



SECURRENCY

BOSS

Virtual Power Exchange

Developed by BOSS and Securrency

Call For Strategic Partners

- BOSS Controls and Securrency, in a strategic joint venture (the JV), are developing, testing, and commercially deploying the Virtual Power Exchange (VPE)
- The JV is securing US Federal Government funding for a live VPE pilot deployment
- The JV seeks strategic partners to join a coalition and provide initial funding for a VPE laboratory demonstration (lab demo) and ultimately, commercial deployment
- Strategic partners may include:
 - Power generators
 - Energy traders
 - Telecommunications companies
 - Cloud-hosting services
 - DLT protocol/network operators
- Interested strategic partners will be asked for \$250,000 contribution to support the Lab Demo.
- Contributing strategic partners will have a right of first refusal to participate in the commercial VPE project

BOSS Controls and Securrency are creating the first digital, retail level, Virtual Power Exchange (VPE), enabling:

- A transactive energy marketplace backed by globally compliant, distributed ledger technology, allowing B2B energy trading.
- A blockchain-based, electrical power trading platform to efficiently synchronize energy and broker transactions between buyers and sellers in a transparent and compliant manner.
- Real-time energy transactions and control, based on current and predicted future market conditions, down to individual devices.
- Behind-the-meter smart controls for each electrical junction point and onsite distributed energy resources (DER) such as battery storage, solar, generator, and wind.
- Also provide a virtual SCADA system and billing capabilities with “prices for devices” and different views for customer, city, REP, utility and ISO marketplace.



Solving An Industry Problem

PROBLEM:

The energy trading market is inefficient; the wholesale market requires .5 MW minimum and no B2B capabilities

SOLUTION:

A blockchain-enabled, and IoT-informed marketplace for secure, compliant, localized energy procurement – the Virtual Power Exchange (VPE)

VIRTUAL POWER EXCHANGE

A blockchain-based energy distribution market platform at the retail level to:

- Inform market of power product
- Sell / purchase local power products
- Execute real-time financial transactions with high-grade security and automated compliance

END CUSTOMER ROLE IN VPE

Buyers and sellers of local energy power products. For example,

- Sell solar: 4h @ \$0.25/kWh
- Sell storage: 8h @ \$0.30/kWh
- Sell CHP: 24h @ \$0.20/kWh
- Buy DR: 4h @ \$0.20/kW

REP/UTILITY ROLE IN VPE

Wires & connectivity for transmission of power products:

- Electrons pass through the grid
- Payment and information pass through the VPE

End Customer

- Lower costs and energy use
- Access to DER for cost-reduction
- Demand-driven energy market and energy choices for customer needs
- Easily sell excess power to market
- Customer-centric

Retail Energy Provider

- Better enable DER for customers
- Increase energy choice
- Hedge risk and lower costs
- Automate services as certified participant
- More predictable energy pricing

Utility

- Establish Retail energy market for customers
- Wider reach for DER capabilities
- Hedge risk and lower costs
- More effective grid management
- Energy resilience

VPE Revenues

- Annual: platform license fees paid by retail energy provider and utility
- Daily: transaction fees paid for energy sale and purchase

Enormous Market Opportunity

Regulators and customers
DEMAND
efficient energy markets to
reduce GHG and costs

Traditional utility business
model is being
DISRUPTED as IoT
technology proliferates

Low-impact, non-invasive, IoT
efficiency solutions will be
CRITICAL for successful
implementations

The VPE enables
customers to buy and
sell distributed energy
more efficiently than
ever before.

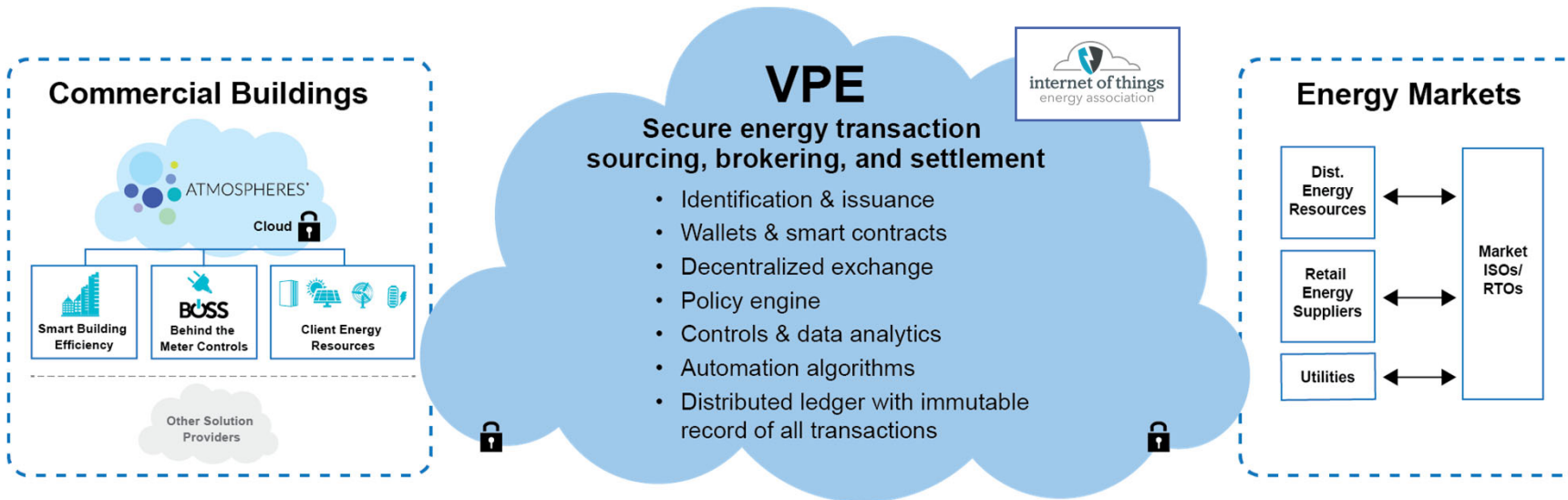
NAVIGANT (GUIDEHOUSE)

