



# PREPAY ENERGY AND ENHANCED TRANSACTIONS

*Presentation by Jamie Wimberly  
November 2014*

1

# ABOUT DEFG

## Customers are the future of energy

We are DEFG, a management consulting firm specializing in energy. In our rapidly changing marketplace, customer engagement is key to success. We serve as a catalyst for this change, helping our clients better connect with customers.



### DEFG Research Consortia



ABACCUS



Prepay Energy Working Group



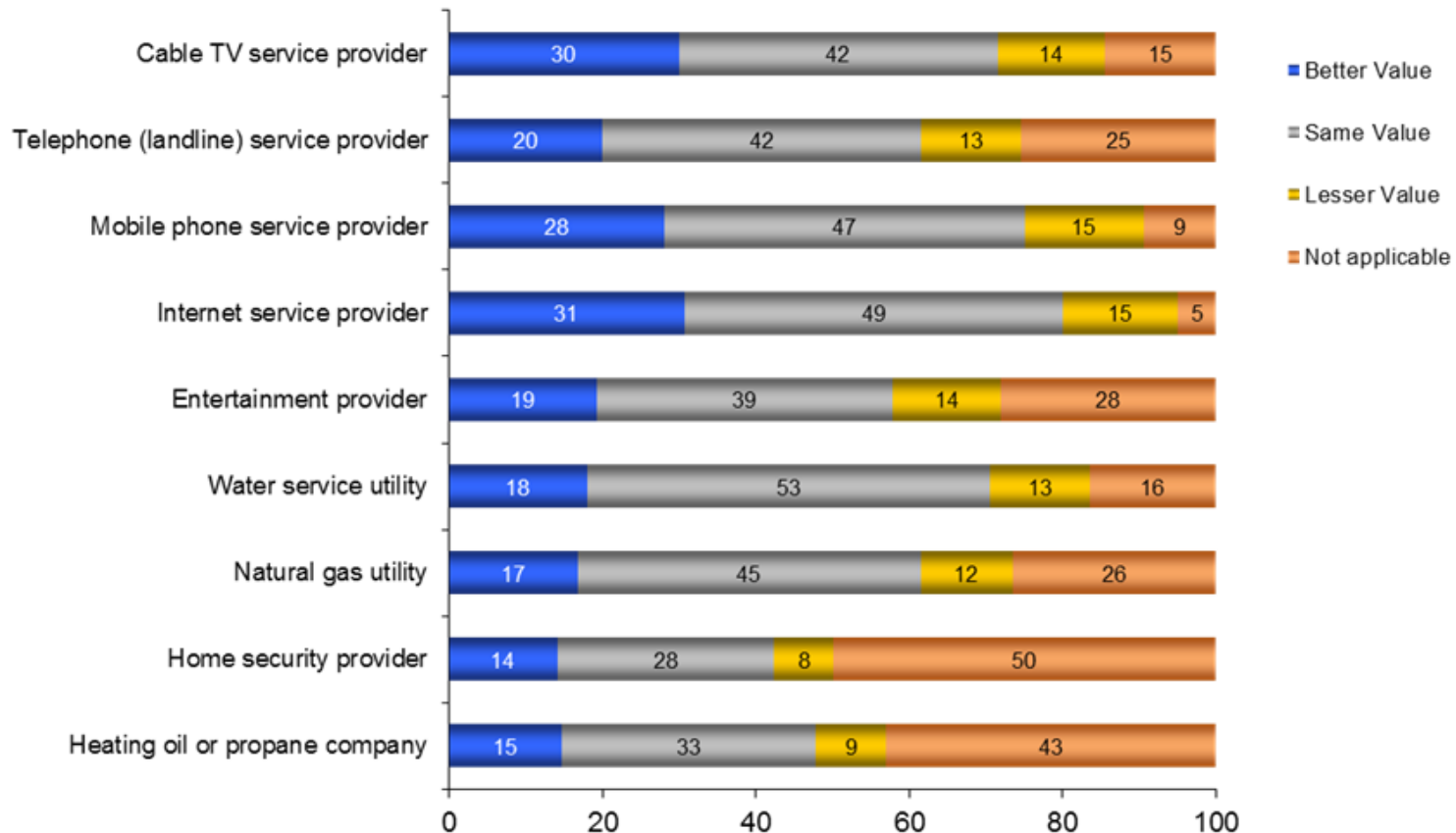
Low Income Energy Issues Forum



## CONFLICTED CONSUMER LANDSCAPE IN THE UTILITY SECTOR

Approximately three out of ten consumers consider the value they get from their electric utility to be better than what they get from Internet, cable or mobile phone service providers

