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RE: DOCKET NO. E-01345A-08-0172

I am submitting a fiscal impact study completed by Elliott D. Pollack & Company on the behalf of Arizonans for Fair Policy which addresses the economic impact of the current ACC residential power extension policies.

I hereby certify that a copy of this Study has been mailed to Arizona Public Service Company, 400 N. 5th Street, Phoenix, Arizona, 85004.

Sincerely,
Arizonans for Fair Power Policy
7835 W. Camino de Oro
Peoria, AZ 85383
Tel: (602) 999-7445

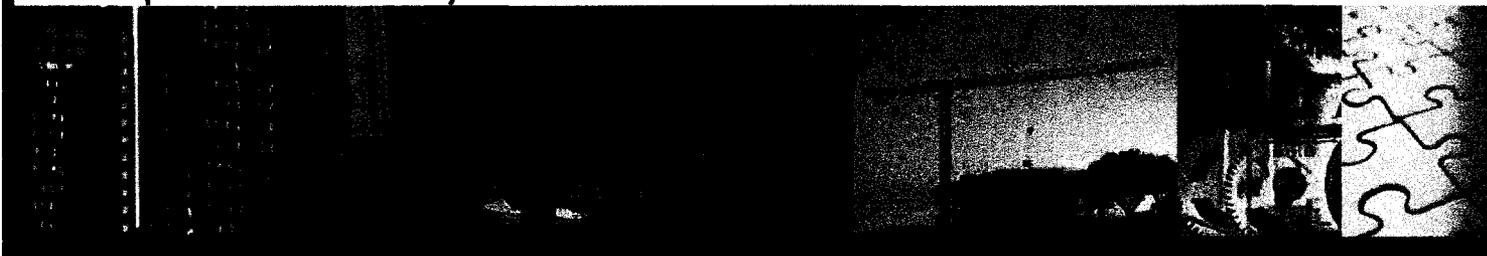
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Arizona Utilities - Modifications to Infrastructure Extension Policies Impact Analysis



Prepared for:

Arizonans for Fair Power Policy

July 2009

Prepared by:



Elliott D. Pollack & Company
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Executive Summary

Purpose

Elliott D. Pollack & Company was retained by Arizonans for Fair Power Policy to perform a limited impact analysis of the recently modified policies of Arizona Public Service (APS), Tucson Electric Power (TEP) and UniSource Energy Services (UES Electric) to eliminate “no-cost” electrical service extensions to residential lots and subdivisions. The modifications also eliminated related refund schedules and feasibility analyses for commercial developments and residential subdivisions.

Among the changes to the APS service schedule was the elimination of a no-cost extension of electric lines up to 1,000 feet to residential dwellings. The previous no-cost extension was capped at \$25,000 with the cost being recouped through existing rates to all customers. The schedule now reads that all costs of extending service, including backbone and infrastructure electrical facilities are to be borne by the applicant (typically a builder or homeowner).

Shortly thereafter, the Arizona Corporation Commission (ACC) approved a proposal by TEP to eliminate free extensions of electrical service lines up to 500 feet to new homes or subdivisions. In addition, the ACC approved the elimination of free service extensions (400 feet of primary, 150 feet of service line and one pole) by UES Electric, which covers much of Mohave and Santa Cruz counties.

APS estimated that the annual construction cost of line extensions for new service was approximately \$9 million. Over the last four years, APS estimates that the average cost of extensions have been approximately \$9,200 per extension. However, new estimates submitted by APS in recent settlement documents assert that an overhead extension between 500 to 1,000 feet would cost \$14,000 to \$19,400. By shifting the cost of construction to new customers, the assertion is that rates will decrease, or not increase by as much in the future, for current customers. This also allows for growth to pay for itself.

Potential Effect of Revised Extension Policies

The changes in line extension policies instituted by APS, TEP, and UES could have an impact on residential development and the value of vacant lots and land, primarily in areas where homes are built on large lots and where individual electrical service extensions must be made to a home site. Sales data of recent transactions from individuals with land holdings in the far west part of Greater Phoenix (Tonopah region) have been compiled to assist in the analysis. Most of the land would have been allowed electricity extensions free of cost under the previous APS schedule. Under the new schedule, homeowners will be required to pay for any extensions.

There are many factors that affect the price of land including the availability of water, access to the property, paved and unpaved streets, sewer service or septic tank acceptability, surrounding uses, and similar concerns. One of the most important is electrical service since most homes are not designed to function without the service. With the recent change in electrical extension policies, the cost to extend electrical service to a home site is an issue not previously encountered by prospective homeowners. Without conducting a detailed statistical analysis of land prices in the rural parts of Greater Phoenix, sales data suggests that the distance from electrical service



could be having a negative effect on sales prices. With the added cost to place a home on a lot, at least a portion of the burden to pay for extending electrical service is transferred to the seller of a lot in the form of a lower value.

County assessors are already lowering values on land and homes due to the decline in housing values across Greater Phoenix and Arizona. The main cause of the decline stems from the collapse in the housing market and the flood of distressed properties placing downward pressure on sales prices. The lack of demand for developable private land has driven land prices down steeply. Based on interviews and letters of submission by various county assessors, the policy changes to eliminate free electrical line extensions means that proximity to existing electrical service lines will likely be correlated with land value.

It is unclear the extent that an increase in the cost of energy and electrical infrastructure will impact builders' and businesses' perceptions about Arizona. It is also not clear the extent to which these perceptions will result in slower economic growth, fewer business expansions, or less homebuilding activity in the State. It appears, however, that the majority of any impact related to the change in Service Schedule 3 will fall upon the non-urbanized areas and communities of the State rather than the more urbanized counties of Maricopa and Pima.

When the cost for an electrical service extension is spread across the typical single family subdivision, the impact is much less per homebuyer if costs are passed forward or buried essentially within all the other infrastructure costs of subdivision development. This is not to imply that the cost is not significant; rather the cost is smaller on a per unit basis. However, for a lot owner in a more rural setting, the cost can be significant. In fact, the cost of an electrical extension may exceed the initial purchase price of the lot. The transition period for instituting the policy change reportedly caught many lot owners and buyers by surprise. In the short term, this means lot values will possibly decline further.

Economic Impact of Revised Service Extension Policies

In the long run, the three affected service areas will likely grow annually by roughly 45,000 customers. That figure may be much less over the next few years as the excess housing stock in the State is absorbed. Extrapolating the four year average of customers qualifying for free extension footage across all service areas yields an estimated 2,340 customers annually that may have qualified for free footage allowances in the past. It is possible that a portion of these customers:

- May not build at all due to higher development costs,
- May not purchase land where an electrical service extension is required,
- May delay construction until a later date,
- May negotiate a price for the property that takes into account a portion, if not all, of the cost of the electrical service extension, or
- May purchase a home where electrical service extensions are already paid for or are not as costly.

Any impact would be more noticeable in the short term as excess quantities of developable land (some already with improvements made) offer competition.



Extensions as a Percent of Customers			
	Extensions	APS Customer Growth (Residential)	Extensions % of Residential Growth
2005	1,410	40,188	3.5%
2006	1,935	36,917	5.2%
2007	1,499	21,801	6.9%
2008	687	7,225	9.5%
Total 2005-2008	5,530	106,131	5.2%
Long-Term Estimate of Extensions (Affected Areas of APS, TEP, & UNS)			
Annual Customer Growth (APS, TEP, UNS)^{1/}	Extensions % of Growth^{2/}	Annual Extensions	Range of Extensions
45,000	5.2%	2,340	1,578 - 4,279
<p>1/ Annual Customer Growth is calculated using the current customer base multiplied by each company's long-term average growth rate. Calculations have been rounded.</p> <p>2/ Percentage of growth estimated to qualify for free extensions under previous policies. The four year average of qualifying APS customers has been extrapolated over all affected service areas.</p>			
Source: Pinnacle West, APS, ASU Construction Reports, Elliott D. Pollack & Co.			

For the purpose of this analysis and to illustrate the potential economic and fiscal impacts of lost residential construction, the analysis is conducted in increments of 100 single family homes with an average value of \$180,000 per unit (for a total value of homes sold annually of \$18 million). The construction cost of each 100 homes would be \$10.4 million based on a survey by the National Association of Home Builders. It was assumed that 5% of all homes would be rented. All figures are in 2009 dollars.

Assumptions of Analysis						
RESIDENTIAL						
	Units	Avg. Size per Unit	Value per SF	Value per Unit	Percent Leased	Lease per SF
Low Density Residential	100	1,800	\$100	\$180,000	5%	\$12

Sources: Elliott D. Pollack & Co., MAG, ASU Construction Reports, PMHS.

The following table provides the economic impact of construction for each 100 single family homes built (or not built) in the State of Arizona. The annual economic impact on an individual community could be significant. The economic output (or "value" added) to the community is more than just the construction outlay. Construction activity creates jobs and local spending throughout a community and creates further valuable economic benefits. These benefits take the form of additional business opportunities within a community and additional job opportunities



for area residents. These economic values (also known as direct, indirect, and induced impacts) are quantitatively estimated in this report.

In summary, there could be both economic and fiscal impacts to governmental entities if residential development was indeed stifled by the electrical service extension policy. The economic impact of the construction of 100 single family homes would generate 112 jobs, \$5.54 million in wages and \$17.81 million in economic output. In terms of potential fiscal impacts, the State of Arizona would collect over \$918,000 and the county in which homes would have located would collect approximately \$144,000 in revenues. If homes are located within a municipality, the respective city would collect an estimated \$250,000 from the construction activity. This represents economic activity and tax revenue that would be lost if 100 homes were not built.

The residents of each 100 homes would generate an additional \$76,000, \$119,900 and \$134,500 each year for the State, the appropriate county and appropriate municipality, respectively, on a cumulative basis. These revenues result from sales taxes from resident spending, property taxes on the homes they occupy and state shared revenues received based on population growth. Thus, for the ongoing resident impact, the estimated fiscal impact would be replicated each year that the home is occupied. Over time, the cumulative impact becomes very significant for the State, counties, and municipalities.

Residential Impact Summary 100 Single Family Homes (2009 Dollars)	
Economic Impact of Construction (100 Single Family Units)	
Jobs	112
Wages (\$ mil)	\$5.54
Economic Output (\$ mil)	\$17.81
Fiscal Impact of Construction (100 Single Family Units)	
State of Arizona	\$918,277
County Level	\$143,829
Municipal Level	\$249,800
Fiscal Impact of Residents (Ongoing & Cumulative Annually)	
State of Arizona	\$76,038
County Level	\$119,918
Municipal Level	\$134,543
Source: Elliott D. Pollack & Company; IMPLAN	



Conclusion

The policy changes enacted by the ACC have generated reactions from numerous individuals and entities, both public and private. From an economic perspective, the group that will realize the largest impact of these policy changes is landowners whose properties are not currently adjacent to existing electrical lines. To some extent, residential subdivision developers and homebuilders will be affected as well, but the cost of the electrical infrastructure is spread over a larger base of residential homes. Counties and municipalities that see any potential slowdown of residential construction activity due to the electrical service extension policy will also be affected by a slower-growing property tax base. In addition, some non-urban counties of the State are suggesting that the policy could have a much broader impact by affecting land values across their jurisdiction and ultimately their property tax base.

