



New Energy Consumer

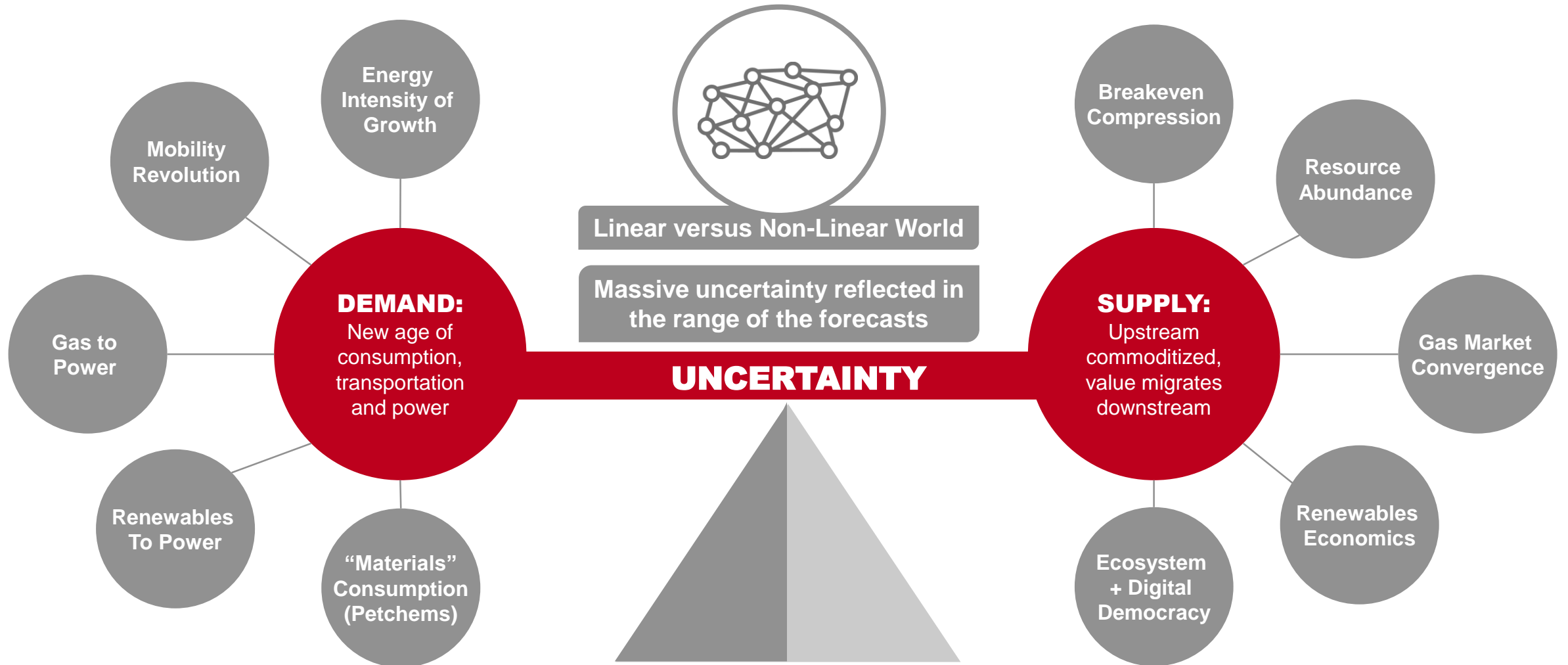
Evolving expectations, demands and needs

Alvaro Polo
Zaragoza, September 2018

A large, thick red chevron pointing to the right, serving as a background for the text "High performance. Delivered."

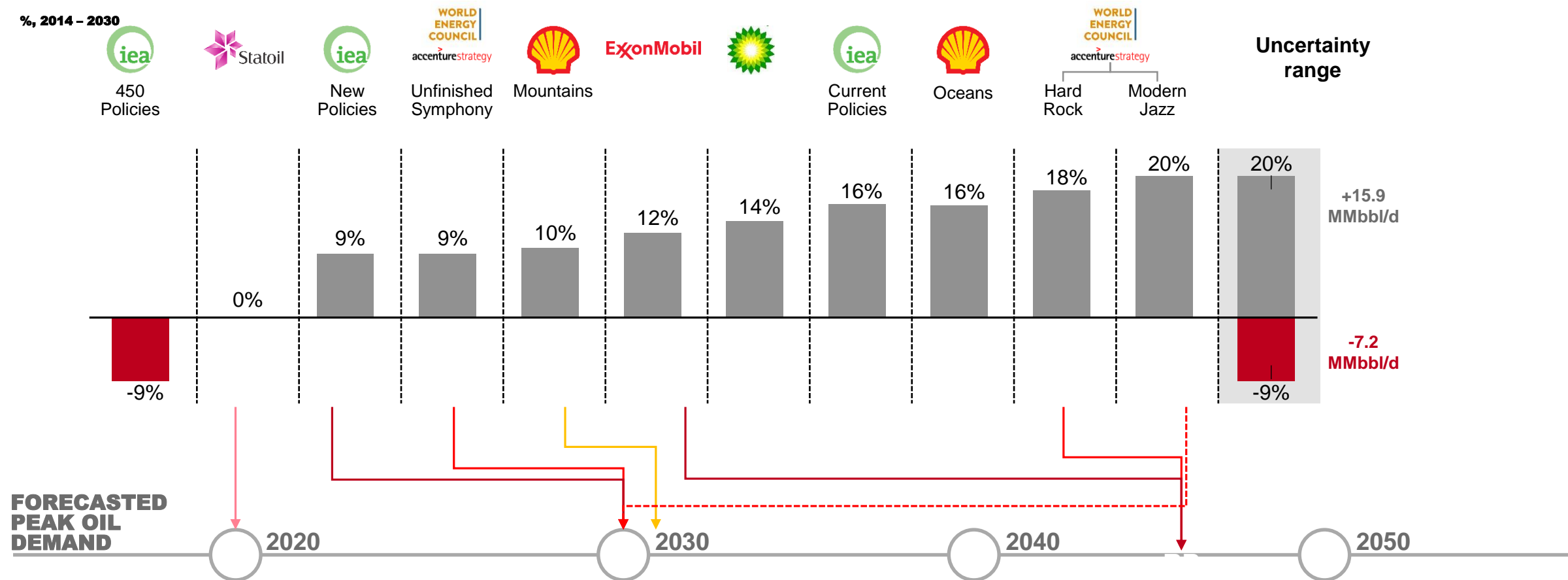
High performance. Delivered.