### Comparison on Value of Electric Utility Provider to Providers of Other Services/Industries (Total)

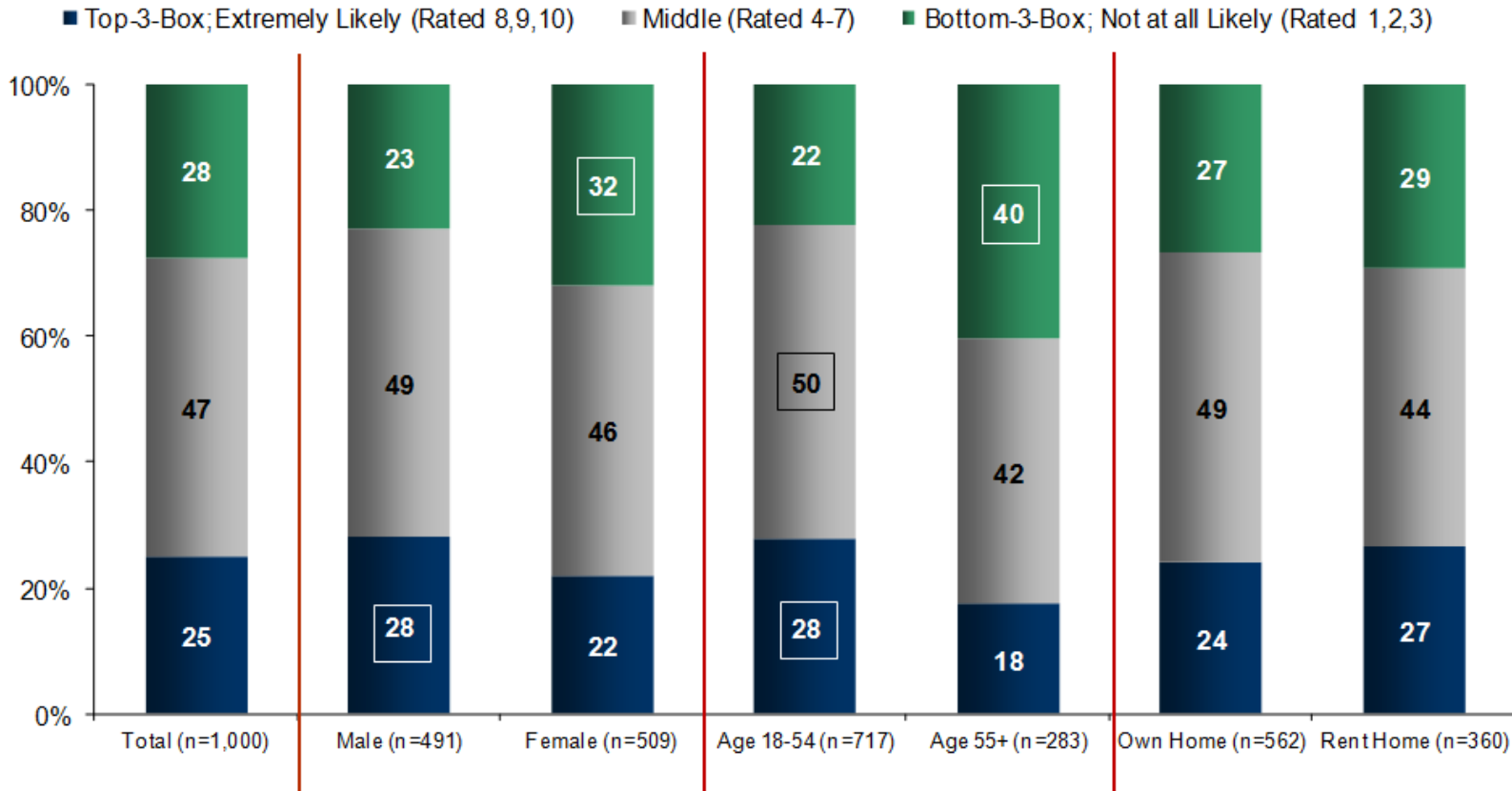


Q.1: Do you think your electric utility currently provides you with a better value, about the same value or a lesser value than the service providers and industries listed?

# CONFLICTED CONSUMER LANDSCAPE IN THE UTILITY SECTOR

Half the respondents indicated that they probably wouldn't choose a different