

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF PUBLIC SERVICE COMPANY OF)
NEW MEXICO'S APPLICATION FOR AUTHORIZATION)
TO IMPLEMENT GRID MODERNIZATION)
COMPONENTS THAT INCLUDE ADVANCED)
METERING INFRASTRUCTURE AND APPLICATION)
TO RECOVER THE ASSOCIATED COSTS THROUGH)
A RIDER, ISSUANCE OF RELATED ACCOUNTING)
ORDERS, AND OTHER ASSOCIATED RELIEF)**

Case No. 22-00058-UT

DIRECT TESTIMONY

OF

MARIO A. CERVANTES

October 3, 2022

**NMPRC CASE NO. 22-00058-UT
INDEX TO THE DIRECT TESTIMONY OF
MARIO A. CERVANTES**

WITNESS FOR

PUBLIC SERVICE COMPANY OF NEW MEXICO

I.	INTRODUCTION AND PURPOSE	1
II.	AMI BILL MANAGEMENT ENHANCEMENTS	3
III.	CUSTOMER ENERGY MANAGEMENT PLATFORM	10
IV.	CALL CENTER STAFFING FOR AMI DEPLOYMENT	18
V.	COMPLIANCE WITH REGULATIONS AND REQUEST FOR LIMITED VARIANCE.....	21
VI.	CONCLUSION.....	23

PNM Exhibit MAC-1	Resume
PNM Exhibit MAC-2	Prepay Energy Working Group- Prepay Trends Analysis & Database Update

Self-Verification

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Mario A. Cervantes. I am the Director of Customer Experience for Public Service Company of New Mexico (“PNM”). My address is 414 Silver Avenue, SW, Albuquerque, New Mexico 87102.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL QUALIFICATIONS

A. Please see PNM Exhibit MAC-1 for my educational background and professional qualifications.

Q. PLEASE DESCRIBE YOUR RESPONSIBILITIES AS DIRECTOR OF CUSTOMER EXPERIENCE.

A. In my role, I am primarily responsible for the development and execution of the Customer Experience strategy for PNM. My areas of responsibility include the PNM Contact Center, Voice of the Customer and Insights, Digital Experience, Revenue Operations, and Low-Income Programs.

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 **Q. WHY IS GRID MODERNIZATION NECESSARY TO IMPROVE THE**
2 **PNM CUSTOMER EXPERIENCE?**

3 **A.** PNM’s proposed grid modernization is critical to improving customer experience
4 and engaging customers as partners in moving toward a carbon-free future.
5 Through outreach, PNM received consistent feedback regarding the need for more
6 detailed customer energy usage information and more advanced tools to manage
7 bills. PNM’s grid modernization plan will provide a pathway to enhancing
8 customers’ experience by providing granular energy usage data through the
9 Customer Energy Management Platform. It will also give customers new bill
10 management tools, including the ability to pre-pay, set their own bill date, and set
11 customized alerts about usage or rates. In the longer term, the grid modernization
12 improvements will allow customers to better understand their energy options for
13 distributed energy resource adoption, efficiency programs, and time-of-day rates.
14 The grid modernization investments PNM proposes in this application are
15 important steps toward the customer empowerment that will be necessary to meet
16 the state’s environmental goals while also maintaining system reliability and
17 affordability.

18
19 **Q. PLEASE STATE THE PURPOSE OF YOUR DIRECT TESTIMONY.**

20 **A.** The purpose of my testimony is to: 1) describe the advanced metering infrastructure
21 (“AMI”) bill management enhancements; 2) describe the Customer Energy
22 Management Platform features and benefits; 3) describe call center staffing needs

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 as AMI is deployed; and 4) describe how PNM plans to comply with New Mexico
2 Public Regulation Commission (“NMPRC” or “Commission”) regulations and its
3 request for a limited variance.

II. AMI BILL MANAGEMENT ENHANCEMENTS

7 Q. HOW DOES AMI ENABLE CUSTOMERS TO MANAGE THEIR BILLS?

8 A. The AMI system collects customer interval energy usage data daily and stores it in
9 the Meter Data Management System (“MDMS”). The daily usage data updates are
10 combined with historical usage data and made available to customers through the
11 Customer Energy Management Platform. This Platform provides customers
12 information regarding their hourly, daily, monthly, and annual energy usage.
13 Customers will have insight into their total usage and peak demand for each bill
14 period. The Customer Energy Management Platform will also apply the customer’s
15 rate to estimate total bill costs at the end of the billing period.

16
17 The primary function of the AMI meter is to measure the amount of electricity used
18 over specific time intervals for billing purposes. For example, customers enrolled
19 in the whole-home electric vehicle (“WHEV”) rate can use the interval data by
20 segmenting the consumption data into the time-of-day increments in alignment with
21 that rate structure. If the rate structure changes over time, the interval data supports

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 updates to the time-of-day parameters, remotely, without reprogramming meter
2 registers.

3

4 AMI meters have additional capabilities to support customer distributed energy
5 resource (“DER”) adoption and can be remotely configured to measure bi-
6 directional (delivered and received) and/or time-of-day energy consumption in
7 kilowatt hours (“kWh”) and demand in kilowatts (“kW”). An AMI meter that is
8 configured for bi-directional energy measurement can also measure net energy
9 provided to PNM’s grid from customers with distributed resources. Energy
10 consumption data will be recorded in 15-minutes intervals as a default or in 5-
11 minute intervals for EV or DER customers, as referenced in the Direct Testimony
12 of PNM witness Jonathan Hawkins.

13

14 **Q. DESCRIBE HOW AMI WILL IMPROVE CUSTOMERS’ BILLING AND**
15 **PAYMENTS EXPERIENCE.**

16 **A.** AMI will provide data to the Customer Energy Management Platform to give
17 customers insights and options to manage electricity bills. This includes providing
18 energy and billing information on a next day basis with customer configurable
19 notifications based on forecasts using the AMI interval data. AMI will also enable
20 new rate schedule options related to time-of-day and electric vehicle charging that
21 will encourage customer behavior modifications and may save customers money.
22 PNM witness Stella Chan discusses a proposed beneficial rate structure that

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 customers will be able to utilize with AMI deployment. Once deployed, AMI will
2 also enable PNM to develop and provide customers with new bill-payment
3 programs and options, such as pick-your-own due date and prepay. Customers will
4 be empowered to manage their electricity usage and costs, thereby participating in
5 efforts to transition to carbon-free in ways that are beneficial to the customer.
6 Customer service interactions with PNM such as starting and stopping of service,
7 restarting service, and outage reporting can be done remotely and proactively with
8 AMI, making experiences like these much easier and more convenient.
9 Additionally, through the Customer Energy Management Platform, customers will
10 have access to their energy breakdown to see exactly where they are using the most
11 energy and adjust their habits accordingly to prevent unexpectedly high bills in the
12 future, should the customer be enrolled in a time-of-day rate.

13
14 **Q. HOW WILL LOW-INCOME CUSTOMERS BENEFIT FROM**
15 **PROGRAMS AND SERVICES ENABLED BY AMI?**

16 **A.** According to the U.S. Census Bureau, 18.4% of New Mexicans are living below
17 the Federal Poverty Level (“FPL”). This is 7% higher than the national average of
18 11.4%. Many observers believe the FPL is set too low and does not adequately
19 measure economic well-being. To address those living above the FPL, but still
20 struggling financially, PNM has defined low-income customers as having an
21 income below 200% of the FPL. This is consistent with industry standards and
22 other programs offered by PNM, including the PNM Covid Relief Fund and energy

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 efficiency programs. Applying this broader definition, roughly 41% of PNM
2 customers are considered low-income, and may struggle with their energy bills as
3 a proportion of their income.

4
5 The Department of Energy (“DOE”) states “Low-income households face a
6 disproportionately higher energy burden. Energy burden is defined as the
7 percentage of gross household income spent on energy costs.”¹ According to the
8 National Conference of State Legislatures, “National data shows that on average,
9 low-income households pay nearly 9% of their income in energy costs—three times
10 more than non-low-income households. An estimated 25% of households have a
11 high energy burden, considered to be above 6% of household income. An additional
12 13% of American households have a severe energy burden of paying more than
13 10% of their income on energy.”² Because of the elevated energy burden for
14 PNM’s low-income customers, addressing price sensitivity through payment
15 options and programs is a crucial benefit of AMI.

16
17 AMI-enabled services offered through the Customer Energy Management
18 Platform, such as usage alerts, will notify customers when their electricity
19 consumption exceeds a pre-determined threshold. This will help increase customer

¹ <https://www.energy.gov/eere/slsc/low-income-community-energy-solutions>

² <https://www.ncsl.org/research/energy/energy-justice-and-the-energy-transition.aspx>

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 awareness and prevent higher than expected bills, which will allow customers to
2 plan for and better control their energy spending. Other payment programs, like
3 prepay, are also beneficial to low-income customers because it allows customers to
4 pay ahead for future energy consumption. According to a recent report by E
5 Source’s Prepay Energy Working Group (“PEWG”), provided as PNM Exhibit
6 MAC-2, low-income customers are among the groups most interested in a prepay
7 program because prepay enables them to set money aside, avoid fees and penalties,
8 and practice cash management and budgeting. Another AMI enabled payment
9 program is pick-your-own due date which allows customers to align their electric
10 bill due date with their pay cycle or when funds are available to them.

11

12 **Q. HOW DOES PNM DETERMINE WHO IS A LOW-INCOME CUSTOMER**
13 **FOR PURPOSES OF EVALUATING CUSTOMER BENEFITS?**

14 A. PNM determines low-income customers through the incorporation of FPL at the
15 200% threshold and using Experian customer data. The FPL provides income levels
16 based on the number of household members.³ The Experian data provides
17 estimates for both income levels and number of household members for PNM’s
18 residential customers. These Experian estimates are compared to the 200% FPL
19 first by number of household members, then by estimated income. Based on the

³ See the Federal Poverty Guideline at <https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines>

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 number of household members, customers with an estimated income at or below
2 the 200% threshold are considered low-income. Customers making more than the
3 200% threshold are not considered low-income.

4

5 **Q. HOW WILL AMI ENABLE NEW CUSTOMER PAYMENT OPTIONS?**

6 A. The AMI system will enable customers to personalize their bill payment
7 experience. For example, customers will be able to elect specific dates for monthly
8 billing (“pick-your-own-due date”). Allowing customers to pick their own due
9 dates improves customer satisfaction because it puts the customer in control. AMI
10 will also enable customers to choose payment programs like prepay, which allows
11 customers to pay for electricity they need before they use it. Prepaid electric plans
12 allow customers to have more control over what they pay, since they only pay for
13 as much electricity as they need. A pre-pay program requires development and
14 programming that can only be performed once AMI is implemented, therefore
15 PNM expects these to be available to customers in year 2 of AMI deployment.

16

17 **Q. CAN PNM’S EXISTING CUSTOMER BILLING SYSTEM FULLY**
18 **SUPPORT RATES AND PRICING THAT AMI TECHNOLOGY WILL**
19 **ENABLE?**

20 A. PNM’s current Customer Information System (“CIS”) billing system can support
21 rates and pricing programs that use two different tiers (*e.g.*, off-peak, on-peak).
22 However, more complex rate structures or alternative time-of-day rate structures

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 with more than two tiers would likely require feasibility studies, impact analysis
2 testing, and potential changes to core billing modules (*e.g.*, charge calculation
3 process).

4

5 If PNM identifies a need to overhaul its CIS billing system in the future to
6 accommodate more complex rate structures, it will address any billing system
7 changes and additional functionality in the rate case associated with any proposed
8 new rates or programs triggering the need.