THE ENERGY INDUSTRY FACES DISRUPTIVE CHANGE... WHAT IS CERTAIN IS A LOT OF UNCERTAINTY



AND DEMAND, AT LEAST FOR OIL, MAY PEAK IN THE NEXT DECADE OR TWO

GLOBAL OIL DEMAND CHANGE AND PEAK OIL DEMAND TIMELINE



Notes: 1 toe to 7.15 boe

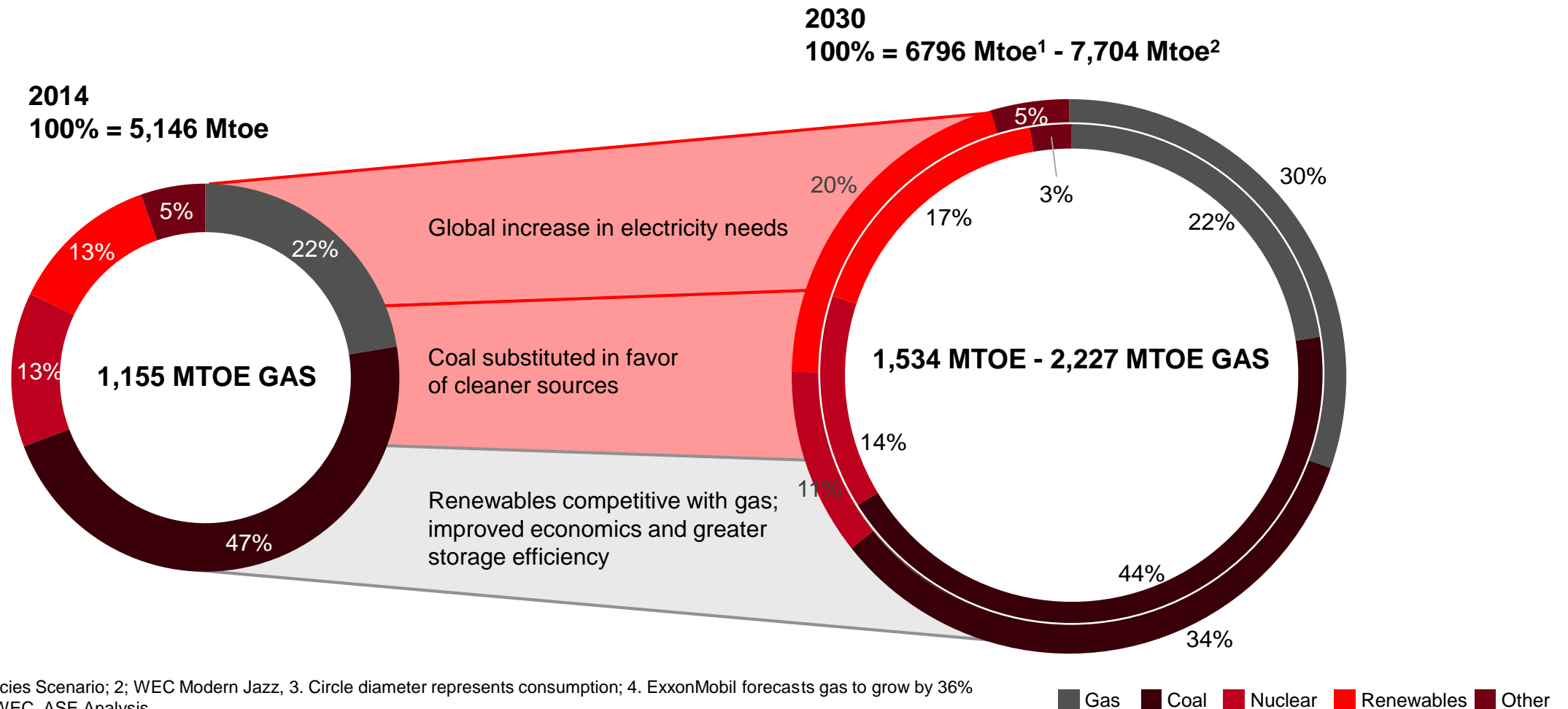
Source: Companies / Agencies reports

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FOSSIL IMPACTED DESPITE STILL SOME GROWTH OPPORTUNITIES ... SUCH AS GAS BENEFIT FROM A DOUBLING ELECTRICITY DEMAND

POWER GENERATION DEMAND & CONSUMPTION BY SOURCE

% market share



Notes: 1. IEA Current Policies Scenario; 2. WEC Modern Jazz, 3. Circle diameter represents consumption; 4. ExxonMobil forecasts gas to grow by 36%

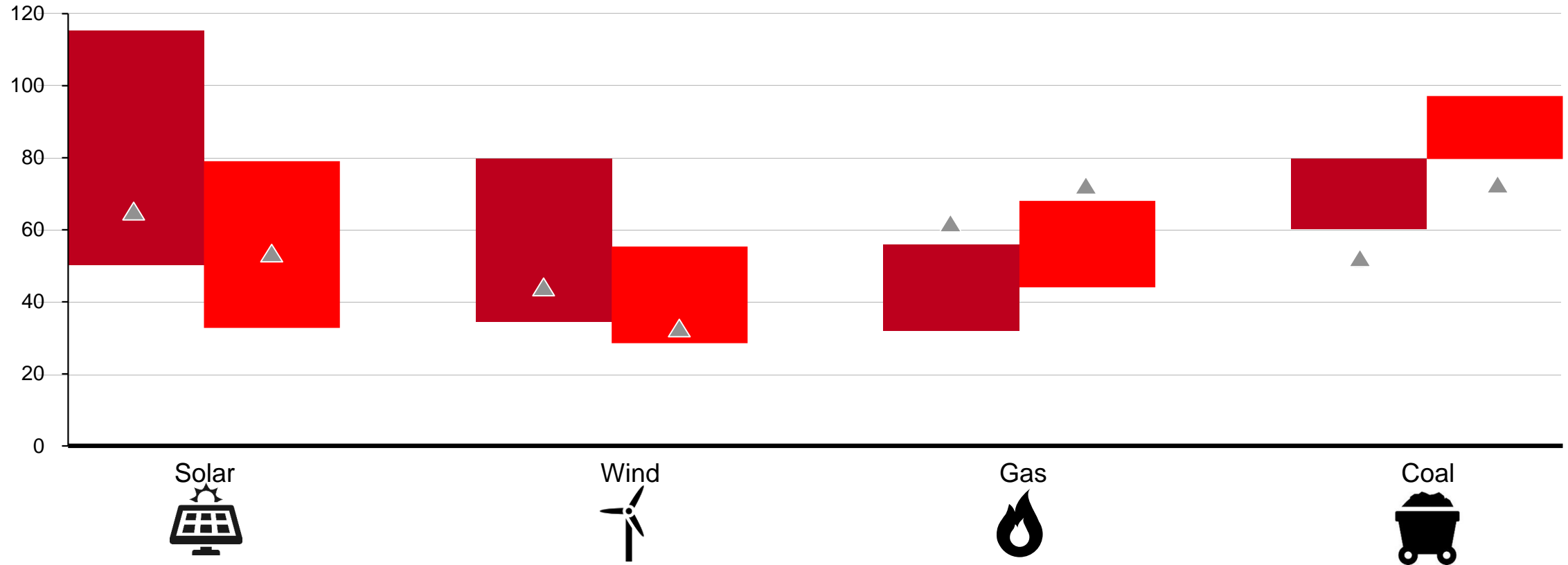
Source: IEA WEO 2016, WEC, ASE Analysis

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MEANWHILE, RENEWABLES WILL BECOME MORE COMPETITIVE... AND MORE PROMINENT IN THE MIX

LEVELED COST OF ENERGY FROM NEW PLANTS

\$2015/MWh



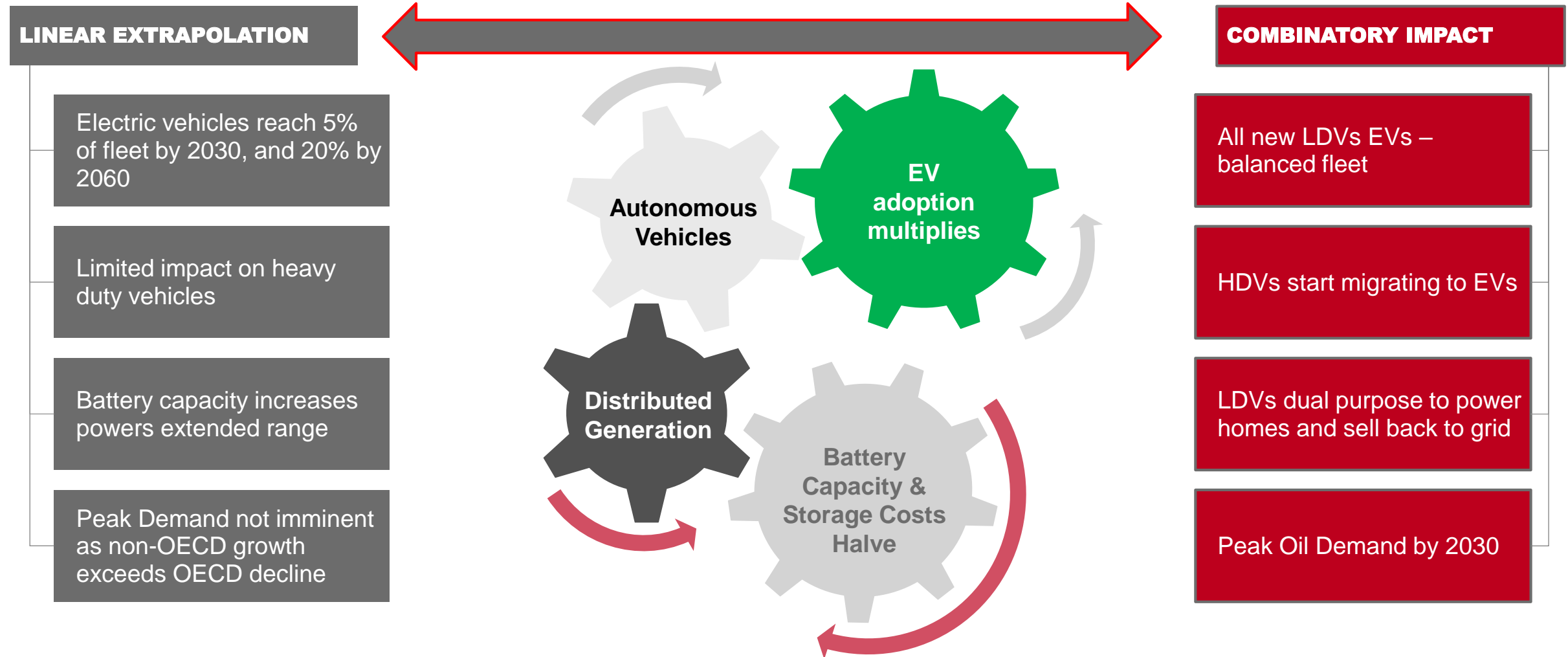
Notes: Assumed carbon prices 2015=\$20/t ; 2025=\$40/t; 2035=\$60/t

