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Energy/Utilities

Managing in an Economic Downturn:
Using Customer Behavior Analyses to Improve Bad-Debt Performance

In an economic recession, more consumers assign utility bills a low priority, especially given the widespread perception that delinquent gas and electric accounts are not likely to be terminated (versus cable TV or wireless phone). For electric and gas utilities, it's increasingly important to know how customer payment behavior is changing, how quickly, and how much the risk of bad debt is rising.

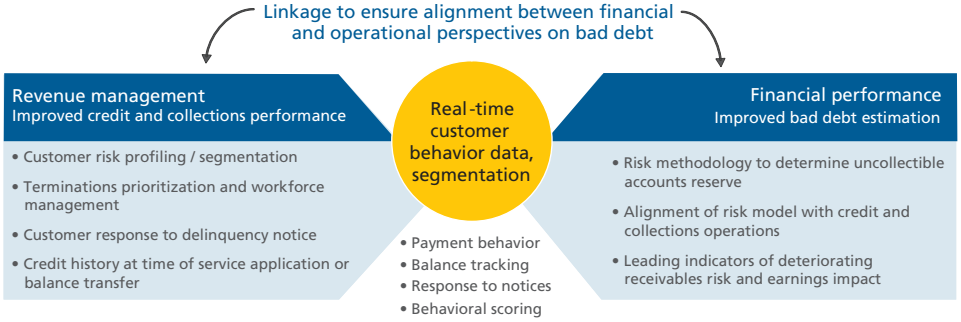
Oliver Wyman recently completed a benchmarking study on how utilities estimate their receivables risk, what risk trends they are seeing in the current economic environment, and what tactics they are using to stay ahead of the situation. Out of a dozen participating major utilities, ten reported increased receivables, and most were finding it necessary to increase their uncollectible accounts reserve as the result of reduced customer payments. These findings, coupled with our experiences working with utilities on collections and bad-debt issues, highlight the importance of several practices that are particularly useful when economic conditions cause customer behavior to change:

- **Collecting and analyzing real-time customer behavior data.** Observing customer behavior in real-time is the most effective way to anticipate potential bad-debt problems as customers wait longer to pay, more accounts go delinquent, and accounts receivable deteriorate rapidly.

- **Applying customer behavior analytics across the customer lifecycle.** From customer acquisition through delinquent noticing and termination targeting, there are many opportunities to reduce bad debt through the smart application of customer behavior insights to credit and collections processes and policies.

- **Building a flexible yet sustainable bad-debt reserve model.** Leading utilities are moving to reserve frameworks that are forward-looking, well-integrated, and aligned with operational strategy.

Exhibit 1 **Real-time behavior analytics linking bad-debt performance and estimation**



Real-time customer behavior analysis can help address the dual problem of enhancing reserve estimation and minimizing bad-debt expense through improved credit and collections performance.

Collecting and Analyzing Real-time Customer Behavior Data

In various situations, such as an economic downturn or after a period of reduced terminations, customer payment behavior can deteriorate rapidly, and large volumes of delinquent customers can overwhelm the *status-quo* collections process, increasing bad-debt expense and therefore eroding earnings. This change can occur so quickly that managers may not notice the problem until it has snowballed out of control. To prevent this, companies must monitor such changes continually, and have a flexible credit and collections operation that is ready and able to respond quickly to changes in customer behavior.

