

**INTEGRATED  
RESOURCE  
PLAN**

**FOURTH FIVE-YEAR UPDATE**

**ELECTRICAL DISTRICT NUMBER THREE  
OF PINAL COUNTY  
AND THE STATE OF ARIZONA**

**January 25, 2017**

# Table of Contents

	<u>Page #</u>
Profile Data	
<u>Board of Directors</u>	3
<u>Contact Persons</u>	4
District Goals and Objectives	5
Competitive Situation	
<u>District Contract Information</u>	5
<u>Regulations Applicable to District</u>	5
<u>Regulations Applicable to District Customers</u>	5
<u>Competition with District Service</u>	6
Load and Resource Information	
<u>Historical and Five-Year Load Forecast</u>	6
<u>Customer Profile Information</u>	8
<u>Supply Side Resources</u>	9
<u>Demand Side Resources</u>	10
Identification and Comparison of Resource Options	11
Designation of Options	11
Action Plan	
<u>Resource Action Plan</u>	11
<u>Validation and Evaluation</u>	12
<u>Conservation Action Plan</u>	13
<u>Validation and Evaluation</u>	13
Environmental Effects	15
Public Participation	15
Appendices	
Appendix A—Map of District Boundaries	
Appendix B—Current Rate Schedules	
Appendix C—Load and Resource Information	
Appendix D—Integrated Resource Plan Public Meeting Notice	

## Profile Data

Electrical District Number Three, Pinal County ("ED3" or "the District") is an electrical district established in 1926 by the Board of Supervisors of Pinal County pursuant to what is now Chapter 12 of Title 48 of the Arizona Revised Statutes. ED3 was organized to provide, and since 1961 has provided, electrical power and energy which originally was primarily for pumping water for irrigation. ED3 obtained its original power purchase certificate from the Arizona Power Authority ("the Authority") in 1960. ED3 is governed by a seven-member Board of Directors. The District's current Board of Directors and relevant contact persons are detailed below.

On May 26, 2010, the Arizona Corporation Commission approved the transfer to the District of approximately 3,800 metered connections which were within the District's service boundary but were being served by Arizona Public Service Company ("APS"). These transferred customers had historically received electric service from APS power lines that were actually connected with the District's electric system. As result of the transfer of customers and related electric facilities, the District's meter customer base grew from 19,000 to nearly 23,000, and the District became the only electric utility with the responsibility of maintaining critical electric infrastructure and ensuring reliable service in its 245,500 acre service area (excluding the Ak-Chin Indian Reservation). ED3 serves agricultural irrigation pumping loads, residential, commercial and industrial users, and certain other loads. Approximately 95% of the irrigation pumps served by the District are leased by Maricopa Stanfield Irrigation and Drainage District ("MSIDD"). The rest of the pumps are owned and operated by District customers.

ED3 owns a substantial amount, 1,004 miles, of 12-kV distribution lines and a lesser amount, 73 miles, of 69-kV lines purchased from APS in 1960 under a thirty-year leaseback arrangement. ED3 assumed full electrical operation of its system to all customers in October 2001. ED3 also owns 11 distribution level substations, and part of the Maricopa substation with Western Area Power Administration ("Western"). ED3 receives power and energy on the Parker-Davis System purchased from the Authority and Western, as well as other supplemental sources. ED3 also provides wholesale wheeling services to APS for services to their retail customers. A map of ED3's boundaries is provided in **Appendix A**.

- **Board of Directors**

Dan Thelander—Chairman

Bryan Hartman—Vice-Chairman

Kelly Anderson—Secretary

Pat Talla—Treasurer

David Stueve

Larry Hart

Jim Whitehurst

- **Contact Persons**

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ED3 purchases power from the Authority (Hoover Power) and Western (SLCA/IP and Parker Davis Power). In June 2011, ED3 entered into a new long-term contract for firm capacity and energy anchored by the Mesquite Generating Station located near Palo Verde (“Mesquite Power”); this power purchase agreement became effective in January 2015. In addition, ED3 is a participant in the Hoover Power Resource Exchange Program and a party to the Integrated Resource Scheduling Agreement, which permit ED3 and other similarly situated utilities to integrate and exchange Hoover and SLCA/IP power resources. Starting in 2015, ED3 has also power purchase agreements with Sempra Generation (Sempra), as well as Salt River Project (SRP). The power and energy from the Authority and Western are transmitted over the Parker-Davis transmission system, the Pacific Northwest - Pacific Southwest Intertie transmission system, the CRSP transmission system, and ED3’s system.

Since January 2015, ED3 has also participated as a member of the Southwest Public Power Agency, Inc. (“SPPA”). SPPA is a joint action agency operating a power pool in Arizona which became operational on January 1, 2015. SPPA manages all or most of its members’ power resources and facilitates the supply of additional energy needed to meet their customers’ loads and sell short-term excess thermal energy into the wholesale market. SPPA also allows participants the ability to enhance the value of their power supply and transmission resources and improve access to additional energy markets. The SPPA members include 20 public power and tribal utilities who have joined together to pursue the economical development and ownership of future power generating resources and purchased power contracts.

The policies for service and rates for power provided by ED3 to its customers are determined and set by its Board of Directors. Copies of ED3's current rate schedules are attached as **Appendix B**.

The resource scheduling and utilization of the District’s resources have been managed through the Authority’s Resource Exchange Program and through the District’s participation in an Integrated Resource Scheduling Agreement for Hoover and SLCA/IP resources, respectively, as well as SPPA. These resource management programs have provided flexibility for the District to re-pattern its resources monthly to meet its changing loads and exchange the resources with other preference entities who can temporarily utilize the power during the same periods. The District anticipates that current federal resources under contract and continuation of the Integrated Resource Scheduling Agreement and Hoover Resource Exchange Program will be sufficient for the District to meet a portion of its monthly power and energy requirements. However, a portion

of the District's projected requirements over the next five-year period must be met through supplemental power purchases. For this timeframe, the District anticipates using its Hoover resource entitlement, its SLCA/IP and Parker-Davis entitlements, the Integrated Resource Scheduling Agreement, Resource Exchange Program, its Sempra and SRP entitlements, and SPPA pooled resources to meet its projected loads.

## **District Goals and Objectives**

- Provide Reliable Electric Power at Lowest Practicable Cost, Consistent With Sound Business Principles
- Enhance Customer Financial Stability by Providing Services Which Enhance Property Values and Provide Long-Term Stability in Electric Power Rates
- Operate ED3's Electrical System to Provide Low Cost and Reliable Electric Services to All Customers in ED3's Service Area
- Promote Energy Efficiency and the Effective Management of Water and Power Resources

## **Competitive Situation**

- **District Contract Information**

Arizona Power Authority (Hoover Power Contract)  
 Western Area Power Administration (SLCA/IP Contract)  
 Western Area Power Administration (Parker Davis Contract)  
 Arizona Public Service (Transmission Agreement)  
 Salt River Project (Supplemental Contract)  
 Sempra Generation (Supplemental Contract)  
 Power Purchase Agreement with Mesquite Power, LLC

- **Regulations Applicable to District**

Energy Planning and Management Program (EPACT '00)

- **Regulations Applicable to District Customers**

Arizona Department of Water Resources—Groundwater Management Act

- **Competition With District Service**

There is competition for leasing the farm ground within ED3. Many of the land owners in ED3 and other districts lease ground to tenant farmers who lease property based upon lease cost and water costs (i.e., pumping costs). Therefore, to the extent that the costs in ED3 become significantly higher than other areas, the competition for farm ground may significantly impact the irrigated acres and electric load of the District.

## Load and Resource Information

- **Historical and Five-Year Load Forecast:**

The District most recently completed a load forecast in November 2016, containing Baseline, Pessimistic, and Optimistic scenarios through 2025. The results of that forecast are depicted below.

### ANNUAL ENERGY REQUIREMENTS (MWh)

	<u>Year</u>	<u>Pessimistic</u>	<u>Baseline</u>	<u>Optimistic</u>
HISTORICAL	2006		379,985	
	2007		503,824	
	2008		590,171	
	2009		570,019	
	2010		535,653	
	2011		647,108	
	2012		617,829	
	2013		607,958	
	2014		659,043	
	2015		678,344	
PROJECTED	2016	662,641	691,479	692,318
	2020	697,516	753,140	775,591
	2025	776,353	824,182	874,145
<b>Average Increase 2015 - 2025</b>		<b>1.44%</b>	<b>2.15%</b>	<b>2.89%</b>

See **Appendix C** for more detailed information.

For the 2015-2025 term, the Baseline forecast for total energy requirements and peak demand are forecasted to increase at a very modest 2.15% per year.

Over the last five years, the District has added a number of residential customers. Residential growth continues to occur after the 2009/10 downturn in the real estate market, which had previously slowed the residential growth that was occurring in the ED3 boundaries. Since the real estate downturn, the District has shown steady annual growth of 1.5% to 2.0% in new meter connections using energy. The same benefits that led to the City of Maricopa (“City”) becoming one of the fastest growing cities in the country during the housing boom are still present: affordable housing, proximity to labor centers, new house construction, and likeable communities. Additionally, boomerang buyers, those who have repaired their credit after foreclosure or short sale several years ago, are returning to the market and are driving the demand in Phoenix Metropolitan Area and surrounding areas.

Overall, the City has maintained a manageable rate of new housing permit issuance of thirty-homes per month during the post-crash recovery. However, this was likely tempered by a large inventory of available homes following the crash. Recent housing permits have been pushing 50-homes a month as builders have taken advantage of previously developed lots and infrastructure and several builders have begun to break ground on new projects. Developers have also been adjusting housing offerings to match the demand for smaller, more affordable housing.

