

# USDN Equity in Energy Transformation and Innovation Case Study: Cully Car Share Pilot Program

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## Snapshot

This pilot electric vehicle (EV) car-sharing program was started by an EV advocacy nonprofit and an affordable housing nonprofit in Portland's Cully Neighborhood. Through this pilot program, three used EVs and level 2 charging stations were made available to neighborhood residents to rent for a subsidized \$10-a-day rate through a car-sharing app. This peer-to-peer connection program provides alternative transportation options to an underserved neighborhood that is not adequately connected to public transportation or other car-sharing options.

### Key Information:

- **Technology:** Electric vehicles
- **Ownership:** Third-party
- **Funding Sources:** Private donations, grants, and in-kind time
- **Location:** Cully Neighborhood, Portland, Oregon

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## Community Context

The [Cully](#) Neighborhood is a culturally, racially, and ethnically **diverse community in Portland, Oregon**, with approximately 21 percent of its residents identifying as Hispanic or Latino.<sup>1</sup> The neighborhood has 325 units of community-centered affordable rental housing provided through Hacienda Community Development Corporation (CDC) and is served by several community-based organizations. Although located in an urban area, the community has a relatively low density, with primarily single-family dwellings, and its 13,000 residents live in a 3-square

mile radius.<sup>2</sup> Many residents either do not have access to public bus routes or must make multiple transfers to reach their destinations. **Transportation is also the second highest monthly expense for families** in the neighborhood.<sup>3</sup> Residents have expressed concerns related to poor walkability from unpaved streets and unkempt sidewalks.<sup>4</sup> As of 2010, approximately 17 percent of the community's population lived below the Portland poverty level,<sup>5</sup> and 85 percent of the students in Cully currently qualify for free or reduced lunches in schools.<sup>6</sup> The neighborhood faces pressures from gentrification and displacement.

In Oregon, **transportation accounts for more than one third of the state's greenhouse gas emissions.**<sup>7</sup> In the backdrop of Oregon's larger commitment to cutting emissions, the EV advocacy nonprofit, [Forth](#), designed the Cully Care Share program to serve as an example of improving mobility options for residents. The City of Portland also has its own EV Strategy, highlighted by its goal to have 15 percent of noncommercial vehicles in the City run on electricity by 2030.<sup>8</sup> Although the City did not have a direct role in the Cully Car Share program, the program aligns with the City's goals to eliminate racial inequity, including around developing transportation in collaboration with communities, and to increase outreach and services for immigrant and refugee communities.<sup>9</sup>

## STAGE 1—PROGRAM DESIGN PROCESS

### Program Genesis

The EV advocacy nonprofit, Forth, seeks to advance electric, smart, and shared mobility options in the Pacific Northwest. Formerly known as Drive Oregon, Forth works to increase mobility and EV adoption in low-income communities. Beginning in late 2015, Forth staff worked with an AmeriCorps member to better **understand the needs of consumers in low-income areas in Portland.** Forth **spent a year collaborating with community groups** to hold focus groups and one-on-one interviews. The goal was to better understand people's mobility needs as well as their understanding of and interest in EVs. This outreach led to the **peer-to-peer design of a car-sharing program** for the Cully Neighborhood of Portland, a low-income neighborhood underserved by public transportation and car-sharing options. Forth searched for a community partner with capacity and creativity to support the program that was trusted within the community. From this search, they partnered with the affordable housing nonprofit, Hacienda [CDC](#). After connecting with various partners for funding support, three Honda Fit EVs and three level 2 charging stations<sup>A</sup> were installed in the neighborhood, and the 1-year pilot launched in March 2017.<sup>10</sup>

<sup>A</sup> Level 2 charging stations refers to the voltage of the station (240 volts) and is a common form of charging EVs.



Figure 1: Cully Car Share Pilot Program Timeline

## Key Actors and Partnerships

Forth acted as administrator of this pilot program and put significant effort into identifying community partners, ultimately connecting with Hacienda CDC. Forth staff spent an estimated 1,000 hours on designing the program and community engagement before launching the pilot.<sup>11</sup>

### Community partner:

- **Hacienda CDC**, which describes itself as a **Latino community development corporation**, owns and **manages nine affordable residential buildings** around the neighborhood.<sup>12</sup> It also provides supportive services around job training and educational opportunities, roles which position the organization to directly connect with households of lower-incomes.
- Hacienda CDC's **Resident Services Coordinator** conducted outreach with community members regarding Cully Car Share and helped to administer the program.<sup>13</sup>

### Car-sharing app partner:

- Forth had originally designed the project to use the car-sharing app, Getaround.<sup>14</sup> Getaround is a peer-to-peer car-sharing platform that allows users to rent their vehicles hourly without having to meet in person. However, Getaround designed its service provision area maps based on census income data and intentionally **redlines lower-income communities** such as the Cully Neighborhood, preventing them from using the application.

