BUSINESS MODEL INNOVATION FOR THE ENERGY TRANSFORMATION

CSIS

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NAVIGANT AT A GLANCE

2018 REVENUES: $743 MILLION

WORKED ON 2,600+ CLIENT ENGAGEMENTS IN 2018

THREE KEY BUSINESS SEGMENTS
FINANCIAL SERVICES ADVISORY AND COMPLIANCE • HEALTHCARE • ENERGY

AWARDS AND ACCOLADES

= 9 CONSECUTIVE PERFECT SCORES ON THE 2019 VAULT AWARDS
BEST CONSULTING FIRM FOR:
#10 Energy Consulting
#12 Healthcare Consulting
#20 Financial Consulting

HUMAN RIGHTS CAMPAIGN FOUNDATION'S CORPORATE EQUALITY INDEX (CEI)

AMERICA'S BEST EMPLOYERS 2017 & 2016
TOP 250 MIDSIZE FIRMS - FORBES

PEOPLE
5,950 EMPLOYEES
1,400 EXPERT HUMAN CAPITAL
3,300 BUSINESS PROCESS PROFESSIONALS

SIGNIFICANT CLIENTS RELATIONSHIPS*
5+ YEARS = 67% of our largest 100 clients were repeat customers in 2018

92% Revenue over $500K in 2018

CORPORATE SOCIAL RESPONSIBILITY
4,700+ Hours of volunteer time and donations to 215+ non-profits
700+ Employee Resource Group members expanding cultural awareness
200+ Sponsored internal and external CSR events annually

OUR CLIENTS

HEALTHCARE
8 out of the top 10 hospital systems (by Member Hospital Beds)*

LIFE SCIENCES
36 of the top 50 pharmaceutical companies**

ENERGY
50 of the world’s largest electric and gas utilities

FINANCIAL SERVICES
8 Out of 10 of the largest U.S. banks

*Revenues over $500K in 2018

**2017 rankings
A unique energy consulting firm, with global reach, offering full life cycle solutions to accelerate the energy transition.
PREDICTING THE FUTURE
IT’S A MATTER OF PERSPECTIVE…

UNIVERSAL TRUTHS

1) Emerging Technology is almost always overhyped.

2) Forecasted adoption is usually too conservative.
THE ENERGY TRANSFORMATION IS ACCELERATING
3 FORCES OF CHANGE UPTENDING 200+ YEARS OF INDUSTRIAL-SCALE ENERGY…

• How do I prepare my business for transformation?
• What are the parameters of transformation?
• How do I protect/grow my market share?

How do we implement our vision/strategy?
How should we allocate resources?
Where can we add value/grow?
What are the identifiable & compelling value pools?

1) Technology Innovation
2) Customer Demand
3) Policy & Regulatory Shifts

EMERGING (ECO)SYSTEMS
ENERGY TRANSFORMATION MEGATRENDS
COMMON BUT DIFFERENTIATED CHALLENGES…

DEVELOPED

1. Flat or **DECREASING** demand
2. Cost to maintain **EXISTING** infrastructure
3. INTEGRATING renewables and DER

DEVELOPING

1. Rapidly **INCREASING** demand
2. Cost to buildout **NEW** infrastructure
3. **ACCESS** to renewables and DER
THE ENERGY CLOUD: POWER
LINEAR DELIVERY SYSTEM GIVES WAY TO HIGHLY NETWORKED, DYNAMIC GRIDS…

Past
Traditional Power Grid

Emerging
The Energy Cloud

Central, One-Way Power System, focused on Safe, Reliable and Affordable power

Distributed, Cleaner, Two-Way Power Flows, Mobile energy resources, new digital Energy Cloud platforms

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THE ENERGY CLOUD: LIQUID FUELS
FUEL OPTIONS TRANSFORM INTO AN INCREASINGLY DIVERSIFIED AND COMPLEX PORTFOLIO...

Past
Few fuels, tightly controlled

Emerging
Diverse fuels, diverse suppliers

- Market Demand
- Technology Innovation
- Policy & Regulation
THE ENERGY CLOUD: MOBILITY
DIGITIZATION ENABLES MOBILITY DIVERSIFICATION...

