

POTENTIAL TE PROJECT WORKSHEET

PROJECT DEVELOPMENT AREA for TRANSACTIVE ENERGY / MODELING AND SIMULATION

Title: Business/Regulatory Models	Brief Description: 1) Define fundamental business/regulatory model types 2) Characterize/define interfaces among the participants (physical/financial) 3) Identify legislative regulator features applicable to each model	Challenges: 1) Untested/untried 2) Power generation/distribution is an existing market 3) Regulatory/legislative resistance 4) Balkanized markets 5) Resistance by potential losers 6) Consumer resistance 7) Disruptive technological change/business models
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PROJECT APPROACH

Major Tasks: 1) Survey/summarize existing initiatives 2) Look at current / past experience 3) Explore additional models 4) Identify legislation/regulatory features for each model 5) Characterize/define interfaces 6) Describe/formulate application of transactive energy system to models	Major Milestones with Dates: 1) A draft of models (December 3) 2) A draft of TE approach interfaces, business models (March) 3) Recommended demonstration projects	Performance Targets: 1) Economic feasibility. Positive payback for participants 2) Achieve vital clean energy/reliability goals at lower cost than alternatives Limits: What parameters should be used to define the realistic limits to use of the system/platform • None identified
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PROJECT IMPACTS and DEMONSTRATION

Impacts: <ul style="list-style-type: none"> • Positive economic impact • Reduced GHG emissions • Increased innovation • Improved reliability/resilience • Increased national energy security, diversification • Increased cybersecurity challenges • Increased system complexity problems • Emergence of new markets • Safety 	Demonstration Vehicle: <ul style="list-style-type: none"> • One model through entire process Status of Commitment: Please advise on the current status of the CPS idea detailed on this worksheet (underline/circle one): Launched Ready for Public Announcement In Deliberations / Negotiations <u>Concept only Stage / No partners yet</u>	Team Lead: <ul style="list-style-type: none"> • EEI (tentative) Participants and Roles: <ul style="list-style-type: none"> • Microgrids • Distribution • Storage (Professional, consumer[pro-consumer]) • Energy producer (control station, distributed) • Aggregator/broker/intermediary • Billing/settlement • Market operator, balancing operator • Passive Consumer, active consumer • Telecom/metering/sensor (RD, DR) • Regulators/ Legislators • Distributed energy supply chain • Transmission on operator 	Worksheet Authors: <ul style="list-style-type: none"> • John Caldwell, EEI • Jeff Price, Bluewave Resources • Robert Stewart, Pepco Holdings • Scott Andersen, CGI • Randy Wedin, Wedin Communications • Ronald Melton, PNNL • Arnand Kandaswamy, NIST • Ed Cazalet, TeMix, Inc. • Robert Hershey, Consultant
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