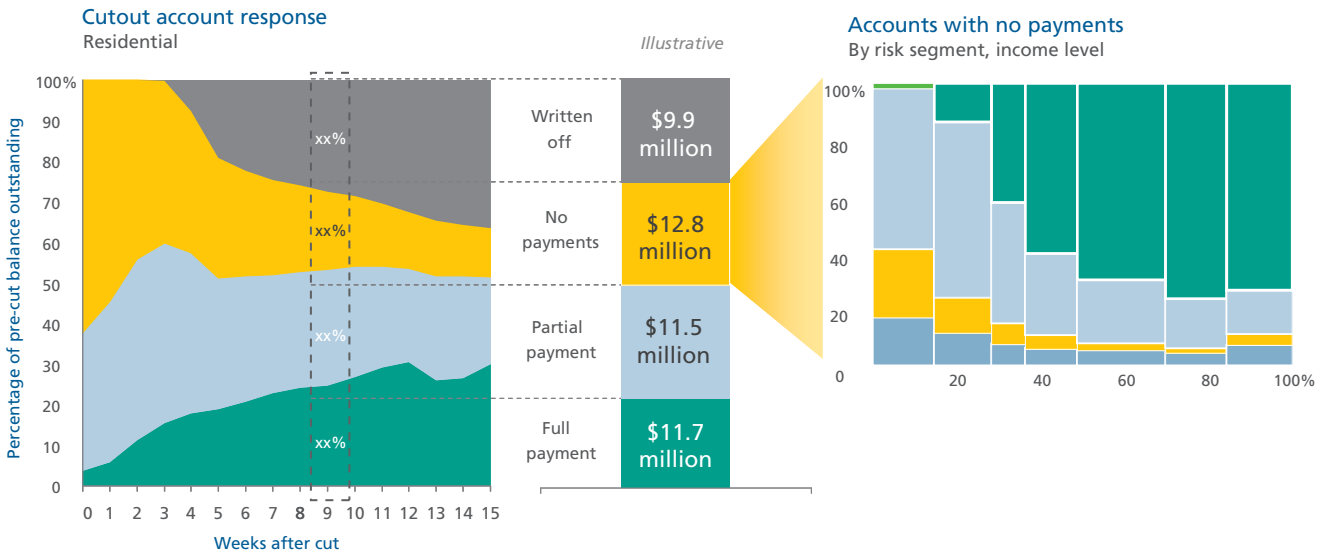
At every customer touchpoint in the meter-to-cash process, there are several possible outcomes: A customer may choose to pay his full bill or not, establish a payment arrangement, or attempt to game the system at each step of the way. Understanding the likelihood (and volume) of each outcome—and how the outcomes may change along with economic conditions or other external influences—provides valuable insight to help utilities manage bad debt and customer operations.

Exhibit 2 illustrates how real-time customer payment data can be used to monitor behavior following a termination of service. The customer response to termination is measured by the percent of accounts (and of outstanding dollars) falling into each category, X weeks after termination. It can be monitored on a daily basis to identify any changes in restoration patterns. Various behaviors, such as no-payment restorations, are then segmented in ways to understand the customer mix and how segments respond to termination differently.

By monitoring this data regularly, companies can anticipate an increase in receivables risk when customers pay less often following a termination. In more desperate times, customers may increasingly seek alternatives to payment such as medical certification, regulatory complaint, or self-restoration of service. Those behaviors can then be examined in greater detail as needed.

Tracking payments over time, and by different customer segments, will show when customers are more stretched financially, or less likely to pay. Companies that monitor payment behavior will notice degradations as they happen, rather than months later. They can then increase reserves as necessary, ramp up terminations, or increase customer outreach or assistance, to counter the trend before it spins out of control.

Exhibit 2 **Example of real-time, ongoing behavior tracking**



Macro-level analyses will not always suffice, as you may need customer-level granularity to understand customer techniques for gaming the collection processes, or operational bottlenecks where accounts get stuck in the system. Exhibit 3 illustrates techniques for tracking behavior on more of an individual customer basis. This exercise can highlight where the customer behavior should be analyzed across the population to quantify issues and then target them with initiatives.

Implications for the Organization

Acquiring this capability has some requirements that may not be existing in the customer service organization. The foremost is the ability to collect and gather the required information. While this falls mainly in the realm of the customer information system, many organizations overlook some relatively fast and straightforward solutions and, instead, rely on the IT organization to deliver a complex, time-consuming solution. In our work with clients we have been able to help utilities quickly build and implement robust data warehouses (using inexpensive components) with available system data while the longer-term IT solutions are developed.

