POTENTIAL TE PROJECT WORKSHEET

PROJECT DEVELOPMENT AREA for TRANSACTIVE ENERGY / MODELING AND SIMULATION

Title:

Reference Grids TE Scenarios
"Well Posed Problems"

Brief Description: Write 2-3 sentences/bullets to describe the project development area and the necessary partnerships

- Topologies
- Identities and capacities of elements
- Keep it simple from beginning
  - One complexity at a time

Challenges: Identify the anticipated challenges for creating a workable demonstration or testbed for the concept

- Utility distribution engineering input
- Is PNNL already doing this?

PROJECT APPROACH

Major Tasks: Describe a possible approach to developing the project, including 3-5 major tasks

- Interconversion of data from standard library to a form usable by the model
- IEEE test cases (transmission/distribution)
- Polish grid
- Define actors (+TE Actors)
- Challenges built on top of a baseline (Do it first)
- Define minimum description for credible analysis/simulation

Major Milestones with dates: Define 3-5 milestones that can be used to measure progress (what markers can we use to measure and assess progress in development?)

- Initial set of base cases ID's
  - Topologies
- Base cases populated
- Base cases populated and structured

Performance Targets: Identify 1-5 (quantitative) performance targets that define a successful outcome (what does success look like?)

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Limits: What parameters should be used to define the realistic limits to use of the system/platform

- Use of scenarios by researchers
- Use of scenarios by solutions providers
- Use of scenarios by utilities

PROJECT IMPACTS and DEMONSTRATION

Impacts: Describe the anticipated economic benefits (new products, jobs, economic growth, exports, tax base, etc.) as well as impacts on energy, health, safety, environment, and other quality of life aspects

- Sequence of problems
- Validation tests (inputs for)
- Credibility tool for models

Demonstration vehicle: Describe how you might demonstrate the project concept (physical or virtual)

- Successful execution on multiple platforms

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 – Based on PNNL Status

CONCEPT ONLY STAGE / NO PARTNERS YET – Based on PNNL Status

Team Lead:

- Neutral standards based party, who could validate the output

Participants and Roles:

- Warren Wang, Navigant; Khaled Masri, NEMA; Steven Ray, CMU; Jason Veneman, MITRE; Alex Brissette, ABB

Additional Notes:

- Team would jointly accomplish milestones of what are the cases, what is the data, and how should it be structured