



0000127429

BEFORE THE ARIZONA CORPORATION COMMISSION

RECEIVED

Arizona Corporation Commission

DOCKETED

JUL - 8 2011

DOCKETED BY

RD

COMMISSIONERS

- GARY PIERCE, Chairman
- BOB STUMP
- SANDRA D. KENNEDY
- PAUL NEWMAN
- BRENDA BURNS

2011 JUL - 8 P 3: 28

AZ CORP COMMISSION
DOCKET CONTROL

IN THE MATTER OF THE APPLICATION
OF ARIZONA PUBLIC SERVICE
COMPANY FOR PROPOSED ELECTRIC
VEHICLE READINESS
DEMONSTRATION PROJECT

DOCKET NO. E-01345A-10-0123

**COMMENTS OF ARIZONA PUBLIC
SERVICE COMPANY TO STAFF'S
REPORT AND PROPOSED ORDER**

Arizona Public Service Company ("APS" or "Company") takes exception to the recommendations in the Arizona Corporation Commission ("Commission") Staff Report filed June 29, 2011 ("Staff Report") regarding the Company's Electric Vehicle Readiness Demonstration Project ("ev-READY Project" or the "Project"). Those recommendations – which essentially make the Project completely untenable by denying any funding necessary to implement it – fail to recognize the essential role that utility companies will have in relation to the distribution system infrastructure required for recharging electric vehicles, both as the end-use provider and the intermediary distributor of electricity used for recharging.

I. INTRODUCTION

Electric vehicles are making their entry into the marketplace in Arizona and across the country. Many people have expressed an interest in this new technology, and APS anticipates that some portion of its customers will be among the early adopters, and that the number of electric vehicle drivers will increase over time. As the Staff Report noted, "EV charging station manufacturers envision that their products will become a new class of consumer electric appliances," and even the electronics chain, BestBuy, recently announced that it will start selling charging stations at its retail stores.¹

¹ Staff Report at 10.

1 The introduction of this new technology poses numerous development, implementation
2 and regulatory challenges, and issues related to electric vehicles are currently being discussed
3 across the United States with no clear and consistent conclusions. It will be critical for the
4 reliability of the electric system to determine how electric vehicles will interface with the
5 individual utility's electric system and the nation's power grid.

6 With the deployment of electric vehicles, a charging infrastructure will become
7 essential. While there may be some delay before market penetration of electric vehicles is
8 significant, there are fundamental issues that must be considered as electric vehicles are
9 developed and commercialized. Issues include where and when electric vehicle drivers will
10 charge their batteries; how they can be encouraged to charge their electric vehicles when
11 demand on the electric system is low; and whether APS's local electric circuits are of
12 sufficient size to handle the additional load.

13 It takes significant electricity to recharge electric vehicles; one vehicle can easily draw
14 as much electricity as that used in a typical home. Based on current experience with hybrid
15 vehicles and distributed solar generation, it is expected that owners of electric vehicles may
16 "cluster" in certain areas, and the addition of multiple electric vehicles on a single residential
17 transformer may necessitate an upgrade to both the customer's service and the local
18 distribution system serving such customer. The addition of as little as two electric vehicles on
19 the same transformer could result in the overloading of the local secondary transformer,
20 causing power quality issues and customer outages. Feeder and substation transformer
21 impacts are likely to occur as penetration grows.

22 APS's proposals in its ev-READY Project were designed to address these impacts and
23 develop an effective strategy for managing concentrated deployments of multiple electric
24 vehicles located on a single transformer or line and their effect on feeder and substation
25 components, as well as to provide customers interested in these new technologies with
26 options for recharging their vehicles.

27
28

1 **II. BACKGROUND**

2 APS's Project proposal includes both residential and commercial programs, a smart
3 charging program, vehicle-to-building and vehicle-to-grid testing, and customer outreach and
4 education. There are two proposed residential programs: 1) a residential incentive program
5 that would provide up to 500 customers with a \$500 incentive towards the purchase and
6 installation of a charging station for home use; and 2) an option that would allow up to 500
7 customers to elect to use an APS-owned charging station at their home for a fixed monthly
8 fee.

9 Demand response components are integrated into both of these offerings. The Super
10 Off-Peak time-of-use "whole house" rate (11 p.m.-5 a.m.) is available to participating
11 residential customers, and customers on this rate would participate in the Smart Charging
12 Program, which would allow APS to control vehicle recharging load during peak system
13 times or under stressed system conditions.

