



The Ascend Energy Exchange: An M&A Advisory Service for Asset Sales Utilizing an Exchange Platform

November 2024

Analytics to Power the Energy Transition

- Founded in 2002 with ~180 employees headquartered in Boulder, CO
- Six integrated service lines for asset operations, portfolio analysis, and planning
- Custom analytical solutions and consulting

The Ascend Product Suite

SmartBidder™

Bid Optimization & Scheduling Services

PowerSIMM™

Portfolio Risk Management & Resource Planning

PowerVAL™ / BatterySIMM™

Energy Asset Valuation

AscendMI™

Market Intelligence Price & Market Forecasts

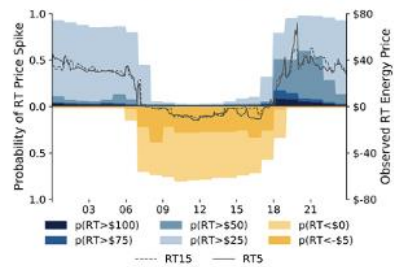
EnSureance™

Merchant Storage Financing

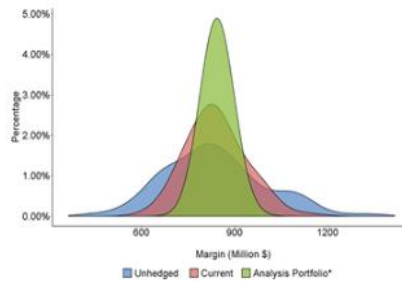
AEX™
ASCEND ENERGY EXCHANGE

Clean Energy Asset Sales & Power Procurement Marketplaces

Forecasts Future Grid States



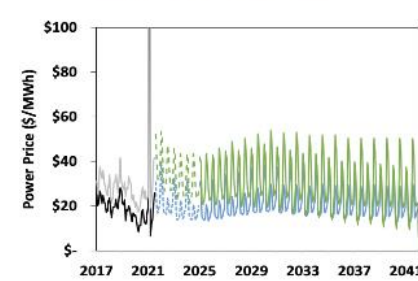
Evaluate Risk & Return



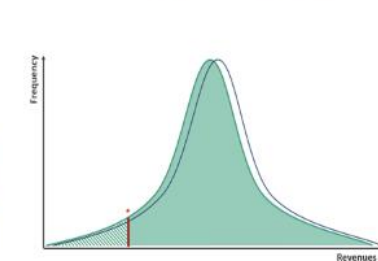
Capture Nodal Volatility



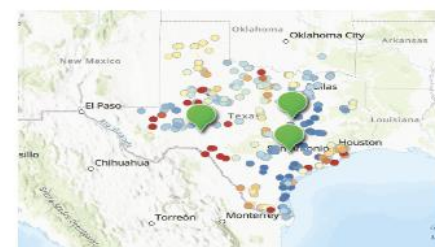
Market Forwards & Forecasts



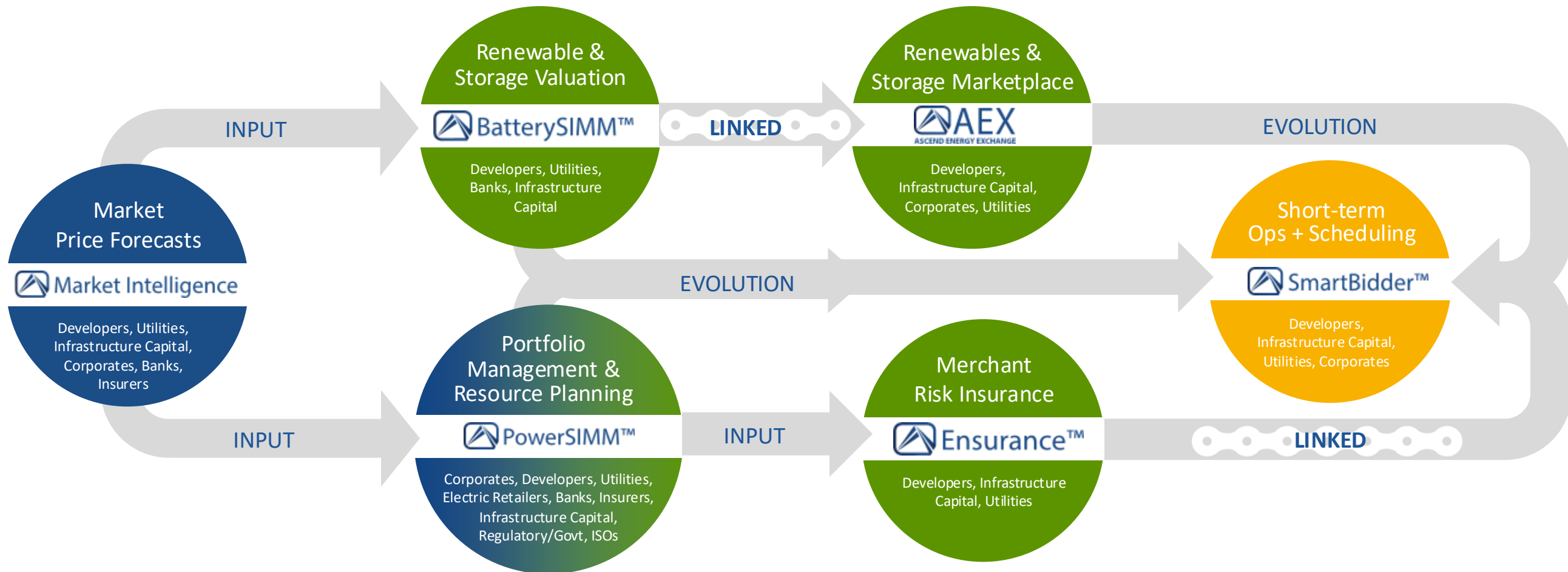
Remove Downside Risk



Marketplace Projects



AEX Leverages the Full Ascend Ecosystem



MARKET FORECAST
Next month to 30 years

VALUATION/SITING
1 month to 30 years

HEDGING & PLANNING
1 month up to 30+ years

TRANSACTIONS
Development Cycle

MERCHANT FINANCE
5 to 10 years

DAILY OPS
5 minutes to 5 days

Ascend Analytics – Market Principles



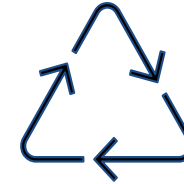
Driving the Energy Transition

Ascend evaluates and reports on the underlying drivers of the electrified economy through webinars, white papers, and thought leadership



Weather as the New Fuel

Ascend quantifies intra-hourly volatility *at the node* for revenues, market exposure, loss of load events, carbon emissions, and other factors affected by renewable output variability.



Project Lifecycle Ecosystem

