

## DOCKETED

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*Comment Received From: Lyle Schlyer*

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*Additional submitted attachment is included below.*

## **Introduction and project description**

Calgren has produced and used a modest amount of dairy digester biogas at its renewable energy complex in Pixley, CA for several years. Pursuant to our SB-1383 project the biogas usage will go from 3-5% of our requirements to 65% or more.

In case you are unfamiliar with us, we produce fuel ethanol from corn and sorghum and by the end of the year will also produce biodiesel. We are located in Tulare County near its many dairies. Late last year we signed up 11 of those dairies and will install 10 lagoon cover digesters to capture biogas generated by their manure. Why 10 digesters for 11 dairies? Two of the adjacent dairies are relatively small and are sharing a digester.

We are installing a private pipeline to convey the raw biogas to our Pixley complex. There it will be scrubbed of hydrogen sulfide and a portion of the treated biogas will be used to make supplemental process steam, just as we have always done with our on-site dairy manure digester. CO<sub>2</sub> will be removed from the remainder of the treated biogas so it can either refuel CNG-powered vehicles or be used to fuel our cogeneration turbines.

In addition to our production operations, we manage the carbon credits at two unrelated and remotely located CNG refueling stations. To get our biomethane to those facilities, along with other remote locations we may subsequently sign up, we will interconnect to SoCalGas' pipeline system. According to their recent capacity study, there's room in the utility line running along the front of our property. We are also in discussions with our established grain and fuel haulers regarding conversion of their fleets to CNG. The first step will be a test involving a limited number of CNG trucks that we will refuel on site.

## **How would you characterize the success of your project and key ingredients for success?**

Our project made sense because we currently produce low-carbon renewable vehicle fuels. The ability to promptly reap benefits under the LCFS, coupled with SB-1383's assurance that we will get at least 10 years to amortize our investment, are the biggest keys to the success of our project.

Our existing renewable fuels facility helped in other ways as well. Air permitting went smoothly because we weren't creating new emissions sources, merely substituting biogas for fossil-based natural gas. Similarly, CEQA compliance was relatively easy since we were just updating updated earlier environmental impact studies.

Expanding CNG for use in trucks in lieu of diesel is also an important part of our project. We are building upon existing relationships to encourage this to happen, but it will take time. Commercial operators are reluctant to make a wholesale change without going through a reasonable trial period. Calgren's ability to use 100% of the biogas to make transportation fuels while waiting for the gradual conversion of participating fleets contributes to our success.

### **What is the potential to replicate your progress throughout the state?**

We see a lot of potential to expand our current pipeline to add more methane generators. Underscoring that confidence is the fact that we are building our biogas pipeline to handle 2.5 times the volume we expect to get from the first 11 dairies. In fact we currently have additional parties eager to sign up for a Phase 2 expansion of our pipeline system.

We also see opportunities to replicate our project elsewhere in the Central Valley. As noted in a recent study by UC Davis for the Air Resources Board, California dairies are among the most efficient in the world. A cost of that efficiency is increased methane emissions. Policy makers are right to be concerned about the short-lived climate impacts. But that same methane may pave the way for a win-win situation. By encouraging avoided methane emissions to be monetized under the LCFS, SB-1383 has the potential to transform a problem into a solution. Folks like us are incentivized to enable Central Valley dairy farmers to both clean up the air and help preserve the viability of the LCFS. We are eager to serve in that role.

One way to replicate our project in other locations is to co-locate dairy digester clusters near existing renewable fuels producers. Calgren is but one of 6 or so renewable fuel producers in the Central Valley. Another way is to transport biofuel from dairy clusters to renewable fuel producers who can supply California. That can best be done via pipeline, which brings several issues into play. Rather than offer our thoughts on pipelines in our response to this question regarding replication, we would prefer to do so in our response to your questions concerning challenges and recommendations.

### **What challenges might interrupt continuing successful operation or impede expansion or the development of additional projects for any of the enumerated areas?**

One of the obvious impediments to projects like ours is inconsistent policy. As noted earlier, the LCFS underpins our business opportunity. When the press recently reported that the governor's office might trade away LCFS in favor of cap-and-trade, our project was temporarily halted. Our investors suffered similar angst when there was talk of pulling funding for dairy digester grants. We are not naïve. We know policies change over time, as they should. But sufficient consistency to allow us to complete a project and operate it long enough to earn a return on investment is paramount.