9

10 **Q. WHAT ENHANCEMENTS OR CHANGES WILL PNM'S CUSTOMER**
11 **BILLING SYSTEM NEED TO PROVIDE CUSTOMERS WITH THE FULL**
12 **RATE AND PRICING BENEFITS AMI OFFERS?**

13 **A.** PNM's current CIS is not designed to receive, store, and bill using the very large
14 amount of 15-minute, or smaller, interval data that AMI will collect. For context,
15 PNM's existing CIS generates bills based on one read per account per billing cycle.
16 PNM will need to incorporate an MDMS system to validate, store, and organize the
17 AMI meter data for billing. The MDMS verification, estimation and error
18 correction process will identify problematic data from the meter data collection
19 systems before it reaches other utility systems and will provide tools for addressing
20 quality issues according to a utility's specific best practice rules and meter-specific
21 parameters. The MDMS will also act as the definitive source for meter read data
22 with synchronized interfaces with the CIS system. The MDMS will organize the

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 interval meter data into CIS-compatible billing determinants to prepare bills
2 aligning with customer specific tariffs. The MDMS and related system integration
3 with the CIS and other systems is described in Mr. Hawkins' testimony.
4

5 **III. CUSTOMER ENERGY MANAGEMENT PLATFORM**

6
7 **Q. HOW DID PNM IDENTIFY CUSTOMER EXPECTATIONS FOR**
8 **SOLUTIONS AND BENEFITS PROVIDED BY AMI AND THE**
9 **CUSTOMER ENERGY MANAGEMENT PLATFORM?**

10 **A.** In May 2022, PNM conducted surveys with residential and small business
11 customers on grid modernization. In those surveys, 55% of residential and 53%
12 of small business respondents indicated that having detailed usage and cost
13 information was extremely or very important, while 54% of residential and 48% of
14 small business respondents indicated that having tools to manage usage was
15 extremely or very important. AMI and the associated Customer Energy
16 Management Platform will enable PNM to meet all of these customer needs. Please
17 see PNM Exhibit JAR-4 for the results of this survey.
18

19 **Q. PLEASE DESCRIBE THE CUSTOMER ENERGY MANAGEMENT**
20 **PLATFORM.**

21 **A.** The Customer Energy Management Platform is an internet-based platform
22 accessible by customers via a personal computer, smart tablet, smartphone, or

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 mobile application, that enables customers to access and interact with their energy-
2 usage information collected by the AMI system. This Platform enables the
3 exchange and display of granular energy-usage information based on the
4 customer's AMI interval data. PNM's Customer Energy Management Platform will
5 provide customers (or a customer designated authorized user) access to their
6 granular usage data via intuitive web-based graphs and charts. Additionally, the
7 Customer Energy Management Platform can be expanded in the future to provide
8 analytic capabilities to support customer decisions regarding rate options, energy
9 efficiency solutions, and rooftop solar.

10
11 **Q. DOES PNM CURRENTLY PROVIDE ONLINE CUSTOMER ACCESS TO**
12 **ACCOUNT MANAGEMENT SERVICES?**

13 **A.** Yes. PNM currently offers a My Account portal for customer account management,
14 and online billing information that also works on a mobile device. This system
15 provides customers access to copies of their bill, payment options, and information
16 on customer program offerings. However, the current My Account web portal does
17 not have the ability to display AMI interval usage data and is not sufficient to
18 address customers' needs and expectations. The new Customer Energy
19 Management Platform, which will be accessible to the customer when they log into
20 the existing My Account portal, is necessary to more fully leverage the AMI and
21 other grid modernization capabilities for customers' benefit.

22

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 **Q. PLEASE DESCRIBE HOW THE CUSTOMER ENERGY MANAGEMENT**
2 **PLATFORM WILL HELP CUSTOMERS MANAGE THEIR MONTHLY**
3 **BILL.**

4 **A.** The Customer Energy Management Platform will be able to display the previous
5 day's usage, as well as historical usage data that can provide forecasted monthly
6 bill amounts and bill alerts based on customer-set thresholds. Customers will be
7 able to compare current usage data to historical usage (*e.g.*, previous day, month,
8 or year) to determine opportunities to conserve or shape their energy use and save
9 money. Customers can set other alerts regarding time-of-day and peak-period. The
10 Customer Energy Management Platform will also graphically present interval
11 energy consumption and/or generation (kWh) and demand data (kW). Customers
12 will be able to securely download large quantities of data to their personal computer
13 using the Green Button data standard that is safeguarded by strong privacy
14 protections and cybersecurity measures discussed in Mr. Hawkins' testimony.
15 PNM's call center representatives will also be able to access the customer's meter
16 data to assist customers with bill inquiries.

17

18 **Q. PLEASE DESCRIBE OTHER FEATURES AND BENEFITS OF THE**
19 **CUSTOMER ENERGY MANAGEMENT PLATFORM.**

20 **A.** The Customer Energy Management Platform will include disaggregation
21 technology where customer's energy consumption can be separated into different
22 end uses (lighting, appliances, heating/air conditioning, EV chargers, etc.) through

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 estimation algorithms. This will enable customers to have better insights into which
2 devices and energy-usage patterns drive their monthly bills. PNM asked AMI and
3 energy management platform vendors about this “disaggregation” capability as a
4 result of stakeholder feedback during meetings in the Spring of 2022. The Customer
5 Energy Management Platform will also provide access to outage information, such
6 as outage notifications, restoration estimates, and confirmations regarding repair
7 and power restoration or link to the existing Outage Map on PNM.com.

8
9 **Q. PLEASE DESCRIBE THE LONGER TERM FEATURES AND BENEFITS**
10 **OF THE CUSTOMER ENERGY MANAGEMENT PLATFORM THAT**
11 **WILL BECOME AVAILABLE TO CUSTOMERS BEYOND THE SIX-**
12 **YEAR IMPLEMENTATION PLAN PERIOD.**

13 **A.** In the longer term, the Customer Energy Management Platform will include
14 decision-support analytics. The decision-support analytics will be based on
15 customer historical usage patterns to inform customers regarding whether to utilize
16 potentially beneficial rates and programs, such as electric vehicle adoption and
17 charging, energy efficiency solutions, rooftop solar and other evolving energy
18 management options.

19

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 **Q. DOES PNM EXPECT THE CUSTOMER ENERGY MANAGEMENT**
2 **PLATFORM TO BE AVAILABLE PRIOR TO AMI IMPLEMENTATION?**

3 **A.** PNM anticipates that the Customer Energy Management Platform will begin
4 implementation after detailed technical planning activities are completed. Full
5 implementation of the Customer Energy Management Platform will be completed
6 within three years of the Commission’s decision—approximately one year earlier
7 than the completion of AMI meter rollout. Once the Customer Energy Management
8 Platform is operational, customers who have an AMI meter will begin to have their
9 detailed AMI interval usage data available through the Customer Energy
10 Management Platform.

11
12 Customers that do not yet have an AMI meter will also have access to the Customer
13 Energy Management Platform. However, the data and insight from the Customer
14 Energy Management Platform will be limited to the monthly manual meter read
15 data and monthly billing information.

16
17 **Q. WILL THE CUSTOMER ENERGY MANAGEMENT PLATFORM**
18 **ALLOW FOR CUSTOMER-AUTHORIZED THIRD-PARTY ACCESS TO**
19 **ENERGY DATA?**

20 **A.** Yes. PNM’s Customer Energy Management Platform will include a feature which
21 will enable a customer to authorize a third-party provider to securely download
22 their energy usage data via the Green Button Connect standard.

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 **Q. WHAT IS THE GREEN BUTTON CONNECT STANDARD?**

2 **A.** Per Green Button Alliance, Green Button Connect is “is the energy-industry
3 standard...for enabling easy access to, and secure sharing of, utility-customer
4 energy- and water-usage data. Utilities providing standards-based Green Button
5 customer-consumption and billing data can provide customers new data-driven
6 services, programs, and platforms; digitally empowering customers with the ability
7 to securely transfer their data to third-party solution providers who can further assist
8 them in monitoring and managing energy or water usage.”⁴

9
10 **Q. PLEASE DESCRIBE THE TECHNOLOGY SOURCING PROCESS FOR**
11 **PNM’S CUSTOMER ENERGY MANAGEMENT PLATFORM.**

12 **A.** PNM issued a Request for Information (“RFI”) for the Customer Energy
13 Management Platform in June 2022. Five vendors responded to the RFI. The
14 purpose of the RFI was to collect information, including high-level costs, associated
15 with the development and hosting of a mobile-friendly customer energy
16 management platform to display AMI usage data and enable PNM customers to
17 analyze, understand and interact with their detailed electric usage. The RFI process
18 was conducted concurrent with the AMI Request for Proposals (“RFP”), so that the
19 responses from the AMI vendors along and the customer energy management

⁴ <https://greenbuttondata.org/>

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 platform vendors can help inform the management platform RFP. PNM plans to
2 issue an RFP for the Customer Energy Management Platform in early 2023, which
3 will be accompanied by a detailed set of business and technical requirements. PNM
4 expects to identify the most qualified vendor and award the Customer Energy
5 Management Platform project in the third quarter of 2023. Contract execution and
6 platform implementation will be contingent on the NMPRC approving this PNM
7 Grid Modernization application.

8
9 **Q. PLEASE DESCRIBE THE VENDOR SELECTION CRITERIA FOR THE**
10 **CUSTOMER ENERGY MANAGEMENT PLATFORM.**

11 **A.** The Customer Energy Management Platform RFI asked vendors to describe or
12 illustrate how their customer energy management platform will offer 20 different
13 features including, but not limited to: graphical representation of consumption
14 and/or generation interval kWh data (usage or generation); graphical representation
15 of demand data (kW) presentment for demand-billed customers; capability for
16 customers to compare usage data to their historical usage (*e.g.*, previous month,
17 previous year); ability to analyze all data in two views - chart and heat map; ability
18 to electronically deliver energy usage reports; energy markers; disaggregation of
19 end-use energy data (appliances, EV chargers, weather data, etc.); configurable
20 threshold alerts; forecasting/high bill notifications; demand response program
21 notifications; time-of-day and peak-period alerts; status of service; program sign-
22 up; support for customers with multiple meters; and single login for multiple

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 accounts. In addition to asking how each vendor’s solution can provide the
2 previously mentioned features, the RFP for the Customer Energy Management
3 Platform will be accompanied by a detailed set of business and technical
4 requirements. Vendors will also be required to answer questions and provide
5 documentation pertaining to cybersecurity and how they protect customer personal
6 identifiable information, as well as data that stored and in transit.

7

8 **Q. WHAT WILL THE TOTAL O&M AND CAPITAL COST BE FOR THE**
9 **IMPLEMENTATION AND ONGOING MAINTENANCE AND SUPPORT**
10 **OF THE CUSTOMER ENERGY MANAGEMENT PLATFORM?**

11 A. PNM is estimating the total operational and maintenance (“O&M”) and capital cost
12 to implement, support and maintain the Customer Energy Management Platform
13 solution to be \$7,647,000 (\$7.1 million in O&M expenses and \$520k in capital
14 costs) in years 2 through 6 of the Implementation Plan.⁵ The pricing model of the
15 Customer Energy Management Platform includes an annual fee associated with
16 licensing a vendor supported and managed cloud-based software solution, also
17 known as a software as a service, or SaaS, solution. The costs also include two
18 full-time employees to support and analyze data from the Customer Energy
19 Management Platform and create new customer programs to meet the evolving

⁵ The Implementation Plan is attached to the testimony of PNM witness Laura Sanchez as PNM Exhibit LES-3.

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 needs and expectations of customers. Details on the projected O&M and capital
2 costs are reflected in table MAC-1 and MAC-2 below.

