

Business Models to enable technologies for energy transition



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About Vrinda

- Vrinda was founded in 2010 , New York based
- Industry Focus: Transportation, Energy & Utility
- Portfolio: worked with 12 unique clients in 3 countries and funding agencies





Why are we here today?

- COVID-19 and now Russian invasion of Ukraine has turned world upside down in a short amount of time and questioned our understanding of globalization, energy security, social change, digital technology, climate change and business models.
- The utility sector was already undergoing a profound transformation led by distributed technologies, customer preferences and emerging business models.
- Climate change, global geopolitics, and stagnant revenues have **increased significant business continuity and growth risks for utilities** around the world.
- However, every country, policymaker, utility company, technology provider and customer needs to revaluate their energy transition strategy.
- Vrinda has been at the forefront of thought leadership over the past several years, challenging the status quo.
- Today we are here to discuss how global trends will impact Colombia and what is the future Colombian energy, and the utility sector should evolve into leveraging challenges and emerging opportunities.

Global trends

Utilities across the geographies are bracing themselves for disruption

Globalization

Globalization is in retreat, supply chains are becoming regional/ local, geopolitics will lead to realignments , higher inflation and less global collaborations

Technology Disruption

Sustainable and distributed technologies energy sources - Hydrogen, Fuel Cells, role of demand side resources, cyber secure, remote, automated, AI based efficient business operations

Business Models

How to pay for expensive technologies which are sustainable but less valuable when compared to current alternatives

Social

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How to prevent social unrest and save Low-income households from sliding into poverty and provide social equity

Climate Change

Erratic weather patterns, Pandemics, threats to biodiversity Accelerated adoption of DERs, clean and resilient energy sources.

and opportunities **Global trends present challenges**

Energy Security

Energy independence, sustainable, affordable energy to support growth and development

Flexibility and sustainability

Energy independence through sustainable and flexible technologies. More than solar and wind

Value of Services

Models which allow customers to also make money and participate in energy transition

Prosumers

Enable customers to enjoy fruits of participation and behavioral change

Resilient

Distributed planning, interconnection, customer level resiliency and fully remote operations

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A right business model is key to technology innovation

How do we keep lights on with changing energy landscape?



How to develop business models

Economic valuation model

EXAMPLE VALUE STREAMS FROM 1 MW DER INTERVENTION



- Economic model with a recognition of key value streams is a critical capability
- Value assumptions require futuristic views by regulators, utilities and investors
- Investors need to take a long-term view- Don't kill golden Goose!

How to develop business models?

Develop product and services



What are the key questions for Colombia?



Colombia needs to conclude the national debate and prepare for the future.





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About Vrinda Inc.

Vrinda Inc. is a New York based business and technology innovation firm. Vrinda Inc. creates success in your business through a focus on value creation by providing trusted, actionable advice and practical solutions. We work at the intersection of solution providers and utilities/energy companies to translate technology into business value. We provide business and technology solutions to Energy, Utility and Transportation sector.

About Vrinda

Why do our clients love to work with us?

Our Services





Our Value Proposition

We strive to be **your trusted partners** by bringing cutting-edge industry vision and **sharing in your success**



Focus on future of the utilities

We are laser-focused on creating and implementing new business models for utilities who believe in customers of future and transform

Maximum value together

Our trusted partner business model strives for shared value and success

We share in your success

Global Experience

We can set up an optimal international team, knowing what is needed based on 25+ years of industry experience with 100+ utilities, 8 countries

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Vrinda's fit for your transformation journey

At the intersections of your business functions



Our passion is to transform energy industry through development and implementation of value-based business models as "Trusted Partners"

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Our Thought leadership



Coronavirus and Utility 2.0 - a threat or opportunity?



2020: The Decade of Electrification



Digital Utility Transformation - a hoax or game changer?



Business model transformation key to utilities future as Distribution Service Providers.



Could iTunes[™] be the model for Utilities of the future? An Architecture for Utilities As ENERGY SERVICE PROVIDER platform



Capability maturity model for Utility of the Future - Utility 2.0

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