14 As part of the ev-READY Project, APS has also proposed a commercial and public
15 electric vehicle charging program. APS would offer up to 100 commercial customers the use
16 of an APS-owned charging station located behind the customer's meter for a fixed monthly
17 fee. This would allow commercial customers the opportunity to become a charging host site
18 for employees or customers without having to invest in the infrastructure or provide operation
19 and maintenance of the facilities.

20 To provide recharging service to customers at strategic locations within its service
21 territory, APS has proposed a public charging program that would make charging
22 infrastructure available to electric vehicle drivers through a point-of-sale rate. Customers
23 would render payment for the transaction amount at the point and time of purchase using a
24 pre-paid card or credit card. The point-of-service rate proposed by APS was designed to
25 recover the fixed and variable costs associated with the purchase, installation and on-going
26 operations and maintenance of the public charging stations, and to ensure that the users of the
27 charging facilities are the only customers paying for the infrastructure. The proposed point-
28 of-sale rate was not designed to apply, and would not apply, to charging services provided by

1 a third party that installs and owns the charging infrastructure. Neither was it intended to
 2 serve as the rate charged by APS to such third-party recharging station owner for electricity.

3 The table below summarizes the various components of APS's proposed ev-READY
 4 Project.

5 **Key ev-READY Project Components**

6 Program	Option	Quantity	Rate(s)	Monetary Impact
7 Residential 8 Vehicle 9 Charging 10 Program	Option 1 – Residential Incentive	500 Customers	ET-EV Optional	\$500 Incentive (APS to Customer)
	Option 1 – APS- Owned Residential EV Charging Station	500 Customers	ET-EV and EVC-RES Mandatory	\$48 to \$68 per month flat fee (Customer to APS)
11 Commercial & 12 Public Vehicle 13 Charging 14 Program	Option 1 – Commercial EV Charging Program		EVC-GS Mandatory	\$210 to \$321 per month flat fee (Customer to APS)
	Option 2 – Public EV Charging Program	100 Level 2 Charging Stations 10 DC Fast Chargers	ET-PS	Summer – 33¢/kWh on-peak, 24¢/kWh off-peak Winter – 30¢/kWh on-peak, 24¢/kWh off-peak (Customer to APS)

17
 18 **III. OVERALL CONCERNS WITH STAFF'S PROPOSAL**

19 Staff's recommendations regarding electric vehicles are inconsistent, and seem to
 20 reflect a belief that the electric utility should have minimal involvement with a new
 21 technology that is premised on the very commodity – electricity – that the utility provides to
 22 the public. This is puzzling because Staff acknowledges that the increased demand from
 23 electric vehicles will impact the electric system. The Staff Report states that "...APS will be
 24 challenged to find ways to integrate the new demand into its existing distribution system
 25 while minimizing negative system impacts."² APS clearly believes that as part of its
 26 obligation to provide reliable service to its customers, the Company must acquire sufficient

27
 28 ² Staff Report at 9.

1 knowledge regarding this new technology and develop strategies to address its system
2 impacts.

3 In contrast, Staff characterizes the proposed ev-READY Project as merely a load and
4 revenue growth opportunity, and asserts without citation that all of the proposed Project
5 budget would be used for the stimulation of the development of the market for electric
6 vehicles and charging services.³ On that basis, Staff has recommended that the Project budget
7 not be approved, and that APS could use “non-ratepayer monies” for the Project instead, thus
8 precluding cost recovery for the infrastructure investments.⁴ Also troubling is the language in
9 Staff’s Revised Proposed Order⁵ regarding the point-of-sale rate where Staff has reduced the
10 rate by \$0.18249 per kilowatt hour, thereby removing the fixed and variable costs associated
11 with public vehicle charging infrastructure from the final approved tariff rate. Thus, the
12 Company would be left with a rate for a service that does not even attempt to recover the
13 costs of that service.

14 This approach is fundamentally flawed, as it is a well-established regulatory principle
15 that a public utility that is subject to regulation and fixing of rates is entitled to recover its cost
16 of service and to realize a fair and reasonable profit from its operation in the service to the
17 public.⁶ All APS activities related to maintaining and improving its distribution system to the
18 public must necessarily be funded through rates, regardless of the source of the impact.

19 Staff’s position that the ev-READY Project is strictly a revenue-enhancement program
20 is mis-guided. The addition of an electric vehicle by a customer is tantamount to a new home
21 being constructed in a location and at a time unbeknownst to APS. As a routine part of its
22 utility business, APS works with residential and commercial developers in order to ensure
23 that adequate resources exist to meet new load requirements. If APS were not to be involved
24 in a similar manner with electric vehicles, which appears to be Staff’s position, there may be
25

26 _____
27 ³ Staff Report at 13.