While it is unknown how many homes may not be built due to the increased cost of electrical line extensions, it has been illustrated that 100 homes that are not built will have a significant impact on job creation, economic activity, and governmental revenues, particularly in non-urban communities where the construction of homes on large lots is more the rule than exception.

There is one further factor to consider in the electrical service extension issue. This is the economic theory of “substitution”. Very simply, the theory is that as prices rise for a particular good, consumers will substitute away from higher price goods and services to less costly alternatives. This theory will likely come into play in evaluating the impact of the service extension policy on the choices made by potential land buyers and home buyers. Many prospective buyers may actually purchase an alternative home or lot, but not in a location where electric service is a major cost. Counties in Arizona may still see some residential construction activity, but it may be in a different form or location if there are adequate alternatives to substitute for the lots burdened by electrical service extension costs.

The primary impacts of the new service extension policies will fall on two entities:

- Non-urban counties that have a predominance of large lot subdivisions and few, if any, alternative residential areas that will substitute for the expense of electrical service extensions. La Paz, Coconino and Yavapai counties may fall into this category since there are few production builders in the area. As a result, the counties could feel a loss of tax base in addition to the decline in property values due to the current recession.
- Persons who currently own lots in areas not well-served by electrical utilities are likely trapped with their investment or stand to absorb a substantial loss if they sell under the current service extension policies.

More than anything, the elimination of the no-cost extension and other policies that helped to subsidize growth by these electric utility providers is an issue of *fairness*. The policy will mainly affect a select set of landowners, primarily in rural areas of the State.



1.0 Introduction

Elliott D. Pollack & Company was retained by Arizonans for Fair Power Policy to perform a limited impact analysis of the recently modified policies of Arizona Public Service (APS), Tucson Electric Power (TEP) and UniSource Energy Services (UES Electric) to eliminate “no-cost” electrical service extensions to residential lots and subdivisions. The modifications also eliminated related refund schedules and feasibility analyses for commercial developments and residential subdivisions. The report outlines the opportunity costs of potential lost residential development as a result of the new service extension policies.

1.1 Background

The Arizona Corporation Commission (ACC) recently approved a new service schedule for Arizona Public Service (APS) for residential dwellings (Service Schedule 3). Among the changes to the service schedule was the elimination of a no-cost extension of electric lines up to 1,000 feet to residential dwellings. The previous no-cost extension was capped at \$25,000 with the cost being recouped through existing rates to all customers. The schedule now reads that all costs of extending service, including backbone and infrastructure electrical facilities, are to be borne by the applicant (typically a builder or homeowner). However, APS does assert that when it is determined that an extension provides system improvements to the benefit of both APS and other customers, a “system planning cost” is calculated and deducted from the actual cost of the extension.

Shortly thereafter, the ACC approved a proposal by TEP to eliminate free extensions of electrical service lines up to 500 feet to new homes or subdivisions. In addition, the ACC approved the elimination of free service extensions (400 feet of primary, 150 feet of service line and one pole) by UES Electric, which covers much of Mohave and Santa Cruz counties.

APS estimated that the annual construction cost of line extensions for new service was approximately \$9 million. Over the last four years, APS estimates that the average cost of extensions have been approximately \$9,200 per extension. However, new estimates submitted by APS in recent settlement documents assert that an overhead extension between 500 to 1,000 feet would cost \$14,000 to \$19,400. By shifting the cost of construction to new customers, the assertion is that rates will decrease, or not increase by as much in the future, for current customers. This also allows for growth to pay for itself.

This study presents a brief interpretation of policy changes that have taken effect. Also, the affected areas of the State have been identified. This firm has interviewed industry experts and reviewed letters submitted to the ACC and a brief synopsis of opinions is provided in a later section of this report. In addition, research was performed to help quantify the cost of extending service under the new policies for various entities (i.e. single lot owners or developers and production homebuilders).

In order to quantify the impact of the new service schedules, this study provides an incremental estimate of the loss of economic activity and revenue resulting from a potential reduction in



residential construction activity. Examples of the economic and fiscal impact of construction and ongoing impacts are provided.

For definitional purposes, economic impact analysis examines the regional implications of an activity in terms of three basic measures: output, earnings and job creation. Fiscal impact analysis evaluates the public revenues and costs created by a particular economic activity. In fiscal impact analysis, the primary revenue sources of a city, county or state government are analyzed to determine how the activity may financially affect them.

1.2 Limiting Conditions

This study prepared by Elliott D. Pollack & Company is subject to the following considerations and limiting conditions:

- It is our understanding that this study is for the client's due diligence and other planning purposes. Neither our report, nor its contents, nor any of our work were intended to be included and, therefore, may not be referred to or quoted in whole or in part, in any registration statement, prospectus, public filing, private offering memorandum, or loan agreement without our prior written approval.
- The reported recommendation(s) represent the considered judgment of Elliott D. Pollack and Company based on the facts, analyses and methodologies described in the report.
- Except as specifically stated to the contrary, this study will not give consideration to the following matters to the extent they exist: (i) matters of a legal nature, including issues of legal title and compliance with federal, state and local laws and ordinances; and (ii) environmental and engineering issues, and the costs associated with their correction. The user of this study will be responsible for making his/her own determination about the impact, if any, of these matters.
- All estimates regarding construction costs were industry averages based on the type of construction. Data has been reviewed and verified to determine its reasonableness and applicability to the analysis.
- This economic and fiscal impact study evaluates the potential "gross impacts" of construction and operations. The term "gross impacts" as used in this study refers to the total revenue, jobs and economic output that could be lost if the new policy indeed hinders economic growth.
- This analysis does not consider the costs to governing entities associated with providing services to a development. Such analysis is beyond the scope of this study. In addition, the analysis is based on the current tax structure and rates imposed by the State, counties, and cities. Changes in those rates would alter the findings of this study. All dollar amounts are stated in constant 2009 dollars and do not take into account the effects of inflation.



- Our analysis is based on currently available information and estimates and assumptions about long-term future development trends. Such estimates and assumptions are subject to uncertainty and variation. Accordingly, we do not represent them as results that will be achieved. Some assumptions inevitably will not materialize and unanticipated events and circumstances may occur; therefore, the actual results achieved may vary materially from the forecasted results. The assumptions disclosed in this impact analysis are those that are believed to be significant to the projections of future results.



2.0 Interpretation of Policy Change

This section will describe the previous and current service extension policies of APS and Tucson Electric Power. Copies of APS Service Schedule 3, both prior and current, are included in the Appendix of this report for reference.

2.1 Arizona Public Service

Portions of the previous APS Service Schedule 3 have been included below, including the no-cost 1,000 foot extension policy, economic feasibility analyses, customer advance caps, and refund policies for customer advances. Excerpts from the new APS Service Schedule 3 are also provided outlining that all costs must be borne by the customer.

Major differences in the in the two service schedules include the discontinuation of economic feasibility studies and the inclusion of a clause stating that any payments made by the customer for new service are non-refundable. Also, construction allowances or refunding mechanisms have been deleted.

Excerpts From Prior APS Service Schedule 3

INTRODUCTION (excerpts)

All extensions are made on the basis of economic feasibility. Construction allowance and revenue basis methodologies are offered below for use in circumstances where feasibility is generally accepted because of the number of extensions made within the construction allowance and dollar limits.

All extensions shall be made in accordance with good utility construction practices, as determined by Company, and are subject to the availability of adequate capacity, voltage and company facilities at the beginning point of an extension also as determined by Company.

1. FOOTAGE BASIS – RESIDENTIAL ONLY (excerpts)

1.2 FREE EXTENSIONS - May be made if the conditions specified in Section 1.1 are met and:

1.2.1 The free extension will be limited to a maximum of 1,000 feet per new permanent residential customer.

1.2.2 Free allowance for the total extension will be 1,000 feet per customer regardless of the customer's location along the route of the extension.

1.3 EXTENSIONS OVER THE FREE DISTANCE

For extensions which meet the conditions specified in Section 1.1 above, and which exceed the free distance specified in Section 1.2.1, Company may extend its facilities up to the maximum allowed in Section 1.1.2 provided the customer or customers will sign an



extension agreement and advance the cost of such additional footage. Advances are subject to refund as specified in Section 5.

2. REVENUE BASIS - NON-RESIDENTIAL (excerpts)

2.1 GENERAL POLICY - Revenue basis extensions may be made only if all of the following conditions exist:

2.1.1 Applicant is or will be a permanent customer or group of permanent customers. Customers specified in Sections 4.1, 4.2, or 4.3 are not eligible for this basis.

2.1.2 Such extension does not exceed a total construction cost of \$25,000.

2.2 FREE EXTENSIONS - Such extension shall be free to the customer where the conditions specified in Section 2.1 herein are met and the estimated annual revenue based on Company's then currently effective rate for distribution service (excluding taxes, regulatory assessment and other adjustments) multiplied by six (6.0) is equal to or greater than the total construction cost less nonrefundable customer contributions.

2.3 EXTENSIONS OVER THE FREE LIMITS - For extensions which meet the conditions specified in Section 2.1, above, and which exceed the free limits specified in Section 2.1.2, Company may extend its facilities up to a cost limitation of \$25,000, provided the customer or customers will sign an extension agreement and advance a sufficient portion of the construction cost so that the remainder satisfies the requirements of Section 2.2. Advances are subject to refund as specified in Section 5.

3. ECONOMIC FEASIBILITY BASIS (excerpts)

3.1 GENERAL POLICY - Extensions may be made on the basis of economic feasibility only if all of the following conditions exist:

3.1.1 The applicant is or will be a permanent customer or group of permanent customers. Customers specified in Sections 4.1, 4.2, or 4.3 are not eligible for this basis.

3.1.2 The total construction cost exceeds \$25,000 except for extensions specified in Sections 4.4 or 7.7.

3.2 FREE EXTENSIONS

Such extensions shall be free to the customer where the conditions specified in Section 3.1 are met and the extension is determined to be economically feasible. "Economic feasibility", as used in this policy, shall mean a determination by Company that the estimated annual revenue based on Company's then currently effective rate for distribution service (excluding taxes, regulatory assessment and other adjustments) less



the cost of service provides an adequate rate of return on the investment made by Company to serve the customer.

3.3 EXTENSIONS OVER THE FREE LIMITS

For extensions which meet the conditions specified in Section 3.1, above, Company, after special study and at its option, may extend its facilities to customers who do not satisfy the definition of economic feasibility as specified in Section 3.2, provided such customers sign an extension agreement and advance as much of the construction cost and/or agree to pay such higher special rate (facilities charge) as is required to make the extension economically feasible. Advances are subject to refund as specified in Section 5.

