



## ***Update: Envoy Technologies Inc. Intends on Remaining Open to Support Our Communities During the Coronavirus/Covid-19 Crisis***

*April 28, 2020*

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To ensure access to essential services,<sup>1</sup> Envoy will remain open at our closed-circuit properties and communities.<sup>2</sup> Through this effort, Envoy intends on providing clean, affordable, and accessible services during this critical time. This decision was made after deliberation, including analysis of the following:

### **I. Travel and Use Patterns**

***Despite the current environment, Envoys are still in demand.***

While Coronavirus/Covid-19 has all but eliminated non-essential travel, it is still critical that we focus on evaluating and where possible maintaining essential service support. To better understand this need, Envoy conducted an open-ended survey in April. The narrative gathered insight into current needs for Envoy.

Approximately 350 community members responded to this survey from across our portfolio. Of this, 256 respondents (74%) provided feedback suggesting that they will likely continue Envoy services despite current happenings.<sup>3</sup> In addition, 232 community members (66%) specified that they do not own or lease a car. In Sacramento specifically, in similar surveys, we have seen patterns where upwards of 53% of our community members indicate that they do not own or lease a car, with many members also indicating that Envoy is their only available vehicle. These, and other, patterns suggest that Envoy can presently serve as a crucial lifeline service.

Relatedly, our community members have provided feedback on various “key essential activities” where Envoy is needed. Highlights from their responses, in no particular

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<sup>1</sup> “Essential Services” per state direction: <https://covid19.ca.gov/stay-home-except-for-essential-needs/>

<sup>2</sup> Note: Envoy will close vehicle access to vehicles at the request of ownership and managers.

<sup>3</sup> Envoy’s open-ended question to our community: “Are you using Envoy despite current happenings? If yes, please let us know why.”

order, are clustered by similarity and shared in **Table 1**.<sup>4</sup> Within these word clusters, the need for vehicles as a tool to get groceries and food was the largest area of response.

*Table 1: Word Response to “Key Essential Activities”*

Response words gathered related to “key essential activities”	Number of responses
Groceries, Food, Errand, Shopping	304
Doctor, Medicine	26
Bank, Mail, Post	24
Work, Job	61

## II. Consistency

*These recent responses strongly align with our previous understanding of community member “essential travel” needs.*

In December 2019, Envoy conducted a survey requesting feedback on travel needs and patterns. There were 202 respondents, who shared insight into frequency of use and destination. Findings from this survey highlighted, among other things, similar “essential service” patterns. Notably, our community members indicated higher needs for travel to services such as medical clinic, pharmacy, office or work, post office/bank, and other locations aligned with their present needs under Coronavirus/Covid-19. As illustrated in **Table 2**, highlighted yellow represents response areas with more than 40% of their respective categories.<sup>5</sup>

*Table 2: Envoy use & frequency as reported by survey respondents*

Frequency	Never	Not Often	Prefer Not to Answer	Sometimes	Very Often	Daily	Total
MEDICAL CLINIC	25%	28%	2%	30%	13%	2%	100%
CHILDCARE	67%	13%	2%	12%	4%	1%	100%
PHARMACY	34%	21%	1%	35%	8%	1%	100%
PUBLIC PARK	45%	26%	1%	23%	5%	0%	100%
BUS STATION	67%	14%	1%	15%	1%	1%	100%
OFFICE OR WORK	34%	22%	1%	29%	7%	7%	100%
TRAIN OR METRO STATION	61%	16%	1%	17%	3%	1%	100%
UNIVERSITY OR JR COLLEGE	63%	12%	2%	15%	5%	1%	100%
AIRPORT	59%	16%	1%	20%	3%	0%	100%
PLACE OF WORSHIP	60%	16%	2%	17%	3%	1%	100%
BANK OR POST OFFICE	30%	17%	1%	35%	15%	1%	100%
VOLUNTEERING	56%	18%	2%	18%	5%	0%	100%