Source: BP Energy Outlook, ASE analysis

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North America: ■ 2015 ■ 2035 China: ▲

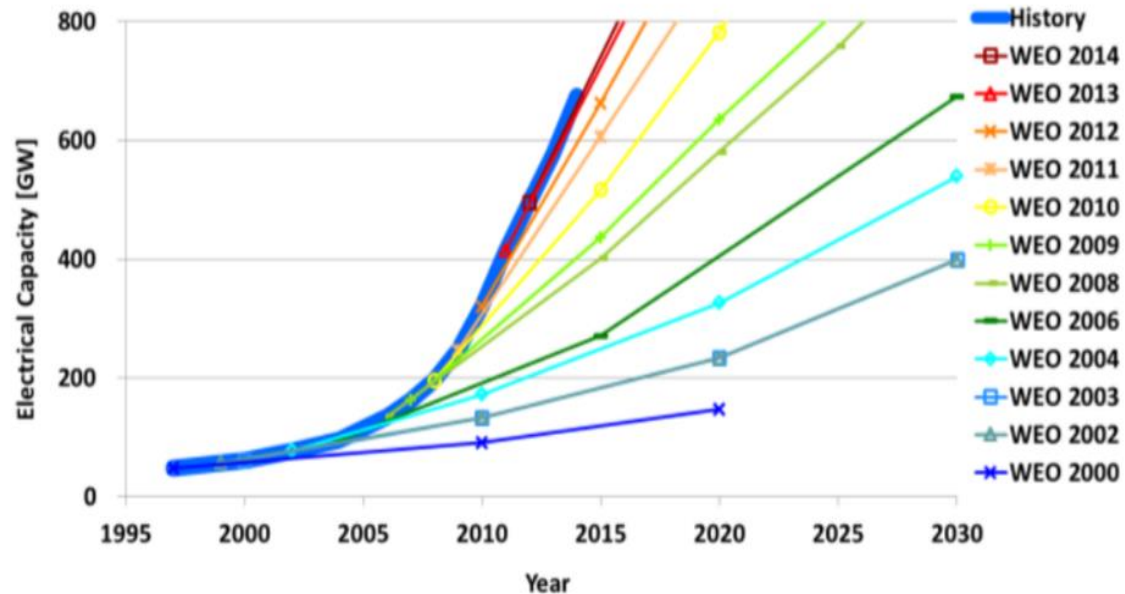
THE “COMBINATORIAL IMPACT” OF DISRUPTIONS WILL DRIVE CROSS INDUSTRIES’ CONVERGENCE I.E. MOBILITY REVOLUTION (OIL & GAS, UTILITIES AND AUTOMOTIVE)



HISTORY SHOWS THAT DISRUPTIVE DEMAND/SUPPLY SHIFTS ARE UNDERESTIMATED...THE INDUSTRY SHOULD PREPARE FOR THIS

ADOPTION OF NEW TECHNOLOGY ADOPTION HAS BEEN SYSTEMATICALLY UNDERVALUED WITHIN THE ENERGY SECTOR...

Global PV Installed Capacity projections by year
GW

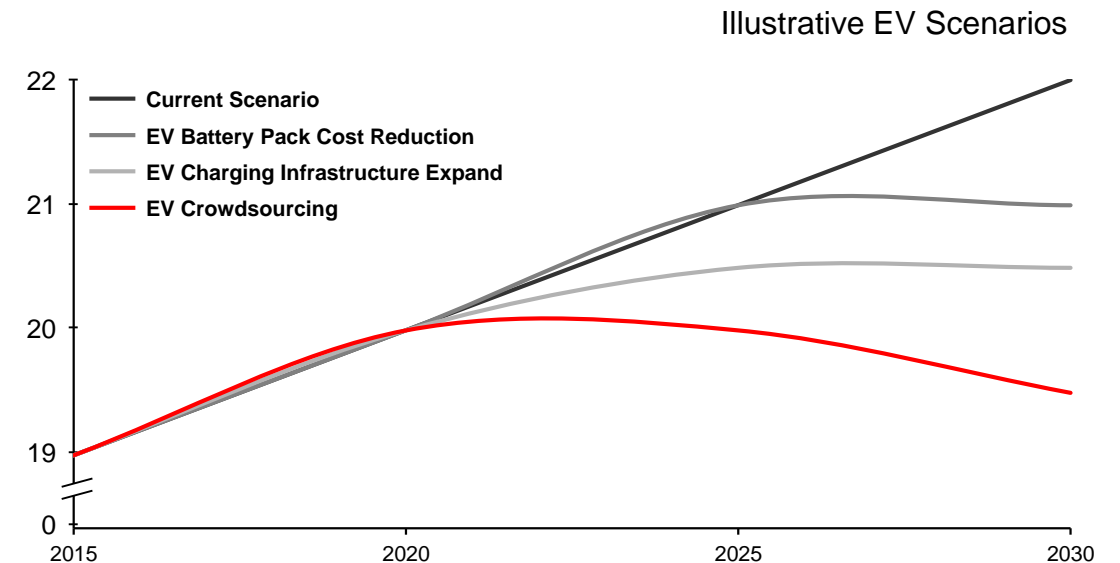


...As other industries have done in the past



THE IMPACT OF NEW TECHNOLOGY ADOPTION CAN DISRUPT FUTURE ENERGY CONSUMPTION TRENDS

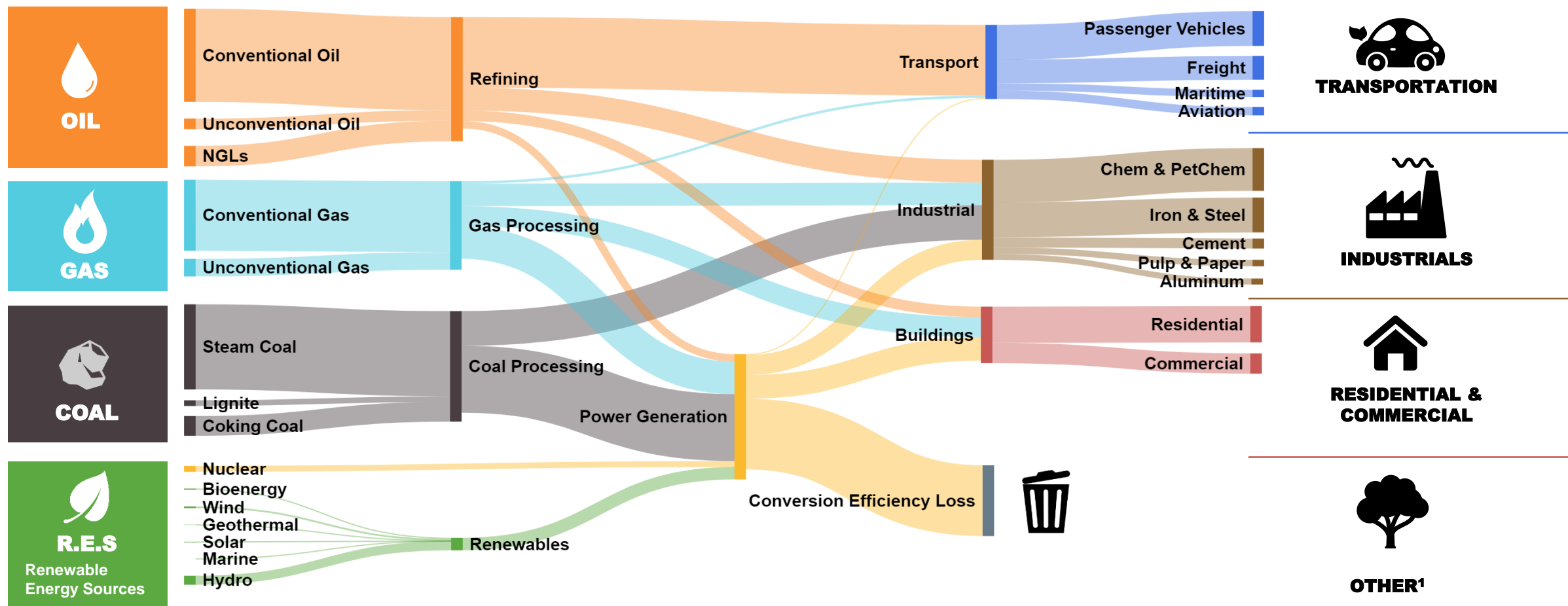
HC consumption from transportation
MMboe/day



