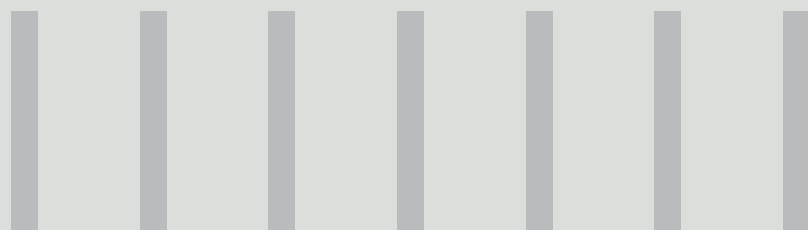




THE FUTURE OF ENERGY PRICING



Utilities are experimenting with flat-rate billing to help customers cope with unpredictable costs. While the reliability of a fixed bill is appealing, will an “all you can use” plan be affordable for customers and profitable for utilities?

A handful of utility companies around the globe are experimenting with flat-rate billing — similar to a cellphone bill. No matter how much they talk on the phone or text, consumers know how much their bill will be each month. It's a paradigm shift in terms of consumer buying patterns. Customers are increasingly used to subscribing to services and paying flat monthly fees. Many consumers like to sign up for something, know what they're going to pay every month and not think about it again.

Utilities that are trying to take advantage of this trend are approaching it in different ways. Many look at historical usage to determine a simple flat-rate price for each specific customer. Others set a range of usage within which the customer has to stay in order to receive the fixed price. A third model is to require customers to share data through smart meters, and then provide tiered pricing based on the usage in each previous year.

Whatever the model, the overarching aim is to provide a simpler proposition to the customer while shifting the risk to the energy provider. If a customer uses more energy than expected under a flat-rate plan, it is the company that takes the hit. Yet flat-rate subscriptions are seen as an innovative tool to gain market share among customers who want predictable spending, and many energy companies are still experimenting with this model, albeit with different levels of sophistication.

Flat-rate propositions

A flat-rate subscription plan is different from average monthly billing, where the cost for the electricity you use is spread out over 12 months of payments. With average billing, there is still the uncertainty of a settle-up month, where you either pay or get a credit for the difference between the amount of electricity the utility

thought you would use and how much you actually used. With a flat-rate subscription plan, consumers know they will pay the same amount every month of their contract.

Several energy companies across the U.S., U.K. and Australian markets have launched flat-rate subscriptions — each with a slight variance in the design.

E.on offers a Secure Bill tariff in the U.K. that requires a smart meter and calculates the amount a customer will pay based on how much energy that customer used the year before.¹

Also in the U.K., Green Star Energy introduced the first unlimited gas and electric tariff in 2015. Consumers had to meet several conditions to be eligible for the plan: 1. Purchase both gas and electric from Green Star, 2. use a specific electricity meter (single rate or economy 7), 3. use between 2,200 kilowatt-hours and 4,200 kWh of electricity and 10,500 to 16,500 kWh of gas every year, 4. pay monthly by direct debit and 5. get a meter reading at least every 60 days.²

As consumers connect more smart devices to their homes, the data those devices provide will have value as well. In the future, utilities could make money by selling customer data as well as electricity. British Gas offers an unlimited tariff, but customers must agree to have a smart meter installed. That smart meter will send back a lot of data on each customer. The company offers three pricing tiers for both gas and electric, based on whether a consumer's usage was low, medium or high over the past year.³ In Australia, Origin Energy debuted a fixed-rate plan in 2016.⁴ Origin was first to offer the "predictable plan" in Australia, which allows people to pay a fixed rate for 12 months, no matter how much electricity they use. Customers can pay every month or every quarter. Origin still offers this plan today.

According to the 2019 Australian Energy Market Commission report, these simple offers have been increasing over the past few years.⁵ For example, Amaysim customers can prepay for a set amount of electricity. A customer who uses more is billed for it at the same rate per kWh as the current plan. Any unused electricity is carried over to the next month and continues to roll over for up to three years.

In the U.S., there are flat-rate options in some states, but not all. Astral Energy offers its "ultimate power plan" in Ohio, Pennsylvania, New Jersey, Massachusetts and Maryland. Astral offers a fixed monthly rate for natural gas and electricity. The rate the customer pays is based on his or her past usage. The contract is short, just six months. If you conserve energy during one contract, those savings will be applied to your next contract.⁶

In Texas, Reliant Energy started offering a "predictable bill plan" in 2014. The plan offers a flat-rate payment every month for a year no matter how much electricity you use. Reliant offers a one-year contract and uses historical data from the service address to come up with the right amount to charge.

Shifting the risk

These examples illustrate the spectrum of complexity involved in creating a fixed-rate plan. And each will be more or less appealing to different segments of customers. In its simplest form, the energy company charges the customer a higher rate than it would expect the customer to normally pay, with the value proposition being that the customer is insuring against future price increases or demand surges from his or her household.