Table MAC-1						
Customer Information & Analytics O&M Costs						
O&M						
Row Labels	Sum of 1	Sum of 2	Sum of 3	Sum of 4	Sum of 5	Sum of 6
Customer Information & Analytics	-	1,390,214	1,404,781	1,420,003	1,435,911	1,452,534
Cust Info & Analytics Support O&M	-	1,060,000	1,060,000	1,060,000	1,060,000	1,060,000
Customer Portal Management & Analytics Employees	-	323,714	338,281	353,503	369,411	386,034
Customer Portal Management & Analytics Employees Annual Employee Expenses (Flat)	-	6,500	6,500	6,500	6,500	6,500

Table MAC-2						
Customer Information & Analytics Capital Costs						
Capital						
Row Labels	Sum of Total Year 1	Sum of Total Year 2	Sum of Total Year 3	Sum of Total Year 4	Sum of Total Year 5	Sum of Total Year 6
Customer Information & Analytics	-	521,989	-	-	-	-
Customer Information & Analytics Portals	-	311,711	-	-	-	-
Customer Information & Analytics Portals (40% PNM Labor)	-	210,277	-	-	-	-
Grand Total	-	521,989	-	-	-	-

IV. CALL CENTER STAFFING FOR AMI DEPLOYMENT

8 **Q. DOES PNM EXPECT AN INCREASE IN CUSTOMER BILLING**
9 **INQUIRIES INTO THE CONTACT CENTER AS A RESULT OF AMI**
10 **BEING INSTALLED?**

11 **A.** Yes. Given PNM’s experience in previous major deployments of new customer
12 facing technologies (e.g., rollout of the PNM.com website in 2013), PNM
13 anticipates call volumes will increase 10-15% beginning in the second year of meter
14 deployment, when the AMI companion systems are deployed and operational.
15 PNM expects the increased call volume will extend 12-18 months after the final
16 year of the three-year meter deployment.

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 **Q. WHAT TYPES OF CUSTOMER INQUIRIES DOES PNM EXPECT TO**
2 **RECEIVE ONCE AMI IS INSTALLED?**

3 **A.** PNM expects questions about the AMI opt-out process and billing inquiries when
4 customers compare current bills to bills from prior summer or winter months before
5 AMI deployment. PNM also expects customers will inquire about the new
6 information that will become available via the Customer Energy Management
7 Platform like granular usage data, bill management options, and other new features
8 and benefits enabled by AMI.

9
10 **Q. WILL THE PNM CONTACT CENTER HANDLE CALLS RELATED TO**
11 **AMI INSTALLATION?**

12 **A.** No. The selected AMI installation vendor will provide a customer service support
13 line for customers inquiring about AMI installation matters. AMI installation
14 matters may include customer inquiries regarding scheduling of AMI meter
15 installation, request for scheduling changes, and other matters specific to meter
16 installation. The AMI installation calls are not included in PNM's 10-15%
17 estimated increase in call volume because they will be routed to the installation
18 vendor's call center.

19

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 **Q. WILL PNM NEED TO INCREASE STAFFING IN ITS CONTACT**
 2 **CENTER TO HANDLE THE ADDITIONAL CALL VOLUME AS A**
 3 **RESULT OF AMI INFRASTRUCTURE DEPLOYMENT?**

4 A. Yes. PNM expects that staffing in the contact center will need to be temporarily
 5 increased by an additional 10-12%, or the equivalent of 8 FTE, to handle the
 6 expected increase in call volume. The additional staffing need was determined by
 7 assuming a 10-15% increase in call volume in the contact center workforce
 8 planning tool. PNM plans to utilize a temporary staffing solution concurrent with
 9 meter deployment and extending 12 months after the final year of the three-year
 10 meter deployment.

11
 12 **Q. WHAT WILL THE TOTAL O&M COST BE FOR THE EXPECTED**
 13 **STAFFING INCREASE TO HANDLE CUSTOMER AMI BILLING**
 14 **RELATED INQUIRES?**

15 A. The estimated cost for an increase in 10-12% in staffing levels is approximately
 16 \$529,000 annually over a four-year period to align with the expected increase in
 17 call center volume related to AMI deployment. The total cost for the four years is
 18 estimated to be at \$2,116,000 as listed in Table MAC-3 below:

Table MAC-3						
Customer Information & Analytics O&M Costs						
O&M						
Row Labels	Sum of 1	Sum of 2	Sum of 3	Sum of 4	Sum of 5	Sum of 6
Advanced Metering	-	496,394	517,562	539,682	562,797	-
Call Center Support for deployment - temp labor	-	470,394	491,562	513,682	536,797	-
Call Center Support for deployment - temp labor Annual Employee Expenses (Flat)	-	26,000	26,000	26,000	26,000	-

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 Rule 17.5.410.33(B)(2) provides: “The utility employee who personally contacts a
2 residential customer and the utility employee sent to discontinue utility services
3 shall note any information from the residential customer that a person living in the
4 residential customer’s residence is seriously or chronically ill. Such information
5 shall immediately be reported to a utility employee authorized to prevent
6 discontinuance.” After AMI installation, PNM does not plan to send a utility
7 employee to a customer’s premises to make personal contact or discontinue
8 services, but PNM will continue with its existing notification processes within the
9 fifteen-day and two-day notification periods prior to disconnection, by telephone
10 and mail if delivery to the residential service address can be verified to ascertain
11 whether to prevent disconnection. PNM also plans to enhance outbound calling
12 efforts to reach customers before disconnection occurs. In doing so, PNM will
13 continue to note any information from the residential customer that a person living
14 in the residence is seriously or chronically ill and respond appropriately, as PNM
15 does today. To the extent necessary, PNM requests a variance from Rule
16 17.5.410.33(B)(2) to allow PNM to attempt to make contact with customers prior
17 to disconnection via phone.

18
19 Rule 17.5.410.33(B)(5) states: “The utility employee sent to discontinue utility
20 service may be empowered to receive payment of delinquent bills, and upon receipt
21 of approved payment method, shall cancel the discontinuance order.” (emphasis
22 added). After AMI is installed, PNM will disconnect customers remotely and does

**DIRECT TESTIMONY
OF MARIO A. CERVANTES
NMPRC CASE NO. 22-00058-UT**

1 not plan to send employees to receive payment for delinquent bills. Therefore, to
2 the extent necessary, PNM requests a variance from Rule 17.5.410.33(B)(5) to
3 allow PNM to receive payment from AMI customers by phone rather than in
4 person.

5

6 **Q. WILL PNM NEED TO CHANGE ANY OF ITS CURRENT NMPRC**
7 **APPROVED RATES AND RULES?**

8 **A.** If the NMPRC approves PNM's Application, PNM will file an Advice Notice
9 amending its current NMPRC approved Rule Nos. 8 and 20 to include necessary
10 changes to PNM's billing, meter reading and disconnection processes.

11

12 **VI. CONCLUSION**

13

14 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

15 **A.** Yes.

GCG#529865

MARIO A. CERVANTES

SUMMARY

Accomplished Customer Experience Executive with over 20 years combined experience in customer operations. Proven visionary and strategic leader with the unique ability to establish and execute strategic plans to accomplish key organizational objectives. Proven ability navigating and leading complex environments. Verifiable track record of leading and managing a diverse workforce at all levels, with the ability to quickly build genuine rapport with direct reports, peers, customers, vendors and executive leadership. Experience managing and leading projects and improving processes using continuous improvement methodologies.

KEY QUALIFICATIONS

- Strong knowledge of the Electric Utility industry
- Six Sigma certified
- Strategic leader
- MBA
- Experience managing multi-million-dollar budgets
- Strong knowledge of Public Regulation Commission rules and regulations
- Fluent in both English and Spanish
- Highly effective oral and written communication skills
- Highly skilled at process improvement and development

PROFESSIONAL EXPERIENCE

PNM RESOURCES

2012-Present

Based in Albuquerque, N.M., PNM Resources is an energy holding company with consolidated operating revenues of \$1.3 billion. PNM Resources serves electricity to more than 739,000 homes and businesses in New Mexico and Texas.

Director, Customer Experience

Responsible for the development and execution of the Customer Experience strategy for PNM. Responsible for the leadership and management of the PNM and TNMP Customer Experience and support teams. Responsible for accurate customer billing, effective credit and collections, voice of the customer and insights, digital experience, low-income programs and for ensuring incoming customer contacts are answered by staff within quality standards, agreed service levels, compliance and regulatory requirements.

Key Achievements

- Successfully developed and executed multi-year Customer Experience strategies focused on improvements to customer communications, employee engagement, power quality and reliability, customer service (digital and in-person), and billing and payments
- Led a COVID customer arrears strategy aimed at reducing customer arrears through the creation of new payment programs and solutions and customer awareness strategies
- Identify and work alongside Regulatory and legal teams on matters involving Customer Experience and Billing
- Aligned the rewards and recognition program to incentivize employees driving key organizational goals
- Assisted in the implementation of a new ACD/IVR phone system to allow for additional scalability, redundancy and additional efficiencies resulting in significant improvements to customer wait times and service levels
- Successfully implemented a digital channel strategy (chat, two-way texting, predictive IVR), which has resulted in a decrease in call volumes, increased digital channel adoption and improved customer satisfaction scores
- Implemented an employee training and development strategy, which resulted in record high customer satisfaction scores of 95%
- Mentored and developed several high performing employees into leadership positions
- Implemented a strategy to attract and retain higher skill level Customer Service Representatives

- Through the implementation of technology enhancements and an incentive programs increased customer paperless bill participation
- Developed and executed strategy aimed at improving customer billing accuracy

NUSENDA FEDERAL CREDIT UNION

2007-2012

Call Center/Electronic Branch Operations Manager

Responsible for the leadership, direction, development, training and management of a 40+ seat Customer/Member Service, Lending and e-Channel Call Center Operation for the largest CU in the state of New Mexico.

Key Achievements

- Successfully led the transformation of the call center from a switchboard operation to a full service and sales operation.
- Improved employee satisfaction scores through strategies aimed at advancing employee development, career growth and recognition
- Developed and implemented performance metrics and targets that resulted in Service Level and member satisfaction improvements
- Introduced and implemented various call center technologies increasing employee productivity
- Developed and implemented a self- service strategy that contributed to the self-service adoption increase of 8%
- Implemented an enhanced IVR and skill-based routing process which resulted in improved call handling, service levels and member experience.
- Successfully implemented a call overflow support strategy resulting in improved SL's and disaster/crisis preparedness

WELLSFARGO

2006-2007

Loan Servicing Operations Manager

Responsible for the leadership, coaching, development, and management of a loan research department. Directly responsible for departmental efficiencies, service levels, productivity, staff development and internal and external customer satisfaction.

Key Achievements

- Improved turnaround times for research requests using six sigma which resulted in a 25% increase in customer satisfaction
- Developed and implemented a performance measurement tool that increased productivity by 35% from the previous year, and brought cost savings of approximately 100k
- Identified new technology within operating systems that resulted in increased efficiency and improved workflows
- Developed and implemented balanced scorecards for front line and leadership staff focused on accountability and recognition
- Developed and implemented recognition programs resulting in improved employee satisfaction scores from 76% to 84%
- Identified and addressed gaps in communication by implementing daily huddles, monthly departmental meetings, and other communication strategies
- Received numerous nominations and awards for improving work processes and team morale

GE CONSUMER FINANCE

2001-2006

Customer Service Call Center Manager

Responsible for the leadership, development and training of a team consisting of 22 customer service representatives.

Key Achievements

- Led various Six Sigma projects, which resulted in significant process improvements. One in specific was the reduction in credit card dispute errors by 50%.
- Increased team productivity by 30%, which resulted in FTE cost savings of 100k annually.
- Led the call center in the transformation from service to sales resulting in a smooth cultural shift from a service only to a service and sales environment
- Increased sales rate by 50% by implementing recognition programs that focused on recognizing individuals driving the business metrics and goals
- Recognized among 2000+ individuals companywide for leading the efforts of transforming the call center into a sales and service organization
- Through effective recruiting, development and motivation strategies, improved employee attrition by 40%.
- Part of the team responsible for the creation and implementation of a Business Continuity Plan.
- Developed and implemented a scorecard tool to improve performance management and coaching
- Selected by upper management team to help with the startup of a new call center in Monterrey, Mexico, which resulted in a smooth and seamless startup

EDUCATION

- Executive MBA - University of New Mexico
- Bachelor of Business Management, University of Phoenix
- Energy Executive Course- University of Idaho

TRAINING & DEVELOPMENT

- Six Sigma – Green Belt Certification
- Oz Principle
- Lead Culture
- Foundations of GE Leadership
- Building Essential Leadership Skills
- Managing Skills for Leaders
- Increasing Human Effectiveness
- Coaching for Premier Performance
- Executive Credit Union Certification
- Phone Pro- Customer Service Pro Training
- Phone Pro- Coach the Coach Training

COMMUNITY

- Hispano Philanthropic (UWCNM) Society Council Member
- Sandoval Economic Alliance Board Member



View Recording



Prepay Trends Analysis & Database Update

Prepay Energy Working Group
July 19, 2022

Summary

The Prepay Energy Working Group (PEWG) was created in 2010 to facilitate the sharing of information among utilities interested in prepay programs. We study the business case for offering customers a prepay option, the design of prepay programs, the customer experience, the reasons for high levels of customer satisfaction, conservation impacts, the use of prepay to pay down arrearages, and the operational impacts of prepay. Utilities face different circumstances and are at different stages of prepay program development; therefore, we explore planning issues, barriers to regulatory approval, pilot program design, and the performance of full-scale, long-standing prepay programs.

