

Energy Prosumer Grid Settlement

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Distributed Energy Reality

Residential solar penetration exceeds 4% of U.S. households; battery storage growing rapidly; emerging V2G operations across major automaker programs; behind-the-meter generation across commercial customers. Each integration faces utility-specific settlement processes.

Cross-utility prosumer mobility (a customer moving across utility territories), cross-state DER aggregation, and emerging multi-utility virtual power plants face structural friction.

Prosumer Pair Settlement

Each prosumer-grid energy exchange settles as a credentialed pair (prosumer-credentialed identity and utility-credentialed identity). Cross-utility operations admit through declared federation; aggregation operators participate as credentialed multi-party coordinators.

Real-time pricing, time-varying rates, V2G energy export, and demand-response operations all settle through pair-settlement primitives.

Where DER Regulation Is Heading

FERC Order 2222 (DER aggregation in wholesale markets), state-level DER reform efforts, and emerging international DER frameworks all benefit from architectural pair-settlement substrate.