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<th><strong>Docket Number:</strong></th>
<th>17-IEPR-12</th>
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<tr>
<td><strong>Project Title:</strong></td>
<td>Distributed Energy Resources</td>
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<tr>
<td><strong>Document Title:</strong></td>
<td>Presentation - Distributed grid solutions that bring people, technology and energy together</td>
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<tr>
<td><strong>Description:</strong></td>
<td>8.8.17: Presentation by Lawrence Orsini of LO3 Energy</td>
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<td><strong>Filer:</strong></td>
<td>Raquel Kravitz</td>
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<td><strong>Organization:</strong></td>
<td>LO3 Energy</td>
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Distributed grid solutions that bring people, technology and energy together
• Applying tested models for emerging tech adoption and market transformation

• Company background:
  – Energy Program Design
  – Community Engagement
  – Codes and Standards
  – REC Markets
  – Blockchain
  – Advanced Meters
  – System Architecture
  – Computation

Technology Adoption Curve

Everett Rogers - Diffusion of Innovations 1962

- 2.5% Innovators
- 13.5% Early Adopters
- 34% Early Majority Adopters
- 34% Late Majority Adopters
- 16% Laggards
Market Background

New Energy Resources - Predictably Intermittent

Negative pricing emerges in the US

Source: EIA, Nov 2016

Source: CAISO, Nov 2016
Consumers Demand New Choice and Services

69% of consumers are interested in having an energy trading marketplace.

33% of consumers who say reading positive reviews on social media platforms or networks would increase their interest in energy-related products or services.

47% of consumers plan to sign up for a community solar program managed by a third party and one that allows them to benefit from solar power even if they do not have solar panels on their property within the next five years.

Source: Accenture’s New Energy Consumer research program 2016.
• Significant market and grid architecture changes ramp exponentially in 3 – 5 years
• DERs, transportation of energy self-organize on economic efficiencies
• Market participants rewarded for maximizing grid efficiency, energy production, storage etc.
• Utility/TSO/DSO returns for increasing efficiency, resiliency or adaptive nature of the grid
• Power markets and utilities will adopt new ways of thinking, operating and competing
Tokenization P2P Markets Prosumers Community Microgrids

Reward efficiency and resiliency allowing participants to optimize existing energy spend according to individual values, priorities and outcomes.

Tokenization of energy production, storage and consumption creates efficient local markets.

Efficient Local Markets attract investment, increase impacts and create local value for energy, environment and community.

Rise of the Prosumers neighbor-to-neighbor, neighbor-to-business community transactions reward local markets and return community value.

Reward efficiency and resiliency allowing participants to optimize existing energy spend according to individual values, priorities and outcomes.

Community Energy – Sharing Economy
• Transactive, distributed intelligence system
• Based on open-source, cryptographically-secure protocol
• Military-grade cybersecurity
• Real-time data
• Auditable, immutable, secure device control
Emerging Transactive Markets

• Early Deployments
• Policy Evolution
• Existing Market Disruption
New Technology – New Choices – New Deal

They are your electrons, right? Don’t forget that.