After finding that Getaround would not serve the Cully Neighborhood, Forth identified Turo as a suitable alternative app. **Turo** also allows for **peer-to-peer car sharing**, but only for full-day rentals. Thus, the Cully program was structured as a daily rental model.<sup>15</sup>



## Stage 1: Core Equity Components

**Decision Making and Stakeholder Engagement:** Spending a year holding focus groups, speaking one-on-one with community members, and conducting surveys at community events increased Forth's trustworthiness in the community and taught staff helpful information about the community to incorporate into the program design. These focus groups involved a variety of demographic profiles with different transportation needs and were hosted by partner groups including the Latino Network and Bus Riders Unite! Forth learned that residents had questions regarding vehicle limitations and use, such as whether the vehicles could go on a freeway or in a car wash, how to charge them, and about the potential mileage range. To address these types of questions systemically, Forth prioritized the educational aspect of the program in its design and implementation. By seeking out a trusted community-based organization as a partner for running the program, Forth built off Hacienda CDC's existing initiatives and outreach channels.

## STAGE 2—PROGRAM STRUCTURE

**User's Perspective:** This program combines car-sharing services with consumer education. Low-income residents in the Cully Neighborhood could learn about the program via community meetings (which included lessons on how to drive EVs), language-accessible reading materials in Spanish and English on EV technology, and additional community events on the use of the Turo app.

- The Hacienda CDC Resident Services Coordinator helps organize interested residents and assists them in **creating a Turo account**, which requires a credit or debit card, social security number, and a smartphone or computer.<sup>B</sup> Only neighborhood residents are eligible to participate in the program.
- Once a resident **requests a car** through the app, he or she meets a Hacienda CDC employee at the vehicle at a designated time. The participant shows their driver's license to receive the keys and a Blink charging card, which allows for vehicle charging at other stations around the area. Participants pay a subsidized \$10-a-day rate directly through Turo. Turo covers the insurance while the vehicle is driven.



A Honda Fit EV, one of the three vehicles in the program.

(Photo Credit: Cassandra Profita, Forth, *The Future of Car Sharing: Electric, Affordable, and Community-Centered*)

<sup>B</sup> The Turo requirements presented some barriers for residents. See the Lessons Learned and Replicability section of this case study for more details on how some of these barriers were addressed.

- Separately, Hacienda CDC **employees have access to one of the EVs** for their work travel needs, which helps to minimize mileage costs for the nonprofit.<sup>C</sup> Employees have their own insurance, covered by Forth, and need to prequalify with 3 years of driving history in Oregon.<sup>16</sup> Program participants and employees have exclusive access to the three charging stations installed as part of the project.

**Administrator’s Perspective:** Hacienda CDC placed the charging stations adjacent to one of its affordable housing complexes, Vista de Rosas. The program staff decided to install three stations to ensure that all EVs would be fully charged at all times. This location is within a mile of eight of Hacienda’s housing complexes—the majority of its buildings—making the program geographically accessible for all of the CDC’s residents.

- Although the pilot program was initially designed for 1 year, the program has **continued for a second year** with a modified administrative function.
- In its pilot program year, maintenance of the three Honda Fits was managed by Forth, whose contractors cleaned and inspected the vehicles for damage. **Forth also provided insurance** for the vehicles while they were parked. In the event of an accident while a resident was driving, Honda Roadside Assistance would tow the vehicle to the nearest dealership.<sup>17</sup>
- During the pilot year, **outreach and education was a collaborative effort between Hacienda CDC and Forth** and included running Turo use workshops at the housing complex.
- The pilot ended in December 2017, which concluded Forth’s formal role in the program. However, Honda has agreed to continue loaning two of the three cars for an additional year. In this second year, from December 2017 to December 2018, **Hacienda CDC continues to run the program**, conducting the day-to-day lending of one car and using the second for their community work as an organization car.
- Both during the pilot and in the subsequent year of the program, **Hacienda CDC has organized the rental requests**. Hacienda CDC is no longer actively conducting outreach and education, but community members are aware of the program from its pilot year and continue to use the cars.<sup>18</sup>



Decal of one of the EVs  
 (Photo Credit: Cassandra Profita, Forth, *The Future of Car Sharing: Electric, Affordable, and Community-Centered*)

<sup>C</sup> Now, in the second year of the program, there are two EVs rather than three, with one in use for Hacienda CDC employees and the second for the community.