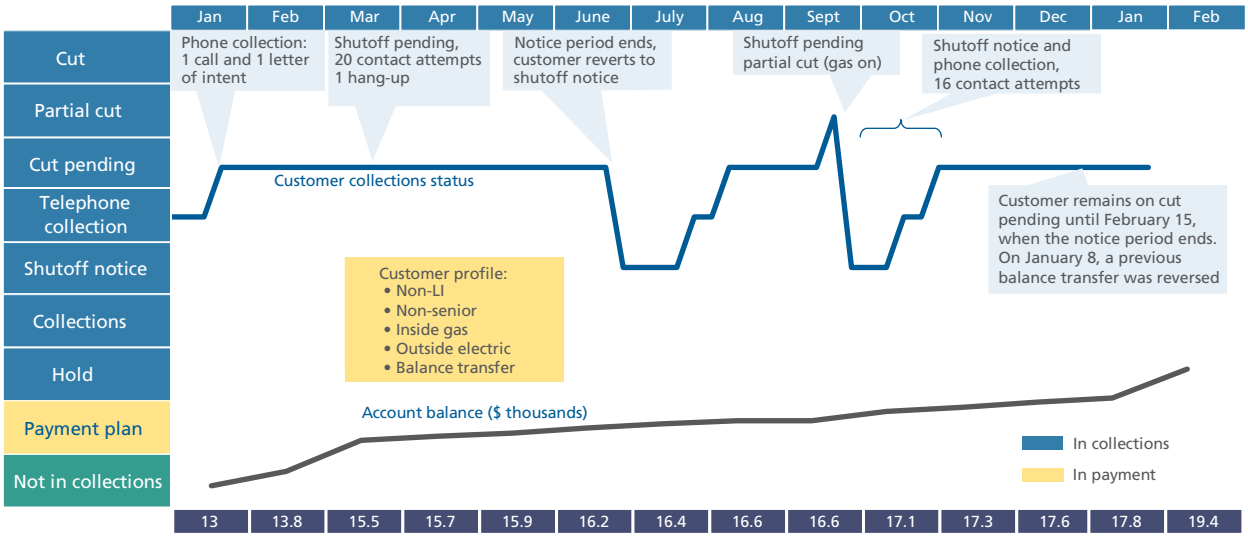
Another critical requirement is analytic ability within the organization—the skills to collect and understand the right data, perform quantitative analyses, and incorporate key learnings into financial reserve estimates and credit and collections policies. These skills are often new to the organization, and given limited internal resources, these skills might be developed in-house through training, found in other parts of the organization, or brought in from the outside.

Questions for Managers

Do we adequately understand customer behavior in a timely manner?

- Is the payment behavior of our customers changing? Are we missing opportunities to improve their behavior?
- Are customers changing their games? Do we know what those are?
- Do our uncollectible account reserves closely reflect the default risk of our receivables?
- Is our understanding of the risk of default current, or is the data stale?
- Are our collections resources focused on the highest-credit-risk customers?

