



# NEUAC PANEL PRESENTATION: OVERVIEW OF PREPAY ENERGY

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*NEUAC Annual Conference*  
*Jamie Wimberly*  
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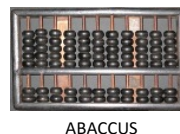
# ABOUT DEFG

## 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



# PEWG OVERVIEW

*In 2016, DEFG's Prepay Energy Working Group (PEWG) marks its 7<sup>th</sup> year as the industry's leading forum for the exploration of prepaid energy service offerings*

*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 4 tracks:
  1. **Regulatory**
  2. **Consumer / Market**
  3. **Potential for an Energy Conservation Impact**
  4. **Operational Requirements / “Business Side” Research**
- Prepaid energy service is a catalyst, forcing discussions about the need for innovative and “smart” consumer offerings and the need to bring the rulebook into the 21<sup>st</sup> century

# WHAT IS PREPAY ENERGY?

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

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



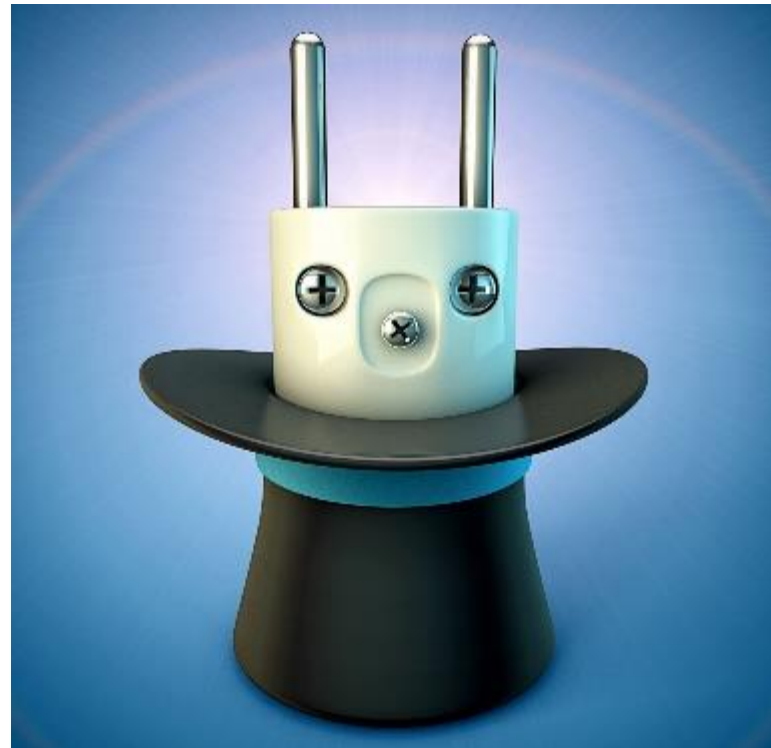
# THE MAGIC WAND

What if we could wave a magic wand that would allow utilities 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 ...