- Additionally, to build excitement for the program and to help distinguish the cars, Forth created a competition for Hacienda CDC staff to choose names for each car—Integridad (integrity), Colaboración (collaboration), and Respeto (respect).<sup>19</sup>

## Program Funding

Forth was able to attract funding in part because staff could **present a strong program and partnerships structure**. Funding included grants and in-kind support.

### Grants:

- Forth could cover Hacienda CDC's costs to manage the program through **private-ly funded grants** from the Meyer Memorial Trust, the Schmidt Family Foundation's 11th Hour Project, and Pacific Power.<sup>20</sup> These costs are estimated to be \$200,000–\$250,000 for staff time and capital cost across the three cars for the first year of the program.<sup>21</sup>

### In-kind:

- The level 2 charging stations were provided by Blink Charging Co. at a discounted rate and installed by Cherry City.<sup>22</sup>
- Honda **loaned three used Honda Fit EVs for the program at no cost**. The funds collected from the car rentals went back into the managerial costs for Hacienda, though were not substantial enough to cover program costs.
- Of note, Forth originally launched the program outreach and design process without funding. By the time staff secured funding, Forth had partners, the program design, and many logistical pieces of the program ready to go. **These early planning steps helped bring in additional partners and grant funding support.**<sup>23</sup>

The program provided community residents with the ability to rent the vehicles for \$10 per day. Forth and Hacienda **set this daily rate with the intention of offering the most affordable rate possible for residents**. The program's use of donated vehicles, combined with the lower operating costs of EVs compared with gasoline-run vehicles and grant funding, helped make this low rental rate feasible.<sup>24</sup> Community members also had access to free educational events to learn about and test drive the EVs. Hacienda CDC employees' access to one of the EVs for their work travel needs also saves on mileage reimbursement costs for the nonprofit.<sup>D</sup>

### PILOT PROGRAM COSTS:

- Rental: \$10 per day to rent for neighborhood residents
- Installation of Three Level 2 Charging Stations: \$5,200
- Marketing: \$5,000
- Events and Workshops: \$2,500 (\$200 per each)

<sup>D</sup> Before this program, Hacienda CDC was spending \$20,000 a year on mileage reimbursements for staff to carry out their work, so the gas savings from having access to an EV made an impact on their finances.



## Stage 2: Core Equity Components

**Program Funding:** The program's ability to provide subsidized rental fees by connecting to a combination of larger companies' resources and community organizations made car sharing **more accessible to low-income residents** in the neighborhood. The program can help **reduce the amount of money that low-income families spend on transportation** by limiting their need to rely on personal vehicles or more expensive rental options.

**Customer Interaction:** The Turo app allowed Forth and Hacienda CDC to determine their own rental costs, and staff could offer a daily price that was affordable to community members. The **\$10-per-day cost was the lowest price allowed by the app** and was largely made possible because the Honda Fits were donated. Hacienda CDC staff also made the program **easy for participants to use** by helping residents learn how to rent the cars and placing the cars in a location that provided easy access for residents.

## STAGE 3—IMPLEMENTATION AND EVALUATION

### Impact

During this 1-year pilot, Hacienda CDC staff members drove 1,914 miles, saving over \$1,000 in mileage reimbursement for the organization and reducing CO<sub>2</sub> emissions by 1,217 pounds.<sup>25</sup> Hacienda CDC noted that after residents rented an EV once, they would often start renting regularly.<sup>26</sup> Additionally, **community awareness and use of this program increased** throughout the 9 month pilot, from 43 days rented and 13 rentals in the first half, to 174 days rented and 53 rentals in the second half.<sup>27</sup> Following the creation of this program, Forth **also began an electric e-bike sharing program** designed for residents who did not have driver's licenses.<sup>28</sup> Hacienda CDC has also been able to increase exposure for their other community programs by driving the EVs around the community with the CDC decal on the back of the vehicle. Kids in the community were able to learn about EVs through an after-school program that used the program's cars.<sup>29</sup>

## Stage 3: Core Equity Components

**Recruit Program Participants:** The educational and outreach piece of this program was designed to be accessible to as many residents as possible.

