IT’S BUSINESS UNUSUAL

1. TIPPING POINTS

2. CHANGING THE GAME

3. NEW ENERGY CONSUMER

4. NOW WHAT
THE UTILITIES MARKETPLACE HAS BEEN STABLE SINCE 1882... WHEN EDISON CREATED THE FIRST UTILITY.

WE HAVE CROSSED A TRANSFORMATION ‘TIPPING POINT’
ENERGY DEMAND & GROWTH HAVE DECOUPLED

GLOBAL GDP VS. ECONOMIC ENERGY INTENSITY

WORLDWIDE ENERGY INTENSITY HAS DECREASED BY NEARLY ONE-THIRD

ENERGY CONSUMPTION
(koe per Dollar of GDP)

GLOBAL GDP
(USD Trillion)
SIGNIFICANT INCREASES IN ENERGY EFFICIENCY

ENERGY EFFICIENCY HAS IMPROVED...

- Lighting: ▼ 75%
- Refrigerators: ▼ 50%
- Washers & Dryers: ▼ 50%
- Homes: ▼ 30%

...IMPACTING DEMAND & INVESTMENT

- Reduced 15% total generation across IEA countries in 2015
- Avoided $1.2 trillion infrastructure investment since 2000
- Saved 1600 TWh of consumption in 2015
- Avoided 578 GW new generation capacity since 2000

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RENEWABLES & DISTRIBUTED ENERGY ON THE RISE

RENEWABLES GROWTH IS DRIVING VOLATILITY & PRICE INCREASES

ACCELERATING GROWTH WILL COMPOUND TODAY’S CHALLENGES

PV + Wind Capacity in Watts per Capita (2016)

Electricity Price (€ct./kWh)

Sources: Eurostat, EIA, International Energy Agency, Accenture Research

DISTRIBUTED SOLAR

ENERGY STORAGE

ELECTRIC VEHICLES

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SUSTAINABILITY IS GOING MAINSTREAM

CORPORATE SUSTAINABILITY GOALS

63% FORTUNE 100 HAVE CLEAN ENERGY TARGETS

GREEN DEAL MAKERS

3+GW OF OFFSITE RENEWABLE DEALS BY C&I

INDUSTRIAL PROSUMERS

47% INTEND TO INSTALL ONSITE RENEWABLES OR STORAGE

WHY ARE CORPORATIONS SHIFTING TO RENEWABLES?

SUSTAINABILITY GOALS / REDUCE EMISSIONS

ATTRACTIVE RETURN/ PAYBACK

LIMIT EXPOSURE TO PRICE VARIABILITY

ENHANCE REPUTATION OF ORGANIZATION
TECHNOLOGICAL ‘DIGITAL’ ACCELERATION
ACCELERATED ADOPTION DRIVING DISRUPTION

BIG-BANG ADOPTION REPLACES TRADITIONAL CURVE

DISRUPTION CHARACTERISTICS:
- Unconstrained Growth
- Uninhibited Strategy
- Unencumbered Development

THE SHARK FIN CURVE
- TRIAL USERS
- EVERYBODY ELSE

TRADITIONAL ADOPTION
- THE BELL CURVE
- LATE MAJORITY (34%)
- LAGGARDS (16%)

INNOVATORS (2.5%)
- EARLY ADOPTERS (13.5%)
- EARLY MAJORITY (34%)

Unencumbered Development
DISTRIBUTED ENERGY WILL ATTRACT $2 TRILLION INVESTMENT BY 2025.

Source: Bloomberg
#2 RISE OF STORAGE

BATTERY COSTS WILL DROP 60% BY 2030.

Source: Electrek 2014.
#3 SUPER & MICRO-GRIDS

THE MICRO-GRID MARKET \( \uparrow 20\% \) ANNUALLY

(China plans \$50 TRILLION to build a global grid.)

Source: Navigant Research
#4 RENEWABLE TRANSITION

½ MILLION SOLAR PANELS ARE NOW BEING INSTALLED DAILY

Source: IEA
#5 CONNECTED EVERYTHING

By 2025, there will be 100 billion connected devices. 12 for every person.

Source: Gartner
BY 2020, **60-70%** OF APPLICATIONS WILL BE VIA CLOUD ‘AS-A-SERVICE’.

Source: Forbes
#7 ARTIFICIAL INTELLIGENCE

Robots & Artificial Intelligence will automate 57% of today’s traditional jobs by 2025.

Source: Recode
#8 THE NEW MOST VALUABLE PLAYERS

2/3 OF WORKERS BELIEVE THEIR FUTURE INVOLVES **NO SET HOURS & NO SET PLACE.**

Source: Sagepub
CONSUMER SPENDING POLARIZING

#9 HOURGLASS CONSUMPTION

HIGH-END EXPERIENTIAL

LOW-COST COMMODITIES

Source: Wall Street Journal
OVER 85% OF CUSTOMER SERVICE WILL BE DIGITAL BY 2020.