provider if they had the ability to do so; males and younger consumers are more likely to prefer choice

## Likelihood to Choose a Different Electric Provider



Q.10: If you had the ability to choose a different provider than your electric utility, how likely would you be choose a different provider?

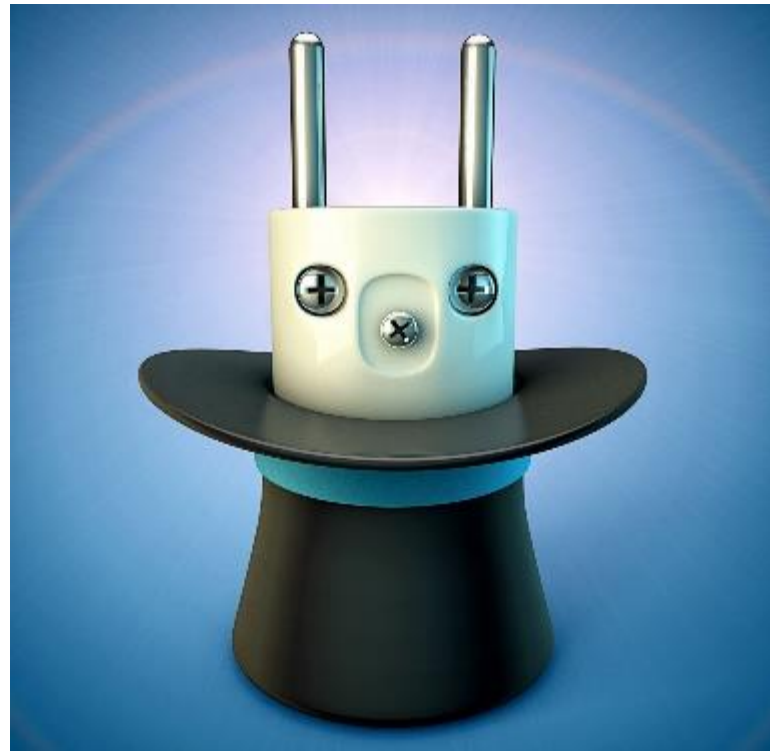
## THE MAGIC WAND

What if we could wave a magic wand that would allow utilities and marketers to:

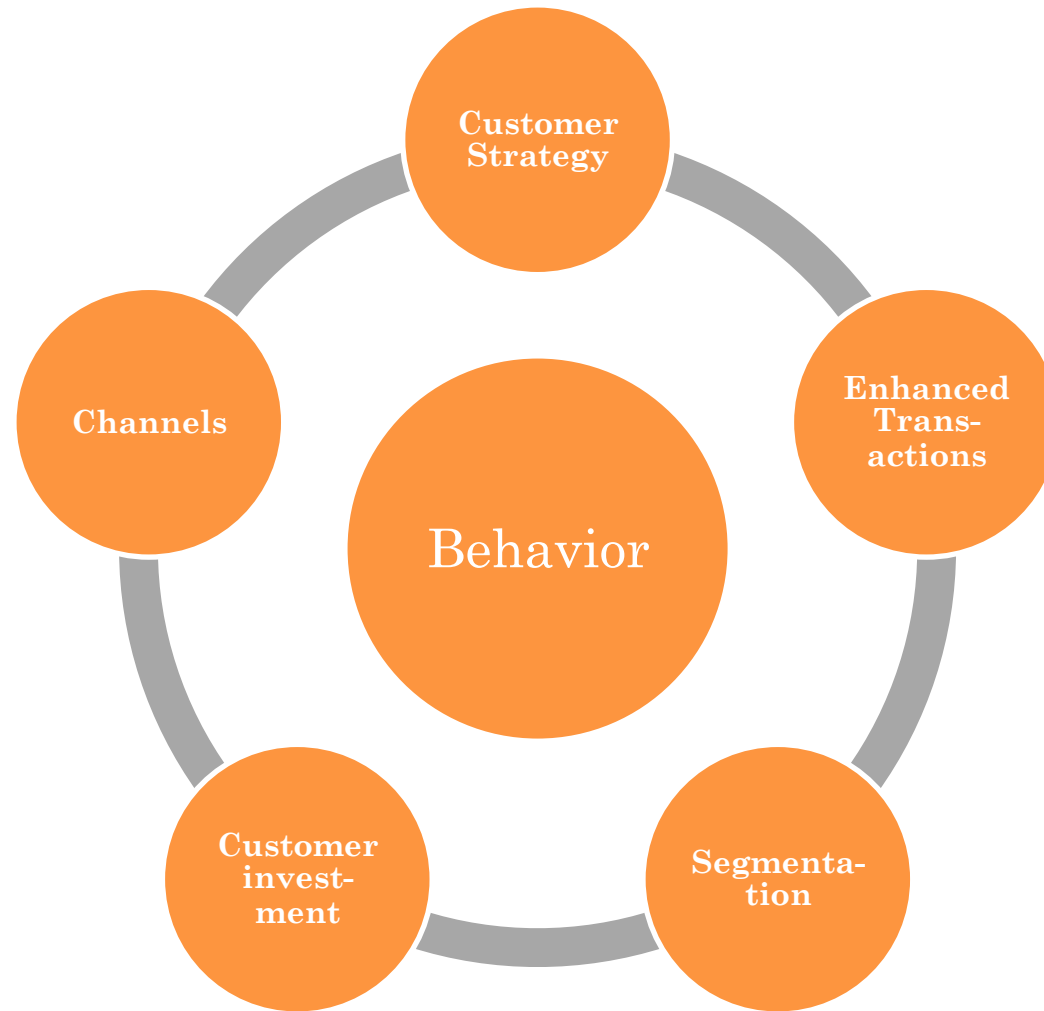
- 1) Dramatically reduce customer costs, and perhaps eliminate bad debt?
- 2) Raise customer sat by 10 points or more?
- 3) Hit all the mandated DSM targets for the year, with room to spare?

The magic is here ...

But need to move from a binary look at transactions to create a more holistic customer experience tied to the entire utility enterprise.



