BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF NEW MEXICO FOR REVISION OF ITS RETAIL ELECTRIC RATES PURSUANT TO ADVICE NOTICE NO. 595	)	**Case No. 22-00270-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant	)	

DIRECT TESTIMONY

OF

MARIO A. CERVANTES

December 5, 2022

NMPRC CASE NO. 22-00270-UT
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WITNESS FOR
PUBLIC SERVICE COMPANY OF NEW MEXICO

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MARIO A. CERVANTES
NMPRC CASE NO. 22-00270-UT

I. INTRODUCTION AND PURPOSE

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

A. My name is Mario A. Cervantes. I am Director of Customer Experience with Public Service Company of New Mexico ("PNM" or "Company"). My business address is 414 Silver Ave. SW, Albuquerque, NM 87102.

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

A. As Director of Customer Experience, 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, Customer Research (which we often refer to as "Voice of the Customer"), Digital Experience, Revenue Operations and Low-Income Programs. My resume is attached as PNM Exhibit MAC-1.

Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION?

A. Yes. I previously provided pre-filed testimony before the New Mexico Public Regulation Commission ("Commission") in the Company's Grid Modernization case, Case No. 22-00058, filed on October 3, 2022.

Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY IN THIS CASE?

A. I introduce and discuss issues relating to customer relations, including changes the Company is proposing to make to improve customer payment options, customer-focused education, outreach and additional resource needs intended to enhance our customers' experience. In Section II of my testimony I address customer issues relating to the COVID-19 pandemic, including the impact of the pandemic on some customers' ability to timely pay their PNM energy bills. I also describe how the COVID-19 pandemic and the customer disconnection moratorium implemented due to the pandemic resulted in increases in bad debt, which the Company seeks to begin to recover in this case. In Section III of my testimony I address the payment option changes the Company is proposing to make. In Section IV of my testimony, I discuss additional staffing in the contact center to ensure a satisfactory experience for customers contacting PNM. Finally, in Section V of my testimony, I address other customer education and outreach initiatives.

II. COVID-19 ISSUES AND MORATORIUM

Q. WHAT DO YOU ADDRESS IN THIS SECTION OF YOUR TESTIMONY?

A. I address the significant impacts of the COVID-19 pandemic, from a customer relations perspective. We understand that COVID-19 had a profound impact on many of our customers, including an economic impact for many. That, in part, is what led us to propose in this case refinements to our existing payment options in order to offer additional fee-free payment options, as I explain in Section III of my testimony.

Q. PLEASE PROVIDE MORE DETAIL REGARDING THE COMMISSION-ORDERED COVID-19 MORATORIUM.

A. On March 18, 2020, in Case No. 20-00069-UT, the Commission issued an Order[1] finding the need for the adoption of an immediate temporary emergency rule prohibiting the discontinuation of residential customer public utility service during the time of the Governor's Executive Orders related to COVID-19.[2] In issuing the moratorium, the Commission also recognized that there would be financial impacts to utilities as a result, and authorized utilities to create regulatory assets and liabilities to account for increased arrearages and bad debt, and potential utility savings. This moratorium period began on March 18, 2020, and for PNM as an investor-owned utility, it extended through August 21, 2021. While the formal order applied only to residential customers, PNM voluntarily extended a disconnect moratorium for PNM's business customers as well.

[1] *Order Finding Need for the Adoption and Issuance of an Immediate Temporary Emergency Rule Prohibiting the Discontinution of Residential Customer Utility Service*, In the Matter of the Adoption of an Immediate Emergency Rule Prohibiting the Discontinuation of Residential Customer Public Utility Service During the Time Period of the Governor's Executive Orders 2020-004 through 2020-0010, Case No. 00069-UT (March 18, 2020) (Hereafter, I reference this proceeding as the "COVD-19 Emergency Rulemaking," and this March 18, 2020 Commission Order as the "COVID-19 Emergency Rules Order"). The Commission subsequently adopted permanent rules in Case No. 20-00159-UT, and clarified and extended the moratorium several times through orders issued in these proceedings along with Case No. 20-00205-UT.

[2] Executive Orders 2020-004 through 2020-0010 each addressed the impact of the COVID-19 pandemic. *See* COVID-19 Emergency Rules Order, at 1, para. 3.

PNM believes that the moratorium was the correct decision. However, as anticipated by the Commission, the Company's inability to timely seek to collect past due amounts from customers and the prohibition from disconnecting service for non-payment significantly increased Company's arrearages, resulting in increased bad debt. PNM witness Peters addresses these issues, including the related regulatory assets and liabilities PNM has recorded, in his direct testimony.

Q. YOU MENTIONED "ARREARAGES" AND "BAD DEBT." CAN YOU EXPLAIN THE DIFFERENCE BETWEEN THOSE TWO?

A. Yes. Arrearages are simply past due active accounts. Bad debt results once an account with an outstanding arrearage becomes inactive and the Company determines, after internal collection efforts, that the given arrearage is deemed uncollectible. I understand that sometimes "arrearages" and "bad debt" and other similar terms are used somewhat interchangeably, but I want to clarify what I mean by using these terms to emphasize two points. First, we engage with our customers to educate them regarding payment and bill assistance options so they can keep their accounts current, and in turn, so PNM can try to minimize these arrearages. This was especially true during this COVID-19 moratorium period. Second, it is nonetheless always the case that some of our customers will struggle to stay current on their PNM accounts, and this was especially true during the COVID-19 pandemic. Accordingly, PNM has historically offered a number of customer assistance programs for customers who have difficulty keeping their accounts current. During the COVID-19 pandemic we enhanced these programs, introduced new programs and engaged in additional/increased customer outreach to these customers. These types of programs help reduce the amount of arrearages that ultimately becomes bad debt.

Q. WHAT MEASURES DID PNM INTRODUCE DURING COVID-19 TO HELP CUSTOMERS BETTER UNDERSTAND AND MANAGE THEIR BILLS?

A. Even prior to COVID-19 PNM offered several self-service options via digital channels (e.g. website, two-way texting, and Interactive Voice Response system ("IVR")) that enabled customers to determine the amount they currently owe and pay that amount on a timely basis. Additionally, customers could set up payment reminders to be notified via their preferred communication channel two days before their bill was due.

During COVID-19, PNM launched several outreach campaigns via digital (e.g. social media, website) and traditional media (e.g. bill inserts, bill messaging, press releases) to make customers aware of the creation of new and existing assistance programs designed to assist customers with past due balances. PNM also created new website pages specifically focused on COVID-19 issues, including information on how to get help paying a PNM bill.

Q. WHAT OTHER PROGRAMS DID PNM EXPAND OR INTRODUCE DURING COVID-19 TO HELP CUSTOMERS WHO WERE UNABLE TO KEEP UP WITH AND PAY THEIR BILLS?

A. Even prior to COVID-19 PNM offered customers struggling with their electric bills payment plans, including extending the due date of the payment and in some cases creating payment plans to allow customers longer repayment periods. Additionally, PNM also offered the Good Neighbor Fund program for income qualified families funded by customer donations and shareholder matching dollars. These programs continued during COVID with increased funding and remain in effect today.

As discussed earlier, PNM suspended disconnections for residential and business customers, waived late fees for non-payment (based on requirements in the Commission order), and implemented extensive outreach efforts to customers with outstanding balances to offer information regarding payment assistance programs, including more extensive extended payment plans and assistance programs. These new processes also enabled customers to contact us via phone or electronically (PNM.com, IVR, text) to enter into a payment plan. The IVR and PNM.com also now proactively inform customers when they are eligible for a payment extension or arrangement and walks them through setting it up, alleviating the need for them to speak with a PNM Customer Experience Advisor.

Additionally, PNM created a $2 million COVID Relief Fund to assist residential and small business customers struggling to pay their electric bills due to the pandemic. Shareholders have funded the $2 million for this program and PNM is not seeking any recovery of these funds. Since the creation of the fund, over $1,538,000 has been applied for over 9,400 customers with past due bills.[3] The PNM Good Neighbor Fund has also remained in place and has provided approximately $1,500,000 in assistance to over 5,000 qualified families since the start of the pandemic.

PNM has also partnered with local non-profit and state government entities to facilitate disbursing additional available funds. For instance, PNM has been working closely with the New Mexico Department of Finance and Administration to implement strategies to ensure eligible customers receive rent and utility benefits from the Emergency Rental Assistance Program ("ERAP"). As a result of these efforts, the ERAP has paid over $8.3 million in customer arrearages since the launch of the program in March 2021. PNM also created an online application that enables customers to apply for three different types (PNM Good Neighbor Fund, PNM COVID Relief Assistance and State of New Mexico Emergency Rental Assistance) of bill assistance at one time.

[3] Information as of October 2022.

Finally, PNM implemented targeted outreach to customers with a past due balance via bill inserts, bill messages, website messages, letters, automated phone calls and emails. These messages contained information regarding the various payment plans and programs available to customers in arrears like the PNM Good Neighbor Fund, the PNM COVID-19 Relief Fund and other funds available from external organizations (e.g. Emergency Rental Assistance Program).

Q. DO YOU HAVE ANY FINAL OBSERVATIONS, FROM THE CUSTOMER RELATIONS PERSPECTIVE, REGARDING THE IMPACTS OF COVID-19 AND THE DISCONNECT MORATORIUM?

A. Yes; we knew that COVID-19 would create unique difficulties for our customers, and we engaged in efforts throughout the pandemic to assist customers in understanding, managing, and paying their bills, and offering assistance when they could not pay their electric bill. The result has been improved methods for customers to learn about and access PNM's general customer service offerings and customer assistance programs.

Despite these efforts, customer arrearages and bad debt did increase during the pandemic, which was not surprising given the suspension of collection efforts and the moratorium on disconnects. Customer arrearages and bad debt are still not back to pre-pandemic levels. The Commission recognized that suspending collection and disconnection would likely lead to these results, and its order authorizing all public utilities to create a regulatory asset to defer incremental costs related to COVID-19, including increases in uncollectible accounts provided a balanced approach to these challenging circumstances.

III. IMPROVEMENTS TO CUSTOMER PAYMENT OPTIONS

Q. WHAT DO YOU ADDRESS IN THIS SECTION OF YOUR TESTIMONY?

A. In this section of my testimony, I address the Company's changes to payment options PNM is proposing. Based on my experience, I believe these are well-designed to meet customer expectations and improve the overall customer payment experience. PNM proposes implementing a fee-free payment options model for residential (1A/1B) and small business customers (2A/2B), removing service fees currently being paid by our customers when they choose certain payment options. PNM will continue to maintain PNM-owned payment centers and add fee-free bill payment services at all Western Union payment locations. Currently, Western Union fee-free payment services are available only at a few locations. Under this proposal, payment fees will no longer be charged to customers. I summarize these proposed changes in PNM Table MAC-1 below for one-time (i.e., non-recurring) payments, and then describe them more fully in my testimony. We believe these changes to current payment options collectively align the Company with utility best practices and deliver what our customers want and expect.

PNM TABLE MAC-1

	Current	Proposed	
Credit/Debit Card	All customers: $2/transaction, $1,000 cap per transaction up to two transactions per 30-days	1A/1B 2A/2B	Fee-free, $1,000 cap per transaction up to two transactions per 30-days
		Others	3%, $25,000 per payment cap with unlimited number of payments
Automated Clearing House (ACH)	Guest (website or IVR): $2/transaction, $1,000 cap per transaction up to two transactions per 30-days; Logged into PNM.com account: Fee-free	All Customers- Fee-free, with a max payment amount up to $99,999	
Western Union	Fee-free at select locations; $1/transaction fee at all other locations	Fee-free, all locations	

Q. BEFORE TURNING TO THE COMPANY'S FEE-FREE CREDIT CARD, DEBIT CARD AND ACH PROPOSAL, PLEASE EXPLAIN HOW CREDIT, DEBIT AND ACH PAYMENTS VIA THE IVR AND WEBSITE WORK TODAY?

A. PNM offers customers several different ways to pay their bill; this includes being able to pay online via the PNM.Com website, as well as by phone via the IVR. Currently, customers can pay their PNM bill by credit card, debit card or ACH via the website or IVR as a guest (i.e. not logged in to My Account on the PNM.com website), but when they do so, they are assessed a $2.00 convenience fee (referred to as the "service fee") per payment, which is assessed by the third-party payment provider. Customers paying by ACH when logged into their My Account on the PNM.com website do not pay this service fee. The service fee is a pass along charge from the third-party, electronic bill payment provider for processing expenses, also known as a “pay-to-pay" fee by the Consumer Financial Protection Bureau, a U.S. Government agency that ensures banks, lenders, and other financial companies treat consumers fairly. PNM does not receive any portion of this service fee. In 2021 alone, PNM customers paid over $1.5 million in service fees for paying by these methods.

Q. WHAT PERCENTAGE OF PNM CUSTOMERS CURRENTLY PAY THEIR PNM ELECTRIC BILLS BY CREDIT/DEBIT CARD OR ACH WHERE A SERVICE FEE IS ASSESSED?

A. In 2021, PNM customers made a total of 5,559,747 payments, and 12.8% (713,590) of these payments were made via a credit or debit card, with an additional 64,572 (1.12%) payments being made by ACH as a guest, where a service fee is assessed. Of the 713,590 payments made by credit/debit card, 95.6% (681,914) were made on residential accounts, with the remaining 4.4% (31,676) of the payments being made on business accounts. Of the 64,572 payments made by one-time ACH as a guest, 92.5% (59,730) of the payments were made on residential accounts, with the remaining 7.5% (4,842) of the payments being made on business accounts.

Q. PLEASE DESCRIBE THE COMPANY'S PROPOSED FEE-FREE PAYMENT PROGRAM FOR RESIDENTIAL AND SMALL BUSINESS CUSTOMERS.

A. PNM is proposing to introduce fee-free, non-recurring (one-time), credit card, debit card payments for residential (1A/1B) and small business customers (2A/2B). Fee-free guest ACH payments will also now be available to all customers, including residential and small business customers. The cost of offering this fee-free program would be recovered in the Company's rates. The operation and maintenance ("O&M") cost is estimated to be roughly $2.5 million/year for year one of implementation and has been reflected in the Test Period as presented by PNM witness Sanders. PNM estimated the costs to be $3.0 million/year begining with the year following the Test Period. These costs assume that credit/debit card payments will increase by 25% per quarter and will begin to level off in year two of implementation and that ACH payments will remain at existing levels. The numbers used to calculate the costs using the previously mentioned assumptions can be found in PNM Exhibit MAC-2.

Q. HOW DID PNM ESTIMATE THE COST TO OFFER A FEE-FREE PAYMENT PROGRAM?

A. Based on data provided by utility industry research firm E Source on adoption rates for other utilities that have implemented a fee-free payment program, PNM relied on a conservative estimate of a 100 percent increase in credit/debit card payments in year two with the implementation of fee-free payment, plus the current average monthly volume of ACH payments when paying as a guest or logged in to the PNM.com My Account portal (approx. 98,000 per month). The report containing this data can be found on PNM Exhibit MAC-3 which is the E Source report on the elimination of credit card service fees. We believe this is a conservative estimate given that utilities that have implemented similar programs have seen increases in adoption of credit/debit card payments between 100 and 200 percent after implementation of a fee-free program. Using this estimate, we estimate the total cost for providing this program, in terms of fees that will no longer be assessed to the paying customer, to be roughly $3.0 million/year once fully adopted (estimated to be in year two). Given that this is a conservative estimate and the fact that this is a new program, PNM may experience higher volumes of credit/debit card and ACH payments than originally projected, which would increase these costs. PNM will reflect its actual costs in future rate case filings.

Q. HOW DOES ELIMINATING SERVICE FEES ALIGN WITH INDUSTRY CUSTOMER SERVICE TRENDS?

A. An increasing number of investor-owned utilities are currently offering fee-free payment options (i.e., fee-free credit card payments, free in-person payment options, etc.) or are in the process of obtaining regulatory approval to provide these services for free to customers. Per a recently published Edison Electric Institute report (Enhancing Customer Payment Approaches to Better Serve Residential and

Small Business Customers), as of May 2022, at least 31 investor-owned electric companies offer fee-free credit and debit card payments across 22 states. I provide that EEI Report as PNM Exhibit MAC-4 to my testimony. Offering fee-free payment options will improve customer satisfaction, align with trends both within the electric industry and more broadly regarding customer payment options, and support the growing number of customers who prefer the convenience of using digital payment methods free of charge. PNM customer preferences fall in line with industry shifts towards digital payment methods. PNM customer surveys conducted in April 2022 indicated thirty-three percent (33%) of residential PNM customers, and thirty-seven percent (37%) of small and medium sized businesses preferred digital payment methods such as payment via credit and debit cards and ACH. Customers expect to be able to make these digital payments without being assessed a service fee.

Q. DOES ELIMINATING SERVICE FEES ALSO ALIGN WITH THE EXPECTED FUTURE GROWTH OF DIGITAL PAYMENTS?

A. Yes it does. Digital payments are expected to continue growth at an expansion rate (CAGR 2022-2027) of 14.86%, resulting in a projected total amount of US $3.5 billion by 2027. Accenture, the global professional services company specializing in information technology and consulting, states in their “Growing Payments to New Heights” report included in PNM Exhibit MAC-5, that customers expect seamless, integrated commerce journeys at their fingertips. Furthermore, there are three disruptive forces that are driving this change and growth and will continue to do so: the launch of central bank digital currencies, changing customer behaviors and expectations (largely due to the pandemic) and the adoption of new, emerging digital technologies like artificial intelligence and cloud computing. According to the Federal Reserve Bank of Atlanta, in October 2020 (PNM Exhibit MAC-6), U.S. consumers made most of their payments with debit cards, credit cards and cash. Also, more than half of payments (57%) were made with payment cards, such as debit, credit and prepaid cards.

Specific to the utility industry, the percentage of credit, debit, and electronic bank card payments almost doubled from 2018 to 2021, according to a study (PNM-Exhibit MAC-7) conducted by E Source who combines utility industry-leading research, predictive data science, and solutions services to help utilities make better decisions to support their customers. E Source and other utility industry experts expect that credit card service fees will become a historical artifact, citing customers' increasing expectations of fee-free payments.

Q. DO THESE INDUSTRY TRENDS ALIGN WITH PNM'S OWN CUSTOMER FEEDBACK REGARDING PAYMENT SERVICE FEES?

A. Yes, they do. Extensive research and PNM customer feedback demonstrate that fee-free payments are a payment service our customers expect. The requirement to pay a service fee when making a payment is one of the largest frustrations PNM customers experience as they have grown accustomed to paying for virtually all other products and services without a separate, additional fee. Payment fees have been identified as major customer dissatisfaction points as evidenced by JD Power industry research and PNM's own substantial customer research. To illustrate, a recent PNM survey revealed 85% of residential customers were either extremely dissatisfied or dissatisfied with the fee, and 87% of business customers surveyed felt the same way. Fundamentally, the reason for fee-free credit and debit card processing is all about serving our customers in the manner and channels they want to be served. Customers want payment options that are convenient and in the channel of their choice. Therefore, an increasing number of utilities are bringing fee-free debit and credit card payment processing to their customers with a regulatory structure that ensures the cost of these fee-free programs are included in the overall cost of service. PNM's proposal here will align PNM with prevailing practices regarding fee-free payment of utility bills.

Additionally, throughout 2021 and 2022, JD Power survey participants were asked what PNM needs to do to improve billing and/or payment experiences. Nearly a quarter (24%) of respondents expressed dissatisfaction with credit card fees, or a desire for, fee-free credit card payments. Furthermore, in responses to JD Power and PNM surveys, customers displayed an understanding that, for other goods and services, payment service fees are typically rolled into the total price of the goods or services being purchased. When asked how PNM could improve the billing and payment experience, a JD Power survey respondent said, "Not charging a fee for credit/debit cards. Other business factor in card fees in their total price." Likewise, when asked about their billing and payment experience, a PNM survey respondent said, "Most businesses…consider the processing fee a cost of their doing business and factor it into their price structure. It's *extremely* retro to charge a customer…a fee for the privilege of paying you. Talk about adding insult to injury." These responses demonstrate customer comprehension and expectation that service fees be incorporated into the total price of their PNM service, as is done within other retail goods and services.

Q. HAS THE COMPANY CONSIDERED HOW ELIMINATING THE SERVICE FEE ASSOCIATED WITH CREDIT/DEBIT CARDS AND ACH PAYMENTS AS A GUEST WILL IMPACT LOW-INCOME CUSTOMERS?

A. Yes, we did consider low-income customers in making this proposal, and we believe that a fee-free credit card payment option will be particularly beneficial for low-income customers. From the 13-month period of June 1, 2021, to June 30, 2022, approximately forty-five percent (45%) of customers who made a payment using a credit card were considered low-income, indicating many low-income families are relying on credit cards to pay their PNM bill. Payment fees place an unnecessary burden on our low-income and most economically vulnerable customers, and a $2 service fee is likely more impactful to low-income customers than other customers. According to research done by EEI, roughly 5% of unbanked customers in the U.S. rely on credit and gift cards to pay their bills. Eliminating these fees provides direct benefits to this population.

Q. WHAT DOES THE COMPANY PROPOSE WITH REGARD TO CREDIT/DEBIT CARD PAYMENTS BY CUSTOMERS OTHER THAN RESIDENTIAL AND SMALL BUSINESS CUSTOMERS?

A. Currently, it is unlikely for customers with larger bills, like large business and industrial customers, to pay by credit/debit card, given that there is a $2,000 cap per 30-days on these payments. As a practical matter, this $2,000 cap has limited the ability of larger customers to pay by credit/debit, even if they desired to do so. Recognizing this, in the proposed fee-free payment model, this cap would increase to $25,000/payment, while imposing a 3% service fee on credit/debit card payments by customers other than residential and small business customers. This will give these larger customers an option to pay by credit/debit card that, as a practical matter, was not previously available to them.

For these larger customers PNM also believes it is appropriate to assess a 3% service fee to cover the larger merchant/provider service fee that will be assessed on these larger payment amounts. The majority of payments made via credit/debit card are made by residential and small business customers. To illustrate, in 2021, approximately 95% of customers who paid via a credit/debit card were residential (681,914 payments) and 4.4% business (31,676 payments). Eliminating the convenience fee for residential and small business customers ensures that their needs are met while providing larger customers with payment options that better align with their needs. With the proposed changes, customers other than residential and small businesses will pay a 3% service charge when paying their bills by credit/debit card. Also, if non-residential/small business customers wish to make electronic payments without incurring a credit-card convenience fee, these customers will still be able to make payments free of charge by ACH.

Q. WHY DOES THE COMPANY BELIEVE IT IS MORE APPROPRIATE TO RECOVER THE COSTS OF CREDIT/DEBIT CARD SERVICE FEES FOR RESIDENTIAL AND SMALL BUSINESS FROM ALL CUSTOMERS, RATHER THAN JUST CONTINUING TO COLLECT THE $2.00 SERVICE FEE FROM THOSE RESIDENTIAL AND SMALL BUSINESS CUSTOMERS WHO CHOOSE TO PAY BY THESE METHODS?

A. PNM’s proposed approach to payment service fees is consistent with the treatment of other costs associated with offering other methods of payment that are paid for by all customers and not recovered exclusively from those specific customers choosing those payment options. Customer payments made by check, cash at a PNM payment center, ACH payment made through the PNM.com My Account Portal, and some Western Union retail locations are free of charge because the costs associated with these methods of payment are currently recovered through existing rates as part of cost of service.

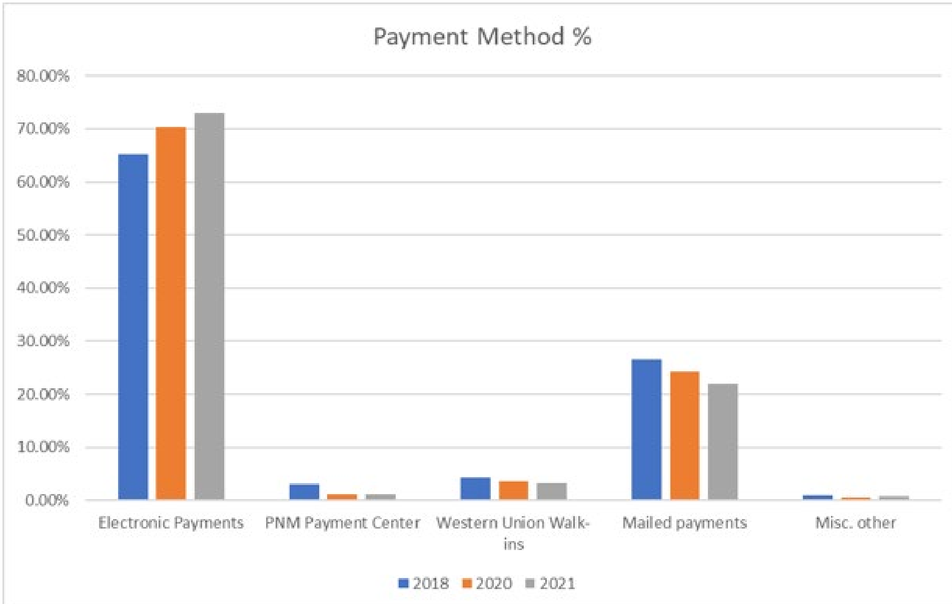
Additionally, fee-free payment options are often utilized by low-income customers, who may go to great lengths and inconvenience in order to avoid paying the additional service fee. For instance, from June 1, 2021, to June 30, 2022, roughly sixty-five percent (65%) of customers who made payments via PNM payment centers were low-income customers. During that same timeframe, roughly sixty-eight percent (68%) of customers who paid their PNM bill at a Western Union location were considered low-income (the Western Union fee, at some locations, is $1.00, vs. $2.00 fee for payment by credit/debit card). This illustrates low-income customers' propensity towards fee-free or lower cost payment methods, even considering the inconvenience and time investment required to make payments in person. Fee-free payment options will better serve low-income customers throughout all payment interactions.

Q. DID THE COMPANY CONSIDER THE FACT THAT THE COMMISSION PREVIOUSLY EXPRESSED CONCERN WITH THE APPROACH OF RECOVERING COSTS ASSOCIATED WITH OFFERING A FEE-FREE CREDIT/DEBIT CARD PROGRAM FROM ALL CUSTOMERS, AS OPPOSED TO RECOVERING THOSE FEES JUST FROM THE CUSTOMERS WHO CHOOSE TO PAY BY CREDIT/DEBIT CARD?

A. Yes, we did consider that, and the Company is aware of the discussion of these issues in a prior decision, where the Commission expressed its belief, at that time, that the cost associated with accepting credit card payments should be borne by only those customers who pay their bills via credit cards.[4] However, customer preferences have evolved since the time of this Commission decision in 2015 (COVID-19 being a major driver) with the marketplace transitioning at a rapid pace to a "cashless" business model, as I previously explained. Now more than ever, customers expect the convenience and ease of paying their bills electronically via the channel of their choice. Year-over-year, the data show that PNM customers continue to shift from using traditional payment channels to digital payment options (e.g., website, app, text, electronic bank payment, credit cards, and debit), which is consistent with the trend across the industry. In 2021, 73% of PNM customers opted for an electronic method of payment vs. 65% in 2018. See PNM Figure MAC-1 below for a comparison of customer payments methods for the period from 2018 to 2021.

[4] *Corrected Recommended Decision* at pp. 135-136, Case No. 15-00261-UT (Aug. 15, 2016). (citing *Wisconsin Power and Light*).

PNM Figure MAC-1



Fees for credit/debit and other forms of payment pose a substantial barrier to allowing customers the ease and convenience of paying their bills electronically and via their preferred channels.

Q. PLEASE PROVIDE MORE DETAIL REGARDING THE CURRENT WESTERN UNION PAYMENT CENTER PAYMENT OPTION FOR CUSTOMERS.

A. Most Western Union walk-in payment locations assess a $1.00 fee that is passed directly to the customer. Currently, only 13 Western Union walk-in locations in PNM's service territory are free of charge to our customers. PNM, in partnership with Western Union, is working on adding more payment locations to expand the number of available locations to over 200 within PNM's service territory. Most Western Union locations are open seven days a week and have longer hours of operation than PNM payment centers. This, in addition to the limited number of PNM payment centers and fee-free Western Union locations currently available to PNM customers, led us to conclude the elimination of the $1.00 fee would better serve our customers who pay via in-person methods. The lack of fee-free payment resources across the entirety of PNM's service territory is problematic for customers who prefer or need to utilize in-person payment methods,but cannot access the fee-free locations.