Another potential challenge is the lack of proximity of supply and demand. Unless biogas is used on site to generate electricity, it needs to be transported. Pipelines are the preferred method. In some cases a private pipeline may be sufficient but more often some combination of private pipeline and injection into a utility pipeline is needed. We are repeatedly assured that California utilities are committed to biogas pipeline injection at the highest levels. If so, I wonder if it has filtered down to the troops. Initially SoCalGas's pipeline engineers estimated \$3.5M for what will turn out be 50 feet of 4-inch interconnecting pipe. Similarly, we were initially told we would be limited to 375 psi of injection pressure and that the pressure regulator settings in the line to which we will connect would be maintained above that. The clear implication was that if 375 psi was insufficient to get into the pipe it was our problem, not the utility's. We have also been denied access to the one individual within SoCalGas that has worked on every SoCalGas biogas interconnection to date as he has now been

reassigned to work exclusively on SoCalGas projects. And that's just at the utility level. As you may know, California's Rule 30 requires that we provide a minimum of 990 BTUs/ft<sup>3</sup>. Correspondingly, other jurisdictions accept 985, 975, 965 and even 900 BTUs/ft<sup>3</sup>. I am pleased to report that Calgren was able to successfully address all these issues. But I nonetheless feel compelled to list pipeline interconnection as a potential challenge for follow-on projects.

Another challenge is the seasonality of lagoon cover digesters. By nature, biogas production is twice as high in the summer as it is in the winter. Thus a project developer needs to line up twice the demand, especially one relying solely upon RCNG.

While it may sound strange, another challenge is the risk of running short of available dairies. Surprisingly, it is getting difficult to find Central Valley dairies that have not been tied up by one of the numerous other digester developers making the rounds. That's manageable in terms of expanding our current pipeline project, but it does present a challenge when we consider projects elsewhere in the Central Valley.

As to CNG demand, it is centered on municipalities and school districts; there are few hauling companies willing to immediately switch from diesel to CNG. As mentioned previously, we are confident that switch will eventually occur with the present incentives, but not overnight.

**How much and what type of government action (regulation, incentives, other actions) is needed to achieve the SB-1383 SLCP goals?**

I know this statement may be unpopular, but we do not see the need for new incentives, at least not as such incentives were proscribed when we got investor approval for our current project. It benefits from a federal tax credit that has since expired. Thus in keeping with the earlier comment that policy consistency is critical, if there is a sense that the federal tax credit will not be reenacted it would be worth taking a look at a state substitute. But if the current governmental incentives were inadequate, I doubt so many of the new dairies we are trying to work with would have been previously tied up by others.

This is a decent lead-in to changes to grants that we would suggest you consider. The current round of CDFA digester grants attributes only 10 points to project readiness. To discourage developers from tying up dairies for 3 years while they seek funding via grants, we suggest project readiness by given a much higher score, possibly 35 points. This change might encourage developers to actually move projects forward or, in the alternative, release farmers to work with other developers.

Another provision that has crept into grant programs is a prohibition on spending matching funds until a grant has been awarded. We understand the concern about using stale costs as matching funds. But if a developer chooses to risk spending money without a grant, what's the harm? We suggest you let us spend our prospective matching funds from the date of the grant solicitation or maybe the date of our grant application. As it is now, grant rules actually contribute to project delays. Under SB-1383, the clock is ticking. We can't afford delays.

Regarding pipeline issues, please consider doing the following: lean on the gas utilities to lower costs and pare down the 18 to 24 months they say it takes to interconnect; revisit Rule 30's 990 BTU/ft<sup>3</sup> requirement; use the pipeline pilot program under SB-1383 to help with the tough stuff, like getting pipeline segments under railroads and state and federal highways; since biogas transport by pipeline serves the public good, find ways to avoid developers having to reimburse utilities for income tax based upon contributions in aid of construction; and find ways to encourage counties to positively respond to requests to use right-of-ways for biogas pipelines.

Finally, we urge that you consider using a light touch regarding new regulations relating to dairy digesters. Dairies are fearful of the enhanced scrutiny that may result from participation in a dairy digester cluster project. Help us send the message that signing on to a digester cluster will not subject them to extraordinary regulatory oversight in terms of their other operations – that digester clusters are helpful, not harmful to dairy operations. In this regard, please give the private sector ample opportunity to help achieve the stated policy objectives of SB-1383. Join us in urging that legislators hold off on mandating lagoon covers at dairies unless there is no alternative. A heavy-handed approach risks driving dairies out of the state, possibly to a jurisdiction where they can more easily get their biogas into a pipeline and ship it to California. That certainly wouldn't help Central Valley businesses and risks leakage of Short-Lived Climate Pollutants into neighboring states.