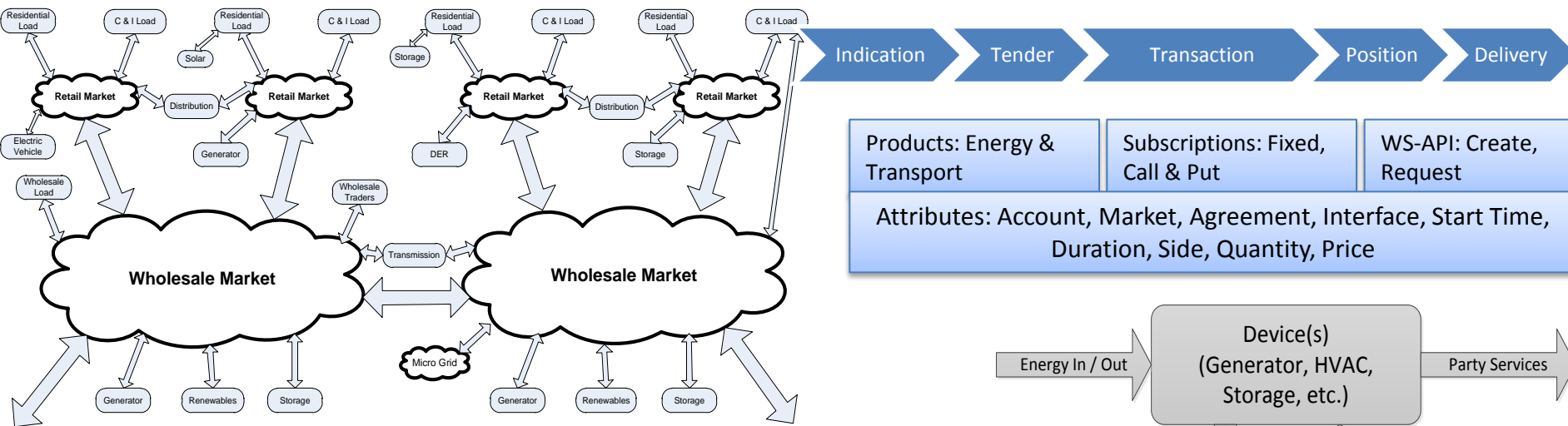


A Transactive Energy US Roadmap

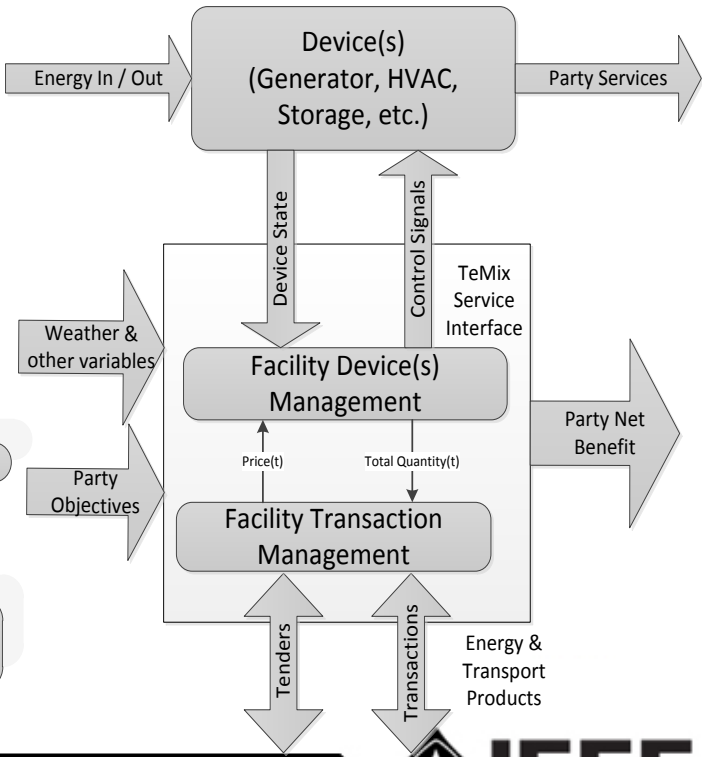
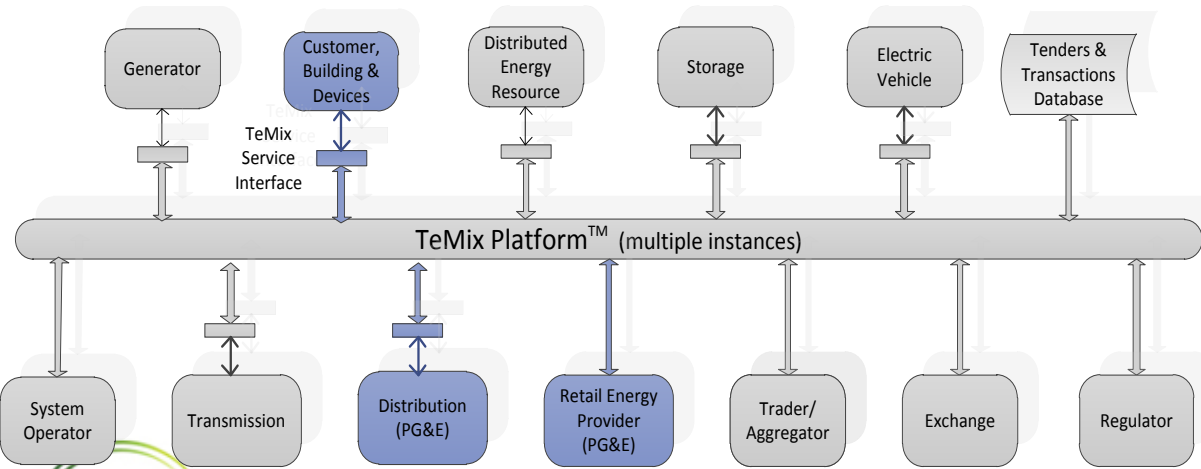
Edward G. Cazalet, PhD
CEO TeMix Inc.
ed@temix.com

2013 IEEE PES Innovative Smart Grid Technologies Conference
Transactive Energy Techniques for End-to-End Power System Operation
(Feb. 25, 2013 1:00pm-2:30pm)

Transactive Energy Vision



↔ Tenders & Transactions for Energy & Transport



Transactive Energy US Road Map Stages

Introduction 2011-2015

- Development of Transactive Energy vision, standards and pilot demonstrations.

Expansion 2013-2020

- Deployments of Transactive Energy on portions of the grid where value is high, and there is regulatory and participant support.

Hybrid 2015-2030

- Widespread deployment of Transactive Energy within some regions with interfaces to existing operations and markets as needed.

Mature 2020-2050

- Near full deployment of Transactive Energy within many regions.

Transactive US Road Map Tracks

Grid Services

- Retail Service
- Distribution Service
- ISO/RTO, Other Transmission & Balancing Operator Services
- Wholesale Forward Energy and Transport Services
- Grid Custodian Services

Transactive Support Functions

- Adequacy and Reliability
- Ancillary Services
- Standards
- Uniform Transaction and Delivery Intervals
- Scheduling
- Uniform Settlement
- Clearing, Pricing and Coordination Algorithms
- Device and System Management Algorithms

Grid Participants

- Distributed Generation
- Grid Generation
- Renewables
- Customers
- Plug-in Electric Vehicles
- Storage
- Micromarkets and Microgrids
- Intermediaries

Environment

More on Transactive Energy

- Draft Transactive Energy US Roadmap <http://bit.ly/X1lw6x>
- Automated Transactive Energy (TeMix) <http://bit.ly/1580gPS>
- Transactive Device Architecture <http://bit.ly/U8tydX>
- Transactive Energy Association www.tea-web.org
- OASIS eMIX <http://bit.ly/11CZs6O>
- OASIS Energy Interop <http://bit.ly/1585fQO>
- TeMix Inc. www.temix.com