Source: Gartner.
CONSUMERS HAVE REACHED "PEAK STUFF"

Pay as you go & on-demand models will overtake traditional products & services.

Source: Accenture
#12 PEER-TO-PEER COMMERCE

PEER-TO-PEER COMMERCE WILL GROW TO $335 BILLION BY 2025.

Source: Credit Suisse
ORIGINALLY FOCUSED ON CENTRALIZED UTILITY-SCALE GENERATION, MASS ONE-WAY TRANSPORTATION, AND PASSIVE END-CUSTOMERS.

TRADITIONAL LINEAR VALUE CHAIN WAS:

- **Generation**: Centralized order taker to provide lowest cost, mass produced energy.
- **Market Operations**: Centralized closed energy market with limited number of participants.
- **Transmission**: Transporter of energy from large scale generation to distribution grid.
- **Distribution**: Local network balancing and asset management to meet demand & manage reliability.
- **Retail/Customer**: Manage billing & payments and problem solve for customers through primarily phone based channel.

Linear closed value chain focused on safe & reliable mass generation and transportation to meter-point delivery of energy.
THIS IS NOW...NEW ENERGY VALUE CYCLE

- DISTRIBUTED
- CIRCULAR
- OPEN
- DYNAMIC
ENERGY CONSUMERS ARE UNIQUE IN MANY WAYS

- **Fickle Loyalty**: 73% consider other providers
- **Limited Trust**: 37% trust for advice
- **Low Interaction**: 9 minutes/year
- **Low Satisfaction**: <50% satisfied w/current mobile experience
- **Declining Loyalty**: >50% might switch
- **Low Awareness**: 30% aware of energy offerings
- **Negative Experience**: 70%
FRAGMENTED ENERGY CONSUMER GROUPS

SCARCITY AND PRICE SHOCK TYPICALLY MOVE THE DIAL

FOUR CORE CONSUMER GROUPS

- ENERGY AGNOSTIC: Neutral towards their utilities & want them to take things off their “thinking list”
- TECH SAVVY: Drawn to new technologies & interested in new products
- ENERGY DEPENDENT: Want support to solve problems & may have challenges paying
- ENERGY CONSCIOUS: Focused on prices & interested in set-and-forget convenience

9+ NICHE SEGMENTS

- INDIFFERENTS
- SKEPTICALS
- SELF-RELIANTS
- PRAGMATICS
- SERVICE-CENTRICS
- COST CONSCIOUS
- TRADITIONALISTS
BALANCING ENGAGEMENT & EFFORTLESS EXPERIENCE

MADE FOR ME
ONE AND DONE
CHANNEL I WANTED
SURPRISE & DELIGHT
SET-AND-FORGET

TOO PERSONAL
 TRANSACTIONAL EXPERIENCE
 TOO MUCH CHOICE
 ANNOY AND FRUSTRATE
 LOSS OF CONTROL
THE IRRATIONAL CONSUMER

BEHAVIORAL SCIENCE IS AN IMPORTANT UTILITY CAPABILITY

Eco Minded  Price  Social
Fairness  Simplicity  Free
Choice  Scarcity  Fun!
Convenience  Status
Intimacy  Privacy

accenture
ELUSIVE DIGITAL VALUE

ACHIEVING THE ‘DIGITAL DIVIDEND’

PAST STATE
Call center focus despite introduction of some digital self-serve

CURRENT STATE
Increase of digital channel use but engagement in traditional channels has risen

POTENTIAL FUTURE
Dramatic shift to digital self-serve with AI assisted interaction

TRADITIONAL CHANNELS

DIGITAL CHANNELS

UTILITIES CHANNEL INTERACTION MIX IS UNCHANGED

2014
42%
58%

Digital Channels
Non-digital Channels

Source: Accenture New Energy Consumer

2016
40%
60%

TIME SPENT INTERACTING WITH REPRESENTATIVES IS GROWING ALONGSIDE DIGITAL

2012
9 Mins

2016
11.7 Mins

WITH A REPRESENTATIVE

THROUGH DIGITAL CHANNELS

2012
- 8.4 Mins
STRATEGIC PRIORITIES FOR CONSUMER ENGAGEMENT

1. BUILD AGILE OPERATIONS
2. CAPTURE THE DIGITAL DIVIDEND
3. CREATE SET & FORGET SERVICES
4. EMBRACE B2WE SOLUTIONS
5. REIMAGINE SME ENGAGEMENT
6. INVENT WORKFORCE MARKET PLACE
7. RETHINK RETAIL MARKETPLACES
8. ACCELERATE COLLABORATION
THANK YOU