The Ascend software ecosystem provides a lifecycle partnership that enhances returns and minimizes risk.



Simulating with Real-World Operations

Ascend calibrates policy effects on markets, long term techno-economic principles, and capacity expansion with the realities of policy implementation and governance.

AEX: M&A Advisory Service for Asset Sales Utilizing an Exchange Platform

- **What do we do?**

- Provide sell-side and buy-side M&A advisory services for energy storage and hybrid renewables + storage assets
- Pre-qualify and screen sellers, assets, and buyers
- In-depth project valuation, financial modelling, merchant risk mitigation strategies, bidders' webinar, and dataroom/Q&A management from launch through MIPA execution

- **Unique Value-adds**










- Deepest pool of buyers and sellers, thanks to Ascend's network and positioning
- Wholistic service covering buyer engagement, market analytics, project valuation, financial modelling, and end-to-end transaction support
- Provide buyer education including complementary merchant risk mitigation strategies, e.g. through EnSurance
- Flexibility to facilitate large auctions, small/focused auctions or bilateral transactions, to fit buyer and seller needs
- Cost effective










The screenshot displays the AEX platform interface. On the left, a sidebar lists various energy storage projects with their respective ISOs, storage sizes, and bidding statuses. The main content area features a listing for the 'San Diego BESS Portfolio' by EnerSmart. It includes a photograph of battery storage units, a detailed description of the portfolio, and bidding information such as opening and closing dates. A 'SUBMIT AN OFFER' button is prominently displayed. Below the main listing, there are sections for 'Documents and Links' and 'Projects', with the latter showing a grid of project cards for locations like Alpine, Mesa Heights, Imperial Beach, and El Cajon.