Furthermore, our Voice of the Customer research revealed eighteen percent (18%) of customers who preferred using a PNM payment center did so because there is no service fee, indicating the payment preference might not be to make in-person payments, but rather to avoid service fees.

Q. WHAT IS PNM PROPOSING FOR FEE-FREE PAYMENTS AT WESTERN UNION WALK-IN RETAIL LOCATIONS WHERE PNM PAYMENTS ARE ACCEPTED?

A. PNM is proposing fee-free payments for all payment methods PNM offers, including payments made via all Western Union walk-in payment locations. As I previously noted, service fees are a major pain point for PNM customers as evidenced by JD Power industry research and PNM's own substantial Voice of the Customer research. This research also revealed that customers are frustrated with the limited availability and hours of operation of PNM payment centers.

This led PNM to conclude that Western Union location availability should be expanded throughout the PNM service territory. However, consistency is important throughout the in-person payment options in regard to charging a service fee. Since these service fees cause such extreme dissatisfaction amongst both residential and small business customers, and are not applied uniformly across all Western Union payment locations, PNM is proposing to eliminate these service fees and recover these costs as part of its cost of service, as it proposes to for credit/debit card services fees for residential and small business customers. Additionally, by eliminating the service fee at all in-person payment locations and for electronic payments (one-time credit/debit card and ACH for residential and small business customers), we enable customers, especially those who are most vulnerable, such as low-income customers, to pay their PNM bills via the payment method that is the most accessible and feasible for their particular households, thereby easing some of the energy burden they may face.

Q. DID PNM CONSIDER THE IMPACT TO LOW INCOME CUSTOMERS WITH RESPECT TO IN-PERSON PAYMENT OPTIONS?

A. Yes. While in-person payments methods are among the least utilized by customers, with only about eight percent (8%) of customers making in-person payments during the 13-month period from June 1, 2020, to June 30, 2021, PNM's Voice of the Customer research discovered roughly sixty-five (65%) of customers who made payments at PNM payment centers are low-income, and roughly 68% of customers who made payments at Western Union locations were low-income. This research indicates the customers utilizing the in-person payment methods are among the most vulnerable, and likely face the highest energy burdens and the most price sensitivity. This is one of the main factors in proposing the elimination of the service fee at all in-person payment locations.

Q. WHAT IS THE ESTIMATED TOTAL O&M COST FOR OFFERING FEE-FREE WESTERN UNION PAYMENTS?

A. The total O&M cost for offering fee-free Western Union payments is estimated to be approximately $410,000 annually, and has been included in the Test Period as presented by PNM witness Sanders.

IV. CONTACT CENTER RESOURCES NEEDED TO ENSURE REASONABLE CUSTOMER SERVICE LEVELS

Q. WHY IS PNM INCREASING RESOURCES FOR ITS CUSTOMER CONTACT CENTER?

A. Customer's expectations over the years have evolved because today, customers compare PNM to every customer experience they have with every other company. As a result, customers expect quicker response time regardless of the channel they choose to communicate through. With the shift towards more digital transactions and PNM's deliberate efforts to make it easier for customers to perform transactions digitally, many of our customers' inquiries are handled via the IVR system or online. However, there is still a need for PNM customer service representatives to assist customers with more complex inquiries regarding billing, payments and other matters. These more complex inquiries require additional time for customer service representatives to resolve, which, if not resourced appropriately, increases the wait times for customers that need to speak to a live PNM customer service representative. Additionally, since the introduction of new communication channels like live chat, PNM has experienced a steady increase in customer adoption of these channels, which also requires additional staffing resources to handle. Since the implementation of live chat in 2017, volumes have increased by about 600% (9,353 in 2017 vs. 65,526 in 2021).

Additionally, some PNM customers continue to struggle with paying their bill, which has been exacerbated by the recent pandemic. Having adequate staffing levels allows PNM to work closely with customers struggling to pay their bills and to spend the necessary time in assisting them with payment plans and resources that may help with their unique and individual needs. In addition, this enables us to be more proactive in educating and providing customers with information regarding matters that will help them better manage their energy usage. The additional staffing ensures that PNM customer service can meet the many customer needs and demands described here, within the timeframes that customers expect.

Q. HOW MANY ADDITIONAL EMPLOYEES IS PNM ADDING TO MEET CUSTOMER NEEDS?

A. To provide customers with the experience they expect when calling, PNM plans to add ten (10) FTEs and has included these costs in the Test Period. The estimated cost to add these 10 FTEs is $376,640 annually. Please see the testimony of PNM witness Sanders.

Q. HOW DID PNM DETERMINE THAT TEN ADDIITONAL FTES IS THE APPROPRIATE NUMBER OF REQUIRED RESOURCES?

A. PNM regularly conducts customer research through surveys and industry best practices to determine the expectations customers have regarding wait times in the multiple communication channels that PNM offers (e.g., email, chat, and phone). We use this data to determine the wait times/response times that our customers expect and establish targets that align to customer expectations. We then create scenarios using historical and forecasted volumes as well as handle time data to determine the number of staff the Contact Center needs to meet targets set by customer expectations. Our projection models show that to improve existing performance to achieve wait times that are more in line with what our customers expect, and to reflect industry standards, increasing staff by ten (10) FTEs at this time will provide a significant improvement to wait times and enable PNM to provide customers with their expected experience.

V. CUSTOMER EDUCATION AND OUTREACH

Q. WHAT DO YOU ADDRESS IN THIS SECTION OF YOUR TESTIMONY?

A. In this section of my testimony, I summarize our existing and planned customer education and outreach efforts that are driven by the Voice of the Customer, which help PNM align customer service with customer needs and desires. We estimate the costs for these additional efforts to be $275,164 annually.

Q. WHAT DO THESE CUSTOMER EDUCATION AND OUTREACH INITIATIVES INCLUDE?

A. These Customer Education and Outreach initiatives include: 1) increased efforts to obtain Voice of the Customer feedback through various customer research methods and continued engagement of stakeholders for input and involvement in major customer service improvements and enhancements; 2) use of external consulting resources to provide utility experience and knowledge, and best practices and expertise for customer experience initiatives; 3) identification of the unique needs and desires of various customers segments (including low income, small, mid-size and large customers and other unique customer segments.) through a strategic approach to customer segmentation; 4) broad and targeted customer outreach for community assistance events, which also factor in overall customer satisfaction while targeting customer communications that reflect a personalized preference or a call to action specific to a customer or customer segment; and 5) augmented customer outreach and energy education via digital communications such as social media, email, text, website, e-newsletters and personalized digital engagement solutions (e.g. personalized videos, special purpose calculators to assist customers with energy decisions, including payment options and assistance programs).

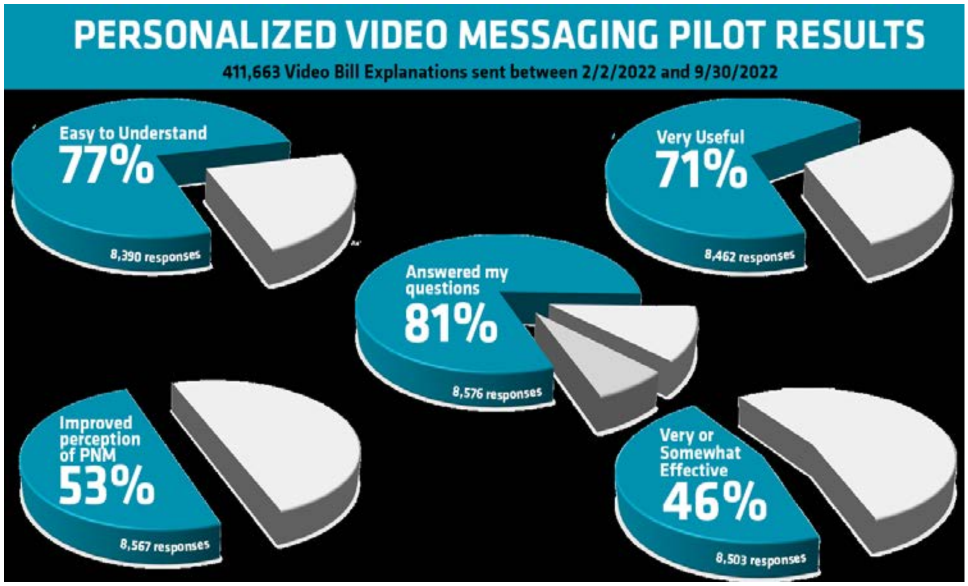
Q. HOW DOES PNM DETERMINE THE MOST EFFECTIVE METHODS OF CUSTOMER OUTREACH AND COMMUNICATION?

A. PNM targets opportunity areas and pain points identified by customers through both primary and secondary customer research and implements outreach and education tactics aimed at addressing these gaps. JD Power surveys, as well as PNM's own substantial Voice of the Customer research, point to the need for more frequent and targeted outreach and education. In the Image Study conducted by Research & Polling in May 2022, 17% of respondents felt PNM does not communicate useful information frequently enough with customers. JD Power results from 2021 and 2022 identified that approximately 9% of respondents feel PNM needs to improve the communications with customers as well as expand their communication methods. Voice of the Customer research showed business customers also feel PNM can improve its communication efforts by communicating about changes, updates, and topics that are important to businesses and by increasing opportunities for business customers to give feedback to PNM. Feedback from customers is critical to understanding where customer experiences can be improved, and in understanding customer needs.

The most effective communication methods are determined by customer segmenting and customer feedback. PNM is expanding its ability to receive and respond to customer feedback, and communicate with customers in different ways in order to ensure all segments of customers can access information and programs to meet their needs. This includes the ability for customers and PNM to communicate through via previously underutilized methods such as social media and text as well as the traditional forms of direct communication through telephone and written means. This strategy will ensure customers across all levels of digital access and ability can contact PNM as well as receive communications from PNM.

Additionally, in a recent pilot program, which delivered personalized video bill messages to customers who experienced a change in their bill from the previous month, customers expressed extreme satisfaction with PNM's proactive communication efforts, as can be seen by the below in the survey results shown in PNM Figure MAC-2.

PNM Figure MAC-2



Q. CAN YOU PROVIDE SOME SPECIFIC EXAMPLES?

A. Yes. Examples of Customer Education and Outreach activities include expanded customer outreach and education regarding upcoming events and programs, including bill assistance and payment options, for low-income customers, via digital and other media formats. Additionally, as referenced earlier, PNM has seen a positive response from customers on outreach and education efforts via personalized digital messaging solutions that provide customers with explanations about bill changes and other energy usage topics. PNM also plans to enhance its outreach to small and mid-sized business customers, including establishing an annual Business Fair, along with and smaller, segment-specific or geographically based business fairs to provide in-person consultation for businesses requiring PNM assistance, as well as make available information on programs and services.

PNM also collected feedback at the 2022 PNM Community Assistance Fair designed to help low-income customers with receiving assistance they need from numerous resources, such as assistance with utility bills and healthcare. This feedback helped identify PNM bill inserts, community partners, and Facebook as the most common ways attendees heard about the event. This information will be used when planning future event outreach and education plans to ensure those in need are reached by these efforts.

Q. ARE THERE ANY NEW CUSTOMER EDUCATION AND OUTREACH INITIATIVES IN PARTICULAR THAT YOU WANT TO INTRODUCE?

A. Yes, I want to emphasize in particular the expansion of our current video bill pilot program to a full deployment for all PNM customers, which will improve the billing experience by ensuring easily understood explanations of all billing components. Additionally, PNM plans to increase outreach and communications to low-income customers via digital channels, bill inserts, and traditional media to increase participation in low-income programs, and to improve access to and participation in available resources and assistance events.

Q. HOW DO THESE TYPES OF CUSTOMER EDUCATION AND OUTREACH BENEFIT CUSTOMERS?

A. These types of initiatives are designed to make customers aware of the PNM products, services and options they can benefit from. PNM uses a wide range of communications, including direct contact at assistance fairs, enabling customers to take action as they deem appropriate to manage their electricity use and monthly bills. PNM is also planning to seek more customer feedback regarding current programs and input and recommendations that will drive the creation of future offerings. Customers who understand their options, have access to relevant services, and perceive value, tend to feel more empowered and more satisfied with the services provided to them.

Additionally, JD Power and Brand and Image Studies demonstrate that customers desire and expect further communications from PNM. Brand and Image Studies conducted by a third-party revealed that improvements can be made in frequency of communication, especially during outage events. JD Power results revealed a gap in customer awareness regarding available programs and initiatives, as well as appeals for more and better communication from PNM. When asked what PNM could do to improve customer satisfaction, some JD Power respondents stated, "Communication in all aspects could be improved," "Better communication and interaction," and "Communicating [*sic*] more and in more ways." These are just a few of the requests for additional connections with PNM including more frequent contact from PNM via more avenues.

Q. DO THESE TYPES OF CUSTOMER EDUCATION AND OUTREACH INITIATIVES PROVIDE BENEFITS BEYOND JUST CUSTOMER BENEFITS?

A. Yes, many do. For instance, improving customer understanding and management of energy usage can also have broader benefits, such as reducing overall energy consumption, easing the burden on the electric grid so customers will be ensured reliable service even at times of greatest customer demand (typically the hottest weather events). These efforts will have the additional benefit of reducing greenhouse gas emissions from energy consumption. It is important that customers understand their own energy consumption patterns and practices and are aware of the programs available to help them manage their energy consumption.

VI. CONCLUSION

Q. IN SUMMARY, WHY DOES PNM BELIEVE THAT COST RECOVERY FOR THESE PROGRAMS AND INITIATIVES IS REASONABLE AND APPROPRIATE?

A. PNM believes that providing customers fee-free payment channels will align with utility and other industry best practices and provide customers the payment optionality they desire. In addition, enhanced customer outreach and education will help PNM better understand customers and their expectations, and these enhanced efforts, coupled with more robust staffing at PNM service centers, will also allow PNM to better meet customer needs. The costs associated with these initiatives are reasonable, and part and parcel of meeting customer demand and providing quality service to PNM's customers, and it is therefore appropriate that these costs be recovered through PNM rates.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.

GCG#530078

Resume

PNM Exhibit MAC-1

Is contained in the following 3 pages.

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

TESTIMONY

- 2022 Grid Modernization-NMPRC Case No. 22-00058-UT

Fee Free Credit Card Program Projected Costs

PNM Exhibit MAC-2

Is contained in the following 12 pages.

		48000	45600												
		48000	45600	25% increase											
							fee to continue								
57000	114000	48000	45600	Volume	volume	per transaction	covering free ach								
	228000	48000	45600	57000	48000	1.55	0.55	2.1	$ 119,700.00	$ 359,100.00		Jan	25000	25000	50000
			182400	71250	60000	1.55	0.55	2.1	$ 149,625.00	$ 448,875.00		Feb	25000	2500	27500
				89062.5	75000	1.55	0.55	2.1	$ 187,031.25	$ 561,093.75		Mar	25000	2500	27500
				111328.1	93750	1.55	0.55	2.1	$ 233,789.06	$ 701,367.19	$ 175,341.80	Apr	25000	2500	27500
	146240.6			328640.6								May	25000	2500	27500
	182											Jun	25000	2500	27500
	364											Jul	25000	2500	27500
												Aug	25000	2500	27500
				25% increase								Sep	25000	2500	27500
							fee to continue								
				Volume	volume	per transaction	covering free ach					Oct	25000	2500	27500
				45600	48000	1.55	0.55	2.1	$ 95,760.00	$ 1,149,120.00		Nov	25000	2500	27500
				51528	54240	1.55	0.55	2.1	$ 108,208.80	$ 1,298,505.60		Dec	25000	2500	27500
				58226.64	61291.2	1.55	0.55	2.1	$ 122,275.94	$ 1,467,311.33			300000		352500
				65796.1	69259.056	1.55	0.55	2.1	$ 138,171.82	$ 1,658,061.80					

Month	Monthly Volume	Increase	Total new volume	ACH Volume		per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)	Cost to customers (O&M)	Cost to customers (Capital)	
Jan-22	48000	12000	60000	85000		$ 1.75	$ 0.33	$ 105,000.00	$ 28,050.00	$ 15,000.00	$ 60,000.00	$ 148,050	$ 75,000	
Feb-22	48000	12000	60000	85000		$ 1.75	$ 0.33	$ 105,000.00	$ 28,050.00			$ 133,050		**$ 414,150**
Mar-22	48000	12000	60000	85000		$ 1.75	$ 0.33	$ 105,000.00	$ 28,050.00			$ 133,050		
Apr-22	48000	24000	72000	85000		$ 1.75	$ 0.33	$ 126,000.00	$ 28,050.00			$ 154,050		
May-22	48000	24000	72000	85000		$ 1.75	$ 0.33	$ 126,000.00	$ 28,050.00			$ 154,050		**$ 462,150**
Jun-22	48000	24000	72000	85000		$ 1.75	$ 0.33	$ 126,000.00	$ 28,050.00			$ 154,050		
Jul-22	48000	36000	84000	85000		$ 1.75	$ 0.33	$ 147,000.00	$ 28,050.00			$ 175,050		
Aug-22	48000	36000	84000	85000		$ 1.75	$ 0.33	$ 147,000.00	$ 28,050.00			$ 175,050		**$ 525,150**
Sep-22	48000	36000	84000	85000		$ 1.75	$ 0.33	$ 147,000.00	$ 28,050.00			$ 175,050		
Oct-22	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00			$ 196,050		
Nov-22	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00			$ 196,050		**$ 588,150**
Dec-22	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00			$ 196,050		
Yr 1	576000		936000									**$ 1,989,600**		

Yr	Q1	Q2	Q3	Q4	Total
2022	$ 414,150	$ 462,150	$ 525,150	$ 588,150	$ 1,989,600
2023	$ 588,150	$ 588,150	$ 588,150	$ 588,150	$ 2,352,600

	Monthly Volume	Increase	Total new volume			per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)		Cost to customers	
Jan-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	
Feb-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	**$ 588,150**
Mar-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	
Apr-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	
May-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	**$ 588,150**
Jun-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	
Jul-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	
Aug-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	**$ 588,150**
Sep-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	
Oct-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	
Nov-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	**$ 588,150**
Dec-23	48000	48000	96000	85000		$ 1.75	$ 0.33	$ 168,000.00	$ 28,050.00				$ 196,050	
Yr 2	576000		1152000										**$ 2,352,600**	

Month	Monthly Volume	25%Increase per Q	Total new volume	Total ACH Volume		per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)	Cost to customers (O&M)	Cost to customers (Capital)
Jan-23	60,000	15,000	75,000	98,000		$ 1.85	$ 0.16	$ 138,750.00	$ 15,680.00	$ -	$ 60,000.00	$ 154,430	$ 60,000
Feb-23	60,000	15,000	75,000	98,000		$ 1.85	$ 0.16	$ 138,750.00	$ 15,680.00			$ 154,430	
Mar-23	60,000	15,000	75,000	98,000		$ 1.85	$ 0.16	$ 138,750.00	$ 15,680.00			$ 154,430	
Apr-23	60,000	30,000	90,000	98,000		$ 1.85	$ 0.16	$ 166,500.00	$ 15,680.00			$ 182,180	
May-23	60,000	30,000	90,000	98,000		$ 1.85	$ 0.16	$ 166,500.00	$ 15,680.00			$ 182,180	
Jun-23	60,000	30,000	90,000	98,000		$ 1.85	$ 0.16	$ 166,500.00	$ 15,680.00			$ 182,180	
Jul-23	60,000	45,000	105,000	98,000		$ 1.85	$ 0.16	$ 194,250.00	$ 15,680.00			$ 209,930	
Aug-23	60,000	45,000	105,000	98,000		$ 1.85	$ 0.16	$ 194,250.00	$ 15,680.00			$ 209,930	
Sep-23	60,000	45,000	105,000	98,000		$ 1.85	$ 0.16	$ 194,250.00	$ 15,680.00			$ 209,930	
Oct-23	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00			$ 237,680	
Nov-23	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00			$ 237,680	
Dec-23	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00			$ 237,680	
Yr 1	**720,000**		**1,170,000**									**$ 2,352,660**	

Yr	Q1	Q2	Q3	Q4	Total
2023	$ 463,290	$ 546,540	$ 629,790	$ 713,040	$ 2,352,660
2024	$ 713,040	$ 713,040	$ 713,040	$ 713,040	$ 2,852,160

	Monthly Volum	Increase	Total new volume			per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)		Cost to customers
Jan-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Feb-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Mar-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Apr-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
May-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Jun-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Jul-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Aug-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Sep-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Oct-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Nov-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Dec-24	60,000	60,000	120,000	98,000		$ 1.85	$ 0.16	$ 222,000.00	$ 15,680.00				$ 237,680
Yr 2	**720,000**		**1,440,000**										**$ 2,852,160**

Month	Monthly Volume	Increase	Total new volume	ACH Volume		per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)	Cost to customers (O&M)	Cost to customers (Capital)	
Jan-22	48000	12000	60000	85000		$ 2.00	$ 0.33	$ 120,000.00	$ 28,050.00	$ 15,000.00	$ 60,000.00	$ 163,050	$ 75,000	
Feb-22	48000	12000	60000	85000		$ 2.00	$ 0.33	$ 120,000.00	$ 28,050.00			$ 148,050		**$ 459,150**
Mar-22	48000	12000	60000	85000		$ 2.00	$ 0.33	$ 120,000.00	$ 28,050.00			$ 148,050		
Apr-22	48000	24000	72000	85000		$ 2.00	$ 0.33	$ 144,000.00	$ 28,050.00			$ 172,050		
May-22	48000	24000	72000	85000		$ 2.00	$ 0.33	$ 144,000.00	$ 28,050.00			$ 172,050		**$ 516,150**
Jun-22	48000	24000	72000	85000		$ 2.00	$ 0.33	$ 144,000.00	$ 28,050.00			$ 172,050		
Jul-22	48000	36000	84000	85000		$ 2.00	$ 0.33	$ 168,000.00	$ 28,050.00			$ 196,050		
Aug-22	48000	36000	84000	85000		$ 2.00	$ 0.33	$ 168,000.00	$ 28,050.00			$ 196,050		**$ 588,150**
Sep-22	48000	36000	84000	85000		$ 2.00	$ 0.33	$ 168,000.00	$ 28,050.00			$ 196,050		
Oct-22	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00			$ 220,050		
Nov-22	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00			$ 220,050		**$ 660,150**
Dec-22	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00			$ 220,050		
Yr 1	576000		936000									**$ 2,223,600**		

Yr	Q1	Q2	Q3	Q4	Total
2022	$ 459,150	$ 516,150	$ 588,150	$ 660,150	$ 2,223,600
2023	$ 660,150	$ 660,150	$ 660,150	$ 660,150	$ 2,640,600

	Monthly Volume	Increase	Total new volume			per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)		Cost to customers	
Jan-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	
Feb-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	**$ 660,150**
Mar-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	
Apr-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	
May-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	**$ 660,150**
Jun-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	
Jul-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	
Aug-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	**$ 660,150**
Sep-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	
Oct-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	
Nov-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	**$ 660,150**
Dec-23	48000	48000	96000	85000		$ 2.00	$ 0.33	$ 192,000.00	$ 28,050.00				$ 220,050	
Yr 2	576000		1152000										**$ 2,640,600**	

	Monthly Volume	Increase 50%	Total new volume	ACH Volume		per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)		Cost to customers (O&M)	Cost to customers (Capital)	
Jan-22	48000	9600	57600	85000		$ 1.55	$ 0.55	$ 89,280.00	$ 46,750.00	$ 15,000.00	$ 60,000.00		$ 151,030	$ 75,000	
Feb-22	48000	9600	57600	85000		$ 1.55	$ 0.55	$ 89,280.00	$ 46,750.00				$ 136,030		**$ 423,090**
Mar-22	48000	9600	57600	85000		$ 1.55	$ 0.55	$ 89,280.00	$ 46,750.00				$ 136,030		
Apr-22	48000	14400	62400	85000		$ 1.55	$ 0.55	$ 96,720.00	$ 46,750.00				$ 143,470		
May-22	48000	14400	62400	85000		$ 1.55	$ 0.55	$ 96,720.00	$ 46,750.00				$ 143,470		**$ 430,410**
Jun-22	48000	14400	62400	85000		$ 1.55	$ 0.55	$ 96,720.00	$ 46,750.00				$ 143,470		
Jul-22	48000	19200	67200	85000		$ 1.55	$ 0.55	$ 104,160.00	$ 46,750.00				$ 150,910		
Aug-22	48000	19200	67200	85000		$ 1.55	$ 0.55	$ 104,160.00	$ 46,750.00				$ 150,910		**$ 452,730**
Sep-22	48000	19200	67200	85000		$ 1.55	$ 0.55	$ 104,160.00	$ 46,750.00				$ 150,910		
Oct-22	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350		
Nov-22	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350		**$ 475,050**
Dec-22	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350		
Yr 1	576000		777600										**$ 1,781,280**		

Yr	Q1	Q2	Q3	Q4	Total
2022	$ 423,090	$ 430,410	$ 452,730	$ 475,050	$ 1,781,280
2023	$ 475,050	$ 475,050	$ 475,050	$ 475,050	$ 1,900,200

	Monthly Volume	Increase 50%	Total new volume			per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)		Cost to customers	
Jan-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	
Feb-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	**$ 475,050**
Mar-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	
Apr-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	
May-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	**$ 475,050**
Jun-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	
Jul-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	
Aug-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	**$ 475,050**
Sep-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	
Oct-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	
Nov-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	**$ 475,050**
Dec-23	48000	24000	72000	85000		$ 1.55	$ 0.55	$ 111,600.00	$ 46,750.00				$ 158,350	
Yr 2	576000		864000										**$ 1,900,200**	

	Monthly Volume	Increase	Total new volume	ACH Volume		per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)		Cost to customers (O&M)	Cost to customers (Capital)	
Jan-22	48000	9600	57600	85000		$ 1.90	$ 0.55	$ 109,440.00	$ 46,750.00	$ 15,000.00	$ 60,000.00		$ 171,190	$ 75,000	
Feb-22	48000	9600	57600	85000		$ 1.90	$ 0.55	$ 109,440.00	$ 46,750.00				$ 156,190		**$ 483,570**
Mar-22	48000	9600	57600	85000		$ 1.90	$ 0.55	$ 109,440.00	$ 46,750.00				$ 156,190		
Apr-22	48000	14400	62400	85000		$ 1.90	$ 0.55	$ 118,560.00	$ 46,750.00				$ 165,310		
May-22	48000	14400	62400	85000		$ 1.90	$ 0.55	$ 118,560.00	$ 46,750.00				$ 165,310		**$ 495,930**
Jun-22	48000	14400	62400	85000		$ 1.90	$ 0.55	$ 118,560.00	$ 46,750.00				$ 165,310		
Jul-22	48000	19200	67200	85000		$ 1.90	$ 0.55	$ 127,680.00	$ 46,750.00				$ 174,430		
Aug-22	48000	19200	67200	85000		$ 1.90	$ 0.55	$ 127,680.00	$ 46,750.00				$ 174,430		**$ 523,290**
Sep-22	48000	19200	67200	85000		$ 1.90	$ 0.55	$ 127,680.00	$ 46,750.00				$ 174,430		
Oct-22	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550		
Nov-22	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550		**$ 550,650**
Dec-22	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550		
Yr 1	576000		777600										**$ 2,053,440**		

Yr	Q1	Q2	Q3	Q4	Total
2022	$ 483,570	$ 495,930	$ 523,290	$ 550,650	$ 2,053,440
2023	$ 550,650	$ 550,650	$ 550,650	$ 550,650	$ 2,202,600

	Monthly Volume	Increase	Total new volume			per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)		Cost to customers	
Jan-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	
Feb-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	**$ 550,650**
Mar-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	
Apr-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	
May-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	**$ 550,650**
Jun-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	
Jul-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	
Aug-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	**$ 550,650**
Sep-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	
Oct-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	
Nov-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	**$ 550,650**
Dec-23	48000	24000	72000	85000		$ 1.90	$ 0.55	$ 136,800.00	$ 46,750.00				$ 183,550	
Yr 2	576000		864000										**$ 2,202,600**	