<sup>4</sup> Envoy’s Question to our community: “What are the three key essential activities that Envoy’s mobility service can support at this time?” (also open-ended)

<sup>5</sup> The category of Sometimes, Very Often, and Daily were selected at the following percentages: Medical Clinic (45%), Pharmacy (44%), Office or Work (43%), and Bank or Post Office (51%)

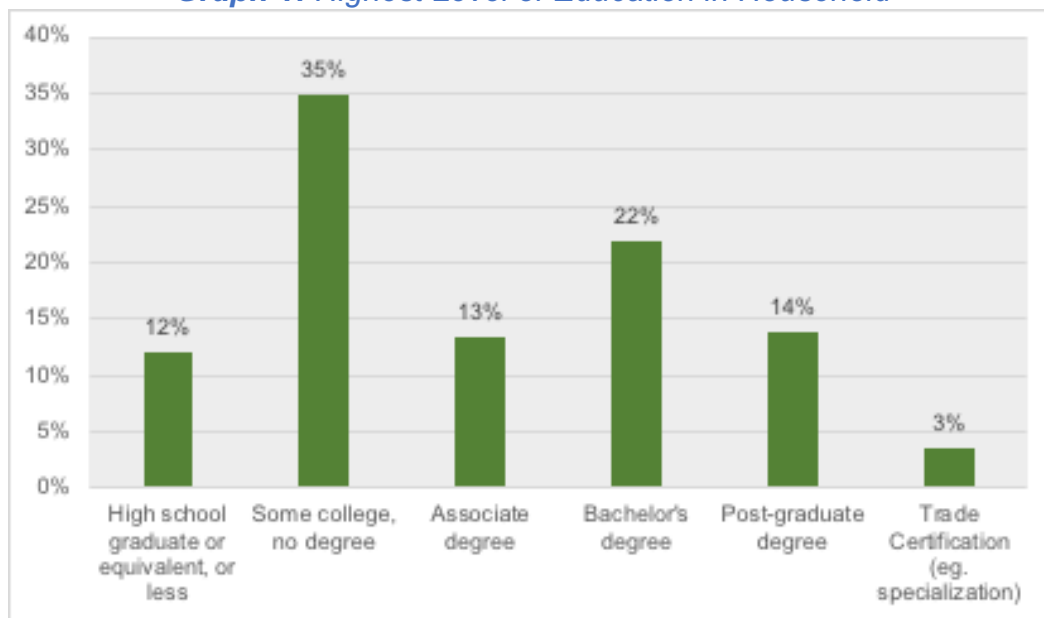
### III. Community Snapshot

*There are indications that Envoy provides EVs to communities in need.*

As an example, the lion's share of Envoy's current deployments in Sacramento region focus on directly supporting census tracts classified as low income and disadvantaged communities.<sup>6</sup> In addition, recent findings from a community demographic survey conducted in November, 2019 provides further insight into the diverse communities we support.<sup>7</sup> Some notable findings from this survey include:

- **Age:** The average Envoy user is around 38, with age demographic ranging from 20 to 74;
- **Gender:** Roughly 60% of Envoy drivers are females (males representing 40%);
- **Future Purchase:** Approximately 47% answered "yes" to "maybe" regarding possibly leasing or buying an EV in the next 6 months;
- **Exposure:** For 73% of our members, Envoy was their first time in an EV;
- **Vehicle Retirement:** Regarding willingness to scrap a vehicle for an incentive to put towards use of Envoy, 59% answered "yes" to "maybe" to this potential option.<sup>8</sup>
- **Education:** Notably, 60% of respondents held an associate degree or less. Recognizing that those with less education are often hit harder during such crises, this was another compelling factor informing Envoy's decision to remain open. **Graph 1** depicts the educational level attained to those that responded to the November 2019 survey.