4.4 REAL ESTATE DEVELOPMENT

Extensions of electric facilities within real estate developments including residential subdivisions, industrial parks, mobile home parks, apartment complexes, planned area developments, etc., may be made in advance of application for service by permanent customers, as specified in Section 3. Anticipated revenue for Residential Real Estate extensions shall be calculated from information provided by the developer.

Excerpts From New APS Service Schedule 3

INTRODUCTION (excerpts)

All extensions shall be made in accordance with good utility construction practices, as determined by Company, and are subject to the availability of adequate capacity, voltage and Company facilities at the beginning point of an extension as determined by Company. All payments received for new or upgraded service under provisions of this schedule shall be non-refundable.

1.0 RESIDENTIAL (excerpts)

1.1 SINGLE FAMILY HOMES

Residential extensions will be made to new permanent residential customers or groups of new permanent residential customers. For purposes of this section, a “group” shall be defined as less than four homes. All estimated costs of extending service to applicant, as determined by Company, including backbone infrastructure costs, shall be paid by the applicant prior to the Company extending facilities. Payment is due at the time the extension agreement is executed.

1.2 RESIDENTIAL HOMEBUILDER SUBDIVISIONS

Extensions will be made to residential subdivision developments of four or more homes in advance of application for service by permanent customers provided the applicant(s) signs an extension agreement. All estimated costs of extending service to applicant, as determined by Company, including backbone infrastructure costs, shall be paid by the



applicant prior to the Company extending facilities. Payment is due at the time the extension agreement is executed.

2.0 NON-RESIDENTIAL (excerpts)

General service line extensions and equipment installations will be made to all applicants not meeting the definition of Residential or as provided for in Section 2.1, or Section 3.0 of this Schedule. All estimated costs of extending service to applicant, as determined by Company, including backbone infrastructure costs, shall be paid by the applicant prior to the Company extending facilities. Payment is due at the time the extension agreement is executed.

5.0 GENERAL CONDITIONS (excerpts)

5.17 POLICY EXCEPTION

The Schedule 3 as stated herein is applicable to all customers unless specific exemptions are approved by the Arizona Corporation Commission. The following exemptions have been approved:

5.17.1 Residential Homes on Native American Land

Extensions for residential homes on Native American Reservations will be made in accordance with the provisions of Service Schedule 3 that was in effect April 1, 2005 through June 31, 2007. Application of this Section 5.17.1 is limited to Native American Reservations as defined by applicable Federal law.

5.17.2 Existing Line Extension Agreements

All applicants who have executed line extension agreements as of February 27, 2008 will be “grandfathered” into the Schedule 3 in effect at the time the agreement was executed.

5.17.3 Transition Plan

Applicants that have not executed a line extension agreement, will be provided extensions in accordance with the provisions of Service Schedule 3 that was in effect July 1, 2007 through February 26, 2008, if they meet both of the following conditions:

1. Such applicant has received from APS, within six months prior to February 27, 2008, a written estimate of the costs to the applicant for extending service (i.e. received an estimate during the period August 27, 2007 and February 27, 2008); and
2. That same applicant executes a written line extension agreement within twelve (12) months of February 27, 2008 (i.e. no later than February 27, 2009).



Summary

Simply put, the new APS Service Schedule 3 for residential dwellings no longer allows the free extension of electric lines up to 1,000 feet. The schedule now states that all costs of extending service, including backbone and infrastructure electrical facilities are to be borne by the applicant and there appear to be no considerations given to economic feasibility or future refunds of advanced costs. However, APS does assert that when it is determined that an extension provides system improvements to the benefit of both APS and other customers, a “system planning cost” is calculated and deducted from the actual cost of the extension.

The 1,000 foot free extension policy under the old Service Schedule 3 did not apply to residential subdivision or commercial properties. Rather, there was a refund policy to customers who advanced electrical constructions costs and later had permanent residents utilize the extension. This is most applicable to residential tract subdivision developers and homebuilders. However, those refund provisions have now been removed and, as expressed within the introduction of the new schedule, “All payments received for new or upgraded service under provisions of this schedule shall be non-refundable.”

While the 1,000 foot free extension did not apply to subdivision developers or commercial customers, there were alternative “free extension” policies under the old Service Schedule 3 as well as refund policies which have now been removed in the new schedule.

2.2 Tucson Electric Power (TEP) / UniSource Energy Services

Both UniSource Energy Services and Tucson Electric Power are companies of UniSource Energy. The new service schedules for both companies are practically identical.

Tucson Electric Power

Under the old schedule, up to 500 feet of electric line extension was provided at no cost to the customer as noted in the following text.

“Upon an applicant’s satisfactory completion of required site improvements, TEP will make extensions from its existing overhead facilities of proper voltage and adequate capacity free of charge a distance of up to 500 feet.”

However, the new policy eliminates this free extension.

“The Company will install, own, and maintain the distribution facilities necessary to provide permanent service to the Customer. Prior to the installation of facilities, the Customer will be required to pay the cost of the construction of the distribution facilities. The costs of construction are set forth in the Statement of Additional Charges. The line extension charges are based on the Company’s current average cost of construction of distribution lines. The Company will review its costs and file a Pricing Plan revision annually. Such revisions will be subject to approval by the Commission before becoming effective.”



Customers have been given six months from the effective date of the policy to allow for a transition period. The effective date is reported as December 1, 2008, meaning that applicants had until June 1, 2009 to be grandfathered under the old policy.

“From the effective date of these Rules and Regulations, there is a six (6) month grace period for Customers, developers and subdividers to execute a line extension agreement or receive approval on a new service application from the Company in order to be eligible for the line extension policy in effect between March 14, 2000 and November 30, 2008. Those new applicants must make provisions for the Company to install and energize the extension and service facilities within eighteen (18) months from the date of their respective agreement and/or application. In addition, all existing approved line extension agreements and service applications will be grandfathered in under the policy in effect from March 14, 2000 to November 30, 2008. Grandfathered Customers must make provisions for the Company to install and energize the extension and service facilities within eighteen (18) months from the effective date of these Rules and Regulations or they will be subject to the new line extension policy.”

UniSource Energy Services

Under the old schedule, up to 400 feet of primary extension, 150 feet of service line, and one pole was provided at no cost to the customer. However, the new policy eliminates this free extension as noted in the following excerpt from the service schedule.

“The Company will install, own, and maintain the distribution facilities necessary to provide permanent service to the Customer. Prior to the installation of facilities, the Customer will be required to pay the cost of the construction of the distribution facilities. The costs of construction are set forth in the Statement of Additional Charges.”

Similar to APS, there was no itemized publication of extension fees. In addition, customers were given six months from the effective date of the policy to allow for a transition period. However, the effective date is reported as June 1, 2008, so this grace period has ended.

“From the effective date of these Rules and Regulations, there is a six (6) month grace period for Customers, developers and subdividers to execute a line extension agreement or receive approval on a new service application from the Company in order to be eligible for the line extension policy in effect between August 11, 2003 and May 31, 2008. Those new applicants must make provisions for the Company to install and energize the extension and service facilities within eighteen (18) months from the date of their respective agreement and/or application. In addition, all existing approved line extension agreements and service applications will be grandfathered in under the policy in effect from August 11, 2003 to May 31, 2008. Grandfathered Customers must make provisions for the Company to install and energize the extension and service facilities within eighteen (18) months from the effective date of these Rules and Regulations or they will be subject to the new line extension policy.”



3.0 Costs of Extending Electrical Service

In response to concerns from the public and reported average extension cost estimates of \$9,200 per extension, APS and TEP have prepared extension estimates for various property conditions. The following estimates have been obtained with a map illustrating distances from existing electrical facilities to new customer properties.

3.1 Arizona Public Service

In recent settlement documents, APS submitted extension estimates for certain distances both above ground and underground. The following is taken from those documents:

1000 ft. Overhead with 25 kVA transformer:	\$19,400
750 ft. Overhead with 25 kVA transformer:	\$18,500
500 ft. Overhead with 25 kVA transformer:	\$14,000
1000 ft. Underground with 25 kVA transformer:	\$10,900
750 ft. Underground with 25 kVA transformer:	\$9,900
500 ft. Underground with 25 kVA transformer:	\$9,000
Residential metro subdivision:	\$2,300 per lot
Underground customer provides trench, conduit, and backfill.	

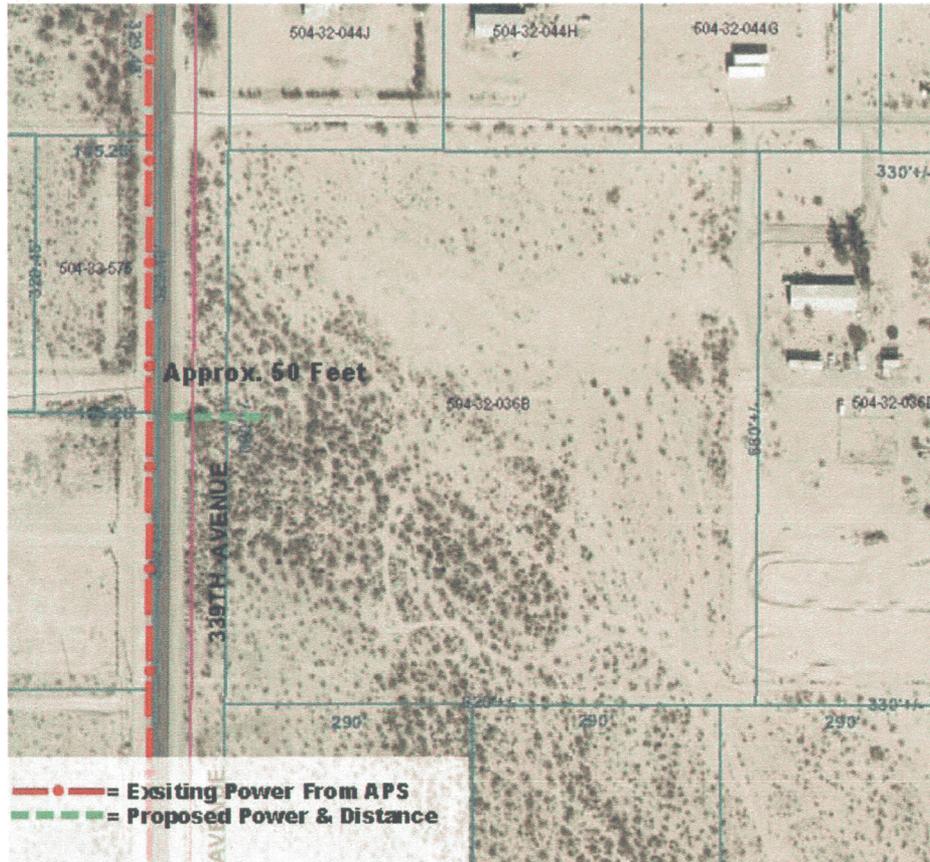
While the average cost of extensions over the last few years has been calculated at \$9,200, it is evident that there is a wide range of potential costs.