Coming soon













- Additional assets and portfolios for sale
- "Asset wanted" listings on behalf of buyers













The Need: An Efficient Way to Buy & Sell BESS and Hybrid Assets

What Sellers Need	In-House M&A Team	Pureplay Marketplace	Traditional Advisor
Outreach to a large pool of qualified buyers	 Limited "Rolodex". No access to new buyers, e.g. new global entrants	 Limited outreach and prequalification	 Outreach is limited to the usual buyers
Support in valuation and analysis to best market the asset(s)	 Need to procure 3 rd party valuations	 Need to procure 3 rd party valuations	 Lack in-house expertise in energy markets, storage. Need to procure 3 rd party valuations
Competitive price	 Yes, though burdens core teams	 Yes	 No

What Buyers Need	In-House M&A Team	Pureplay Marketplace	Traditional Advisor
Access to high quality projects	 Limited "Rolodex". No access to new/smaller developers	 Limited screening	 Limited screening
Support in valuation and analysis	 No	 No	 Lack in-house expertise in energy markets, storage
Solutions for revenue optimization and merchant risk mitigation	 No	 No	 No

The Solution: AEX – Ascend’s Unique Approach to M&A of BESS and Hybrid Assets

What Sellers Need	In-House M&A	Marketplace	AEX	Traditional Advisor
Outreach to a large pool of qualified buyers			 Leverages Ascend’s relationships with a large, diverse pool of buyers, including new global entrants	
Support in valuation and analysis to best market the asset(s)			 Provides in-depth market analysis, project valuation and financial modelling	
Competitive price			 In-house expertise and low overhead allows for competitive pricing	

What Buyers Need				
Access to high quality projects			 Pre-screens sellers and projects to ensure good market fit	
Support in valuation and analysis			 Provides market analysis, project valuation, in-depth Q&A	
Solutions for revenue optimization and merchant risk mitigation			 Offers complementary products for optimization, risk mitigation: SmartBidder and EnSurance	

AEX Asset Sales Process: Streamlined; Driven by In-Depth Market Knowledge

Weeks 1 - 6

Stage 1: Pre-Bid and Marketing

- Project review
- Outreach strategy
- Focused Teaser distribution
- Bidders webinar

Weeks 7 - 12

Stage 2: DD, Q&A and Bidding

- Buyer due diligence
- Q&A with Ascend and Seller
- 1 or 2 round bid process
- Shortlisting and preferred bidder selection

Stage 3: Exclusive Negotiations

- Exclusivity agreement
- Advanced DD and Q&A
- Commercial negotiations
- Execution of definitive agreements and closing

Selected AEX Transaction References

1. BESS Portfolio: ERCOT

- Seller: GSR Energy
- Asset: Portfolio of up to 70 MW BESS, pre-NTP
- Buyer: Agilitas
- Date: March 2023
[\[announcement\]](#)



2. BESS Portfolio: MISO, PJM, ERCOT, SPP

- Seller: Peregrine Energy
- Asset: Portfolio of up to 892 MW BESS, pre-NTP
- Buyer/Investor: AB CarVal
- Date: August 2023
[\[announcement\]](#)



3. BESS Portfolio: ERCOT

- Seller: GSR Energy, on behalf of an undisclosed owner
- Asset: Portfolio of 15 MW BESS, pre-NTP
- Buyer: Vopak
- Date: February 2024
[\[announcement\]](#)



More transaction announcements coming soon...