# CUSTOMER OPPORTUNITY WHEEL





*Enhanced Transactions*

*Prepay Energy Working Group  
(PEWG)*



**Opportunity: Better leverage assets, data and processes across the enterprise that touch transactions to achieve multiple business objectives**



## OVERVIEW

*In 2015, DEFG's Prepay Energy Working Group (PEWG) marks its 6<sup>th</sup> year as the industry's leading forum for the exploration of prepaid energy service offerings and other enhanced transactions enabled by smart grid*

*The PEWG continues to grow because its members value the extensive and actionable research agenda and the record of accomplishments*

- Participants include energy utilities and suppliers, metering and software vendors, a regional energy efficiency alliance, regulatory commissioners and consumer advocates. Together they cover a broad spectrum of perspectives and experiences
- The PEWG conducts research across *5 tracks*:
  1. **Regulatory Issues**
  2. **Consumer / Market Research**
  3. **Energy Conservation Impact Assessment**
  4. **Business / Operational Applications**
  5. **Enhanced Transaction Research**
- Prepaid energy service is a catalyst, forcing discusses about the need for innovative and “smart” consumer offerings and the need to bring the rulebook into the 21<sup>st</sup> century



## 24 DIVERSE MARKET MEMBERS OF THE PEWG\*



\* PEWG research is sponsored by the member companies. Government agencies and non-profit organizations do not make any financial contribution to the work. PEWG work products do not necessarily represent the views of any participating organization, state regulatory agency, sponsoring company or individual participant.

# PEWG ADVISORY PANEL\*

(GROWING, WITH ADDITIONAL STATE COMMISSIONERS WELCOME)

TBD	Arizona Corporation Commission
Christopher Villarreal, Sr. Regulatory Analyst, Policy & Planning	California Public Utilities Commission
Regina Iorri, Deputy Attorney General	Delaware Department of Justice
Commissioner Timothy Echols (represented by Sheree Kernizan, Jamie Barber and Shemetha Jones)	Georgia Public Service Commission
Anthony Star, Director, Illinois Power Agency	Illinois Power Agency
Martin Cohen, Martin Roth Cohen and Associates	Former Dir., Consumer Affairs for Illinois
Calvin Timmerman, Assistant Executive Director	Maryland Public Service Commission
Geri Hunter, Smart Grid Section, Electric Reliability Division	Michigan Public Service Commission
Commissioner Nancy Lange	Minnesota Public Utilities Commission
Bob Hinton, Director, Economic Research Division	North Carolina Utilities Commission
Ray Strom, Chief, Efficiency & Renewables Division	Public Utilities Commission of Ohio
Dan Mumford, Bureau of Consumer Services	Pennsylvania Public Utility Commission
Christine Wright, Senior Policy Analyst, Infrastructure Division	Public Utility Commission of Texas

## VALUE

*The leading forum on prepaid energy, the PEWG consistently produces ground-breaking research highlighted by industry press and presented to policy-setting bodies*

The PEWG differentiates itself by:

- **Peer-to-Peer Interaction:** Bringing together stakeholders virtually and in-person, the PEWG encourages productive discussion and information sharing in non-adversarial settings
- **Actionable Research:** The analysis and findings in the final deliverables are vetted by policy makers and industry thought leaders, incorporating their perspectives and observations
- **Market Intelligence:** Most recently, the PEWG partnered with New York University students to develop out-of-the box thinking and marketing approaches focused on engaging and enrolling the millennial generation in prepaid energy service
- **Developing Proof Points around Energy Savings:** Testing the usage impacts of Oklahoma Electric Cooperative customers on prepaid service, the PEWG developed a vetted measurement methodology and identified a significant average reduction in usage of 11%
  - The study points to an exciting development: a viable path to future energy savings via a transactional approach coupled with behavior modifications

## CURRENT WORK (THE REST OF 2014)

Tracks	Deliverables
<b>Track 1 Regulatory Issues</b>	White paper on disconnection and reconnection. Draft white paper will be discussed at the July workshop; final release in September
	State regulatory commissioner survey to be presented at the workshop
	Regulatory support is ongoing
<b>Track 2 Consumer / Market Research</b>	Market research will be conducted to better understand Hispanic consumers who have used prepaid electric service; the results of four focus groups and ethnographic research will be presented at the July workshop
	A national consumer survey will be conducted in November
<b>Track 3 Energy Conservation Impact Assessment</b>	The M&V findings and consumer survey findings from two electric cooperatives in the Pacific Northwest released
	Phase II work will examine disconnection data and consumer behavior to develop a more detailed understanding of the relationship between disconnection, energy usage and deprivation of basic services
<b>Track 4 Business / Operational Applications</b>	Review of operational and business issues is ongoing
<b>Workshop</b>	The winter workshop will be held in early December