ED3 has continued to see a limited amount of growth in the commercial sector in the last few years. In Pinal County, small commercial and residential growth are highly correlated. This is a common characteristic seen in growing communities/economies such as the City of Maricopa. In the Maricopa area, this has equated to small commercial annual energy being approximately 8% of the annual residential usage during 2016. The pessimistic and baseline forecasts incorporate 12 new commercial customers per year each using approximately 23,000 kWh/year. This is increased to 36 new commercial customers under the optimistic forecast.

Large commercial and industrial rate classes do not typically correlate well with growth in residential and small commercial but rather are impacted by sporadic increases and decreases as industry moves in and out of the area. Growth in industry is highly dependent on market conditions, proximity to resources, proximity to shipping routes, and proximity to the customer base. No attempt has been made to forecast these economic variables but rather any known large or industrial customers expected in the near-term are included in the forecast period are included.

One new large dairy is anticipated to come on line beginning at the end of 2016 with a total load of 13,000 MWh. Additionally, four other retail commercial and public works projects totaling 4,000 MWh are also anticipated to be added during the next two years. These five commercial additions have been added to the pessimistic, baseline, and optimistic forecasts.

The District's largest irrigation customer is MSIDD. The MSIDD Irrigation forecast is based upon the economics of surface water availability and demand for water which is driven primarily by cropping expectations and commodity prices for grains, cotton etc. The continued availability of surface water, which offsets the need for pumped water for agricultural purposes over the long-term, is uncertain. What is known is that under the Arizona Indian Water Rights Settlement the current 400,000 AF pool of water set aside by the CAWCD for agricultural use will be reduced to 300,000 AF in 2017, and again in 2025 to 225,000 AF.

Other classes of service (General Service and Lighting) represent a relatively small share of ED3's total load and are projected to experience only limited growth over the forecast period.

See **Appendix C** for a graphical illustration of how the District schedules its resources to cover its loads in a typical year.

- **Customer Profile Information**

As of September 2016, the District's customers were divided into the following categories (as a percentage of total number of customers):

- Residential—89.8%
- Commercial—6.3%
- Industrial—<1%
- Pumping—1.8%
- Street Lights/Other—2%

See **Appendix C** for a graphical illustration, as well as a chart depicting historical and projected annual energy sales by customer class. The following chart highlights how the District's loads have changed over the last five years.

	Fiscal Years Ending December 31				
	2011	2012	2013	2014	2015
<b>Number of Meter Connections</b>					
Residential	20,111	20,364	20,839	21,118	21,474
Commercial	1,395	1,436	1,482	1,500	1,541
Irrigation	358	357	405	408	413
Other	444	474	484	557	539
<b>Total Meter Connections</b>	<b>22,308</b>	<b>22,631</b>	<b>23,210</b>	<b>23,583</b>	<b>23,967</b>
<b>Megawatt-Hour Sales (MWh)</b>					
Residential	255,711	259,058	266,491	269,515	280,988
Commercial	183,550	154,838	136,884	188,557	201,350
Irrigation	161,004	156,022	148,630	152,062	158,327
Other	16,582	18,527	12,775	14,567	13,408
<b>Total Electric Sales</b>	<b>616,847</b>	<b>588,444</b>	<b>564,780</b>	<b>624,701</b>	<b>654,074</b>

- **Supply Side Resources**

The District anticipates that current federal resources under contract and continuation of the Integrated Resource Scheduling Agreement, Hoover Resource Exchange Program, and SPPA will be sufficient for the District to meet a portion of its monthly power and energy requirements through the short-term planning period. Additional purchases of supplemental power will continue to be made to cover other power requirements. For the long-term planning period, the District does not currently anticipate that any additional long-term resources will be required. However, ED3 will continue to evaluate its resource options and explore opportunities to diversify its resource portfolio.

Detailed below are the District's current contractual commitments:

Arizona Power Authority (Hoover Power) at Santa Rosa/Test Track Substation

- Hoover A Capacity & Energy
  - 15,290 kW (Maximum with Hoover Firming Capacity)
  - 52,261,000 kWh (Contract Entitlement)
- Expires September 30, 2017

Arizona Power Authority Power Sales Contract (Hoover Power) at Mead Substation

- Hoover A Capacity & Energy
  - 15,896 kW (Maximum with Hoover Firming Capacity)
  - 51,109,401 kWh (Contract Entitlement)
- Effective October 1, 2017; expires September 30, 2067

Salt Lake City Area/Integrated Project Capacity at Santa Rosa/Test Track

- Winter Season CROD: 2,678 kW
- Summer Season CROD: 8,027 kW
- Contract Term: Expires September 30, 2024
- Energy entitlements by fiscal year:

<i>Fiscal Year</i>	<i>Winter Season Energy (kWh)</i>	<i>Summer Season Energy (kWh)</i>
FY 2017 - FY 2024	4,911,326	14,607,336

Parker-Davis Project at Santa Rosa/Test Track Substation

- Winter Season CROD: 4,203 kW
- Summer Season CROD: 5,164 kW
- Annual Firm Energy: 24,927,033 kWh
- Expires September 30, 2028

Transmission Agreement with Arizona Public Service (APS)

- APS Firm point-to-point service for 90 MW
- APS supplies ancillary services including energy imbalance where APS regulates for the hourly mismatches of supplied energy and the District's actual hourly loads
- Contract Term: Expires May 31, 2025 with rollover rights

Power Purchase Agreement (Mesquite Power, LLC)

- Firm Capacity and Energy
  - 65,000 kW (plus 20,000 kW for first three years, summer only)
  - Energy as needed
- Expires December 31, 2039

Salt River Project (SRP) Supplemental Contract

- This agreement became effective January 1, 2015. Under the terms of the agreement, SRP will provide the District 25 MW of firm, day-ahead firm power delivered to the Palo Verde hub.
- Contractual Entitlements
  - Winter Season Capacity: 25,000 kW
  - Summer Season Capacity: 25,000 kW
- Contract Term: Expires December 31, 2019

Sempra Generation Summer Supplemental Contract

- This agreement became effective January 1, 2015. Under the terms of the agreement, Sempra Generation will provide the District 25 MW of firm, day-ahead firm power delivered to the Palo Verde hub in the summer months.
- Contractual Entitlements
  - Summer Season Capacity: 25,000 kW
- Contract Term: Expires September 30, 2019

- **Demand Side Resources**

Within the last few years, there has been a shift in the District's customer base. However, a considerable portion of the District's electric power is still utilized to pump groundwater for agricultural purposes. The following is a list of some of the on-going water conservation practices which are implemented by the District's customers to efficiently utilize groundwater and thereby electricity.

Alternate Furrow Irrigation	Graded Furrow or Border	Use of Gated Pipe
Cut-Back Irrigation	Portable Sprinklers	Micro spray Systems
Angled Rows	Uniform Slopes	Tail Water Recovery
Shortened Field Lengths	Deficit Irrigation	Irrigation Scheduling
Land Leveling	Soil & Water Amendments	Concrete Ditch Lining
Precision Tillage	Cropping Pattern-Winter vs. Summer	Tiered Electric Rates

The District has also implemented a number of other demand side management programs as its load base has changed, including residential time-of-use rates and incentives for residential and small commercial customers installing solar power.

## Identification and Comparison of Resource Options

The identification of options for additional resources within this IRP is coordinated through an examination of the costs and benefits for each resource. Because the majority of the District's farm customers already implement numerous irrigation and agricultural efficiency practices in their operations and because the Arizona Groundwater Management Act heavily regulates the use of groundwater, opportunities for additional energy savings through demand side management programs ("DSM") for these customers are very limited. However the District will continue to look for other opportunities for energy savings from evolving technological advances in agricultural practices. To the extent practicable, the District will also endeavor to promote customer awareness of pumping workshops and other similar forums for further education on advancements in water conservation practices and technology. As feasible, the District will also endeavor to implement additional conservation programs for other customers. However, due to the significant amount of new or recent construction in the District's boundaries, other customer classes are more likely to have already implemented the most current energy efficiency standards or practices. Therefore, opportunities for additional energy savings at this time are more limited.

## Designation of Options

If additional resources are needed, the least cost option is identified from a cost benefit analysis. This information is considered by the Board of Directors in public meetings and combined with other information to select an Action Plan for the District which conforms to the regulations and guidelines of the Energy Planning and Management Program. The selection of the District's Action Plan also includes consideration for reliability of service, economics, rate impacts and price elasticity, environmental effects, regulatory impacts and risks, legal considerations and risks, competitive impacts, social acceptance and public considerations and any other factors which may be identified from time-to-time which may be pertinent in selecting or implementing an Action Plan.

## Action Plan

- **Resource Action Plan**

The time period covered by the District's Action Plan is the five-year period from 2017 through 2021.

The District has determined that to provide reliable electric power at the lowest practicable cost, consistent with sound business principles, the District will continue using its long-term entitlements of Hoover, SLCA/IP and Parker Davis power to supply a portion of the District's projected long-term power requirements. The current federal resources and continuation of the Authority Hoover Resource Exchange Program, the Integrated Resource Scheduling Agreement, and the SPPA pool will be sufficient for the

District to meet a portion of its monthly power and energy requirements through the short-term planning periods.

For the long-term planning period, the District has previously identified a need for additional resources, with the objective of increasing its options for firming resources purchased through the Resource Exchange Program and Integrated Resource Scheduling Agreement to serve as a successor for long-term contracts which will terminate in coming years. Therefore, in 2011 ED3 entered into the Mesquite Power agreement; subsequently, the District also joined the SPPA pool. The District also recently executed a Power Sales Contract with the Authority which provides for an allocation of Hoover power to succeed its current allocation, which expires September 30, 2017. Together with existing contractual arrangements, these resources are anticipated to be sufficient to meet the District's needs over the long-term planning period. The District continuously reevaluates the possible need for new resources, the availability of less costly resources and the potential for additional DSM activities. The District's Resource Action Plan enhances customer financial stability by providing services that will enhance property values and provide long-term stability in electric power rates.

