

Solar flare-up over inspections

City of Santa Rosa, alternative-energy contractors at odds over rules aimed at firefighter safety



Santa Rosa fire inspector Toby Rey measures the placement of solar panels on a new home as Sunpower construction manager Jason Mueller watches last week.

Christopher Chung / The Press Democrat

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Santa Rosa is one of 25 cities in the nation recognized for its strong support of the solar energy industry.

Plentiful sunshine, environmentally conscious residents and innovative public financing options have contributed to the city outshining others when it comes to installation of photovoltaic systems.

But that success is being threatened, some in the solar industry say, by burdensome fire regulations that reduce the size of many residential solar systems, increase their cost and in some cases may be unnecessary.

Since January, the Santa Rosa Fire Department has been requiring that solar panels on homes be set back 3 feet from the eaves and ridgelines of roofs to give firefighters safe pathways during a fire.

These and other rules regarding solar installations, which have been recommended by the California Fire Marshal's Office since 2008, were adopted by Santa Rosa and many other cities as part of their fire codes last year.

But solar installers say Santa Rosa stands out from other jurisdictions for its rigid implementation of the rules and an infuriating permit process.

"They have created a whole different layer of bureaucracy that nowhere else has," said Jeff Mathias, co-owner of Synergy Solar & Electrical Systems of Sebastopol.

Since the Fire Department began enforcing the new rules in January, solar installations now require separate plan reviews and field inspections by fire inspectors. Those are in addition to plan reviews and site inspections conducted by city building officials.

The extra layer of review strikes Mathias as a "completely and totally unneeded redundancy" that adds time, costs and complexity to jobs in Santa Rosa.

"System sales in the city are down, systems we are installing are smaller and the installations are costing more," Mathias said. "Nobody is a winner here."

Santa Rosa fire officials say the roof setbacks are critical for firefighter safety and are being enforced fairly and consistently, and that projects that comply with the code receive speedy review at a reasonable cost.

"While people may not like the rules, we've been fair and consistent in our enforcement of them," said Mark Pedroia, senior fire inspector responsible for most solar-plan reviews.

Fire officials say the new fee of \$270 for each residential installation should generate about \$60,000 annually at the current rate. The fees are designed to recover the cost of administering the program, although the work is being handled by existing staff in the city fire marshal's office.

Both sides adamant

The outcry by the solar advocates and steadfast defense of the standards by the Fire Department highlight the passions both sides feel about the services they provide the community.

Solar manufacturers, designers and installers feel their photovoltaic systems are a clean source of alternative energy that can help curtail global warming.

To them, additional regulations only create more barriers to wider adoption of the technology and slow the nation's transition to energy independence.

Fire officials are equally passionate about the safety of firefighters and the residents they protect. They say the setbacks are vital because solar panels can create hazards for firefighters who sometimes need to cut a hole in a roof during a fire.

They acknowledge, however, that they not aware of any incident in Santa Rosa in which a solar panel posed a problem for a firefighter.

Venting is an important technique firefighters use to release the heat and smoke that build up in a house fire, helping prevent its spread and improving the atmosphere inside should firefighters need to enter the structure to fight the fire or rescue someone, Pedroia said.

Balancing these two competing demands was the job of the state fire marshal's task force, made up of firefighters, building code officials and solar industry representatives, which met for seven months to draft the 2008 guidelines. They suggested setbacks, clear labeling of electrical components and cut-off switches to help firefighters perform their jobs safely.

The rules prohibit panels from being placed within 3 feet of the ridgeline of a roof, 3 feet from the eaves, and 18 inches from the valleys created by the intersection of two roof sections. The guidelines allow local fire departments to waive those requirements as long as other means of roof access are available.

Before January, because the guidelines were not part of the city's building or fire code, building inspectors had no authority to require those setbacks, said Michael Whitaker, Santa Rosa's chief building official.

But with City Council approval last year, the Fire Department began enforcing the rules in January, much to the chagrin of installers.

"We look different because we're doing it and that aggravates the contractors," Pedroia said.

Complaints continue

Fire officials said they have done their best to explain the reasons for the rules, but many installers remain unconvinced.