⁴ *Id.*

28 ⁵ Filed July 7, 2011.

⁶ *Simms v. Round Valley Light & Power Co.*, 80 Ariz. 145, 149, 294 P.2d 378, 380 (1956).

1 a detrimental impact to the reliable, safe, and cost-effective operation of the distribution
2 system.

3 It is too early to predict the adoption rate or impact of EV load; however, due to the
4 significant peak demand requirements (up to 6.6 kilowatts to recharge a single vehicle) that
5 will be imposed upon local distribution assets, the Company has serious concerns that there
6 will be localized distribution system impacts that will affect not only electric vehicle owners,
7 but all residences receiving power from the same local distribution transformer. The ev-
8 READY Project was designed to provide the Company with a means to determine the
9 geographical location of electric vehicle owners, so determinations may be made regarding
10 the impact that recharging these vehicles have on electric systems. The Project also provides
11 the opportunity for APS to study the impact of these vehicles from their introduction into the
12 market, so that modifications and upgrades can be made to distribution system equipment in
13 order to prevent future unplanned system outages caused by unexpected load demands.

14 Furthermore, by declaring that non-ratepayer monies should be used to invest in
15 charging equipment infrastructure, it appears Staff may be making the determination that this
16 infrastructure is not an integral part of the public utility service furnished by the Company.
17 Although APS disagrees with this assertion, the corollary is that prices for service, including
18 but not limited to prices for the use of the equipment, cannot be regulated by the
19 Commission.⁷

20 The Arizona courts have been clear that the power to regulate a utility company is not
21 all inclusive. The Commission itself recognized that the power to regulate a gas company did
22 not extend to regulation of sales by the utility of gas appliances,⁸ and an Arizona court has
23 ruled that it did not extend to telephone terminal equipment that was no longer an integral or
24 essential part of the public service performed by a company.⁹ This concept was articulated by
25 yet another Arizona court, which stated:

26 _____
27 ⁷ *Mountain States Tel. and Tel. Co. v. Ariz. Corp. Comm'n*, 132 Ariz. 109, 644 P.2d 263 (App. Ct. Div 1
1982).

28 ⁸ *In Re Central Arizona Light & Power Co.*, 6 PUR (NS) 49 (Ariz. Corp. Comm'n 1934).

⁹ *Mountain States Tel. and Tel. Co.*, 132 Ariz. at 116, 644 P.2d 270.

1 The fact that a business is generally speaking a public utility does not make
2 every service performed or rendered by those owning or operating it a public
3 service, with its consequent duties and burdens, but they may act in a private
4 capacity as distinguished from their public capacity, and so doing are subject to
5 the same rules as any other private person so acting.¹⁰

6 The federal court has also addressed the dichotomy between the jurisdiction to regulate
7 “public” services and limited jurisdiction to regulate “private” services of the same utility in a
8 Yellow Pages telephone case, where the court found that the public service commission had
9 no regulatory powers over the actual rates charged for Yellow Pages advertising.¹¹ Either the
10 provision of the electric vehicle recharging is an integral part of the utility service, or it is not.
11 If it is – then the cost of the infrastructure is legitimately recovered from customers. If it is
12 not – then the Commission cannot impose the rates that are to be charged for providing a non-
13 regulated service.

12 **A. The Residential Proposal**

13 **1. The Super Off-Peak Rate**

14 Staff has recommended approval of only the rate element of the proposed residential
15 programs, and has further conditioned the recommendation on the Super Off-Peak rate being
16 made available to all customers at this time. The rate was designed as an experimental
17 offering to a limited number of customers and is a modification to the currently available
18 time-of-use Rate Schedule ET-2. The Company certainly cannot state that such an expanded
19 Super Off-Peak rate would be revenue neutral if made available to all customers on any
20 available residential rate schedule. In fact, it almost certainly would not be.

21 **2. Demand Response Components**

22 Staff asserts that because electric vehicles represent new load and, therefore, do not
23 reduce or shift existing load, the costs of the Project should not be recovered through the
24 Demand Side Management adjustor mechanism (“DSMAC”). APS disagrees, because the
25 ev-READY Project, which includes both load control components and time-of-use rates,
26 qualifies as a demand response program. The Project is designed to manage the timing of the
27

28 ¹⁰ *City of Phoenix v. Kasun*, 54 Ariz. 470, 476, 97 P.2d 210, 213 (1939).