Since no new resources beyond those already secured are needed, there are no milestones to evaluate accomplishment of the Plan activities. Nevertheless, the District will monitor any adjustments to the Plan for the long-term resource needs and will annually review its electric loads and resources for any significant changes. In the event the loads of the District are projected to materially increase above those levels represented in the Load and Resource information, other than normal deviations, the District will review its forecast and evaluate the need for modifying its IRP and notify Western accordingly. In any event, the District will evaluate its load forecast and resource information in detail every five years and refresh its IRP, in accordance with Western's regulations.

- **Validation and Evaluation**

The District will evaluate and secure sufficient one or more additional supply side options, such as a purchase power contract, in order to meet forecasted loads at the lowest practicable cost, consistent with sound business principles. Securing sufficient purchased power resources is integral to maintaining the rate stability of ED3 and necessary to maintain system reliability. ED3's review of resource options will include consideration for reliability of service, economics, rate impacts and price elasticity, environmental effects, regulatory impacts and risks, legal considerations and risks, competitive impacts, social acceptance and public considerations and any other factors which may be identified from time-to-time which may be pertinent in selecting or implementing an Action Plan.

The District provides electricity to MSIDD for use in pumping groundwater to farmlands which are also served from surface water supplies from the CAP. The CAP began delivering water to farmlands within the District in 1988 and the CAP policies for pricing and availability of CAP water have changed dramatically since the start of CAP deliveries. Since pumped water and CAP water are both essential in providing a reliable

supply of water to farmed lands, the impacts of CAP water deliveries upon the District's loads can be significant from year-to-year. CAP water price support programs and in-lieu programs are currently being implemented to encourage additional CAP water usage which impacts the District's annual pumping loads. Even if CAP water could supply the entire water requirements for most farms, the electric supplies are needed to backup the surface water system to reliably meet the water requirements of the farmed lands during shortages on the Colorado River, canal outages and to supply ineligible farm lands due to CAP regulations. The pumps are also used to augment surface water supplies in peak months when canal limitations may restrict the amount of water which can be supplied from CAP. While the impact of CAP water is significant upon the seasonal electric requirements of the District, the District's current resources and flexibility provided from the Hoover Resource Exchange Program and Integrated Resource Scheduling program should be sufficient for the District to adjust its resources to the changes in load requirements which may result from changes in CAP water delivered to District land owners for the five-year planning horizon.

- **Conservation Action Plan**

The District has decided to continue certain conservation activities to promote and maintain energy efficiency and customer awareness for conserving electric, water, and land resources.

**Period:** Calendar Years 2017 through 2021  
**Activities:** Transmission and Distribution System Improvements  
 Time-of-Use Load Management Program  
 Tiered Demand & Energy Rates  
 Pump Inspection Program  
 Customer Outreach and Education  
 Residential Time-of-Use Rates

- **Validation and Evaluation**

**Transmission and Distribution System Improvements**

ED3 has invested substantial resources, both fiscal and otherwise, in constructing and upgrading its transmission and distribution system to meet its load requirements. The District has been involved in several transmission expansion projects, including the ED5-Palo Verde Project and the Palo Verde-South East Valley 500kv Line Project, to meet its projected long term needs for transmission capacity. The completion of these projects will provide the District with increased operational flexibility and reliability to its transmission system. The Palo Verde-South East Valley project will also provide the District access to competitive generation located at the Palo Verde Hub. Expansion of and improvements to the distribution system also continue on a regular basis. Such

improvements assist the District in maintaining a low level of losses and improving system reliability.

### **Time-of-Use Load Management Program/ Tiered Demand & Energy Rates/Pump Inspection Program**

Several years ago, the District's Board adopted and has continued an aggressive pumping load management program with the primary objective being the reduction of the District's peak demand requirement. The District designed the Load Management Program to encourage voluntary load shifting and peak demand reduction through Tiered Demand & Energy Rates and the installation of time-of-use meters on several of the District's accounts.

The District also has an agreement with the MSIDD, its single largest electric customer, for a pump optimization program which enables the District to select usage of the most efficient pumps and wells of least depth in order to maximize the cumulative productive capacity of all irrigation wells relative to their cumulative resource input. The District also has in place an aggressive well inspection program where the field service crews inspect and identify any defective components which could be repaired or replaced in order to increase the efficient operation of MSIDD's pumps. The historical success of the District's conservation program is evident in the significant increases in the system load factor over time.

### **Customer Outreach and Education**

ED3 has its own website, upon which it has posted a series of energy savings tips and suggestions, customized for both the summer and winter seasons, and covering such subjects as appliances, lighting, pool equipment, and heating/cooling systems. The District also provides its customers with recommended links to further information on home energy audits and energy-savings improvements. ED3 also publishes flyers with energy savings tips which it distributes to its customers.

### **Residential Time-of-Use Rates**

ED3 currently offers two time-of-use rates to its residential customers in order to encourage conservation during periods of peak energy consumption. One rate offers off-peak rates before 12 p.m. and after 7 p.m. on weekdays year-round, as well as all day on the weekends. The other rate offers off-peak rates before 9 a.m. and after 9 p.m. on weekdays year-round, as well as all day on weekends. The rates are offered on a first-come, first-served basis as the necessary metering equipment becomes available.

## Environmental Effects

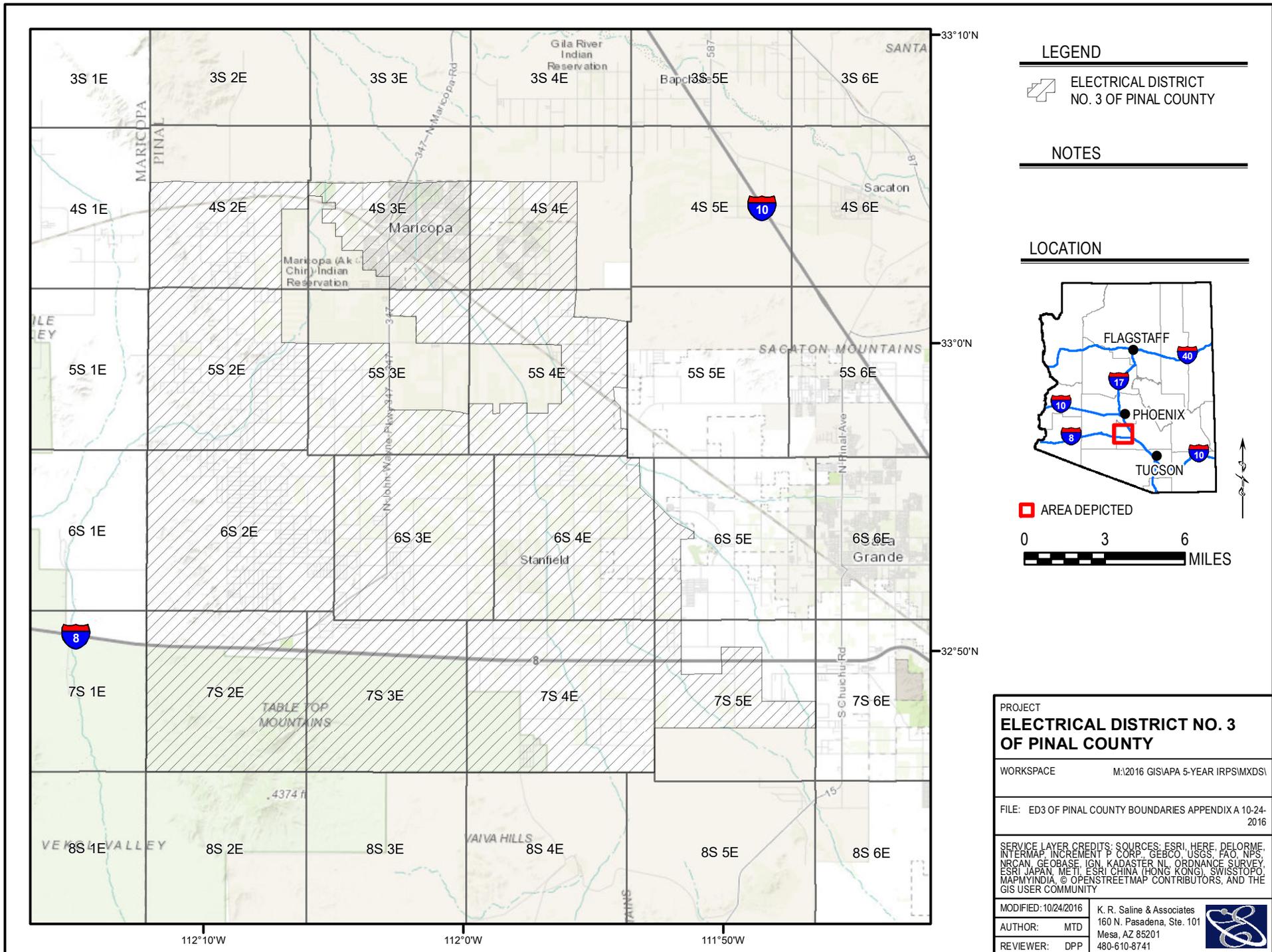
The District is required, to the extent practicable, to minimize adverse environmental effects of new resource acquisitions and document these efforts in the IRP. As noted above, the District has secured an additional long-term allocation of Hoover power which will become effective October 1, 2017. No additional adverse environmental effects are associated with this acquisition, as it is already an existing District resource. Furthermore, the continued use of this hydro resource will help the District avoid future purchases from coal-fired generation, or market purchases from a blended fuel mix which may include nuclear or coal. In addition, this resource will allow the District the flexibility to incorporate additional renewable resources which require firming, such as wind or solar generation. Ultimately, the District intends to utilize hydroelectric resources to meet much of its electric loads. To the extent the District utilizes the Authority Hoover Resource Exchange Program and the Integrated Resource Scheduling Agreement to optimally utilize the hydroelectric resources of the District and other similarly situated utilities, such efforts should be environmentally beneficial because such increased utilization would offset steam generation purchases.

