

## **Plant closure could force return to open ag burning**

By John Cox

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Local farmers may have to return to the polluting practice of burning their agricultural waste in the open air unless the state Legislature acts soon to subsidize financially struggling biomass power plants that run on such material, the region's top air quality regulator cautions.

The warning by Seyed Sadredin, executive director of the San Joaquin Valley Air Pollution Control District, comes amid reports that a 50-megawatt biomass plant in Delano, unable to compete with taxpayer-supported solar farms and power plants fueled by cheap natural gas, is on the brink of closure.

If the 50-worker plant closes upon the expiration of its existing power-generation contract at the end of December, some 400,000 tons of woody ag waste — mostly prunings and dead trees — will have to be disposed of another way. Mulching or composting that material, the disposal methods preferred by environmentalists, are impractical at that scale, Sadredin said.

"It's a big concern of ours, because if biomass plants disappear, it takes away a major outlet for the wood waste," he said. "The only way (farmers) can get rid of it can be open burning."

Open-air incineration of ag waste is down 80 percent in the valley since 2005, the air district says. During that time, emissions associated with biomass disposal in the region, including from biomass plants, have fallen 70 percent to 90 percent, according to the agency.

In the recent legislative session in Sacramento, a bill that would have given biomass plants state "cap-and-trade" revenue was held along with other legislation aimed at spending the money generated by auctioning emissions credits.

The legislation, Assembly Bill 590, co-sponsored by Assemblyman Rudy Salas, D-Bakersfield, was strongly supported by California's agricultural industry. Farmers receive money from biomass plants for providing waste they might otherwise have to spending money shipping to a landfill, an option unpopular with local governments under pressure to curtail their waste stream.

The executive director of the Kern County Farm Bureau, Beatris Sanders, said closure of the Delano biomass plant would affect "all nut growers in Kern County."

A spokesman for Covanta, the company that owns the power plant, said he could not say "for sure" that the plant will close. But a consultant who does work for the facility, Matt Barnes, said a closure is "more likely than not" unless something changes by the end of the year, such as new funding from Sacramento.

At least five biomass plants have closed statewide since 2013, leaving about two dozen functioning facilities, according to the California Biomass Energy Alliance.

Executive Director Julee Malinowski Ball said the public reaps benefits from biomass, such as a reduction in landfill diversion and, in Northern California, thinning of dead trees that fuel forest fires. But those advantages are not monetized, she said, which makes biomass appear less valuable than it is.

### **CHANGE IN SUBSIDIES**

The Central Valley's biomass industry was larger and healthier in the 1980s, when a federal tax incentive existed to support the plants financially and California required electric utilities to pay relatively high prices for power generated by combustion of ag waste. Both financial support mechanisms have since ended.

The state requires investor-owned utilities to secure at least one-third of their power from renewable sources including biomass by 2020, and then increase it to half by 2030. But operators of biomass plants say transportation and other costs mean they cannot hope to compete with solar and wind power, both of which are subsidized to a greater degree than biomass is.

California's largest buyer of biomass energy is San Francisco-based Pacific Gas and Electric Co. It reported 19 biomass contracts representing about 490 megawatts of power as of Oct. 1. Bioenergy, a category that includes biomass, made up 17 percent of PG&E's renewable energy portfolio last year.

As the utility works to raise renewables to 33 percent of its overall energy portfolio within five years, it said it is constrained by the relatively high cost of biomass — twice as pricey as solar power, by some estimates.

"Biomass is considerably more expensive than other forms of energy in our portfolio, and we have to consider those costs when making purchases for our customers," local PG&E spokeswoman Katie Allen said.

#### ENVIRONMENTAL CONCERNS

Clean-air regulations are another obstacle. Since February 2012, the air district has levied more than \$77,000 in fines against the Covanta Delano Inc. biomass plant at 31500 Pond Road. The nine alleged violations range from noncompliance with visible emission limits to failure to report a breakdown.

The plant's closure would please environmental groups such as the Center on Race, Poverty & the Environment, which works with a local group monitoring potential violations at the plant. These organizations see biomass as worsening local air quality.

At attorney with CRPE, Ingrid Brostrom, said ag waste shouldn't be burned at all, but instead be composted or mulched to create a beneficial reuse of the material.

"Let's go for the win-win solution, where we can promote better soil and healthier, cleaner communities," she said in a news release.