The PEWG Database

Prepay energy is pay-as-you-go service. There is value in giving consumers choice in service payment. In the 1990s, electric cooperatives and public power utilities started offering prepay programs in North America. About eight years ago, investor-owned utilities began to continuously offer full-scale prepay programs. Many highly-successful programs have now reduced customer debt and improved customer satisfaction. Since 2015, the PEWG database has tracked prepay program features and trends to help to better understand the best practices and drivers of success. Today we highlight the findings of the eleventh update to the PEWG database.



Agenda or Table of Contents

- Why Prepay Energy?
- Economic Forces and Consumer Preferences
- What is Driving Increased Interest in Prepay Energy?
- Prepay Database Highlights
- Prepay Database Update
- Findings and Recommendations
- Next Steps





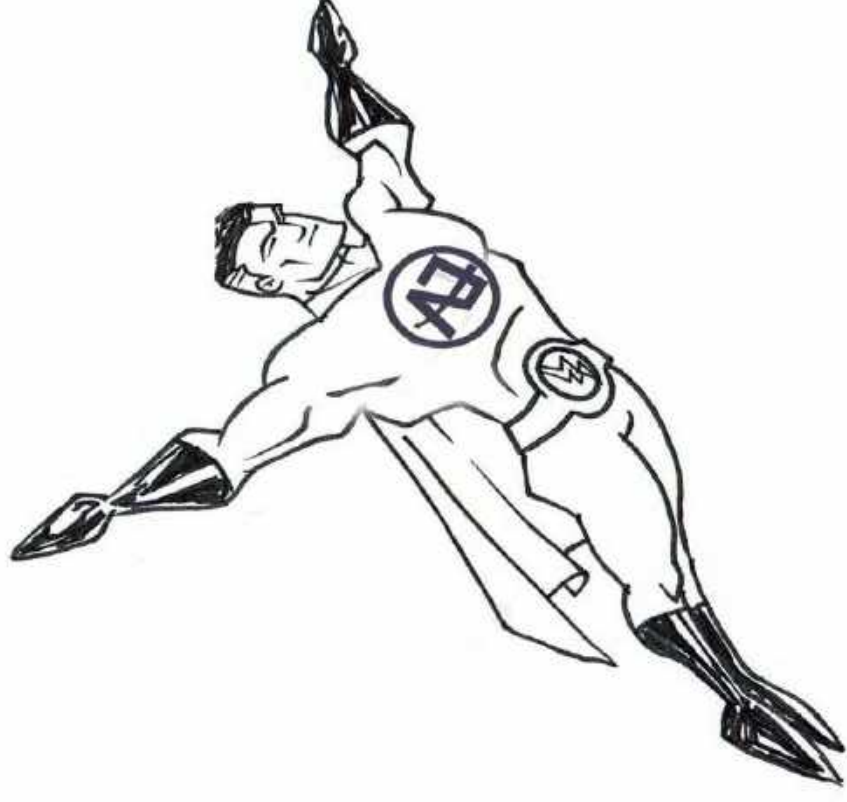
Why Prepay Energy?

Its features and the target segments

What is Prepay Energy?

Prepay energy is a voluntary bill pay option for consumers to pay ahead for energy consumption in the future. Some consumers appreciate the convenience and flexibility of the option. Others appreciate an alternative to security deposits or payment arrangements.

Once consumers begin using prepay energy, they tend to drop their energy consumption significantly.





What are Some Features of Prepay? (“12 C’s”)

Prepay service is a daily transaction that eliminates utility bills. Rather than paying a bill after usage, consumers maintain a prepay account, learn the cost of one day or one week of service, learn how to maintain service, and learn how to pay off any arrearage.

Feature	Using the feature in other services
Convenience	“Convenience” is the most frequently cited value of prepay; prepay is flexible, simple, and suits many lifestyles
Commitment	Making a commitment to pay in advance empowers those who have responsibility to manage household expenses
Choice	Choice—even between two things—gives consumers agency; households choose when and how much to pay
Conservation	Accurate, timely information teaches people about cost drivers, adjust behaviors, exercise thrift, and save 10%
Control	Paying in advance avoids a security deposit; unbanked consumers want a place to bank dollars; “knowledge is control”
Communication	Simple, frequent communications are preferred; daily cost information satisfies curiosity about household cost drivers
Clarity	Advanced payment is simple; prepay eliminates surprise bills; daily billing is understandable; traditional bills are dense
Customization	When, how, and what information is received is are controlled by consumers; info & payments match lifestyle
Currency	Routine payments to the account align with consumer’s value of the service; consumers embrace the value of service
Commodity	Almost no one understands a kilowatt-hour of the commodity; prepay transactions transcend commodity billing
Collections	People work off debt in direct proportion to payments (% of payment is applied; no fixed monthly payments)
Connection	Prepayment realigns the customer-utility relationship; customer expectations match reality; trust in the utility grows

Who Loves Prepay? (five persona / segments)



Recent Immigrants

- All income level
- Experienced with prepay
- Provides control and convenience
- May be paid in cash



Millennials and Gen Z

- Pay-as-you-go is appealing
- Ease of payment is important
- Provides cash management
- They do everything on their phone



Wealthy

- Top 10% of income
- Children in college
- Rental properties
- Remote asset management
- Automatically reload



Low-Income or Struggling Households

- Alternative to security deposit
- Paid weekly; cash management; budgeting
- No savings accounts; prepay enables setting money aside
- In debt; prepay is an alternative to payment arrangement
- Prepay avoids fees and penalties



Green / Environmentalist

- Daily information leads to conservation
- Combine with renewable energy
- Precisely know the emissions impacts

U.S. Prepay Programs – Names and Brands

Black River Electric Coop. Inc	PrePaid
Central Electric Cooperative, Inc.	Prepaid
Clinton Utilities Board (CUB)	FlexPay
Cowlitz Public Utility District	Prepaid
Duke Energy Carolinas (North Carolina)	Prepaid Advantage
Duke Energy Carolinas (South Carolina)	Prepaid Advantage
Georgia Power Company	PrePay and Pay-By-Day
JEA	JEA MyWay
Memphis Light Gas Water	Prepay
NV Energy (Northern Nevada)	FlexPay Program
NV Energy (Southern Nevada)	FlexPay Program
Ocala Electric Utility	Prepaid Program
Oklahoma Electric Cooperative	PrePay
Orlando Utilities Commission	OUC Power Pass
Public Service Company of Oklahoma	Power Pay
Salt River Project (SRP)	M-Power®
Santee Cooper	PAYGE - Pay As You Go Electric
Southwest Tenn. Electric Membership Corp.	FlexPay
Tri-State Electric Membership Corporation	Advance Pay
Truckee Donner PUD	PrePay



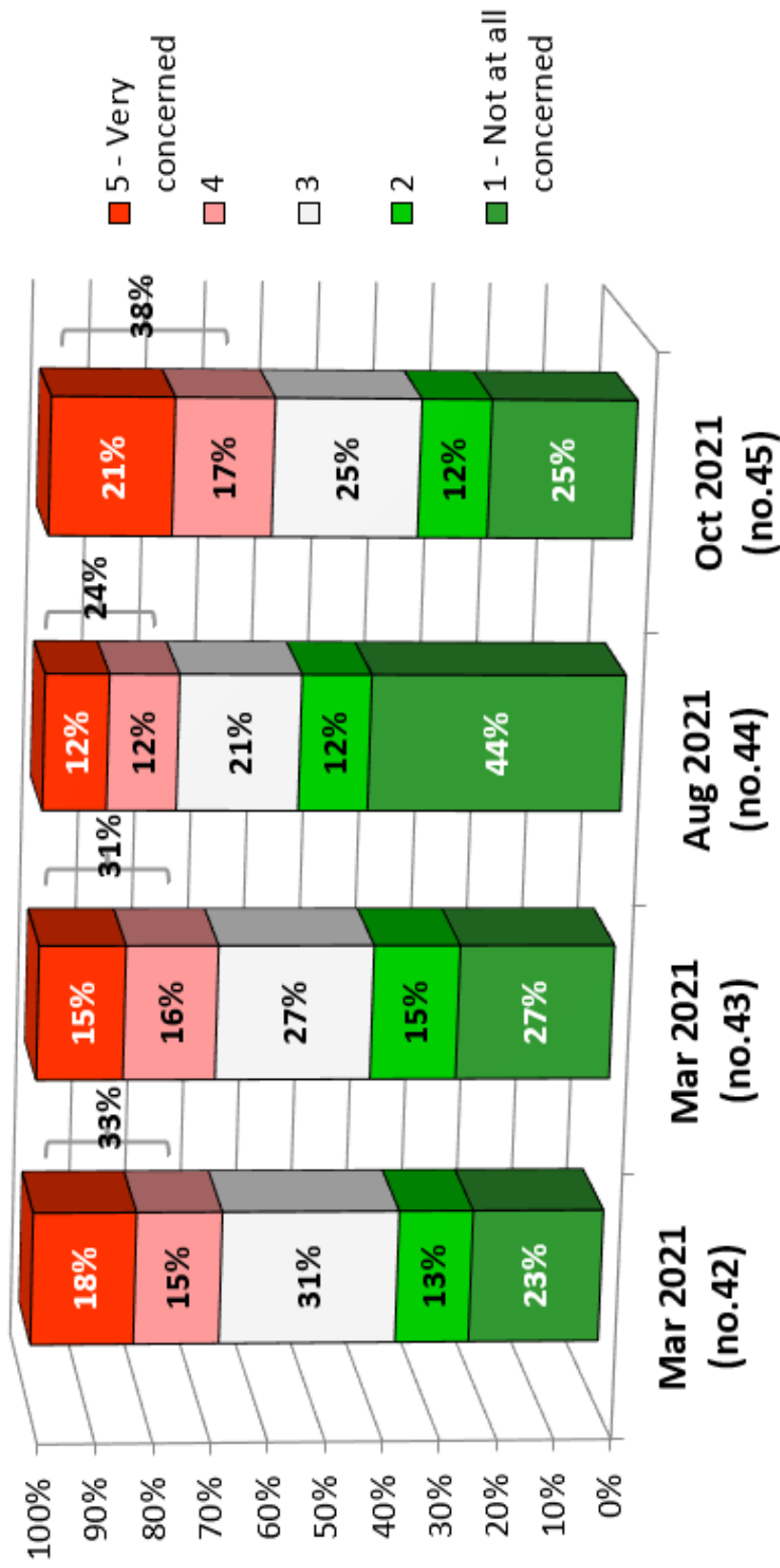


Economic Forces and Consumer Preferences

Consumers are Worried About Utility Bills

Level of Concern Regarding Ability to Stay Current On Utility Bill Payments Over the Next 6 Months (HH <\$50K)

