

IRP Acronym Glossary with Definitions

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Acronym	Term	Definition
ACEE	The American Council for an Energy-Efficient Economy	A non-profit research organization that develops policies to reduce energy waste and combat climate change.
AD	Ad Valorem Tax	A tax based on the assessed value of a property, product, or service.
AD/CVD	Antidumping and Countervailing Duties	<p>Laws established under the Tariff Act of 1930 (as amended, 19 U.S.C. 1671-1671h, 1673-1673h) and the related regulations in Title 19 of the Code of Federal Regulations. The aim of these laws and regulations is to provide relief from the market-distorting effects caused by injurious dumping and assess offsetting duties against imports that were found to have been dumped.</p> <p>In March 2022, the U.S. Department of Commerce initiated an investigation into whether solar cells and modules from Cambodia, Malaysia, Thailand, and Vietnam were circumventing AD/CVD duties on solar cells and modules made in China. In June 2022, President Biden issued an executive order suspending the collection of anti-dumping and countervailing duties for 24 months.</p>
ADMS	Advanced Distribution Management System	A software platform that integrates many utility systems and provides automated outage restoration and optimization of distribution grid performance.
AMI	Advanced Metering Infrastructure	An integrated system of smart meters, communications networks, and data management systems that enables two-way communication between utilities and customers. The system provides a number of important functions that were not previously possible or had to be performed manually, such as the ability to automatically and remotely measure electricity use, connect and disconnect service, detect tampering, identify and isolate outages, and monitor voltage
BESS	Battery Energy Storage System	Rechargeable battery systems that store energy from solar arrays or the electric grid and provide that energy to a home or business.
BNEF	Bloomberg New Energy Finance	A strategic research provider covering global commodity markets and the disruptive technologies driving the transition to a low-carbon economy.

BTA	Build-Transfer Agreement	A hybrid between an acquisition agreement and a construction contract that allows for the direct ownership of a new renewable energy project as an alternative to power purchase agreements (PPAs) and provide incentives to utility or corporate owners and potential tax equity investors.
BTU	British Thermal Unit	A measure of the heat content of fuels or energy sources. One BTU represents the quantity of heat required to raise the temperature of one pound of liquid water by one degree Fahrenheit.
C&I	Commercial and Industrial	Used when referring to classes of utility customers, commercial and industrial refers to subsets of customers that take service in order to provide services or produce goods.
CAA	Clean Air Act	The comprehensive federal law that regulates air emissions from stationary and mobile sources. It was initially enacted in 1963 and has been amended several times to reduce and control air pollution nationwide.
CAGR	Compound Annual Growth Rate	The rate of return that would be required for an investment to grow from its beginning balance to its ending balance.
CCGT	Combined Cycle Gas Turbines	A power system that uses a gas turbine to drive an electrical generator and recovers waste heat from the turbine exhaust to generate steam. The steam from waste heat is run through a steam turbine to provide supplemental electricity.
CCP	Coal Combustion Products	The inorganic residues that remain after pulverized coal is burned. Coarse particles (e.g., bottom ash and boiler slag) settle to the bottom of the combustion chamber and the fine portion is removed from the flue gas by gas-scrubbing systems.
CCS	Carbon Dioxide Capture and Storage	A technological process that "scrubs" carbon dioxide from the emissions of a thermal generation resource, transports it, and permanently and safely stores it underground, reducing emissions from energy-intensive industries.
CDD	Cooling Degree Day	A measure of how hot the temperature was on a given day or during a period of days. A degree day compares the average outdoor temperatures recorded for a location to a standard temperature, usually 65° Fahrenheit in the United States.
CIS	Customer Information System	Software services that address meter-to-cash flow process and customer services. The meter-to-cash process is the process used by utilities to accurately monitor customer consumption and generate a bill for each customer's use.
COD	Commercial Operation Date	The day that the system becomes fully operational and can begin selling power under the terms of the PPA.

