Here is an innovative new all-electric TRU.

I didn’t see it in time to include in our RFI comments.

[https://ww2.valleyair.org/media/gpoh0mwe/c-32565\_enowjohnsonchallenge\_finalreport.pdf](https://gcc02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fww2.valleyair.org%2Fmedia%2Fgpoh0mwe%2Fc-32565_enowjohnsonchallenge_finalreport.pdf&data=05%7C01%7CHFCReduction%40arb.ca.gov%7C3c1236eb772041fdf39b08dbe15cce77%7C9de5aaee778840b1a438c0ccc98c87cc%7C0%7C0%7C638351560940790520%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=53UUncN5k0YKeFVVLQ1MzqvBPFwjnGWpwfKOTRvXHcs%3D&reserved=0)

Overall, the demonstration was very successful in developing and testing a completely new approach to refrigerated truck TRU design that was shown to reduce CO2 by 93% and criteria pollutant emissions (i.e., CO, NOx, PM) by almost 100%. The estimated O&M cost reduction is estimated to be 81% and the estimated overall lifecycle cost reduction is estimated to be 77% based on the results of the demonstration testing. This large decrease in lifecycle cost is due primarily to a projected longer life and lower O&M costs for the all-electric system compared to the high cost of operating, maintaining, and replacing a small diesel engine powered TRU. By far the largest annual cost savings comes from eliminating the use of diesel fuel for refrigeration system, which saves almost $17,000 annually in extended (12-hour) duration deliveries. In addition to lower O&M costs, vehicle up-time was dramatically improved with the hybrid all-electric TRU compared to the conventional diesel TRU system. The truck with the hybrid all-electric TRU achieved an up-time of 90% compared with the truck with the diesel TRU, which achieved an up-time of only 66%.

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