

April 7, 2023 | Submitted Electronically

California Air Resources Board
Messrs. Tony Brasil, Craig Duehring, and Paul Arneja
1001 "I" Street
Sacramento, CA 95814

Subject: Comments on Proposed Public Fleets Advanced Clean Fleets Rule

Introductions

The City of Shasta Lake (COSL) appreciates the opportunity to provide comments on the March 23, 2023 15-day regulatory package of the California Air Resource Board's (CARB) Advanced Clean Fleets (ACF) rule for public fleets ("proposed rule"). COSL is a city in Shasta County that provides electricity, sewer, and water utility services to its community. The city is governed by an elected 5-member board who all reside within the city limits. The city is relatively small, only 11 square miles, and when compared to the statewide demographics, the city's population of 10,250 tend to be poorer, have higher concentrations of poverty, lower household incomes, lower per capita incomes, and higher proportions of age groups that typically aren't in the workforce (i.e., minors and seniors). COSL serves this disadvantaged community through these critical infrastructure utilities, and other city functions, with less than 60 fulltime equivalent employees.

COSL is a member of both the Northern California Power Agency and the California Municipal Utilities Association. COSL fully endorses the comments submitted by these agencies and respectfully submits the following for your consideration.

Are the Proposed Requirements Actually Achievable with Today's Technology?

It appears the intent of the ACF proposed rule is to drive transformative change using "stretch goals" or "moonshots." Throughout this rulemaking process, utility groups have expressed concerns that this will negatively impact their ability to perform their duties. Utilities are dependent upon their equipment, including their vehicles, to do their jobs. Many of these vehicles do more than move people and goods—they do work (e.g., bucket trucks, line trucks, vacuum trucks). The proposed rule seems rooted in assumptions that vehicle technology will find a way, that regulations will drive necessary innovation, and that things will simply work out in the time allowed.

COSL's main comment, a question really, is simply: "What if you are wrong?"

While the city recognizes and applauds CARB Board and CARB staff for incorporating comments by adopting incremental changes to the various exemptions that will be made available to public fleets, the City is concerned that these will ultimately fail to offer meaningful protection against technology that's not up to task and sellers who may possess significant market power. We need a clear path to success.

COSL Needs Equipment That Can Do the Job When the Job Needs Doing

COSL's main concern is its ability to serve the community during extreme events. In 2018, the "Carr Fire" was ignited when a moving vehicle threw sparks and caused a small grass fire. This fire was a relatively small burn for several days until, unexpectedly, it exploded into the "fire tornado" that caused extensive damage and fatalities. The Carr Fire destroyed over 1,600 structures, becoming the sixth most destructive fire in California history. It's been 5 years and some folks still haven't fully recovered.

This was a large enough event that Cal-OES and FEMA both responded to this emergency, and COSL certainly appreciates their help and their involvement. Several large powerline facilities were among the damage from this fire. Much of Shasta County experienced widespread power outages the night the "fire tornado" took shape, including COSL. When the power goes out for long periods of time, other critical infrastructure can also be impacted. COSL can tell you stories about how this impacted its ability to continue to process potable water at the water treatment plant, what it took to control and managing raw sewage through the wastewater treatment plant and forced mainlines, and so on. What it boils down to is that COSL dispatched its personnel. Those employees used their equipment extensively intraday and for several consecutive days. It was quite an effort and we are proud of the work that our staff was able to do. But again, they need working equipment to do their jobs. It should also be noted that "the job" isn't always easy to get to. Electric crews spent weeks working in rugged terrain for prolonged stretches of time, but we'll revisit this note later.

Seven months later, in February 2019, an "atmospheric river" storm tore through California impacting more than 20 counties. Damage was widespread across this large footprint, and Cal-OES and FEMA both responded to this emergency, too. Some officials estimate 25% of trees in Shasta County fell or were significantly damaged by the heavy snowfall. This means several roads were blocked by fallen trees and were otherwise impassable with unusually deep snow. Since the elevation in COSL is only 400-800 feet, the community is generally not equipped to deal with this type of unusual event. The town was essentially locked down as nearly all roads were impassable. How did we recover? Same story as above: COSL dispatched its crews and those crews placed a punishing burden on the city equipment so that we could open roads, remove dangerous broken limbs that hadn't fallen yet, and to recover from another city-wide power outage. In this type of event, even work locations in the center of the city can be difficult to access.

The important takeaway from those two events is that they had never happened before in our experience, and therein lies one of the weaknesses in the exemptions CARB's propose rule contains.

History is Important but Can We Have Some Latitude to Learn From Current Events to be Better Prepared for the Future?

The exemption for duty cycles attempts to address commentators' concerns about being stuck with equipment that's not up to the task. The language is improved now containing a lookback period of 5 years, but it relies on other complicated math and data tracking to determine if an entity can even claim this exemption (i.e., either [A] the gear is not up for the task, or [B] the gear is up for the task and therefore the forced procurement mandate of the proposed rule applies). COSL is on board with learning from history, but there's a weakness in limiting our learning based only on history.