Future energy consumption trends must be evaluated through a combinatorial rather a linear extrapolation approach

TODAY, HYDROCARBONS ARE KINGS ON THE EXTENDED ENERGY VALUE CHAIN

ACCENTURE STRATEGY GLOBAL ENERGY FLOW – CURRENT 12,300 [MTOE]

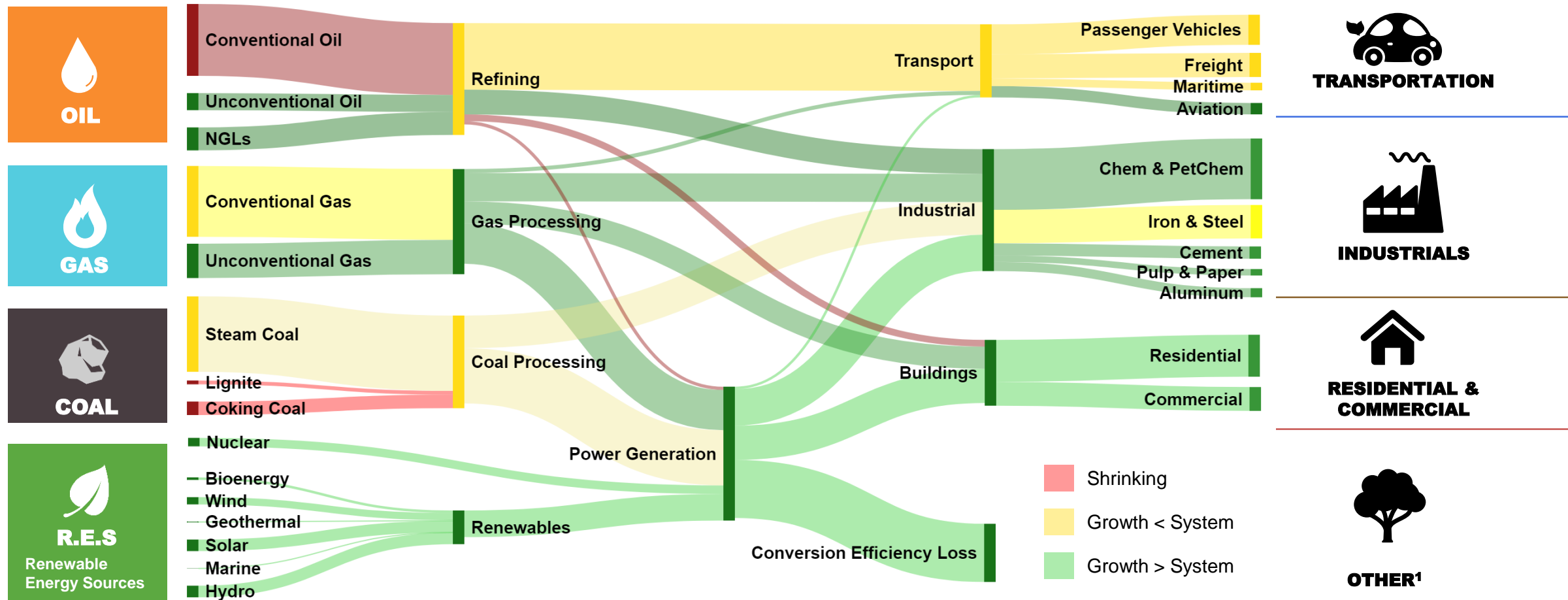


1. Demand segment “Other” (includes agriculture, fishing, and other non-energy uses) - flow not illustrated
Energy Storage not illustrated . Source: ASE analysis
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A ADJUSTMENT IS ON THE WAY, AND WILL FAVOR PLAYERS WHO ARE WELL POSITIONED

ACCENTURE STRATEGY GLOBAL ENERGY FLOW – 2040 – 15,400 MTOE

CUSTOMER CENTRICITY

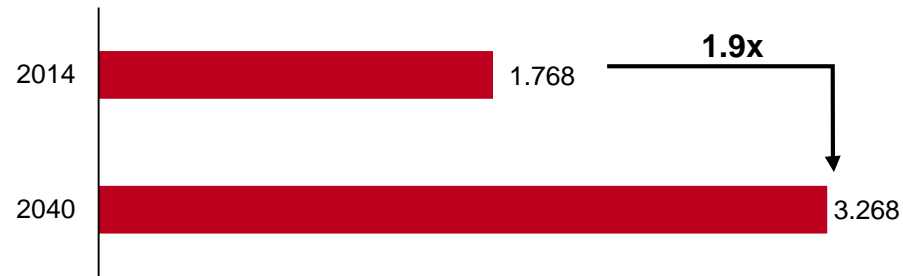


1. Demand segment "Other" (includes agriculture, fishing, and other non-energy uses) - flow not illustrated
Energy Storage not illustrated . Source: ASE analysis
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ELECTRICITY DEMAND MULTIPLIES AND DIVERSIFIES (...SO DOES SUPPLY)

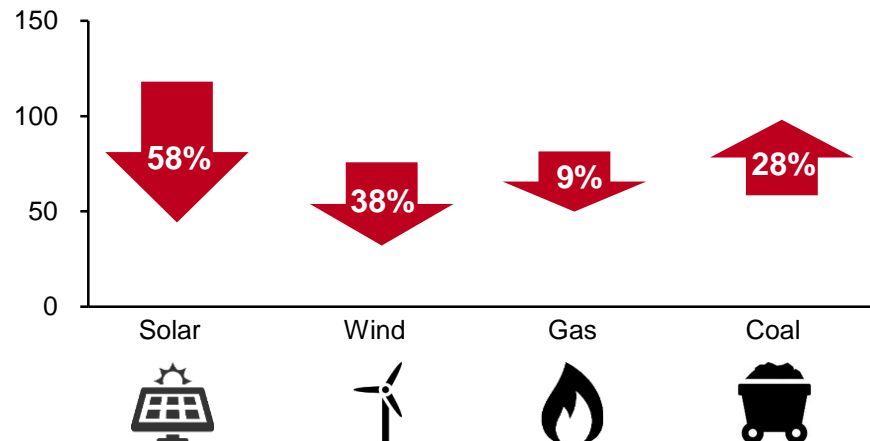
GLOBAL ELECTRICITY DEMAND (MTOE)

Electricity intensity rises



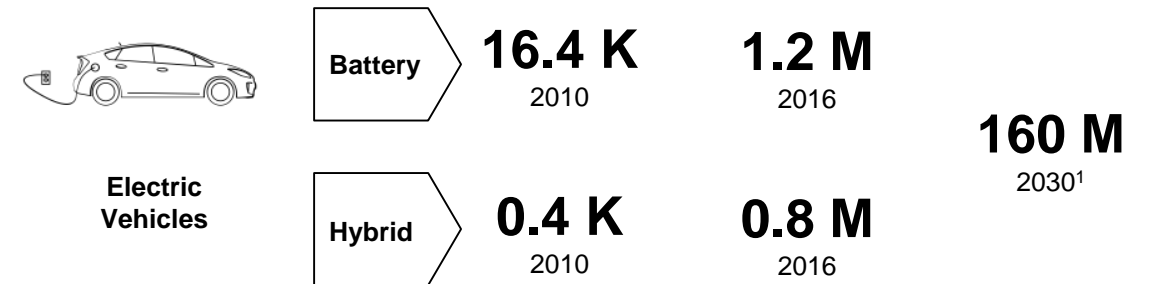
LCOE EVOLUTION 2008-2035 (USD / MWH)

Clean electricity competes with HC



GLOBAL STOCK OF ELECTRIC VEHICLES EVOLVES

Shift from ICE engine to EV



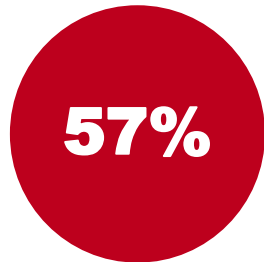
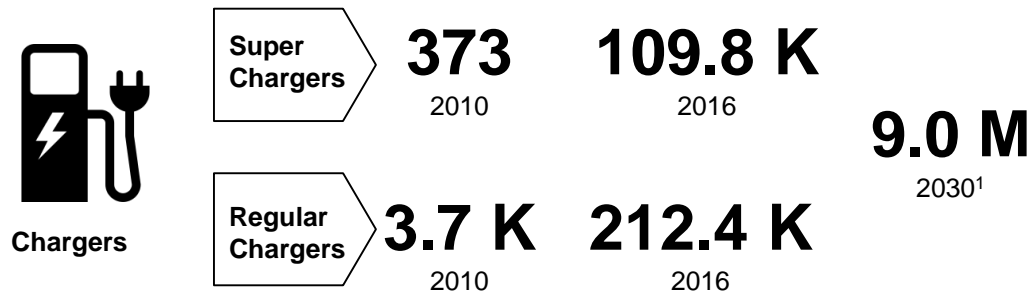
GLOBAL CAPACITY OF UTILITY POWER STORAGE