- First, workshops on EVs and the Turo app were **held at Hacienda CDC housing complexes** to make them accessible to residents.
- Additionally, Forth and Hacienda CDC held **workshops** in Spanish and distributed **bilingual materials** door-to-door.
- The organizations also conducted **bilingual tabling** at numerous existing community events, such as community parades, offering additional opportunities for residents to learn about the program.<sup>30</sup>
- Forth also hosted **“ride and drive” events** to allow residents to test and learn how to drive EVs.
- Separately, the program made use of another important community connection in their outreach and communication: The Resident Services Coordinator for Hacienda CDC acted as a **community liaison** for the program, helping to coordinate the workshops and ensure that residents knew about the program. This coordinator was also available to help residents use the Turo app or the housing complex’s computers to register for the program.<sup>31</sup>

## Challenges

1. One of the main constraints for the program was the **high amount of staff time required to administer the program** via the Turo app. Turo requires the CDC staff to meet program participants in-person to rent the cars, which limited the number of EVs the program could deploy. Programs could streamline the process for checking out a vehicle by using an app that provides alternatives to an in-person key drop off and consider platform models that do not require personal credit or debit cards or social security numbers.
2. Hacienda CDC also experienced several **staff turnovers** during the program, causing some delay in responsiveness.
3. Many community residents are **undocumented immigrants** who face challenges obtaining driver’s licenses under Oregon state law. This led to the creation of a supplemental program: an e-bike-sharing program that loans out 10 bikes in the

### PROGRAM TOOLS FOR LOCAL GOVERNMENTS AND PARTNERS:

- [EV Flyer in English](#)
- [EV Flyer in Spanish](#)
- [Easy-to-read bilingual flyers on EVs targeted toward community members](#)
- [In-depth Case Study of the Project developed by Forth](#)



neighborhood and other areas, in partnership with the Community Cycling Center. Apart from not having drivers' licenses, **many residents did not have credit or debit cards**, making it impossible for them to pay through the app. Additionally, **not all the interested residents had smartphones or knew how to use apps on their phones**. Hacienda CDC attempted to overcome this barrier by providing educational support and having the Resident Services Coordinator assist them to use a computer in one of the housing complexes to sign up.

4. Forth found that one of the most challenging aspects of managing an EV car-sharing program is the **insurance**. The insurance category for car sharing is different than an owner driving and can cost around \$4,000 a year per car. Therefore, using an app that covers the rental car while it is being driven is crucial and meant that Forth only had to cover the insurance when they were not being driven.<sup>32</sup> However, the app created barriers in access for participants.

## Lessons Learned

Although this is a small-scale program, there are many replicable aspects.

- The first is its success of having a technology-knowledgeable nonprofit act as the **lead administrator**, combined with a **strong community partnership** with a local CDC.
- The second is conducting thorough **community outreach** before and throughout the program design phase. For example, from their communication with community members, Forth recognized many residents had children they needed to travel with and provided car seats to use in the EVs.<sup>33</sup>
- Finally, the Cully Car Share program capitalized on **funding partnerships** to ensure that the program cost was affordable to residents.

### PILOT PROGRAM IMPACT:

- Total days of car use: 217
- Total community rentals: 66
- Hacienda CDC earnings from rentals: \$1,252

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# Replicable Elements

## Stage 1: Listen and respond

- Conduct targeted community engagement to inform program design and implementation
- Consult community members early to understand community needs and use feedback to directly inform program design and structure.

## Stage 1: Partner with trusted, community-based organizations

- Partner with organizations that have similar goals and are well-known and trusted in the community.

## Stage 2: Make it easy

- Strategically locate EVs and charging infrastructure in an accessible location. An example is Forth's placement of EVs by an affordable housing complex.
- Ensure all marketing and educational materials are language-accessible.

## Stage 2: Reduce financial burdens

- Find creative ways to set affordable rates for program participation.
- Utilize partnerships to minimize capital and administrative costs. This can enable low costs to participate.

## Future Plans

Hacienda CDC will be able to use the EVs through the end of the second program year. Given the benefits to the organization, their staff are considering how to keep the Honda Fits permanently or to buy their own fleet. Additionally, Forth hopes this pilot can develop into a **more permanent** program in the future. They successfully launched another pilot program in September 2017 at the Oregon Food Bank in Portland. This program provides two chargers and Honda Fit EVs for volunteers and employees. They aim to create **additional pilot programs** in Portland and Seattle.

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### Interviewees:

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- Cassandra Profita, Forth, “[The Future of Car Sharing: Electric, Affordable, and Community-Centered](#)”. *A Honda Fit EV.*
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- Cassandra Chambers, Toronto Lived Experience Advisory Group for the Poverty Reduction Strategy
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