**Past**
Single occupancy vehicles dominated

**Emerging**
Autonomous, clean, electric and shared (ACES)

- Market Demand
- Technology Innovation
- Policy & Regulation
DUAL-TRACK INNOVATION

BALANCE INITIATIVES THAT IMPROVE EXISTING PROCESSES WITH THOSE THAT CREATE NEW GROWTH...

Track 1 – Optimize the Current Business Model
Track 2: Develop the Next Business Model(s)

Source: Navigant
1. Start with the **customer**, their **needs**, and **value** propositions.

2. Identify solutions (**products and services**) that can be ideated and developed to meet customer needs and deliver value.

3. Design **business models** that leverage **enabling technologies** and physical **infrastructure**.
WHAT DO CUSTOMERS WANT?

CONSUMER EXPECTATIONS ARE EVOLVING IN THE ENERGY CLOUD (THE NEW FOUR C’S) ...

**CHOICE** (Sustainability)
Greater customer choice and demand for more energy options, including clean and renewable energy

**CONTROL** (Flexibility)
More customers want control of their energy usage and spend, better transparency, and improved reliability and resiliency

**CONVENIENCE** (Autonomous)
Hassle free customer experience and more personalized and digital options

**COST** (Individualized)
Customers are increasingly cost-sensitive and look for ways to optimize their total energy costs

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Residential Customers
Commercial and Industrial Customers
Municipal and Government Customers
**Corporates**

“...ESG isn’t just a nice-to-have anymore. It’s something shareholders will demand, because they believe it’s going to drive everything else they care about. Growth, market share, profitability.”

—“Why It’s Time to Finally Worry about ESG,” HBR.org.

**Cities**

- By 2050, twice as many people will live in cities as in rural areas
- Sustainable development encompasses all aspects of a city’s healthy development, addressing economic/financial, social, and environmental issues

**Citizens**

- 3 out of 4 millennials accept that climate change is a fact
- 87% of millennials believe the success of a business should be measured in terms more than just its financial performance

—HBR
The global clean energy economy reached **$1.5 trillion** in 2018.

Source: Navigant Research; AEE
GO SMALL TO GO BIG
AGGREGATING DEMOCRATIZED EDGE ASSETS ARE THE NEW ECONOMIES OF SCALE…

DER is expected to grow 8x faster than net new central station generation in the next 10 years (520 GW vs. 66 GW).

New global distributed generation (DG) deployments will surpass new centralized generation in 2024.
There is an estimated >$1.3 trillion up for grabs in new products and services over the next decade.

Disruptors are cash-heavy, with a keen focus on innovation and customer relationships.

Sources: Navigant, global figures

Source: Navigant Research
BE IN THE CONNECTION BUSINESS
NETWORK ORCHESTRATION ISN’T JUST FOR UNICORNS...

Margins on individual technologies are expected to erode even faster going forward (rooftop solar, storage...).
SEEK VALUE STREAM DIVERSIFICATION
“FAST FORWARD” ENERGY COMPANIES HAVE ALREADY BEGUN...

VALUE STREAMS

- Energy
- Data
- Financial

PLATFORM ATTRIBUTES

- **Concentrated demand**
  Energy consumers are demanding more individualized and sustainable solutions that offer more autonomy and flexibility

- **Technology democratization**
  Proliferation of demand-side technologies (e.g., smart thermostats, EVs, etc.)

- **Compounding innovation**
  Combination of emerging tech leading to accelerated disruption

- **Industry coupling**
  More competitive stakeholder landscape leads to multi-sector solutions
The world needs to invest about 3.8% of GDP, or $94 trillion by 2040, in economic infrastructure just to support expected rates of growth.

Source: UN
FOR MORE INFORMATION, CONTACT:

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RELEVANT THOUGHT LEADERSHIP

Business Value through Disruptive Energy Platforms
State and Future of the Power Industry
Energy Cloud Playbook
Defining the Digital Future of Utilities
Utility's Role in Electricity's Future