*Graph 1: Highest Level of Education in Household*



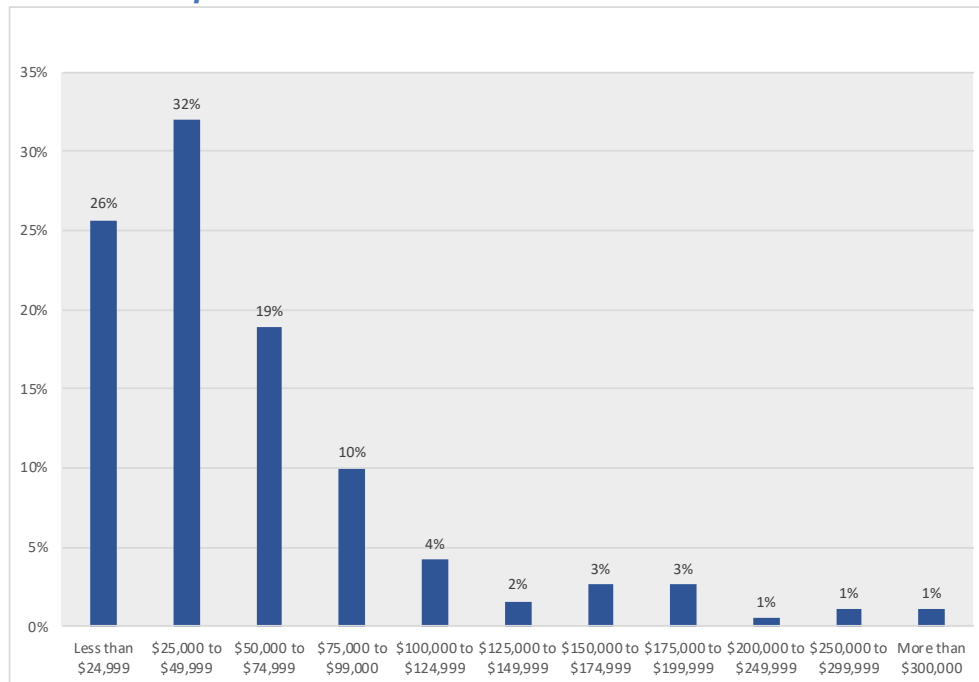
<sup>6</sup> Per CalEnviroScreen 3.0.

<sup>7</sup> The November 2019 survey had approximately 220 members that provided response.

<sup>8</sup> Specific question asked: "If you could scrap your old vehicle for \$7,500 (to put towards use of Envoy), would you consider getting rid of your car, and using Envoy instead?"

- Income.** Our November 2019 survey also recorded that approximately 80% of the families that we serve in the Sacramento region are making less than \$100,000 per year. From this, we recognized that our community members will likely to be hit very hard economically due to financial challenges and barriers that will inevitably be created by the current economic downturn. This became another factor informing our decision to remain open.

**Graph 2: Current Annual Gross Household Income**



- Sustainability.** While Coronavirus/Covid-19 has reduced CO2 emissions, it is equally as critical that we focus on resilient and sustainable strategies for the future that can electrify and reduce single-occupancy vehicles. Notably, our communities continue to demonstrate a “green leaning” of sorts. The December 2019 survey captured data illustrating that community members are showing interest in a variety of green practices, including an interest in integrating e-bikes into their communities,<sup>9</sup> seeing Envoy powered by green energy sources,<sup>10</sup> and generally perceive air pollution as a threat in the region.<sup>11</sup> **Table 3** highlights these responses, demonstrating that upwards of 65% of our members strongly agree with integrating e-bikes in their community, 75% would like to leverage green energy to power Envoy vehicles, and 91% view pollution as a regional<sup>12</sup> threat.

<sup>9</sup> Specific question asked: How much do you agree with this statement: “I would use an electric bike if it was also connected to our community through the Envoy There app”

<sup>10</sup> Specific question asked: How much do you agree with this statement: “I would like the electricity from this EV charger to come from green energy sources (e.g., solar, wind, others).”