Sadredin, the air district executive, joins the biomass industry in disputing such claims, saying burying ag waste in large quantities is infeasible in many cases and can be counterproductive because of the time required. Plant operators also say incinerating biomass to create electricity inside a power plant is much less polluting than burning it in an open field.

The air district is hopeful that a new technology under development, gasification, will allow farmers working alone or in groups to dispose of their ag waste cleanly on-site without having to transport it elsewhere. Sadredin said that method will require more development before it can be used commercially.

Unless the Legislature comes up with some kind of financial support for biomass, Sadredin said, he may have to schedule public hearings that may lead to regulatory changes allowing more open-air burning. "We're hoping not to have to go there," he said.

"We think it is justified for the public to use some public funds to solve this as an interim solution until we find some long-term alternative," Sadredin said. "The point has to be (made) that this is important and it's a critical public health, quality-of-life issue that deserves attention from Sacramento."

### **Smoky September clouds San Joaquin Valley clean-air record**

By Mark Grossi

Fresno Bee, Saturday, October 24, 2015

San Joaquin Valley folks breathed the healthiest air on record most of the 2015 summer, but a smoky September made this year a brutally memorable tale of two seasons.

For the record, the 25,000-square-mile Valley has had only 80 exceedances of the federal eight-hour ozone standard — easily the lowest total ever.

Yet the biggest air-quality news came at the end of summer, when doctors and clinics saw patient loads swell with people having breathing problems.

The breeze that helped air quality all summer had changed direction. Smoke plumes poured into the Valley from the Rough fire, which had been burning out of control since July 31 near Kings Canyon National Park.

Ash settled on windshields across the center of the Valley from Fresno-Clovis to Porterville. Asthma and bronchitis mushroomed. For people with breathing problems, it was a miserable end to summer, doctors said.

"I saw quite an increase in patients over previous years," said Dr. Praveen Buddiga, a Fresno allergist. "It was mostly younger people with developing lungs, but it affected older people as well."

The wildfire showed how nature can take over air quality, say officials from the San Joaquin Valley Air Pollution Control District. No emissions controls or public awareness campaigns could have stopped or slowed the soot siege.

Air authorities estimated the amount of soot and ozone-making gases was briefly 20 times higher than all other Valley air pollution sources combined. For air quality, there is no greater public health impact than particle pollution of this magnitude, says district executive director Seyed Sadredin.

"This was one of the worst summers we've had for particulate matter," he said. "And remember, particulate matter usually is more of a winter-time problem."

### **Before September**

Drought years theoretically set the stage for bad air in summer. Federal officials have long warned that the warming climate will give ozone an ominous edge in the future.

So, in the fourth year of California's most intense drought on record, why did the Valley have its best summer ozone season?

Air quality analysts say it was not as warm in summer 2015 as it was in the summer before. The usual high pressure that sets up the heat was just not as strong.

But June was not a part of that change. For Fresno, June was the fourth-warmest on record – even warmer than 2014. There were three weeks of bad air, which is about double the number of dirty-air days the month usually experiences.

Ozone is a corrosive gas that forms on sunny, warm, nearly windless days, combining gases from cars and fumes from gasoline, dairies and paints.

Right after the Fourth of July, the Valley began experiencing occasional cloudiness and a run of 11 days below 100 degrees. On July 9 and 10, Fresno had uncharacteristically mild 85- and 86-degree highs.

The South Coast Air Basin, which ranks with the Valley with the worst air quality in the country, had a similar July.

"Some of it may have been due to El Niño," said meteorologist Shawn Ferreria of the San Joaquin Valley Air Pollution Control District. "We saw cloud cover, which slows down formation of ozone. It even rained a little in July."

The pattern continued off and on through August, Ferreria says, until September. Aside from smoke, wildfires also create ozone-making gases, which drifted into the Valley.

Even though there were 15 bad days in September and five more in October, the Valley's total of 80 bad days falls well short of the previous record, which is 89 recorded two years ago.

The Valley's bowl shape and sometimes stagnant weather allow dirty air to remain trapped for days. No other place in the country gets as many ozone exceedances, except South Coast. Both regions are far from achieving the federal standard.

Still, a record low for the Valley would be encouraging, officials say. The long Valley ozone season is just about over.

"It is becoming pretty unlikely that we will get a lot more ozone exceedances," Ferreria said. "The days are shorter and temperatures are coming down."