Grid-connected power storage address renewables intermittency challenge

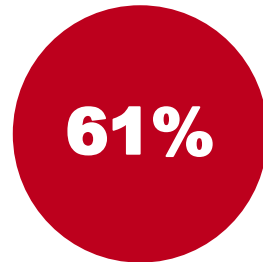


ENERGY CONSUMPTION PATTERNS ARE SHIFTING... NEW TECHNOLOGY (AND POWER) ARE AT CENTER OF CONSUMERS OF THE FUTURE

GLOBAL STOCK OF EV CHARGERS

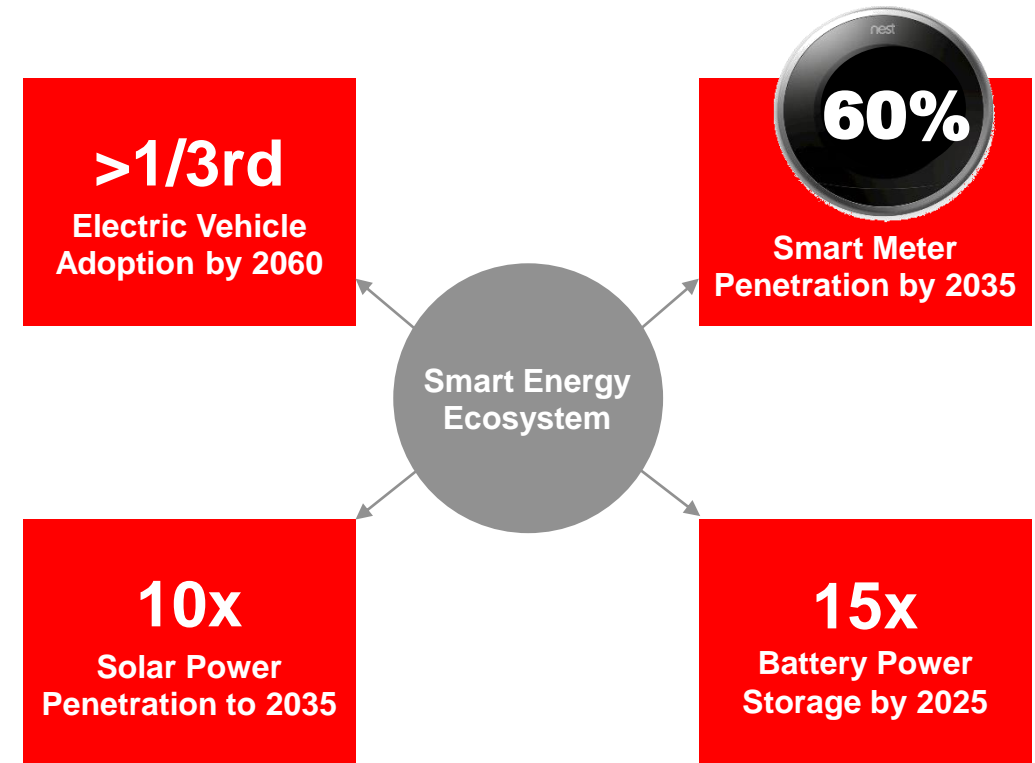


Consumers considering investing to become power self-sufficient



Consumers interest in an online marketplace to sell the electricity they produce

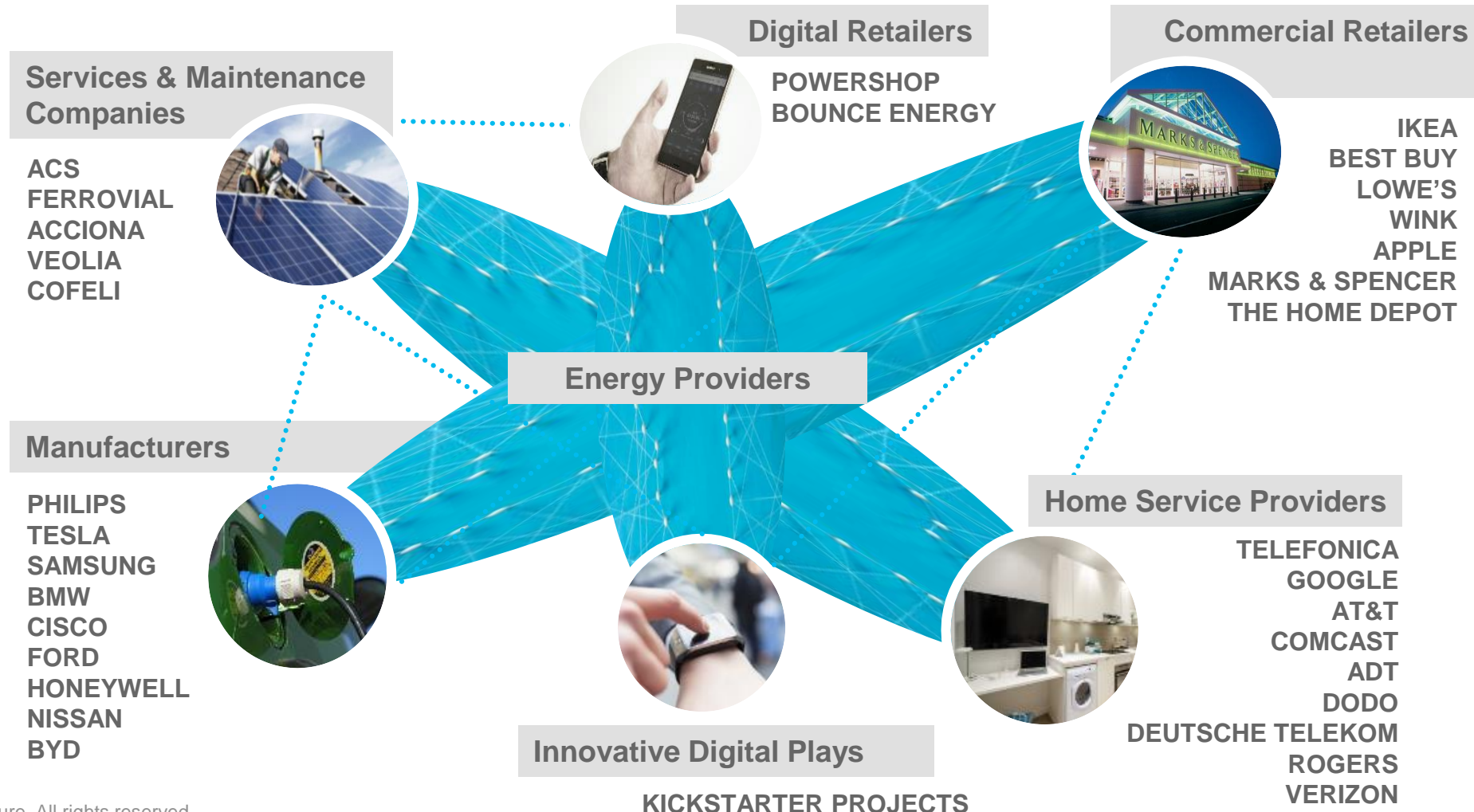
GROWING SMART ENERGY ECOSYSTEM



Smart Management of Energy in an Interconnected Consumer System

FOR UTILITIES, ASYMMETRIC COMPETITION IS ACCELERATING - RISK OF NEW ENTRANTS IMPACTING THE CONSUMER AND THEREFORE VALUE MIGRATION TO ADJACENT INDUSTRIES

The progressive convergence with other industries is attracting new players, redefining the competitive landscape