	Monthly Volume	Increase	Total new volume	ACH Volume		per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)		Cost to customers (O&M)	Cost to customers (Capital)	
Jan-22	48000	9600	57600	85000		$ 2.00	$ 0.55	$ 115,200.00	$ 46,750.00	$ 15,000.00	$ 60,000.00		$ 176,950	$ 75,000	
Feb-22	48000	9600	57600	85000		$ 2.00	$ 0.55	$ 115,200.00	$ 46,750.00				$ 161,950		**$ 500,850**
Mar-22	48000	9600	57600	85000		$ 2.00	$ 0.55	$ 115,200.00	$ 46,750.00				$ 161,950		
Apr-22	48000	14400	62400	85000		$ 2.00	$ 0.55	$ 124,800.00	$ 46,750.00				$ 171,550		
May-22	48000	14400	62400	85000		$ 2.00	$ 0.55	$ 124,800.00	$ 46,750.00				$ 171,550		**$ 514,650**
Jun-22	48000	14400	62400	85000		$ 2.00	$ 0.55	$ 124,800.00	$ 46,750.00				$ 171,550		
Jul-22	48000	19200	67200	85000		$ 2.00	$ 0.55	$ 134,400.00	$ 46,750.00				$ 181,150		
Aug-22	48000	19200	67200	85000		$ 2.00	$ 0.55	$ 134,400.00	$ 46,750.00				$ 181,150		**$ 543,450**
Sep-22	48000	19200	67200	85000		$ 2.00	$ 0.55	$ 134,400.00	$ 46,750.00				$ 181,150		
Oct-22	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750		
Nov-22	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750		**$ 572,250**
Dec-22	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750		
Yr 1	576000		777600										**$ 2,131,200**		

Yr	Q1	Q2	Q3	Q4	Total
2022	$ 500,850	$ 514,650	$ 543,450	$ 572,250	$ 2,131,200
2023	$ 572,250	$ 572,250	$ 572,250	$ 572,250	$ 2,289,000

	Monthly Volume	Increase	Total new volume			per credit card transaction fee	fee to continue covering free ach	CC customers	ACH customers	Implementation cost (external)	Implementation cost (internal)		Cost to customers	
Jan-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	
Feb-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	**$ 572,250**
Mar-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	
Apr-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	
May-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	**$ 572,250**
Jun-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	
Jul-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	
Aug-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	**$ 572,250**
Sep-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	
Oct-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	
Nov-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	**$ 572,250**
Dec-23	48000	24000	72000	85000		$ 2.00	$ 0.55	$ 144,000.00	$ 46,750.00				$ 190,750	
Yr 2	576000		864000										**$ 2,289,000**	

Location	Kiosk Fee	Annual cost	Maintenance Costs	Labor	Buildings (sale)	Courier Costs	Implementation costs (internal)	Construction costs (capital?)	Implementation costs (external)	Cost to customers (O&M)	Cost to customers (Capital)	Total Costs	
Albuquerque	$ 2,625.00	$ 31,500.00		$ 16,127.00		$ 15,667.04	$ 7,500.00	$ 60,000.00		$ 63,294.04	$ 67,500.00	$ 130,794.04	
Alamogordo	$ 2,625.00	$ 31,500.00		$ 16,127.00		$ 9,104.00		$ 60,000.00		$ 56,731.00	$ 60,000.00	$ 116,731.00	
Deming	$ 2,625.00	$ 31,500.00		$ 16,127.00		$ 12,612.00		$ 60,000.00		$ 60,239.00	$ 60,000.00	$ 120,239.00	
Las Vegas	$ 2,625.00	$ 31,500.00		$ 16,127.00		$ 12,404.00		$ 60,000.00		$ 60,031.00	$ 60,000.00	$ 120,031.00	
Ruidoso	$ 2,625.00	$ 31,500.00		$ 16,127.00		$ 9,060.00		$ 60,000.00		$ 56,687.00	$ 60,000.00	$ 116,687.00	
Silver City	$ 2,625.00	$ 31,500.00		$ 16,127.00		$ 8,930.00		$ 60,000.00		$ 56,557.00	$ 60,000.00	$ 116,557.00	
	$ 15,750.00	$ 189,000.00		$ 96,762.00		$ 67,777.04	$ 7,500.00	$ 360,000.00		$ 353,539.04	$ 367,500.00	$ 721,039.04	88,384.76

$ 90,000.00

$ 16,127.33

Loomis
$ 7,800.00

Location	Kiosk Fee	Annual cost	Maintenance Costs	Labor	Buildings (sale)	Courier Costs	Implementation costs (internal)	Construction costs (capital?)	Implementation costs (external)	Cost to customers (O&M)	Cost to customers (Capital)	Total Costs
Albuquerque	$ 5,650.00	$ 67,800.00				$ 15,667.04	$ 7,500.00			$ 83,467.04	$ 7,500.00	$ 90,967.04
Albuquerque #2	$ 5,650.00	$ 67,800.00				$ 15,667.04				$ 83,467.04	$ -	$ 83,467.04
Alamogordo	$ 2,625.00	$ 31,500.00				$ 9,104.00				$ 40,604.00	$ -	$ 40,604.00
Alamogordo #2	$ 2,625.00	$ 31,500.00				$ 9,104.00				$ 40,604.00	$ -	$ 40,604.00
Deming	$ 2,625.00	$ 31,500.00				$ 12,612.00				$ 44,112.00	$ -	$ 44,112.00
Deming #2	$ 2,625.00	$ 31,500.00				$ 12,612.00				$ 44,112.00	$ -	$ 44,112.00
Las Vegas	$ 2,625.00	$ 31,500.00				$ 12,404.00				$ 43,904.00	$ -	$ 43,904.00
Ruidoso	$ 2,625.00	$ 31,500.00				$ 9,060.00				$ 40,560.00	$ -	$ 40,560.00
Silver City	$ 2,625.00	$ 31,500.00				$ 8,930.00				$ 40,430.00	$ -	$ 40,430.00
	$ 29,675.00	$ 356,100.00		$ -		$ 105,160.08		$ -		$ 461,260.08	$ 7,500.00	$ 468,760.08

115,315.02

$ 16,127.33

Loomis
$ 7,800.00

Max scenario (100% increase in CC payments)

Yr	Q1	Q2	Q3	Q4	Total
2021	$ 502,535	$ 550,535	$ 613,535	$ 676,535	$ 2,343,139
2022	$ 703,465	$ 703,465	$ 703,465	$ 703,465	$ 2,813,860

Min scenario (50% increase in CC payments)

Yr	Q1	Q2	Q3	Q4	Total
2021	$ 511,475	$ 518,795	$ 541,115	$ 563,435	$ 2,134,819
2022	$ 590,365	$ 590,365	$ 590,365	$ 590,365	$ 2,361,460

Max scenario (100% increase in CC payments)

Yr	Q1	Q2	Q3	Q4	Total
2021	$ 551,675	$ 634,925	$ 718,175	$ 801,425	$ 2,706,199
2022	$ 828,355	$ 828,355	$ 828,355	$ 828,355	$ 3,313,420

Min scenario (50% increase in CC payments)

Yr	Q1	Q2	Q3	Q4	Total
2021	$ 571,955	$ 584,315	$ 611,675	$ 639,035	$ 2,406,979
2022	$ 665,965	$ 665,965	$ 665,965	$ 665,965	$ 2,663,860

Max scenario (100% increase in CC payments)

Yr	Q1	Q2	Q3	Q4	Total
2021	$ 547,535	$ 604,535	$ 676,535	$ 748,535	$ 2,577,139
2022	$ 775,465	$ 775,465	$ 775,465	$ 775,465	$ 3,101,860

Min scenario (50% increase in CC payments)

Yr	Q1	Q2	Q3	Q4	Total
2021	$ 589,235	$ 603,035	$ 631,835	$ 660,635	$ 2,484,739
2022	$ 687,565	$ 687,565	$ 687,565	$ 687,565	$ 2,750,260

E Source “Say Goodbye to Credit Card Payment Convenience Fees”

PNM Exhibit MAC-3

Is contained in the following 15 pages.

E Source

Say goodbye to credit card payment convenience fees

Stories of success and tips to get you there

By Lisa Schulte, Katie Ruiz, Keenan Samuelson

December 10, 2019

Contents

Eliminating credit and debit card fees improves customer experience (CX), decreases the payment burden on customers already struggling to pay bills, and provides customers with a low-effort means to pay their utility bill. So how can utilities make the case to their public utility commission or city council to remove these fees? We've found four main arguments to use:

- Customers expect fee-free payments. Failing to meet these expectations hurts the overall CX.
- Utilities already include costs for other payment channels within their rates, including for walk-in centers and check processing. Credit and debit cards should be treated the same.
- Fees are burdensome to low-income customers. And to avoid these fees, customers go to high-effort channels to pay their bills.
- Offering fee-free bank card payments shifts customers to low-cost channels, encourages self-service, and reduces customer service costs. (Throughout this report, we use the term bank card to encompass credit and debit cards.)

What's the benefit of eliminating bank card fees?

Customers like and use bank cards to pay their bills. The Federal Deposit Insurance Corp. (FDIC) conducts a National Survey of Unbanked and Underbanked Households (PDF) every two years, most recently done for 2017, to understand the banking habits and behaviors of US households (**figure 1**). It found that while electronic bank payment is the top bill-pay method, bank card payments make up a significant portion.

Figure 1: How customers are paying their monthly bills

According to FDIC research, while US customers use bank transfers and personal checks most frequently, nearly half of customers use a debit card and a quarter use a credit card to pay household bills in a typical month.

Method used for bill pay in a typical month	Percentage of customers
Electronic bank transfer	68.4
Personal check	61.3
Debit card	47.3
Credit card	24.8
Cash	15.9
Nonbank money order	6.9
Bank money order	5.7
Prepaid debit card	2.3
Other	1.2

Note: Based on data from over 35,000 US households.

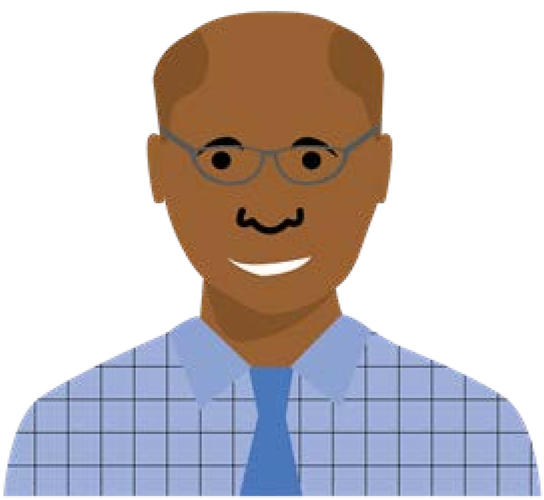
Looking at banking status, card usage varies significantly. For example, while prepaid card usage is low overall, it's a significant means of bill pay for those without bank accounts. Over one-fifth of unbanked customers rely on this method for paying bills. Among underbanked customers, debit card usage is nearly equal to electronic bank payments.

What do fully banked, underbanked, and unbanked mean?

The FDIC defines fully banked households as households that had a bank account and didn't use alternative financial services (AFSs) in the past 12 months. It considers underbanked households as households with a checking or savings account that also used one of the following products or services from an AFS provider in the past 12 months: money orders, check cashing, international remittances, payday loans, refund anticipation loans, rent-to-own services, pawnshop loans, or auto title loans. Unbanked households are households where no one in the household had a checking or savings account.

Top bill-pay methods by banking status

Payment behaviors, especially the use of credit, debit, and prepaid cards, are highly influenced by how customers bank.



Fully banked:

- 73% pay by electronic bank payments
- 68% personal check
- 46% debit card
- 26% credit card
- 10% cash

Underbanked:

- 67% pay by electronic bank payments
- 63% debit card
- 52% personal check
- 26% cash
- 25% credit card

Unbanked:

- 66% pay by cash
- 39% nonbank money order
- 22% prepaid card
- 13% bank money order
- 8% credit card

Learn more about underbanked and unbanked customers' payment needs

Our report How Emerging Payment Options Can Better Serve Customer Needs dives further into customer payment behaviors and needs. In it, we also evaluate six emerging payment channels to consider.

Customers like to pay bills via credit and debit cards because they offer:

- Security
- Convenience
- Rewards
- Other benefits

Security, especially for online payments

According to the 2018 TSYS US Consumer Payment Study, customers view credit cards as the most secure means of making an online payment. Customers also viewed debit cards as secure, trailing credit cards and PayPal. TSYS is a US-based payment solutions company.

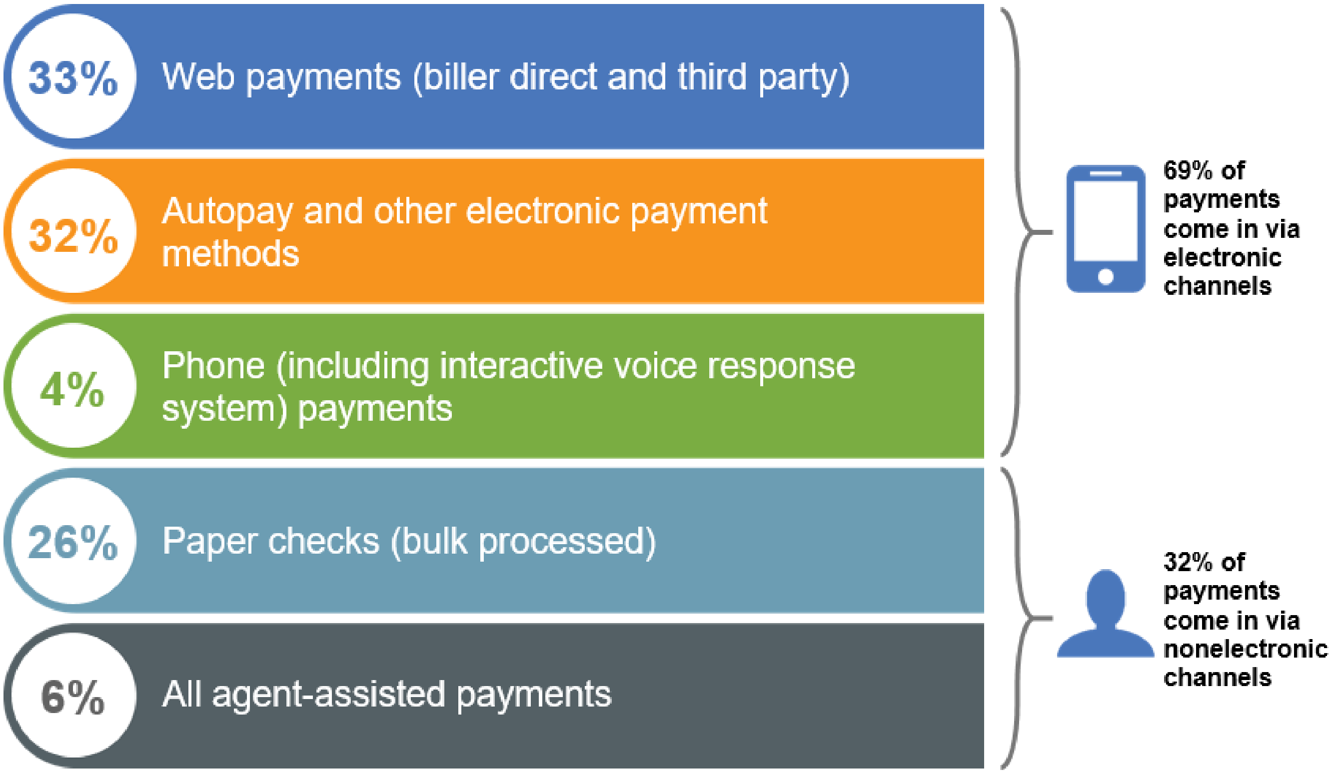
Convenience

Through bank cards, customers can make digital payments online via the website, through mobile apps, or through mobile wallets. For unbanked customers, prepaid debit cards offer opportunities for lower-effort payments—customers receiving government benefits often receive these benefits via prepaid debit cards. Instead of relying on in-person cash payments, prepaid cards give customers access to quicker, more-convenient digital options.

Bank cards align well with the increasing shift toward digital payments. In the 2018 E Source Digital Metrics Survey, we found that 69% of customers used electronic channels to make payments, up from 60% in 2016 (**figure 2**).

Figure 2: Electronic versus nonelectronic payment usage

Customers are increasingly reliant on electronic channels for bill pay—and bank cards are well suited to these channels.



Base: Number of utilities (varies by method). **Questions:** Please list the count of all payments your utility received for the calendar year 2017 (for example, if one account was paid for once a month for 12 months, that would add up to 12 payments for the year). Electronic channels include: phone interactive voice response system, biller-direct website, third-party website, automatic payment, other fully electronic payment. Nonelectronic channels include: bulk-processed paper checks, agent-assisted walk-in, agent-assisted other. **Note:** Percentages reflect averages.

© E Source (2018 Digital Metrics Survey)

Rewards

By paying bills with their credit cards, customers earn rewards like cash back and travel perks. Arcadia Power, a company that offers customers clean-energy credits and other services, uses fee-free credit card payments—a benefit to enrolling. In the 2018 press release [You Can Now Use Your Power Bill to Get Points at No Cost], Arcadia Power announced its fee-free option saying, “Not only will your monthly electricity bill support renewable energy, it will contribute to your flight miles, cash back fund, or any other credit card point benefits you enjoy.”

Other benefits

Additional reasons customers use bank cards to pay their utility bills include:

- Budget management
- Immediacy of payment processing
- Increasing market representation—younger customers like bank cards

Which utilities have eliminated their bank card fees?

In the 2019 [E Source Review of North American Electric and Gas Company Websites], we found that of the 109 utilities reviewed, 37% don't charge a fee for credit card payments. This number is higher for debit cards, where 41% of utilities aren't charging fees for these payments. In **figure 3**, we highlight 21 utilities that don't charge convenience fees.

Figure 3: Utilities with no bank card convenience fees

Investor-owned and municipal utilities are eliminating bank card fees. This option is more-often available to residential customers as a one-time payment than as a recurring, automatic payment.

Utility	When the utility eliminated the fee	Restrictions
Alliant Energy Corp.[a]	2018	Wisconsin only
Atmos Energy	—	Residential only
Avista Utilities	2017	$3,000 limit
City of Long Beach, California	2018	
Columbia Gas of Maryland	2016	Maryland only, other NiSource companies still have fees
Consumers Energy	2016	Autopay permitted
DTE Energy	2005	Autopay permitted
Evergy Inc.[b]	KCP&L in 2006, Westar Energy in 2014	Residential only
Los Angeles Department of Water and Power	—	Residential only
Memphis Light, Gas and Water	2010	Residential only

Notes: a. In state filings, Alliant Energy Corp. is referred to as Wisconsin Power and Light (WPL). WPL does business as Alliant Energy Corp.
b. KCP&L and Westar Energy merged in 2018. They're now known as Evergy.

© E Source; data from utility websites and rate filings

Utility	When the utility eliminated the fee	Restrictions
Minnesota Power	2018	$500 limit for residential, $800 for business (multiple payments must be made beyond this)
New York State Electric & Gas and RG&E	2017	
NW Natural	2012	Autopay permitted
Portland General Electric	2014	$4.95 processing fee for business accounts
PSE	2016	2.7% fee for large commercial accounts
Sacramento Municipal Utility District	pre-2007	
Silicon Valley Power	pre-2007	
Snohomish County PUD	—	
Tacoma Public Utilities	pre-2007	
Toronto Hydro	—	Accepted only when a disconnect is pending or has occurred
Washington Gas	2012	

Notes: a. In state filings, Alliant Energy Corp. is referred to as Wisconsin Power and Light (WPL). WPL does business as Alliant Energy Corp.
b. KCP&L and Westar Energy merged in 2018. They're now known as Evergy.

Which utilities haven't eliminated bank card fees?

Credit card payment options are rare among Canadian utilities, especially fee-free options. Alectra Utilities, BC Hydro, FortisBC, Hydro One, London Hydro, and SaskPower do offer credit card payments, but they all work with a third-party vendor and charge fees through those vendors. Enmax offers a fee-free option, but only to its retail customers and only online. For its regulated customers, the utility doesn't offer credit card payments. Enmax offers customers contracted retail plans as well as a more traditional regulated rate. On the retail plan, customers can purchase power from third-party sources or from Enmax's deregulated arm. Because its regulated offering requires regulatory approval for credit card payments, the utility doesn't give customers this payment option.

How much do fees typically cost customers?

In our 2018 Digital Metrics Survey, we found that among utilities that charge credit card fees, the average fee is US$2.00 to US$2.50 for residential accounts and US$19.00 to US$20.00 for business accounts, with some utilities charging as much as US$30.00 in fees. Some utilities don't charge residential customers fees but still charge business customers. Utilities reported charging these customers a specific fee per US$1,000, or they only charged commercial customers if the total payment was over a specific dollar amount. Others charge a flat percentage of the payment or a higher percentage for credit card payments than for debit card payments.

What role do vendors have?

According to our 2019 website review, if utilities use third-party payment vendors, they're more likely to charge bank card fees (**figure 4**). We found that 65% of utilities rely on third-party vendors for their credit card payments and 86% of these utilities are charging a fee. Among utilities that manage payments in-house, just 21% are charging fees.

Figure 4: Credit card fees and use of third-party payment vendors

Utilities using third-party payment vendors—such as Western Union, BillMatrix Corp., and Paymentus—are more likely to charge a credit card fee than utilities that manage their payments in-house.

	Utilities charging a fee (%)	Utilities not charging a fee (%)
Use third-party payment vendor (n = 71 utilities)	86	14
Manage payments in-house (n = 38 utilities)	21	79

Base: n = 109 utilities.

Do removing bank card fees affect adoption rates?

We compared adoption rates among utilities with and without fees to see if fees affect adoption. (For the purposes of this report, we define adoption rate as the amount of customers using bank card payments. We've seen customers gradually adopt this payment method as it becomes more common across utilities.) According to the 2018 Digital Metrics Survey, the average adoption rate for credit and debit card payments was 8%.

Three utilities without bank card fees provided an adoption rate in our study. These rates were significantly higher than the 8% overall adoption rate, with rates of 25%, 20%, and 19%. Among the utilities that do charge fees, 20 provided us with their adoption rates. While 2 of the 20 utilities had double-digit adoption rates (20% and 16%), all others reported single-digit adoption rates.

Our data suggests that eliminating fees will cause higher bank card usage for utility payments. This theory goes beyond our findings as well—four utilities that eliminated card fees saw adoption rise between 5% to 16%:

- WGL Energy eliminated fees in 2012, when only 2% of all payments were made via bank cards. In the five years after, adoption rose to 7.4%.
- Portland General Electric had credit card usage of 2.5% in 2012. After eliminating fees, usage rose to 13%, which actually fell short of the projected increase to 17%.
- PSE saw 8% of customers using credit cards in 2015 and eliminated fees in 2016. By May 2018, the adoption rate was 15.8%.
- When Avista Utilities eliminated fees in 2014, its credit card adoption rate was 5.7%. Adoption increased to 21.8% by March 2018.

You can read more about these utilities' adoption rates in the filings Staff Comments and Exhibits BGE Prepaid Pilot (PDF) and WPL Credit Card Transaction Fees (DOCX).

While increased adoption will also increase the amount of processing costs for bank cards, there are benefits for utilities using third-party vendors. Increased adoption will likely let utilities negotiate lower per-transaction fees with their vendors.

How can you justify eliminating fees?

We spoke with three utility companies that don't charge bank card convenience fees—DTE Energy, KCP&L (now Evergy Inc.), and Silicon Valley Power (SVP). We also evaluated the successful arguments PSE, Minnesota Power, Avista, and Alliant Energy Corp. (referred to as Wisconsin Power and Light [WPL] in its rate filings) made to their regulatory bodies in order to eliminate fees.

Below are four successful ways these utilities have justified removing fees—consider using them in your business case.

Improve the customer experience

Customers expect to be able to make payments via bank cards and increasingly expect these payments to be fee-free. While it's challenging to quantify the exact increase in customer satisfaction caused solely from ditching the credit card fees, KCP&L and DTE both reported positive reactions and remarks from customers.

Patrick Duffy, customer service manager at DTE, told us that customer satisfaction has increased at the utility since it eliminated fees, though DTE also made several changes that could have affected CX at the time. He added, "By eliminating fees, you're giving customers something that they already expect—eliminating a dissatisfier instead of adding something that they want."

> **"By eliminating fees, you're giving customers something that they already expect—eliminating a dissatisfier instead of adding something that they want." —Patrick Duffy**

By offering no-fee credit card payments, KCP&L has helped to serve its low-income customers in a big way. We talked with Randy Vance, digital strategy manager at KCP&L, in 2013 before the utility merged with Westar Energy to become Evergy. Vance said, "The part of the market where no-fee credit card payments makes a big difference is for people without checking accounts or those who have had returned checks. Many times, they need to get their lights back on or prevent a turnoff, and a credit card is their only option to get their bill paid."

KCP&L first offered customers the option to make payments by credit card with a convenience fee, but then eliminated credit card payments altogether. KCP&L noted that during the period when credit card payments weren't accepted, no-fee credit card payment was the number-one requested item by customers using the website. Since it changed to no-fee credit card payments, KCP&L has received only positive comments and feedback on the topic.

SVP decided to offer a no-fee credit card payment option as another way to provide a positive CX. In SVP's case, the decision to cover the cost of credit card processing fees came from the top. According to a spokesperson at SVP, a previous city manager was opposed to charging credit card fees. And in the interest of being customer-friendly, charging fees didn't seem viable. Gaining the support of an executive within your utility is often critical to the success in eliminating credit card payment fees, and the financial and customer satisfaction benefits outlined here should help you make your pitch to get there.

Customer experience is also a common theme in the successful rate filings we reviewed. Minnesota Power noted that credit card fees are often a cause of customer dissatisfaction in its J.D. Power survey, while PSE and Avista maintain that fees clash with customer expectations. For example, in its filing, For an Order Authorizing Accounting and Ratemaking Treatment of Fees for Payments Made by Residential and Small-Business

Customers (DOCX), PSE argues the following:

> The requirement to pay a fee when making a payment with a bank card is one of the largest frustrations customers express and has become antiquated in most consumer transactions. Because most commercial entities now do not charge an additional fee for a bank card payment, customers have grown accustomed to paying for products and services with a bank card without a separate, additional fee.

WPL also nicely summarizes why it believes fee-free payments will improve the customer experience in Wisconsin Power and Light Company Proposed Tariffs Revisions to Credit Card and Late Payment Fees (PDF):

> The elimination of credit-card convenience fees is a component of WPL's larger ongoing effort to make bill payment as easy and convenient as possible for customers. This policy change is a step toward providing more payment alternatives to customers, enhancing customer choice, convenience, and control over bill payments.

Treat bank card fees like other payment and billing options

Utilities incorporate other payment methods, like check processing and walk-in center operations, into their recovered costs, with only bank card fees passed onto customers. This was a main argument for eliminating fees in PSE's rate filing.

The table in **figure 5** was included in the filing. It summarizes the costs associated with PSE's payment offerings and highlights that bank card payments are unique in being passed directly to the customer.

Figure 5: PSE's payment-processing costs

Prior to eliminating fees, PSE paid payment-processing costs ranging from $0.18 for lockboxes to $54.73 for field collections. Only credit and debit card fees were passed directly to customers.

2015 payment processing	2015 transaction count	Payment mix (by count) (%)	Annual revenue collected ($)	PSE cost to process ($)	PSE average cost per transaction ($)	Customer cost to process ($)	Customer cost per transaction ($)
Mail-in (lockbox)[a]	5,241,509	33.3	1,369,680,616	953,077	0.18		0.00
Electronic payment	8,624,536	54.7	1,082,943,369	1,678,928	0.19		0.00
Credit or debit card	1,296,639	8.2	206,414,117	0	0.00	2,593,278	2.00
Pay station (third party)	290,642	1.8	39,266,120	219,995	0.76		0.00
PSE business office	163,803	1.0	70,998,321	813,972	4.97		0.00
Field collection	49,373	0.3	9,067,045	2,702,384	54.73		0.00
Collection agency	20,366	0.1	1,836,117	460,297	22.60		0.00
Other payments[b]	72,696	0.5	192,896,526	106,565	1.47		0.00
Total	15,759,564	100.0	2,973,102,229	6,935,218	0.44	2,593,278	2.00

Notes: a. Customers have free methods to drop off checks or mail them in (though they pay the cost of the stamp).
b. Large commercial and government special electronic payment (for example, electronic data interchange).