In addition to maximizing the hydroelectric resources, the District's farm customers are involved in substantial water conservation programs in their farming practices. The investment made by the District's customers in installed water conservation technology is extensive and far-reaching. Their ongoing conservation practices and ongoing maintenance of conservation investments continue to conserve significant amounts of groundwater, and thereby electricity, annually. To the extent the District sponsors conservation activities and information activities with its customers, the conservation of groundwater is the fundamental achievement, which is environmentally beneficial and economically sound. In addition, the overall irrigation efficiency of each farm customer is heavily regulated by the State of Arizona through the Groundwater Management Act.

## Public Participation

The District has held one public meeting to discuss the development of the District's IRP. Prior to the meeting, the District posted notice in advance of the meeting, giving the time and place of the meeting and specifying that the District would be considering a draft IRP at the meeting. The notice was posted in accordance with statutory open meeting law requirements. The notice stated that the draft IRP would be available to the public in advance of the meeting and that public comment on the draft IRP would be accepted at the meeting. A copy of the notice is attached as **Appendix D**.

At the meeting, the draft IRP was presented to the Board. After discussion and the opportunity for public comment, the Board authorized the preparation of a final IRP, with such revisions as the Board deemed appropriate. There were no public comments.



**LEGEND**

 ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY

**NOTES**

**LOCATION**



 AREA DEPICTED



PROJECT	
<b>ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY</b>	
WORKSPACE	M:\2016 GIS\IPA 5-YEAR IRPS\MXD\
FILE:	ED3 OF PINAL COUNTY BOUNDARIES APPENDIX A 10-24-2016
SERVICE LAYER CREDITS: SOURCES: ESRI, HERE, DELORME, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEBCO, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), SWISSTOPOL, MAPMYINDIA, © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY	
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**APPENDIX A – MAP OF DISTRICT BOUNDARIES**

# **SECTION B**

# **RATES**

**EFFECTIVE: 01/01/2017**

**SECTION B – RATE SHEETS****Section Last Updated: 01/01/2017**

<b>RATE NUMBER</b>	<b>DESCRIPTION</b>	<b>REVISION NUMBER</b>	<b>DATE OF CURRENT VERSION</b>
01	Residential Service - Standard	11	01/01/2017
01 PPM	Residential – Pre-Payment Service (PPM)	2	01/01/2017
01 TOU - A	Residential Service – Time of Use (TOU) 9:00 a.m. to 9:00 p.m.	9	01/01/2017
01 TOU - B	Residential Service – Time of Use (TOU) Noon to 7:00 p.m.	4	01/01/2017
02	Small General Service	10	01/01/2017
03	Large General Service	8	01/01/2017
04 - A	Small Industrial Service	11	01/01/2017
04 - B	Large Industrial Service	5	01/01/2017
05 - D	Agricultural Irrigation Pumping Service (Steps 1 & 2)	13	01/01/2017
05 - H	Agricultural Irrigation Pumping Service (All)	7	01/01/2017
06	Agricultural Related Pumping Service	11	01/01/2017
07	Water Pumping Service	10	01/01/2017
08	Cotton Gin Service	8	01/01/2017
09	Dusk to Dawn Lighting	9	01/01/2017
10	Gates and Turnouts	10	01/01/2017
11	Street Lighting	7	01/01/2017
12	Unmetered Load	5	01/01/2017

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 01****RESIDENTIAL SERVICE****REVISION NO.: 11****EFFECTIVE: 01/01/2017****Applicability**

To residential use only in single private residences or apartments for lighting, appliances domestic single-phase power with no motor over 5HP, heating and cooling served through one meter.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Single-phase, 60 Hertz 120 / 240 volts. Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors. "Underground Service" applies to all customers who are served off of primary 12.5 kV feeders that are required to be constructed underground specifically for their area. Underground Service does not include individual underground service drops from overhead lines.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>Overhead Service</b>	<b>Underground Primary Service</b>
Basic Service Charge / Month	\$11.86	\$15.65
Energy Charge / kWh		
First 500 kWh	\$00.0868	\$00.0854
All Additional kWh	\$00.0868	\$00.1091
<b>MINIMUM BILL CHARGE</b>	<b>\$28.45</b>	<b>\$28.45</b>

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. The bill is subject to the Purchased Power Cost Adjustor as set forth in the PPCA Rider.
3. If the customer requests to connect a Solar Distributed Generation System, the Solar Power Program Buyback Rider shall apply.

**Tax**

Plus applicable sales tax to the above.

**Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

1. The reconnection charge outlined in ED3's Service Rules and Regulations; or
2. The Monthly Minimum Bill Charge times the number of months the service has been disconnected.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 01 PPM****RESIDENTIAL PRE-PAYMENT SERVICE****REVISION NO.: 2****EFFECTIVE: 01/01/2017****Applicability**

To residential use only in single private residences or apartments for lighting, appliances domestic single-phase power with no motor over five (5) HP, heating and cooling served through one (1) meter with the exception of customers who have on-site solar generation.

**Availability**

In all areas within the District as now served. Subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Conditions for Service**

Single-phase, 60 Hertz 120 / 240 volts. Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors.

1. A customer requiring additional interconnection, metering or other equipment beyond what is necessary for ED3 to provide basic service applicable under this price plan must pay ED3 for the costs of such additional equipment.
2. A customer may cancel service under this price plan and elect service under another applicable price plan. The customer may not subsequently elect service under this price plan for at least one (1) year after the effective date of cancellation. Customers who are served under this pre-payment plan and choose to elect service under another optional residential price plan will be required to re-establish credit and deposits with the then current District rules.

**Rates**

The monthly charges for this class of service shall consist of a summation of the following costs based on usage:

Basic Service Charge / DAY	\$0.52 / day
Energy Charge / kWh (All kWh)	\$0.1212 / kWh
Daily Minimum Charge	\$0.95

**Tax**

Plus applicable sales tax to the above.



**RATE NO. 01 TOU – A**

**RESIDENTIAL SERVICE - TIME-OF-USE**

**(9:00 A.M. TO 9:00 P.M.)**

**REVISION NO.: 9**

**EFFECTIVE: 01/01/2017**

**Applicability**

To residential use only in single private residences or apartments for lighting, appliances domestic single-phase power with no motor over five (5) HP, heating and cooling served through one (1) meter with the exception of customers who have on-site solar generation.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of necessary equipment, power and energy as determined in the opinion of the District.

**Type of Service**

Single-phase, 60 Hertz 120 / 240 volts. Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors.

**Terms and Conditions**

1. Service under this rate schedule will become effective only after the District has installed the required Time-of-Use (TOU) meter.
2. Customer's selecting Time-of-Use Service under this rate schedule will be required to remain on this schedule for a minimum of twelve (12) months.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>OVERHEAD TOU (9:00 AM – 9:00 PM)</b>		<b>UNDERGROUND TOU (9:00 AM – 9:00 PM)</b>	
	<b>SUMMER May – October</b>	<b>WINTER November - April</b>	<b>SUMMER May – October</b>	<b>WINTER November - April</b>
Basic Service Charge / month	\$12.80	\$12.80	\$16.60	\$16.60
Energy Charge / kWh				
On Peak kWh	\$00.1316	\$00.1070	\$00.1499	\$00.1219
Off Peak kWh	\$00.0426	\$00.0426	\$00.0485	\$00.0485
<b>MINIMUM BILL CHARGE</b>	<b>\$28.45</b>	<b>\$28.45</b>	<b>\$28.45</b>	<b>\$28.45</b>
<b>On Peak Hours (Monday – Friday)</b>	<b>9:00 a.m. to 9:00 p.m.</b>	<b>9:00 a.m. to 9:00 p.m.</b>	<b>9:00 a.m. to 9:00 p.m.</b>	<b>9:00 a.m. to 9:00 p.m.</b>
<b>Off Peak Hours</b>	<b>All other hours</b>	<b>All other hours</b>	<b>All other hours</b>	<b>All other hours</b>

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. The bill is subject to the Purchased Power Cost Adjustor as set forth in the PPCA Rider.
3. If the customer requests to connect a Solar Distributed Generation System, the Solar Power Program Buyback Rider shall apply.

**Tax**

Plus applicable sales tax to the above.

**Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

1. The reconnection charge outlined in ED3's Service Rules and Regulations; or
2. The Monthly Minimum Bill Charge times the number of months the service has been disconnected.



**RATE NO. 01 TOU - B**

**RESIDENTIAL SERVICE - TIME-OF-USE**

**(12:00 NOON TO 7:00 PM)**

**REVISION NO.: 4**

**EFFECTIVE: 01/01/2017**

**Applicability**

To residential use only in single private residences or apartments for lighting, appliances domestic single-phase power with no motor over five (5) HP, heating and cooling served through one (1) meter with the exception of customers who have on-site solar generation.

**Availability**

In all areas within the District as now served. Subject to the requirements of the primary purposes of the District and the availability of necessary equipment, power and energy as determined in the opinion of the District.

**Type of Service**

Single-phase, 60 Hertz 120 / 240 volts. Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors.

