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Document reference number and title: A6.4-MEP006-A01. Draft standard: Suppressed demand (version 01.0)				
Item	Section no. (as indicated in the document)	Paragraph/Table/Figure no. (as indicated in the document)	Comment (including justification for change)	Proposed change (including proposed text)
1	5.2	Para 19 & Appendix 1	System Architecture Flaw: The threshold values lack systems integration analysis. 250 kWh residential + 750 kWh non-residential creates systemic inefficiencies due to load factor mismatches (typical residential load factor 0.3 vs industrial 0.7). No consideration of grid stability, power quality (THD limits), or reactive power requirements. The system fails reliability engineering standards (IEC 61508 SIL requirements).	Implement systems-based thresholds: "Residential: 200 kWh + demand response capability ($\pm 20\%$ load flexibility); Non-residential: 600 kWh with power factor >0.95 ; Combined system efficiency $>85\%$; Grid integration requirements: voltage regulation $\pm 5\%$, frequency stability $\pm 0.2\text{Hz}$, harmonic distortion $<3\%$ THD."
2	5.3	Para 31	Baseline Technology Specification Gap: No technical standards for baseline technology performance characteristics. Missing reliability metrics (MTBF, MTTR), efficiency curves, environmental operating conditions, maintenance schedules. Systems engineering requires quantifiable performance parameters per IEEE 1220 standard. Current approach violates systems engineering V-model verification requirements.	Add technical specifications: "Baseline technologies must meet: (a) Minimum efficiency standards (electrical $>92\%$, thermal $>80\%$); (b) Reliability metrics (MTBF >8760 hours, availability $>99.5\%$); (c) Environmental operating range (-20°C to $+60^{\circ}\text{C}$, 10-90% RH); (d) Maintenance intervals <1000 operating hours; (e) Standardized interfaces per IEC 62559 smart grid architecture."

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3	5.4	Para 33-35	Monitoring System Architecture Deficiency: The monitoring approach lacks systems integration and real-time feedback loops. No specification for data acquisition rates, sensor accuracy, communication protocols, or cybersecurity requirements. Missing fault detection, isolation, and recovery (FDIR) capabilities essential for critical infrastructure per NIST Cybersecurity Framework.	Implement comprehensive monitoring architecture: "Monitoring systems shall include: (a) Real-time data acquisition (≤ 1 minute intervals); (b) Sensor accuracy $\pm 2\%$ for energy, $\pm 5\%$ for other parameters; (c) Secure communication (AES-256 encryption, IEC 62351 compliance); (d) Automated fault detection (statistical process control, 3-sigma limits); (e) Redundant data paths and backup systems; (f) Cybersecurity per NIST CSF profiles."
4	4	Para 15	Technology Agnostic Implementation Error: The requirement for consistent service levels "regardless of technology" violates systems engineering principles of technology-specific optimization. Different technologies have inherent efficiency characteristics, life cycles, and performance curves that must be considered for optimal system design per ISO 15288.	Revise to technology-specific approach: "Service level requirements shall be technology-normalized using efficiency matrices: Solar PV (performance ratio > 0.8), Wind (capacity factor $> 30\%$), Biomass (electrical efficiency $> 35\%$), Grid extension (distribution losses $< 8\%$). Equivalent service calculations must account for technology-specific load profiles and storage requirements."
5	Appendix 1	Figure & Table	Systems Integration Data Gaps: The DLS table lacks critical systems parameters for integration analysis. Missing power quality requirements, simultaneity factors, diversity indices, and peak demand calculations essential for grid planning per IEEE 399 standard. No consideration of intermittency factors or storage sizing.	Enhance table with systems parameters: Add columns for: "Peak Demand Factor (kW)", "Load Diversity Index", "Power Quality Class (A/B/C per IEC 61000)", "Storage Duration (hours)", "Grid Integration Level (autonomous/grid-tied/bi-directional)", "Cybersecurity Classification (NERC CIP level)", "Interoperability Standard (IEC 61850/IEEE 2030)."

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