One of the foregone conclusions of the consequences of climate change is unprecedented events. Weather events are predicted to continue to grow to be more severe, more volatile, with greater frequency, and inflict greater damage. Why, then, would we limit ourselves to dealing with historic events when unprecedented events are banging on our front door? Should we buy equipment that meets most (not all) of our past needs? That doesn't seem like we're setting ourselves up for success in the future. If COSL had applied this thinking to its fleet decisions prior to the Carr Fire and 2019 Atmospheric River events, COSL may not have been up to the task of its response.

We can only speculate what the consequences may be from a general lack of preparedness, or at least a fleet crippled by substantial operating constraints that do not exist today. The most obvious is a longer power outage. It could also mean slower reopening of roads, slower clearing of debris, slower shoring up of dangerous situations like potential landslides or broken limbs, etc. All this boils down to longer negative impacts to the people who live here, work here, and have businesses here.

COSL is not suggesting that public fleets' duty cycle exemption be based on an unbounded future. However, given the expectation of a changing environment, it seems prudent to at least have some ability to incorporate some current events into our decision making on large, expensive vehicle purchases. Restricting us to history-only, in a time of change, seems inadequate, and we would like to expand on this further.

Should COSL be the Type of Entity that: (A) Learns from its Own Experiences, (B) Learns from Others' Experiences, or (C) Doesn't Learn?

This duty cycle exemption provision appears to be entity specific, and that's another significant weakness. It will not allow COSL to apply any lessons to be learned as we, as society, witness new circumstances. This should change.

Winter Storm Uri happened in 2021, but it didn't happen in the City of Shasta Lake. Unprecedented snowfall in 2023 trapped people for over a week in the San Bernardino Mountains, but that didn't happen in the City of Shasta Lake. Does this mean that City of Shasta Lake has no lessons to learn from the experiences of Winter Storm Uri or San Bernardino Mountain Snow events? It appears that as far as the regulations are concerned, the answer is, "No."

COSL respectfully disagrees. COSL prefers to learn and apply lessons from other external events, as well as our own, if applicable, to prepare for the future. COSL believes the staff, who are held accountable by its elected governing board, who are held accountable by the electorate, are best suited to pick what lessons are to be learned even from things that haven't happened here. COSL requests CARB to allow for this.

Unfortunately, COSL cannot offer CARB a set of statistics that demonstrate need and use. We don't track this information since this has never been an issue. When our workload exceeded historic levels, we'd just buy another tank of gas in a 15-minute period, carry on with our work, and set new peak performance levels in the process. Local control and flexibility are critical in times of urgent need.

COSL feels the issue of duty cycle may not be driven by extreme events as noted above. Sometimes, it might just be bad timing. A significant, localized events can and do occur at the end

of the workday. This means that COSL personnel, and their equipment, could be dispatched to respond to emergency situations after they and their equipment have had a full day. In these situations, we don't see there being time to engage in the time-consuming process of recharging large battery banks on large work vehicles. The reason this scenario is important is this datapoint might get "dropped" from the dataset when applying the proposed rule's seemingly arbitrary provision of excluding the top 4th or 5th largest observation within the largest 30-day period within the last 5 years. Again, we simply don't have the data to prove this concern because when these types of things happen, we can simply refuel in 15 minutes and carry on with our work. This potential long rest periods for our equipment has never been a factor.

Shouldn't We Factor In Reliability to our Vehicle Purchase Decisions?

The proposed rule appears to miss one vital consideration that experienced fleet managers have used for years: does that thing work reliably? No one wants to buy a vehicle that will be broke down all the time creating nothing but headaches. This is true if we're buying gasoline, diesel, hybrid, battery electric, hydrogen, big, small, passenger, freight, work vehicles, new, used, etc. If those who purchase a given vehicle in a given configuration, per the proposed rule, find they're having reliability problems, will subsequent public fleet purchasers be required to go through with their forced purchase transactions of that vehicle that appears to be having systemic problems? The proposed rule does not appear to recognize this important factor. What good is a ZEV rig if it spends all its time at the shop? A better question is what good are critical infrastructure utilities if their fleets spend all their time at the shop? Clearly, this should be an undesirable outcome for all involved and the proposed rule should not force public fleets to buy vehicles that have reliability problems. Purging an older vehicle for any new vehicle that has low reliability is a mistake regardless of its fuel type. We try to avoid doing that today. The proposed rule should too.

Powerful Sellers May Have Market Power and Public Resources Are at Stake

The proposed rule offers a complicated exemption regarding the commercial availability of a work rig. The concept is sound and we like it: we don't have to buy something that doesn't exist. But, the next step is when public resources are placed at risk by the proposed rule. As soon as a seller says they have a product that supposedly works, all public fleets must go buy it. Whoever that seller is will have substantial market power.

This state-sanctioned monopoly could expose public fleets, namely the community they serve, to substantial monopoly rents. It surprises COSL that CARB would enable this. COSL recognized the good and thoughtful work that CARB authored in the cap-and-trade regulations where mitigating market power was an important and critical element of both the quarterly auctions and holding limits for compliance instruments, and those good works continue to this day. CARB continues this work by producing the Herfindahl-Hirschman Index as part of each quarterly auction summary and results. COSL recognizes that the HHI may not be the best metric to determine if the market for large electric bucket trucks is competitive or not. However, COSL asks the CARB Board to consider some protection against exposing all public fleets to monopoly power.