DEFG's Low Income and Prepay Consumer Survey Reports, 2021

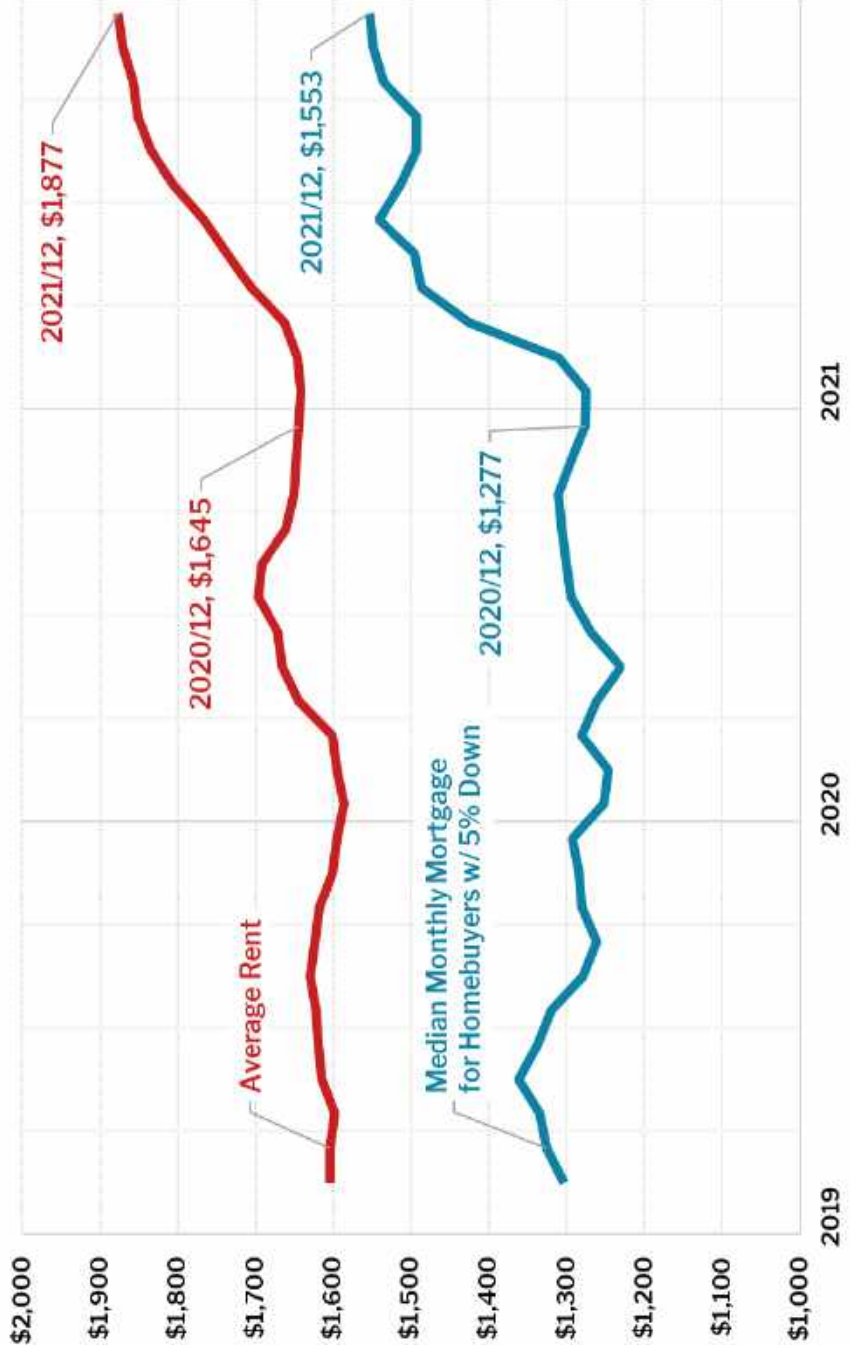


How concerned are you about your household's ability to stay current on utility bill payments over the next six months?



Median Rent Rose to \$1,877; Mortgage to \$1,553

Rents Climbed in December



Three-Year Trend

- Since 2019, median rent has increased 14.1%
- Mortgage has grown 21.6%
- Rising housing costs coupled with inflation will leave low-income households more vulnerable



Source: Redfin analysis of asking rents & home sales data from the MLS & public records
 Note: Mix of homes for rent and homes purchased are not directly comparable.

Source: Redfin, [Rental Market Tracker: Rents Rise 14% in December, 2022](#)

Utility Customer Base Highly Segmented for Billing and Payment Options

- Utility customers have clear preferences regarding billing options
- More information and control over their ability to pay are key preferences
- When asked to select what is more important between two options:
 - Flexibility over certainty
 - More detail over less detail
 - Incremental payments over larger payments
 - Pay each bill over automatic payments
 - Monthly over weekly
 - Paperless over paper

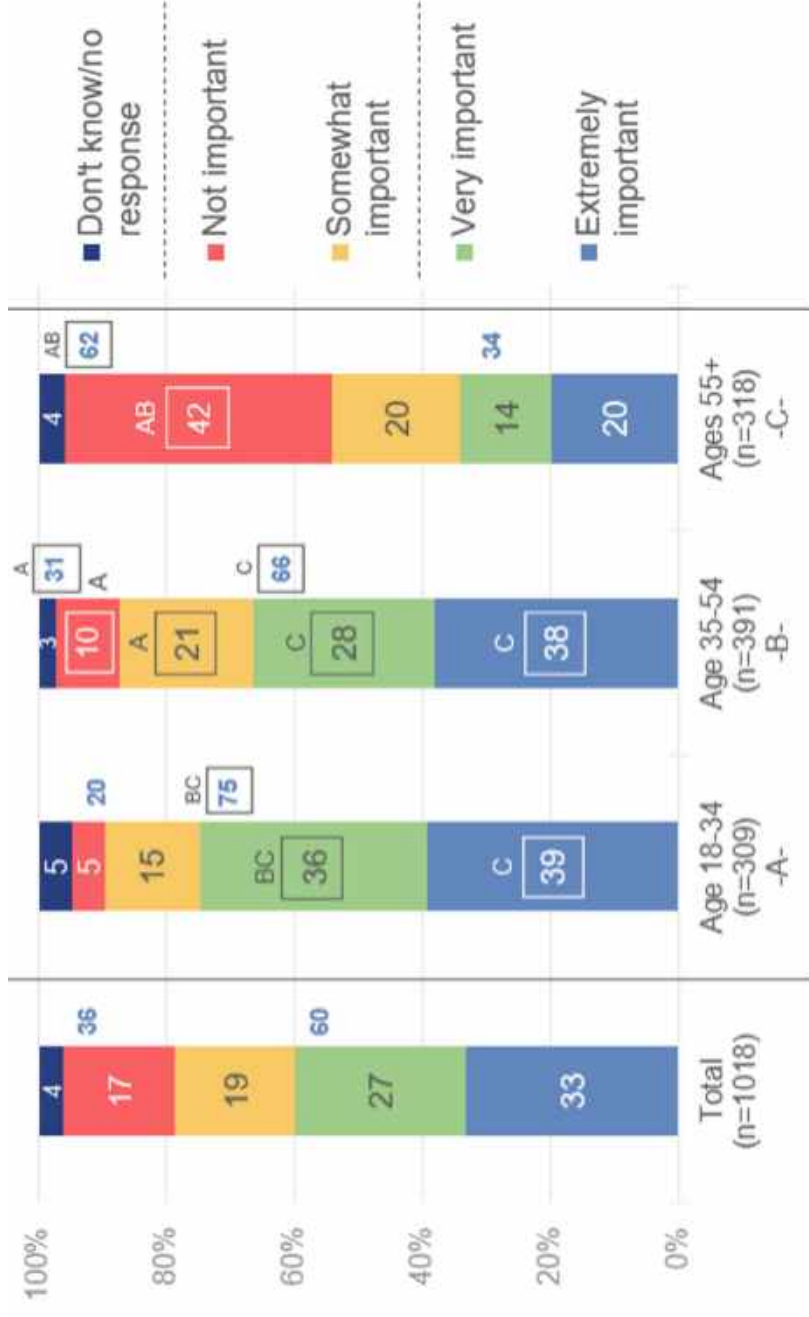
	Total
Total Respondents	(1018)
	%
Flexibility	55
Certainty	45
Less detail	29
More detail	71
Incremental payments	67
Pay larger amounts	33
Automatic payments	38
Pay each bill	62
Pay weekly	14
Pay monthly	86
Paper	39
Paperless	61

(What Is More Important Regarding Utility Company's Billing and Payment Options) Base: Total Respondents. Q.B15. When you think of your utility's billing and payment options, what is more important to you? Choose one for each response set of comparisons below.



Importance of Offering an Ability to Pay the Electric Bill Using Cell Phone or Mobile Platform

- Clear preference among younger customers for more mobile-friendly payment options
- Investments in mobile payment platforms will pay off as more tech-savvy generations become the dominant customer base



Base: Total Respondents. Q.B16. How important is it to you that your electric utility offer the ability to pay your electric bill using your mobile phone or other mobile platform in the future?



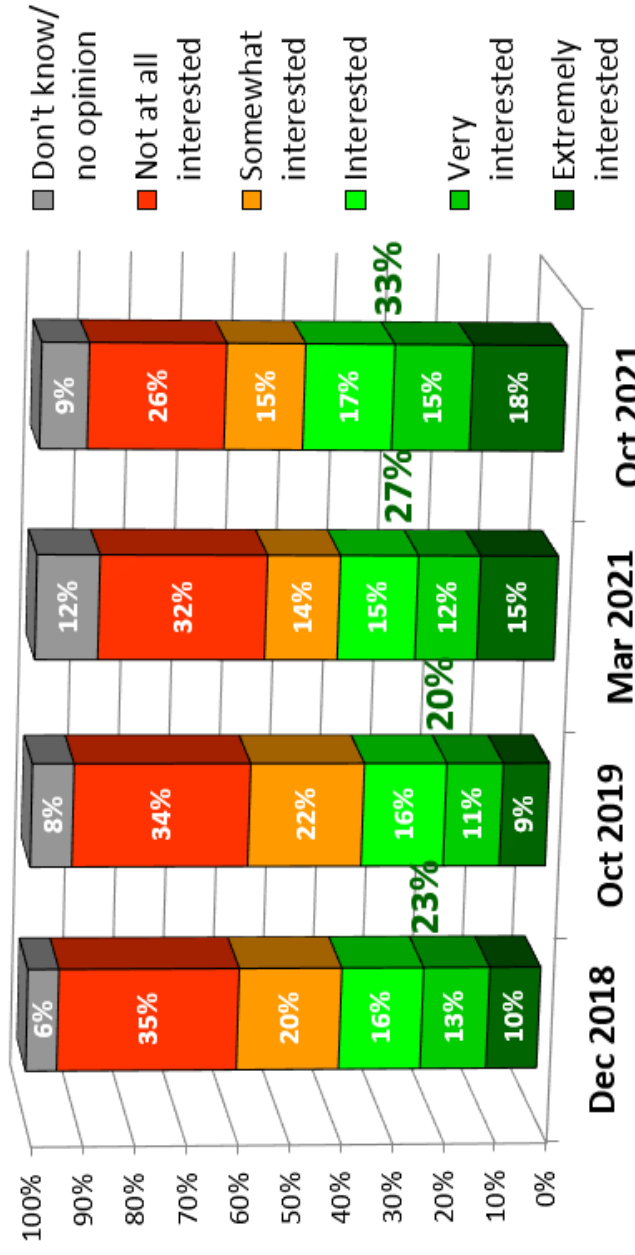
What is Driving Increased Interest in Prepay Energy?



Consumer Interest and Prepay Projections

Interest in Voluntary Prepay Energy from Local Utility

DEFG's Prepay Consumer Survey Reports, 2018-2021



If your local utility or provider were to offer a voluntary prepaid option for consumers, how interested would you be?

Prepay Accounts	# Accts.
Prepay accts. listed in PEWG database	347,000
Estimated number in competitive retail electric market in Texas	200,000
Estimate of others served by electric cooperatives/munis (not in database)	50,000
Continued growth from pilots, expansion of full-scale prepay programs, youthful new customers (next five years)	100,000
Total	~700,000

What is Driving Increased Interest in Prepay?

Consumer Debt Has Grown

- During the pandemic, utilities had service disconnection moratoria. Payment requirements were relaxed, and federal assistance increased. Now, as service returns to normal, past-due amounts have grown. Consumers seek alternatives to pay down debt.

Managing Rate Increases and Inflation

- Almost every utility is filing for rate increases; there are fuel-cost adjustments

Younger Consumers Prefer Mobile

- Prepay is easy to understand, easy to manage, and more transparent than traditional post-paid service. Younger consumers are especially interested in mobile transactions.