**Terms and Conditions**

1. Service under this rate schedule will become effective only after the District has installed the required Time-of-Use (TOU) meter.
2. Customer's selecting Time-of-Use Service under this rate schedule will be required to remain on this schedule for a minimum of twelve (12) months.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>OVERHEAD TOU</b> (12:00 NOON – 7:00 PM)		<b>UNDERGROUND TOU</b> (12:00 NOON – 7:00 PM)	
	<b>SUMMER</b> May – October	<b>WINTER</b> November - April	<b>SUMMER</b> May – October	<b>WINTER</b> November - April
Basic Service Charge / Month	\$12.80	\$12.80	\$16.60	\$16.60
Energy Charge / kWh				
<b>ON</b> Peak kWh	\$00.17987	\$00.14588	\$00.20486	\$00.16615
<b>OFF</b> Peak kWh	\$00.04508	\$00.04508	\$00.05134	\$00.05134
<b>MINIMUM BILL CHARGE</b>	<b>\$28.45</b>	<b>\$28.45</b>	<b>\$28.45</b>	<b>\$28.45</b>
<b>ON</b> Peak Hours (Monday – Friday)	<b>12:00 p.m. to 7:00 p.m.</b>	<b>12:00 p.m. to 7:00 p.m.</b>	<b>12:00 p.m. to 7:00 p.m.</b>	<b>12:00 p.m. to 7:00 p.m.</b>
<b>OFF</b> Peak Hours	<b>All Other Hours</b>	<b>All Other Hours</b>	<b>All Other Hours</b>	<b>All Other Hours</b>

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. The bill is subject to the Purchased Power Cost Adjustor as set forth in the PPCA Rider.
3. If the customer requests to connect a Solar Distributed Generation System, the Solar Power Program Buyback Rider shall apply.

**Tax**

Plus applicable sales tax to the above.

**Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

1. The reconnection charge outlined in ED3's Service Rules and Regulations; or
2. The Monthly Minimum Bill Charge times the number of months the service has been disconnected.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 02****SMALL GENERAL SERVICE****REVISION NO.: 10****EFFECTIVE: 01/01/2017****Applicability**

To all customer uses not defined in other rate schedules of the District who do not have demand metering or whose estimated monthly maximum demand is less than fifty (50) kW. Service is applied at one (1) point of delivery and measured through one (1) meter.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Single and three phase, 60 Hertz 120 / 240 and 480 overhead or underground. Subject to all standard policies, conditions, Electric Service Guidelines and Rules and Regulations as adopted and amended by the District Board of Directors.

“Underground Service” applies to all customers who are served off of primary 12.5 kV feeders that are required to be constructed underground specifically for their area. Underground Service does not include individual underground service drops from overhead lines.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>Overhead Service</b>	<b>Underground Primary Service</b>
Basic Service Charge / Month	\$17.07	\$42.68
Energy Charge / kWh		
First 1,000 kWh	\$00.0806	\$00.0806
All Additional kWh	\$00.1015	\$00.1015
<b>MINIMUM BILL CHARGE</b>	<b>\$17.07</b>	<b>\$42.68</b>

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. The bill is subject to the Purchased Power Cost Adjustor as set forth in the PPCA Rider.
3. If the customer requests to connect a Solar Distributed Generation System, the Solar Power Program Buyback rider shall apply.

**Tax**

Plus applicable sales tax to the above.

**Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

1. The reconnection charge outlined in ED3's Service Rules and Regulations; or
2. The Monthly Minimum Bill Charge times the number of months the service has been disconnected.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 03****LARGE GENERAL SERVICE****REVISION NO.: 8****EFFECTIVE: 01/01/2017****Applicability**

To all customer uses not defined in other rate schedules of the District whose monthly maximum demand is greater than fifty (50) kW for three (3) consecutive months in any continuous twelve (12) month period ending with the current month. Service is applied at one (1) point of delivery and measured through one (1) meter with a demand reading.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Single and three phase, 60 Hertz 120 / 240 and 480 overhead or underground. Transformation is included in this rate. Subject to all standard policies, conditions, Electric Service Guidelines Rules and Regulations as adopted and amended by the District Board of Directors.

“Underground Service” applies to all customers who are served off of primary 12.5 kV feeders that are required to be constructed underground specifically for their area. Underground Service does not include individual underground service drops from overhead lines.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>Overhead Service</b>	<b>Underground Primary Service</b>
Basic Service Charge / Month	\$30.87	\$78.72
Demand Charge / kW-mo	\$10.51	\$10.85
Energy Charge / kWh		
All kWh	\$00.0524	\$00.0541
<b>MINIMUM BILL CHARGE</b>	<b>\$30.87</b>	<b>\$78.72</b>

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. The bill is subject to the Purchased Power Cost Adjustor as set forth in the PPCA Rider.

**Tax**

Plus applicable sales tax to the above.

**Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

1. The reconnection charge outlined in ED3's Service Rules and Regulations; or
2. The Monthly Minimum Bill Charge times the number of months the service has been disconnected.

**Determination of kW**

The actual kW supplied during the period of maximum use during the month as determined from reading of the District's meter.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 04 - A****SMALL INDUSTRIAL SERVICE***Page 1 of 2***REVISION NO.: 11****EFFECTIVE: 01/01/2017****Applicability**

To non-agricultural customers whose monthly maximum demand is greater than 1,000 kW and less than 3,000 kW for three (3) consecutive months in any continuous twelve (12) month period ending with the current month. Service is applied at one (1) point of delivery and measured through one (1) meter with an actual or estimated demand reading.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Single and three phase, 60 Hertz 120 / 240 volt and 277 / 480 volt overhead. Transformation is included in this rate.

**Conditions**

1. Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors.
2. "Underground Service" applies to all customers who are served off of primary 12.5 kV feeders that are required to be constructed underground specifically for their area. Underground Service does not include individual underground service drops from overhead lines.
3. Customers served under this rate schedule are subject to the Facilities Charge and the Facilities Rider unless specified elsewhere.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>Overhead Service</b>	<b>Underground Primary Service</b>
Basic Service Charge / Month	\$35.09	\$78.72
Demand Charge / kW-Mo	\$06.92	\$06.92
Facility Charge / kW-Mo <b>(Customer Specific – See Facilities Rider)</b>	\$03.08	\$03.08
Energy Charge / kWh		
All kWh	\$00.0475	\$00.0475
<b>MINIMUM BILL CHARGE</b>	<b>\$35.09</b>	<b>\$78.72</b>

**Tax**

Plus applicable sales tax to the above.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 04 - A****SMALL INDUSTRIAL SERVICE***Page 2 of 2***REVISION NO.: 11****EFFECTIVE: 01/01/2017****Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

1. The reconnection charge outlined in ED3's Service Rules and Regulations; or
2. The Monthly Minimum Bill Charge times the number of months the service has been disconnected.

**Determination of kW**

The actual kW supplied during the period of maximum use during the month as determined from reading of the District's meter.

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. The bill is subject to the Purchased Power Cost Adjustor as set forth in the PPCA Rider.
3. The District may increase or decrease billings based on any taxes, fees or charges levied by any governmental authority for services provided under this schedule.
4. If the power factor falls below ninety-five percent (95%) at any point during any billing period, then the District will:
  - a. Require that the customer correct the power factor to an acceptable level.
  - b. Adjust the billing demand based on the following formula:

***Minimum Monthly Required Power Factor = 95%***

***(Demand Reading x Rate Master Power Factor) ÷ Power Factor Reading from Meter = Bill Demand***

- c. Require the customer, at their cost, to be continuously metered with a separate meter that requires KVA, KVARs or actual power factor.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 04 - B****LARGE INDUSTRIAL SERVICE***Page 1 of 2***REVISION NO.: 5****EFFECTIVE: 01/01/2017****Applicability**

To non-agricultural customers whose monthly maximum demand is greater than 3,000 kW for three (3) consecutive months in any continuous twelve (12) month period ending with the current month. Service is applied at one (1) point of delivery and measured through one (1) meter with an actual or estimated demand reading.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Three phase, 60 Hertz 120 / 240 volt and 277 / 480 volt. Transformation is included in this rate. Service under this schedule is generally provided at secondary voltage, primary voltage when the customer owns the distribution transformer(s), or transmission voltage.

**Conditions**

Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors.

	<b>Overhead Service</b>
Basic Service Charge / Month	\$83.00
Demand Charge / kW-Mo	\$16.68
Facility Charge / kW-Mo (Customer Specific – See Facilities Rider)	\$03.25
Energy Charge / kWh All kWh	\$00.03886

**Minimum**

The bill for service under this rate schedule shall not be less than the Basic Service Charge plus the applicable Demand Charge for each kW as determined below.

**Determination of kW**

For the purposes, the kW used in this rate schedule shall be the greater of the following:

1. The average kW supplied during the 15-minute period (or other period as specified by an individual customer contract) of maximum use during the month, as determined from readings of the District's meter.
2. **Fifty percent (50%) of the highest kW measured during the four (4) summer billing months (June – September) of the twelve (12) months ending with the current month.**
3. The minimum kW specified in the agreement for service or individual contract.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 04 - B****LARGE INDUSTRIAL SERVICE***Page 2 of 2***REVISION NO.: 5****EFFECTIVE: 01/01/2017****Tax**

Plus applicable sales tax to the above.

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. To assure that the District maintains a positive margin on this rate, the bill is subject to a Large Industrial Purchased Power Cost Adjustor (LIPPCA) described below.
  - a. The LIPPCA is a component that allows the District to pass through significant increases in the blended average cost of the Arizona Public Service (APS) Block and the APS Volume Imbalance Adjustment (VIA) Purchases. The LIPPCA will be reviewed by the District on no less than a quarterly basis and adjusted accordingly.
3. The District may increase or decrease billings based on any taxes, fees or charges levied by any governmental authority for services provided under this schedule.
4. If the power factor falls below ninety-five percent (95%) at any point during any billing period, then the District will:
  - a. Require that the customer correct the power factor to an acceptable level.
  - b. Adjust the billing demand based on the following formula:
 

***Minimum Monthly Required Power Factor = 95%***

***(Demand Reading x 95%) ÷ Power Factor Reading from Meter = Bill Demand***
  - c. Require the customer, at their cost, to be continuously metered with a separate meter that requires KVA, KVARs or actual power factor.