Single Residential Lot Estimates

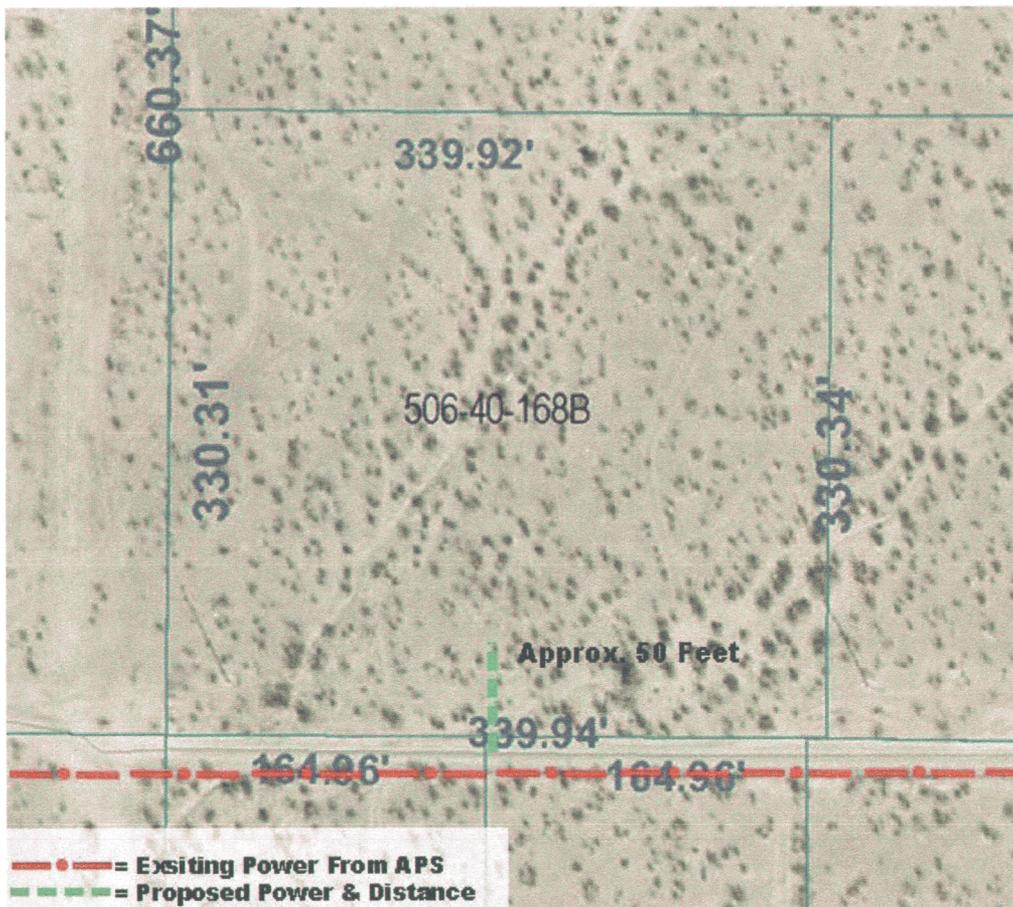
The following are actual estimates produced by APS for various properties in the Buckeye area. The estimates are provided in full in an appendix at the end of this report. Maps of the properties have been included showing the parcel, existing APS power lines, and the approximate distance from power lines to the property.



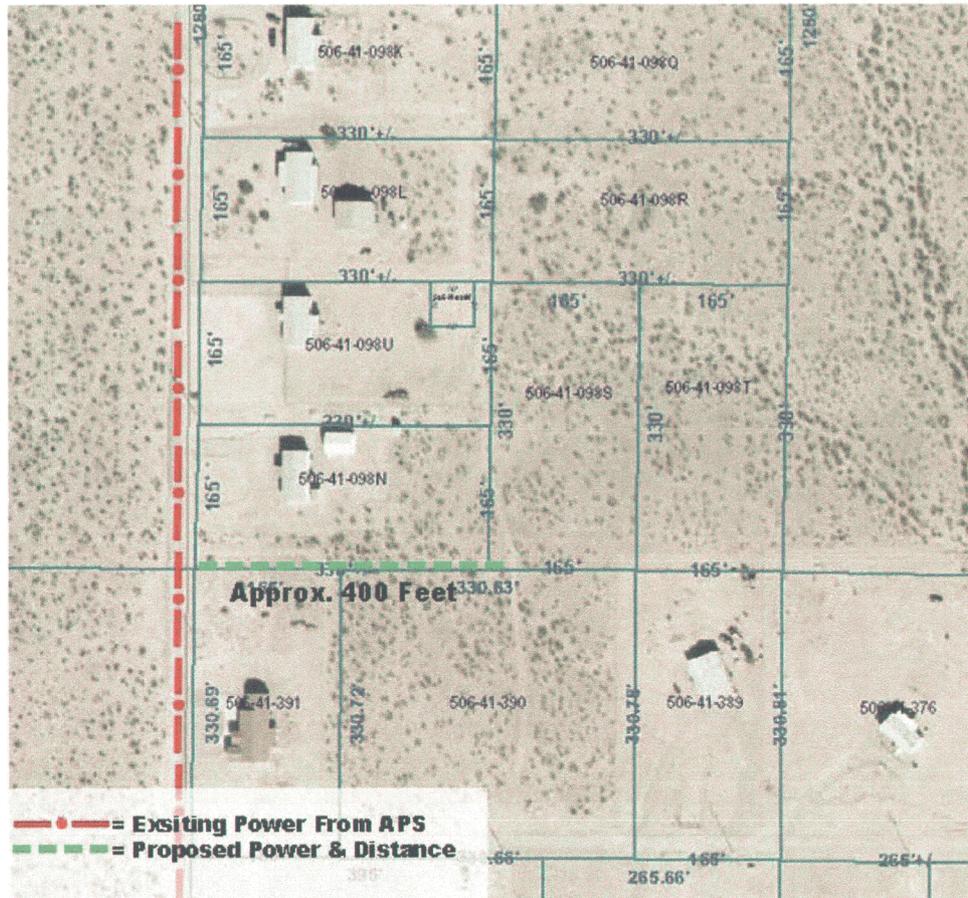
In the first example, electrical power is available along the street frontage. The overall distance to bring power to the home site is about 60 feet. APS's estimate is \$10,800 including labor and materials. Materials include one pole, one transformer, primary wire, an estimated 200 feet of service line and a meter set.



The second example is very similar with an approximate 50 foot extension from existing service lines. APS's estimate is \$7,800 including labor and materials. Materials include one transformer, secondary line to a junction box, one junction box, service lines and a meter set.



The third example is an approximate 400 foot extension to an interior lot. APS's estimate is \$21,200 including labor and materials. Materials include transformer, and lines to bring power up to lot line. This estimate does not include service runs or metering.



The final example is a 990 foot extension from an existing service line. APS’s estimate is \$25,400 including labor and materials for a 4 pole extension. This estimate does not include customer-provided trench and conduit costs. There may also be additional charges for street lighting.



Multi-Lot/ Subdivision Estimates

Anecdotally, several home builders are estimating that the added cost of extending service to a new subdivision could result in increased building costs of approximately \$3,000 per lot for a typical subdivision. Though the costs of electrical extensions would have always been advanced in residential subdivisions under the old Service Schedule 3, builders anticipated that the advance would be refunded after homes became occupied and APS began generating revenue. Since the refund provisions have been eliminated, these costs will no longer be refunded to the builder. The cost of the extension will now mostly likely be passed on to the home buyer in the cost of the house.



3.2 Tucson Electric Power

The following is an itemized list of line extension charges that will be used for customers within TEP's service area.

Line Extension Charges

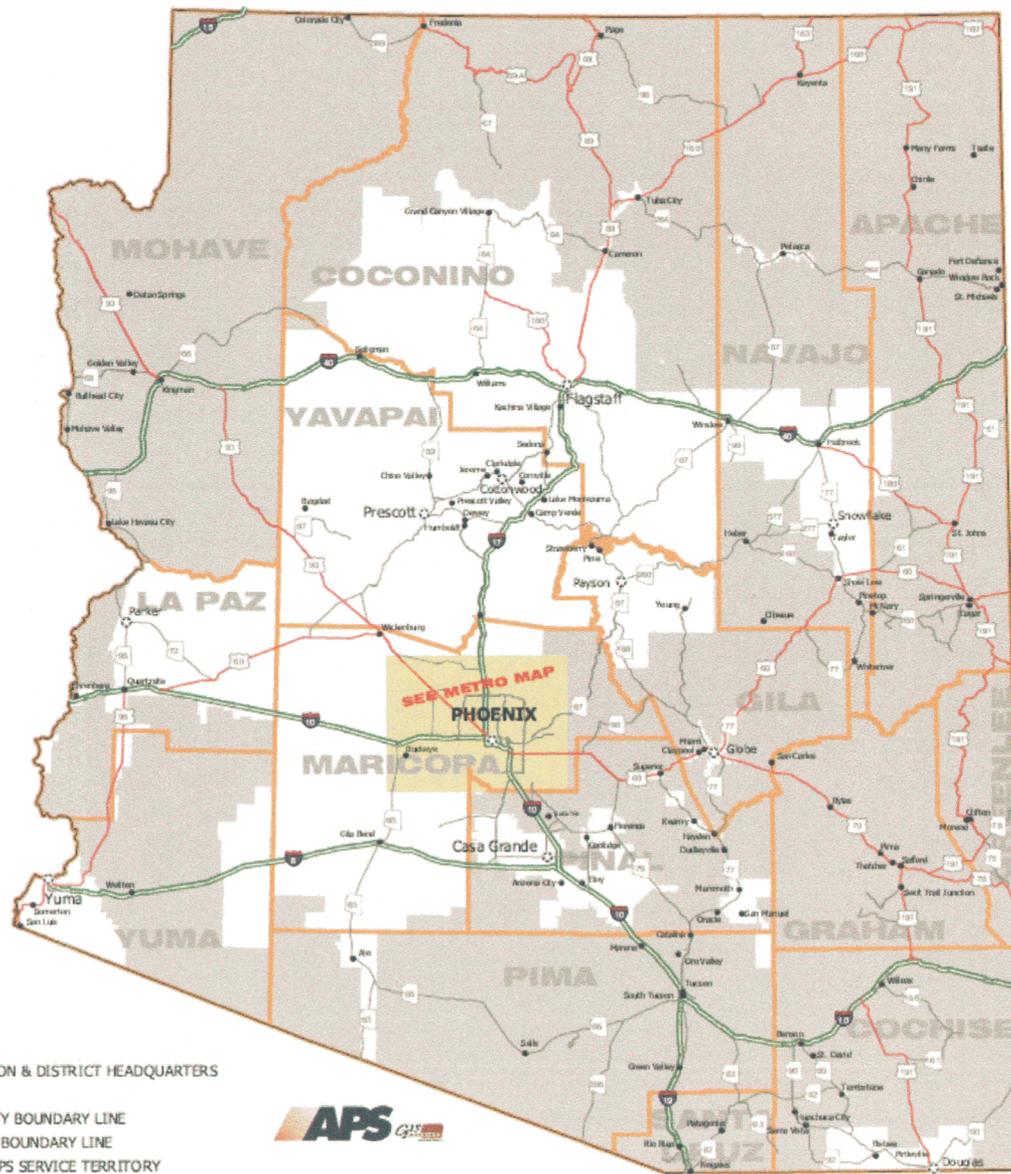
1. Single-phase charge per foot	\$18.00
2. Three-phase charge per foot	\$64.50
Additional transformer charge for 500 kVA and under	\$6,956.00
Additional transformer charge over 500 kVA	\$16,275.00
3. Overhead feeder charge per foot	\$36.00
4. Underground feeder charge per foot	\$51.00
Additional charge per PME	\$20,500.00