## WHAT'S NEW IN 2015?

### ✓ ***NEW Track of Work***

*In 2015, the PEWG will begin to broaden its scope to include research and analysis on “enhanced transactions,” meaning those transactions or management options which leverage increased customer and consumption data tied to customer profiles and preferences for communication.*

### ✓ ***NEW Subgroup on Energy Conservation Impact Analysis***

*A subgroup is being formed to work with our team of economists and experts on the next phase of questions around the significant conservation impact that the PEWG has identified and tracked.*

### ✓ ***NEW Customer Segment Focus on Small Commercial and Property Managers***

*The PEWG will continue our in-depth annual focus on segments that our research has identified as being very interested in a program offering*

***In 2015, the PEWG is significantly expanding our scope of analysis and deliverables, including a new track of work focused on enhanced transactions such as the next generation of budget billing.***



# 2015 SCOPE OF WORK

## 1. Regulatory

- Additional white papers focused on specific policy issues, e.g., notification rules or policies around customer fees/ charges, outlining alternatives and policy recommendations.
- Annual regulatory survey of regulators and other key stakeholders on questions connected to customer choice and alternative payment options such as prepay energy.
- Research and strategy development on best practices and lessons learned from prior prepay regulatory proceedings, especially ones with successful outcomes.
- Support members in regulatory proceedings.

## 2. Consumer / Market Research

- Consumer segment research, with ongoing research on millennial consumers and Hispanic consumers, and a new focus on small commercial and property managers.
- Conduct a national consumer survey, continuing to look for year-to-year shifts in awareness, acceptance and preferences related to prepaid offerings.



## 2015 SCOPE OF WORK (CONTINUED)

### 3. Energy Conservation Impact

- DEFG proposes to conduct another round of its conservation savings analysis, utilizing a combination of previous and new utility participants. DEFG would evaluate the use of new techniques proposed in its recent research paper to analyze the conservation impact from prepay services.

### 4. The Operational / “Business Side”

- Additional utility case studies with a focus on implementation and lessons learned.
- Examination of European experience with prepay energy offerings.
- Continue to provide critical updates tied to business case development and program design and support, including presentations by utilities and vendors.

### 5. Enhanced Transactions

- Taking the lessons learned and best practices from prepay energy (data, analytics and communications) and discuss applications for other utility transactions
- White paper focused on a detailed examination of the enhanced design of one transaction, e.g., enhanced budget billing, and the requirements to

*Enhanced Transactions*

*Other Applications*

## WHAT IS THE DYNAMIC FOR BEHAVIORAL CHANGE?

- Transactional: In dollars and cents that has an immediate and noticeable impact on customer bill
- Preferences: During enrollment, preferences are set in regard to channel, frequency, content, etc.
- Channel: Very aligned to mobile platforms
- Communication: A bill conversation everyday through the channel that the customer chooses
- Intelligence: Learning from real customer behavior on a daily basis and making changes to adapt to that behavior
- Segmented: Low income, younger Americans, Hispanics/immigrant communities
- Flexibility: Moving away from the 30-day billing cycle

# EXPERIMENTAL DESIGN

## Experiment #1: Enhanced Transactions for Low Income Customer Engagement

- We propose a two-part approach to provide enhanced transactions using:
  - Daily communications, or
  - Monthly communications
- We expect significant savings—on the order of 5-10%—for customers who receive daily texts, emails, scripted phone calls or push notifications.
- We expect up to 5% savings for customers who receive monthly communications.
- Customer engagement will occur as a result of budget setting, frequent tracking of savings, information about projected monthly utility bills, usage alerts and incentive payments.