This approach will attract customers who are not focused on saving money or energy, but rather are interested in the ease of having a straightforward

and predictable bill. In this model, the financial upside is weighted toward the energy company, and the risk is weighted more toward the customer, who will likely overpay on a regular basis.

But for more cost-conscious or analytical customer segments, price plans that allow a range of usage — or that mine data from smart meters — are more likely to be attractive. In the price plans based on a range of usage, the risk still sits with the customer, but customers are in control of their usage and therefore their spend. This model also requires less investment and fewer changes from the energy firm.

Cost-conscious or analytical customers are more willing to be flexible with usage or share their data

Mining smart meter data is the more sophisticated approach — and one that favors both suppliers and consumers who are committed to a smart energy/smart home future. In this approach, the energy company takes on the risk of demand surges but gets the gain of being able to engage the customer much more around his or her data and usage. Once an energy company is analyzing and reporting regularly on someone's usage data, the door is open for it to engage with the consumer on other smart home devices and services. This is a crucial path for those energy firms that are looking to move into the smart home services market.

Of course, this last approach is also the most difficult for the energy company to embark on. Planning and investment is required to market, install and maintain smart meters. Then analytics teams and algorithms need to be set up to process and analyze the data, from which new propositions can be developed. Finally, the energy firm needs to

be in a position to take these new propositions to the client successfully — and often these will be in markets

well beyond their core business, such as home security, lighting design, voice control, entertainment or mobility.

Flat-rate personas

Clearly, different approaches to flat-rate billing will suit different energy companies — and different customer profiles. Broadly, there are three consumer characteristics that energy firms need to take into account when considering the design of their flat-rate proposition and how to target it at the right consumer:

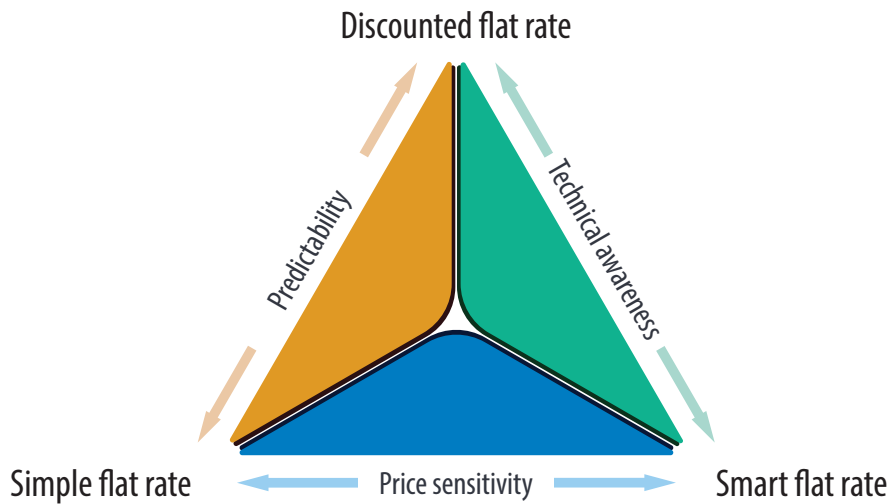
- 1. Predictability:** The ability for the consumer to maintain consistent energy use. This element favors those consumers who value ease and predictability in their energy billing. But consumers who are planning long holidays, or are about to have children — or conversely, see their children leave the nest — will likely not be strong candidates for simple flat-rate plans. This needs to be taken into account not only by the consumer, but also by the energy supplier, particularly if it is taking on the risk of energy demand increasing over the period of the contract.
- 2. Technical awareness:** The technical awareness of the consumer in regard to smart metering, data sharing and additional smart home services is important. Certain demographics of consumers will be highly invested in saving money, but may not have the technical confidence to adopt smart energy plans. Others may have data privacy concerns. However, those who do respond positively to this

new technology could be great targets for engagement around flat-rate billing. In theory, these consumers can get the best of both worlds — convenience, and at a good price. Such “smart rate” plans could also open the door to additional smart digital services.

- 3. Price sensitivity:** The need to save money, or the appetite to take risk. Different offers should be targeted at consumers depending on their sensitivity to price fluctuations. Many consumers would prefer the ease of flat-rate billing, yet a large number will prefer not to overpay for the convenience but lack the technical confidence to engage in smart metering. This is potentially the largest segment in any market. For this reason, identifying and targeting this group with flat-rate plans that are competitive, and yet still manage the risk for the supplier, is crucial.

These characteristics can be used to segment consumers and help provide the basis of a strategy for an energy company — particularly around the proposition it uses to target each. For instance, those who are price sensitive and prefer certainty should be offered *simple flat rate* products. Those who are technically competent and focused on price should be offered smart meter-based plans, or *smart flat rates*. Those who are happy to share data and prefer predictability could be offered *discounted flat rates* based on insights derived from their data and smart meters (Figure 1).