**Contract Period**

The contract period for customers served under this rate schedule will be, at the District's option, from the effective date of January 1, 2017 through December 31, 2018.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY**



**RATE NO. 05 – D**

**AGRICULTURAL IRRIGATION PUMPING SERVICE**

**REVISION NO.: 13**

**EFFECTIVE: 01/01/2017**

**Applicability**

To all irrigation motors operated by the Maricopa Stanfield Irrigation & Drainage District for the exclusive use of pumping water for the purposes of irrigating farm fields or to fill canals which are ultimately used to irrigate fields.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Three phase, 60 Hertz 120 / 240 and 480 overhead. Transformation is included in this rate. Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>Overhead Service</b>
Basic Service Charge / Month	\$13.88
Demand Charge / kW-Mo	\$05.97
Energy Charge / kWh	
Step 1 *	\$00.02142
Step 2	\$00.04675

**Determination of Billing Demand**

The actual coincident kW supplied for all MSIDD wells during the single hour of maximum use in the month as determined from the MSIDD hourly log of well operations.

\* **Step 1 - Energy billed under Step 1 will not exceed the amount of allocated monthly scheduled hydro energy. Monthly energy above Step 1 allocated hydro amounts will be billed at the Step 2 Rate.**

**Adjustments**

1. For this rate schedule, the Purchased Power Cost Adjustor (PPCA) is incorporated into the base rates above.

**Tax**

Exempt.<sup>1</sup>

<sup>1</sup> Per Arizona Attorney General Opinion No. 60-43 / R. S. Lynch Memos Dated 01/26/10 & 10/11/05

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 05 – H****AGRICULTURAL IRRIGATION PUMPING SERVICE****REVISION NO.: 7****EFFECTIVE: 01/01/2017****Applicability**

To all services other than those operated by the Maricopa Stanfield Irrigation & Drainage District for the exclusive use of pumping water for the purposes of irrigating farm fields for commercial agricultural production or to fill canals which are ultimately used to irrigate fields for commercial agricultural production.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Three phase, 60 Hertz 120 / 240 and 480 overhead. Transformation is included in this rate. Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>Overhead Service</b>
Basic Service Charge/Month	\$13.88
Demand Charge/kW-mo	\$04.63
Energy Charge/kWh All kWh	\$00.02461
<b>MINIMUM BILL CHARGE</b>	<b>\$13.88</b>

**Adjustments**

- For this rate schedule, the Purchased Power Cost Adjustor is incorporated into the base rates above.

**Determination of kW**

The actual kW supplied during the period of maximum use during the month as determined from reading of the District's meter.

**Tax**

Exempt.<sup>1</sup>

**Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

- The reconnection charge outlined in ED3's Service Rules and Regulations; or
- The Monthly Minimum Bill Charge times the number of months the service has been disconnected.

<sup>1</sup> Per Arizona Attorney General Opinion No. 60-43 / R. S. Lynch Memos Dated 01/26/10 & 10/11/05

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 06****AGRICULTURAL RELATED PUMPING SERVICE****REVISION NO.: 11****EFFECTIVE: 01/01/2017****Applicability**

To all services operated for the exclusive use of pumping water for commercial agricultural production other than irrigating farm fields.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Three (3) phase, 60 Hertz 120 / 240 and 480 overhead. Transformation is included in this rate. Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>Overhead Service</b>
Basic Service Charge / Month	\$13.88
Demand Charge / kW-Mo	\$04.74
Energy Charge / kWh All kWh	\$00.02656
<b>MINIMUM BILL CHARGE</b>	<b>\$13.88</b>

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. The bill is subject to the Purchased Power Cost Adjustor as set forth in the PPCA Rider.

**Determination of kW**

The actual kW supplied during the period of maximum use during the month as determined from reading of the District's meter.

**Tax**

Exempt.<sup>1</sup>

**Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

1. The reconnection charge outlined in ED3's Service Rules and Regulations; or
2. The Monthly Minimum Bill Charge times the number of months the service has been disconnected.

<sup>1</sup> Per Arizona Attorney General Opinion No. 60-43 / R. S. Lynch Memos Dated 01/26/10 & 10/11/05

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 07****WATER PUMPING SERVICE****REVISION NO.: 10****EFFECTIVE: 01/01/2017****Applicability**

To all motors operated for the exclusive use of pumping water for all non-agricultural related purposes whose monthly maximum demand is greater than fifty (50) kW for three (3) consecutive months in any continuous twelve (12) month period ending with the current month.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Single and three (3) phase, 60 Hertz 120 / 240 and 480 overhead. Transformation is included in this rate. Subject to all standard policies, conditions, Electric Service Guidelines Rules and Regulations as adopted and amended by the District Board of Directors.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>Overhead Service</b>	<b>Underground Primary Service</b>
Basic Service Charge / Month	\$30.01	\$75.02
Demand Charge / kW-Mo	\$05.11	\$05.11
Energy Charge / kWh	\$00.0686	\$00.0686
<b>MINIMUM BILL CHARGE</b>	<b>\$30.01</b>	<b>\$75.02</b>

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. The bill is subject to the Purchased Power Cost Adjustor as set forth in the PPCA Rider.

**Determination of kW**

The actual kW supplied during the period of maximum use during the month as determined from reading of the District's meter.

**Tax**

Plus applicable sales tax to the above.

**Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

1. The reconnection charge outlined in ED3's Service Rules and Regulations; or
2. The Monthly Minimum Bill Charge times the number of months the service has been disconnected.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 08****COTTON GIN SERVICE****REVISION NO.: 8****EFFECTIVE: 01/01/2017****Applicability**

To all cotton seed milling gins which are primarily operated on a seasonal basis.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Three (3) phase, 60 Hertz 120 / 240 and 480 service. Transformation is included in this rate. Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors.

**Rates**

**Summer Season:** March through September

**Winter Season:** October through February

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>SUMMER Season</b>	<b>WINTER Season</b>
Basic Service Charge / Month	\$34.33	\$34.33
Demand Charge / kW-Mo	\$14.20	\$7.65
Energy Charge / kWh All kWh	\$00.0477	\$00.0477
<b>MINIMUM BILL CHARGE</b>	<b>\$34.33</b>	<b>\$34.33</b>

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. The bill is subject to the Purchased Power Cost Adjustor as set forth in the PPCA Rider.

**Tax**

Plus applicable sales tax to the above.

**Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

1. The reconnection charge outlined in ED3's Service Rules and Regulations; or
2. The Monthly Minimum Bill Charge times the number of months the service has been disconnected.

**Determination of kW**

The actual kW supplied during the period of maximum use during the month as determined from reading of the District's meter.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 09****DUSK-TO-DAWN LIGHTING****REVISION NO.: 9****EFFECTIVE: 01/01/2017****Applicability**

To all customers for the purpose of outdoor lighting other than street and highway lighting service of privately owned property. Electric service is provided from dusk to dawn. ED3 will install, own, operate and maintain the complete lighting installation, including lamp replacements.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Rates**

Customer is responsible for all installation costs. These costs may be financed through ED3's on-bill financing per the Dusk-to-Dawn Lighting Installation Guidelines and Dusk-to-Dawn Lighting Agreement. The monthly charge shall be computed at the following rates for the standard facility utilized to provide service.

<b>LAMP TYPE</b>	<b>LAMP WATTAGE</b>	<b>LUMENS</b>	<b>KWH / MONTH</b>	<b>CHARGES PER LAMP PER MONTH</b>
<b>High Pressure Sodium</b>	100 W	9,500	40.3	\$07.14
	150 W	16,000	66.6	\$07.81
	200 W	22,000	84.9	\$09.28
	250 W	30,000	99	\$09.92
	400 W	50,000	153	\$17.08
<b>Metal Halide</b>	100 W	8,500	44.5	\$07.14
	250 W	19,500	101.8	\$10.52

**Tax**

Plus applicable sales tax to the above.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 10****GATES & TURNOUTS****REVISION NO.: 10****EFFECTIVE: 01/01/2017****Applicability**

To all irrigation motors operated for the exclusive use of opening or closing gates or turnouts for the purposes of irrigating farm fields or to fill canals which are ultimately used to irrigate fields.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Type of Service**

Three (3) phase, 60 Hertz 120 / 240 and 480 overhead. Transformation is included in this rate. Subject to all standard policies, conditions, rules and regulations as adopted and amended by the District Board of Directors.

**Rates**

The **monthly** charges for this class of service shall consist of a summation of the following costs based on usage:

	<b>Overhead Service</b>
Basic Service Charge / Month	N/A
Demand Charge / kW-Mo	\$4.74
Energy Charge / kWh All kWh	\$0.0266
<b>MINIMUM BILL CHARGE</b>	<b>Based on 2 kW and 100 kWh</b>

**Adjustments**

1. For this rate schedule, the Purchased Power Cost Adjustor is incorporated into the base rates above.

**Tax**

Plus applicable sales tax to the above.

**Reconnect Charge**

In the event a consumer requests that ED3 reconnect electric service within a twelve (12) month period of requesting that ED3 disconnect the electric service to the same location, the consumer shall pay ED3 a reconnect charge.

The reconnect charge shall be the greater of:

1. The reconnection charge outlined in ED3's Service Rules and Regulations; or
2. The Monthly Minimum Bill Charge times the number of months the service has been disconnected.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 11****STREET LIGHTING****REVISION NO.: 7****EFFECTIVE: 01/01/2017****Applicability**

To all customers for the purpose of outdoor lighting of streets alleys, thoroughfares, public parks and playgrounds. Service is dusk to dawn and District will own, operate and maintain the street lighting system including lamps and glass replacements.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Rates**

The monthly charge shall be computed at the following rates for the standard facility utilized to provide service.