<sup>11</sup> Specific question asked: How much do you agree with the following statement: “Pollution is a threat in our region.”

<sup>12</sup> In this case, Sacramento was the region discussed.

**Table 3: “Green Leaning” Responses<sup>13</sup>**

Response	Would like e-bikes?	Want these EVs to be powered from green energy sources?	Air Pollution Is a Threat in region
<b>Do not agree</b>	13	1	3
<b>Don't really agree</b>	13	2	No Data
<b>Neutral</b>	34	40	14
<b>Some Agreement</b>	57	47	34
<b>Strongly Agree</b>	74	103	150
<b>Not sure</b>	11	9	1

These green leanings continue to show as we continue to survey. In our most recent survey conducted second week of April 2020, there remain strong leanings towards the use of EV car sharing as a positive tool that is good for the planet, lessens carbon footprint, and reduces environmental impact. Illustrated in **Table 4**, areas in orange show patterns of high response in these areas. Regarding dependence (also depicted in Table 4) about 30% of respondents indicated that Envoy is their “only” vehicle option, with about 20% expressing that they somewhat agree with this statement.

**Table 4: “Green Leaning” Responses, Second Response (n=65)**

	Envoy car sharing has changed my perception of electric vehicles in a positive way.	Envoy car sharing has changed my perception of electric vehicles in a negative way.	EV car sharing is good for the planet.	When I use EV car sharing I am lessening my carbon footprint.	Envoy is my only vehicle option.	Climate Change Is a Concern	Using Envoy helps to reduce environmental impact.	Are you interested in learning more about EV battery technology?
<b>Do not agree</b>	No Data	47	No Data	No Data	15	No Data	1	6
<b>Neutral</b>	2	2	1	3	8	3	3	8
<b>Not sure</b>	No Data	2	No Data	2	No Data	No Data	No Data	No Data
<b>Somewhat agree</b>	8	1	1	4	17	9	4	14
<b>Somewhat don't agree</b>	No Data	2	No Data	No Data	2	1	No Data	9
<b>Strongly agree</b>	54	10	62	54	21	49	55	25
<b>Prefer not to answer</b>	No Data	No Data	No Data	1	1	1	No Data	1

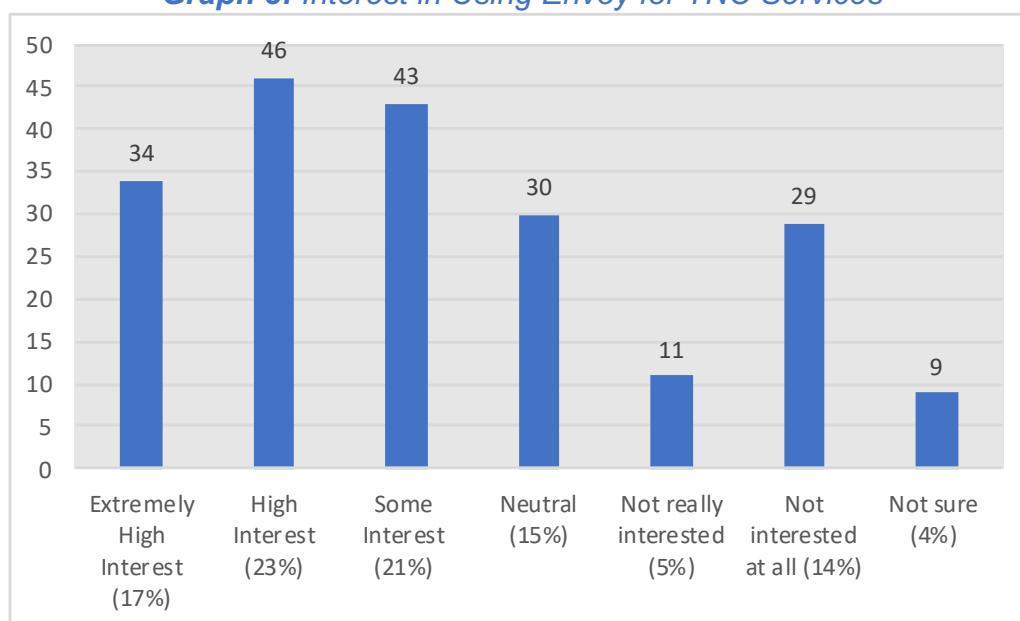
Envoy envisions that these community-focused “green leanings” can be leveraged in some way, as there is a unique opportunity to strengthen community pathways and use of Envoy's both during and after this crisis. This is realized as we identify commonalities where communities are showing resiliency, welcoming connectivity to the green economy, and connecting to EV car sharing to help support environmental goals.