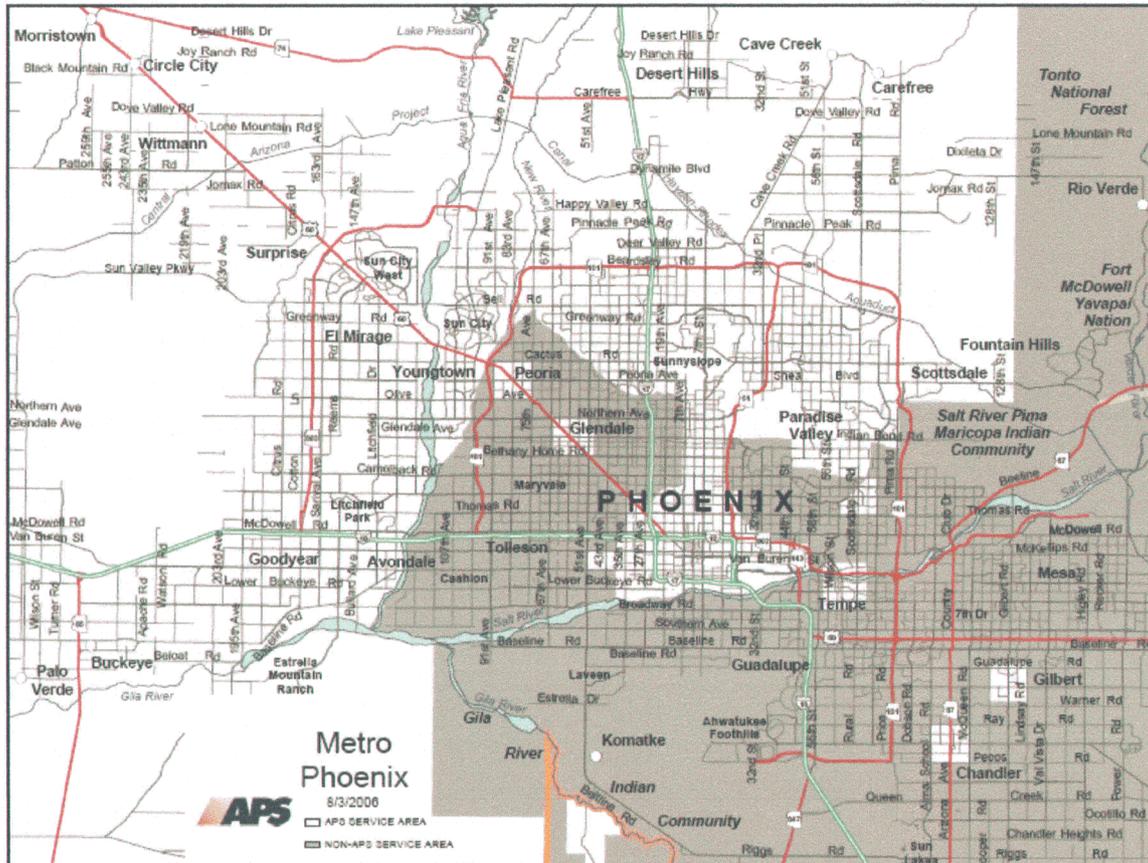
4.0 Potential Implications of Service Schedule 3 Policy Change

4.1 Affected Areas

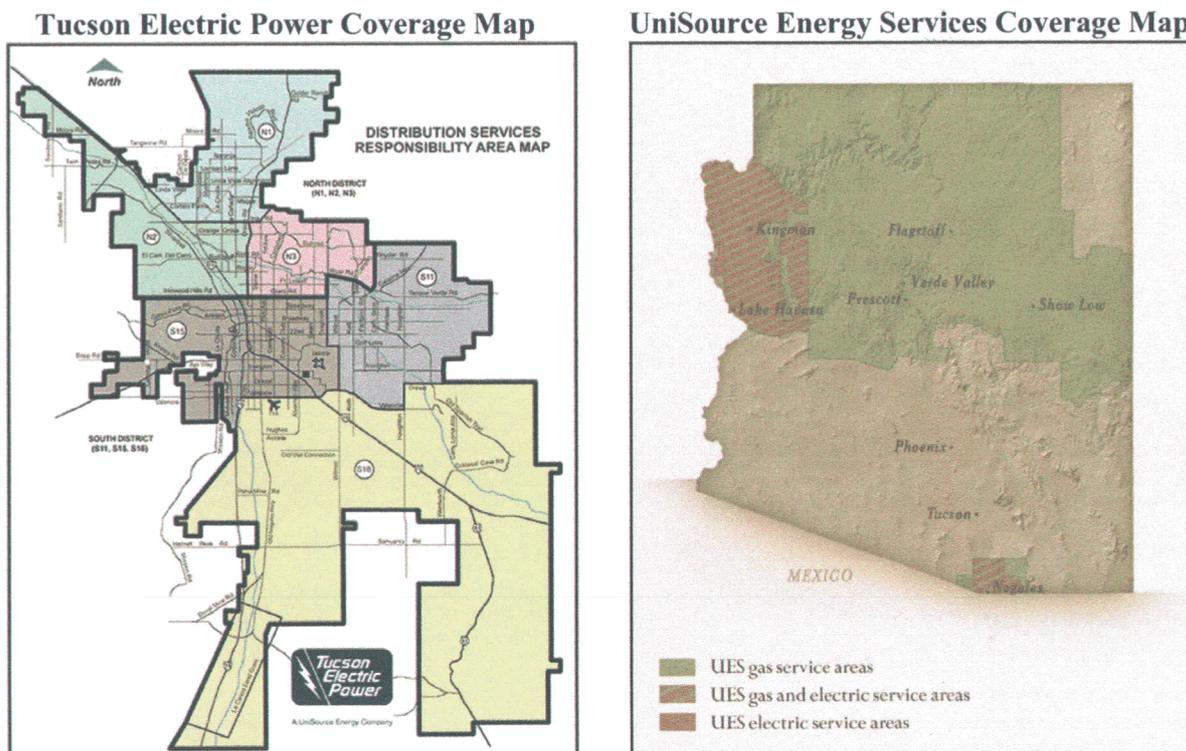
APS provides electricity to a large portion of Arizona, particularly in the central, urbanized parts of the State. As the maps below illustrate, much of Maricopa, Yavapai, Coconino and La Paz counties are serviced by APS. In addition, APS is providing electric service to much of the populated areas of Pinal and Yuma counties with significant service areas in Cochise and Navajo counties as well. APS service areas are represented in white.



Within Maricopa County, APS covers much of the northern and western portions of Phoenix and its suburb cities. It also maintains service in the downtown Phoenix area, as well as downtown blocks of coverage in East Valley cities such as Tempe, Chandler and Gilbert. The map below shows all of these coverage areas in detail. APS service areas are represented in white.



Tucson Electric Power (TEP) covers most of the Metro Tucson area and UniSource Energy Services covers much of Mohave and Santa Cruz counties, as illustrated in the coverage maps below.



These maps are utilized to illustrate the geographic magnitude of impact that the policy changes will have in relation to the entire State. These three companies cover a majority of the population within the State.

4.2 Recent Sales Data

The changes in line extension policies instituted by APS, TEP and UES could have a significant impact on residential development and the value of vacant lots and land, particularly in areas where homes are built on large lots and where individual electrical service extensions must be made to a home site. This section will analyze the potential impact of the new line extension policies.

Sales data of recent transactions from individuals with land holdings primarily in the far west part of Greater Phoenix (Tonopah region) have been compiled to assist in the analysis. Most of the land that is represented in the following table would have been allowed electricity extensions free of cost under the previous APS schedule. Under the new schedule, homeowners will be required to pay for any extensions.



Recent Sales Transactions Far West Valley					
APN/LOCATION	DISTANCE FROM POWER	ACRES	PRICE	PRICE/AC	STATUS
401-95-008 (part of) 353rd Ave & Siesta Wy	0 FT	2.3	\$45,000	\$19,565	SOLD
504-32-036-B (part of) 339th Ave & Roeser Rd	0 FT	2	\$50,000	\$25,000	SOLD
506-40-168-F 369th Ave & Osborn Rd	0 FT	1.2	\$32,000	\$26,667	SOLD
504-34-064 390th Ave & Northern Ave	660 FT	3.45	\$25,000	\$7,246	SOLD
504-34-064 353rd Ave & Vineyard	700 FT	1.25	\$8,500	\$6,800	SOLD
504-12-146-B 345th Ave & Sherman St	840 FT	1	\$13,000	\$13,000	TRUSTEE SALE
401-42-005-J 339th Ave & Mountain Ave	990 FT	1.25	\$12,000	\$9,600	SOLD
506-33-010-R,S,T,U & V 425th Ave & Earll Dr	1200 FT	10	\$65,000	\$6,500	SOLD
401-43-012-P 371st Ave & Dobbins	1.5 MILES	2.5	\$6,500	\$2,600	SOLD

Source: Arizonans for Fair Power Policy

There are many factors that affect the price of land including the availability of water, access to the property, paved and unpaved streets, sewer service or septic tank acceptability, surrounding uses and similar concerns. One of the most important is electrical service since most homes are not designed to function without it. With the recent change in electrical extension policies, the cost to extend electrical service to a home site is a significant issue not previously encountered by prospective homeowners. Without conducting a detailed statistical analysis of land prices in the rural parts of Greater Phoenix, the above table suggests that the distance from electrical service is having a negative effect on sales prices. With the added cost to place a home on a lot, at least a portion of the burden to pay for extending electrical service is transferred to the seller of a lot in the form of a lower value.

4.3 Potential Impacts on Property Tax Revenue

County assessors are beginning to lower values on land and homes due to the decline in housing values across Greater Phoenix and Arizona. The main cause of the decline stems from the collapse in the housing market and the flood of distressed properties placing downward pressure on sales prices. The lack of demand for developable private land has driven land prices down steeply as well. Based on interviews and letters of submission by various county assessors, in addition to recent sales data provided to this firm, the policy changes to eliminate free electrical line extensions means that proximity to existing electrical service lines will likely be correlated with land value.



In theory, a taxing entity such as a county can set property tax rates such that they raise a desired amount for their budget regardless of the total assessed value of the county provided that:

- The county does not levy an amount greater than the maximum allowable amount for that year as dictated by state statute, and
- The sum of levied property taxes from all taxing districts cannot exceed 1% of the value of properties containing owner-occupied dwellings.

