Comments of EVgo Services, LCC
Volkswagen California ZEV Investment Plan Cycle 1
California Air Resources Board
April 10, 2017

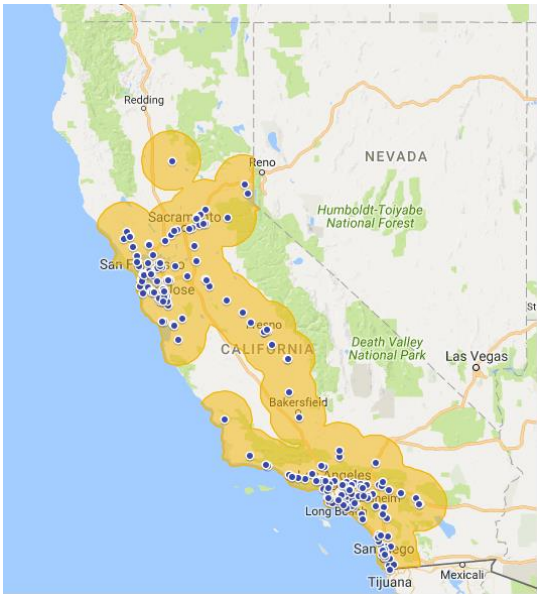
EVgo thanks the Air Resources Board for its work in negotiating Appendix C of the Volkswagen consent decree and continued efforts advancing zero emissions vehicles (ZEVs) in California. EVgo believes the EV charging industry is at a critical inflection point with consumer demand and longer range vehicles converging to create a tremendous economic and environmental opportunity. The missing piece of the puzzle is a massive investment in charging infrastructure. EVgo has been and will continue to make investments in California and across the country, but we enthusiastically welcome the $800M in California and $1.2B elsewhere in the U.S. committed under the settlement agreement that will help enable broader deployment of EVs.

EVgo believes that this funding, with the oversight of the board and active participation of a broad array of private sector EV charging service providers and suppliers, will be well spent in helping make EV adoption possible for more Californians and mitigating the environmental damage that led to the settlement. As we have previously shared with the Board, hundreds of millions of dollars needed to upgrade the existing EV charging infrastructure in California as well as incremental funding for new stations that are needed. A large injection of additional capital into ZEV infrastructure is necessary and beneficial for California drivers, EV deployments, and existing charging industry participants.

Accordingly, ***EVgo supports the Cycle 1 Plan put forward by Volkswagen.*** As the largest public fast charging operator in the United States, EVgo has unique experience informing this consideration. Importantly, EVgo has been successfully implementing the state's largest EV infrastructure investment to date through the NRG-CPUC settlement, on which Appendix C will build.

The Cycle 1 Plan's High Power, Public Fast Charging Network Promotes EV Adoption

To date, the only comprehensive, planned EV charging network in the U.S. is the EVgo network. Similar to the Cycle 1 Plan, the CPUC-NRG settlement EVgo fully funded all development and construction costs, allowing for a purposeful distribution in each region instead of relying on property owners to pay for chargers. These planned networks are more valuable than any individual site because of how they catalyze car sales. EVgo survey data has demonstrated that when car buyers learn of the presence of a comprehensive charging network in a region, it **increases their intent to purchase an EV by 192%.** To understand this effect, the map at right shows EVgo stations in California with a 35 mile radius circle around each. **93% of Californians now live within 35 miles of an EVgo fast charger.** Every car dealership in the state can now tell customers that there is a reliable fast charger near their home, answering the car buyer's first question.



Still, California's existing community charging networks need a significant upgrade to meet the market need from new EVs with high-capacity battery packs. New long-range EVs soon hitting the market, like the Tesla Model 3 and Chevy Bolt, will tax existing EV charging stations. While today's vehicles require 30 minutes to reach a near-full charge on the dominant public fast chargers in the field (50kW), the long-range EVs will require 60 to 90 minutes. As a result, drivers will spend more time on the chargers already installed, and congestion will ensue. It is critical to increase charging speeds to High-Power, as proposed in the Cycle 1 Plan, in order to reduce charge times and relieve congestion.