Exhibit 3 **Case study of collections status**



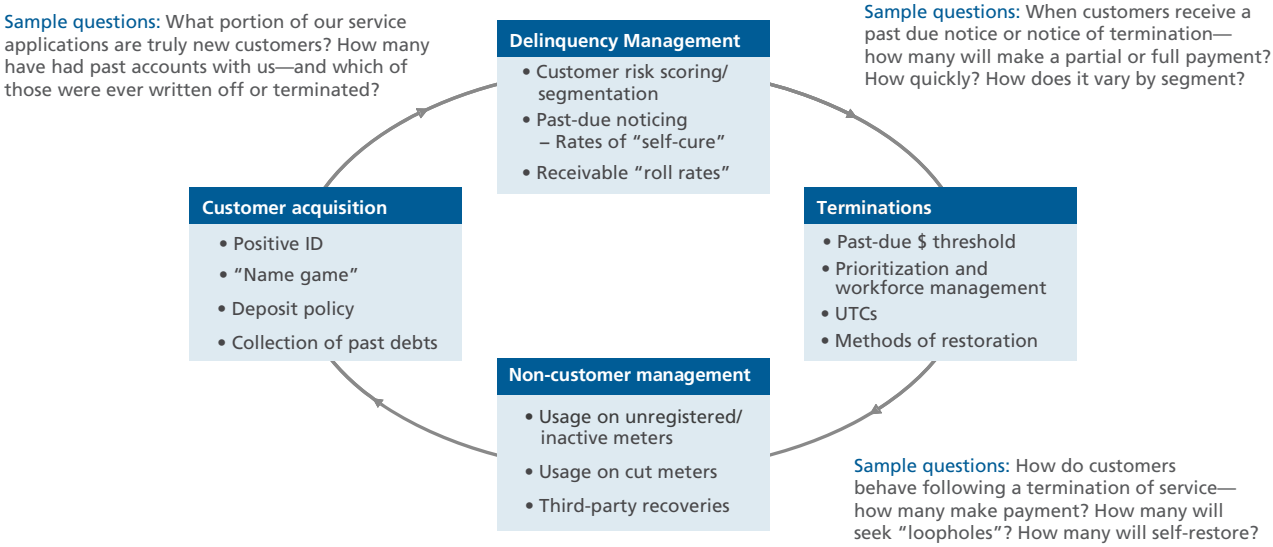
A simple qualitative study of the highest-risk accounts can quickly illustrate behavioral trends that require further analysis. In this example, tracing the collections status of a high-balance account over time could lead to an evaluation of how cut-eligible accounts are continually avoiding termination.

Applying Customer Behavior Analytics Across the Customer Lifecycle

Terminations and the bad-debt reserve calculation are not the only ways to benefit from an improved understanding of customer behavior. At each step in the process, from customer acquisition through delinquent noticing and termination targeting, deep insights can be generated by closely monitoring customer behavior and how it changes over time, as shown in Exhibit 4. These insights can then be applied to improve customer targeting and collections policies and practices.

Each utility and service territory will have different characteristics of customer behavior depending on the regulatory framework, the demographics of the customer base, and how the utility has "trained" customers to behave. Utilities thus should develop their own set of metrics or analyses to monitor the control points in their revenue management processes. The table below highlights some useful example metrics that can be further refined by an individual utility.

Exhibit 4 **Behavior analysis across the customer lifecycle**



Sample customer behavior analyses for managing bad debt

Metric or analysis	Description
Past due notice response—by segment	% of customers who pay following a past due notice. Can serve as an early warning of an increase in delinquent accounts or terminations. Segmented by risk score, income level, etc., to differentiate across customer groups.
Termination notice response—by segment	% of customers who pay following a termination notice. Can serve as an early warning of an increase in future bad debt. Segmented by risk score, income level, etc., to differentiate across customer groups.
Cut response	Are customers paying to restore service or seeking other means of reconnection? Can be used to predict response to terminations—cash generation, future write offs, etc.
Termination backlog	Non-seasonal increases in the number of accounts awaiting termination is an indication of increased accounts receivable risk.