<sup>13</sup> n=203

- Transportation Network Companies (TNCs).** While Coronavirus/Covid-19 has substantially impacted TNC services, it is still critical to evaluate how important these services are (or will be) as we recover from this crisis. Based on information Envoy has gathered, there are indications that Envoy community members are interested in using Envoys to participate in the gig economy, including TNC services. Many indicated explicit interest in doing so in our December 2019 survey, with approximately 61% of our community members indicated “some,” “high,” or “extremely high” interest in using Envoys in this manner. This same TNC pattern was fortified in our April 2020 survey, which specifically asked for what services community members would like to use the vehicles for at this time. Here, 65 community members have expressed immediate interest in using vehicles across multiple jobs in the gig economy, including TNC service.

**Graph 3** depicts this interest for TNC use. Recognizing that there is an accelerated need to create expanded workforce pathways and opportunities, keeping Envoy’s accessible—or even growing Envoy use—for participating in the gig economy may present a unique opportunity to directly and rapidly support our community members.

**Graph 3: Interest in Using Envoy for TNC Services**



- Passengers & Household Size.** Also gathered from our November 2019 survey, members indicated that one person rides in an Envoy more than 60% of the time.<sup>14</sup> As illustrated in **Table 5**, there are indications that the vehicle is being used for more than a single-passenger trip and e-mile. While not necessarily connected to vehicle miles traveled per se, this could be an emergent statistic clarifying that Envoy is supporting multi-passenger trips and larger families. Moreover, through

<sup>14</sup> USDA: Food Atlas Research Atlas; Website Access: <https://www.ers.usda.gov/data-products/food-access-research-atlas.aspx>

further analysis, there may be a way clarify where e-miles are undertaken in lieu of trips by other means (e.g., an internal combustion engine vehicle, transit trips, bicycle, walking, others).

**Table 5: Passengers Per Vehicle**

Passengers	Responses	Percentage
1	81	39%
2	93	44%
3	24	11%
4	10	5%
5	2	1%

#### IV. Deserts

*Envoy's are deployed in areas recognized for their accessibility challenges.*

##### Food Deserts

Envoy's are deployed across multiple "Food Deserts," as identified by the Economic Research Services (ERS) and US Department of Agriculture (USDA).<sup>15</sup> A "Food Desert" analyzes prevailing food crises as they relate to neighborhoods and community density, with a focus on housing proximity to grocery stores. In Envoy's Bay Area and Sacramento deployment,<sup>16</sup> many (52%) of Envoy's properties fall within this Food Desert definition (i.e., within "Low Income and Low Access at .5 and 10 miles")<sup>17</sup> with 3 Envoy properties falling within the identifier's highest disadvantaged lens (i.e., "Low Income and Low Access at 1 and 10 miles").<sup>18</sup> In addition, 20 properties (or 31%) are noted as having vehicle access issues, specifically where more than 100 housing units in the census tract do not have a vehicle.<sup>19</sup> These patterns strengthen Envoy's understanding that we are being deployed in areas that have clear access issues, which has augmented our decision to remain open.