AEX Management: Deep Domain Expertise



Gary Dorris, PhD
President & CEO, Ascend Analytics

- Pioneer of market insights and valuation of renewables and storage
- Numerous expert economic valuations and reliance letters
- Direct guidance and strategy support for multiple developers, utilities, and corporates



Rahm Orenstein
Managing Director, AEX

- Former CEO of Sunflower Sustainable Investments, Ltd (TASE: SNFL), a global IPP
- Former VP, Business Development – Energy Storage at Ormat Technologies (NYSE: ORA)
- 15-year experience in origination, development, M&A; > 400 MW developed; > 2.5 GW pipeline



Will Edwards
Business Development Manager

- Manages projects for sale on the Ascend Energy Exchange: listing, collateral, dataroom, Q&A, webinar, etc.
- Leads communication with sellers and buyers

Turlock Irrigation District
TID Renewable Energy RFP

ISO:
Status:
Type:
Bidding Status: **SOLICITATION**

Central Coast Community Energy
Central Coast Community Energy RFP

ISO:
Status:
Type:
Bidding Status: **CLOSED**

CleanCapital
Sunnyside BESS Project

ISO: ERCOT
Storage Size: 154 MW AC
Status: pre-NTP
Type: Standalone Storage
Bidding Status: **CLOSED**

EnerSmart
San Diego BESS Portfolio

ISO: CAISO
Storage Size: 18 MW AC
Status: pre-NTP
Type: Standalone Storage
Bidding Status: **CLOSED FOR BID REVIEW**

GSR
Damon Distributed Storage Portfolio

ISO: ERCOT
Storage Size: 15 MW AC
Status: pre-NTP
Type: Standalone Storage
Bidding Status: **SOLD**

GSR
GSR ERCOT Distributed Storage Portfolio



GSR ERCOT Distributed Storage Portfolio Description

For sale is a portfolio of 7 ERCOT 9.9 MW fast-track distributed storage projects. These projects are positioned in an excellent location to capitalize on congestion and volatility, which are expected to grow in ERCOT throughout the coming years. ERCOT is adding renewable generation at a massive scale, increasing the volatility of the power market and providing an opportunity to arbitrage for fast responders like these battery projects. Houston, where these projects are centered, provides additional potential due to its prime location in a demand center. Power generation is concentrated in the western portions of the state creating opportunities for producers that can be co-located with demand. Ascend expects these projects to have an average simple payback in 3-4 years.

Golden State Renewable Energy (GSR Energy) has formed Gulf States Renewable Energy LLC (GSR-E TX), a Texas Limited Liability Company, as a special purpose entity formed to originate, develop and construct Distributed Generation Resource (DGR) standalone storage projects in ERCOT. GSR Energy is offering for sale the entirety of the GSR-E TX entity, with intent that all assets will be assigned to Buyer, and Buyer will fund ongoing capital expenditures and milestone-based success fees.

GSR welcomes all serious offers and looks forward to a streamlined and transparent sale process. While buyers can utilize their own offer sheets, usage of the standard offer template is preferred. Bidders should place offer for entirety of the Gulf States Renewable Energy entity.

A-Estimate [?]
Low 15¢/Wh
High 7¢/Wh

Bidding Status
Sold

Bidding Opens
10/15/2022
9:00 PM GMT+3

Bidding Closes
10/27/2022
2:00 AM GMT+3

SUBMIT AN OFFER

Documents and Links

GSR Portfolio Sale Press Release

Projects

Select a project below

- I-eye Storage**
Type: Standalone Storage
ISO: ERCOT
COD: Q4 2023
- Lyle Storage**
Type: Standalone Storage
ISO: ERCOT
COD: Q2 2024
- Goddess Storage**
Type: Standalone Storage
ISO: ERCOT
COD: Q2 2023
- Camarine Storage**
Type: Standalone Storage
ISO: ERCOT
COD: Q1 2024
- North Houston Storage**
Type: Standalone Storage
ISO: ERCOT
COD: Q1 2024
- Teeber Storage**
Type: Standalone Storage
ISO: ERCOT
COD: Q2 2024
- Trinkie Storage**
Type: Standalone Storage
ISO: ERCOT
COD: Q3 2024

VIEW DATA ROOM

CONTACT



For questions, please contact Will Edwards or Rahm Orenstein

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rorenstein@ascendanalytics.com

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