refiner in the U.S. with a proud safety culture, Valero Corp is poised to continue refining crude oil for petroleum products for years to come. Valero has publicly commented that among other Bay Area refiners, the Benicia refinery would be "the last man standing". This is reasonable to assume: very expensive investments have been made since 2003 on refinery upgrades under VIP, (including the \$750 mil+ "Scrubber") to reduce sulfur and nitrogen dioxide emissions, allowing for processing cheaper, higher sulfur content crudes, e.g., "dirtier" grades of crude oil. A state-of-the art new laboratory on the property was completed in 2018.

Valero Corp owns and operates 5 ethanol plants producing lower carbon intensity fuels; however, reliable independent sources explain that the Valero Benicia refinery would not be able to switch to biofuel processing because the refinery was designed to be an integrated processing system and its configuration would not permit necessary changes for such a switch. This leads to the question of Valero's current emissions data and performance on emissions reductions, especially GHG—Green House Gases.

The State of California has set a target to achieve a "net zero" carbon economy, with drastic reductions of carbon emissions and GHG —ultimately to achieve an 80% GHG emissions reduction below 1990 levels by 2050. According to a recently published and now widely circulating research report authored by Greg Karras, Phd, titled, *Decommissioning California Refineries: Climate and Health Paths in an Oil State — A Communities for a Better Environment Report, July 2020*, "emissions from burning oil accounted for nearly two-thirds of statewide carbon emissions and [those emissions] continued to increase from 2013 - 2017." The Report documents reasoning for creating a safe pathway to a "just transition" away from fossil fuel burning, and proposes a phased, gradual annual 5% reduction in production capacity be adopted by the California Air Resources Board in order that California refineries sustainably meet the state's ambitious target for climate stabilization, which calls for drastic reductions in GHG emissions by 2050. The proposal would avoid an economic shock, protect jobs and provide for a just transition away

from fossil fuel consumption, with ultimate decommissioning of California refineries in sight. [See link to Report below].

The most recent report of the International Energy Agency, called *Sustainable Recovery: World Energy Outlook Special Report* [see link below] puts the spotlight on meeting climate targets and looks at the Covid crisis-induced economic downturn—which included much reduced demand for transportation fuels—for opportunities to create a renewable energy future. In the words of the IEA Exec Director, Dr. Fatih Birol, "Governments have a once-in-a-lifetime opportunity to reboot their economies and bring a wave of new employment opportunities while accelerating the shift to a more resilient and cleaner energy future."

REFERENCES:

Decommissioning California Refineries: Climate and Health Paths in an Oil State - A Communities for a Better Environment Report, July 2020 — by Greg Karras, Phd; G.Karras Consulting, Community Energy reSource.

<https://www.energy-re-source.com/>

<https://www.iea.org/reports/sustainable-recovery>

<https://www.theguardian.com/environment/2020/jun/18/world-has-six-months-to-avert-climate-crisissaysenergy-expert>

V. QUESTION:

Valero's stated intention is to be "the last man standing" among Bay Area refineries. Valero is committed to processing dirtier crude oil slates for gasoline, jet fuel and other products. What is your current level of concern about global warming and for reducing refinery emissions including GHG in relation to state targets to slow global warming and create a zero carbon economy by 2050?