The two major Cycle 1 Plan investments in community charging and a highway network will together create the most significant planned EV infrastructure investment in the world. Charging infrastructure is critical to selling EVs to drivers in California and across the country. By answering the two questions EV drivers ask before buying a new electric vehicle, the Cycle 1 investments will help increase EV deployments. The experience of the EVgo network demonstrates this.

The first question of prospective EV buyers is "Where's the closest charger to my house?" The Cycle 1 plan includes a $45 million investment in community charging in order to expand charging stations across the Los Angeles, San Francisco, San Jose, San Diego, and Sacramento metro areas. It will provide the comfort of a familiar, community-based location for EV charging. The second question for California's prospective EV buyers is "How do I drive to Las Vegas," or "How do I drive to Lake Tahoe?" The $75 million investment in the highway network will demonstrate that EVs have the full capability of gasoline-powered vehicles. Answering these two questions with tangible infrastructure will lead to greater EV adoption in California.

The Cycle 1 Plan Will Attract Additional Investment in California's EV Industry

The Volkswagen plan aligns California's public interest with Volkswagen's private interest to create a high quality infrastructure. Like the CPUC-NRG settlement, the company has every incentive to build a lasting infrastructure that serves EV drivers because of its ownership stake. In particular, as Volkswagen is responsible for operating the network, the company also has the incentive to develop a financially sustainable operating network for California.

Charger utilization is not the key criterion for the network; instead it is network coverage. Even low utilized stations are valuable in a network because they create the confidence for drivers to go anywhere they need. Below, the heat map of charger utilization in Greater Los Angeles demonstrates the effect. While coastal and metropolitan chargers are well utilized, all drivers benefit from knowing that they can travel freely throughout the region.

The Cycle 1 Plan Increases Access to EVs in Disadvantaged Communities

It is a critical objective for growth of the EV industry in California to reach more communities, and the Cycle 1 Plan achieves this by changing the ways EVs are fueled in cities. Longer range vehicles will make EV ownership more attractive for urban residents, particularly those who live in rental communities without access to dedicated parking for EV chargers. Such communities are highly correlated with lower rents and incomes. EV ownership is practical for these residents with reliable High Power charging in their community. With a 240 mile affordable EV, urban residents can get a week's fill in their neighborhood grocery store or a charging plaza if they don't have overnight parking with charging.

Furthermore, by distributing stations in metropolitan regions, every driver is benefitted. In fact, a planned charging network like the Cycle 1 Plan can uniquely increase access to disadvantaged communities. Business models that sell chargers to property owners create an uneven network that inherently favors wealthy communities. The CPUC-NRG settlement has been evaluated for its penetration in disadvantaged communities using two measures, and each finding that more than 20% of fast chargers have been located in disadvantaged communities. The first measure ranks Public Use Microdata Areas (PUMAs), which are communities of 100,000 residents, by income and qualifies the bottom third of PUMAs as disadvantaged. The second measure uses CalEnviro Screen and shows similar results.

Low-income PUMA and CalEnviro Screen Freedom Stations, by geographic region

	Operational Sites	PUMA	CalEnviro Screen	PUMA %	CalEnviro Screen %
LA	73	12	15	16.4%	20.5%
SF	59	15	13	25.4%	22.0%
SD	14	4	3	28.6%	21.4%
SJV	15	4	4	26.7%	26.7%
CA- all	161	35	35	21.7%	21.7%

The Cycle 1 Plan Investments Complement Other Planned Investments and Need Not Do It All

Under SB350, California utilities have applied for additional funding for infrastructure investment and those investments should be harmonized to focus on additional areas of need, including increasing penetration in low income communities. Given the complexity of siting, installation, interconnection, and more, EVgo strongly encourages Electrify America to work with one or several of the experienced private sector charging companies who have built and operated stations in California to ensure a successful experience for drivers. The principles of partnership with these businesses should apply to all state-supported investments. We are encouraged the Electrify America has been actively engaged with private sector participants through a competitive RFP process and believe that collaboration and dialogue between automakers, charging providers and suppliers, government stakeholders, and the public are critical to achieving our shared objective of enabling mass deployment of electric vehicles across California.