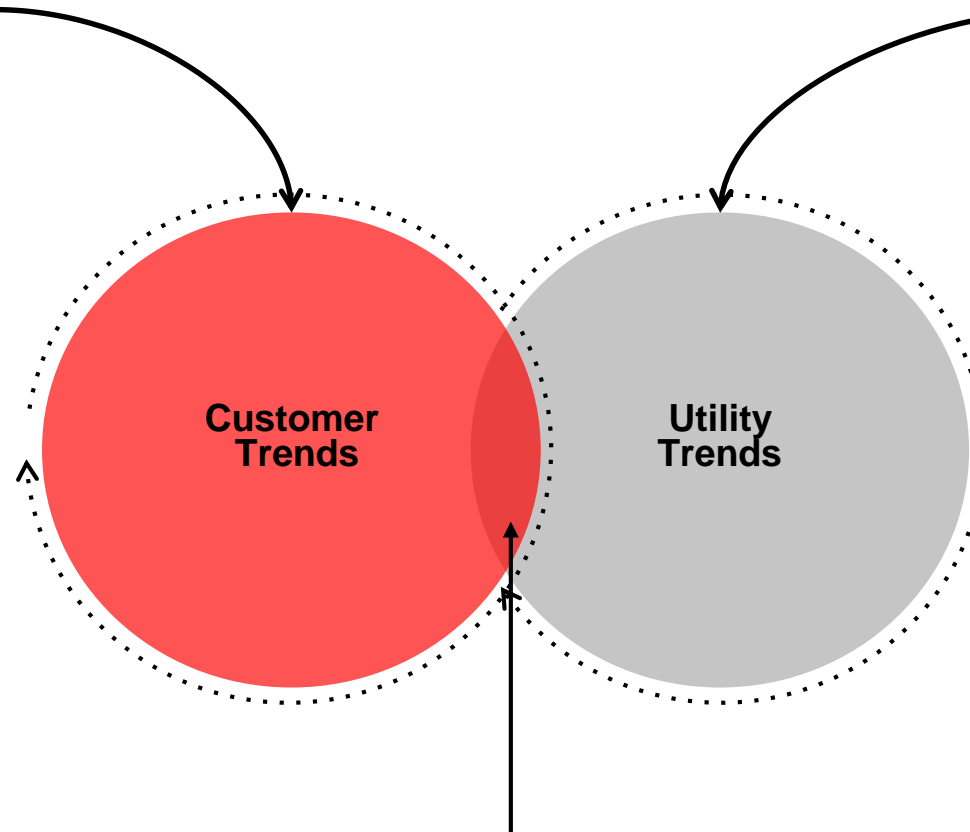
NEW POWER PLAYS ARE EMERGING TO CAPTURE GROWTH IN THE NEW MARKET CONTEXT AND THE NEW CONSUMER WILL PLAY AN INCREASINGLY IMPORTANT ROLE



CUSTOMER EXPECTATIONS ARE EVOLVING AT PACE

Across all industries, customer trends are developing:

- Living Services are underpinning everything
- Services are being offered in smaller and faster chunks
- Digital is at the heart of the social evolution

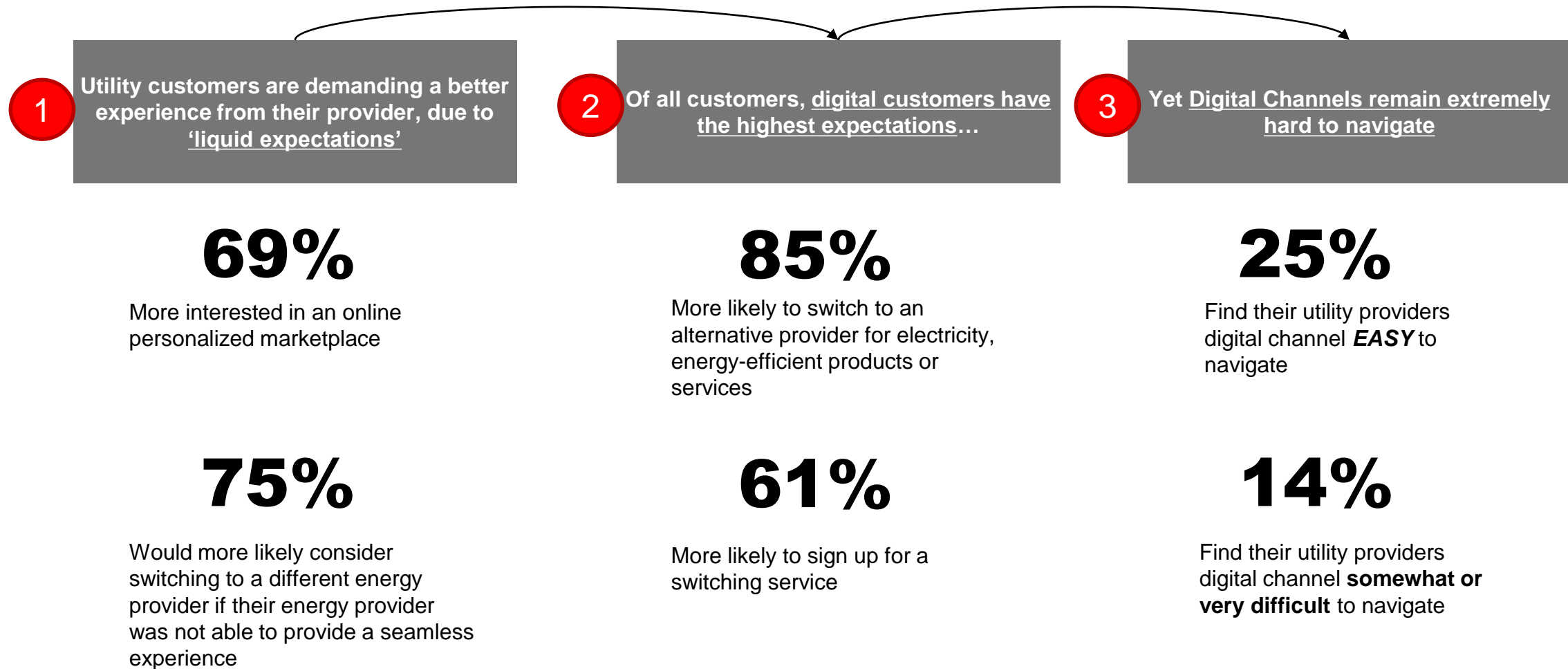


Utility trends are also emerging:

- Utilities face an increasing challenge to meet earnings expectations amid difficult market conditions and disruptive changes
- The use of digital across industries is accelerating, raising customer expectations and creating new competitors for utilities.

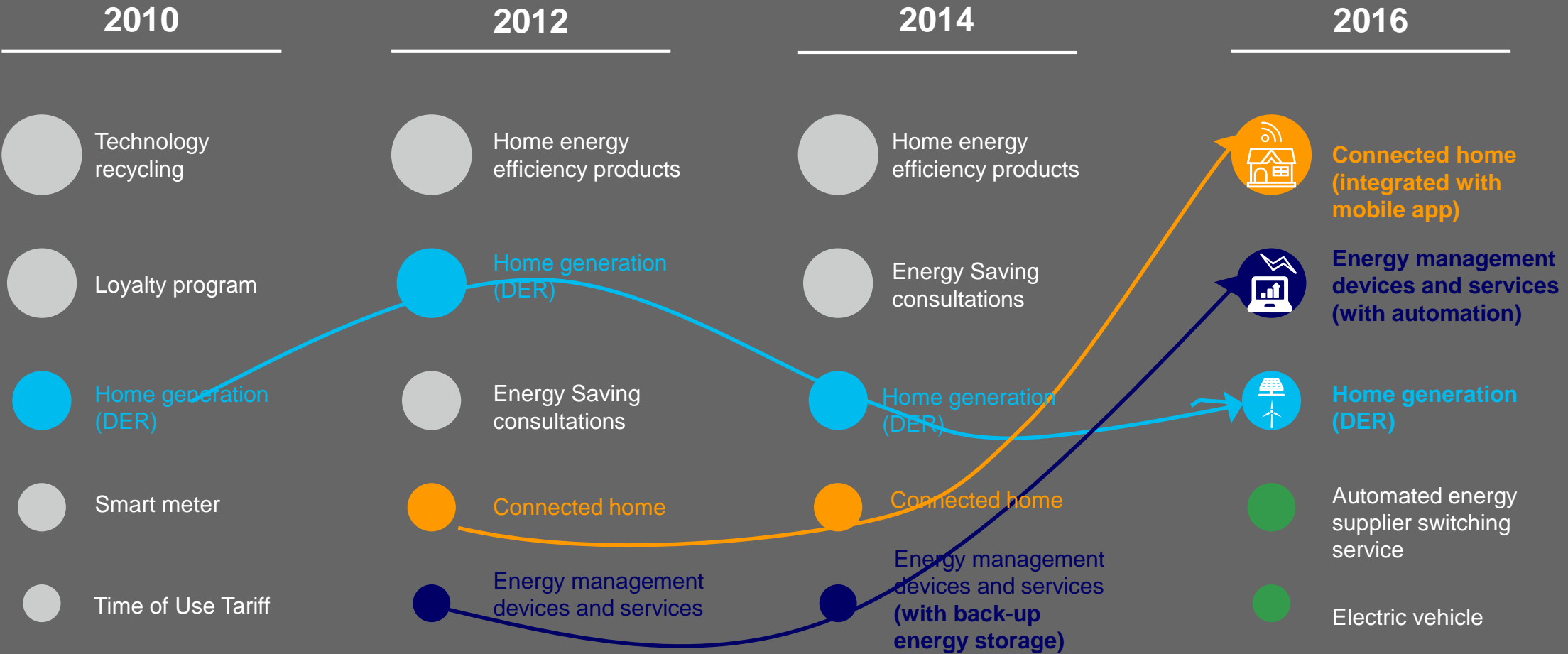
At the intersection of customer and utility we are seeing New Generations become **more engaged and value driven** in their utility experience and approach