Flexibility in Arrearage Management is Valued

- Prepay energy is an important tool to manage customer arrears. Consumers work off debt in direct proportion to usage. Thrifty consumers take longer, but progress is steady. (Contrast with fixed-term deferred payment arrangements.)



Summary: Near Term and Going Forward



Near Term

- Consumer debt to utilities is large and growing and the arrearages increased during the pandemic
- Inflation is making matters worse for fixed-income and struggling consumers as well as for young consumers just entering the work force
- Rate increases will lead to challenges around managing affordability

Going Forward

- Commodity prices and infrastructure investments will increase costs
- There is increased investment in mobile transactions and expectations for mobile interactions will continue to rise
- Interest is growing in prepay as an alternative arrearage management tool, an alternative to security deposits, and to control against surprise bills
- There will be renewed focus on energy conservation / energy efficiency programs as hedge against higher energy prices

Summary: Key Questions

For a decade, PEWVG members have observed that while “prepay may not be for everyone,” it is highly-valued, effective tool for certain customers. We face these key questions:

1. Do the experiences of the pandemic offer insights into which consumers value prepay?
2. What is the role of aggressive, targeted communications about using prepayment to manage arrearages?
3. What are best practices and lessons learned about prepay program design in various circumstances?
4. How do utilities plan to serve Gen Z customers if they do not offer them prepay?
5. Will industry decision makers accept that “utility disconnection for non-payment” is different from “customer self-disconnection to manage a prepay account”?





Prepay Database Highlights

Highlights: Utility Comments & Updates

APS: We must not disconnect customers for non-payment between May 15 and Oct 15. This moratorium presents interesting challenges for prepay. I would be very interested in learning how other companies deal with a moratorium, and on a separate note, what type of prepay rate utilities offer (e.g., flat, any available rate, specialty).

Eversource: We currently do not have a prepay option. We did include this in our plan for our AMI implementation, however, we are still waiting on regulatory approval which may not come until later in 2022.

OG&E: We plan to implement but the process is currently on hold within our IT organization. We should be moving forward this fall/winter. We did a pilot and included in [it in] our Terms and Conditions after the that.

Commonwealth Edison: Still transitioning to a new CIS system. The plan is to revisit the prepay program proposal some time in 2024.

Entergy: Currently live in both Mississippi and Arkansas; approved in Q1 and Q2, respectfully. It's a very slow rollout. Prepay platform is sitting on SAP. No plans with our other three operating companies.

Georgia Power: Returned to full normal operations in mid-June 2021. Prepay accounts increased 2.7% since return-to-normal and the program is in a steady maintenance state. We are continuing to focus on communication plan: 1) improving customer communications (e.g., notification messaging) and 2) Education to reduce repeat calls.

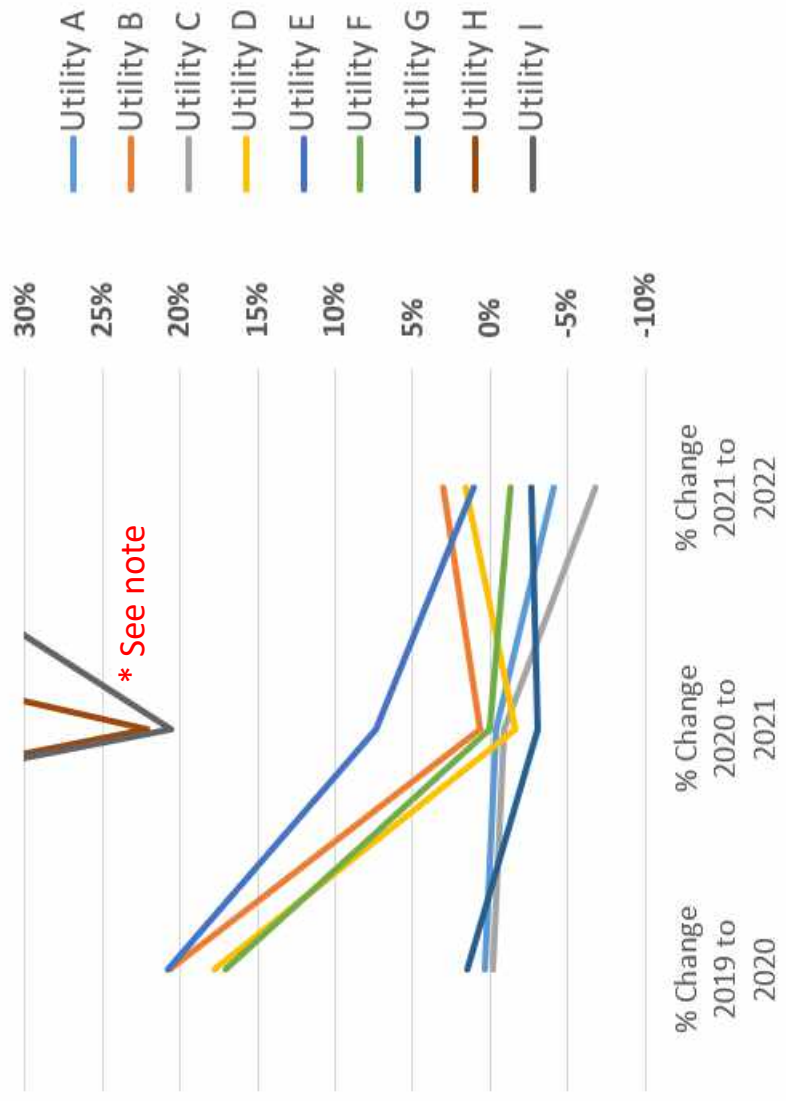
SMUD: We are at the very, very early planning stages and is still working through an initial business case and project charter to seek approval to explore a program further.





Highlights: Year-Over-Year Enrollment Trends

Annual Percentage Change in Enrollment by Service Territory (>2,000 prepay accounts)



Prepay customer enrollment slowed from 2020 to 2021 (during COVID) across all service territories

More recently, several service territories continued to slow while others resumed growth

Different program designs underlie these data; that is, program design and regulatory policies matter

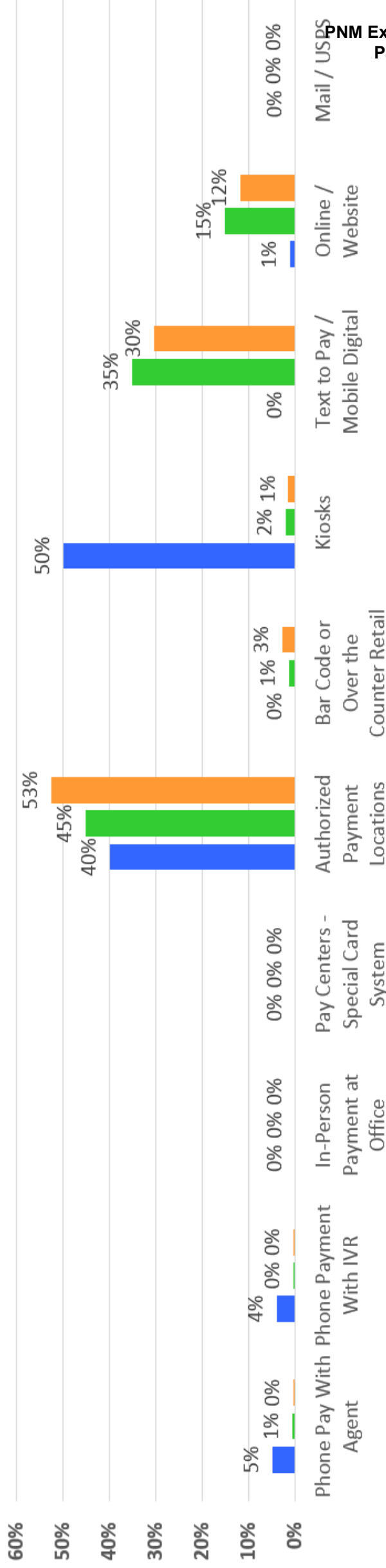
* NV Energy North & NV Energy South started from a very low base in 2019 and thus showed a very high growth (“off the charts”) from 2019 to 2020, then more modest growth (~20%) from 2020 to 2021, before returning to very high growth during the most recent reporting year

This year we expanded the database to track prepay enrollment over several years



Highlights: Payments Channel Data

Three Utility Service Areas: Percent of Payments Made Using Different Payment Channels



This year we replaced “Do you offer this payment channel? [Yes/No]” with “What percent of payments occur in each channel?”



PEWG Database Update

Structure of the PEWG Database

CATEGORIES:

- Utility Contact Information
- General Program Features
- Eligibility
- Pilot
- Operations
- Enrollment
- Marketing
- Account Management
- Zero Account Balance Rules
- Pricing and Tariffs
- Fees and Charges
- Arrearages and Debt Recovery
- Disconnection
- Payment Process
- Impact Assessment
- Business Case Metrics
- Call Center
- Business - Other



IOUs	Public Power	Cooperatives
Ameren Illinois	Alameda Municipal Power	Black River Electric Coop. Inc
Ameren Missouri	Austin Energy	Central Electric Cooperative, Inc.
Arizona Public Service	BC Hydro	Connexus Energy
Avista	Clinton Utilities Board	CoServ
Baltimore Gas & Electric	Cowlitz PUD	Oklahoma Electric Cooperative
Commonwealth Edison	CPS Energy	Southwest Tenn. Electric Mem. Corp.
Consumers Energy	JEA	Tri-State Electric Membership Corp.
DTE Energy	Memphis Light Gas Water	
Duke Energy (three service territories)	Ocala Electric Utility	
Energy Services (three service territories)	Orlando Utilities Commission	
Eergy	Salt River Project (SRP)	
Eversource	Santee Cooper	
Georgia Power Company	SMUD	
Minnesota Power	Truckee Donner PUD	
NV Energy (two service territories)		
OG&E		
Pacific Gas and Electric Company		
PECO		
PHI - Delmarva Power		
PSEG Long Island		
Public Service Co. of Oklahoma (AEP)		
Tampa Electric (TECO)		
Tucson Electric Power		
Wisconsin Public Service/We Energies		

40+ Utility Service Territories Are Monitored

Who is Eligible?



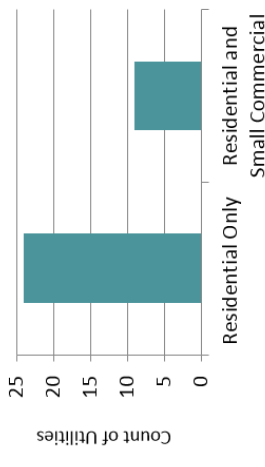
Full Scale Residential and Small Commercial

- Central Electric Cooperative, Inc.
- Clinton Utilities Board (CUB)
- Cowlitz Public Utility District
- Oklahoma Electric Cooperative
- Public Service Company of Oklahoma
- Salt River Project (SRP)
- Southwest Tenn. Electric Membership Corp.
- Tri-State Electric Membership Corporation

Full Scale Residential Only

- Black River Electric Coop. Inc
- Georgia Power Company
- JEA
- Memphis Light Gas Water
- NV Energy
- Orlando Utilities Commission
- Santee Cooper
- Truckee Donner PUD