Figure 1: Designing flat-rate plans in relation to three consumer characteristics



Source: Infosys

Environmental concerns

Flat-rate billing does have detractors. Environmental groups are concerned that “all you can use” electricity plans encourage people to turn up the heat, turn down the air conditioning and leave the lights on. When consumers are worried about their electric bill, they tend to conserve, which is good for the environment. Utilities believe there are several reasons consumers won’t overuse electricity even when it doesn’t cost them more.

NRG Retail and Reliant president Elizabeth Killinger responded to critics of the Reliant flat-rate plan by saying she believes customers will use energy wisely because conserving energy is not just about conserving money, but is the right thing to do. Killinger also says that based on Reliant’s research, “very little, if any, usage change occurs when customers sign up for a fixed-bill

program.”⁷ It’s also true that at the end of the contract, the price customers pay will be reevaluated based on their use. If they overuse electricity, then the price they pay is sure to go up for the next contract.

Rather than promoting overconsumption, utilities can offer additional products to help customers move their consumption to off-peak hours and reduce stress on the grid. Spark Energy offers a flat-rate plan that rewards customers for keeping their usage under 2,000 kWh. The Spark Instant Plus 12 plan is available in 19 states. This plan offers customers a fixed monthly price for one year, as long as their usage is below 2,000 kWh. A customer who uses more than that pays a price per kWh on top of a monthly fee. Spark offers gas, electric or both, depending on the deregulation in a particular state.⁸

Just Energy offers an unlimited plan for electricity and gas (depending on deregulation) called Predict-a-Bill in 11 states and six Canadian provinces. The company also offsets 100% of the customer’s energy consumption by purchasing renewable energy credits and/or carbon offsets from projects in North America.

Creating a win-win

It’s clear that customers like the subscription model. They subscribe to Netflix, Amazon Prime, Blue Apron and Birchbox, to name a few services. The online subscription market has grown more than 100% a year over the past five years.⁹

And for utility firms, there are additional benefits from tapping into this trend of flat-rate billing. Since bills are the same each month, the customer service department will field fewer consumer billing complaints. Flat-rate billing may provide a better customer experience and improve the utility’s image by simplifying the process of energy consumption — thus making life easier.

A number of utilities are trying this new pricing structure in slightly different ways. The key to success will be investing in propositions that best fit the customer segments that the utility wants to target. Getting the right balance of profit, risk and reward for both the consumer and the energy company will be crucial. The utility with an algorithm that strikes the right balance can take full advantage of the subscription model and the millions of customers who embrace it.

References

1. <https://www.moneysavingexpert.com/news/2018/08/eon-now-lets-you-fix-your-bill---but-itll-cost-you-/>
2. <https://www.moneysavingexpert.com/news/2015/09/green-star-energy-launches-unlimited-gas-and-electricity-tariff-but-is-it-any-good/>
3. <https://www.britishgas.co.uk/aem6/content/dam/britishgas/documents/tariffs/terms/UnlimitedGasNov2019v1.pdf>
4. <https://www.canstarblue.com.au/electricity/origin-predictable-plan-the-verdict/>
5. <https://www.aemc.gov.au/sites/default/files/2019-06/2019%20AEMC%20Retail%20energy%20competition%20review%20-%20Final%20report.PDF>
6. <https://www.astralenergyllc.com/residential/>
7. <https://www.reliant.com/en/Images/Predictable-12-Killinger-062014.pdf>
8. <https://www.sparkenergy.com/en/fixed-price-energy-plan/>
9. <https://www.gsb.stanford.edu/insights/why-every-business-will-soon-be-subscription-business>

Authors

Ram Ramachandran

Head of New Sales – Utilities & Natural Resources
Ram.Ramachandran@infosys.com

Christine Calhoun

Senior Consultant – Infosys Knowledge Institute
Christine.Calhoun@infosys.com

About Infosys Knowledge Institute

The Infosys Knowledge Institute helps industry leaders develop a deeper understanding of business and technology trends through compelling thought leadership. Our researchers and subject matter experts provide a fact base that aids decision making on critical business and technology issues.

To view our research, visit Infosys Knowledge Institute at infosys.com/IKI

For more information, contact askus@infosys.com



© 2019 Infosys Limited, Bengaluru, India. All Rights Reserved. Infosys believes the information in this document is accurate as of its publication date; such information is subject to change without notice. Infosys acknowledges the proprietary rights of other companies to the trademarks, product names and such other intellectual property rights mentioned in this document. Except as expressly permitted, neither this documentation nor any part of it may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, printing, photocopying, recording or otherwise, without the prior permission of Infosys Limited and/ or any named intellectual property rights holders under this document.