

To start editing, [sign in](#).

Don't have a Google account? [Create an account](#) with any email address.



[Sign In](#)

Outline-TF1- Contribution to P2030-“Energy Sources” DRAFT A

I. Define “Energy Sources”

- A. “Stiff” sources, always on , matched to load , economically dispatched, operations procedurally controlled by wide area monitors i.e. Independent System Operators or local/municipal utilities. Typical description-Generation, Bulk Power
- B. “Flexible” sources, intermittent/cycled operation, spinning reserve, emergency or critical not economically dispatched, operations procedurally controlled by wide area monitors or local/municipal utilities. Typical description-Renewables, distributed.
- C. “Co-mingled” sources, always on, alternating receiving and supplying power, operations manually (SCADA) controlled by utility substations. Typical description-Distributed
- D. “Dormant” sources-not on, standby, load leveling, not dispatched, operations manually (SCADA) controlled by utility substations. Typical description-Storage or stored.
- E. “Community” sources-intermittently locally on, standby, operations local manual control. Typical description-Consumer owned.

II. Address Scope-“Terminology”, Energy Sources

- A. Identify traditional relatable terms
- B. Establish specific new use(unique Smart Grid) terms
- C. Identify combined terms (cross functional) for IEEE 100 consideration

III. Address Scope-“Characteristics”, Energy Sources

- A. “Stiff” sources electrical, mechanical, primary physical characteristics necessary for intelligent use/communication.
- B. “Flexible” sources electrical, mechanical, primary physical characteristics necessary for intelligent use/communication.
- C. Co-mingled” sources...
- D. “Dormant” sources...
- E. “Community sources...

IV. Address Scope-“Functional Performance and Evaluation Criteria”, Energy Sources

- A. “Stiff” sources-what, why, how? And ultimately who and when?
- B. “Flexible” sources-what, why, how?...
- C. Co-mingled”....
- D. “Dormant”...
- E. “Community”...

A. Address Scope-“What Engineering Principles are Applicable?”, Energy Sources

- A. “Stiff”, what and why...i.e. accuracy, efficiency, tolerances, reliability, quality, constructability, security, control/controllable, visible, logic, design, functionality, usefulness, safety, operational constraints, etc.
- B. “Flexible”...
- C. “Co-mingled”...
- D. “Dormant”...
- E. “Community”...

VI. Address Scope-“Describe intelligent operation?” for Energy Sources

- A. Existing facts and assumptions, what purpose does it(intelligence) serve.-critical sources
- B. Examples other industries i.e. telecommunications, industrial networking
- C. Proposed/alternative descriptions of intelligent operation for all or critical sources

VII. Address Scope-“Integration and Interoperability”, Energy Sources

- A. Existing or current integration and interoperation ideologies and protocols-IEEE 1547 series and others
- B. What is integration and interoperation (interconnection) in theory vs. practice.(what are the confirmed GAPS)?
- C. Proposed/alternative strategies, methods/methodology for interoperation and interconnection for all or select sources
- D. Describe “good practices” and “seamless operation”, and “flexibility” to benefit interoperation concerns.
- E. Compare and contrast architectural designs, with concepts in D above.
- F. Propose and describe test and verification methods different from and not already identified in other standards.

VIII. Address Scope-“Guidelines roles and responsibilities” for Energy Sources

- A. Discuss planned roles, responsibilities, modes, follow on scope.
- B. Identify existing overlap or parallels in IEEE 1547 and other telecom, IT standards.
- C. Describe any regulatory oversight, direction, bases requirements for this document.
- D. Describe how this document establishes the framework for what will be contained in specific targeted standards developed to make our current POWER GRID responsive to choice rather than just catastrophe.