Full Scale, Pilot, and Planned Prepay Programs

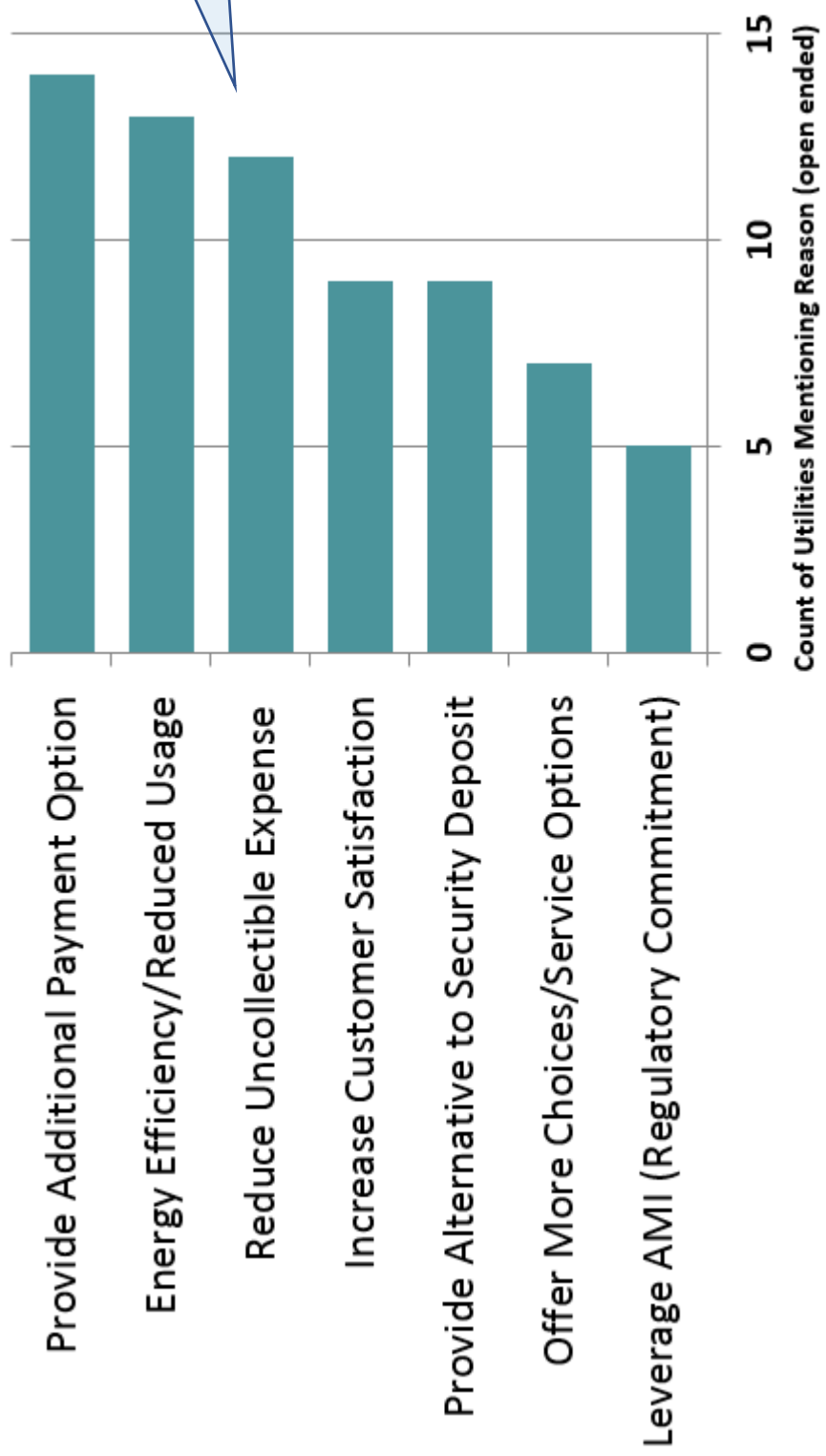




Primary Reasons to Offer Prepay

Prepay addresses many business objectives (hybrid business case)

Primary Reasons Prepay is Offered or Planned



No utility offered an update to its primary reasons for offering prepay; however, there is increasing use of prepay to address arrears

Number of Prepay Accounts

Salt River Project (SRP)	153,000
Georgia Power Company	84,500
JEA	23,200
NV Energy (Southern Nevada)	17,845
Public Service Company of Oklahoma	12,600
Orlando Utilities Commission	10,500
Southwest Tenn. Electric Membership Corp.	8,000
Oklahoma Electric Cooperative	7,654
Ocala Electric Utility	6,850
Santee Cooper	4,295
Memphis Light Gas Water	4,189
NV Energy (Northern Nevada)	4,044
Duke Energy Carolinas (South Carolina)	2,400
Clinton Utilities Board (CUB)	2,343
Black River Electric Coop. Inc	2,200
Cowlitz Public Utility District	1,777
Tri-State Electric Membership Corporation	1,400
Central Electric Cooperative, Inc.	144
Entergy Arkansas	46
Entergy Mississippi	29
Truckee Donner PUD	20
Duke Energy Carolinas (North Carolina)	20

347,000 prepay
accounts are reported
in the database





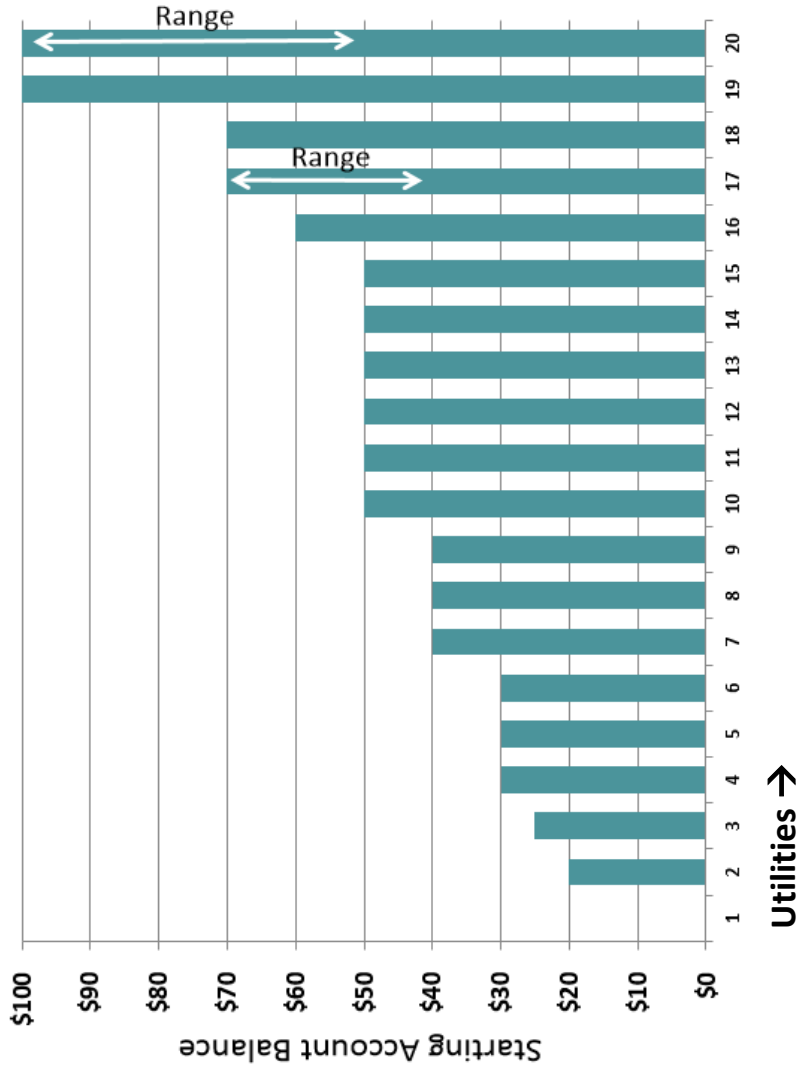
Current and Projected Market Penetrations

	Current	Projected
Southwest Tenn. Electric Membership Corp.	19.0%	20%
Salt River Project	15.3%	18%
Oklahoma Electric Cooperative	14.0%	17%
Clinton Utilities Board	9.6%	12%
Tri-State Electric Membership Corporation	8.8%	11%
JEA	6.6%	7%
Black River Electric Coop. Inc	6.0%	8%
Santee Cooper	2.5%	5%
Public Service Company of Oklahoma	2.0%	10%
Memphis Light Gas Water	1.0%	5%
Entergy Services	--	5-10%
Consumers Energy	--	10%
Cowlitz PUD	--	5%
NV Energy	--	3.5%
Baltimore Gas & Electric	--	3.5%
Central Electric Cooperative	--	3%

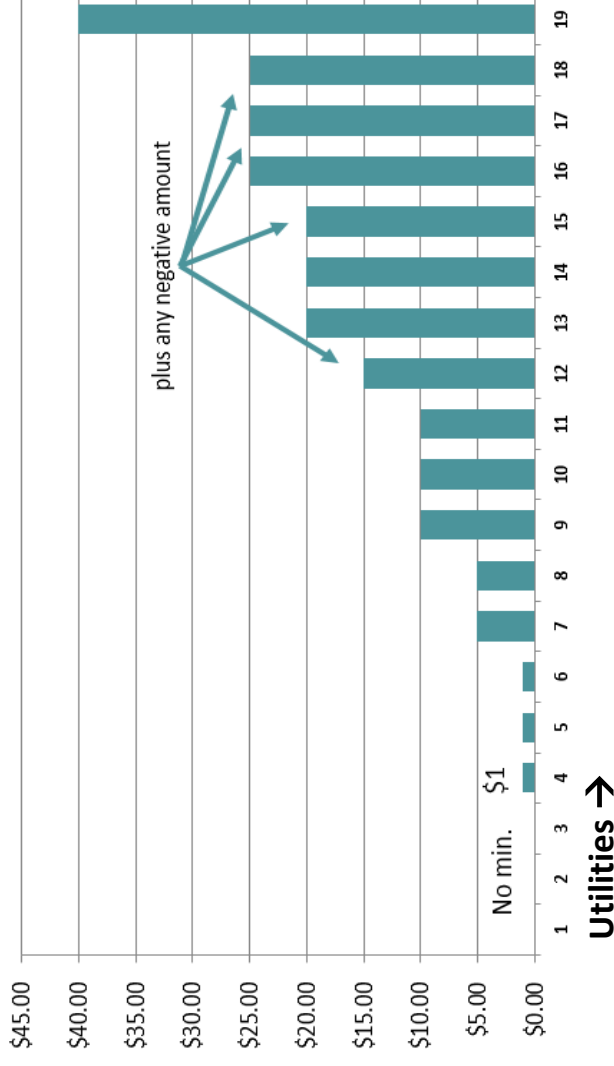
Minimum Starting Balances and Required Payments



Minimum Required Starting Balance



Minimum Normal Required Payment

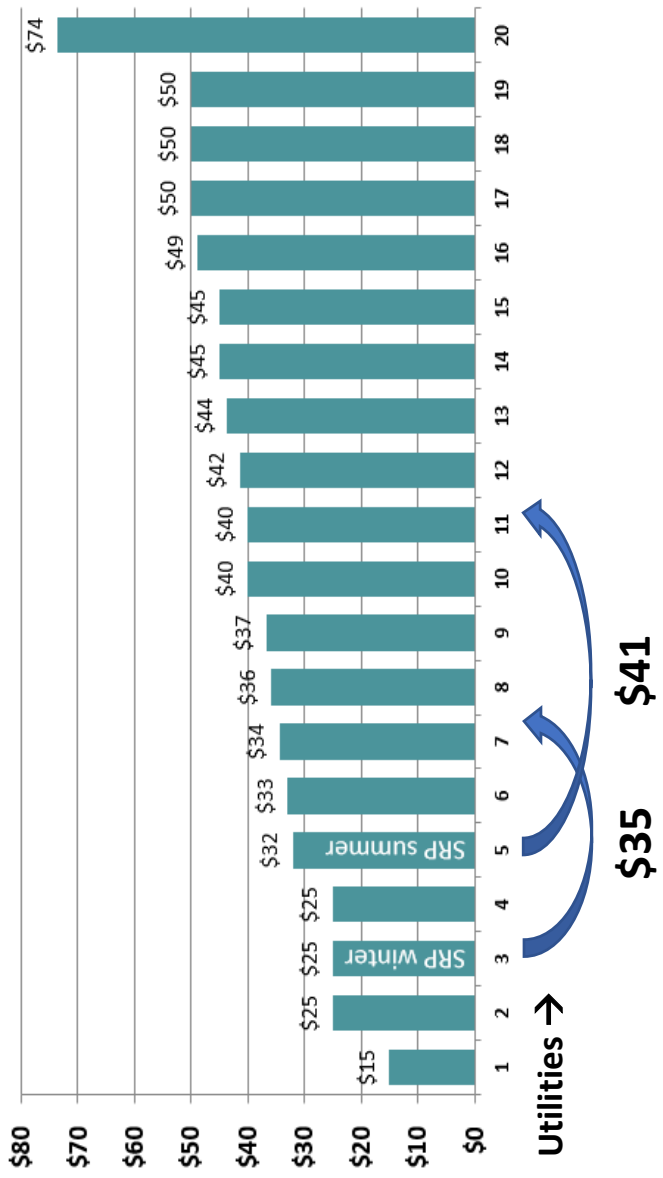


Based on reported data from full scale and pilot programs, a typical minimum starting account balance is \$50