Thus, if properties in a county lose value, the taxing entity is within their rights to raise the property tax rate to maintain the budgeted level of revenue.

However, it is generally believed that this is politically risky to do so because it is perceived as a tax increase, even if the total tax liability remains unchanged. This leaves taxing districts forced to deal with lower revenues if the value of property has declined and it is difficult to raise rates to make up the difference.

4.4 Interviews Regarding Impact of APS Policy Change

Various parties were interviewed regarding the impact of the APS policy change. A summary of the interviews follows.

- Homebuilders Association of Central Arizona
Spencer Kamps of the Home Builders Association of Central Arizona (HBACA) was contacted to assess the reaction of homebuilders among the Association's members. Mr. Kamps spoke about several issues including an estimate of the cost of the new policy on a per lot basis (for production home builders), the inequities that they perceive to be occurring and the potential consequences going forward.

Anecdotally, several builders are estimating that the added cost of extending service to a new subdivision could result in increased building costs of approximately \$3,000 per lot for a typical subdivision. Builders were already responsible for the entire internal infrastructure within a subdivision, so the added cost per lot is directly tied to the new service schedule policy. It was also speculated that commercial developments would likely face much larger costs due to the electrical load that some commercial operations require. This would especially be the case for industrial manufacturing operations.

In addition, it was noted that a production builder at least has the advantage of spreading the large initial capital cost among all of the lots within their subdivision, whereas an individual on a single lot would bear the full costs of necessary infrastructure, potentially creating a prohibitive development scenario for many in such a situation.

In terms of inequities, the biggest issue that was expressed was the absence of any form of a "payback" provision when development occurs near an existing electrical line extension paid for by another party. Thus, without such a provision, the initial subdivision in a new service area bears all costs related to extending service and



subsequent adjacent owners/developers can tap into the electrical improvements at no cost.

Many builders also feel it is unfair and arbitrary to exempt development occurring within designated Indian Reservations from the line extension policy.

The added costs to builders could affect several entities based on the economic climate and the supply of available land. During a healthy housing market with strong increases in housing values, electrical infrastructure costs would likely be passed on to the purchaser of a home and there would be little notice of the increased cost. However, if vacant land that is viable for homebuilding does not have access to electrical infrastructure, homebuilding companies may be inclined to offer less for the land, particularly if nearby property is already served by electrical system improvements. Landowners may see a decline in value for their property reflecting at least a portion of the cost of the electrical infrastructure.

During an average to poor housing market, for example during the current housing market of Greater Phoenix, slow growth in the supply of new housing and an oversupply of existing housing units likely produces different results. Currently there are many housing options available to consumers and prices have declined to unprecedented levels. Homebuilders who are targeting their home pricing to the foreclosure and resale market may not be willing to pay for extraordinary infrastructure costs such as electrical line extensions. Builders would then have two options:

- Absorb the electrical line extension costs resulting in smaller profit margins, or
- Pay less for the subdivision land resulting in declining land values.

If there is a limited supply of land in a particular sub-market of Greater Phoenix, the cost of the electrical infrastructure would likely be shared between landowners and builders (through reduced land values and smaller builder profits).

Another issue that was raised was the option for builders to reduce other infrastructure costs to pay for the additional costs of electrical line extensions. This would come in the form of reducing consumer choices for services within a given subdivision. For example, a builder could forgo the installation of gas lines in the subdivision to make up for the added costs of the electrical infrastructure. Ultimately the homeowner “pays” for these fewer options by being restricted to the use of electrical appliances.

Overall, it was expressed that government-related costs have not corrected nor responded to Arizona’s current real estate market conditions. While the cost of labor, materials and land have decreased due to the decline in demand, governmental costs in the form of taxes and fees have not yet declined. The decision by the Arizona Corporation Commission to increase the cost of development in the current climate is viewed as an additional cost imposed by government and appears contrary to what market conditions would dictate. Additionally, the HBACA has been informed by various parties that there is available capital for real estate investment but the deployment of that capital is awaiting the adjustment of governmental costs before any such investment occurs.



- La Paz County Assessor

George Nault, an assessor for La Paz County was contacted for a reaction from a rural county that is primarily serviced by APS. In Mr. Nault's opinion, the recent devaluation of most vacant property within the county was significantly related to the elimination of the free footage allowance. He stated that it is difficult to separate the effect of the downturn in the economy from the APS policy change. However, based on interactions with landowners and realtors, the consensus was that the policy change was driving down the price of land and discouraging potential buyers from purchasing land that does not have electrical lines to the property.

4.5 Submitted Letters

Numerous letters have been submitted to legislative leaders and members of the Arizona Corporation Commission (ACC). Letters reviewed by this firm include those from homeowners, realtors, business owners, legislative leaders, and county officials. All have expressed concern in one aspect or another to the new service schedule. In addition, requests have been made to APS and the Residential Utility Consumer Office (RUCO) regarding comments on the change to the service schedule. Responses have been documented and communications have been summarized below.

Letters to the ACC

Numerous letters have been submitted to the ACC regarding the policy change of eliminating the 1,000 foot free extension of service. Homeowners and business owners have expressed frustration with the unexpected costs they have been required to bear. Some purchases and investments were made on the assumption that electrical service would be provided free to their property. Now they are forced to pay for service or forfeit their plans.

Realtors have advised that the policy change will adversely affect the residential market beyond the housing crisis that has affected the Arizona market. As noted previously, land prices appear to be declining relative to the property's distance from existing electrical lines. These realtors have also expressed frustration on behalf of individuals who purchased land and now feel that they were misled.

A letter from the Yavapai County office of the assessor has been submitted to the ACC describing the difficulty in valuing land based on the new service schedule and the expected devaluation of vacant property within their county as a result of the elimination of the free footage allowance. This is likely the case for all assessors across the State.

Additionally, letters from the La Paz County, Navajo County and Pinal County Boards of Supervisors have been submitted on behalf of themselves and their constituents. These letters describe the hardship that individuals are now facing due to the sudden increase in costs and the perceived unfairness of exempting certain groups and the lack of choice for electrical service.

The La Paz County Board of Supervisors was unanimous in their request for re-instating extension policies. They referred to the financial hardship that individuals are undergoing and



the effect that it will have on current and future growth; growth that they are dependant upon to sustain services and economic responsibilities.

Letters of Response by APS

APS was asked to respond to numerous questions posed by members of the ACC. These questions are similar to the issues addressed in this report. There are a few interesting responses worth noting for additional perspective on this issue.

APS provided a brief history of the line extension policy and outlined decisions that were made resulting the current policy. In 2007, APS proposed drastic changes to Service Schedule 3. The proposal included replacing the free footage allowance with equipment allowances and refundable extension allowances. However, the decision by the ACC was to remove all provisions for free footage, equipment allowances, feasibility studies and refunds.

APS also quantified the number of customers that have or would qualify for free extensions annually over the last four years. They ranged form a low of 419 in 2008 (an extremely low number of units were built in the broader region as well) to a high of 1,783 in 2006 (the peak year in housing construction over the last few years). These figures are utilized in the following section (Section 5.0) to estimate the total number of homes that may have qualified for free extensions among all three companies' service areas.

4.6 Summary

It is unclear the extent that an increase in the cost of energy and electrical infrastructure will impact builders' and businesses' perceptions about Arizona. It is also not clear the extent to which these perceptions will result in slower economic growth, fewer business expansions, or less homebuilding activity in the State. It appears, however, that the majority of any impact related to the change in Service Schedule 3 will fall upon the non-urbanized areas and communities of the State rather the more urbanized counties of Maricopa and Pima.

When the cost for an electrical service extension is spread across the typical single family subdivision, the impact is much less per homebuyer if costs are passed forward or buried essentially within all the other infrastructure costs of subdivision development. This is not to imply that the cost is not significant; rather the cost is smaller on a per unit basis. However, for a lot owner in a more rural setting, the cost can be significant. In fact, the cost of an electrical extension may exceed the initial purchase price of the lot. The transition period for instituting the policy change reportedly caught many lot owners and buyers by surprise. In the short term, this means lot values will possibly decline further.

A reasonable range of effects of the change to Service Schedule 3 can be estimated through use of economic modeling techniques that quantify the economic and fiscal impacts associated with gains or losses of such activity. The following section will address this issue.



5.0 Economic and Fiscal Impacts of Suppressed Growth

There is no way of knowing with complete certainty the extent to which the increased capital costs of extending power to a given site will result in fewer homes being built over the long run. Therefore, it is not possible to provide specific estimates of economic losses as a result of this new policy. On the other hand, it is possible to provide some general perspective into the possible economic losses through use of economic modeling.

For some brief background on economic modeling, the different types of economic impacts are known as direct, indirect, and induced, according to the manner in which they are generated. For instance, direct employment consists of permanent jobs held by a company or industry. Indirect employment is those jobs created by businesses that provide goods and services essential to the operation of that industry. Finally, the spending of the wages and salaries of the direct and indirect employees (and homeowners) on items such as food, housing, transportation and medical services creates induced employment in all sectors of the economy, throughout the State.

5.1 Assumptions of Analysis

For the purpose of this analysis and to illustrate the potential economic and fiscal impacts of lost residential construction, the analysis is conducted in increments of 100 single family homes with an average value of \$180,000 per unit (for a total value of homes sold annually of \$18 million). The construction cost of each 100 homes would be \$10.4 million based on a survey by the National Association of Home Builders. It was assumed that 5% of all homes would be rented. All figures are in 2009 dollars.

Assumptions of Analysis						
RESIDENTIAL						
	Units	Avg. Size per Unit	Value per SF	Value per Unit	Percent Leased	Lease per SF
Low Density Residential	100	1,800	\$100	\$180,000	5%	\$12

Sources: Elliott D. Pollack & Co., MAG, ASU Construction Reports, PMHS.

For perspective on this incremental impact approach, the following data was reported by APS. Annual estimates from 2005 to 2008 of homes that likely met the requirements of a 1,000 foot free (\$25,000 cap) extension are displayed below.



Number of Work Orders For Footage-Based Extensions	
Year	Extensions ^{1/}
2005	1,410
2006	1,935
2007	1,499
2008	687

1/ Extensions include half of the extensions made over 1,000 feet.

Source: APS

It is difficult to forecast over the long term the number of residential units that would normally have qualified for a free extension based on the last four years of a boom and bust housing cycle. However, extensions have apparently represented between 3.5% and 9.5% of total APS residential customer growth in the years that data was available. That equates to a four year average of 5.2% of customer growth. Residential customer growth in APS service areas averaged 3.6% from 1996 through 2008. Using that figure as a long term growth rate going forward (growth will be slower in the next few years), APS would grow by approximately 35,240 customers each year.

In addition to APS, Tucson Electric Power (TEP) and UniSource Electric (UES) will continue to gain customers. TEP has averaged 2.2% annual growth since 1996 and UES has averaged 2.1% annual growth since its acquisition in 2003. Combined, the two companies are estimated to add over 9,820 customers annually on a long term average basis.