Building a Flexible and Sustainable Bad-Debt Reserve Model

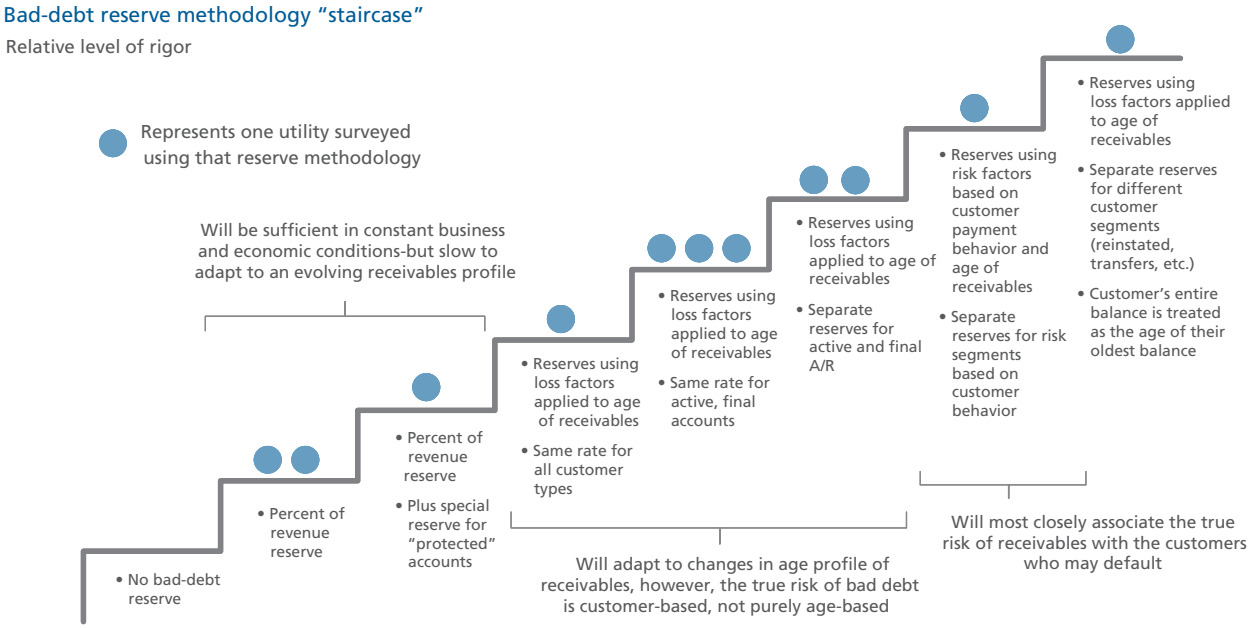
Our recent survey gathered information about methodology and processes used to estimate receivables risk and calculate bad-debt reserves, and any trends or changes in bad-debt levels over the past 12 months. The results showed a broad range of methods used to estimate bad-debt exposure, but a nearly unanimous response that utilities were experiencing a deterioration over the past year.

Variation in reserve methodology. Utilities employ a wide range of methodologies to estimate bad-debt reserves, as shown in Exhibit 5. The simplest calculation is a pure percent-of-revenue approach, which may be sufficient in a steady-state business climate, but can be slow to account for changes in customer payment behavior, shifts in the risk profile of receivables, or economic impacts.

A more robust approach, which an increasing number of utilities are adopting, combines the use of loss percentages for customer populations or segments that share similar risk characteristics. These factors are applied to accounts receivable age groups to account for the increased risk inherent in older receivables. The most advanced variation on this approach recognizes that history does not always predict future performance, and incorporates real-time customer behavior into assumptions. This helps to ensure that bad-debt reserves are a current and accurate reflection of customer receivables.

Organization alignment. Any reserve methodology must be aligned and integrated with the operational strategy. Too often, reserve frameworks are built and maintained separately from collections or operational groups and do not incorporate the knowledge of customer risk from the business point of view. This can create misalignment of performance metrics and incentives, causing problems that are costly to correct. The finance and revenue management or collections organizations should agree on a definition of risk categories and customer segmentation. Ideally, any payment or default analysis should involve both groups; both should agree on how to use the results and share responsibility for the metrics.

Exhibit 5 **Spectrum of reserve-estimation approaches**



Staying Ahead of the Bad-Debt Problem

Economic recession raises the stakes for utilities to understand their customer behavior patterns as they relate to collection of revenue. Understanding behavior changes in real-time will help managers anticipate problems and respond before they deteriorate. Sharing this understanding among work groups will keep the organization aligned on ways to best preserve and protect revenues. Executives should objectively evaluate whether they understand their customer behaviors adequately, whether they have the right skills and resources in the organization to accomplish this, and whether the insight is applied in a coordinated manner across the organization.

About Oliver Wyman

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Practice director

David Hoffman
1.617.424.3414
david.hoffman@oliverwyman.com

Alan Feibelman
1.617.424.3405
alan.feibelman@oliverwyman.com

Mark Hirschey
1.617.424.3818
mark.hirschey@oliverwyman.com

www.oliverwyman.com

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