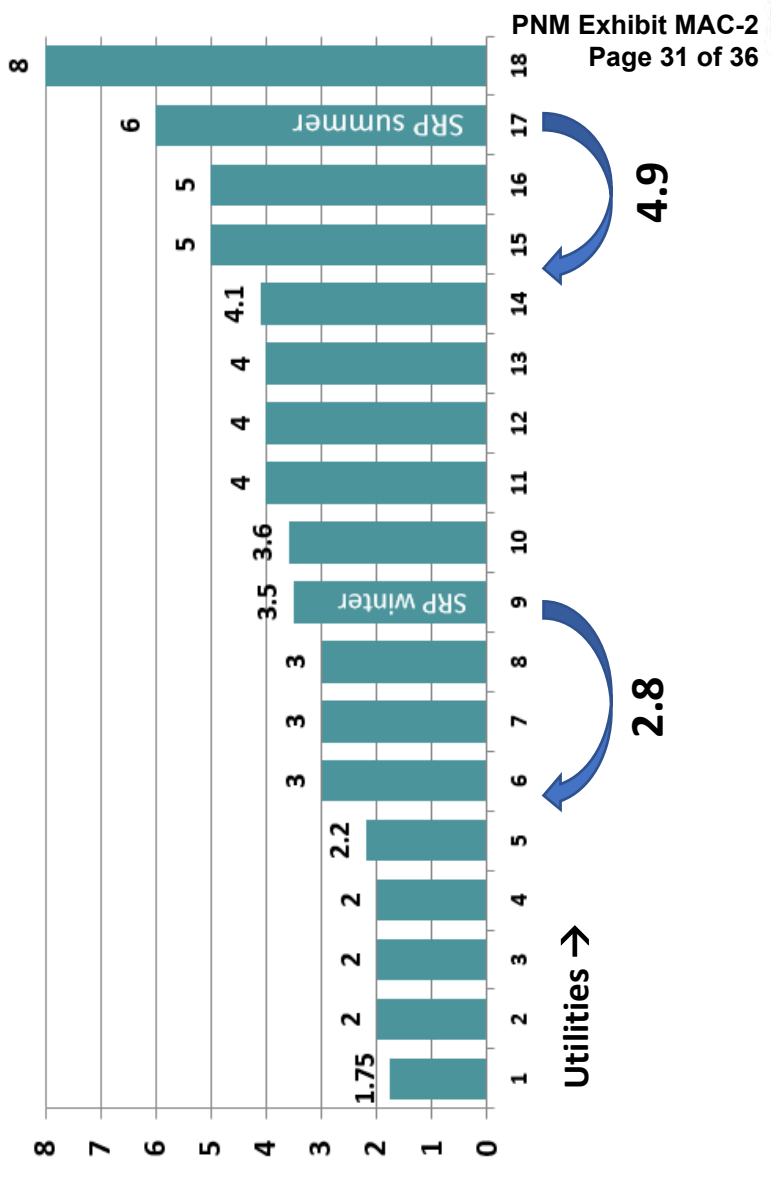


Average Payments and Frequency of Payment

Average or Typical Payment to Account



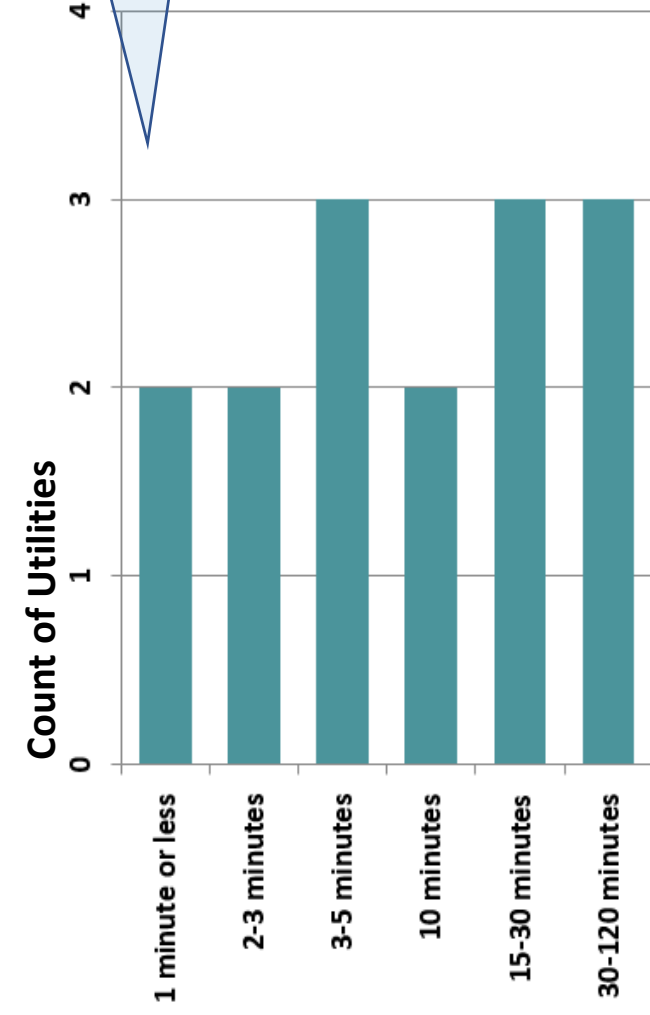
Average Payment Frequency per Month



Average Credit Post and Average Reconnection Times

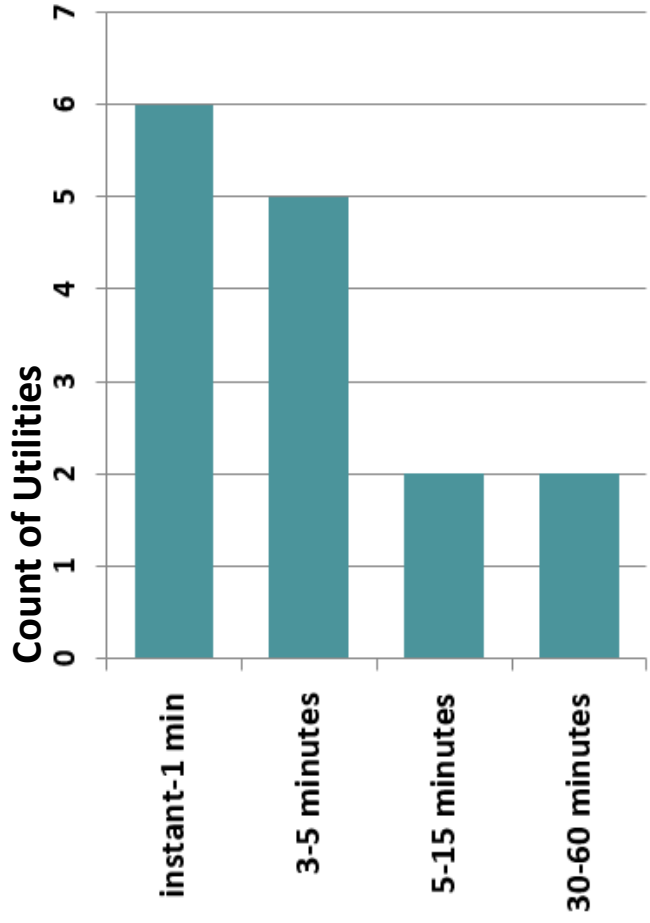


Average Reconnection Time When Account Balance is Restored



Georgia Power reports "38 seconds median" to restore power with the average due to outliers (the mean) falling from 4 min. to 2 min. 35 sec.

Average Credit Post Time



Trends are downward as technology improves

Split Applied to Any Dollar Added to a Prepay Account: Available for Current Usage % / Applied to Arrearages %



This includes full-scale offerings, pilot programs, and those close to implementation

50/50	65/35	70/30	75/25	80/20	85/15
Oklahoma Elec. Coop.	JEA (note 1)	Clinton Utilities Board	Cowlitz PUD (note 3)	Public Serv. Co. of OK	NV Energy
	SRP (note 2)	Tri-State Elec. Mbr. Corp.	Duke Energy (note 4)		
			Entergy (note 5)		
			Georgia Power		
			MLGW		
			NV Energy		
			Santee Cooper		
			Tucson Elec.		

Note 1: JEA reported a change in the allocation from 2020 to 2021. It had been 75/25.

Note 2: SRP customers have high use in summer and low use in winter. Winter contributions to arrearages are small. SRP changes 65/35 depending on the amount owed and other factors. The paydown percentage is higher for accounts owing \$500 or more.

Note 3: Cowlitz Public Utility District changed a split based on season (60/40 summer; 75/25 winter) to 75/25 year-round (for now).

Note 4: Duke Energy revised this from 60/40 to 75/25.

Note 5: Clarification needed. This is a planning number for Entergy New Orleans.

Findings and Recommendations

- Customer interest in prepaid is quickly growing
- More utilities are responding with planning and regulatory actions to stand up a program
- The pandemic had a dampening impact due to no disconnects and little outreach
- Enrollment is starting to pick up again
- Younger consumers expect convenient mobile payment options
- The rationale for offering prepaid is increasing around bill pay and arrearage management
- Consumer debt is growing, inflation is expected to increase customer arrears, and clean energy investments are likely to increase rates
- Prepaid energy is an important tool to manage customer arrears. Consumers work off debt in direct proportion to usage. Thrifty consumers take longer, but progress is steady. (Contrast with fixed-term deferred payment arrangements.)



Next Steps

You will receive this presentation and access to the recording. We will send the database in two formats: (1) an interactive spreadsheet (internal use only) and (2) a redacted PDF (protected and hiding all company names and locations – to be used in regulatory proceedings or with the public).

Upcoming events:

- **Thurs., July 21: “Chief Customer Officer Panel on Managing Affordability”** Three CCOs will discuss strategic perspectives on managing affordability in the utility sector as well as initiatives to help customers. Panelists: Melissa Washington, ComEd; Jared Lawrence, Eversource; Mike Stohl, Citizens Energy.
- **Thurs & Fri. Aug. 25-26: “Working Together for an Equitable Energy Future: National Workshop on Equity in a Clean Energy Economy”** A workshop of the Equity in a Clean Energy Economy (ECEE) Collaborative (<https://www.eceecollaborative.com/>).
- **Thurs. & Fri., October 6-7, noon to noon: “Annual Meeting of the Prepay Energy Working Group”** Tampa, Florida, hosted by TECO Energy.



DEFG

Customer Insights & Advisory Firm

Contacts

Jamie Wimberly, SVP, E Source
jwimberly@defgllc.com

Nat Treadway
ntreadway@defgllc.com

DEFG is a customer insights and advisory firm in the utility space. Through collaborative research, data analysis and peer-to-peer networking, we help our clients achieve ways to better serve their customers.



BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

**IN THE MATTER OF PUBLIC SERVICE COMPANY OF)
NEW MEXICO'S APPLICATION FOR AUTHORIZATION)
TO IMPLEMENT GRID MODERNIZATION)
COMPONENTS THAT INCLUDE ADVANCED)
METERING INFRASTRUCTURE AND APPLICATION)
TO RECOVER THE ASSOCIATED COSTS THROUGH)
A RIDER, ISSUANCE OF RELATED ACCOUNTING)
ORDERS, AND OTHER ASSOCIATED RELIEF)**

Case No. 22-00058-UT

SELF AFFIRMATION

MARIO A. CERVANTES, Director, Customer Experience, for Public Service

Company of New Mexico, upon penalty of perjury under the laws of the State of New Mexico, affirm and state: I have read the foregoing **Direct Testimony of Mario A. Cervantes** and it is true and accurate based on my own personal knowledge and belief.

Dated this 3rd day of October, 2022.

/s/ Mario A. Cervantes
MARIO A. CERVANTES

GCG # 529845