In the long run, the three affected service areas will likely grow annually by roughly 45,000 customers. That figure may be much less over the next few years as the excess housing stock in the State is absorbed. Extrapolating the four year average of customers qualifying for free extension footage across all service areas yields an estimated 2,340 customers annually that may have qualified for free footage allowances in the past. It is possible that a portion of these customers:

- May not build at all due to higher development costs,
- May not purchase land where an electrical service extension is required,
- May delay construction until a later date,
- May negotiate a price for the property that takes into account a portion, if not all, of the cost of the electrical service extension, or
- May purchase a home where electrical service extensions are already paid for or are not as costly.

Any impact would be more noticeable in the short term as excess quantities of developable land (some already with improvements made) offer competition.



Extensions as a Percent of Customers			
	Extensions	APS Customer Growth (Residential)	Extensions % of Residential Growth
2005	1,410	40,188	3.5%
2006	1,935	36,917	5.2%
2007	1,499	21,801	6.9%
2008	687	7,225	9.5%
Total 2005-2008	5,530	106,131	5.2%
Long-Term Estimate of Extensions (Affected Areas of APS, TEP, & UNS)			
Annual Customer Growth (APS, TEP, UNS)^{1/}	Extensions % of Growth^{2/}	Annual Extensions	Range of Extensions
45,000	5.2%	2,340	1,578 - 4,279
<p>^{1/} Annual Customer Growth is calculated using the current customer base multiplied by each company's long-term average growth rate. Calculations have been rounded.</p> <p>^{2/} Percentage of growth estimated to qualify for free extensions under previous policies. The four year average of qualifying APS customers has been extrapolated over all affected service areas.</p>			
Source: Pinnacle West, APS, ASU Construction Reports, Elliott D. Pollack & Co.			

5.2 Impact of Lost Residential Development Due to Policy Change

This section of the analysis provides an estimate of the potential economic and fiscal impact of residential construction that is lost due to the change in the electrical service extension policy.

Economic Impact of Construction

The following table provides the economic impact of construction for each 100 single family homes built (or not built) in the State of Arizona. The annual economic impact on an individual community could be significant. The economic output (or “value” added) to the community is more than just the construction outlay. Construction activity creates jobs and local spending throughout a community and creates further valuable economic benefits. These benefits take the form of additional business opportunities within a community and additional job opportunities for area residents. These economic values (also known as direct, indirect, and induced impacts) are quantitatively estimated in this report.

The \$10.4 million in direct construction costs for 100 single family homes would result in 53 direct construction jobs with \$2.8 million in annual wages. The “ripple effect” of this construction would generate an additional 59 indirect and induced jobs with \$2.7 million in wages and \$7.4 million economic activity. Overall, the annual impact of 100 single family homes generates 112 jobs in the economy, \$5.5 million in wages, and \$17.8 million in economic activity.



Although the primary impact of the residential construction would focus on the municipality in which it was located, the respective county and State of Arizona would also benefit from this development.

Economic Impact from Construction State of Arizona (2009 Dollars)			
Impact Type	Person Years of Employment	Wages	Economic Output
Residential (100 Homes)			
Direct	53	\$2,809,152	\$10,444,729
Indirect	33	\$1,626,558	\$4,253,470
Induced	26	\$1,108,656	\$3,107,265
Total	112	\$5,544,365	\$17,805,464

1/ The total may not equal the sum of the impacts due to rounding. All dollar figures are in constant dollars. Inflation has not been included in these figures.
Source: Elliott D. Pollack & Company; IMPLAN

Fiscal Impact of Construction

The fiscal effects of construction have been divided into primary and secondary impacts, depending on their source and how the dollars flow through the economy into tax accounts. For instance, some revenues, such as construction sales taxes, are definable, straightforward calculations based on the cost of construction. These revenues are described in this study as primary revenues.

Secondary revenues, on the other hand, flow from the wages of those direct, indirect and induced employees who are supported by the project. Revenue projections are based on typical wages of the employees working in the project, their spending patterns, projections of where they might live, and other assumptions outlined earlier in this report. This spending certainly enters the economy, but it is not as defined as primary revenues.

State of Arizona Fiscal Impact of Construction

The table below provides the fiscal impact on the State of Arizona from the construction of 100 single family residential units. Based on the total sales price of the units of \$18 million, the State would collect a construction sales tax (and speculative builders tax) of \$655,200. Secondary revenues from construction employment total \$263,100 for a total fiscal impact on the State of \$918,300.



Incremental Fiscal Impact from New Construction							
State of Arizona							
(2009 Dollars)							
Residential (100 Homes)							
Impact Type	Primary Revenues	Secondary Revenues from Employment					Total Revenues
	Construction Sales Tax	Employees Spending Sales Tax	Income Tax	Vehicle License Tax	Unemp. Tax	HURF Tax	
Direct	\$655,200	\$42,551	\$52,221	\$17,194	\$9,990	\$9,200	\$786,356
Indirect	N/A	\$25,470	\$28,075	\$10,786	\$6,267	\$5,771	\$76,369
Induced	N/A	\$18,486	\$19,136	\$8,474	\$4,923	\$4,534	\$55,552
Total	\$655,200	\$86,507	\$99,431	\$36,454	\$21,181	\$19,504	\$918,277

1/ The figures for the State of Arizona include revenues distributed to counties, cities, and towns. The figures are intended only as a general guideline as to how the State could be impacted by the project. The above figures are based on the current economic structure and tax rates of the State of Arizona.

Source: Elliott D. Pollack & Company; IMPLAN; Arizona Department of Revenue; ATRA

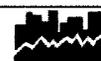
County Fiscal Impact of Construction

Among Arizona counties, the average construction sales tax rate of 0.74% would generate direct revenues of \$86,000. Additional secondary employee impacts of \$58,000 are generated for each 100 single family units, assuming most of the construction employees live within that county. In total, the typical Arizona county could lose approximately \$144,000 in revenues for each 100 single family units not constructed. This figure would fluctuate depending on the actual number of construction employees residing in the county (which could be significantly less for rural counties) and the actual tax rates of each county.

Incremental Fiscal Impact from New Construction				
County Level				
(2009 Dollars)				
Residential (100 Homes)				
Impact Type	Primary Revenues	Secondary Revenues		Total Revenues
	Construction Sales Tax	Employees Spending Sales Tax	Residents Property Tax	
Direct	\$80,137	\$6,052	\$24,217	\$110,406
Indirect	N/A	\$3,637	\$15,192	\$18,829
Induced	N/A	\$2,659	\$11,935	\$14,594
Total	\$80,137	\$12,349	\$51,344	\$143,829

1/ The figures do not include revenues collected by the State and shared with counties. The figures are intended only as a general guideline as to how a county could be impacted by the project. The above figures are based on the current economic structure and average tax rates of Arizona counties.

Source: Elliott D. Pollack & Company; IMPLAN; Arizona Department of Revenue; Arizona Tax Research Association



Municipal Fiscal Impact of Construction

The following table provides the annual fiscal impact of the construction of 100 single family homes in a municipality within Arizona. The construction activity could generate \$240,900 in construction sales tax, depending on the actual tax rate of the municipality (an average of 2.06% was used). An additional \$9,000 in secondary revenues could be generated from the spending of construction employees. Again, this figure would fluctuate depending on the actual number of construction employees residing in the community. The construction sales tax rate used in the analysis is the average for suburban cities in Metro Phoenix. In some cases, the construction activity could be located outside of a city and, therefore, no municipal tax would be collected.

Total Fiscal Impact from Construction				
Municipal Level				
(2009 Dollars)				
Residential (100 Homes)				
	Primary Revenues	Secondary Revenues		
Impact Type	Construction Sales/ Speculative Builder's Sales Tax	Employees Spending Sales Tax	Residents Property Tax	Total Revenues
Direct	\$240,900	\$2,900	\$1,700	\$245,500
Indirect	N/A	\$1,400	\$900	\$2,300
Induced	N/A	\$1,200	\$800	\$2,000
Total^{1/}	\$240,900	\$5,500	\$3,400	\$249,800

^{1/} The figures do not include revenues collected by the State and shared with cities and towns. The figures are intended only as a general guideline as to how an average city or town could be impacted by the project. The above figures are based on the average current economic structure and tax rates of Arizona cities and towns.

Source: Elliott D. Pollack & Company; IMPLAN; Arizona Department of Revenue; Arizona Tax Research Association

5.3 Fiscal Impact of Residents Occupying New Homes

In addition to the annual residential construction impact of 100 single family homes, tax revenues from residents of those homes would also benefit the State, county and municipality. If construction did not occur due to the electrical service extension policy, this revenue would be lost. This lost revenue can be quantified in terms of sales taxes from resident spending, property taxes on the homes they occupy and state shared revenues received based on population growth.

Unlike the impact from residential construction activity, the impact of single family dwelling residents is an ongoing, cumulative annual impact and, over time, would result in a significant impact on governmental revenues.

The following table provides an estimate of revenues for each 100 single family residences. In terms of assumptions for the calculations, spending estimates are based on the household income required to afford a \$180,000 home multiplied by the estimated taxable spending for that income



bracket as determined by the Consumer Expenditure Survey. A leakage rate of 25% is assumed for municipalities, as it is likely that a portion of the total spending of the residents is spent outside city or town limits, no matter where an employee resides. Property taxes are based on a value per home of \$180,000 and calculated based on the average of all Arizona counties and municipalities' property tax rates (\$3.2385 and \$1.2436 per \$100 of net assessed value for counties and cities, respectively).

State shared revenues include income taxes, sales taxes, vehicle license taxes and Highway User Revenue Fund taxes collected by the State and shared with cities and towns mostly based on population. On average, each city or town within Arizona receive \$300 per capita in State shared revenues while counties receive approximately \$200 per capita.

In total, the State of Arizona receives \$76,000 for every 100 households from spending in the economy. For a county, an estimated \$119,900 is generated annually for every 100 households, and each municipality receives an estimated \$134,500 for each new 100 households living in the city. These figures represent ongoing annual revenues that could be lost at each of the governmental levels if homes are not built as a result of electrical service extension policy.



**Ongoing Fiscal Impact of New Residents
(2009 Dollars)**

<u>Assumptions</u>			
Number of Homes		100	
Average Persons per Household		2.73	
Population in 100 Single Family Units		273	
Value per home		\$180,000	
HH Income Estimate ^{1/}		\$49,058	
Spending Leakage Rate (Municipal Level)		25%	
Average 2008 County Per Capita Revenue		\$200	
Average 2008 Municipal Per Capita Revenue		\$300	
<u>Revenue per 100 Single Family Units</u>			
	<u>State</u>	<u>County</u>	<u>Municipality</u>
Sales taxes from spending	\$76,038	\$14,429	\$30,984
Property tax	N/A	\$50,890	\$19,541
Lease tax	N/A	N/A	\$2,118
State shared revenue ^{2/}	N/A	\$54,600	\$81,900
Total annual revenues per 100 units	\$76,038	\$119,918	\$134,543
^{1/} Estimate based on dedicating 30% of income to monthly housing obligation at the assumed housing price of \$180,000			
^{2/} The Arizona Department of Revenue typically recalculates state shared revenues from population growth every census year and mid-census year, effectively every 5 years. This calculation assumes the lost population would have an immediate impact, when in actuality it would be experienced in lump sum impacts as soon as the population would have been recorded.			
Source: U.S. Census, AZ Dept. of Revenue, Elliott D. Pollack & Co.			