<b>Lighting Charges</b>			
<b>Type</b>	<b>Lumen</b>	<b>kWh / Month</b>	<b>Charges per Lamp Per Month</b>
Pedestrian Light	9,500 HPS	100	\$30.78
Pedestrian Light	16,000 HPS	150	\$32.94
Single Fixture Light	28,000 HPS	250	\$35.13
Single Fixture Light	50,000 HPS	400	\$39.72
Double Fixture Light	56,000 HPS	500	\$48.01

**Tax**

Plus applicable sales tax to the above.

**Notes**

1. All facilities shall be owned, operated and maintained by ED3.
2. HPS = High Pressure Sodium.
3. Street lighting facilities installed under this rate schedule are the type currently being provided by ED3 as a Standard Facility. The current Standard Facility consists of a galvanized steel pole, lamp, and accessories.
4. If customer requests facilities that are not covered by the standard facility (provided by ED3), the customer shall pay the difference between the standard facility and the requested facility.

**ELECTRICAL DISTRICT NO. 3 OF PINAL COUNTY****RATE NO. 12****UNMETERED LOAD****REVISION NO.: 5****EFFECTIVE: 01/01/2017****Applicability**

All customers who require electric service where demand and energy requirements are constant and subject to the limitations set forth in the notes section of this schedule. Service is applied at one (1) point of delivery where a fixed monthly energy use is determined by the District at service initiation and is not measured by metering equipment.

**Availability**

In all areas within the District as now served; subject to the requirements of the primary purposes of the District and the availability of power and energy as determined in the opinion of the District.

**Rates**

<b>Unmetered Service</b>	
Basic Service Charge / month	\$6.50
Energy Charge / kWh	\$0.1093

**Adjustments**

1. The Renewable Energy Surcharge Rider shall be applied to all retail electric service under this schedule.
2. The bill is subject to the Purchased Power Cost Adjustor as set forth in the PPCA Rider.

**Tax**

Plus applicable sales tax to the above.

**Notes**

1. This rate schedule is applicable only to loads where monthly demand (kW) and energy (kWh) requirements remain constant. Monthly demand and energy requirements may not exceed 2 kW or 1460 kWh at 120 volts and 4 kW or 2920 kWh at 240 volts for each delivery point. Determination of fixed energy use will be based on an average 730 hour month.
2. Prior written approval by an authorized District representative is required before service is implemented under this schedule. Determination of fixed energy use amount will be agreed upon between Customer and District before service is implemented.
3. Prior written approval by an authorized District representative is required for any change in loads.
4. The District shall have the right to inspect the customer's load facilities at any time to ensure compliance with the provisions of this rate schedule.

ELECTRICAL DISTRICT NO. 3  
**CY 2016-2025 LOAD FORECAST**

Prepared August 2016

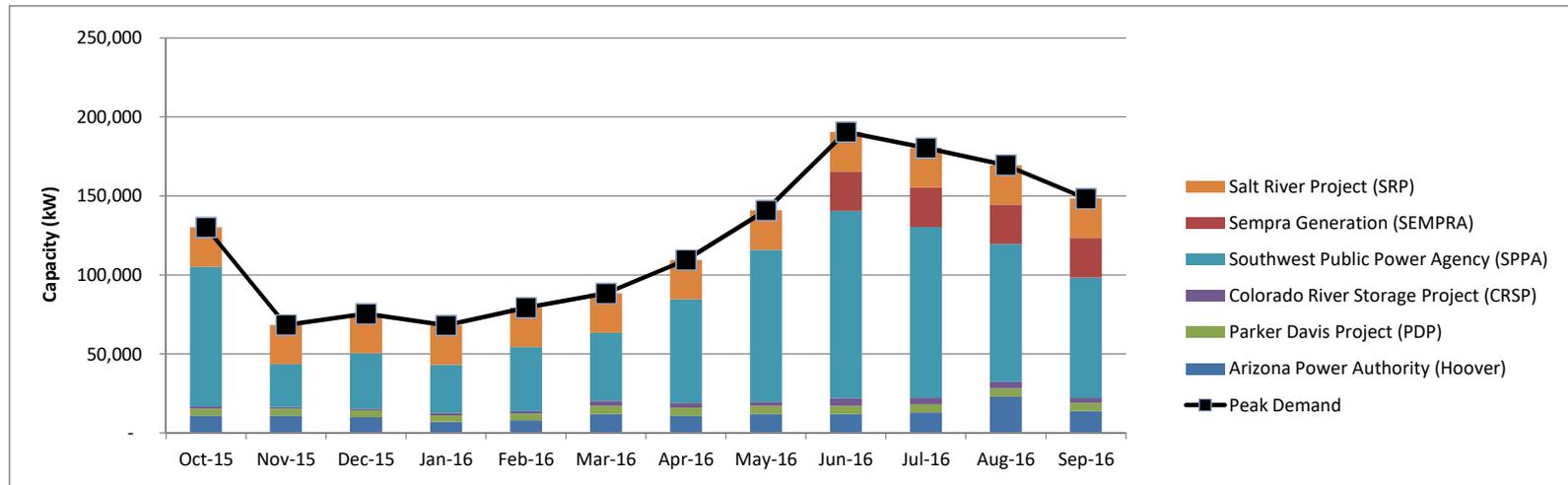
BASELINE ED3 ONLY FORECAST

	Meter					Total Energy	Avg Annual Load			
	Year	Connections (Avg)	% Growth	Annual kWh	% Growth	% Loss Factor	Requirements	Factor	Peak Demand	Avg kWh/Cust
ACTUAL	2007	14,335	26.9%	482,159,796	31.7%	4.49%	503,824,238	46.88%	122,675	33,635
	2008	16,794	17.2%	555,705,060	15.3%	6.20%	590,171,049	44.89%	150,084	33,090
	2009	17,752	5.7%	541,119,328	-2.6%	5.34%	570,019,307	44.99%	144,624	30,482
	2010	18,779	5.8%	518,243,890	-4.2%	3.36%	535,652,600	44.10%	138,650	27,597
	2011*	22,242	18.4%	616,847,212	19.0%	4.91%	647,107,694	42.79%	172,619	27,734
	2012	22,438	0.9%	588,444,102	-4.6%	4.99%	617,829,155	42.04%	167,755	26,226
	2013	22,951	2.3%	564,782,799	-4.0%	7.64%	607,957,683	40.36%	171,971	24,608
	2014	23,407	2.0%	624,702,849	10.6%	5.50%	659,043,024	43.76%	171,907	26,689
	2015	23,773	1.6%	654,073,658	4.7%	3.71%	678,343,830	43.95%	176,209	27,514
	FORECAST	2016	23,855	0.3%	627,187,556	-4.1%	5.35%	662,640,864	42.58%	190,503
2017		24,344	2.1%	644,296,900	2.7%	5.35%	680,717,355	42.58%	182,495	26,466
2018		24,776	1.8%	649,596,925	0.8%	5.35%	686,316,977	42.58%	183,996	26,219
2019		25,208	1.7%	654,896,950	0.8%	5.35%	691,916,599	42.58%	185,497	25,980
2020		25,640	1.7%	660,196,975	0.8%	5.35%	697,516,221	42.58%	186,999	25,749
2021		26,072	1.7%	665,497,001	0.8%	5.35%	703,115,843	42.58%	188,500	25,525
2022		26,504	1.7%	670,797,026	0.8%	5.35%	708,715,465	42.58%	190,001	25,309
2023		26,936	1.6%	676,097,051	0.8%	5.35%	714,315,087	42.58%	191,502	25,100
2024		27,368	1.6%	681,397,076	0.8%	5.35%	719,914,709	42.58%	193,004	24,898
2025		27,800	1.6%	727,438,038	6.8%	5.35%	768,558,249	42.58%	206,045	26,167

\* ED3 completed a transfer of customers from the Arizona Public Service Co. in October 2010