© E Source; adapted from PSE rate filing—For an Order Authorizing Accounting and Ratemaking Treatment of Fees for Payments Made by Residential and Small-Business Customers

Provide a low-effort payment option to low-income customers

Nearly one in five unbanked customers are using prepaid debit cards to pay their bills. This segment is primarily low income, with 45% of those classified as unbanked making less than $15,000 per year. Fees are a bigger burden for these customers and create a barrier to prepaid card payments.

> **Fees are a bigger burden for low-income customers because it stops them from paying with prepaid cards—how social services benefits are often distributed. This directs these customers to higher-cost channels for bill pay.**

In its filing, PSE noted that prepaid cards are used to distribute social services benefits. PSE argued that this increases the number of low-income customers using bank card options to pay bills, all the more reason to eliminate fees.

Minnesota Power also used this argument in its successful rate case. Detailed in its testimony to the state regulators, In the Matter of the Application of Minnesota Power for Authority to Increase Rates for Electric Utility Service in Minnesota (PDF), the utility echoes PSE's argument—benefits are increasingly distributed via prepaid card and these cards are an important bill-pay method for low-income customers. Removing as many barriers to bill pay as possible will help customers avoid falling behind on their utility payments and Minnesota Power expects "that giving customers voluntary options to pay by the method of their choice without incurring additional per-transaction fees will lead to more regular payments and greater customer satisfaction."

From the credit and collections perspective, customers that previously were unable to pay their bills or that couldn't pay on time now have a low-effort method to make successful payments. This helps maintain a healthy, incoming cash flow for the utility. As Duffy, DTE's customer service manager, said, "By eliminating fees, we've encouraged many customers to make partial payments several times a month, something they wouldn't do if each payment involved fees. While I can't quantify it due to too many other moving pieces, eliminating credit card payment fees has increased our incoming cash flow."

Shift customers to lower-cost channels and reduce overall cost to serve

Some utilities justify accepting credit cards because the associated costs are offset in whole or in part by savings. Credit card payments are often associated with cheaper self-service channels, so utilities can consider limiting no-fee credit card payments to customers who pay via phone or online through self-service. By shifting payments away from manual processing, a utility can expect to see savings.

Encourage customers to self-serve. Avista summarized this argument in its rate case, saying, "customers that self-serve, pay on time, and are satisfied with the options they have are the least expensive to serve, which is a benefit to all customers. Customers that do not pay on time and end up in the credit collections cycle drive increased costs, which are paid for by all customers." The utility predicted that fee-free bank card payments would reduce customer service calls related to bill pay, though it didn't have a specific estimate of how much they would decrease.

PSE used the same argument in its filing and also asserted that bank card autopay can further reduce costs, noting "customers electing credit or debit card recurring payments will reduce the level of expensive and inefficient bill collection systems such as reminder calls and emails, and mailed notices for late payments, which also increases costs."

Enroll customers in paperless billing. KCP&L offered recurring credit card payments and required participating customers to go paperless, another tactic for reducing costs. "That doesn't fully cover the cost of the payment transaction, but it at least covers part of it," said Vance. KCP&L didn't require customers making individual credit card payments to go paperless. When DTE Energy introduced no-fee credit card payments in November 2005, it limited them to customers participating in its paperless billing program to help offset the cost of the credit card fee. After approval of the policy by the senior executive team, DTE eliminated fees from all customer credit card payments.

Enhancing Customer Payment Approaches Report by Edison Electric Institute

PNM Exhibit MAC-4

Is contained in the following 17 pages.

Edison Electric INSTITUTE

Customer Solutions

Enhancing Customer Payment Approaches to Better Serve Residential and Small Business Customers

Issue Brief | May 2022

Prepared by: Adam Cooper, Lisa Wood, and Mike Shuster

JD Power and other studies show that customers highly value choice in payment options and that includes digital options. Year over year, data show that electric company customers continue to shift from using paper checks to digital payment options (e.g., website, app, text, electronic bank payment, credit cards, and debit cards, Apple Pay, and Google Pay). As customer preferences continue to change, the electric power industry increasingly is expanding its digital payment channels and accepted payment methods beyond credit and debit cards to include Apple Pay, Amazon Pay, PayPal, and Venmo to provide the payment options that customers want. As a result, electric companies are looking to put all payment options on a level playing field for customers by eliminating fees for certain payment options such as credit and debit card fees.[1] Today, at least 31 investor-owned electric companies have regulatory approval for some type of cost recovery to support fee-free credit and debit card payments.

Offering fee-free payment options improves customer satisfaction, aligns electric companies with payment trends of other industries, and supports the growing number of customers who prefer the convenience of digital payments but are disgruntled by having to pay a "fee" when using a credit or debit card for payment. For the roughly five percent of unbanked customers in the United States

[1] Joint Companies Testimony on Fee Free D.P.U. 20-91 Exhibit JC-Testimony-1 March 8, 2021, Page 20 of 49. https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/13232062

who rely on pre-paid cards that act like a debit or credit card to pay their bills, eliminating these fees provides direct benefits to this population.[2]

This issue brief discusses emerging digital payment trends, the benefits of expanding fee-free payment options, the types of customers using different payment options, and why creating a level playing field across payment options makes sense. It also provides an overview of the current regulatory treatment for digital payment options.

Digital Payment Trends: The New Normal

Today's residential and small business customers expect bill payment options from electric companies to be consistent with what they experience in other areas of their lives and business interactions; customers want digital payment options. According to McKinsey & Company's ***2021 Digital Payments Consumer Survey***, in 2021, 82 percent of Americans used a digital payment channel – defined to include browser-based or in-app online purchases, in-store checkout using a mobile phone and/or QR code, and person-to-person payments compared to 78 percent in 2020, and 72 percent five years ago.[3]

Figure 1 illustrates 2021 consumer survey results from Fiserv, an industry leader in payment card processing, on customer preferences for various bill pay options.[4] When asked how important it is to offer different ways to pay, 84 percent say paying by credit card is either a "must have" or "nice to have" and 79 percent say the same for debit card payments. For younger customers (millennials or Gen Z) the results are even more dramatic: 94 percent say payment by debit cards is a "must have" or "nice to have." Most customers say digital methods such as digital payment apps and mobile wallets are a "must have" or "nice to have."

Digital payments are the new normal. A 2019 study by The Federal Reserve Bank of Boston showed that growth in the use of credit and debit-card transactions increased by almost **nine percent per year** on average between 2015 and 2018.[5] One example of this trend is the U.S. federal government, which is moving toward electronic payments and away from checks and

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[2] Federal Deposits Insurance Corporation. October 2020. "How America Banks: Household Use of Banking and Financial Services." https://www.fdic.gov/analysis/household-survey/

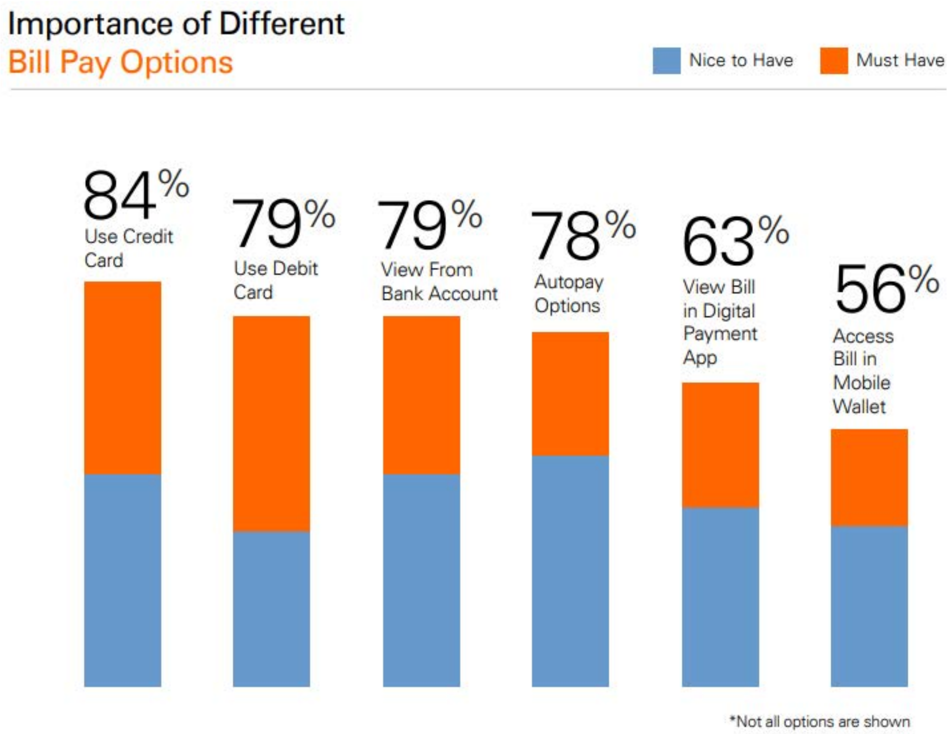
[3] McKinsey & Company. Oct 2021. "New Trends in US Consumer Digital Payments." https://www.mckinsey.com/industries/financial-services/our-insights/banking-matters/new-trends-in-us-consumer-digital-payments

[4] Fiserv. Feb 2021. "Consumer Payments." https://www.fiserv.com/content/dam/fiserv-ent/final-files/graphics/infographics/EE_Consumer_Payments_Executive_Summary_0221.pdf

[5] Board of Governors of the Federal Reserve System. Dec 2019. "The 2019 Federal Reserve Payments Study". https://www.federalreserve.gov/paymentsystems/2019-December-The-Federal-Reserve-Payments-Study.htm

cash. Individuals can now choose to receive their Social Security benefits through debit cards and some individuals received their COVID-19 federal stimulus payments on a Visa prepaid debit card.

Figure 1. Consumer Survey on Importance of Different Bill Pay Options (Fiserv 2021)



Source: Fiserv Consumer Payments (February 2021)

Despite this trend, electric company customers often have limited access or fee-based access to digital payment options. These customers often complain about digital payment fees because they do not see these fees for other purchases. Based on Eversource's recent Billing & Payments survey in Massachusetts, approximately 41 percent of the customers surveyed indicated that the only reason they do not pay their utility bill with a credit or debit card is because of the fee.[6] And, approximately 16 percent of dissatisfied customer comments (related to Billing & Payments) are dissatisfaction with credit and debit card fees.

In instances when electric companies offer digital options to customers without additional fees, more customers choose to use digital payments. Fiserv conducted research for electric companies comparing bill payment methods with and without fees. The results show that companies that

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[6] Joint Companies Testimony on Fee Free D.P.U. 20-91 Exhibit JC-Testimony-1 March 8, 2021, Page 20 of 49. https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/13232062

offered fee-free bill payment methods experienced at least double the year-over-year increase in the number of credit card transactions than those that offered fee-based bill payment methods.[7]

In 2018, a Con Edison quarterly customer experience survey included the question: "How can we improve your overall experience with Con Edison?" One of the top responses to this question was that Con Edison should allow for fee-free credit card/debit card payments. In 2020, Con Edison responded by offering fee-free digital payment options to residential and small commercial customers. Credit card usage increased from five percent in 2019 to 10 percent in 2021 after dropping the credit and debit card fees.

In 2018, in a filing to the South Carolina Public Service Commission, Duke Energy cited its monthly residential customer transaction surveys.[8] When asked what they liked least about their billing and payment experience, customers noted:

- *"Take away the service charge. I just don't understand why you want to charge somebody $1.50."*
- *"The only thing that I can say is I think they want to penalize you. If you want to pay a certain way, they charge you extra."*

Duke Energy responded in 2019 by offering fee-free credit and debit card payments for residential customers in South Carolina. Despite an overall decline in total payment volumes stemming from the COVID-19 pandemic in 2020 and 2021, Duke Energy still experienced an increase of approximately 7 percent in card payments in South Carolina. Duke Energy has recently expanded its residential fee-free offering to North Carolina and Florida.

In January 2017, Consumers Energy removed credit and debit card payment fees. The use of credit and debit cards as a percent of total transactions increased from 16 percent in January of 2017 to 22 percent in 2018. Today, residential and business customer card use accounts for 32 percent of customer payments (see Figure 2).[9] Consumers Energy expects credit card transactions to continue to grow.

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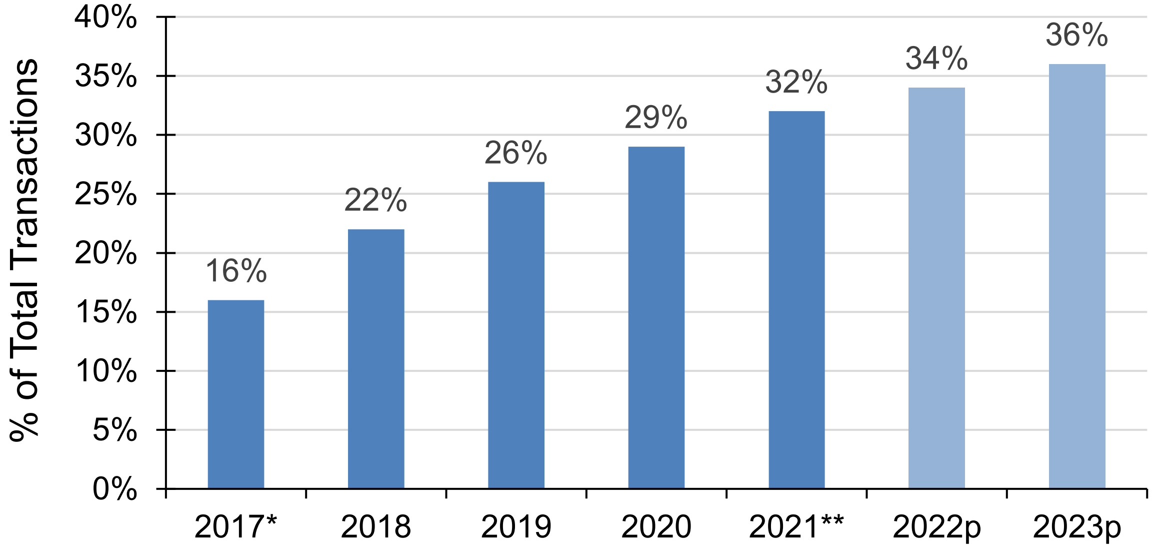
[7] DOCKET NO. 2018-319-E, Lesley Quick Testimony. https://dms.psc.sc.gov/Attachments/Matter/c259ab6b-0131-4a40-9a5b-8999beeb46fb

[8] Ibid.

[9] Consumers Energy. Case No. U-20697 *"Direct Testimony of Michael A. Torrey"*. February 2020. https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t000000AEOofAAH

Figure 2. Consumers Energy: Residential and Business Customer Credit Card Payments 2017-2023 (Percent of Total Payment Transactions)



*Credit Card fees removed in Jan 2017
**2021 includes actual usage through August and forecasted data from Sept.to Dec.
Source: Consumers Energy

More customers, particularly younger customers, are using payment options such as PayPal, Amazon Pay, Google Pay, and Apple Pay. At least seven electric companies offer these digital payment methods. Giving customers the option to pay by their method of choice, without incurring additional transaction fees, leads to greater customer satisfaction.

An Eversource and National Grid joint 2021 filing in Massachusetts cited the importance of convenient payment options to customer satisfaction. Specifically, they referred to a prior filing where the Massachusetts Department of Public Utilities stated that it “recognizes the importance of maintaining customer satisfaction by offering convenient payment options to customers.”[10]

Types of Residential Customers Using Digital Payment Options

All types of customers, including low-income customers and small business customers, benefit from having access to fee-free digital payment methods to pay electric company bills.

[10] Joint Companies Testimony on Fee Free D.P.U. 20-91 Exhibit JC-Testimony-1 March 8, 2021, Page 16. https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/13232062

- At Eversource in Connecticut, low-income customers made up about 17 percent of all residential customer credit card payments in 2021 but represent only about 7 percent of the residential customer base. Hence, low-income customers are more likely to pay by credit card than other residential customers.
- For Alliant Energy, a recent survey of credit card transactions in three months of 2021 showed that customers receiving LIHEAP funds represented about 6 percent of all credit card transactions (whereas customers receiving LIHEAP funds in 2021 represented about 5 percent of Alliant Energy's residential customers base).
- At Portland General Electric (PGE), as of 2021, 10 percent of all payments are made using debit or credit cards.[11]
- At Con Edison, data from a 2019 filing shows that approximately 8 percent of customers enrolled in low-income programs pay their bill using credit or debit cards.[12]

In 2012, the National Association of State Utility Consumer Advocates (NASUCA) published a resolution highlighting the negative impacts of convenience fees for payment methods used by low-income customers.[13] Specifically, NASUCA noted:

- "Some individuals, particularly those who lack access to bank accounts and to credit, by one estimate numbering roughly 50 to 70 million, are unable to write traditional checks or to direct electronic transfers and are therefore finding it difficult to pay utility bills without incurring additional charges."
- "…against the backdrop of a continuing high national poverty level, a decline in median household income, and an increasing incidence of arrearages, the convenience fees for debit and credit card payments are adding unnecessarily to the expense of paying for utility services."
- "…the convenience fees are making it unnecessarily costly for utility customers, especially low-income customers and customers struggling financially due to illness, layoffs, or other reasons, to meet their payment obligations and hence to maintain essential utility services."
- "…the convenience fees make it hard for low-income customers, when paying utility bills, to use the payment method that is often most available to them, namely, prepaid debit cards."
- "…convenience fees imposed on debit card use undercut the policy objectives of federal programs (for example, social security) and state programs (for example, child support and unemployment compensation) that issue prepaid debit cards to beneficiaries as an effective

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[11] Portland General Electric. Case UE 394. "*Direct Testimony of Bekkedahl/McFarland.*" July 2021. https://edocs.puc.state.or.us/efdocs/HTB/ue394htb155528.pdf

[12] Con Edison. 2019 Base Rate: EXHIBIT_(CO-13). https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?Mattercaseno=19-E-0065

[13] NASUCA. July 2012. *Urging Utilities to Eliminate "Convenience" Fees for Paying Utility Bills with Debit and Credit Cards and Urging Appropriate State Regulatory Oversight*. https://www.nasuca.org/2012-07-urging-utilities-to-eliminate-convenience-fees-for-paying-utility-bills-with-debit-and-credit-cards-and-urging-appropriate-state-regulatory-oversight/

and cost-efficient way to manage operational expenses, by eroding the purchasing power of such cards."

The same holds true today. Convenience fees for credit and debit cards (and other digital payment methods such as Amazon Pay, PayPal, and Venmo) hurt low-income and under/unbanked customers because it makes it harder for these customers to pay electricity bills using a method convenient to them, and potentially increases the risk of arrearages. In fact, according to a 2021 Pew Research Center survey, Americans with lower incomes are relying more on smartphones for online access and 76 percent of households with income less than $30,000 have a smartphone.[14]

While it is important that electric companies make payments easier for customers by removing convenience fees, electric companies are not promoting credit and debit cards over other methods. Credit and debit card payments can pose a risk if customers end up paying interest and late fees.

Creating a Level Playing Field Across Payment Options Makes Sense

When most electric companies had brick-and-mortar offices where customers could make payments, the administrative costs of operating those facilities were recovered via rates. Digital payments, including credit and debit card transactions and other digital options, are today's equivalent of the physical office. Hence, the fees associated with processing digital payment options should be recovered in rates. Why does this make sense?

1. First, the transaction and administrative costs associated with traditional forms of bill payment (i.e., paper checks, Automated Clearing House (ACH), wire transfer payments, etc.) are recovered through rates. Since digital payment options are preferred by many customers and often replace paper bills and paper checks (which are costly to process), any associated third-party fees should also be recovered in rates.
2. Second, when an electric company negotiates the payment fees associated with digital transactions rather than the customer, the electric company typically negotiates a significantly lower cost-per-transaction with the payment network such as VISA or MasterCard. For example, Avista Utilities negotiated a fee of about $1.50 per-transaction versus the $3.50 charge per-transaction fee paid by customers for credit and debit cards.[15] Other electric companies such as Alliant Energy, Eversource, and Minnesota Power have negotiated similar favorable transaction fees.

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[14] Pew Research Center. June 22, 2021. "Digital divide persists even as Americans with lower incomes make gains in tech adoption." https://www.pewresearch.org/fact-tank/2021/06/22/digital-divide-persists-even-as-americans-with-lower-incomes-make-gains-in-tech-adoption/

[15] Avista. March 2016. DOCKET UE-160071, ORDER 01. https://www.utc.wa.gov/casedocket/2016/160071/orders

Snapshot of Payment Options Available & Regulatory Treatment of Fees

In response to customer preferences for digital payment options and aligning with the payment trends of other industries, electric companies have increased payment options available to customers including credit and debit cards and other digital payment options. Offering payment options that customers want increases customer satisfaction.[16]

In 2021 and early 2022, EEI developed a snapshot of customer payment options available today across the industry based on member company input. Figure 3 provides a summary of the types of digital (including fee-free credit and debit cards) and non-digital payment options that several EEI members are providing to customers. More specific details including the types of customers that fee-free credit and debit cards apply to, whether other digital payment options include fees, and links to associated regulatory filings are provided in Appendix A.

Overall highlights include:

- As of April 2022, at least 31 investor-owned electric companies offer fee-free credit and debit card payments across 22 states.
- Of the electric companies offering fee-free credit card payments, only 13 offer this service to all customers. Many of these offerings have been approved for residential customers only. In more recent regulatory approvals, fee-free credit and debit card payments are available to small business customers.
- In addition to the option to make payments on electric company websites, some electric companies have regulatory approval for expanded digital payment channels and methods including electric company mobile app, Amazon Pay, Amazon Alexa, Apple Pay, Google Assistant, Google Pay, PayPal, Pay-by-Text, Paymentus Digital Wallet, and Venmo. However, in some cases, these new digital payment offerings still include fees to the customer.
- Fees for payments at electric company-owned kiosks and at in-person locations vary. Electric companies are partnering with national retailers (e.g., Walmart), Western Union, local grocers and gas stations, and others to allow customers to make in-person bill payments at these locations.

As shown in Figure 3, electric companies are offering multiple digital payment options to their residential customers. However, regulatory approval for the recovery of fees varies across these options. In many cases, regulatory approval for cost recovery of fees is limited to specific types of payment methods, limited to specific customer types, or capped at a specific amount.

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[16] Joint Companies Testimony on Fee Free D.P.U. 20-91 Exhibit JC-Testimony-1 March 8, 2021, Page 16. https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/13232062

Figure 3. Snapshot of Customer Payment Channels and Methods Including Fee-Free Credit and Debit Cards, Digital Options, and Non-Digital Options (April 2022)

Electric Company & State		Digital Payment Options Available (with and without fees)									Non-Digital Payment Channels Available (with and without fees)		
Company	State	*Fee Free Credit / Debit Card Payments	Amazon Pay	Apple Pay	Google Pay	PayPal	Venmo	Mobile App	Pay-By-Text	Voice Assistant	Pay Stations/ APA	Walk-in Locations	Kiosks
AEP (Indiana Michigan Power)	IN MI	✓						✓			✓		
Alabama Power	AL		** Pending	** Pending	** Pending	** Pending	** Pending	✓			✓		
Alliant Energy (Interstate Power and Light Company)	IA	✓						✓	✓		✓		
Alliant Energy (Wisconsin Power and Light Company)	WI	✓						✓	✓		✓		
Ameren Illinois	IL	✓						✓			✓		
Ameren Missouri	MO	✓						✓			✓		
Arizona Public Service	AZ	*✓	✓			✓	✓	✓			✓		✓
Avista	ID WA	✓						✓	✓		✓		
Baltimore Gas & Electric	MD	✓						✓		✓		✓	
Central Hudson	NY	✓						✓			✓	✓	
ComEd	IL	✓	** Pending			✓		✓		✓		✓	✓
Con Edison	NY	✓		** Pending			** Pending	✓		✓	✓	✓	✓
Consumers Energy	MI	✓							✓		✓		
Dominion Energy	VA NC		✓			✓		✓				✓	
Dominion Energy	SC	✓						✓				✓	
DTE Energy	MI	✓						✓			✓		✓
Duke Energy	NC	✓						✓			✓		
Duke Energy	SC	✓						✓			✓		
Duke Energy	FL	✓						✓			✓		
Evergy	KS	✓						** Pending	✓	✓	✓	** Pending	✓
Evergy	MO	✓						** Pending	✓	✓	✓	✓	✓
Eversource	CT	✓							✓		✓		
Eversource	MA	** Pending							✓		✓		
Eversource	NH	✓							✓		✓		
Florida Power & Light	FL							✓			✓		
Georgia Power	GA	✓	** Pending	** Pending	** Pending	** Pending	** Pending	✓			✓		
Madison Gas & Electric	WI	✓							✓		✓		
Minnesota Power	MN	✓							✓		✓		
Mississippi Power	MS	✓	** Pending	** Pending	** Pending	** Pending	** Pending				✓		
National Grid	MA	** Pending						✓			✓		
National Grid	NY							✓			✓	✓	✓

Note: All EEI member companies are not included.

* See Appendix for details on customer types.

** Pending regulatory approval.

Figure 3. Snapshot of Customer Payment Channels and Methods Including Fee-Free Credit and Debit Cards, Digital Options, and Non-Digital Options (April 2022) [continued]

Electric Company & State		Digital Payment Options Available (with and without fees)									Non-Digital Payment Channels Available (with and without fees)		
Company	State	*Fee Free Credit / Debit Card Payments	Amazon Pay	Apple Pay	Google Pay	PayPal	Venmo	Mobile App	Pay-By-Text	Voice Assistant	Pay Stations/ APA	Walk-in Locations	Kiosks
NorthWestern Energy	MT SD				** Pending	✓	** Pending		✓		✓	✓	
NV Energy	NV							✓		✓	✓		✓
NY State Electric & Gas	NY	✓						✓			✓	✓	✓
Orange & Rockland	NJ NY	✓								✓	✓	✓	✓
Pacific Gas & Electric	CA										✓		
Portland General Electric	OR	✓	✓	** Pending	** Pending	✓		✓			✓	✓	
PPL Corporation (LGE, KU, ODP)	KY VA		✓			✓	✓	✓	✓		✓	✓	
PPL Corporation	PA		** Pending	** Pending	** Pending	** Pending	** Pending	** Pending	✓	** Pending	✓		
Public Service Enterprise Group	NJ		** Pending	** Pending	** Pending	** Pending	** Pending	✓	✓	✓	✓	✓	
Public Service Company of New Mexico	NM			** Pending	** Pending						✓	✓	
Puget Sound Energy	WA	✓						✓			✓		
Rochester Gas & Electric	NY	✓						✓			✓	✓	✓
Southern California Edison	CA							** Pending			✓		
Superior Water, Light & Power Company	WI	✓							✓		✓		
TECO	FL										✓		
Xcel Energy	MN, ND NM, SD TX			✓	✓			✓			✓		

Note: All EEI member companies are not included.

* See Appendix for details on customer types.

** Pending regulatory approval.

Examples highlighting how some electric companies are managing fees for digital payments are summarized below (see Appendix A for more details).