5.4 Summary of Impacts

In summary, there could be both economic and fiscal impacts to governmental entities if residential development was indeed stifled by the electrical service extension policy. The economic impact of the construction of 100 single family homes would generate 112 jobs, \$5.54 million in wages and \$17.81 million in economic output. In terms of potential fiscal impacts, the State of Arizona would collect over \$918,000 and the county in which homes would have located would collect approximately \$144,000 in revenues. If homes are located within a municipality, the respective city would collect an estimated \$250,000 from the construction activity. This represents economic activity and tax revenue that would be lost if 100 homes were not built.

The residents of each 100 homes would generate an additional \$76,000, \$119,900 and \$134,500 each year for the State, the appropriate county and appropriate municipality, respectively, on a



cumulative basis. Thus, for the ongoing resident impact, the estimated fiscal impact would be replicated each year that the home is occupied. Over time, the cumulative impact becomes very significant for the State, counties, and municipalities.

Residential Impact Summary	
100 Single Family Homes	
(2009 Dollars)	
Economic Impact of Construction (100 Single Family Units)	
Jobs	112
Wages (\$ mil)	\$5.54
Economic Output (\$ mil)	\$17.81
Fiscal Impact of Construction (100 Single Family Units)	
State of Arizona	\$918,277
County Level	\$143,829
Municipal Level	\$249,800
Fiscal Impact of Residents (Ongoing & Cumulative Annually)	
State of Arizona	\$76,038
County Level	\$119,918
Municipal Level	\$134,543
Source: Elliott D. Pollack & Company; IMPLAN	



6.0 Conclusion

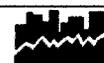
The policy changes enacted by the ACC have generated reactions from numerous individuals and entities, both public and private. From an economic perspective, the group that will realize the largest impact of these policy changes is landowners whose properties are not currently adjacent to existing electrical lines. To some extent, residential subdivision developers and homebuilders will be affected as well, but the cost of the electrical infrastructure is spread over a larger base of residential homes. Counties and municipalities that see any potential slowdown of residential construction activity due to the electrical service extension policy will also be affected by a slower-growing property tax base. In addition, some non-urban counties of the State are suggesting that the policy could have a much broader impact by affecting land values across their jurisdiction and ultimately their property tax base.

Every owner of vacant land within the affected service areas of APS, TEP or UES, whether they own a single lot or hundreds of acres, now bears the full costs of electrical infrastructure extensions. This cost in some circumstances may be paid through lower sales prices for landowners who wish to sell property. For owners of land planning to build a home, the cost is direct, equal to the amount of the extension. For these owners, the new policy may have created a prohibitive development scenario.

Production homebuilders have the advantage of spreading the large initial capital cost of extending electrical service among the many lots within their subdivision. However, they are still subject to increased costs that were previously refunded to them based on the benefit received from new customers. In a normal market, builders will likely negotiate lower land prices taking into consideration the increased cost of electrical extensions. Landowners will likely need to absorb at least a portion of the cost of the electrical extension.

In normal years, the service areas of the three utility companies affected by the electrical extension policy will likely grow annually by roughly 45,000 customers. That figure will be less over the next few years as excess housing is absorbed. Extrapolating the reported APS four year average of customers qualifying for free extension footage across all service areas yields an estimated 2,340 customers annually that may have qualified for free footage allowances in the past. It is possible that a portion of these customers will not build due to higher development costs if they did not receive an initial discount on the price of the land. Going forward, it is anticipated that market prices will account for at least a portion of the additional cost of extending electrical service in the form of lower prices. Those landowners whose lots are not served by electrical improvements are the ones who are most impacted at the current time.

While it is unknown how many homes will now not be built due to the increased cost of electrical line extensions, it has been illustrated that just building 100 homes has a significant impact on job creation, economic activity, and governmental revenues, particularly in non-urban communities where the construction of homes on large lots is more the rule than exception.



A few primary points need to be made related to the impact of the service extension policies.

1. The primary impact of the policy change is on the non-urban parts of the State served by APS, TEP and UES. This includes parts of Maricopa County that are located outside of the region's cities and towns. Homes in these areas are usually constructed on large lots by individual builders or homeowners. The lots often have limited infrastructure in place, relying on individual wells, unpaved roads and septic tanks for sewage disposal. In many cases, the homes planned for construction may be less expensive prefabricated or manufactured units. In this situation, a substantial added cost for electrical service may be beyond the ability of the home owner to absorb. Those persons who currently own lots in these areas are the ones who are most impacted by the electrical service extension policies. They likely are trapped with an illiquid investment that may take years to sell.
2. The non-urban counties of Arizona served by APS, TEP and UES may feel the direct effects of slowed residential construction activity (and commercial construction activity) as well as reduced property tax bases. A letter from the Yavapai County assessor has been received concerning the effect on appraisals, property values and ultimately on the entire vacant land tax base. While analysis of the potential impact of the service extension policy on a jurisdiction's tax base are beyond the scope of this study, counties that have a predominance of large lot subdivisions and few, if any, production homebuilders, could feel a loss of tax base in addition to the decline in property values due to the current recession.
3. In economics, there is a theory called "substitution". Very simply, the theory is that as prices rise for a particular good, consumers will substitute away from higher price goods and services to less costly alternatives. This theory will likely come into play in evaluating the impact of the service extension policy on the choices made by potential land buyers and home buyers. For instance, if a prospective buyer of a vacant lot understands that the ultimate cost of home includes the price of the land and the electrical service extension, he may choose to:
 - Purchase the vacant lot for its attributes,
 - Choose not to purchase the lot due to the expense, but purchase a resale home where electrical service is already provided;
 - Purchase a vacant lot where the electrical service is nearby;
 - Not purchase a lot in the area, but move to a lot or home where the cost of electrical service is not so burdensome (such as a traditional tract subdivision home).

There certainly are other substitutions or alternatives for a buyer to consider given their individual resources and preferences.

This is the reason why it is virtually impossible to estimate the full impact of the new service extension policy. Many prospective buyers may actually purchase an alternative home or lot, but not in a location where electric service is a major cost. Counties in Arizona may still see some residential construction activity, but it may be in a different



form or location if there are adequate alternatives to substitute for the lots burdened by electrical service extension costs.

To summarize, the primary impacts of the new service extension policies will fall on two entities:

- Non-urban counties that have a predominance of large lot subdivisions and few, if any, alternative residential areas that will substitute for the expense of electrical service extensions. La Paz, Coconino, Navajo and Yavapai counties may fall into this category since there are few production builders in the area. As a result, the counties could feel a loss of tax base in addition to the decline in property values due to the current recession.
- Persons who currently own lots in areas not well served by electrical utilities are likely trapped with their investment or stand to absorb a substantial loss if they sell under the current service extension policies.

More than anything, the elimination of the no-cost extension and other policies that helped to subsidize growth by these electric utility providers is an issue of *fairness*. The policy will mainly affect a select set of landowners, primarily in rural areas of the State.



Appendix A – APS Extension Estimates





A subsidiary of Pinnacle West Capital Corporation

Name	Vicki Vance	Phone:	623-932-6671	Email Address	vicki.vance@aps.com
Title	CSR	Mobile:	602-448-6821	Physical Address	615 N 4 th St
Department	Buckeye Construction	Fax:	623-932-6633	City, State, Zip	Buckeye, AZ 85326

November 18, 2008

Re: Lot 504-32-036B

Dear John,

This letter is in response to fax you sent me on November 13, 2008. The following price includes all labor and material for one pole, transformer, primary wire, an estimated 200' of service line and a meter set. Note that this quote is rounded to the nearest number and the final price may vary slightly. The estimated cost is \$10,800.00

Any questions please feel free to give me a call at 623-932-6671

Sincerely,

Vicki Vance





A subsidiary of Pinnacle West Capital Corporation

Name	Vicki Vance	Phone:	623-932-6671	Email Address	vicki.vance@aps.com
Title	CSR	Mobile:	602-448-6821	Physical Address	615 N 4 th St
Department	Buckeye Construction	Fax:	623-932-6633	City, State, Zip	Buckeye, AZ 85326

November 18, 2008

Re: Lot 506-40-168B

Dear John,

This letter is in response to fax you sent me on November 13, 2008. The following price includes all labor and material for a transformer, secondary line to a junction box, the junction box, service lines and a meter sets. Note that this quote is rounded to the nearest number and the final price may vary slightly. The estimated cost is \$7800.00

Any questions please feel free to give me a call at 623-932-6671

Sincerely,

Vicki Vance





A subsidiary of Pinnacle West Capital Corporation

Name	Vicki Vance	Phone	623-932-6671	Email Address	vicki.vance@aps.com
Title	CSR	Mobile	602-448-6621	Physical Address	615 N 4 th St
Department	Buckeye Construction	Fax	623-932-6633	City, State, Zip	Buckeye, AZ 85326

November 12, 2008

John Wylie

Re: Power to Lots: 506-44-098S

Dear John,

This letter is in response to your conversation with George Quinones on November 12, 2008. The following price includes all labor and material, including transformers, for bringing power up to the lot lines. This price does not include any service runs or metering. Note that this quote is rounded to the nearest number and the final price may vary slightly.

Lot 506-44-098S – Three Pole Extension with OH Transformer = \$21,200

Any questions please feel free to give me a call at 623-932-6671

Sincerely,

Vicki Vance





A member of Phoenix Gas Company

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85326

March 11, 2009

John Wylie
MGW, LLC
7835 W Camino Del Oro
Peoria, AZ 85383

Re: Conceptual Cost Review for Lot 504-34-001D

Dear John,

Thank you for your interest in locating a new project within the APS service territory. After a conceptual review of your project, based on the information you provided, we estimate the cost for providing electric service to be approximately \$ 25,400.00. This is for a 4 pole extension coming off the 351st Ave to the Southeast corner of the lot. This cost includes all APS labor and material needed to get power to the customer. This estimate does not include customer provided trench and conduit costs.

The cost provided is for planning purposes only and is subject to change without notice. Additional costs may apply for street lighting. In order to proceed with firm pricing and a detailed electrical design, a study and design payment will be required.

APS will extend service in accordance with the Conditions Governing Extensions of Electric Distribution Lines and Services, Schedule # 3 and the Terms and Conditions for the Sale of Electric Service, Schedule # 1, on file with the Arizona Corporation Commission.

I appreciate the opportunity to work with you and look forward to the successful completion of this project. If you have any questions, please call me at 623-932-6671.

Sincerely,

Vicki Vance
CSR
Buckeye Construction