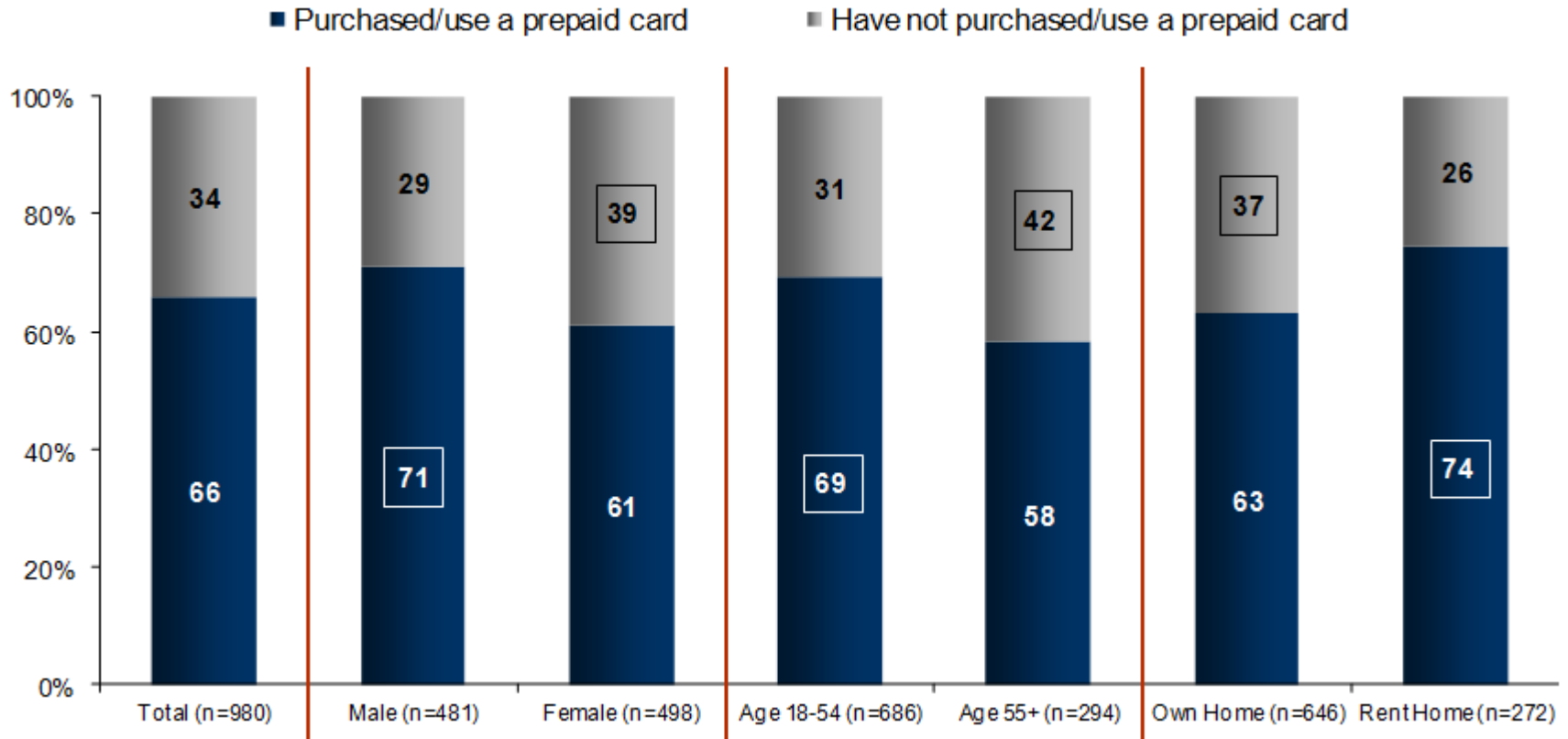
But need to move from a binary look at transactions to create a more holistic customer experience tied to the entire utility enterprise



# PREPAID CARDS AND SERVICE HAVE BECOME COMMONPLACE

Two-thirds of these consumers have used or purchased a prepaid card or service (66%)