- ALLETE, Alliant Energy's Wisconsin Power & Light, and Consumers Energy have regulatory approval for full cost recovery of debit and credit card fees for all types of customers.[17] [18] [19]
- APS currently offers fee-free credit and debit card options for low-income customers enrolled in their Energy Support program and offers Amazon Pay, PayPal, and Venmo to customers for a fee.
- PGE currently offers fee-free credit and debit card payments for residential customers with the total dollar amount of cost recovery capped and has a pending filing for full cost recovery and to expand fee-free credit and debit cards to include small business customers. In addition, PGE offers other digital payment methods such as Amazon Pay and PayPal without fees. Filings to include Apple Pay and Google Pay are pending.[20]
- Con Edison offers fee-free debit/credit payments to residential and small business customers. The credit and debit card offerings are available through multiple channels, including web, mobile app, and virtual assistant. Filings to include Apple Pay, Google Pay, and Venmo are pending.[21]
- DTE Energy and Puget Sound Energy offer fee-free credit and debit cards to residential and small business customers with full cost recovery.[22] [23]
- AEP's Indiana Michigan Power, Avista, and Duke Energy offer fee-free credit and debit card payments for residential customers and have regulatory approval for full cost recovery.[24]

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[17] Minnesota Power. Docket No. E015/GR-16-664. *"Direct Testimony Tina S. Koecher."* Nov 2016. https://efiling.web.commerce.state.mn.us/edockets/searchDocuments.do?method=showPoup&documentId=%7BE5CAB510-43AD-46C2-87A1-AD29EC26DD64%7D&documentTitle=201611-126219-03

[18] Wisconsin Power & Light. Docket No 6680-TE-103. *"Final Decision."* Dec 2018. https://apps.psc.wi.gov/ERF/ERFview/viewdoc.aspx?docid=%20355685

[19] Consumers Energy. Case No. U-20697 *"Direct Testimony of Michael A. Torrey."* February 2020. https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t000000AEOofAAH

[20] Portland General Electric. Case UE 394. *"Direct Testimony of Bekkedahl/McFarland."* July 2021. https://edocs.puc.state.or.us/efdocs/HTB/ue394htb155528.pdf

[21] Con Edison. "*2019 Base Rate: EXHIBIT___(CO-13)*". https://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?Mattercaseno=19-E-0065

[22] DTE Energy. *"Case No. U-20561*". May 2020. https://mi-psc.force.com/sfc/servlet.shepherd/version/download/068t000000BXp59AAD

[23] Puget Sound Energy. "*Docket UE-160203, Order 01*". March 2016. https://www.utc.wa.gov/casedocket/2016/160203/orders

[24] Indiana Michigan Power. Cause No. 44967-NONE *"Submission of Direct Testimony of Toby L. Thomas"* July 2017. https://iurc.portal.in.gov/_entity/sharepointdocumentlocation/c7f09b82-23ee-ea11-a813-001dd8018921/bb9c6bba-fd52-45ad-8e64-a444aef13c39?file=PETITIONER%201%20030718.pdf

- Eversource offers fee-free credit and debit cards payments to residential customers in Connecticut with full cost recovery up to a predefined limit. In Massachusetts, Eversource has a pending filing for recovery of credit and debit card fees.[25]

Conclusions

Today's residential customers expect bill payment options from electric companies to be consistent with what they experience in other areas of their lives. The electric power industry increasingly is expanding its digital payment channels and accepted payment methods to provide the payment options that customers want. For the roughly 5 percent of unbanked customers in the United States that rely on pre-paid cards to pay their bills, eliminating associated fees provides direct benefits to this population.

Over the past several years, aligning with payment trends of other industries, electric companies have increased customer choice in payment options by establishing digital, fee-free options, and other convenient channels. At least 31 investor-owned electric companies have gained regulatory approval to offer fee-free credit and debit card payments, but these approvals vary with respect to cost recovery (partial vs. full cost recovery) and the types of customers who are eligible. In addition, there are many other digital payment options that customers use beyond credit and debit cards such as Apple Pay, Amazon Alexa, PayPal, and Venmo.

Today's customers expect a range of digital payment options. Digital payments are the new normal and are used by all types of customers. It makes sense for electric companies to provide a range of fee-free digital payment options (including credit and debit cards) to their customers and for them to recover the associated costs.

[25] Eversource. D.P.U. 20-91 *"Joint Direct Testimony of Penelope M. Conner and Richard D. Chin"*. March 2021. https://fileservice.eea.comacloud.net/FileService.Api/file/FileRoom/13232062

Appendix

Table A1. Electric Company Payment Options for Customers: Summary (April 2022)

Electric Company & State		Credit and Debit Card Payment Details						Additional Payment Options (Digital and Non-Digital)	
Company	State	Fee/No Fee	Year Implemented / Year Updated	Customer Eligibility	Cost Recovery (Full/Partial/None)	Regulatory Filing		Other Digital Payment Options *(fees indicated)	Non-Digital Payment Options *(with or without fees)
AEP (Indiana Michigan Power)	IN MI	No Fee	2018	Residential	Full	Cause No. 44967-NONE DIRECT TESTIMONY OF TOBY L. THOMAS		Mobile App	Pay Stations including Wal-Mart, Kroger, and various merchants/retailers (no fee)
Alabama Power	AL	Fee	Does not apply					Paymentus Digital Wallet includes Amazon Pay, Apple Pay, Google Pay, PayPal, and Venmo (all pending)	Authorized Payment Locations managed by Western Union, Check Free Pay, PayGo, Fidelity Express, U.S. Payments PaySite Kiosk (no fee)
Alliant Energy (Interstate Power and Light Company)	IA	No Fee	2020	All	Partial	RPU-2019-0001 Direct Testimony of Zachary D. Fields (pg 17-18)		Mobile App Pay-By-Text	Western Union Convenience Pay Outlets (fee)
Alliant Energy (Wisconsin Power and Light Company)	WI	No Fee	2019	All	Full	-PSC REF#: 348278 6680-TE-103 -COMMENTS OF THE CITIZENS UTILITY BOARD ON COMMISSION STAFF'S MEMORANDUM -FINAL DECISION		Mobile App Pay-By-Text	Western Union Convenience Pay Outlets (fee)
Ameren Illinois	IL	No Fee	2021	All	Full	PA 102-0662 (Illinois law) signed September 15, 2021, specifically the Public Utilities Act, found at 220 ILCS 5/8-201.9		Website Mobile App IVR ACH	In-person Authorized Agents (fee)
Ameren Missouri	MO	No Fee	2022	All	Full	ER-2021-0240: Direct Testimony of Mitchell Lansford		Mobile App	In-person Authorized Agents (fee)
Arizona Public Service	AZ	No Fee	2021	Low Income	Full (Accounting deferral - pending review at next Rate Case)	Docket #E-01345A-19-0236, p. 86-87		APS App & website ACH (fee or no fee depends on payment type) PayPal (fee) Venmo (fee) Amazon Pay (fee)	Check mail in payments (no fee) Cash, check and card kiosks at retail stores (fee) Authorized walk up options at various locations managed by Fiserv and Moneygram (with and without fee - varies by location) Interactive Voice Recognition (IVR) - ACH (no fee)
Avista	ID WA	No Fee	2016	Residential	Full	DOCKET UE-160071, ORDER 01		Mobile App Pay-By-Text	Check, Cash, Pay Station, ACH
Baltimore Gas & Electric	MD	Fee using Paymentus	Does not apply					Through Paymentus: PayPal App Bill Pay (no fee) and Amazon Alexa smart Speaker (fee)	Third Party Vendor payment locations operated by ACE Cash Express, Western Union, Walmart and coming in 2022, Fidelity Express (fee)

Note: Standard payment options such as mail-in, website, auto-enroll, wire transfer, etc. are offered by electric companies and not captured in this table. All EEI member companies are not included.

* See regulatory filing or company website for specific details.

Table A1. Electric Company Payment Options for Customers: Summary (April 2022) [continued]

Electric Company & State		Credit and Debit Card Payment Details					Additional Payment Options (Digital and Non-Digital)	
Company	State	Fee/No Fee	Year Implemented / Year Updated	Customer Eligibility	Cost Recovery (Full/Partial/None)	Regulatory Filing	Other Digital Payment Options *(fees indicated)	Non-Digital Payment Options *(with or without fees)
Central Hudson	NY	No Fee	2018	All	Full	Cases 17-E-0459	Mobile App Pay-By-Text	Walk-In Centers (no fee) Payment locations at various Wal-Mart, grocery stores, pharmacies, and gas stations (Cash or debit card payments only)
ComEd	IL	No Fee	2021	All	Full	Public Act 102-0662 SB2408 Enrolled	Mobile App Paypal AI Chatbot Amazon Alexa (pending)	Check mail in payments (no fee) Authorized walk up options at various locations managed by Firstech and CheckFreePay (fee), Kiosks (fee)
Con Edison	NY	No Fee	2020	Residential & Small Commercial	Full	Case 19-E-0065, EXHIBIT___(CO-13)	Mobile App Voice Assistant Venmo (pending) Apple Pay (pending)	Walk In Locations, Pay Stations, Kiosks, and Field Assitant (no fee)
Consumers Energy	MI	No Fee	2017	All	Full	Case No. U-20697 DIRECT TESTIMONY OF MICHAEL A. TORREY	Mobile App Pay-By-Text	8 Direct Payment Offices (Lobbies) throughout Michigan **In-Payment Network including Wal-Mart, Kroger, and K-Mart (7-11, Dollar General, CVS, and Speedway pending)
Dominion Energy	VA NC	Fee	Does not apply				Mobile App Paypal (fee) Amazon Pay (fee)	Walk-in payments at Authorized Payment Centers such as Walmart, Harris Teeter, and Kroger (fee)
Dominion Energy	SC	No Fee	2009	Residential Customers (enrolled in paperless billing)	Full (company-borne costs through each normal rate case)	Docket No. 2020-125-E	Mobile App	Walk-in payments at Authorized Payment Centers such as Walmart, Kroger, and Piggly Wiggle (no fee)
DTE Energy	MI	No Fee	2019 2021	Residential & Small Commercial	Full	Case U-20162: Eliminate Credit Card Option for Specific C&I Rate Types Case U-20561: Further Restrict Credit Card Option to only C&I customers with aggregate bill < $75,000	Mobile App	Cash payments at network of Authorized Pay Agents (fee/no fee varies) Cash payments at Company-owned Kiosks (no fee)
Duke Energy	NC	No Fee	2021	Residential	Full (Capped)	DOCKET NO. E-7, SUB 1214, Jim Henning Testimony DOCKET NO. E-7, SUB 1219, Jim Henning Testimony	Mobile App	Preferred payment locations including big box stores, grocery stores, convenience stores, and various smaller retailers (fee/no fee varies)
Duke Energy	SC	No Fee	2019	Residential	Full (Capped)	DOCKET NO. 2018-319-E, Lesley Quick Testimony DOCKET NO. 2018-318-E, Lesley Quick Testimony	Mobile App	Preferred payment locations including big box stores, grocery stores, convenience stores, and various smaller retailers (fee/no fee varies)
Duke Energy	FL	No Fee	2022	Residential	Full (Capped)	DOCKET NO. 20210016-EI	Mobile App	Preferred payment locations including big box stores, grocery stores, convenience stores, and various smaller retailers (fee/no fee varies)

Note: Standard payment options such as mail-in, website, auto-enroll, wire transfer, etc. are offered by electric companies and not captured in this table. All EEI member companies are not included.

* See regulatory filing or company website for specific details.

Table A1. Electric Company Payment Options for Customers: Summary (April 2022) [continued]

Electric Company & State		Credit and Debit Card Payment Details					Additional Payment Options (Digital and Non-Digital)	
Company	State	Fee/No Fee	Year Implemented / Year Updated	Customer Eligibility	Cost Recovery (Full/Partial/None)	Regulatory Filing	Other Digital Payment Options *(fees indicated)	Non-Digital Payment Options *(with or without fees)
Evergy	KS	No Fee	2007 (KS Metro) 2014 (KS Central)	Residential	Full	Docket Details (ks.gov)	Mobile App (pending) Pay-By-Text	Pay Stations (free) Kiosk (free)
Evergy	MO	No Fee	2007 (MO Metro) 2011 (MO West)	Residential	Full	Docket Sheet (mo.gov) - Evergy Metro Docket Sheet (mo.gov) - Evergy MO West	Mobile App (pending) Pay-By-Text	Pay Stations (fee) Kiosk (fee)
Eversource	CT	No Fee	2019	Residential	Full (Capped)	Docket No. 17-10-46	Mobile App Pay-By-Text	Pay Stations with Authorized Agents within the State (no fee)
Eversource	MA	No Fee	Pending Approval (filed 2021)	Residential	Full	D.P.U. 20-91, Exhibit JC-Testimony-1	Mobile App Pay-By-Text	Pay Stations with Authorized Agents within the State (no fee)
Eversource	NH	No Fee	2021	Residential	Full (Capped)	Docket No. DE 19-057 Testimony of Penelope McLean Conner	Mobile App Pay-By-Text	Pay Stations with Authorized Agents within the State (no fee)
Florida Power & Light	FL	Fee using Speedpay	Does not apply				Mobile App Bank Bill Pay Pay-By-Phone	Mail-in (no fee) Walk-in at various locations managed by Western Union and CheckFee (fee/no fee varies)
Georgia Power	GA	No Fee	2020	All	Full	(See Filing for Mississippi Power)	Paymentus Digital Wallet includes Amazon Pay, Apple Pay, Google Pay, and PayPal Venmo (all pending)	Authorized Payment Locations managed by Western Union, Check Free Pay, PayGo, Fidelity Express, U.S. Payments PaySite Kiosk (no fee)
Madison Gas & Electric	WI	No Fee	2020	All	Full	Docket No. 5-UI-120 (temporary Covid Relief) Docket No. 3270-UR-123 (2021 Base Rates)	Pay-By-Text	Pay stations (no fee) Retail payment locations (no fee)
Minnesota Power	MN	No Fee	2016	Retail	Full	Docket No. E015/GR-19-442 Frederickson Case Overview Direct Docket No. E015/GR-16-664 Direct Testimony Tina S. Koecher Docket No. E015/GR-16-664 Rebuttal Testimony Tina S. Koecher	Pay-By-Text	Pay at any Wal-Mart location (fee)
Mississippi Power	MS	No Fee	2021	All	Full	DOCKET NO. 2019-UN-219	Paymentus Digital Wallet includes Amazon Pay, Apple Pay, Google Pay, PayPal, and Venmo (all pending)	Authorized Payment Locations managed by Western Union, Check Free Pay, PayGo, Fidelity Express, U.S. Payments PaySite Kiosk (no fee)
National Grid	MA	No Fee	Pending Approval (filed 2021)	Residential	Full	D.P.U. 20-91, Exhibit JC-Testimony-1	Mobile App	Western Union walk-in locations (no fee) Western Union Expanded Network walk-in Locations (fee)

Note: Standard payment options such as mail-in, website, auto-enroll, wire transfer, etc. are offered by electric companies and not captured in this table. All EEI member companies are not included.

* See regulatory filing or company website for specific details.

Table A1. Electric Company Payment Options for Customers: Summary (April 2022) [continued]

Electric Company & State		Credit and Debit Card Payment Details					Additional Payment Options (Digital and Non-Digital)	
Company	**State**	**Fee/No Fee**	**Year Implemented / Year Updated**	**Customer Eligibility**	**Cost Recovery (Full/Partial/None)**	**Regulatory Filing**	**Other Digital Payment Options *(fees indicated)**	**Non-Digital Payment Options *(with or without fees)**
National Grid	NY	Fee using Speedpay	Does not apply				Mobile App	Western Union walk-in locations (no fee) Western Union Expanded Network walk-in Locations (no fee) Kiosk Cash and Checks only (no fee) (Brooklyn) National Grid Walk-in offices Cash and Checks only (NYC and Long Island Only) (no fee)
NorthWestern Energy	MT SD	Fee using Paymentus	Does not apply				Pay-By-Text (no fee) Paymentus Digital Wallet	Walk-in customer service centers and any Western Union locations (fee), Paymentus IVR (ACH-no fee & Card-fee)
NV Energy	NV	Fee using Speedpay	Does not apply				Mobile App	Cash, check, and credit/debit card at various kiosks locations managed by U.S. Payments. (cash, check - no fee, credit/debit card - fee) Authorized walk up options at various Shop & Pay locations managed by Western Union Convenience Pay (no fee)
NY State Electric & Gas	NY	No Fee	2016	All		Case 15-E-0283	Mobile App	Pay Stations, Wal-Mart and Kmart (Nationwide) CheckFree Day, and Western Union (fee varies)
Orange & Rockland	NJ NY	No Fee	2019	Residential	Full	Case No. 18-E-0067	Amazon Alexa Google Assistant	Walk-In Centers and Authorized Payment Agents (no fee)
Pacific Gas & Electric	CA	Fee using Kubra	Does not apply				Mobile Autopay with Credit Card (pending) Secure eMail Payment	Authorized Neighborhood Payment Centers (no fee)
Portland General Electric	OR	No Fee	2015; Pending Approval-Small Business (filed 2021)	Residential; Small Businesses (pending)	Capped at $1.5M; Full (Pending)	Commission Order No.14-422 (2015) UE 394 / PGE / 500 Bekkedahl - McFarland / 17 (2021)	Mobile App PayPal Amazon Pay Google Pay (pending) Apple Pay (pending)	Walk In Centers with WesternUnion and CheckFree Day (no fee)
PPL Corporation (LGE, KU, ODP)	KY VA	Fee for 3rd party vendors - Paymentus (credit/debit) FiServ (debit only)	Does not apply				Mobile App Pay-By-Text	Walk-In Business Offices - cash or check (free) Retailers/FiServ - cash (fee)
PPL Corporation	PA	Fee using Paymentus	Does not apply				Mobile App (pending) Amazon Pay (pending) Apple Pay (pending) Google Pay (pending) PayPal (pending) Venmo (pending)	Walk-In centers with Western Union and Check Free Pay (fee)

Note: Standard payment options such as mail-in, website, auto-enroll, wire transfer, etc. are offered by electric companies and not captured in this table. All EEI member companies are not included.

* See regulatory filing or company website for specific details.

Table A1. Electric Company Payment Options for Customers: Summary (April 2022) [continued]

Electric Company & State		Credit and Debit Card Payment Details					Additional Payment Options (Digital and Non-Digital)	
Company	State	Fee/No Fee	Year Implemented / Year Updated	Customer Eligibility	Cost Recovery (Full/Partial/None)	Regulatory Filing	Other Digital Payment Options *(fees indicated)	Non-Digital Payment Options *(with or without fees)
Public Service Enterprise Group	NJ	Fee	Does not apply				Mobile App Pay-By-Text Voice Assistants, Apple Pay (pending) Google Pay (pending) Venmo (pending) Paypal (pending)	Walk-In Centers (fee)
Public Service Company of New Mexico	NM	Fee using KUBRA EZ-PAY	Does not apply				Apple Pay (pending) Google Pay (pending)	PNM Payment Centers. Western Union Authorized Payment Agents (CPAY) (fee)
Puget Sound Energy	WA	No Fee	2016	Residential & Small Businesses	Full	Docket UE-160203, Order 01	Mobile App	Authorized Pay Stations including Wal-Mart, Fred Meyer, and Quality Food Centers (no fee)
Rochester Gas & Electric	NY	No Fee	2016	All	Full	Case 15-E-0283	Mobile App	Pay Stations, Wal-Mart and Kmart (Nationwide) CheckFree Day, and Western Union (fee)
Southern California Edison	CA	Fee	Does not apply				Mobile App (pending)	Authorized Payment Locations managed by Fiserv (no fee)
Superior Water, Light & Power Company	WI	No Fee	2019	All	Full	Docket No. 5820-UR-115 DIRECT SWLP SANDSTORM	Pay-By-Text	Pay at any Wal-Mart location (fee)
TECO	FL	Fee using KUBRA EZ-PAY	Does not apply					Pay at any locations nationwide offered through Western Union (fee)
Xcel Energy	CO, MI MN, ND NM, SD TX	Fee using KUBRA EZ-PAY	Does not apply				Mobile App Apple Pay Google Pay	Pay Stations (fee)

Note: Standard payment options such as mail-in, website, auto-enroll, wire transfer, etc. are offered by electric companies and not captured in this table. All EEI member companies are not included.

* See regulatory filing or company website for specific details.

Accenture- Growing Payments to New Heights

PNM Exhibit MAC-5

Is contained in the following 24 pages.

Growing payments to new heights

The value propositions that pay

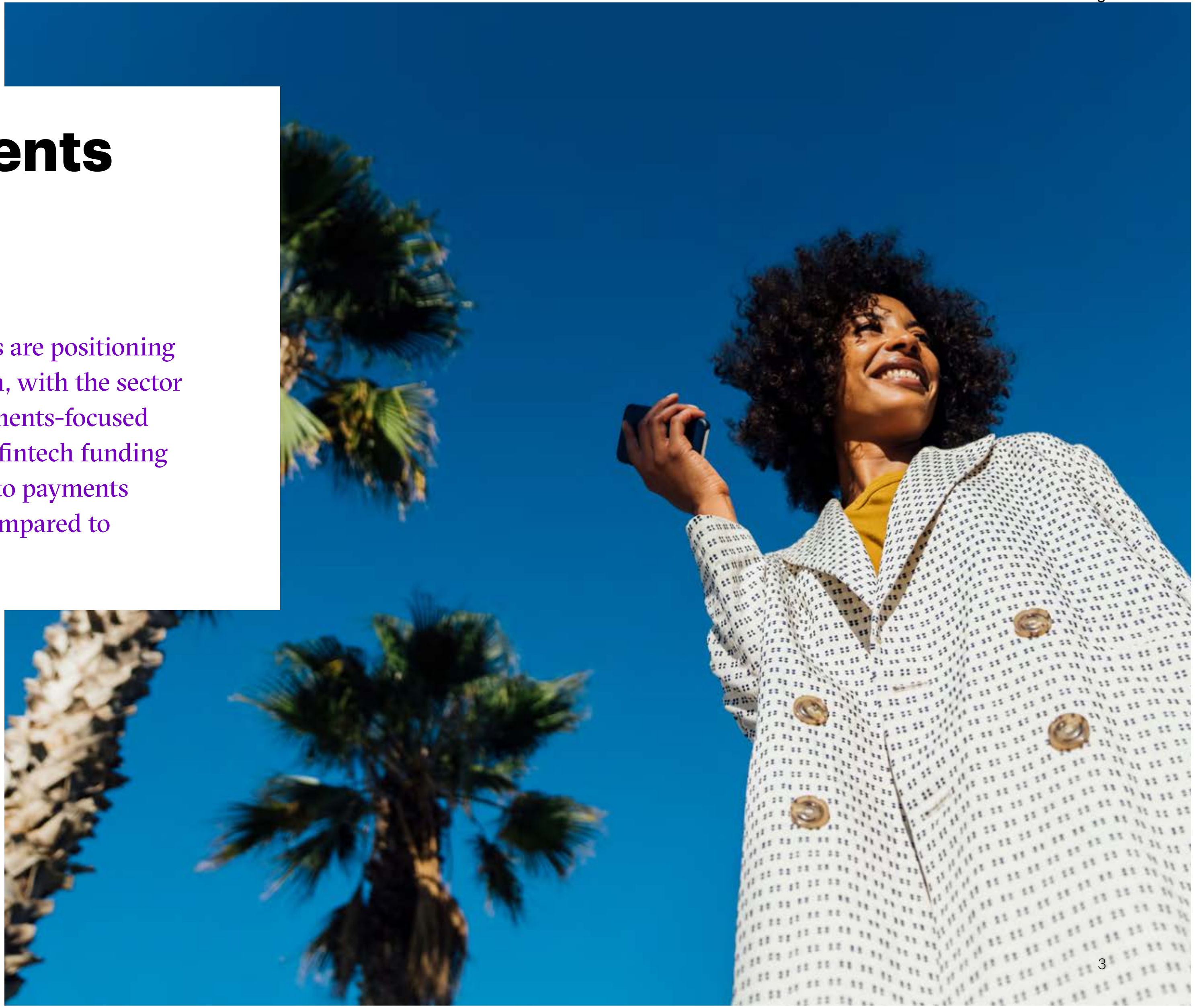
accenture

Unlocking payments growth with friction-free value propositions

The payments landscape is evolving as technology becomes democratized and customers expect seamless, integrated commerce journeys at their fingertips. For incumbents, competition can come from anywhere—be it e-commerce giants or nimble fintechs—and growth can be achieved in numerous, even unexpected, places. Yet growing revenues and expanding market share can be challenging in a world where aggressive startups are delivering innovative products and squeezing profit margins on payments services. There is a group of payments incumbents that are accessing superior growth in the face of new competition and evolving customer needs. Our Growth in Payments research shows that they are winning in this market by creating compelling customer value propositions, enabled by ecosystem partnerships, agile operating models and a flexible technology stack to get that all-important competitive advantage.

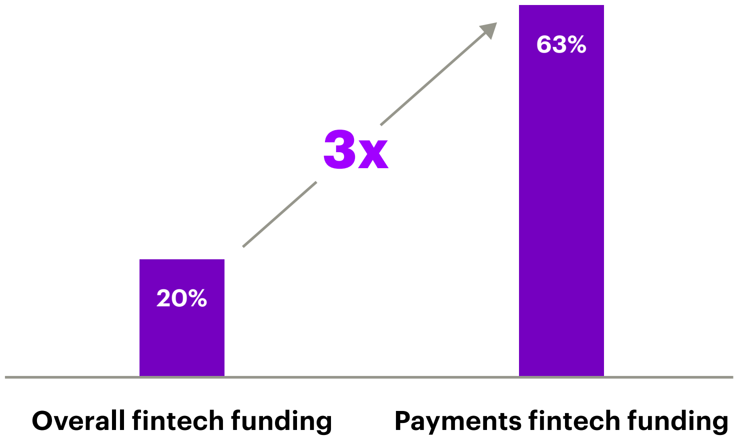
What gives Payments Growth Leaders their edge?

Venture capital firms and payments disruptors are positioning themselves for a surge in payments innovation, with the sector attracting a strong stream of investment. Payments-focused fintechs attracted nearly a third (32%) of total fintech funding raised in 2020. Meanwhile, funding allocated to payments fintechs grew 63% between 2018 and 2020, compared to the 20% rise in total fintech funding.[1]



These numbers reflect the market's belief that payments is primed for strong growth, fueled by changing consumer behaviors, digital innovation and a shifting regulatory landscape. Displacement of cash and new payments options like request to pay, account-to-account (A2A) transfers, digital currencies and buy now, pay later (BNPL) are all creating exciting opportunities for those fast and agile enough to seize them.

Figure 1:
Payments fintech funding between 2018 and 2020 grew three times as fast as fintech funding in total.



Source: Accenture Research analysis on CB insights data

For the most part, the companies that are taking the lead with innovations that could displace traditional payments rails are digital native disruptors like Wise, Stripe, Klarna, Square and Afterpay. Many incumbent banking institutions and payments processors are, by contrast, struggling to grow their payments businesses as rapidly as they would like. There is, however, a small but elite set of incumbents that are growing faster than the market.

Our research shows that they're setting themselves apart by investing in compelling new value propositions focused on innovative payment methods that anticipate customers' emerging needs and expectations.

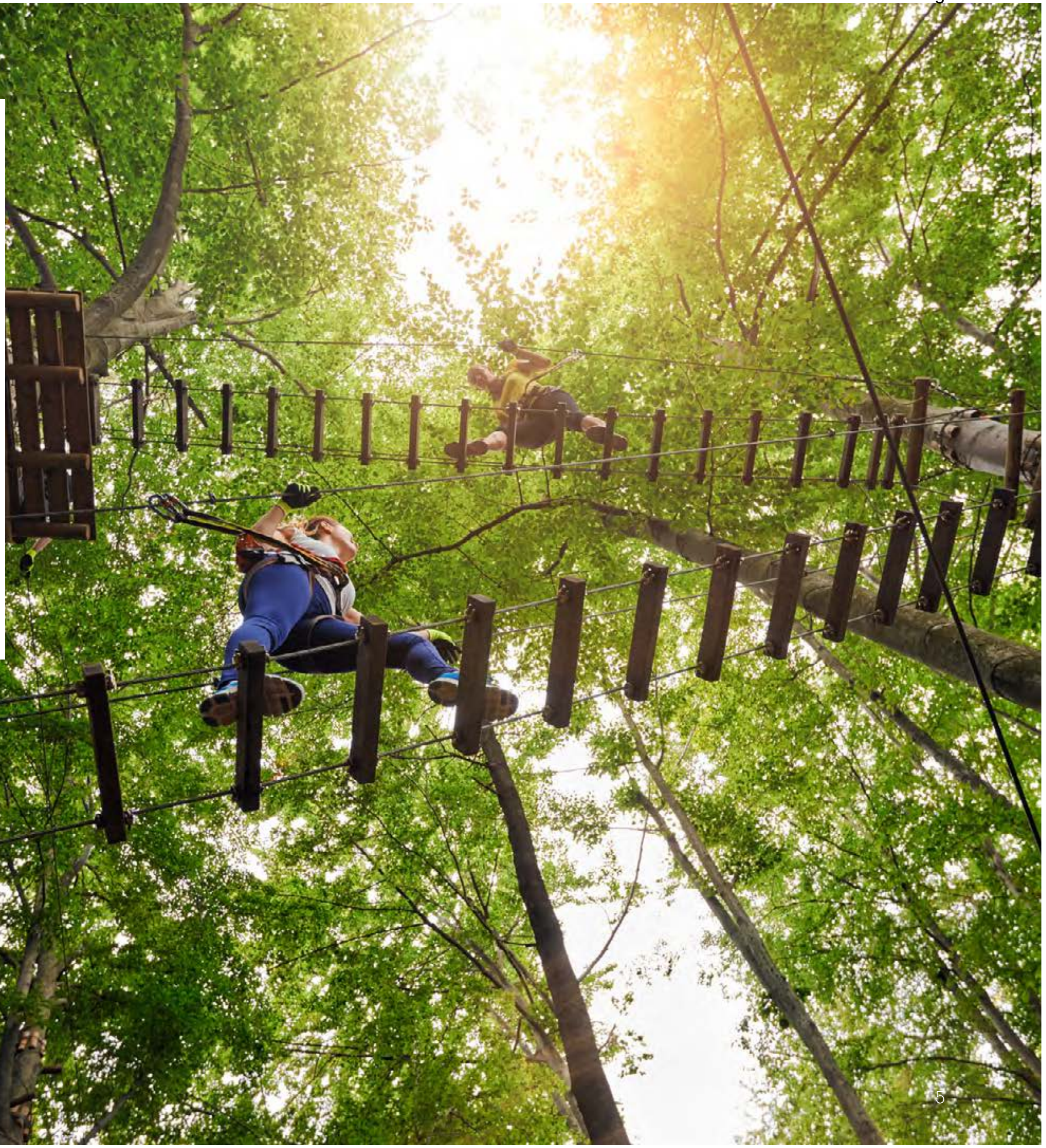
> **"The transition to a cashless society is speeding up in the wake of the pandemic. Banks risk falling behind the customer's heightened expectations for a seamless and secure payments experience. Leaders must act today to safeguard and grow their payments business in the face of intense competition from new players with disruptive offerings."**
>
> **Edlayne Burr**
> Growth Markets Payments Lead
> Accenture

To follow them, others will need to sharpen their value propositions, removing unnecessary friction that wastes the customer's time and embedding payments seamlessly into the flow of their life and work. Those that get it right will be able to not only defend margins and revenues in their core payments business, but also access a wealth of new opportunities.