EVgo's mission is to create an easy, accessible, affordable charging network for our customers, and we have done so by partnering with automakers, site hosts, government offices, and other stakeholders to build where current demand is as well as to enable future EV purchases. The Volkswagen investment can help other private sector participants by building stations that will help Californians access charging where it may not yet be profitable today. The investment cuts across state, county, and utility company territories to create a consistent charging experience for drivers. Local community needs can be met with other programs, including CEC investments and utility investments. Both of these can be highly targeted to serve disadvantaged communities with level two charging in multifamily, particularly in older housing stock. EVgo is already working to reach communities that do not have dedicated overnight parking and upgrading California infrastructure to High Power charging levels. Additional investment is needed to achieve both of these goals, and Cycle I provides such capital for Volkswagen to partner with existing market participants to do so.

Do Not Dilute the Effectiveness of the EV Charging Infrastructure by Requiring Hydrogen Investments

The needs of the battery EV market are substantial, and the Cycle 1 Plan helps address them effectively. We believe the effectiveness of the settlement will be maximized by focusing on the approach that has been most widely accepted by automakers and the driving public: battery electric vehicles. Every major automaker has announced that they will release some form of a battery electric vehicle. The technology is well understood and gaining market adoption at a high rate. All of these vehicles will need robust infrastructure throughout the state. With that in mind, we believe that requiring additional technology infrastructure, e.g. hydrogen, will detract from the overall goals of the settlement to address increased ZEV deployment to mitigate the environmental damage that led to the settlement.

Marketing Investments are Ephemeral and Should Be Minimized to Favor Durable Infrastructure

EVgo remains concerned about large investments in generic marketing under the settlement. EVgo has found that the best way to make sure consumers aware that EVs are a great option for them is to make sure their neighbors are driving them, not by providing public service announcements. By supporting public fast charging infrastructure deployment, neighbors will see each other charging and recognize that EVs are an option for them, leading to more sales.

The Cycle 1 Plan Needs to Move Forward With Haste

This is a critical time for the sector, and It is important to continue to move quickly toward implementation of the agreement the Board negotiated in Appendix C. EVgo's groundbreaking

experience developing public fast charging in California paved the way for drivers and even other charging infrastructure companies. It has taken more than four years for EVgo to deploy a $55 million investment in California, but Electrify America will be able to build on the pathway EVgo and other charging leaders developed. Accordingly, it is reasonable to believe Volkswagen can deploy its $45 million community investment during Cycle 1, but only with haste.

Accordingly, EVgo would not and does not support transferring funding or control to a third party agency. With all due respect, in over six years of funding DC fast charging through CEC, less than 10% of funded projects are now in operation. Aligning the interests of stakeholders—automakers, charging service providers, suppliers, government, the public, et al—is the critical priority and must be done quickly. Cycle 1 enables that, and any significant delay threatens this critical moment to inject large incremental funding to support the needs of the market.

EVgo is committed to fulfilling the vision of public charging infrastructure for all. We believe that in the final analysis, cars on the road are the real determinant of success, and every company in this industry will thrive when more drivers are choosing EVs. We support Cycle 1 and look forward to continuing to work with the Board over the coming months and years to ensure that this and subsequent segments of the plan work to make EV charging accessible across California.

EVgo Contact:

Terry O'Day
terry.oday@evgo.com
Vice President
11390 West Olympic Boulevard, Suite 250
Los Angeles, CA 90064
310-954-2929 (o) 818-253-5086 (m)