# A Developer's Vision for Clean Energy Markets

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### Agenda



01. What are growth strategy considerations?

02. What are remuneration options?

03. Energy Prices 101

04. What are our challenges in 100% Clean Markets?

05. Why is price formation important?

06. Wishful thinking?

# What are growth strategy considerations?



Policy	Load Growth	Resource
<ul> <li>Policy support</li> <li>Tax incentives</li> <li>Clean energy targets (state, utility, consumer, etc.)</li> </ul>	<ul> <li>Data centers</li> <li>Electrification</li> </ul>	<ul> <li>Strong wind/solar energy</li> <li>Pipelines</li> <li>Geologic carbon sequestration</li> <li>Nuclear fuel supply and storage</li> </ul>
<ul> <li>Development</li> <li>Permitting/Environmental Challenges</li> <li>Land Availability</li> </ul>	Transmission <ul> <li>Siting</li> <li>Congestion</li> <li>Interconnection costs</li> </ul>	Markets <ul> <li>Tariff Variations</li> <li>Presence of an RTO/ISO</li> <li>Revenue source – Energy,</li> </ul>
NIMBY	<ul> <li>Queue timelines</li> <li>Regional transmission plans</li> <li>GETs deployment</li> </ul>	<ul><li>Capacity, Ancillary, RECs, etc.</li><li>Market size</li></ul>

INTERNAL

# What are remuneration options?



#### Market Revenues

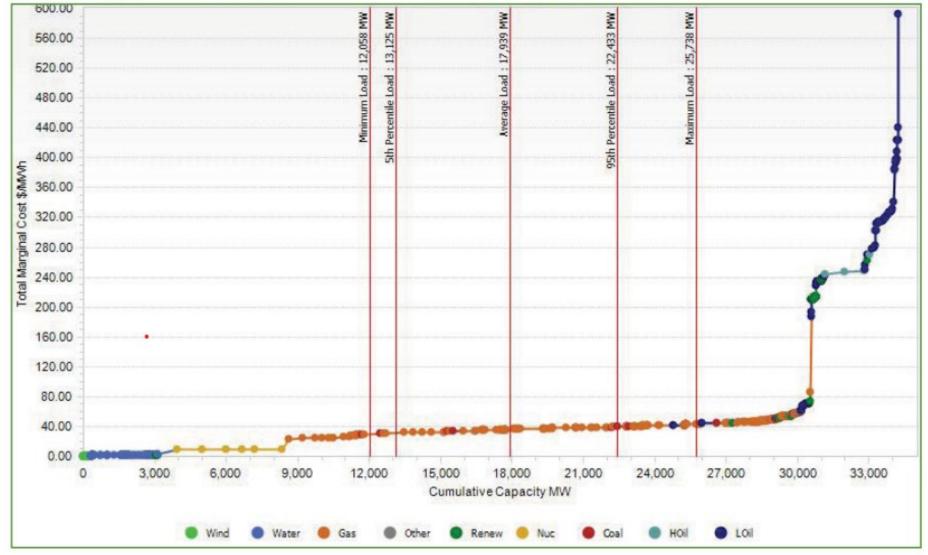
- Energy
- Capacity
- Renewable Energy Credits (RECs)
- Ancillary Services

**Other Revenue Opportunities** 

- Utilities Power Purchase Agreements (PPAs)
- Commercial & Industrial PPAs
- Tax credits

# **Energy Prices 101**



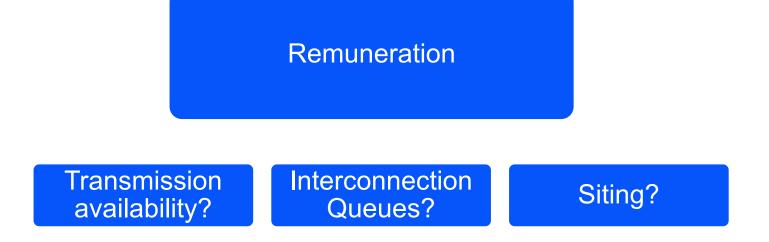




https://www.ferc.gov/sites/default/files/2020-06/energy-primer-2020\_0.pdf



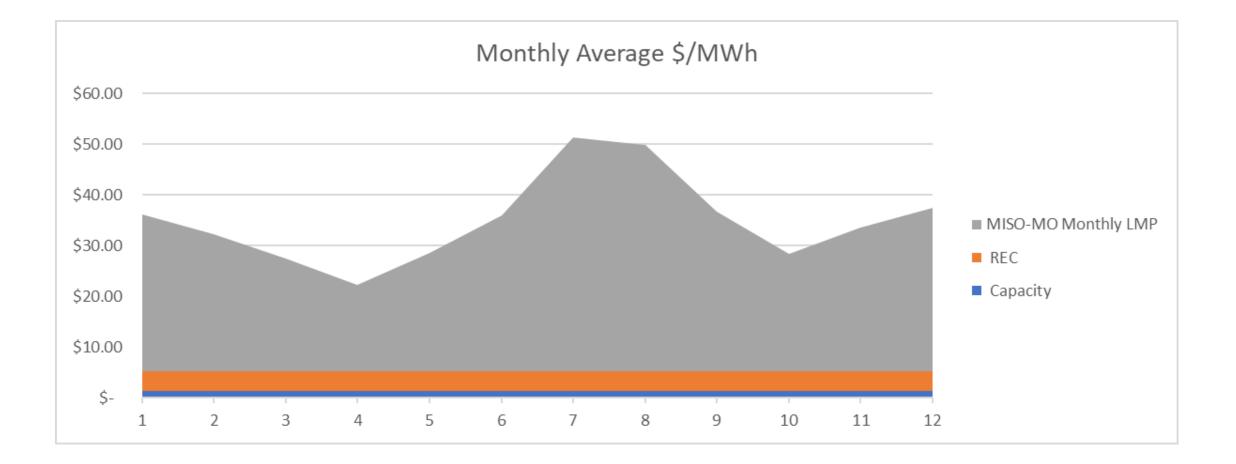




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# Why is price formation important?





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#### Why is price formation important? Price Adder Options



#### Value of Loss of Load

Scarcity Pricing

Value of Capacity

Capacity Markets

#### Value of Flexibility

• Responsive to Fluctuating Load and Weather Dependent Generation Patterns

#### Value of Carbon Displacement

• Measuring the Displacement of Carbon and Other Pollutants

### Wishful Thinking?



If energy price is truly intended to help cover fixed costs in the long run, a more holistic view of price formation needs to be taken, which may result in a more complicated outcome