"Over the next six years, Navigant estimates that the Distributed Energy Resource (DER) and Energy Services market opportunity is \$2T."

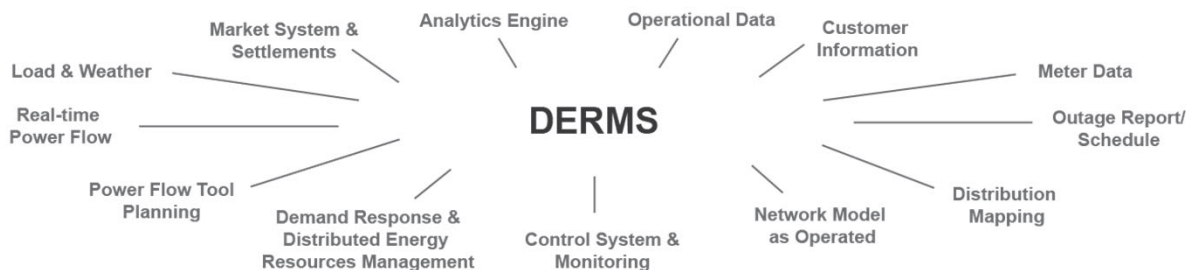
GOLDMAN SACHS

"While we are still in the nascent stages of adoption, we believe the IoT opportunity for Industrials could amount to \$2 trillion by 2020."

VPE Market Connection



VPE provides Distributed Energy Resource Management functionality.



The Joint Venture VPE Team

BOSS CONTROLS

ATMOSPHERES® SOFTWARE
PLATFORM TOTAL ENERGY
RESOURCE CONTROL INCLUDING:

- Cybersecure embedded modules
- Energy control from behind-the-meter to the wholesale market
- Data analysis and correlation, enabling behavior, price, and cost predictions
- Distributed Energy Resource (DERMS) enablement
- Lifetime device value for customer approach



SECURENCY

INSTANT ENERGY TOKEN ASSET
CREATION AND TRANSACTION
SETTLEMENT TECHNOLOGY WITH:

- Transparent, automated compliance
- Real-time data feeds
- Asset type differentiation (e.g. renewables vs. conventional generation source)
- Immutable transaction record
- "Single Pane of Glass" transaction monitoring and reporting



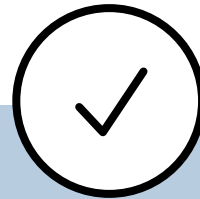
SECURENCY

BOSS Controls Energy Technology Partner

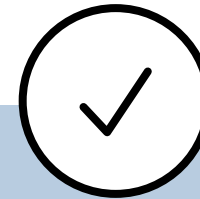
BOSS is a comprehensive technology solution company that uses our Atmospheres™ platform for energy data collection, aggregation, predictive automation, and smart controls providing:



**IMMEDIATE
ENERGY
CONSUMPTION
AND COST
REDUCTION**



**LOW OR NO-COST,
NON-INVASIVE
BUILDING OWNER
IMPLEMENTATION**



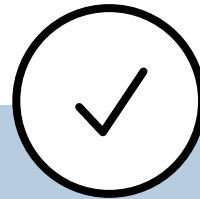
**MULTIPLE
OPPORTUNITIES FOR
RECURRING COST
SAVINGS AND
REVENUE**

Securrency Financial Technology Partner

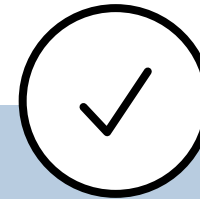
Securrency is a leader in financial services infrastructure technology, delivering a suite of APIs and convenient, yet powerful compliance tools with unmatched interoperability among legacy and blockchain systems necessary for global adoption



**GLOBALLY-COMPLIANT
FRAMEWORK FOR
DISTRIBUTED
LEDGER
TECHNOLOGIES**



**FACILITATES A
TRANSACTIVE
MARKETPLACE FOR
WHOLESALE AND
RETAIL ENERGY**



**ALLOWS DIGITAL
VALUE TO MOVE
EFFICIENTLY ON
DECENTRALIZED
NETWORKS**



Thank you!