## Experiment #2: Coaching for Home Energy Reports/My Energy Tools

- We propose a coaching experiment to measure the costs and benefits of “hand holding” for those customers who would not otherwise be able to participate.
- While the focus is HER, the lessons learned should apply to all low income customer education
- Even with full AMI deployment, some customers will require special assistance.
- The costs can be compared to benefits of:
  1. Reducing the frequent and intensity of contacts at the call center (frequent calls to make payment arrangements)
  2. Reducing the cost of collections (mail out notices and make collections calls)
  3. Reducing the cost of disconnecting and reconnecting
  4. Reducing lost revenue due to arrearages

## NEW APPS: SAVINGS CALCULATOR

### “Bill Assistance”

- Customized to each utility and state
- Provides calculations based on data tables for each state, utility and county
- Provides a tab that explains the program in layman’s terms; offers a link for more information
- Looks up the annual benefits and divides by 12 to show a monthly dollar savings

### “Energy Savings”

- Customized to each utility and state
- Provides calculations based on data tables for each technology and, as appropriate, variations due to climate regions, household type and estimated utility bills
- Provides a tab that explains each energy efficiency program in layman’s terms; offers a link for more information on the utility website

**Bill Assistance + Energy Savings = \$s**

## + STRATEGY

### DEFG's "+ Strategy" for Budget Billing

<b>Transaction + AMI</b>	With advanced metering infrastructure, close-to-real-time data allows more information to flow to the customer when/how s/he prefers. Information is more relevant, and—through budget alerts—more actionable
<b>Transaction + AMI + Energy Conservation</b>	Based on channel and frequency preferences, communications relating to energy conservation can be targeted to customer needs. S/he can act today and see the savings tomorrow
<b>Transaction + AMI + Energy Conservation + Behavior</b>	Positive reinforcement will be key. A feedback loop should be incorporated and grounded into a pairing with an associative good, either economic or social. Context is important: make budget billing mainstream (not just a low income option). Be proactive and positive, rather than defensive and targeting people who need help. (Many customers want to manage bills)
<b>Transaction + AMI + Energy Conservation + Behavior + Portfolio</b>	Help customer optimize what they are already doing by connecting the transaction and platform to other parts of the portfolio or customer service offering to allows more savings and control. When the utility fully enables budget management – combining all the aspects of the customer portfolio – it will allow for personalized and predictive planning with individual customers. This is a trusted energy advisor model in action

*Pay Off*

*Business Case Considerations*

## BUSINESS BENEFITS ANALYSIS

- Collections and revenue
- Field visits for any resources used around disconnect
- Financial and treasury
- Bill rendering and delivery
- Customer contact center impacts
- Channel utilization and optimization
- Energy conservation/ EE targets (short-term)
- TOU/ dynamic pricing programs
- Resource adequacy (long-term)
- Low income/ cash assistance optimization
- Marketing: customer acquisition and retention
- Customer/ employee satisfaction
- Regulatory
- Non technical losses



# MIDDLE CASE: PAYMENT ARRANGEMENTS FOR GENERIC UTILITY

## Impact to 1 customer

### Current State

- Calls to IVR 1
- Call Center Calls: ~4
- CSR Costs: \$46\*
- Total PA Sign up Time: ~3 days
- Days Outstanding: 60 – 120

\*Assuming \$11.5 / call to CSR



### Future State (proposed)

- Call to IVR 1
- Call Center Calls: 2
- CSR Costs: \$23\*
- Total Time: 1 day
- Days Outstanding: 30 - 60

## Impact to 1,000,000 customers

### Current State

- Calls to IVR 240,000
- Avg. calls per PA cust. 4
- Call Center Calls: 900,000
- CSR Costs: \$11,000,000\*
- Total PA Sign up Time: 5 days
- Days Outstanding: 60 - 120