Solar firms across Sonoma County continue to complain about the new regulations in general and the way they are implemented in Santa Rosa in particular.

"The general consensus among all of us has been that the setbacks are bad for us and honestly they aren't particularly necessary," says Barry Cogbill, an installer with Advanced Alternative Energy Solutions in Petaluma. He also is a board member of Solar Sonoma County, the nonprofit consortium that promotes solar energy and efficiency programs in the county.

"This particular case is one where we're really butting heads," he said, referring to Santa Rosa.

One solar designer, Michael Eschenbach of Solar Works in Sebastopol, was so frustrated that when he heard the Fire Department wanted to increase its fees for the new reviews, he denounced it at a City Council meeting in June as "adding insult to injury."

The department had proposed increasing its portion of the permit fees from \$11 to \$270 for residential solar installations.

The fees, which the department says brought Santa Rosa in line with other communities, were approved by the council in June and went into effect July 1.

Eschenbach said that roofs in the city are often chopped up into so many smaller surfaces that adhering to the setbacks reduces the usable space for solar on a typical roof by 35 to 50 percent. This reduces the size of solar systems, revenue to the company and taxes to the municipality, and makes going green less attractive for many homeowners.

"There is no doubt that we have lost jobs because of these regulations," said Solar Works CEO John Parry.

But Pedroia said he's not aware of any project that wasn't able to be modified to successfully to meet the setbacks. People haven't withdrawn applications or contracts because of the regulations, he said.

System designers acknowledge that in most cases projects are getting done. But they say the setbacks increase costs because of the need for more efficient — and expensive — panels to maximize the energy generation from the smaller area.

Permit data shows the city approved 126 solar permits between January and July, compared to 111 for the same period last year, a 14 percent increase. All but five this year have been residential installations.

That's a far smaller increase than the prior year, when permit applications rose by a rate of 40 percent.

"Working very well"

Interim Fire Chief Mark McCormick said there was a learning curve on the part of the city and the installers when the new regulations went into effect, but most of the kinks have been worked out.

"It's a good concern and we should address that and we did address it, and it's currently working very well," McCormick told the council in June.

There is value in having consistency in how the various cities in the county implement the rules because agencies often assist one another in fires, McCormick said. It's safer, particularly in a chaotic environment like a hot, smoke-filled roof, if firefighters know what conditions to expect, he said.

The department allows minor exemptions to the rules in certain cases, and has an alternative process designers can go through to get more significant exemptions to the code if they can demonstrate fire safety concerns can be resolved another way, he said.

That process costs an additional \$250. Pedroia said he's processed just one such application and it was for a project that ran into trouble because work was started without permits.

In response to some of the criticism, the Fire Department has examined its turnaround time for permits. It found that 33 percent were approved the same day, 53 percent within two days, and 14 percent took more than a week, Pedroia said.

Different in Sebastopol

What really seems to burn some installers, though, is that in other communities, fire officials don't get involved at all in the permitting of solar systems that conform to the guidelines.

Sebastopol, for example, leaves its solar permitting in the hands of its building official unless some exemption is required. "There's no reason for me to look at it if he says it meets the code," Fire Chief John Zanzi said.

And when Zanzi is asked to sign off on an exemption, the city doesn't charge extra and installers say reasonable requests are often granted.

In one case, Zanzi said he allowed panels to fill an entire surface of one side of a steep section of roof because just on the other side was an open roof face with a gradual incline that the firefighters could use instead.

"We try and look at each situation because we realize the solar guys have demands," Zanzi said.

In Santa Rosa, however, fire marshals tell designers that the city doesn't waive the setbacks, even when there are large swaths of open roof nearby. Nor do they waive them on uninhabited spaces, such as garages.

The city even requires both a plan review and inspections for solar arrays that aren't mounted on the roof, but on the ground near the home, to ensure the panels are not too close to vegetation.

Julie Carlton, a clean energy advocate for Santa Rosa, said the city helped organize one meeting between fire officials and the solar industry to improve communication about the new rules. A similar forum will be held later this month at the North Bay Builders Exchange, she said.

"It's not just an issue for Santa Rosa," Carlton said. "It's an issue that all the cities are struggling with."

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