**ELECTRICAL DISTRICT NUMBER THREE**

**SCHEDULED RESOURCES TO COVER TYPICAL PEAK DEMAND**



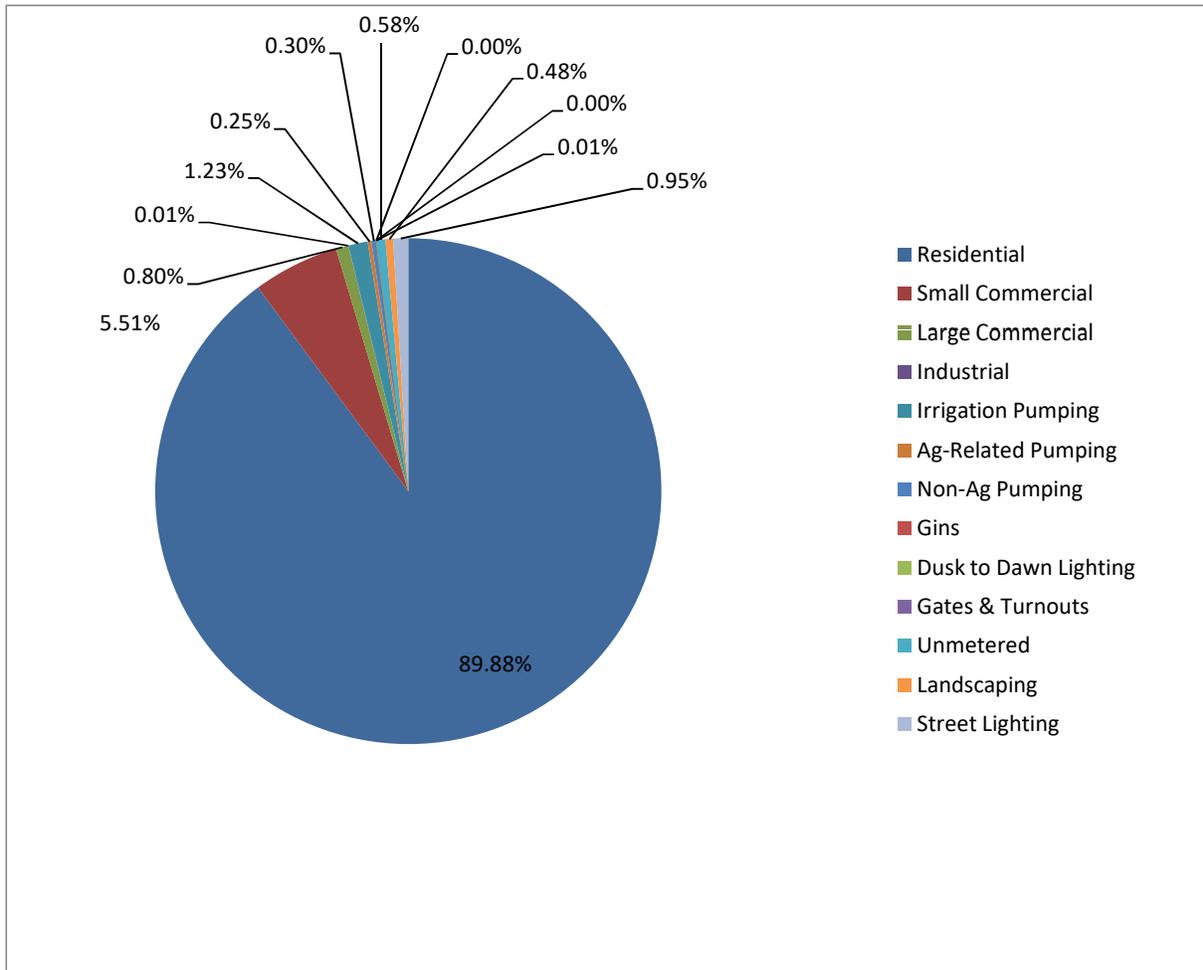
**Resources**

	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Arizona Power Authority (Hoover)	11,000	11,000	10,000	7,000	8,000	12,000	11,000	12,000	12,000	13,000	23,000	14,000
Parker Davis Project (PDP)	4,203	4,203	4,203	4,203	4,203	5,164	5,164	5,164	5,164	5,164	5,164	5,164
Colorado River Storage Project (CRSP)	1,480	1,100	1,035	1,553	1,553	3,000	3,000	2,504	4,830	4,140	4,140	3,138
Southwest Public Power Agency (SPPA)	88,466	27,128	35,190	30,417	40,595	43,172	65,414	96,247	118,515	108,066	87,250	76,039
Sempra Generation (SEMPRA)	-	-	-	-	-	-	-	-	25,000	25,000	25,000	25,000
Salt River Project (SRP)	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
<b>Peak Demand</b>	<b>130,149</b>	<b>68,431</b>	<b>75,428</b>	<b>68,173</b>	<b>79,351</b>	<b>88,336</b>	<b>109,578</b>	<b>140,915</b>	<b>190,509</b>	<b>180,370</b>	<b>169,554</b>	<b>148,341</b>

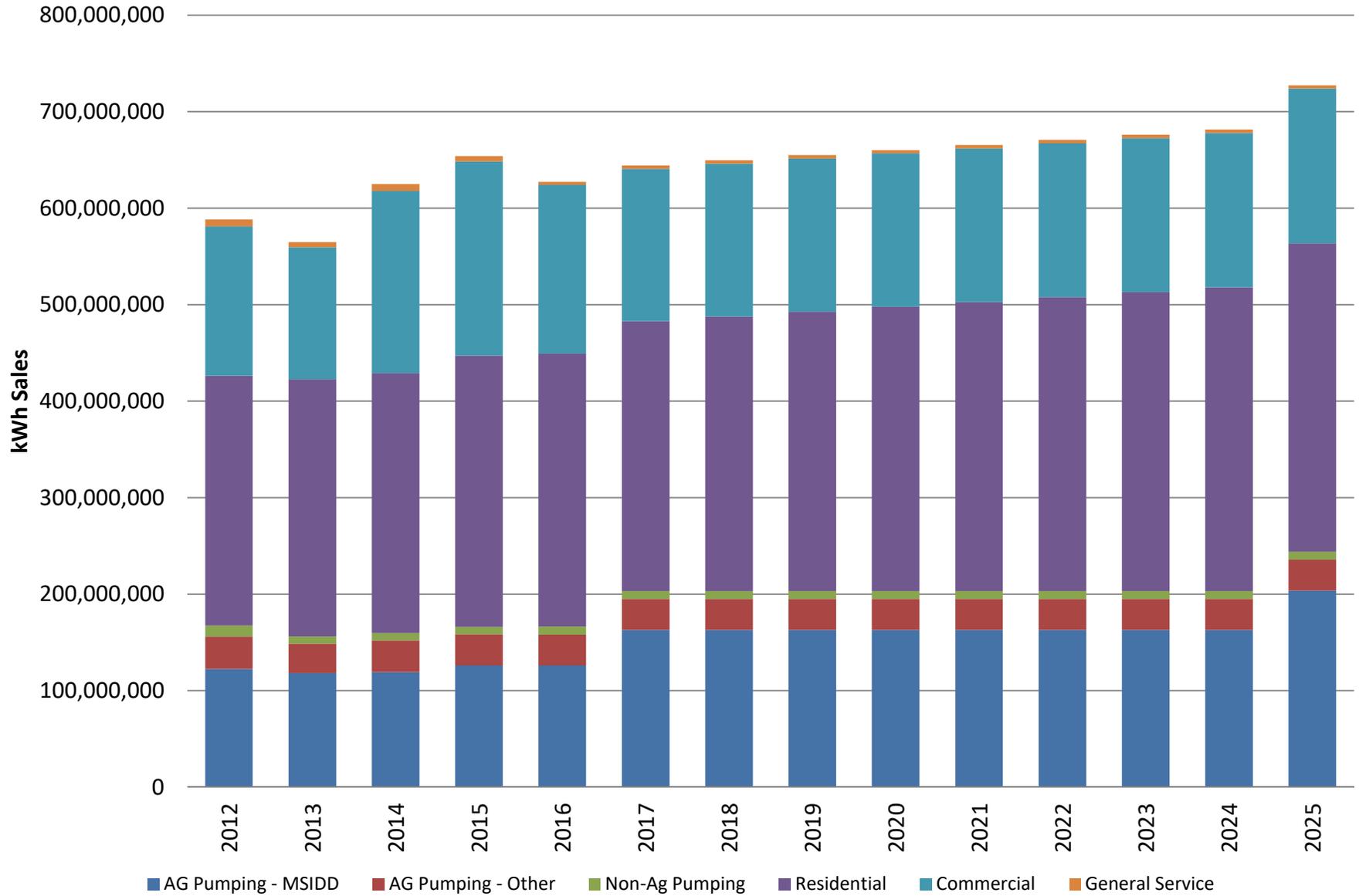
**ELECTRICAL DISTRICT NUMBER THREE**

*Customer Profile*

<b>Customer Type</b>	<b># of Customers</b>
Residential	20,094
Small Commercial	1,231
Large Commercial	178
Industrial	2
Irrigation Pumping	274
Ag-Related Pumping	56
Non-Ag Pumping	67
Gins	3
Dusk to Dawn Lighting	-
Gates & Turnouts	1
Unmetered	129
Landscaping	108
<u>Street Lighting</u>	<u>213</u>
<b>Total</b>	<b>22,356</b>



### Electrical District Number Three Historical and Projected Annual Energy Sales by Class (Baseline Forecast)





41630 W. LOUIS JOHNSON DRIVE  
MARICOPA, AZ 85138-5402  
Administration Office Main (520) 424-9311

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# ELECTRICAL DISTRICT NO. 3 BOARD OF DIRECTORS

## NOTICE OF REGULAR / CANVASS MEETING

**WEDNESDAY  
JANUARY 25, 2017  
NOON**

Pursuant to A.R.S. §38-431.02, notice is hereby given that the Electrical District No. 3 (ED3) Board of Directors has scheduled a **Regular / Canvass Meeting on Wednesday, January 25, 2017, at Noon** at the District Administration Office located at 41630 W. Louis Johnson Drive, Maricopa, Arizona.

**The purpose of the Canvass Meeting is for the Board to Canvass the Election held on January 14, 2017.**

**The District will also review and approve its updated Integrated Resource Plan (IRP), which is required by the Western Area Power Administration, which details the District's power resource plan for the next five years. The final IRP will be available to the public at the District's office prior to the meeting. Written comments regarding the IRP will be accepted any time prior to or at the meeting. Public comments will also be accepted at this time. Please contact the District Administration office for more information.**

Pursuant to ARS § 38.431.03 A (2), (3), and (4), the Board of Directors may resolve into an Executive Session, which will not be open to the public, for the purpose of discussion of protected records and proceedings related to competitive activity, materials protected as confidential, consultation with the District's attorney for general legal advice on potential or current contract negotiations or litigation, and to consider its position and instruct representatives.

The Agenda for this meeting will be available at the District Administration Office twenty-four (24) hours prior to the meeting.

Posting Date: 01/19/17  
Nancy Messer, Sr. Executive Assistant  
Phone - Direct: 520-424-0401  
Email: [nancy@ed-3.org](mailto:nancy@ed-3.org)

Final Agenda Available 24  
Hours Prior to Meeting on  
ED3 Website: [www.ed3online.org](http://www.ed3online.org)

### **POSSIBLE JOINT APPEARANCE OF DIRECTORS COURTESY NOTICE**

This notice is provided as a courtesy to the public that two or more Directors of MSIDD may be in attendance of the above-referenced meeting.

The Directors attending this meeting will NOT vote on any issue or discuss pending legal actions specifically pertaining to the business of MSIDD.