INCREASED EXPECTATIONS ARE LEADING TO INCREASED CUSTOMER DEMANDS ON UTILITIES PROVIDERS

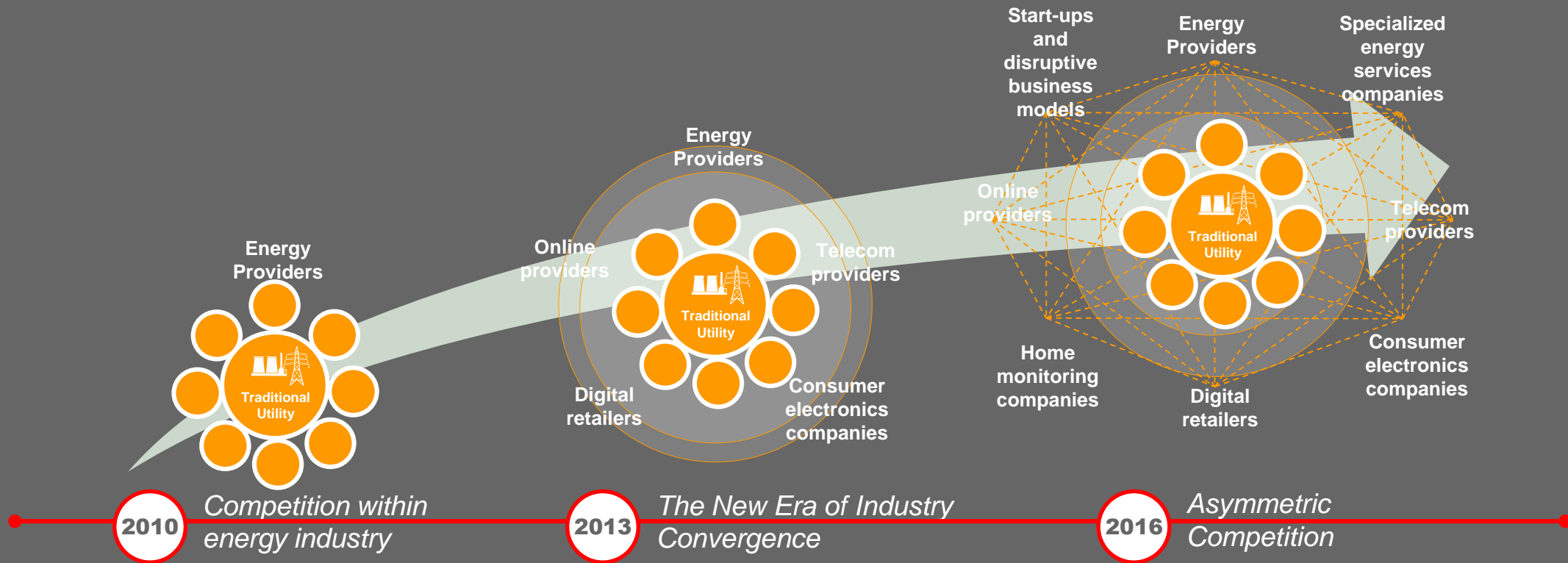


Source: New Energy Consumer 2016

CUSTOMER DEMANDS ARE DRIVING NEW PRODUCTS & SERVICES



COMPETITION IN THE ENERGY ECOSYSTEM IS INCREASING AND BECOMING MORE COMPLEX



New Emerging Business Models



ENERGYAUSTRALIA – DIGITAL TRANSFORMATION RESPONDING TO CUSTOMER NEEDS & ENABLING EA TO ‘LEAPFROG’ THE COMPETITION

Digital Value Creation

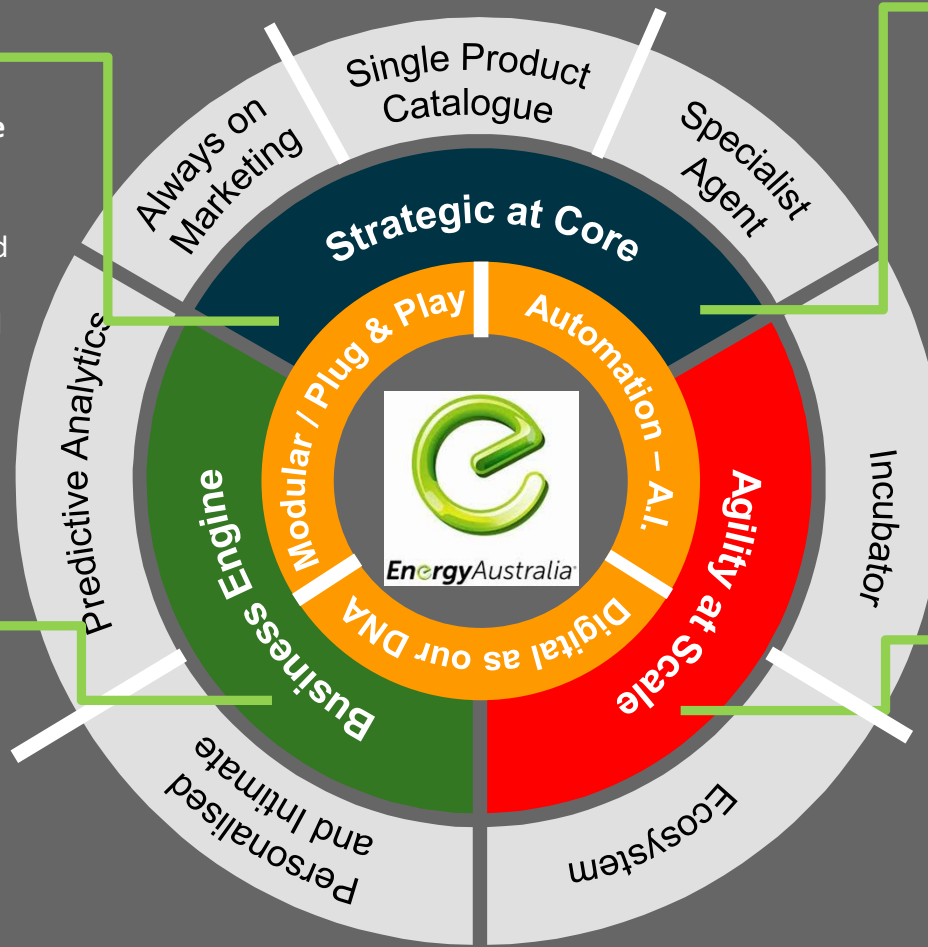
Products, Services and Experience for the digital age

- Enables the customer to review quotes, accept, establish account through connected channels.
- Empowers the customer to receive, build preferred visual representation of charges
- Proactive offers to customers digitally enabled and powered by predictive analytics
- Process automation to improve customer experience and lower cost

High Value Human Touch

Focused, integrated touchpoints

- Customer receives tailored, dynamic offer via their preferred channel based on analytics.
- Customer able to customise their own pricing
- Where an agent is necessary, customer interacts highly skilled and specialist agents



Leapfrog Customer Experience

Personalised and Integrated Engagement

- Proactive engagement via personalised omni channels.
- Able to request and accept quote in 3 clicks
- Real time visibility of installation status
- Self service via digital channels
- Receives personalised loyalty/rewards and recognition
- Served by high skilled and technical experts
- Proactive and dynamic updates

Extended EcoSystem

Extension of the value chain to meet consumers' lifecycle needs and tap into new channels / partners

- Strategic partnership with 3rd parties for 'services'.
- Customers receive tailored 'first in the market' solutions
- Outcome based partnerships for all non core services
- 3rd parties can easily 'plug and play into technology architecture

SCOTTISH AND SOUTHERN ELECTRIC – DIGITAL FIRST BLUEPRINT



Accenture has spent the last 2 years working with Scottish and Southern Electric on a digital transformation program aimed at building the envisaged utility for the digital world “NewCo”