Contact us for more information

BOSS Controls

235 West Main Street,
Ligonier, PA, 15658

Greg Puschnigg, CEO

greg.puschnigg@bosscontrols.com | Cell: (724) 396-8131

Securrency

Washington, DC, USA | Abu Dhabi, UAE
1910 Towne Centre Boulevard Suite 250, Annapolis, MD, 21401

Dan Doney, CEO

dan@securrency.com | Cell: (410) 908-7675



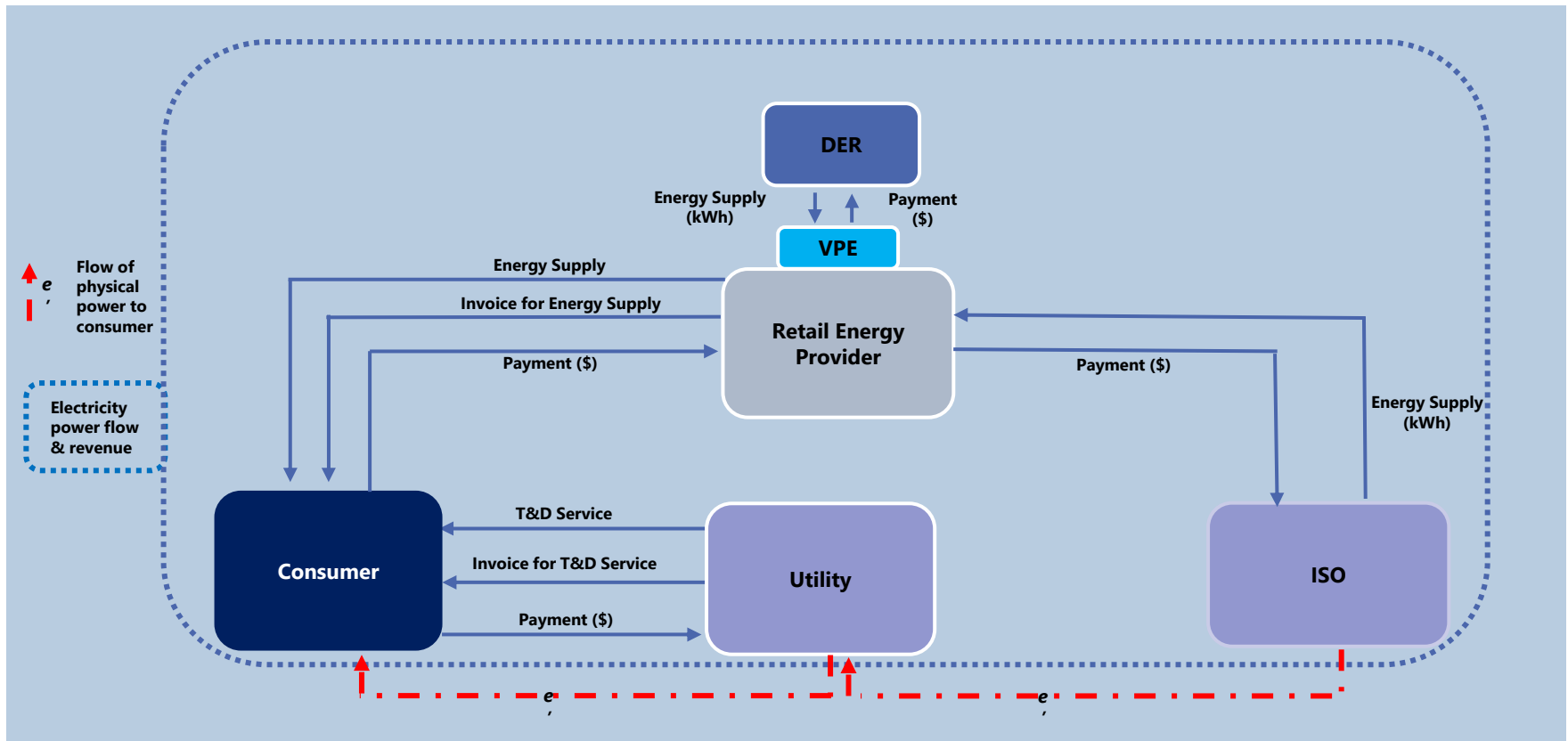
SECURRENCY

BOSS

APPENDIX

CONFIDENTIAL

Phase 1: VPE Market Entry Retail Energy Provider



Phase 2: VPE Market Entry Utility

