Glossary

NFE Acronym Glossary

This glossary consolidates acronyms used across the NFE BookStack. It covers business, energy, metering, software, finance, logistics, and regulatory terminology. Product model numbers and register codes are excluded unless they are genuine acronyms.

Finance and project terms from the Commercial RPM work (CFADS, DSCR, DSRA, IRR, LLCR, PLCR, SPV and others) are explained in the NFE Commercial RPM Finance Glossary.

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Acronym	Meaning	NFE context
A2EI	Access to Energy Institute	Energy-access research and data organization.
AC	Alternating Current	Electrical current that periodically reverses direction.
ADR	Architecture Decision Record	A durable record of an important technical decision.
AfDB	African Development Bank	Regional development-finance institution.
AI	Artificial Intelligence	Software techniques used for prediction, automation, or decision support.
AMI	Advanced Metering Infrastructure	Meters, communications, and systems used for remote measurement and management.
API	Application Programming Interface	A defined interface through which software systems exchange data or commands.
BESS	Battery Energy Storage System	A battery installation together with its power conversion, controls, and protection.
BMS	Battery Management System	Electronics that monitor, protect, and control a battery pack.
BOM	Bill of Materials	Itemized list of components required to build a system.

Acronym	Meaning	NFE context
BOQ	Bill of Quantities	Itemized estimate of materials, work, quantities, and costs.
BYD	Build Your Dreams	Battery and electric-vehicle manufacturer referenced in procurement research.
C&I	Commercial and Industrial	Customer segment for Commercial RPMs: churches, schools, clinics, hotels, offices, supermarkets and small factories.
CIF	Cost, Insurance, and Freight	Shipping-price basis that includes the goods, insurance, and freight to the destination port.
CIU	Customer Interface Unit	Customer-facing device used to interact with a meter, commonly for prepaid metering.
COSEM	Companion Specification for Energy Metering	Object model used with DLMS for energy-meter data.
CRM	Customer Relationship Management	System for managing customer information and interactions.
CT	Current Transformer	Sensor that scales electrical current for safe metering or protection.
DC	Direct Current	Electrical current flowing in one direction.
DCI	Driver, Consulted, Informed	NFE decision-ownership framework identifying who drives, advises, and is kept informed.
DCU	Data Concentrator Unit	Device that aggregates data from multiple meters for upstream communication.
DER	Distributed Energy Resource	Small-scale generation, storage, or controllable load connected within a distribution network.
DLMS	Device Language Message Specification	Application-layer standard used to exchange utility-meter data.
DRI	Directly Responsible Individual	The person accountable for driving a task or outcome.
DTU	Data Transfer Unit	Communications device that relays field-device data to another system.
EaaS	Energy as a Service	NFE's model: customers pay for electricity and reliability, not for the equipment behind it.
EACU	East African Customs Union	Regional customs framework relevant to imports into Uganda.

Acronym	Meaning	NFE context
EMS	Energy Management System	Software and controls used to monitor and optimize energy flows.
ERA	Electricity Regulatory Authority	Uganda's electricity-sector regulator.
ESMAP	Energy Sector Management Assistance Program	World Bank energy-sector technical-assistance program.
ESS	Energy Storage System	A storage asset and its associated controls and power electronics.
EV	Electric Vehicle	Vehicle propelled partly or entirely by electric power.
FCL	Full Container Load	Shipping arrangement in which one consignee uses a full container.
G3-PLC	G3 Power Line Communication	Power-line communications technology used by smart-grid devices.
GCP	Google Cloud Platform	Google's cloud-computing platform.
GFF	Green Future Foundation	Organization referenced in NFE fundraising materials.
GUI	Graphical User Interface	Visual interface through which a person operates software.
GxF	Grid eXchange Fabric	Open smart-grid software platform evaluated by NFE.
IEC	International Electrotechnical Commission	International standards body for electrical and electronic technologies.
IEEE	Institute of Electrical and Electronics Engineers	Professional association and technical-standards organization.
IDIS	Interoperable Device Interface Specifications	Interoperability profile for DLMS/COSEM smart-meter implementations.
IoT	Internet of Things	Networked physical devices that collect data or receive commands.
IPC	Insulation Piercing Connector	Connector that makes contact through a cable's insulation.
ISV	IEEE Smart Village	IEEE program supporting energy access and community development.
LCL	Less than Container Load	Shipping arrangement in which cargo shares a container.
LFP	Lithium Iron Phosphate	Lithium-ion battery chemistry commonly written $LiFePO_4$.
LV	Low Voltage	Low-voltage portion of an electrical distribution system.