## Prepaid Card and Service Usage



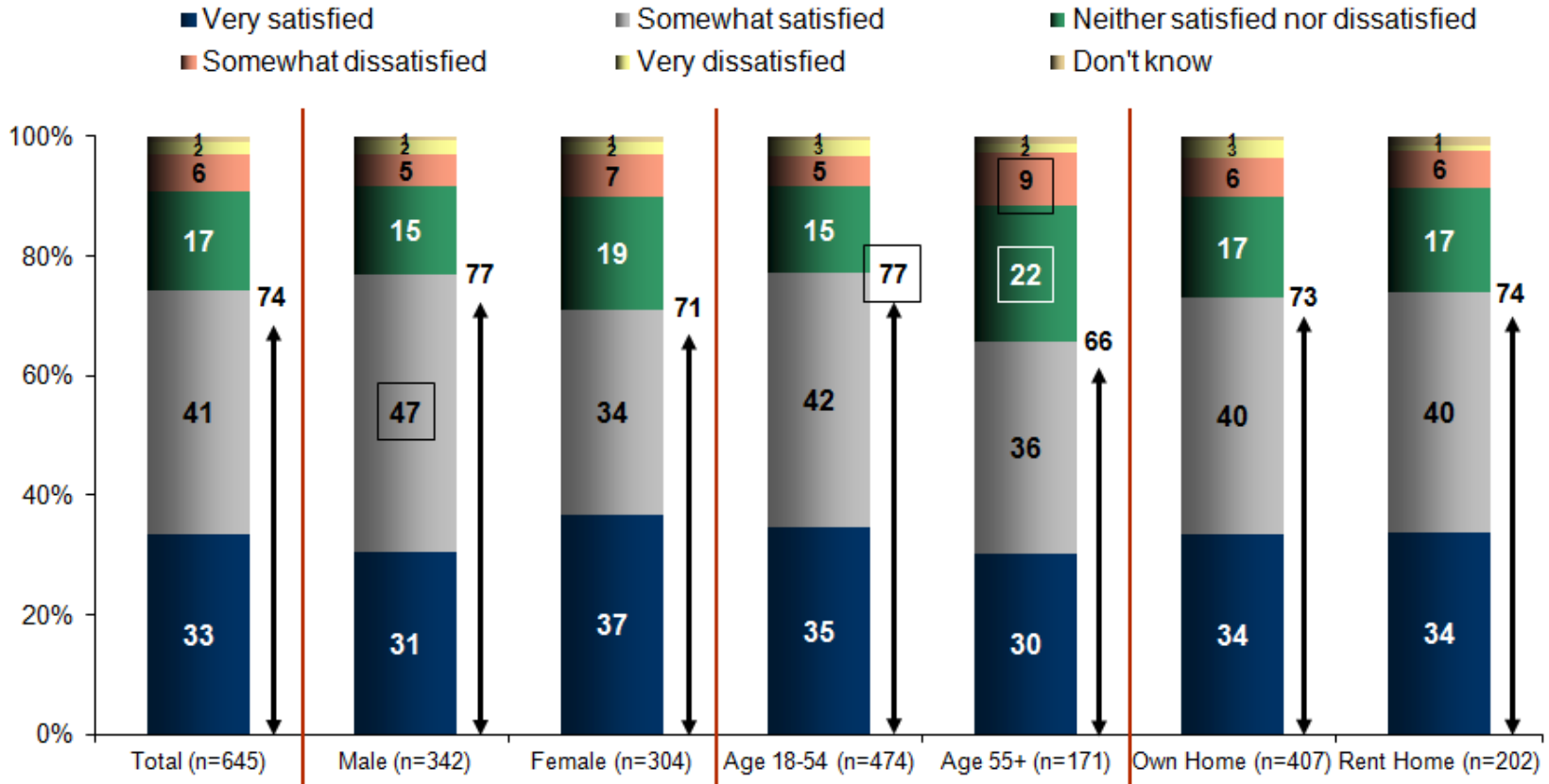
Base: Total Respondents (n=980)

Q.1: Have you ever used or purchased a prepaid card (e.g., payroll, gift or reloadable), prepaid wireless phone service plan or any other service that you paid before you used the good or service?

# CUSTOMER SATISFACTION WITH PREPAID CARDS AND SERVICE IS HIGH

Three-fourths of consumers that have used or purchased a prepaid card or service were satisfied with using prepayment as an option (74%)