¹¹ *Classified Directory Subscribers Ass'n v. Public Service Comm'n*, 383 F.2d 510 (DC Cir. 1967).

1 increase in customer load caused by at-home charging, and will allow APS to reduce the
2 strain of electric vehicle load on the grid during certain system conditions.

3 Both of these components fall squarely within the Electric Energy Efficiency
4 Standards Rules definition of demand response, which states:

5 Demand response means modification of customers' electricity consumption
6 patterns, affecting the timing or quantity of customer demand and usage,
7 achieved through intentional actions taken by an affected utility or customer
because of changes in prices, market conditions or threats to system reliability.¹²

8 This definition does not limit demand response to existing load, and to interpret the language
9 in such a way would limit the effectiveness of these rules in the future, in those circumstances
10 where new appliances and devices using electricity will surely be part of the landscape.

11 While APS believes that the DSMAC is the appropriate recovery mechanism, in the
12 alternative, APS is amenable to Staff's recommendation that the costs of the ev-READY
13 Project be recovered through the typical ratemaking process in a general rate case.¹³

14 **B. The Commercial Proposal**

15 APS's proposal includes a commercial program that would offer the use of an APS-
16 owned charging station at a monthly fee for employee or consumer use, and a public charging
17 program where the Company would install APS-owned charging stations in selected locations
18 within its service territory that would be available to the general public on a point-of-sale fee
19 basis. As discussed above, Staff has proposed that any investment in services that supports
20 electric vehicles should be funded from non-ratepayer monies, which seemingly leaves the
21 Company without a means of recovering the cost of the public charging infrastructure. The
22 result is an unsustainable business practice, and if adopted, APS simply will be unable to
23 offer public charging service.

24 **IV. CONCLUSION**

25 Clearly, Staff and the Company are far apart on the issue of electric vehicles. The
26 program and rates that APS developed for the ev-READY Project do not fit the approach that
27

28 ¹² A.A.C. R14-2-2401(10).

¹³ Staff Report at 13.

1 Staff has envisioned. Based on Staff's recommendations, APS will not have a meaningful
2 role in the implementation of a new technology that is expected to have a significant impact
3 on the Company's electric system. For that reason, APS urges the Commission to reject the
4 Staff recommendations and instead adopt the ev-READY Project as proposed. The Project as
5 proposed will provide customers with programs that will support adoption of this new
6 technology, and allow the Company to anticipate and minimize any localized distribution
7 impacts related to the introduction of electric vehicles.

8 In the alternative, the Commission could approve the point-of-sale rates proposed by
9 APS and initially recommended by Staff,¹⁴ and allow recovery of these electric vehicle-
10 related costs through the typical ratemaking process in a general rate case, as discussed in the
11 Staff Report.¹⁵

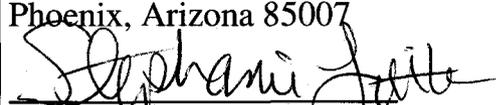
12 Furthermore, if the Commission believes that APS's proposed ev-READY Project is
13 untenable, the Company could withdraw its request for approval of the Project, and develop
14 another proposal for the Commission's consideration.

15 RESPECTFULLY SUBMITTED this 8th day of July, 2011.

16
17
18 By: 
19 Deborah R. Scott
20 Linda J. Arnold
21 Attorneys for Arizona Public Service Company

22 ORIGINAL and thirteen (13) copies
23 of the foregoing filed this 8th day of
24 July, 2011, with:

25 Docket Control
26 ARIZONA CORPORATION COMMISSION
27 1200 West Washington Street
28 Phoenix, Arizona 85007


¹⁴ The APS proposed point-of sale rates include summer rates of 33¢/kWh on-peak, 24¢/kWh off-peak, and
winter rates of 30¢/kWh on-peak, 24¢/kWh off-peak.

¹⁵ Staff Report at 13.

1 COPY of the foregoing mailed/delivered/
2 emailed this 8th day of July, 2011 to:

3 Janice M. Alward
4 Chief Counsel, Legal Division
5 Arizona Corporation Commission
6 1200 West Washington Street
7 Phoenix, Arizona 85007

8 Steven M. Olea
9 Director, Utilities Division
10 Arizona Corporation Commission
11 1200 West Washington Street
12 Phoenix, Arizona 85007

13 Daniel Pozefsky
14 RUCO
15 1110 West Washington Street
16 Suite 220
17 Phoenix, Arizona 85007

18 Ms. Alana Chavez-Langdon
19 ECOTALITY
20 80 East Rio Salado Parkway
21 Suite 710
22 Tempe, Arizona 85281
