# People's Power & Light Answers to PST on Electric Vehicles

People's Power & Light (PP&L) is a Rhode Island non-profit dedicated to making energy more affordable and environmentally sustainable. We advocate on behalf of our members and the environment.

## Role of the Utility

***Are there other roles a utility might play in PEV adoption?***

PP&L knows from direct experience with our electric vehicle program, **Drive Green with People's Power & Light**, as well as from literature research that there are three separate but related roles that utilities could play to increase EV adoption. Furthermore, these three roles cannot be played by another party as efficiently.

Role #1: Facilitate the buildout of charging infrastructure, especially for stations that would be publicly available. We believe that a good starting point for discussion is the "Make Ready" approach that National Grid has proposed in Massachusetts as DPU 17-13. Though PP&L (doing business as Mass Energy Consumers Alliance) has intervened in the docket in order to suggest ways to improve their plan, we believe that the concept at a high level is logical and applicable in Rhode Island for these reasons:

1) Rhode Island is a ZEV state with an ambitious goal of having 43,000 EVs by 2025. At this point, Rhode Island has a tiny fraction of that number on the road. To increase adoption by the amount necessary, more public stations will need to be built. While there are currently more public stations than people think, there are not enough to remove the "range anxiety" that many potential EV buyers have. The ZEV goal is not feasible without building more charging stations.
2) National Grid does not need to own charging stations. There is no natural monopoly on that function. Customers or a third party can own the stations.
3) A well-designed program to "Make Ready" charging stations can bring significant economic and environmental benefits to Rhode Island ratepayers, whether they drive EVs or not. EVs can broaden the rate base and provide significant ancillary benefits to all ratepayers. For that reason, some support from the utility, on behalf of ratepayers, to customers is warranted.

Role #2: Administer a rate structure that sends appropriate price signals for EV charging. Most electric vehicle charging today is done off-peak, meaning evening and weekends. As more EVs are put on the road, the electric system would benefit by proactively encouraging off-peak charging. Benefits would come in terms of smoothing out supply and spreading distribution costs across more kilowatt hours. Yet, drivers currently face flat retail rates regardless of when they charge. If drivers could save on their electricity bills by charging off-peak, potential adopters would be able to monetize those savings and factor them into their decision-making. Again, PP&L would point to the goal of 43,000 EVs by 2025. In our view,

offering lower-cost off-peak charging is a far more sustainable incentive model than solely relying on rebates for purchases and leases. By our math, offering $2500 rebates to another 43,000 electric vehicle owners would cost $107.5 million. It's time for Rhode Island to think about how to take EVs to scale.

Role #3: Develop processes for capturing the benefits of load control and ultimately vehicle-to-grid technology. Rhode Island can easily bring on tens of thousands more EVs without creating a strain on the distribution system. But at some point, large numbers of EVs could add to peak demand and cause some stress in terms of supply costs and distribution assets. There are ways to discourage on-peak charging and those methods should be carefully considered.

People's Power & Light also sees great potential for EVs to play a strong role in balancing electricity demand, not just by charging off-peak, but by discharging on-peak. We would like to see steps taken to accelerate V2G technology adoption in Rhode Island.

***Who are the other key actors and what should their respective roles be?***

The large number of other actors includes:

- People's Power & Light. For details about our group purchasing model, visit www.ripower.org/drivegreen.
- Car dealerships.
- Transportation network companies or mobility service providers.
- Fleet owners and managers.
- Public sector vehicle owners.
- Colleges and universities.
- EV charging equipment providers.
- Property owners, for hosting public charging facilities.
- Environmental organizations to reach their memberships and general public.

## Goals for the Electric System and PEVs

***Which goals should be prioritized by the utility?***

- Facilitate consumer investment in EV charging facilities.
- Appropriately compensate EV owners and charging facilities for services they provide to the system such as storage, demand response, load control and balancing, and greenhouse gas reduction.
- Appropriately charging EV owners for the cost they impose on the grid.

***Which goals should be shared with, or left to, others?***

- The overarching goal to "align distribution utility, customer, and policy objectives and interests through the regulatory framework" is the responsibility of the Public Utilities Commission and Office of Energy Resources with substantial stakeholder involvement in the process.

- Addressing climate change is the responsibility of the Public Utilities Commission (PUC), the Office of Energy Resources (OER), and Department of Environmental Management (DEM) with substantial involvement in the process for developing targets and rules.
- Furthermore, the basic function of planning for EV proliferation should primarily be a public function with public input. In this context, the utility is an important stakeholder, but questions such as the number, location, and type of EVSE units should not be left to the utility by itself.

***What other goals could be achieved by, and considered in, a utility's proposal to play in the adoption of PEVs?***

EVs have great potential to enable the widespread adoption of car-sharing and autonomous vehicles, which has potentially enormous public benefits including reduced congestion, affordable mobility, and pollution reduction. Car-sharing and autonomous vehicles brought to scale and accessible to all will require a significant buildout of charging infrastructure.

***What metrics might be useful in determining the effectiveness of a utility's PEV business or program?***

As we have stated or implied above, we see the utility's primary role as facilitating the buildout of charging infrastructure. To measure effectiveness, we would want to look at numbers of installation, utilization rates, and indicators of social equity.

## Investment in PEVs

***What other investment needs are there in the PEV sector?***

We believe that the investment categories listed are appropriate. Furthermore, we see that the utility's role as investor can be clearly delineated by consideration of that list: energy supply and procurement, distribution system upgrades, interconnection, demand response and load management. Other investment categories (i.e. marketing and EVSE ownership) can and should be the responsibility of non-utility actors such as government, customers, the auto industry and third parties.

***What circumstances of Rhode Island's transportation sector that might affect these needs?***

As already stated, it is essential that Rhode Island electrify transportation in order to meet its greenhouse gas reduction goals and to capture the enormous associated economic and social benefits.

***What other source of PEV investment could be tapped in RI?***

We believe that the utility should be encouraged to invest ratepayer funds in a very specific plan to facilitate the buildout of customer- or third-party owned EVSE. Those funds could be augmented by RGGI or other public sources in order to capture social benefits. As we have stated and implied, the utility's success in this task should encourage investment in other areas by other parties.

***Is ratepayer-funded investment aligned with certain goals?***

We believe that the interests of ratepayers are related to the benefits of improved utilization of distribution system assets, greenhouse gas reduction, and demand response or load balancing.

## PEV Program Design

***Which activities should be prioritized in a utility EV proposal?***

A utility proposal should address:

- Rates. We see time-varying rates as essential for EVs and other purposes.
- Equity. If the utility role is defined as facilitating the buildout of charging infrastructure, it is important that charging stations be inclusive of locations that would benefit disadvantaged communities.
- Developing charging station location strategy overall in order to optimize EV adoption and utilization.
- Optimizing grid management.

In our opinion, all of those points are aligned with public policy goals. Furthermore, while we envision that the utility would offer a proposal, we see it as essential that the many stakeholders are given the opportunity to weigh in. In fact, it may be better for the PUC to develop a strawman proposal in order to solicit public input before the utility files a specific docket of its own and triggers all the rules of engagement that accompany such a docket.

Thank you for your consideration of our comments.

Sincerely,

Larry Chretien
Executive Director
larry@ripower.org

Kat Burnham
Energy Programs Manager
kat@ripower.org