<sup>15</sup> *The Food Access Research Atlas is a census tract level dataset provided by the Economic Research Services (ERS) and the US Department of Agriculture (USDA) that allows planners, academics, and community organizers to get a deeper sense of the prevailing food crisis across many of our neighborhoods.*

<sup>16</sup> *Envoy has deployed approximately 70 properties in the region, including more than 60 in Sacramento area specifically.*

<sup>17</sup> *This identifier is defined as: "Low-income census tracts where a significant number or share of residents is more than 1 mile (urban) or 10 miles (rural) from the nearest supermarket.*

<sup>18</sup> *Specifically, this level of "food desert" is defined as a "Low-income census tract where more than 100 housing units do not have a vehicle and are more than 1/2 mile from the nearest supermarket, or a significant number or share of residents are more than 20 miles from the nearest supermarket."*

<sup>19</sup> *Specifically, this level of "food desert" is defined as a "Low-income census tract where more than 100 housing units do not have a vehicle and are more than 1/2 mile from the nearest supermarket, or a significant number or share of residents are more than 20 miles from the nearest supermarket."*



## Electric Vehicle Deserts

*Envoyos are located in areas where there are otherwise very few to no other EVs being deployed.*

Specifically, in addition to a substantial number of Envoyos being deployed within designated LICs/DACs,<sup>20</sup> many of our vehicles are deployed in census tracts that could be classified as “EV deserts,” of sorts.

Specifically, when we compare Envoy deployment to the current statewide EV deployment,<sup>21</sup> it is observed that Envoyos are often located within census tracts that have experienced very limited EV adoption. Across 16 census tracts, Envoy constitutes more than 10% of EVs deployed, with some census tract patterns showing Envoy’s as an even higher percentage. **Table 6** illustrates where deployment of Envoyos represents a significant percentage of EVs within the census tract. Moreover, it is worth noting that Envoyos are shared across multiple households.

*Table 6: Census Tract Comparison (Envoy to EVs leased/purchased)*

Rank	Census Tract	Envoyos in Census Tract	EVs Purchased/Leased in Census Tract	Percentage of Envoyos
1	6067009634	2	0	100.00%
2	6067009606	8	5	61.54%
3	6067005002	4	3	57.14%
4	6067005205	6	6	50.00%
5	6067004903	2	3	40.00%
6	6067003102	2	4	33.33%
7	6067004905	2	4	33.33%
8	6067009111	2	6	25.00%
9	6067006702	2	7	22.22%
10	6067007011	2	7	22.22%

## V. Expectations

*Based on these and other factors, Envoy intends on remaining open.*

During this time, we will focus our support towards our most vulnerable. To do this, Envoy plans to provide additional support, including free or promotional miles to-and-from essential services, periods of reduced rates, notifications of support services for our community members (e.g., free food and lunches, volunteering opportunities, etc.), and other methods intended to embolden use of Envoyos during this crucial time. In addition, to gather real-time information on how our vehicles will be used, we will continue to survey our communities and gather crucial insight into their needs.

<sup>20</sup> Per CES 3.0.

<sup>21</sup> Statewide deployment of EVs is derived from CARB Clean Vehicle Rebate Project (CVRP) statistics, which serves as a proxy for EV vehicle deployment, per California census tract. Website Access: <https://cleanvehiclerebate.org/eng/cvrp-rebate-map>



Relatedly and proportionately, Envoy is ramping up operational necessities, such as vehicle cleaning frequency and other health-focused protocols. We are also encouraging our community members to engage in clean and healthy practices while operating the vehicles (e.g., wipe down surfaces, wash hands pre-and-post use, others), and informing Envoy users to practice social distancing and other preventative measures.

## **VI. Conclusion**

In summary, Envoy intends on remaining open as an asset for community members, to the extent feasible, during this crisis.

As demonstrated by data presented in this memo, doing so will have direct impact and value to many hit the hardest by this pandemic. Moreover, Envoy's commitment will support wider goals and initiatives to ensure EV access to those that generally do not have such access.

Please reach out to Envoy Team with any questions or for clarifications:  
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In Support of Our Community,

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