Accenture conducted an online survey of 205 payments executives in 25 countries to find out what gives the leaders their edge. To identify the Payments Growth Leaders, we gathered and analyzed payments transaction values about the 175 incumbent payments companies in our sample. The 30 leaders (25 banks and five payments processors) we identified achieved an average 2.7 percentage point higher compound annual growth rate (CAGR) in transaction value compared to the other players.

Payments Growth Leaders are thriving amid disruption

Payments is a hotbed of disruption and innovation. Traditional banking institutions and payments companies will be challenged to keep up with the pace of change if they are to meet their growth ambitions. Nine in 10 payments providers in our survey agreed that the level of disruption will continue to increase in the next three years.



The majority said that new digital payments options—such as mobile wallets—could displace plastic cards and cash as soon as 2025. More than nine in 10 of the payments experts we spoke with believe central bank digital currencies (CBDCs) will amount to 10% of all transactions by 2030.

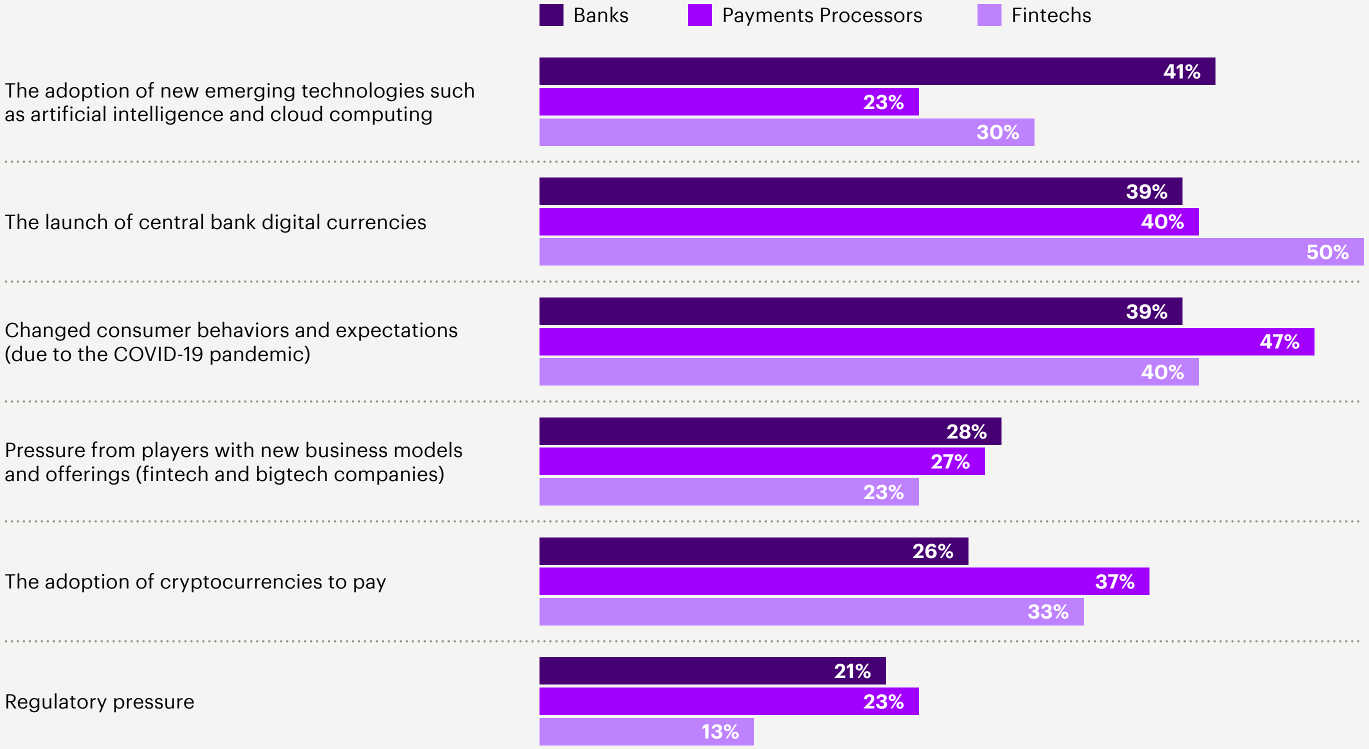
The shift to digital will be helped along by changing consumer behaviors in the wake of the pandemic. Adoption of emerging technologies, CBDCs, cryptocurrency adoption, and competition from digital native innovators are also high on their list of disruptive forces.

> **"The baseline for what customers expect from their banks has moved: they now demand seamless digital shopping and payment experiences, the ability to pay from any device, and advanced data protection and fraud prevention. Meeting these new expectations requires that banks use data and cloud technology to analyze and predict customer behavior and smooth the payments journey."**
>
> **Margaret Weichert**
> North America Payments Lead
> Accenture

Figure 2:

The main factors driving disruption in payments.

Q. What do you perceive to be the main factors driving disruption in payments? (Top 2)



Note: N= 205; banks: 145, payments processors: 30, fintech companies: 30
Source: 2021 Accenture Global Payments Survey

Lessons from the payments disruptor's playbook

Payments segments such as international transfers and small merchant acquiring have already experienced severe disruption. Agile players in these markets have won and built large businesses by driving fees down, squeezing banks' margins and building enormous scale. They have also excelled in developing compelling value propositions that line up with emerging customer behaviors in a digital world. Here are some of the strategies digital native innovators have used to reshape these markets over the past few years.

Disruptive payments play	Examples
Focus on scale rather than margins Payments disruptors use digital platforms to serve mass markets at low cost and with high efficiency. This helps them to thrive in markets with margins which payments incumbents once regarded as too narrow to warrant strategic investment.	Wise is an example of a payments business growing revenues by increasing volumes and reducing costs. It has cut the cost of sending £1,000 to euros by 26% in six years. For the fiscal year 2021, the company's revenues were up by 39% versus the previous year.[2]
Address customer pain points that most incumbents are ignoring Many challengers have found white spaces by addressing customer needs and pain points that incumbent banks and payments processors are not addressing.	Adyen's mobile Android point-of-sale terminal functions as an all-in-one solution. It eliminates the need for the merchant to have separate cash registers, barcode scanners, and customer-facing displays. These terminals not only reduce costs for the merchant, but also help businesses to improve the customer experience.[3]
Wrap value around the payment Some disruptors are wrapping value-added services around payments or embedding payments into a wider digital ecosystem.	Stripe aims to be the payments platform of choice for e-commerce platforms. It partners with banks through Stripe Treasury—a service which enables e-commerce platforms to embed financial services in their offering[4]—and Stripe Capital—which allows the platforms to offer financing to their merchant customers.[5]
Compete at multiple stages of the value chain Many payments disruptors are focusing on more than just one part of the value chain. They can, for example, engineer products to be sold as white label offerings through another company rather than seeking to own every end-customer relationship.	Afterpay provides merchants with credit payment solutions integrated into the e-commerce checkout process.[6] Australian bank Westpac, in turn, offers a banking-as-a-service (BaaS) offering that Afterpay uses to provide banking products to customers via its existing brand and channels. [7]

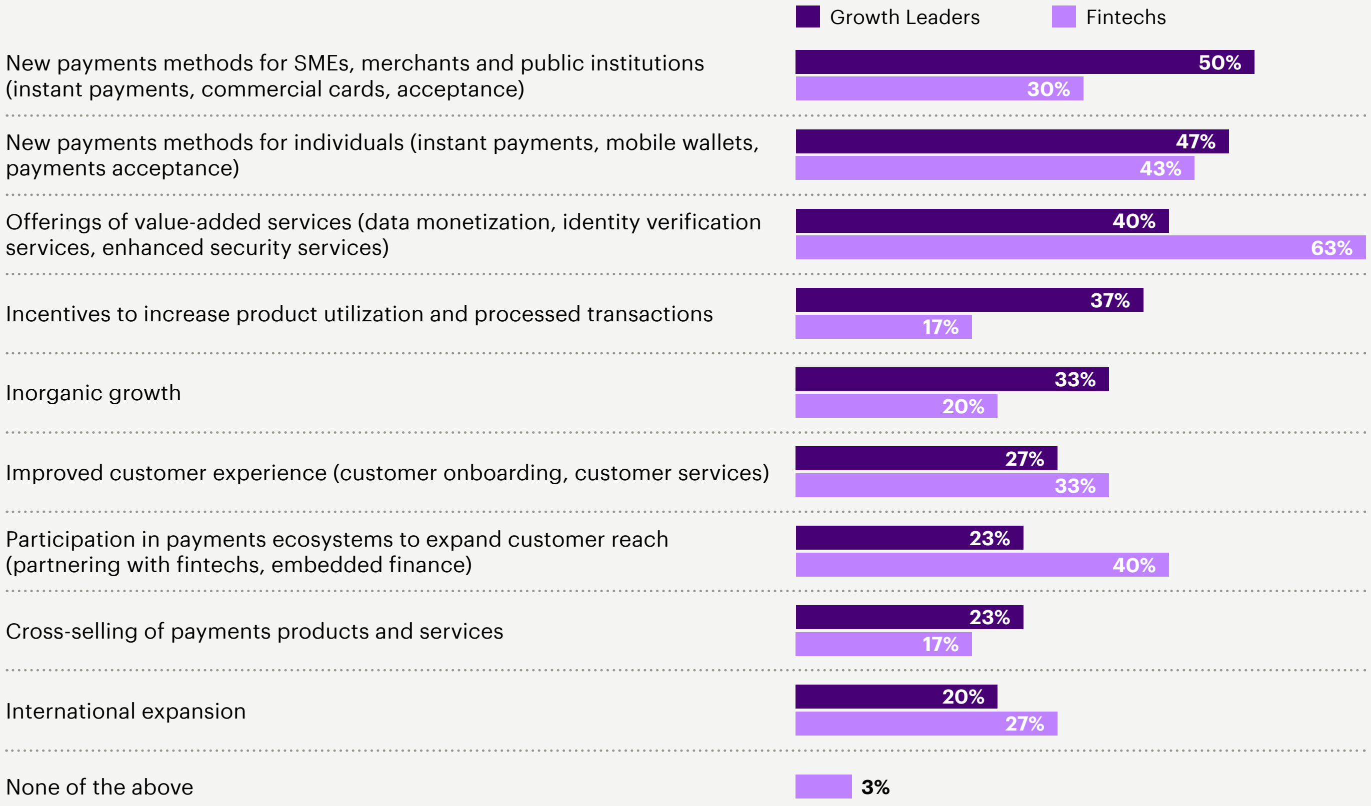
Our research identifies a set of incumbent Payments Growth Leaders that are thriving in the midst of this disruption. These leaders have outgrown the overall market in terms of transaction value for the past three years. The survey data and our interviews with payments executives suggest that they differentiate themselves through their focus on the outcomes that customers want, rather than the product they want to sell. They create compelling value propositions based on innovative payment methods that anticipate customers' emerging needs and expectations.

> **"We've found that breakthrough payments disruptors, for example Square in Australia, are focused on a value proposition which addresses both a business need (to grow e-commerce sales) and a consumer need (to purchase and pay over time when traditional credit is not available), and this has successfully set them apart in the eyes of their customers."**
>
> **Ryan McQueen**
> Australia and New Zealand Payments Lead
> Accenture

Figure 3:

The revenue growth hotspots pursued by Payments Growth Leaders and fintechs.

Q. Which growth strategies have been most successful in generating payments revenue growth for your organization?



Source: 2021 Accenture Global Payments Survey

These leaders tend to put the value proposition at the forefront of their strategy, closing the loop between customer experience and technical infrastructure. A European bank we interviewed uses simplicity as a guiding principle in payments. The strategy connects back-end simplification (infrastructure and processes) to delivery of simple and transparent front-end propositions (faster payments, real-time payments, Open Banking).

There are several approaches that payments players can use separately and in combination to craft compelling value propositions to grow revenues and market share:

- Take friction out of the process
- Push the purpose lever
- Go beyond the payment

Take friction out of the process

The payments sector has made great strides toward enabling people and organizations to pay, and get paid, anywhere and at any time. Even once-complex payments, such as cross-border and B2B transactions, are much simpler now than they were before. With propositions such as A2A, request to pay, BNPL and super-apps, payments and other financial services are now embedded into a smoother customer journey.

Klarna, for example, provides a one-click purchase experience that lets consumers pay when and how they would prefer to.[8] Lyft offers drivers a Lyft Direct debit card and bank account, powered by Payfare and issued by Stride Bank. They can get their fees paid instantly into their Lyft Direct Account after every ride.[9] And super-apps like Alipay, Grab and PayPal combine payments, savings, bill payments, crypto, shopping and more into a single icon on a smartphone.

WeChat, which has 1.26 billion monthly active users,[10] allows users to hail a ride, pre-order meals from a restaurant, book a doctor's appointment, send money to a friend, pay for food from a street vendor and more without having to exit the app.[11]

The next revolution will be allowing customers to pay anyhow they want to—removing the friction that remains in a fragmented payments infrastructure designed for plastic cards and real-time bank payments. Payments Growth Leaders are unifying these disjointed systems and channels into an integrated commerce experience—allowing customers to seamlessly pay with and accept any payment instrument in any transaction.

This trend will be given impetus by the move from walled-garden payments services towards open, standardized networks with lower barriers to entry. In some territories, regulators are throwing their weight behind open networks, like India's United Payments Interface (UPI) regulation requiring all prepaid payment instruments (PPIs) be interoperable by April 2022.[12] In others, it's a market-driven change. Either way, Payments Growth Leaders are preparing for a future where they compete and cooperate with rival banks, fintechs and others in a world of open payments networks.

Making cross-border payments painless

An incumbent bank in North America has created a cross-border payments platform that enables a faster and more seamless experience for transactions across the US/Canada border than any of its rivals can offer. Customers make their payments through a slick, modern interface; behind the scenes, the bank has invested a great deal of effort into integrating its back-end systems to offer a frictionless experience. Its corporate payments business has grown fivefold faster than the market and it is now expanding into the UK with a similar offering.

The Monetary Authority of Singapore (MAS) and the Bank of Thailand (BOT) have linked the countries' respective real-time funds transfer services, PayNow and PromptPay, to facilitate faster, cheaper, more inclusive and more transparent cross-border payments. It is part of a larger initiative under ASEAN Payment Connectivity that aligns with the efforts of the G20, the Financial Stability Board, and other international standard-setting bodies.[13]

Push the purpose lever

Some incumbents are finding ways to align themselves closer with the customer's values and to deliver payments services that advance the customer's financial well-being, the good of society and environmental sustainability. For example, some work with consumers to nudge them into smarter and better spending behaviors that allow them to control and optimize a personalized commerce journey.

Spending informed by carbon footprint

Mastercard has developed a proposition that enables banks to provide carbon footprint data and insights their customers can use to inform their spending.[14] The solution, developed in collaboration with Swedish fintech Doconomy, is integrated into Mastercard's global network.

NatWest, meanwhile, collaborated with CoGo and Accenture to introduce a carbon footprint tracking feature for its mobile retail banking app. Launched at COP26, the app allows customers to see the emissions associated with their daily spending and provides hints and tips on how to go greener.[15]

Open Banking for good

Nationwide in the UK is using Open Banking technology from Openwrks to help customers facing financial difficulties build a better picture of their finances before meeting with their collections and recovery team.[16] The Openwrks platform uses conversational AI and reductive logic to enable people to pull together information from different accounts and sources. Using this data, customers can build an accurate digital income and expenditure statement. These insights are complemented by visualizations that give users personalized financial advice.

Go beyond the payment

Many Payments Growth Leaders are finding growth opportunities in value-added services like data monetization, SME e-commerce solutions, personalized e-commerce journeys for consumers, and identity verification. They expect to continue investing in value-added services over the next few years, and to uncover opportunities to address many frustrations and unmet needs among their customers.

One instance can be found in the gaps in the market for simple, hassle-free credit and cashflow management solutions for SMEs. Incumbents can take inspiration from platform players like Adobe (via its acquisition of Magento), which not only make it easy for SMEs to accept payments, but also to enable every aspect of their business for e-commerce.[17]

US Bank is an example of an incumbent tackling the SME market with value-added services. It entered an agreement to acquire TravelBank,[18] a fintech that provides a one-stop, tech-driven expense and travel management solution. The solution is intended to help businesses control and track expenses; automate processes; streamline approvals and reporting; and ensure compliance with company policies—an all-in-one mobile-friendly solution.

Security and identity are areas where traditional banks and payments processors have an advantage over the disruptors. Many Payments Growth Leaders are thus eyeing the opportunities in value-added services that help their customers and partners stay ahead of fraudsters. Identity protection, security and fraud prevention are all ways to build trust among their commercial and consumer customers.

Data-driven insights for commercial customers

A North American bank is offering data-driven insights to its commercial customers. These insights are based on anonymized credit and debit card transactions as well as demographic and location data, and are designed to help commercial customers to make business decisions such as where to establish new stores.

Protecting merchants from malicious platform users

Score from Adyen helps e-commerce merchants prevent misuse of their platforms. The solution, which is driven by machine learning, analyzes merchants' data and flags unusual platform user behavior.[19]

Technology, operating models and ecosystems—key enablers for future-focused value propositions

Our survey and conversations with Payments Growth Leaders suggest that tomorrow's leaders will harness three key enablers to drive their new value propositions: technology, operating models and ecosystems. Singapore's DBS Bank, named the "world's best bank" by Euromoney for four years running, is an example of an institution that is employing these enablers to powerful effect.[20]

DBS was not only early to the cloud; it was one of the first major banks to bet big on an API developer platform built on the banking-as-a-service model. In addition to its investments in its technology stack, DBS adopted a customer-first culture and is building ecosystem partnerships. The bank uses tools such as customer-journey mapping and design-thinking processes to help employees become more customer-centric.

DBS has also shifted its business model towards harnessing ecosystem partnerships to offer richer customer experiences and smoother journeys. Its network today has more than 1,000 open APIs. A digital journey that commenced in 2014 has transformed DBS into an agile and efficient API-powered bank that can bring new payments value propositions to market quickly.

These value propositions range from real-time payment processing and digital payment token services to a blockchain-based clearing and settlement platform. One case in point is DBS PayLah! Introduced in 2014 as a mobile wallet, the app has evolved to fulfil the everyday needs of its more than 1.8 million users today. They can book movie tickets and rides; pay bills and transport expenses; browse entertainment and dining offers; and more.[21]

Figure 3:
New value propositions built on three key enablers.

1. Technology transformation

Cloud
Getting the economics of payments right

API platform
Smooth customer connection

Data
New revenue streams from existing assets

2. Operating model renewal

Organization
Moving towards a product-first approach

Culture and talent
Nurturing in- and out-of-house talent through continuous training

Processes
Agility to improve release cycle management

3. Ecosystem participation

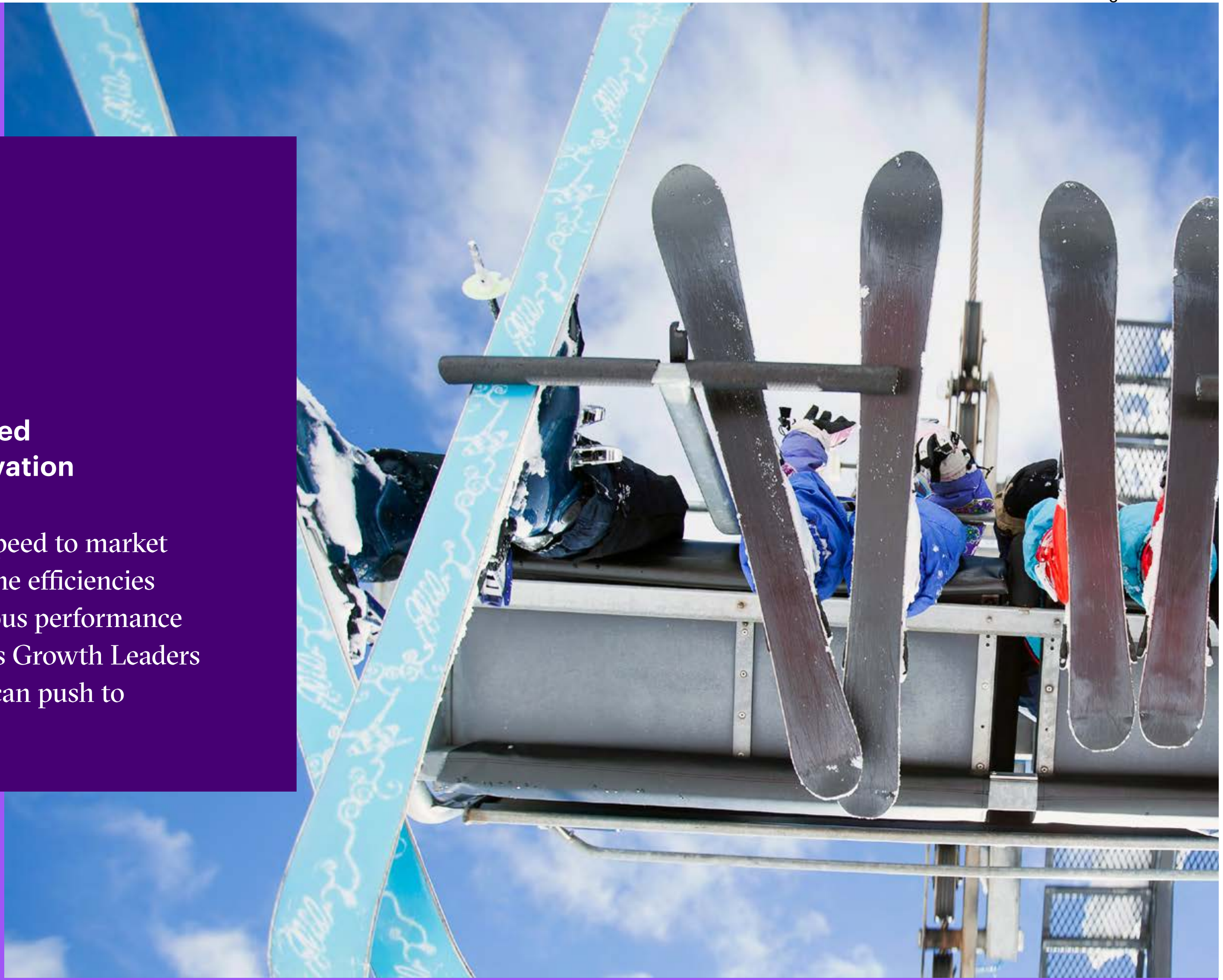
Partners
Enabling better solutions more quickly

Third-party risk management
Minimizing reputational risk

#1
Technology transformation

Unlocking efficiencies that can be reinvested to drive continuous performance and innovation

An agile technology foundation enables quicker speed to market and better margins, thanks to a lower cost base. The efficiencies unlocked can then be reinvested to drive continuous performance and innovation. Our conversations with Payments Growth Leaders highlight three levers which payments providers can push to drive down costs and accelerate innovation.



Cloud: Getting the economics of payments right

The cloud enables payment providers to get to market faster with new value propositions. They can, for example, rapidly develop microservices targeting specific customer and market opportunities. Then, they could reinvest the cost savings that a cloud architecture unlocks in data, powered by AI, to drive performance. Nearly all (95%) payment providers in our survey agreed that it is hard to get the economics of payments right without some type of cloud investment.

Respondents in our survey cited core payments legacy system issues and the lack of speed in launching products as the top two reasons for slow growth.

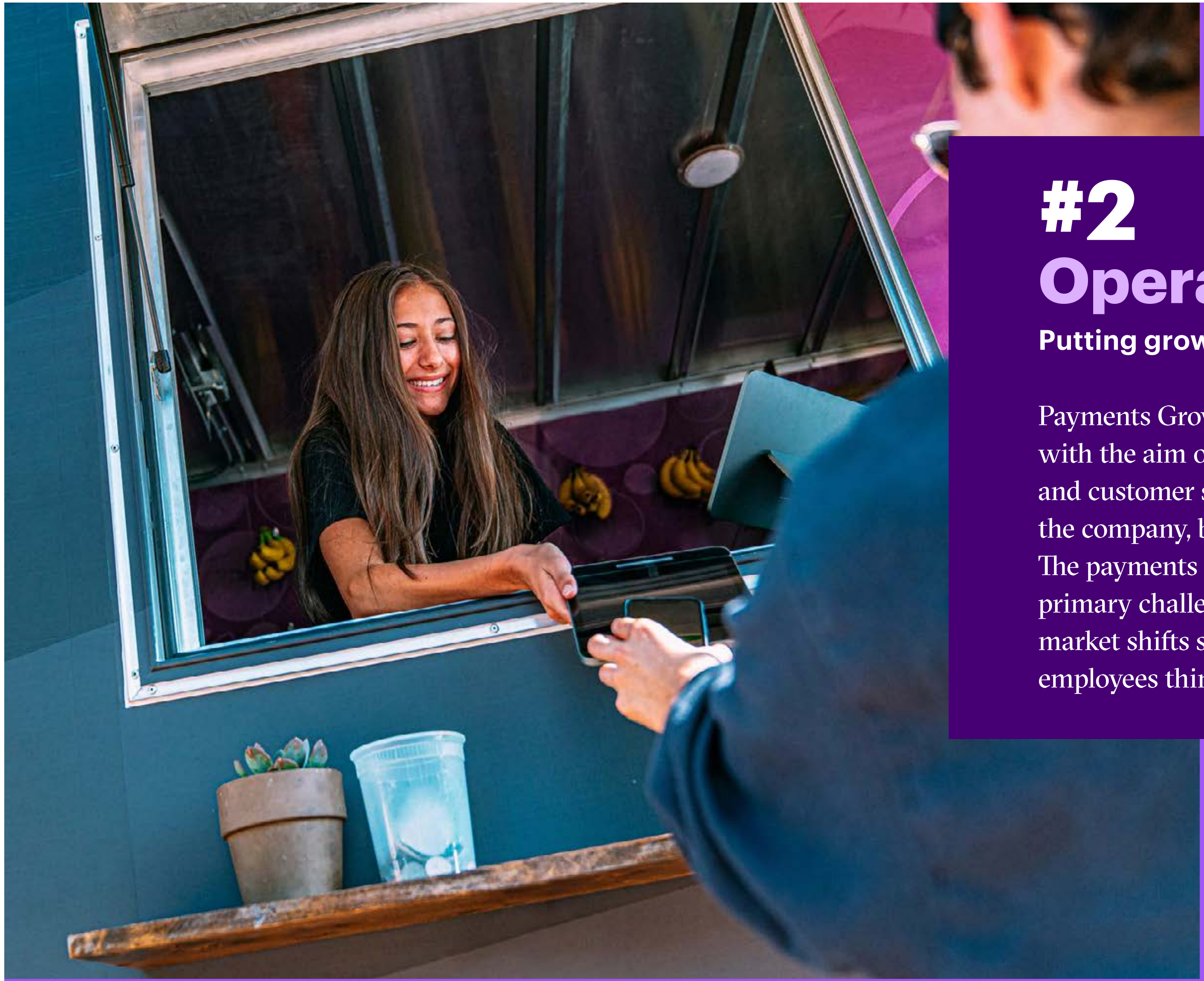
API platforms: Seamless customer connections

Payments Growth Leaders are using APIs to integrate their payments rails directly with customer platforms such as ERP systems or merchant point of sale systems. Combined with instant payments, this enables corporate customers to automate processes such as generating a refund when a customer returns a product.