NewCo is in response to 4 major trends impacting UK utilities:

- 1) Rising Customer Expectations;
- 2) Digital and Personalised;
- 3) Accelerated Switching;
- 4) Connected Homes

The Newco operating platform aims to leverage digital technologies to:

- **Remove the frustrations** of the traditional energy retail model
- **Engage customers** in a more positive relationship through **effortless digital channels** and **personalised propositions**
- Increase customer value through enhanced **insight** and **responsiveness**
- Establish a **modern** and **flexible platform** to seize new **growth opportunities** and **partnerships**, such as connected home

BC HYDRO – CUSTOMER CARE



Business Challenge

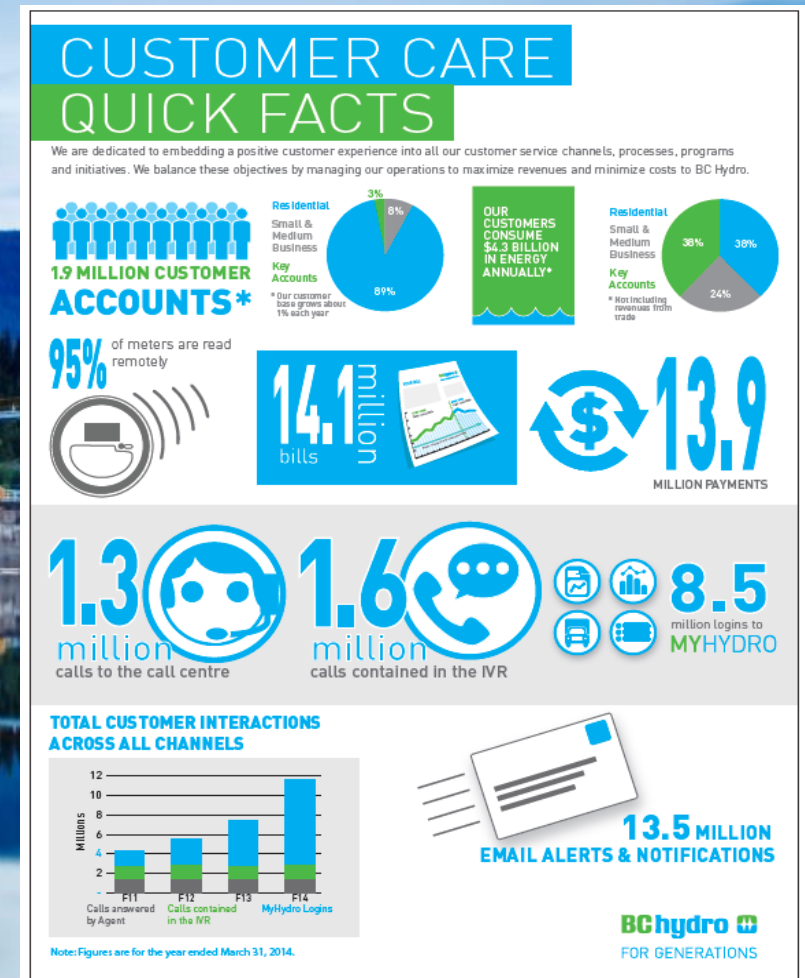
- As a result of a need to reduce costs and alleviate capital constraints, BC Hydro teamed with Accenture in 2003 to provide multi-tower BPO services.

How ACN is helping

- Since 2003, Accenture has been providing fully integrated customer care services including contact center, billing, payments, credit and collections and field customer service. Accenture also provides HR employee services, payroll, accounts payable and office support services.
- Accenture has deployed a number of initiatives to drive efficiency in the customer contact operations while improving the customer experience.

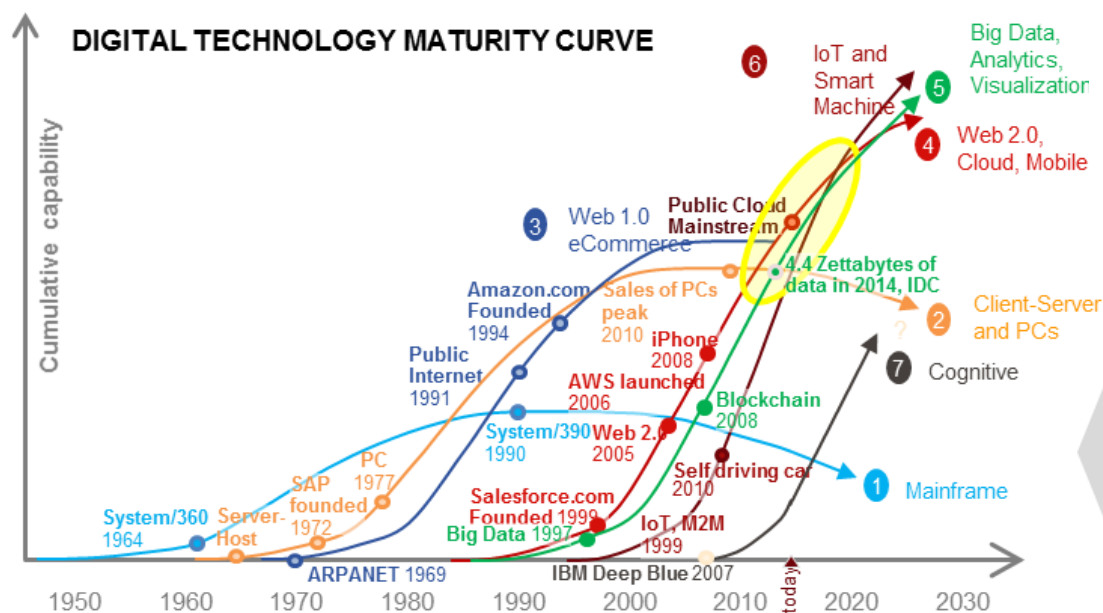
Value Delivered

- YOY improvements in customer experience, first contact resolution, quality, productivity, employee engagement and multi-channel adoption, IVR improvements, customer and operational analytics
- Significantly improved adoption of self-service via e-bill & process changes
- Automated invoice processing from 100% paper-based to 80% fully automated.
- Reduced escalated customer complaints and consistently achieves 1st quartile performance
- Payroll processing volumes have increased by 60% since contract initiation, and staffing has reduced by 30%
- Automated sick leave calculation and improved end to end processing time by over 90%
- Reduced complexity in relocation services and processes by over 75%
- Achieved 98% of service levels since the start of the agreement



ENERGY INDUSTRY AND THE NEW ENERGY CONSUMER – THE DISRUPTION IS REAL AND THE TIME TO ACT IS NOW AS THINGS WILL NEVER BE AS SLOW AS THEY ARE TODAY

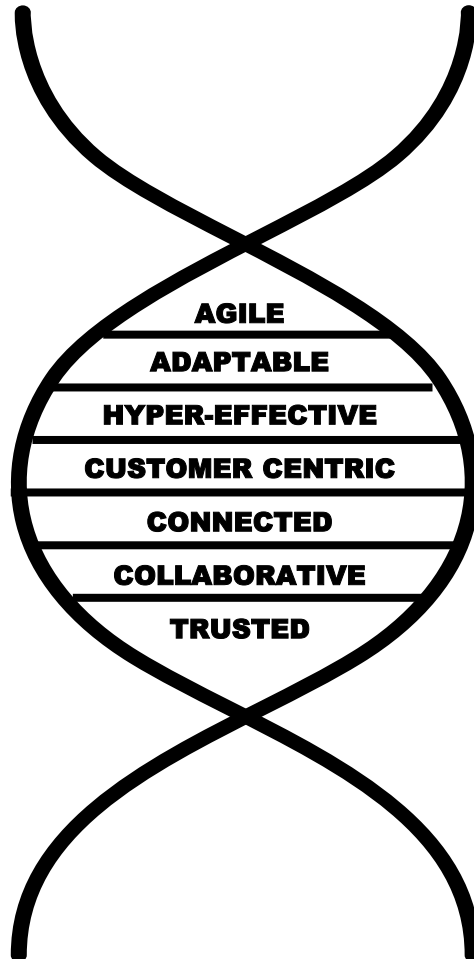
1000 “ENERGY START-UPS”, \$300 BN CAPITAL = DISRUPTION AT WORK



**CONVERGENCE & COMPRESSION
= DISRUPTION SPEEDING UP**

FOR UTILITIES, THIS CONTEXT REQUIRES REFORMULATING THE “DNA” AND BUILDING ENABLING CAPABILITIES NEEDED TO SURVIVE / THRIVE IN THE NEW CONTEXT

THE FUTURE DNA



ESSENTIAL CAPABILITIES