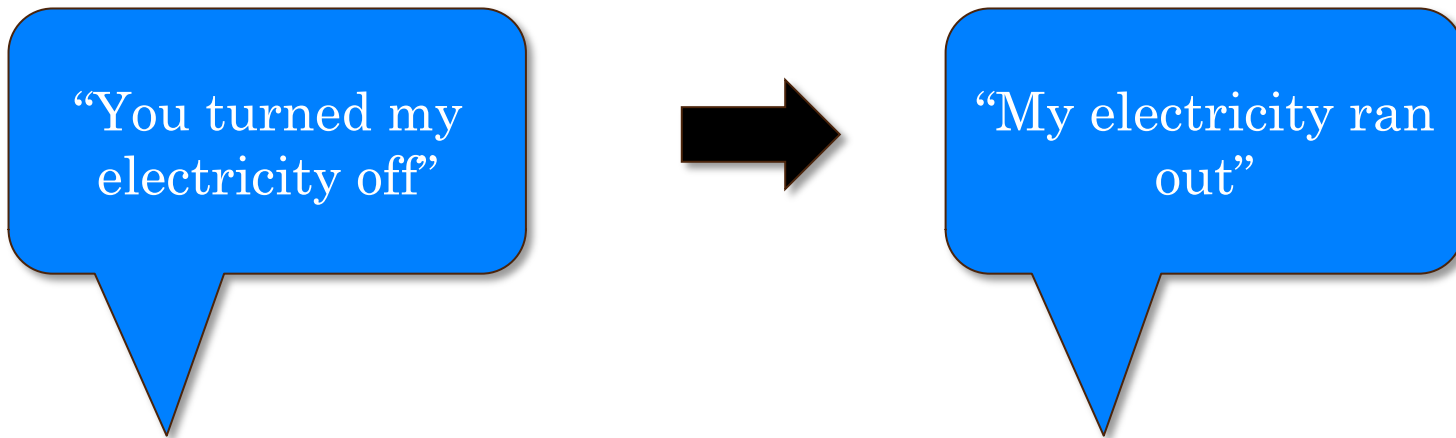
### Future State (proposed)

- Calls to IVR 216,000
- Avg calls per PA cust. 2
- Call Center Calls: 432,000
- CSR Costs: \$5,000,000\*
- Total PA Sign up Time: 1 day
- Days Outstanding: 30 - 60

**Cost savings: \$6,000,000**

- Propensity to default analysis combined with proactive communications
- Centralized management of PA applications and proactive communications educates customer
- Learned behavior that additional calls will not provide “best deal” support

# MOVING TO CUSTOMER OWNERSHIP AND CONTROL



## *Summary:*

- *Customer will be core to the future of the service model.*
- *Direct Energy is active in many efforts to improve customer engagement and satisfaction.*
- *We would welcome Direct Energy as a member of the PEWG and are looking for ways to provide more value to Direct Energy.*

## CONTACT

Jamie Wimberly, CEO, DEFG  
Office: 202-483-4443  
[jwimberly@defgllc.com](mailto:jwimberly@defgllc.com)



DEFG Website: <http://defgllc.com/>  
PEWG homepage:  
<http://defgllc.com/about/consortia/prepaid-energy/>  
Prepay articles and DEFG In The News:  
<http://defgllc.com/tag/prepaid/>

## 2015 PEWG Membership Details

- ❖ *DEFG will provide new members an overview of past efforts and the new work planned via webcast or in person*
- ❖ *New members will also receive all past research materials & deliverables*
- ❖ *Regulators and public interest representatives who serve on the Advisory Panel commit their time pro bono*
- ❖ *A kick-off webcast will be held with the market members and Advisory Panel in early 2015 to go over the scope of work in detail*
- ❖ *Two in-person workshops will be held in 2015 (July and December) and virtual interactions will take place every 8 – 10 weeks*
- ❖ *The 2015 membership fee is \$20,000*