Data monetization: New revenue streams from existing assets

Consumer data only becomes valuable once a payments company can use it to personalize customer experiences and influence commerce. As payment messages get bigger and bigger, requiring more storage and bandwidth, payments companies need to develop a cohesive data strategy that specifies how and in which format the data is stored, and how customer trust and privacy will be addressed.

Our survey shows that Payments Growth Leaders are almost twice as likely as other incumbents to have completed their investments in payments data monetization, giving them a head start over the rest.



#2
Operating model renewal

Putting growth-enabling processes in place

Payments Growth Leaders are renewing their operating models, with the aim of streamlining processes to enhance release management and customer service. The focus isn't only on providing efficiency for the company, but growing by providing efficiency for the customer. The payments executives we interviewed noted that one of their primary challenges is adjusting the culture of their business to market shifts such as Open Banking, which demand that their employees think about the world in a new way.

Organization: Moving toward a product-first approach

The research shows how Payments Growth Leaders are progressing from a focus on operations towards putting product and customer needs first. We believe that emphasizing the customer value proposition vastly improves the odds of success for other operating model renewal initiatives. This makes for a nimbler, more responsive organization.

To this point, more than 70% of Payments Growth Leaders are improving their ability to rapidly cycle people between different projects, roles and tasks based on changing business personnel needs. This minimizes silos and helps the organization make the most efficient use of resources to address emerging customer needs.

One European bank we spoke to has reorganized its payments teams to create a product-first approach that enables better visibility into customer needs.

Culture and talent: Learning through continuous training

The experiences of the Payments Growth Leaders indicate that an organization's appetite for risk and change is one of the keys to unlocking growth. More than six in 10 Payments Growth Leaders agreed that they are fostering a culture that is more tolerant of risk, failure and change. Tomorrow's payments leaders will enable cultures that are more open to change by incentivizing continuous learning and making employees accountable for customer outcomes.

One reason banks struggle to innovate at the speed of fintechs and bigtechs is that they don't have the same innovation culture or concentration of innovative talent. Unsurprisingly, Payments Growth Leaders regard innovative talent as one of the core capabilities for building a payments ecosystem. One way to nurture talent in-house is to set up knowledge transfer programs with ecosystem partners that have technology know-how.

Another way they can access talent is to retain close ties with former employees who leave to start their own fintechs. If an incumbent keeps close contact with its alumni, it increases its chances of catching good partners and solutions to work with or invest in early in their lifecycle.

Processes: Agile release cycle management

By using agile methodologies, Payments Growth Leaders can develop, test and launch innovative solutions faster than their peers. Agile ways of working also help them listen to customers and quickly develop novel solutions that meet their needs.

More than seven in 10 growth leaders are prioritizing the simplification of their business processes, so that they can become more agile and respond faster to changes in the external market.

Although most payment providers are using some form of agile today, there are major discrepancies in their maturity. Some have completely transformed their ways of working; others might only have one small scrum team.

A European bank has moved from annual to quarterly delivery in its payments business with the use of DevOps. This has accelerated speed to market.

#3
Ecosystem participation

Partnering to grow, innovate and meet customer demands

To meet customers' expectations of frictionless and integrated commerce journeys and keep ahead of a fast-changing landscape, payments providers increasingly need to be able to work in partnership with other companies. Banking-as-a-service offerings, for example, enable brands across different industries to embed payments into their offerings.

Payments incumbents can choose where they want to reach customers: directly under their own brand or indirectly as enablers of white-label services for e-commerce merchants, super-app providers, utilities and other third parties. On the flipside, they no longer need to own and engineer every payments product they offer—they can serve their customers through partner products and services where it makes sense.

Co-creating financial offerings with platform players

Standard Chartered has launched its BaaS solution, nexus, through which e-commerce, social media and ride-hailing platforms plan to offer their customers, under their respective brand names, a range of products co-created with the bank and including loans, credit cards and savings accounts.[22] Sociolla, a leading beauty and personal care e-commerce vendor in Indonesia, partnered with Standard Chartered to offer financial products to its customers.[23]

Partnering to move into the crypto market

Commonwealth Bank of Australia has partnered with Gemini—one of the world's largest regulated crypto exchanges and custodians—and Chainalysis—a leading blockchain analysis firm—to offer customers the ability to buy, sell and hold crypto assets directly through its banking app.[24]

Partners: Better solutions more quickly

Partnering enables Payments Growth Leaders to get to market faster with innovative products and broader value propositions. Our interviews with Payments Growth Leaders suggest that most use partners primarily to access value-added or bolt-on services and continue to develop their core propositions in-house. For an incumbent bank, this core might be its knowledge in managing regulatory and compliance issues. Payments Growth Leaders prefer to keep control of these processes because they cannot rely on partners to maintain compliance.

Instead of spending six months or more vetting partners, a bank in Europe works directly with potential partners on joint proofs of concept. In this way, the bank can establish whether it is worthwhile going through the formal partner vetting process.

Risk management: Minimizing reputational risks

Payments Growth Leaders are more than 60% more likely than the rest of our research respondents to agree that proactive compliance is one of the most important capabilities when building a payments ecosystem.

When working with emerging fintechs, incumbents might need to offer them guidance in meeting security and compliance standards as they build their products. Several fintech players have experienced data leaks over the past year. Some incumbents have established sandboxes to help fintechs develop propositions that are user-friendly, yet secure and compliant with regulation.

One bank we spoke to has put a risk metric in place as a key performance indicator for all categories of employee. Each employee takes some responsibility for potential risks that may arise when collaborating with external partners.

Forge your own path to growth

Tomorrow's incumbent Payments Growth Leaders cannot win by simply emulating the examples of fintech and bigtech disruptors. Unlike the disruptors, incumbents face the challenge of carefully balancing the imperatives of cost reduction and revenue growth in their payments growth initiatives, simultaneously protecting their core business and growing their customer base through innovative new offerings.

Yet they also have some advantages over their challengers, including the power of their balance sheet, the reach of their distribution network, their experience in regulatory compliance, and higher levels of customer trust. Forward-thinking incumbents will leverage these advantages to create propositions that add value, create stickiness and grow the business by deepening relationships with customers.

"Many payments disruptors have rapidly ascended to great heights through their willingness to cut margins in pursuit of customer and volume growth. Incumbents with established businesses often worry about cannibalizing their existing revenues when they contemplate launching innovative products in response to the new competition. However, banks don't need to take the same approach as the disruptors. They can find new paths to growth by creating the best value propositions that deepen existing customer relationships built on a strong foundation of trust."

Sulabh Agarwal
Global Payments Lead
Accenture

About the research

About the survey

Between August 9 and September 3, 2021, Accenture conducted an online survey of 205 payments executives in 25 countries: US, Canada, UK, Germany, the Netherlands, France, Spain, Italy, Sweden, Finland, Denmark, Norway, Australia, Japan, India, China, Singapore, Thailand, UAE, Brazil, Argentina, Chile, Colombia, Mexico and Peru. The respondents were split between banks (70%), payments processors (15%) and fintech companies (15%). The overall margin of error was ± 1.55 percentage points at the midpoint of the 95% confidence level.

About the expert interviews

Between August and October 2021, Accenture conducted interviews with 30 payments experts at banks, payments processors and fintech companies across North America, Europe and Asia.

About the Payments Growth Leaders

To identify the Payments Growth Leaders, we gathered data about 175 incumbent payments companies in 25 countries to compare their compound annual growth rate (CAGR) in payments transaction values over three years. Our major data sources included Global Data, Nilson Reports and S&P's Capital IQ.

Among these 175 incumbent players, we identified 30 leaders (25 banks and five payments processors) to ensure statistical significance. We selected the banking leader in each country as part of this set of Payments Growth Leaders to provide a balanced view that takes into consideration that regional and country growth rates differ widely due to market dynamics.

Among banks, the set comprises six leaders in North America, six in Asia-Pacific, six in Latin America and seven in Europe. Among payments processors, we identified two in North America and one in each of the other regions. On average, the leaders identified achieved a 2.7 percentage point higher CAGR in transaction value compared to the other players.

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2020 Diary of Consumer Payment Choice

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The 2020 Diary of Consumer Payment Choice

2021 ● No. 21-2
Claire Greene and Joanna Stavins

Abstract

This paper describes key results from the 2020 Diary of Consumer Payment Choice (DCPC), the seventh in a series of diary surveys that measure payment behavior through the daily recording of consumer spending and payments in the United States. The DCPC is the only diary survey of US consumer payments with data and results that are available to the public free of charge.

In October 2020, US consumers made most of their payments with debit cards, credit cards, and cash. Together, they accounted for three-quarters of all payments by number and one-third by value. In the pandemic year 2020, consumers' mix of payments changed. Total number of payments in the month declined from 39 in 2019 to 35 in 2020, with purchases declining from 31 in 2019 to 26.1 in 2020. The number of bills paid was stable at 8.4. Online or mobile purchases of goods and services increased from 17 percent of all purchases in 2019 to 24 percent in 2020 (as a share of both in-person and not-in-person purchases). Of purchases not made in person, four in 10 were accomplished via a mobile phone. US consumers generally held more cash in 2020 compared to 2019. The average holding on person was $76.

JEL Classifications: D12, D14, E42

Keywords: cash, checks, checking accounts, debit cards, credit cards, prepaid cards, electronic payments, payment preferences, Diary of Consumer Payment Choice

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Acknowledgments appear on the first page of this report. The primary authors are responsible for any errors in the report.

This report, which may be revised, is available at www.atlantafed.org/banking-and-payments/consumer-payments/research-data-reports.aspx.

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1. Introduction

The 2020 Diary of Consumer Payment Choice (DCPC) is the seventh official study conducted by the Federal Reserve Banks of Atlanta, Boston, and San Francisco to gain a comprehensive understanding of the cash and noncash payment behavior of adult consumers (ages 18 and older) in the United States.[1] This report contains results for 2020 and includes estimates of the number, value, and average value of payments that all US adult consumers made using various payment instruments. It also includes estimates of cash held on person (pocket, purse, or wallet) and stored cash by denomination of currency.

The DCPC collects data on individual payments from daily records kept by consumers, including the dollar values of payments. Because this daily recording method differs from the recall method used by the Survey of Consumer Payment Choice (SCPC), estimates from the two surveys are not directly comparable. For more information about the SCPC, see Foster, Greene, and Stavins (2019, 2020, 2021).

This report focuses on estimates of the *level* of consumer payment use in 2020—that is, the number and value of consumer payments—and changes from the pre-COVID-19 year 2019. The full data set is posted online; tables 1–9 report results for 2015 through 2020.

- Number and dollar value of payments by payment instrument and by merchant type (tables 1, 2, and 5)
- Number and dollar value of purchases and bills by payment instrument (tables 3 and 4)
- Cash holdings on person and stored elsewhere (tables 6 and 7)
- Consumer characteristics, including income and demographics (tables 8 and 9)

In the 2020 tables, two outlier transactions are omitted. These transactions (a $34,000 bank account number payment for the purchase of a house and a $27,000 money order for the purchase of a car [one of nine money orders in the data set]) had an outsize effect on the weighted means calculated for tables 1, 2, 3, and 5. Both transactions are included in the full data sets posted online. Year-to-year results may not be comparable due to questionnaire changes. Due to fewer respondents in 2015 and 2020, we have less power to detect changes when comparing 2015 to later years, when the numbers of respondents

[1] For past reports, see atlantafed.org.

were more similar (table A) or 2020 to earlier years.[2] In addition, the calendar periods when respondents recorded their payments are aligned for 2016 through 2020 (October), but the 2015 calendar period was different (mid-October to mid-November). Each year's questionnaire includes modest changes, so exercise caution when interpreting estimates of changes in payment behavior.

Table A: Number of DCPC respondents

Survey year	Number of respondents
2015	1,016
2016	2,848
2017	2,793
2018	2,873
2019	3,016
2020	1,537

All DCPC data, along with technical documentation, are available to the public free of charge. Throughout the paper, small discrepancies in the estimates may exist due to rounding. The data may be revised in the future should important new information or analysis warrant doing so.

The remainder of this report is organized as follows. Section 2 provides an overview of the number and value of payments for 2020 and describes changes relative to pre-COVID-19 year 2019. Section 3 reports estimates of the level of consumer payment use by payment instrument and describes the implied changes in payment instrument use from 2019 to 2020. Section 4 shows how payment instrument choice for purchases differs from choices for bills. Section 5 reports to whom payments were made: consumers, businesses, or government, and describes some changes from 2019. Section 6 focuses on the use of cash and electronic devices, and Section 7 on cash holdings. Section 8 concludes the report. An appendix summarizes the underlying survey methodology.

2. Number and value of payments

US consumers made on average 35 payments for the month,[3] or 1.1 payments per day (table 1). On any given day, an average of 50 percent of consumers reported making zero payments (compared to 45 percent in 2019). US consumers made on average $4,393 worth of payments for the month (median $151). Consumer *payments* are not the same as consumer (or household) *expenditures,* so the

[2] The sample size is reduced in 2020 because some panelists were invited to participate in experiments investigating various ways of assisting respondents to reduce respondent burden in lieu of being offered the standard version of the DCPC.

[3] All the data reported in this paper refer to October 2020, unless specified otherwise.

estimated value of consumer payments (and its growth rate) should not be compared with data on expenditures. Dividing the value of payments by the number of payments yields an average value per consumer payment of $126 (table 2).

The number of consumer payments decreased about 10 percent (that is, by four payments) compared with October 2019 (39 payments per consumer per month), a decline that is statistically significant. The 2020 total number of payments is lower than the number of payments reported in October of all the prior years covered by this report, 2015 through 2019. The total value of payments increased by $156 (4 percent) from $4,237 in 2019 and exceeds the total values reported for all the prior years of this report. The average dollar value of a payment increased from $109 in 2019 to $126 in 2020. The changes in the total dollar value and the average dollar value are not statistically significant.

3. Number and value of payments by instrument

US consumers made more than half of their payments with payment cards (debit, credit, and prepaid): 57 percent, or 20 payments. They used paper instruments (cash, checks, and money orders) for 25 percent, or 9 payments; electronic methods for 12 percent or 4 payments;[4] and other methods[5] for 5 percent, or 2 payments (table 1). Compared with 2019, the volume shares of cards and electronic instruments increased and the volume shares of paper instruments declined; only the decline in the share of payments made by paper instruments is statistically significant.

Although cards were used more frequently than electronic payments, the total value of payments made electronically exceeded that of payments made by cards: $1,476 compared to $1,269. By value, payments using electronic instruments were 34 percent of the monthly total, compared to 29 percent for cards and 27 percent for paper instruments (table 1). None of the changes in share by dollar value was statistically significant.

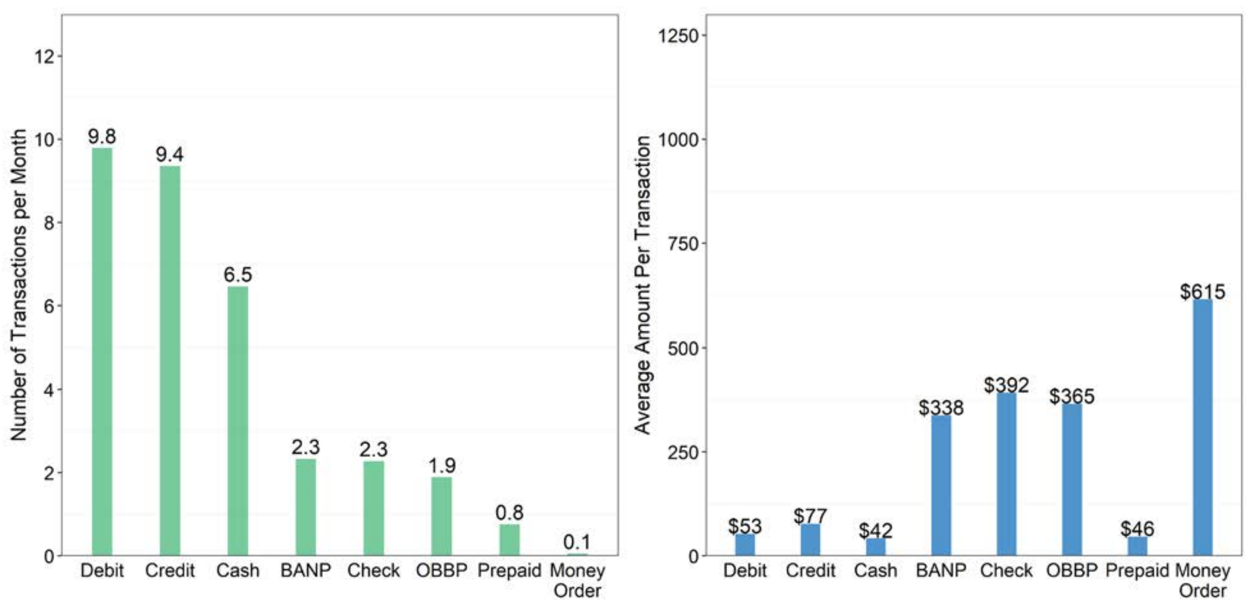
[4] The electronic payment instruments are defined as follows. Bank account number payment (BANP): a payment made by providing a bank account number to a third party, such as an employer or a utility company. The number can be given on websites, paper forms, and so on. Online banking bill payment (OBBP): a payment made from a bank's online banking website or online mobile app that accesses funds from a customer's checking or savings account to pay a bill or to pay other people. This payment does not require the customer or the bank to disclose his or her bank account number to a third party.

[5] Other methods include income deduction, PayPal, account-to-account transfers (using apps such as Zelle and Venmo), and mobile payments.

Debit cards, cash, and credit cards remain the ways to pay used most often,[6] with debit cards used most by number of payments (table 1). Twenty-eight percent of payments were with debit cards, 27 percent with credit cards, and 19 percent with cash. Altogether, consumers made about three-quarters of their payments using debit cards, cash, and credit cards.

The distribution by value is different. Cash, debit, and credit payments accounted for 34 percent of the value of their payments: 6 percent in cash, 12 percent in debit cards, and 16 percent in credit cards (table 1). The difference between the distribution by volume and by value reflects that consumers tend to use cash and payment cards more often, but for relatively low-value payments, and they tend to use checks and electronic payments less often, but for relatively high-value payments (figures 1 and 2). For example, US consumers on average made fewer electronic-instrument payments than cash payments (four compared with seven), but they used electronic payments for transactions that were higher in average value than cash transactions ($350 compared with $42). The average value when using payment cards fell between the two, at $64 (tables 1 and 2).

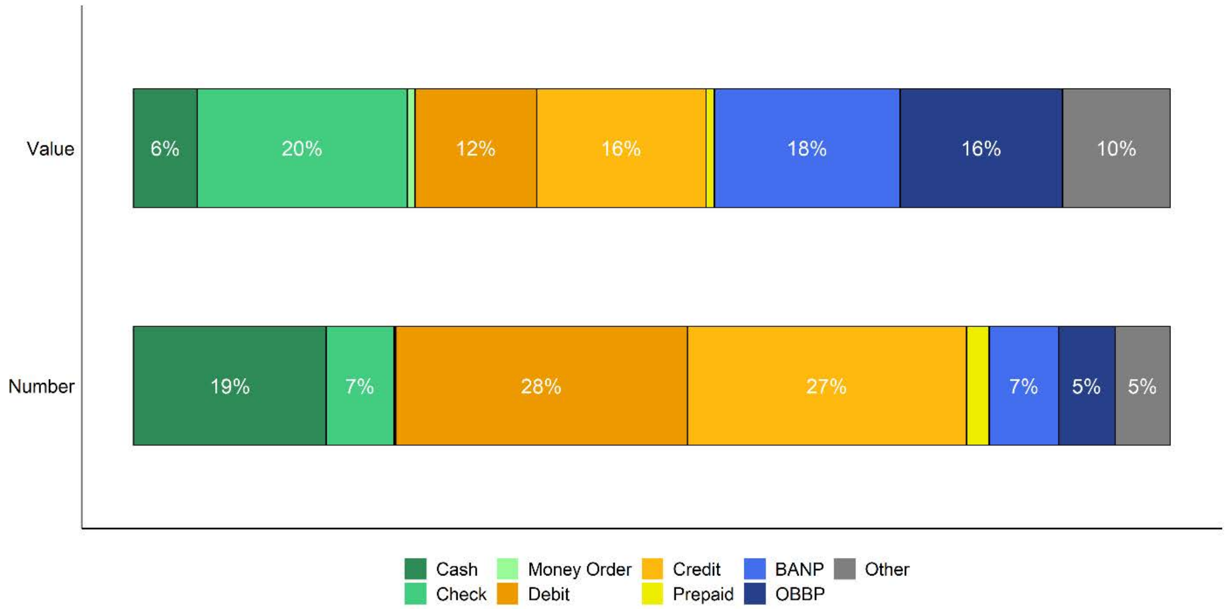
Figure 1: Number and average value of payments by instrument, October 2020



Note: Payment instruments are ranked left to right by number of transactions per month. OBBP: online banking bill pay. BANP: bank account number payment. Other includes PayPal, account-to-account transfers, mobile payments, and deductions from income.
Source: 2020 Diary of Consumer Payment Choice, table 1

[6] Debit, cash, and credit are also the three most frequently used payment instruments by consumers in the SCPC. See Foster, Greene, and Stavins (2020).

Figure 2: Percentage shares of payments by number and value, October 2020

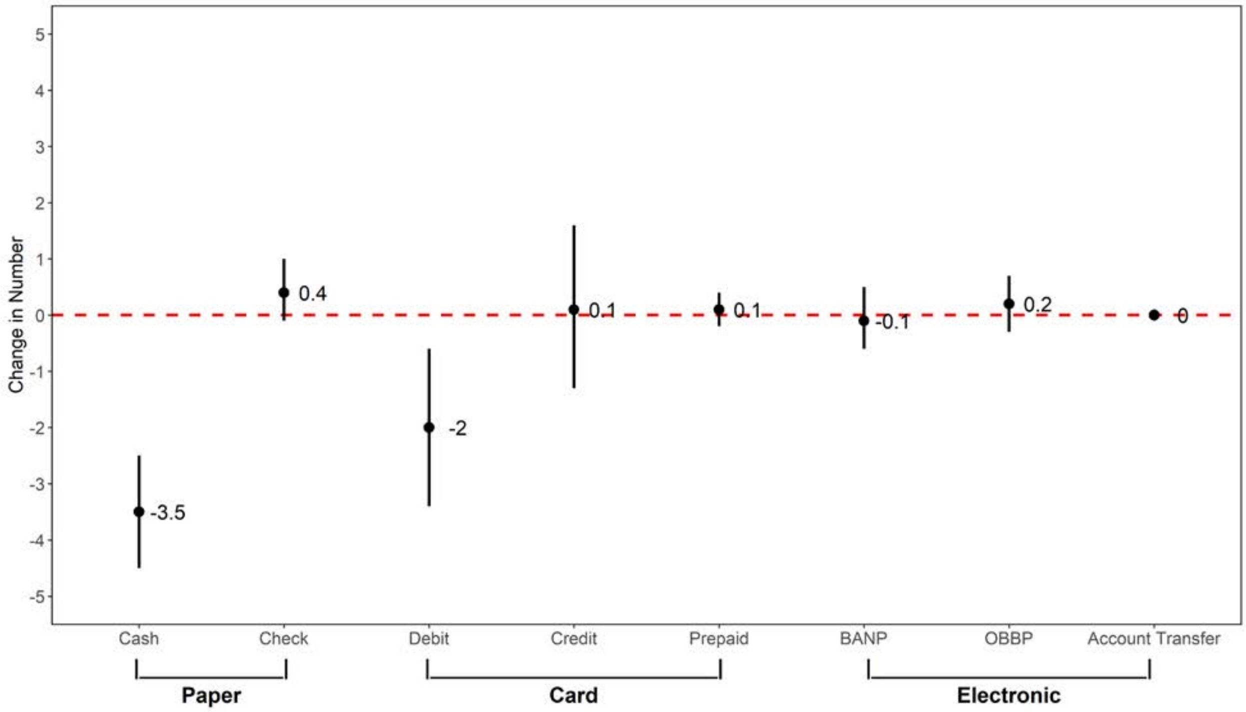


Source: 2020 Diary of Consumer Payment Choice, table 1

Changes in the number and value of payments by instrument

As noted above, the overall number of US consumer payments decreased from 2019 to 2020 while the value increased. The change in the number of all payments and the decrease in the numbers of cash and debit card payments are statistically significant (table 1 and figure 3). No other changes for individual payment instruments are statistically significant. The number of cash payments declined from 10 payments per month to seven, as one might expect during the COVID-19 pandemic, when in-person purchases declined as a share of all purchases (table B). The number of debit card payments declined from 12 to 10.

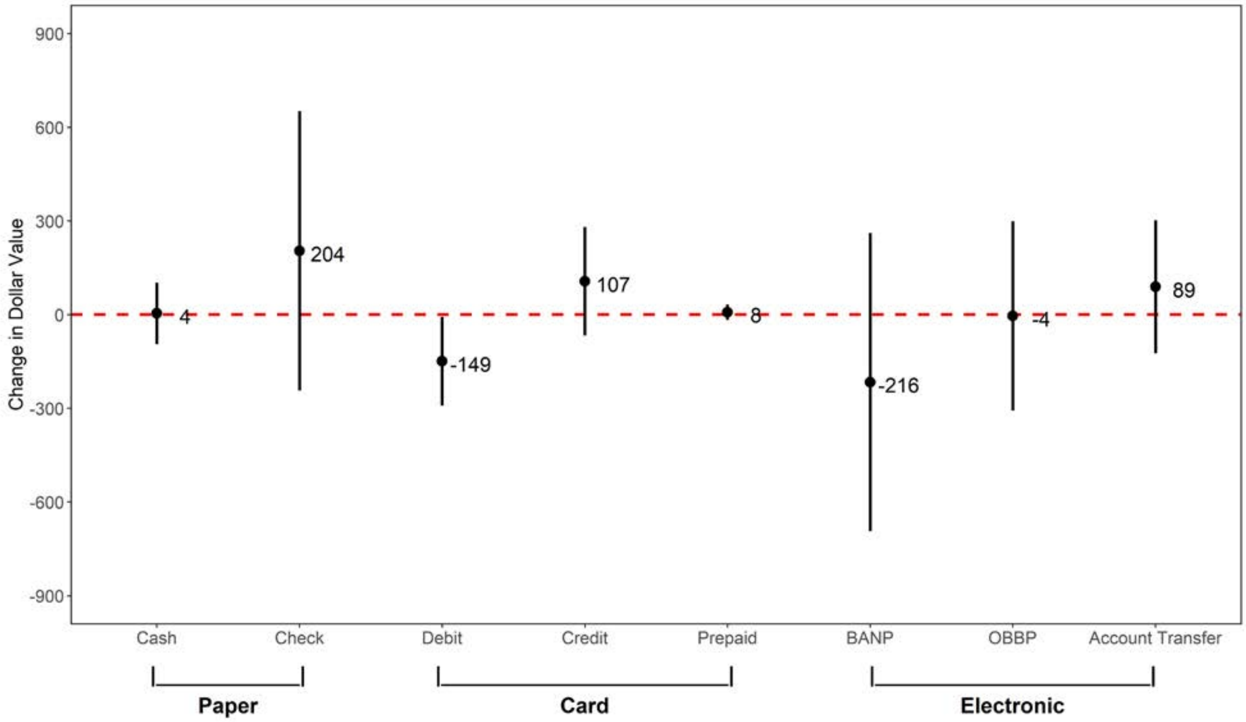
Figure 3: Changes in the number of payments per month by payment instrument, 2019 to 2020



Notes: The vertical lines depict the 95 percent confidence intervals of the changes in the number of payments between 2019 and 2020. The numbered dots depict the point estimates. Confidence intervals that lie entirely above or below the horizontal zero line indicate changes that are statistically significantly different from zero. Money orders are omitted from this figure.
Source: 2019 and 2020 Diary of Consumer Payment Choice

The increase in the total dollar value of payments was not statistically significant from 2019 to 2020. Examining each payment instrument separately, no payment type showed a significant change in total dollar value from 2019 to 2020 (figure 4).