### **September soot**

A few days after the ash clouds descended in the Valley, children likely started feeling symptoms, doctors say. Because a child's lungs have not fully developed, they cannot compensate for the added stress as well as an adult.

"The particulate matter is kind of like sandpaper in the lungs," said Fresno allergist Buddiga, who represents the Fresno-Madera Medical Society. "It leads to faster, shallower breathing. It raises the risk of respiratory infections."

In older adults, the soot often triggers bronchitis – experienced as tightness in the chest, he says.

Ozone, which spiked in September because of the fire, adds to the pain. It creates damage similar to a sunburn in the lining of the lungs.

"It's an irritant to the lungs during summer," Buddiga said. "The federal government on Oct. 1 lowered the threshold for ozone from 75 parts per billion to 70 parts per billion. Doctors would like to see it go below 70, but this is a step in the right direction."

### **Wildfire protection**

The drought made a bad situation worse in the Sierra, fire managers say. Forests are badly overgrown throughout the mountain range, and fires sometimes get out of control.

Sadredin says the district will continue to work with federal land managers to push the thinning of forests in the Sierra Nevada.

He also says the district also needs the power to continue enforcing its regulations even in a wildfire. Air regulations are currently suspended during wildfires, so the district cannot push federal agencies to quickly extinguish a fire that is harming air quality.

There were reports that federal fire managers did not attack the 151,623-acre Rough fire quickly enough in early August. Fire officials have disputed those claims, saying it was too dangerous to send firefighters into the steep terrain.

Sadredin and others at the district say the Valley has made progress against air pollution over many years. But the region needs more help in fighting pollution sources, such as wildfires or pollution from other parts of the state or even Asia, they say.

Activists have long criticized the district, saying it protects businesses and industries, avoiding stronger rules in the Valley and deflecting attention away from politicians who should be addressing human suffering.

"The air district has engaged in a campaign designed to placate the public," said Kevin Hall, director of the Central Valley Air Quality Coalition, representing dozens of environmental, public health and medical organizations in the region.

Sadredin has responded that the district has left no stone unturned in fighting pollution, passing some of the strictest rules in the country.

He says the Valley has a long way to go before attaining federal air standards, and the public and lawmakers need to stay focused on cleaning up ozone and particle pollution.

"With El Niño coming up, people might forget," he said. "We need to do our part to stay on the radar."

## **EPA awards \$1M to reduce diesel emissions in Valley**

The Business Journal, Friday, Oct. 23, 2015

The U.S. Environmental Protection Agency has awarded \$3.2 million in Diesel Emission Reduction Act (DERA) funding to California to reduce diesel, greenhouse gas and black carbon emissions from large polluting diesel sources, such as trucks and buses.

The 2015 DERA grants included a \$1 million award to San Joaquin Valley Air Pollution Control District to replace 75 off-road agricultural diesel tractors with new tractors that have Tier 4 or cleaner engines.

“By promoting clean diesel technologies, we can improve air quality, support green jobs, and fight global climate change,” said Jared Blumenfeld, regional administrator for EPA’s Pacific Southwest Office. “Public-private partnerships like the West Coast Collaborative are leading the way on reducing harmful diesel emissions.”

The DERA program is administered by EPA’s West Coast Collaborative, a clean air partnership comprised of the Pacific Southwest and Pacific Northwest regions, which leverages public and private funds to reduce emissions from the most polluting diesel sources in impacted communities.

Along the West Coast, public and private partners from Alaska, American Samoa, California, Hawaii, Idaho, Nevada, Oregon and Washington received \$5.4 million DERA grant funding to retrofit and replace old, polluting diesel vehicles and equipment, including school buses, trucks, agriculture and port equipment, and generators.

The California Air Resources Board received \$415,905 to retrofit 20 school buses with diesel particulate filters (DPFs) throughout California.

The funding is part of EPA’s DERA fiscal year 2015 allocation which include engine replacements, idle reduction and retrofit technologies to clean up a variety of older diesel engines.

Since 2008, the DERA program has awarded more than 700 grants across the country in 600 communities. These projects have reduced emissions from more than 60,000 engines.

To learn more about all of this year’s West Coast Collaborative DERA projects, visit: <http://www.westcoastcollaborative.org>

For more information about EPA’s National Clean Diesel campaign and the awarded DERA projects nationally, visit [www.epa.gov/cleandiesel](http://www.epa.gov/cleandiesel).