## Satisfaction Level with Using Prepayment to Make Purchases or Contract Services



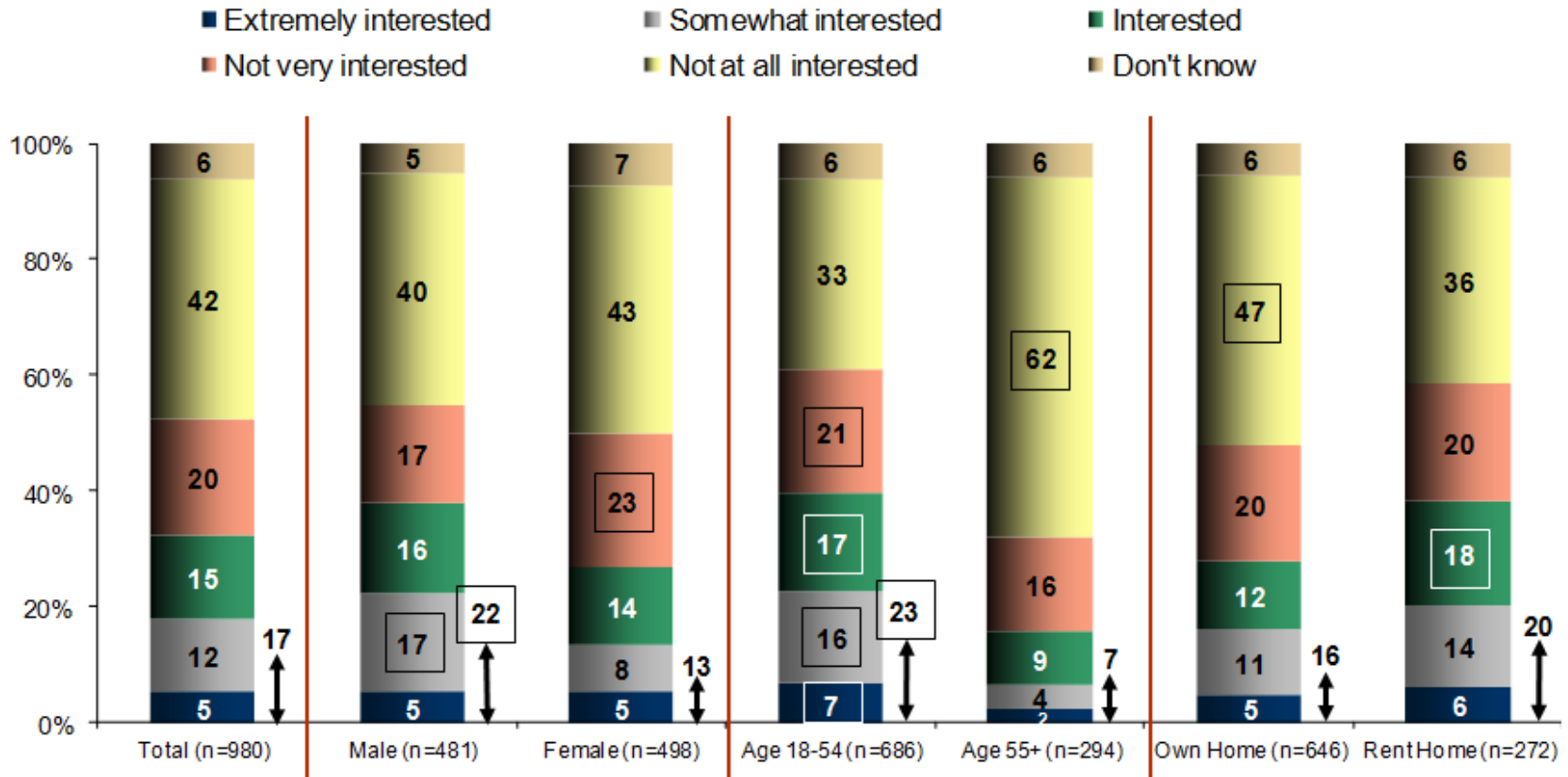
Base: Total Have Purchased/Used A Prepaid Card

Q.2: How would you generally rate your satisfaction with using prepayment as an option to make purchases or contract for services?