Figure 4: Changes in the total dollar value of payments per month by payment instrument, 2019 to 2020



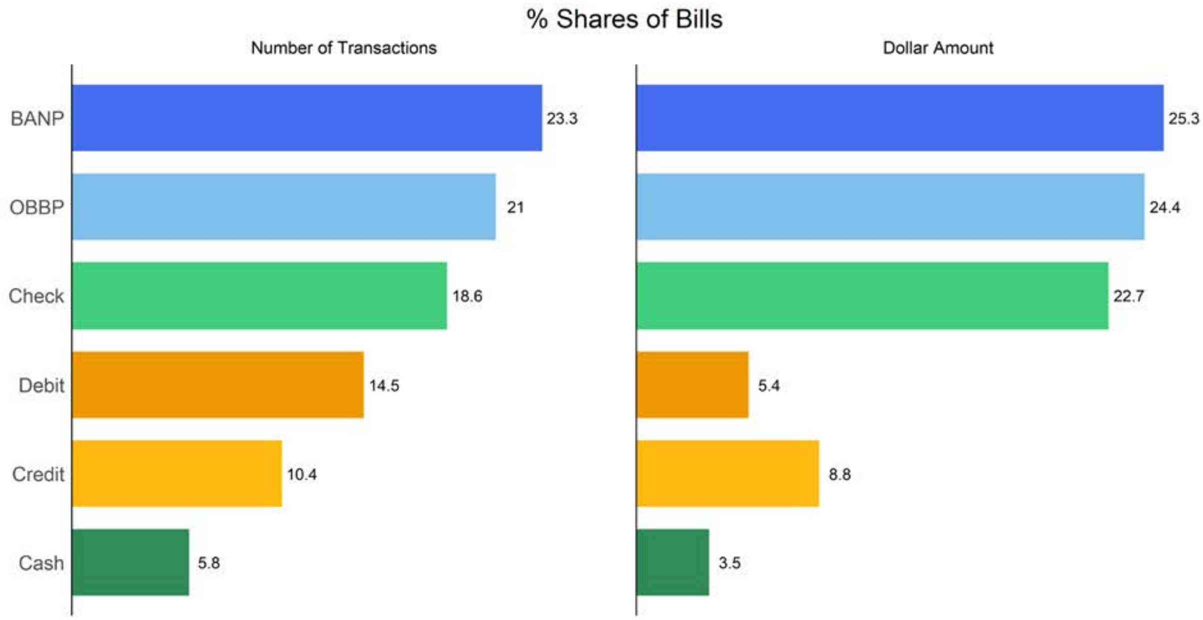
Notes: The vertical lines depict the 95 percent confidence intervals of the changes in the total dollar value of payments between 2019 and 2020. The numbered dots depict the point estimates. Confidence intervals that lie entirely above or below the horizontal zero line indicate changes that are statistically significantly different from zero. Money orders are omitted from this figure.
Source: 2019 and 2020 Diary of Consumer Payment Choice

4. Bills and purchases

US consumers on average made 8 bill payments and 26 purchases per month (tables 4 and 3a). The number of bill payments per month was constant from 2019 at eight.[7] Bill payments accounted for 24 percent of all payments by number and 63 percent by value. Electronic payment methods and checks are most commonly used for bill paying: 23 percent of bills by number were paid by BANP, 21 percent by OBBP, and 19 percent by check, totaling 6 in 10 of all bill payments for the three methods (table 4 and figure 5). In addition, 15 percent of bill payments were made with a debit card. Half of the value of all bills (51 percent) was paid using electronic payments (BANP and OBBP).

[7]All payments, including bill payments, include only payments made by the individual survey respondent and exclude any payments made by other members of the household.

Figure 5: Payment instrument use for bills, shares by number and value

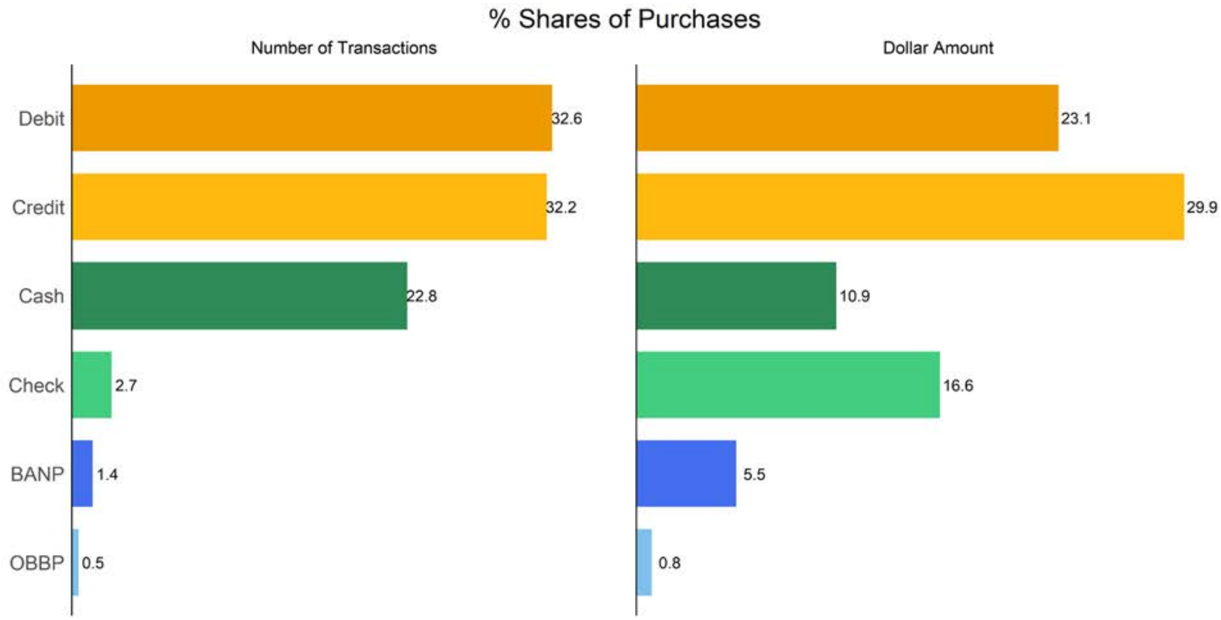


Note: Shares do not sum to 100 because less common payment instruments are omitted.
Source: 2020 Diary of Consumer Payment Choice

All the decline in the total number of payments from 2019 to 2020 occurred in purchases (including P2P), which dropped from 31 to 26, a statistically significant change. Tables 3a and 3b include goods and services bought in person and online as well as payments to another person—for example, as a gift or allowance. The total value of purchases increased from $1,560 in 2019 to $1,583, not statistically significant. Purchases (both online and in person and including P2P) accounted for 80 percent of all payments by number in 2019 and 75 percent in 2020. They were 37 percent by value in 2019 and 36 percent in 2020. The average dollar value of purchases, $50 in 2019, increased 22 percent to $61 in 2020.

Debit card was the most used payment method for purchases, accounting for 33 percent of purchases by number, closely followed by credit cards (32 percent) and cash (23 percent) (tables 1 and 3 and figure 6). In terms of dollar value, half of all purchases were with cards, 30 percent with credit cards and 23 percent with debit cards. The dollar-value relationship to payment instrument choice described above pertains here: average dollar values for cash, debit card, and credit card purchases were, respectively and in ascending order, $29, $43, and $56 (table 3a).

Figure 6: Payment instrument use for purchases, shares by number and value



Note: Shares do not sum to 100 because less common payment instruments are omitted.
Source: 2020 Diary of Consumer Payment Choice

In October of the pandemic year 2020, consumers reported a change in the mix of purchases made in person and not in person (that is, remotely) (table B). As a share of all purchases and excluding P2P payments, in-person purchases declined from 87 percent in 2019 to 80 percent in 2020. Four in 10 not-in-person purchases were conducted via a mobile phone. Slightly less than 4 percent of in-person purchases were made using a mobile phone.

Table B: Average number of purchases by location, 2016–2020

	2016	2017	2018	2019	2020
All purchases	32.6	30.8	31.1	29.1	26.1
In person	31.0	28.9	28.9	26.5	20.9
Not in person	1.6	1.9	2.3	2.6	5.2

Note: P2P omitted.
Source: 2020 Diary of Consumer Payment Choice

5. Payees

Of the average 35 payments per month that US consumers reported, 12 were for everyday purchases (groceries, pharmacies, stores, and online shopping); six were for food consumed away from home (including restaurants, bars, and fast food, down from eight in 2019); three were at gas stations; and three were related to financial services companies (including insurance; IRA and mutual funds; credit card, mortgage, and other loan payments) (table 5).

The remaining payments were for services related to housing (rent, utilities, communications), for medical and education expenses, for other services and recreation, and for charitable donations. Consumers made two payments per month to another person, defined in the questionnaire as "friends, family, co-workers, or a person you pay for goods or services."

By number, shopping (including grocery stores, convenience stores, pharmacies, and other physical stores as well as online shopping) represented 34 percent of all payments; by value, 17 percent (table 5). Similarly, the purchase of food consumed away from home was 18 percent of payments by number (down from 21 percent in 2019) and just 4 percent by value, reflecting the relatively low average dollar value of such payments. In contrast, payments to financial services companies, which include loan repayments, transfers to another account, and purchases of financial assets, are 10 percent of all payments by number and 45 percent by value, the greatest share of any payee type. Shy (2020) examines the payment instruments consumers used in October 2019 to pay the different payee types.

6. Use of cash and electronic devices

Consumer payment diaries make it possible to track detailed use and management of cash, transaction by transaction, over the course of a day. The DCPC reflects two important differences between cash and other payment methods. First, cash payments account for a relatively large proportion of the *number* of payments, as mentioned above. Of the total number of payments, 19 percent on average involved cash. A second difference is that cash payments account for a relatively small proportion of the *value* of payments. Of a consumer's total payment value, only 6 percent on average was funded using cash. The average value of a cash payment was $42, compared with $146 for the average value of all other payments, and the average cash *purchase* was even lower in value, at $29 (tables 2 and 3). (For more on cash use in 2020, Kim et al. 2020 [2], Coyle et al. 2020, and Foster and Greene 2021.)

Of course, it is not possible to make cash payments with electronic devices (computer, tablet, mobile phone), so we could consider these electronic means of making payments the alternative means to paying with cash. In 2020, 31 percent of all payments were made using electronic devices; 14 percent of all payments were made using a mobile phone.

7. Cash holdings

The DCPC obtains data on consumers' holdings of cash on their person (pocket, purse, or wallet) and stored elsewhere (home, car, office, and such). The data on cash holdings were collected every night during the diary recording period; the data on stored cash were collected on the first and last nights. For both measures, respondents were asked to count the exact number of bills held by denomination, and the online questionnaire automatically summed the dollar values of cash holdings by denomination and in total. Respondents did not report holdings of coins.

A US consumer carried $76 in cash each day on average, a statistically significant increase from 2019. By value, about half of the cash on person was in the form of $20 bills and one-quarter was in $100 bills (table 6). About 80 percent of consumers carried at least $1 at the beginning of at least one of their diary days. Consumers' pandemic-era holdings of cash were reported and discussed in Kim et al. 2020(2), Coyle et al. 2020, and Foster and Greene 2020.

Fewer consumers store cash elsewhere; 42 percent of consumers had at least $1 stored elsewhere. For all consumers, the average value of cash stored elsewhere was $308, increased from $264.

8. Conclusion

Data from the 2020 Diary of Consumer Payment Choice show that consumers use debit cards, credit cards, and cash for most of their payments by number. Debit cards and credit cards are the most commonly used payment instrument by number for purchases, accounting for about one-third of purchases each. Electronic methods linked to a bank account are used for almost half of bill payments by number. In the pandemic year 2020, online or mobile purchases of goods and services increased to 24 percent of all purchases (as a share of in-person and not-in-person) from 17 percent. Of purchases not made in person, four in 10 were accomplished via a mobile phone.

Appendix A: Overview of survey methodology

This section provides a brief overview of the key elements of the DCPC methodology for 2020. Angrisani, Foster, and Hitczenko (2018) contains technical information about the DCPC.

Sampling frame and samples

The 2020 DCPC was implemented with representative samples from the Understanding America Study (UAS), managed by the University of Southern California (USC) Dornsife Center for Economic and Social Research (CESR) (table C).

Table C: Overview of samples, 2015–2019

	2015	2016	2017	2018	2019	2020
UAS available panel	2,140	4,776	4,759	4,718	5,228	5,267
Number of unique respondents*	1,087	3,047	2,871	2,992	3,154	1,748
Respondents completing all DCPC days**	1,016	2,848	2,793	2,873	3,016	1,537
Number of longitudinal panelists***	--	799	2,226	2,276	2,388	1,146

Notes: Part of the 2020 sample of 3,708, or 1,909 panelists, received the 2020 DCPC. The other part, 1,799 respondents, received an experimental survey that combines the Survey with the Diary of Consumer Payment Choice. Longitudinal panelists participate in multiple years. *Completed at least one day. **Completed at least four days ("night before" plus three diary days). ***Participated in at least one previous DCPC.
Source: Federal Reserve Bank of Atlanta

The sample size is reduced from 2019 because some panelists were invited to participate in experiments investigating various ways of assisting respondents to remember transactions and to reduce respondent burden for the SCPC and DCPC. Part (1,909) of the full sample of 3,708 received the traditional combination of SCPC and DCPC; the other part (1,799) completed an experimental combination in which the SCPC section asking respondents to recall their transactions in a "typical" month is eliminated in favor of the DCPC method of reporting specific individual transactions in detail: dollar value, date, time, payee, etc. A report on this survey experiment is forthcoming; the experimental questionnaires are posted online.

Questionnaires

The DCPC is an online survey administered to diary respondents ("diarists") over three consecutive days. It also includes a pre-diary online survey. Diarists can record their payments, cash management, and related information for each assigned day. In years before 2020, the survey vendor provided respondents long-form and short-form paper memory aids and a receipt bag. Due to the COVID-19 pandemic, these additional recording materials were not sent to respondents in 2020. Some prior experiments, with some respondents receiving the recording materials and other not, made us confident that this would not materially affect responses. Diarists enter the data into a 10- to 15-minute online survey each night. Most of the online questionnaire collects information about payments and related data. Each day, it also includes questions specific to that day, such as income received, cash withdrawals and deposits, and so forth. Together, the whole process is expected to take no more than 30 minutes per day to complete, and respondents receive a $20-per-day incentive. The pre-diary online survey takes about 10 minutes, and respondents receive $10, for a total incentive of $70 per diarist.

Prior to starting the DCPC, all diarists are required to take the 30-minute online Survey of Consumer Payment Choice (SCPC), for which they receive an incentive of $20 upon completion. A respondent may complete the SCPC any time from its release in the middle of September to the first day of the assigned diary period. For 2017, the DCPC questionnaire was changed to help respondents in reporting the payee and identifying bill payments. These changes mean that results for the breakdowns of bills and purchases are not comparable between 2016 and 2017–20. All questionnaires are posted online.

Diary implementation

Diarists are randomly chosen to begin participating in the DCPC each day throughout the defined sample period for the year. Thus, each diary day contains a small sample of respondents (an average of 180 per day in 2020) that is, on average, representative of all US consumers. Diary waves are staggered to start two days before the official beginning of the DCPC and end two days after the official end date. This way, each day contains approximately one-third of respondents who are completing each day of the diary (one, two, or three), and every day-specific group of questions occurs on each day of the month. As a result of this implementation strategy, DCPC data provide aggregate estimates that are representative of all US consumers on average for each day of the sample period (day-of-the-month weights) and, under certain assumptions about temporal trends, for the sum of all days in the sample period (monthly weights), usually the month of October.

In addition, the data provide strong evidence that payment behavior is heavily influenced by a weekly cycle, with different behaviors on different days of the week. As a result, a hybrid approach for the estimates generates estimates for each day of the week by pooling across the relevant monthly data and then aggregates these to generate estimates for any particular period of time. (Also see Angrisani, Foster, and Hitczenko [2017]; Angrisani, Foster, and Hitczenko [2018].)

Data preprocessing

All DCPC survey responses reported here have been analyzed for errors, inconsistencies, and influential outlier effects. Where necessary, the DCPC data have been cleaned and adjusted using statistical methods similar to methods used previously and reported in earlier SCPC and DCPC technical appendices. Because consumer payments and cash management behavior exhibit significant day-of-the-week effects, and calendar months can vary notably across years in their composition of days of the week, the raw data contain seasonal fluctuations. The results for this report use revised sampling weights that attempt to adjust for differences in consumer payment behaviors across days of the week within each year.

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E Source “How Utility Customers Receive and Pay Their Bills”

PNM Exhibit MAC-7

Is contained in the following 7 pages.

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How utility customers receive and pay their bills

Findings from the 2021 Digital Metrics Survey

By Rachel Cooper, Heather Hilgenkamp

October 26, 2022

Key takeaways

- We've seen a continuous increase in paperless billing adoption rates over the past 10 years.
- Almost a quarter of customer accounts are enrolled in automatic bank account payments.
- Many utilities had to close walk-in payment centers during the COVID-19 pandemic, which resulted in increased electronic payments.
- Customers continue to prefer email alerts for billing- and payment-related notifications.

In this report we explore results from the E Source 2021 Digital Metrics Survey to understand utility customers' billing and payment interactions. Our findings allow you to compare your utility's strategies to those of your peers. Note that in the 2021 study, we asked utilities to provide data from the 2020 calendar year (January 1 to December 31, 2020).

Check the 2021 Digital Metrics Survey study page to find all the reports from the study.

How many customers enroll in paperless billing?

Paperless billing is a popular option for utilities to offer customers. From the E Source 2021 Website Benchmark, we found that 99% of the utilities we reviewed offered paperless billing.

Paperless billing adoption keeps increasing. On average, 38% of utility customers were enrolled in paperless billing, according to the 2021 Digital Metrics Survey (**figure 1A**). This was a significant increase from the 2018 study where the average adoption rate was 25%. The highest paperless billing adoption rate reported in the

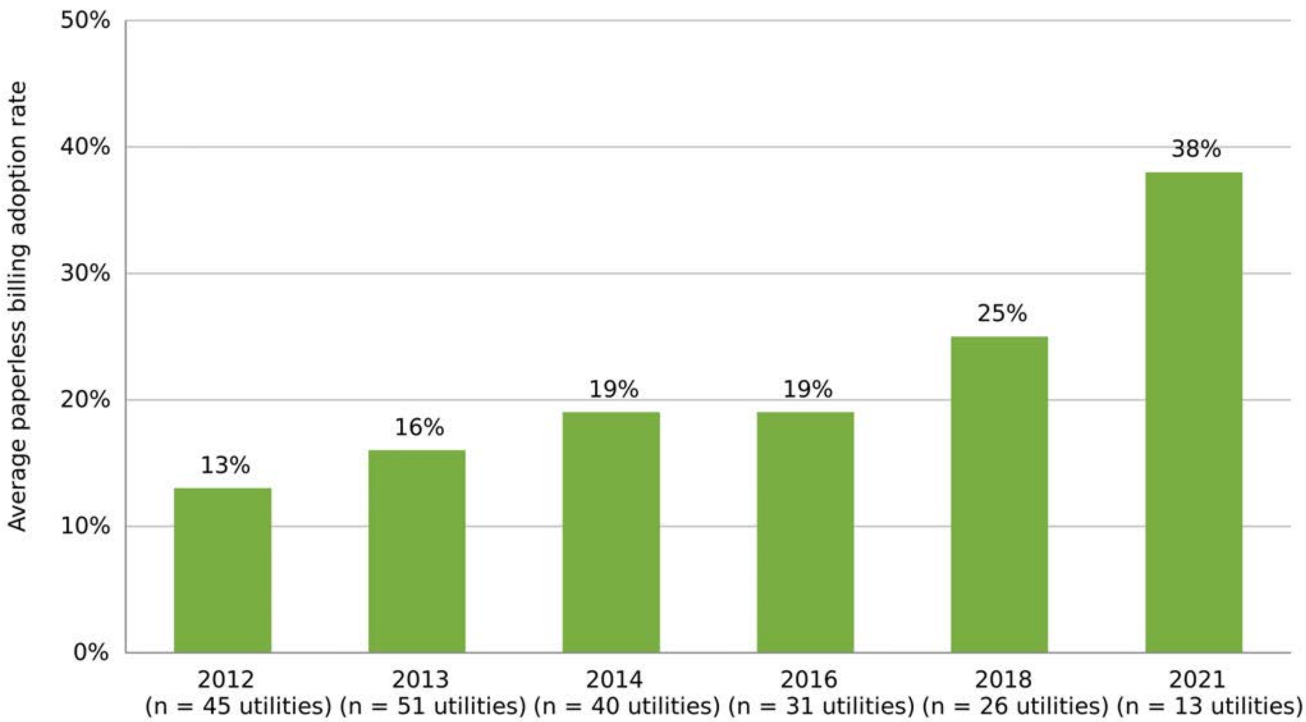
2021 study was 60%.

When looking at adoption rates by customer type, we found that more residential accounts enroll in paperless billing than business accounts do (**figure 1B**). Utilities saw an average of 40% of residential accounts enrolled in paperless billing but only 25% of business accounts.

Figure 1: Paperless billing adoption rates in 2021

A. Year-over-year paperless billing adoption rates

Paperless billing adoption has been steadily increasing since 2016. The average paperless billing adoption rate reported in 2021 was 38%, up from 25% in 2018.



© E Source (Digital Metrics Survey). **Base:** Number of utilities providing data (n varies). **Question S1_2:** Please list the number of retail accounts with paperless billing as of December 31, 2020. **Notes:** Paperless billing is when a bill is sent electronically with no delivery of t paper bill. Please include bills sent to all retail accounts of every class. A bill sent via electronic data interchange (EDI) would count if no corresponding paper bill was sent. Use caution when sample size falls below 30.

B. Paperless billing adoption rates by customer type

Residential customers are more likely to enroll in paperless billing than business customers. In 2021, 40% of residential accounts were enrolled in paperless billing, compared to 25% of business accounts.

	Utilities providing data (n)	Accounts enrolled in paperless billing
Overall	13	38%
Residential accounts	7	40%
Business accounts	7	25%

© E Source (2021 Digital Metrics Survey). **Base:** Number of utilities providing data (n varies). **Question S1_2:** Please list the number of retail accounts with paperless billing as of December 31, 2020. **Notes:** Paperless billing is when a bill is sent electronically with no delivery of the paper bill. Please include bills sent to all retail accounts of every class. A bill sent via electronic data interchange would count if no corresponding paper bill was sent. Use caution when sample size falls below 30.

Are customers enrolling in autopay?

All 85 utilities we reviewed through the 2021 Website Benchmark offer automatic bank account payments, but only 27% offer automatic credit or debit card payments.

Through the 2021 Digital Metrics Survey, we found that 24% of customer accounts on average were enrolled in automatic bank account payments, up from 19% in 2018. Enrollment rates for this payment type ranged from 15% to 41% among the 11 utilities that provided data.

Only three of the utilities that participated in the 2021 Digital Metrics Survey reported offering automatic credit or debit card payments. And among them, an average of 2% of accounts were enrolled in this payment type.

What channels do customers use to pay their bills?

Utilities receive most payments through electronic channels such as their website, third-party websites, and autopay (**figure 2**). The primary nonelectronic channel that customers use is bulk-processed checks. Utilities have continued to see an increase in usage of electronic payment channels through the years, especially because many in-person options had to shut down because of the COVID-19 pandemic.

Figure 2: Channels utility customers use to pay bills

Customers continue to move to electronic forms of payment. Of the electronic payment methods, website and autopay are the most used channels. Bulk-processed paper checks continue to be the most used nonelectronic form of payment.

	Channel	Utilities providing data (n)	Payments by channel
Electronic	Web payments (biller direct and third party)	11	31%
	Autopay	12	38%
	Interactive voice response system payments	11	6%
	Other electronic payment methods	11	2%
Nonelectronic	Paper checks (bulk processed)	8	21%
	Agent-assisted payments (including phone and walk-in)	11	2%

© E Source (2021 Digital Metrics Survey). **Base:** Utilities providing data (n varies). **Question S1_5a:** Please list the number of payments received by each of the following channels. **Notes:** Electronic channels include phone interactive voice response system, biller-direct website, third-party website, automatic payment, text-to-pay, digital or mobile wallet, mobile app, and electronic kiosk or pay station. Nonelectronic channels include bulk-processed paper checks, agent-assisted walk-in, and agent-assisted phone. Use caution when sample size falls below 30.

What are the most common payments by tender type?

Electronic payments via automated clearing house, electronic funds transfer, and electronic data interchange account for the highest proportion of total payments by tender type, at 57% on average. This is similar to 2018 when the average for this payment type was 55%.

The percentage of credit, debit, and electronic bank card payments almost doubled from 2018. In 2021 these payments accounted for 15% of payments on average, compared to 8% in 2018.

Nonelectronic payments (check, cash, vouchers, and money orders) have continued to decrease over the years. In 2021 nonelectronic payments accounted for 29% of payments on average, down from 32% in 2018 and 36% in 2016.

Do utilities charge customers a fee for electronic bank card or credit card payments?

According to the 2021 Website Benchmark:

- 1% of utilities charge a fee for payments made with a checking account
- 66% charge a fee for debit card payments
- 67% charge a fee for credit card payments

And according to the 2021 Digital Metrics Survey, three utilities reported they charge fees for electronic bank payments, and seven reported they charge fees for credit card payments. Electronic bank payment fees ranged from $1.85 to $2.00 and credit card payment fees ranged from $1.35 to $2.50. The three Canadian utilities that participated in this study didn't report charging their customers fees.

What channels are customers using for billing alerts?

More customers are enrolling in email alerts for billing- and payment-related notifications than in text or voice alerts (**figure 3**). On average, 16% accounts or more are enrolled in billing and payment alerts. Enrollment in these alerts has increased since 2018 when the highest average email alert enrollment was 21%, compared to 34% in 2021.

Figure 3: Enrollment in billing- and payment-related alerts

More accounts are enrolled in email alerts than voice or text alerts for billing- and payment-related notifications. The "Bill is ready to be viewed" alert has the highest enrollment rates.

Channel	Notification	Number of utilities offering the channel and providing data (n)	Accounts enrolled in alert
Email	Bill is ready to be viewed	7	34%
	Bill is due in x days	6	24%
	Payment posted	4	22%
	Past-due notice	5	16%
	Other	2	1%
Text	Bill is ready to be viewed	5	2%
	Bill is due in x days	4	4%
	Payment posted	3	2%
	Past-due notice	3	3%
	Other	1	0%
Voice	Bill is ready to be viewed	3	1%
	Bill is due in x days	3	1%
	Payment posted	1	0%
	Past-due notice	2	1%
	Other	1	0%

© E Source (2021 Digital Metrics Survey). **Base:** Number of utilities offering the channel and alert and providing data (n varies). **Question S1_9a:** Please list the number of accounts by channel that were enrolled in each of the following billing- and payment-related alerts as of December 31, 2020. **Notes:** Percentages shown in the table are based on utilities offering the channel and providing data. Some utilities don't offer the channel or don't track payment alert enrollments. Use caution when sample size falls below 30.

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF NEW MEXICO FOR REVISION OF ITS RETAIL ELECTRIC RATES PURSUANT TO ADVICE NOTICE NO. 595	)	**Case No. 22-00270-UT**
PUBLIC SERVICE COMPANY OF NEW MEXICO,	)	
Applicant	)	

SELF AFFIRMATION

MARIO A. CERVANTES, Director, Customer Experience, 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 5th day of December, 2022.

/s/ Mario A. Cervantes
MARIO A. CERVANTES

GCG # 530010