Here's a hypothetical example. Suppose a conventional heavy-duty vacuum truck of a given configuration costs \$500,000 in today's market. If the new ZEV version enters the market and costs \$3 million, are public fleets expected to make that purchase, supposing all other exemptions do not apply? What if it's \$5 million? Ten million?

Is there any cost threshold under which public fleets could lawfully decline to purchase the new ZEV?

COSL acknowledges that the commercial availability exemption considers some factors, like the manufacture's ability to meet purchase orders. This would offer some protection for some of the public fleets in the purchase queue since their orders would not be filled in a timely manner. However, this still exposes some public fleets to the monopoly rent, as a subset of initial (forced) purchase orders would get filled. COSL believes CARB should avoid exposing public fleets to uncapped pricing and asks the CARB Board to consider extending some cost limitation and protection against market power.

Packing Generators

This final section includes commentary that arose during workshops and other venues but aren't specifically mentioned in the proposed rule. When discussing the potential challenges of "refueling" electric bucket trucks, CARB's response was to simply bring a portable generator to the jobsite. This warrants some discussion. COSL's main concern with oversimplifying the logistics of keeping our equipment "fueled" is that the underlying assumptions for the remedies that follow are not likely to work out.

How big of a generator do we need? COSL cannot answer that question as we do not own a fully electric bucket truck, vacuum truck, or other subject work vehicle and don't know how they will behave? But, a thought exercise may be useful.

COSL suspects the generator will need to be pretty large. Afterall, some of the work vehicles will need to tow other apparatuses that contribute directly to the job (i.e., trailer with large spools of wire, trailers with 50-foot poles, woodchippers, etc.). Yet others may have other equipment for safety on trailers, such as fire suppression equipment. In other words, not every vehicle we take to the jobsite will be available to pull its own generator, so the portable generator will likely need to be large to accommodate charging multiple medium and or heavy-duty vehicles at the same time.

COSL isn't sure how fast a "fast charger" is for this medium- heavy-duty application. We're assuming that when we reach a point where we're relying on a portable generator to "refuel" work rigs, challenging circumstances have happened. Therefore, speed will be the key and bigger will be better. COSL is aware of 350 kW DC fast charging (stationary) equipment that are commercially available. Does this mean a 1,000 kW generator is okay? Or, do we need to make sure there's plenty of capacity and go with a 2,000 kW generator? Either way, a 1 MW or 2 MW portable generator is quite large. Even the 1 MW units tend to be fastened to a flatbed trailer pulled by a full-size diesel rig.

Logistics of getting around to our jobsites with a full-size diesel rig with 30,000+ pounds in tow will be tricky. As noted earlier in these comments, electric crews were dispatched to rugged, remote areas for prolonged periods of time following the Carr Fire in extreme heat, and the snow and debris from winter storms can make work areas that are "close to home" difficult and challenging terrain to access. Think of the jostling around that driving cross country in this big rig and how that could impact the large generator. What about driving on snow and ice over steep slopes, through narrow roads, while avoiding passenger cars that tend to get stuck and abandoned during winter events?

All that said, a portable generator concept has its merits, but it's not likely to create a one-for-one resolution to the logistical problems the proposed rule may introduce when times get tough.

The Big Picture

COSL recognizes the significant task before the CARB, other state agencies, and public fleets. However, COSL asks the CARB Board to resist being myopic on this matter. We understand that your organizational purpose is to act on air quality matters, but your policy decision here will have far reaching implications. Let's try to avoid the avoidable, negative, severe consequences. If the final mandate proves to be inflexible, reduces operational capacity in utility fleets, and wastes public resources, that seems like a list of bad outcomes that all stakeholders should shun. We can make significant progress to your charge and core mission without causing substantial harm elsewhere, and your decision making should be able to promote multiple goals at once.

Conclusion

COSL again expresses its appreciation for this opportunity to comment on the CARB's public fleet Advanced Clean Fleet proposed rule. COSL is a small organization that provides water, wastewater, electric services, among other city functions, to a disadvantaged community in Northern California. COSL has concerns that the current draft is too focused on the forced procurement of ZEVs and does not adequately provide protections to public fleets and ultimately the public to which they serve. Without proper protections, COSL is concerned that the proposed rule will diminish COSL's ability to adequately fulfill its duties in electric, water, and sewer utility operations. The provisions disarm public fleets of their ability to make decisions on how to equip their employees to continue to serve the public. It also appears COSL may be subjected to monopoly power and associated rents as the proposed rule makes no effort to consider this. There's so much at stake, and this decision should not be taken lightly. COSL believes locally elected governing boards, who are held directly accountable by the community through the election process, are best equipped to decide how the public fleet should be configured. After all, it is the people who work and live in California who will bear the burdens that fall out from this policy.

Sincerely,

CITY OF SHASTA LAKE



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