# NEARLY ONE IN FIVE WOULD BE INTERESTED IN PREPAID ELECTRICITY

Interest in prepay energy was highest among men (22% v. 13% of women) and younger adults (23% among those 18 to 54 v. 7% of those 55+)

## Consumer Interest in Voluntary Prepaid Program for Electricity



Base: Total Respondents (n=980)

Q.3: Your local electric utility or service provider may offer voluntary prepaid electric service to consumers in the future. Under this option, you would choose to pay upfront anytime you wanted before you used the energy rather than paying your bill at the end of the month after you used the service. Reasons for possibly using prepaid electricity would include no security deposit required or better managing your budget and energy use. You would always be able to check the balance remaining in your prepaid account. If your local utility or provider were to offer a voluntary prepaid option for consumers, how interested would you be?



# PREPAY ENERGY IS GROWING RAPIDLY AND PART OF MEGA TREND

- Prepay is a mega trend in consumer finance. TransCard projects that prepayments from all segments (consumer, commercial and public) will total \$421 billion in transactions in 2017. Of that, the consumer segment will represent \$112 billion, mainly reloadable debit cards but also gift and other forms of prepayment.
- Prepay energy is an example of grassroots innovation. Many co-ops and public power utilities have been offering prepay energy for years now. Salt River Project has approximately 17 percent of their customer base on a prepay offering. Now, a number of the largest owned investor-owned utilities have a prepay energy pilot underway or planned.
- “For North America, the installed base of prepay meters is expected to grow from 650,000 to 3.1 million during the forecast period, with a CAGR of 17.0%.” *Navigant Research Reports, “Prepaid Metering: Meters, Software and Services,” Q1 2015*
- Our consumer survey findings consistently show strong consumer interest. Since 2010, the “top two box” responses (i.e., “extremely interested” and “very interested”) have totaled 17 percent (2010), 22 percent (2012), 24 percent (2013) and 17 percent (2014). Interest has been higher among younger respondents in particular.

# PREPAY RESULTS IN SIGNIFICANT ENERGY SAVINGS

Estimated Coefficients (savings are negative):

Variable	Coefficient	t-value
Enrolled in Prepay	-11.0%	-17.79
Disconnects under Prepay	2.4%	2.06
Disconnects at any time	3.3%	3
Sample Size	65.628 obs (1,217 houses)	

- Enrollment in prepay results in a significant reduction in energy usage of 11% (about 2,250 kWh/year)
- This implies \$192/year reduction in customer's bill\*

\* Assuming \$146 per month total bill (OEC's current monthly average)

# POTENTIAL ENVIRONMENTAL IMPACTS

- *Our research on prepay energy and other enhanced transactions in the utility sector is pointing to the potential for consumers to change behavior and drop energy consumption by 10% or more*
- *Utility offerings that combine customer preferences, robust communications and transactions (e.g., bill pay and energy management) could be the fastest, cheapest and most satisfactory means to achieve positive environmental outcomes*

## Potential of Prepay Energy to Reduce Electric Power GHG

Adoption scenarios	High	Medium	Low
Adoption rates	18%	10%	3%
Average electricity savings	12%	10%	8%
Million metric ton CO <sub>2</sub> avoided annually	16.35	7.57	1.51
Percent of CO <sub>2</sub> from residential electricity usage	2.2%	1.0%	0.2%

# PEWEG DATABASE OF CURRENT OR PLANNED PREPAY PROGRAMS

Planning	Pilot	Full Scale
BC Hydro	APS	Black River
ComEd	Austin Energy	Central Electric
CPS Energy	Consumers	Clinton Utilities
DTE Energy	Duke	Cowlitz PUD
First Energy	NV Energy	Georgia Power
LADWP	Westar	JEA
Pepco		OEC
Public Service of OK		Orlando
SDGE		Salt River Project

**Over 200,000 customers currently in a prepay program offered by utilities in the PEWEG database. The number of prepay customers will increase significantly in 2016.**

## CONTACT



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**DEFG believes retail customers are the future of energy. We partner with clients to improve all aspects of the customer relationship. We identify opportunities to create value in a commodity marketplace.**

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