Acronym	Meaning	NFE context
MBE	Metering and Billing Engine	NFE software capability for turning meter data into customer billing records.
MGM	Microgrid Manager	The platform NFE now uses for customer accounts, tariffs and billing, in place of MicroPowerManager.
MoU	Memorandum of Understanding	Document recording intended cooperation between parties.
MPM	Microgrid Power Manager	NFE's microgrid control and management product concept.
MQTT	Message Queuing Telemetry Transport	Lightweight publish/subscribe messaging protocol commonly used by IoT systems.
NCM	Nickel Cobalt Manganese	Lithium-ion battery cathode chemistry.
NFE	Nearly Free Energy	The organization and cooperative developing the NFE Microgrid OS.
NPV	Net Present Value	Present value of future cash flows minus investment cost.
OBIS	Object Identification System	Standard identifiers for measurements and data objects in utility meters.
OEM	Original Equipment Manufacturer	Company that manufactures a product or component sold under its own or another brand.
OS	Operating System	In 'Microgrid OS,' the coordinating software layer for microgrid operations and services.
OSGP	Open Smart Grid Protocol	Open protocol suite for smart-grid communications.
PDU	Power Distribution Unit	Assembly that distributes and protects electrical power to downstream circuits.
PF	Power Factor	Ratio of real power to apparent power in an AC circuit.
PLC	Power Line Communication	Communication that carries data over electrical power conductors.
PR	Pull Request	Proposed set of source-code changes submitted for review and merging.
PV	Photovoltaic	Conversion of sunlight into electricity; commonly refers to solar panels or arrays.

Acronym	Meaning	NFE context
ROI	Return on Investment	Gain or value produced relative to investment cost.
RPM	Reliable Power Microgrid	NFE's product: reliable electricity as a service for residential communities (50–500 residents) and commercial facilities (at least 2 MWh/month). See Commercial RPMs.
RS-485	Recommended Standard 485	Differential serial communications standard widely used with Modbus field devices.
RTU	Remote Terminal Unit	In Modbus RTU, the compact binary serial framing commonly used over RS-485.
SCADA	Supervisory Control and Data Acquisition	System for monitoring and controlling distributed industrial equipment.
SEFA	Sustainable Energy Fund for Africa	AfDB-managed fund supporting sustainable-energy projects.
SOC	State of Charge	Estimated percentage of usable energy remaining in a battery.
SSH	Secure Shell	Encrypted protocol for remote command-line access.
SSR	Solid-State Relay	Electronic switching device with no moving contacts.
TCP	Transmission Control Protocol	Reliable, connection-oriented internet transport protocol.
TLS	Transport Layer Security	Protocol that encrypts and authenticates network connections.
TOU	Time of Use	Tariff or operating schedule that varies by time period.
UEDCL	Uganda Electricity Distribution Company Limited	Ugandan electricity distribution company and macrogrid operator referenced by NFE.
UGX	Ugandan Shilling	ISO 4217 currency code for Uganda's currency.
UNBS	Uganda National Bureau of Standards	Uganda's national standards body.
URA	Uganda Revenue Authority	Uganda's tax and customs authority.
USB	Universal Serial Bus	Standard wired interface used for peripherals and serial adapters.
USD	United States Dollar	ISO 4217 currency code for the United States dollar.
VAT	Value Added Tax	Consumption tax applied to the value added to goods and services.

Acronym	Meaning	NFE context
VM	Virtual Machine	Software-defined computer running within a physical host.
VNC	Virtual Network Computing	Protocol for remotely viewing and controlling a graphical desktop.
VPN	Virtual Private Network	Encrypted private network carried over another network such as the internet.
WSS	WebSocket Secure	WebSocket communication protected by TLS.

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