CONE	Cost of New Entry	The total annual net revenue (net of variable operating costs) that a new generation resource would need to recover its capital investment and fixed costs, given reasonable expectations about future cost recovery over its economic life.
CP	Coincident Peak	The demand of a subset of customers during the time when electricity demand systemwide is the highest.
CPCN	Certificate of Public Convenience and Necessity	A type of regulatory compliance certification for public service industries. Private companies wishing to provide essential public services in certain countries must be granted a CPCN before constructing facilities and offering services.
CT	Combustion Turbine	A turbine designed to meet peaks in power demand very quickly that operates much like a jet engine, drawing in air at the front of the unit, compressing it, mixing it with fuel and igniting it. The combustion occurs immediately allowing gases to then expand through turbine blades connected to a generator to produce electricity.
CVR	Conservation Voltage Reduction	The intentional operation of the transmission and distribution system to provide customer voltages in the lower end of the acceptable range with the goal of achieving energy and demand reductions for customers.
DER	Distributed Energy Resource	A small-scale unit of power generation that operates locally and is connected to a larger power grid at the distribution level. DERs include solar panels, small natural gas-fueled generators, electric vehicles and controllable loads, such as HVAC systems and electric water heaters.
DERA	Distributed Energy Resource Aggregation	An assembly of multiple generation or demand resources for the purpose of acting as a single entity. Under the Federal Energy Regulatory Commission's Order 2222, DERAs will have an increased ability to participate in wholesale electricity markets.
DERMS	Distributed Energy Resource Management System	A software system designed to aggregate, monitor, and control groups of distributed energy resources at the grid edge in a safe, scalable way.
DG	Distributed Generation	A variety of technologies that generate electricity at or near where it will be used, such as solar panels and combined heat and power.
DGPV	Distributed Generation Photovoltaic System	A photovoltaic solar generation unit that is interconnected to a utility's distribution system.
DLC	Direct Load Control	A utility-sponsored demand-side management program that curtails load from specific appliances, such as electric water heaters or HVAC systems, during times of energy need.

DMS	Distribution Management System	Various software applications designed to monitor and control a system’s entire distribution network efficiently and reliably.
DOC	U.S. Department of Commerce	A Cabinet-Level Executive Branch Agency of the United States with the mission to create the conditions for economic growth and opportunity for all communities.
DOE	U.S. Department of Energy	A Cabinet-Level Executive Branch Agency of the United States with the mission to ensure the U.S.’s security and prosperity by addressing its energy, environmental, and nuclear challenges through science and technology solutions.
DR	Demand Response	Resource options for balancing supply and demand by reducing or shifting consumer electricity usage during peak periods in response to time-based rates or other forms of financial incentives.
DRR	Demand Response Resource	A capacity product, type of equipment, system, service, practice, or strategy that verifiably reduces end-use demand for electricity from the power system.
DSM	Demand-Side Management	A group of actions designed to manage and optimize a site's energy consumption and to cut costs, from grid charges to general system charges, including taxes.
DSP	Distribution System Planning	A forecast, analysis and solution planning cycle for maintenance and development of the utility grid.
EE	Energy Efficiency	The goal to reduce the amount of energy required to provide products and services and can also reduce effects of air pollution.
EFORd	Equivalent Demand Forced Outage Rate	A measure of the probability that a generating unit will not be available due to forced outages or forced deratings when there is demand on the unit to generate.
EIA	Energy Information Administration	A statistical and analytical agency within the U.S. Department of Energy. EIA collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment.
ELCC	Effective Load Carrying Capability	A metric to assess capacity credit for any power plant.
EM&V	Evaluation Measurement and Verification	The collection of methods and processes used to assess the performance of energy efficiency activities so that planned results can be achieved with greater certainty and future activities can be more effective.

ESCR	Effective Short Circuit Ratio	A modified short circuit ratio to capture the interaction of inverter-based resources interconnected at a close electrical distance.
ESPT	Energy Storage Planning Tool	Quanta's propriety tool used to estimate storage capital cost including installation.
EV	Electric Vehicle	A vehicle that uses one or more electric motors for propulsion.
FLOC	Functional Location	Elements of a technical structure in SAP.
FTE	Full-Time Employee	An employee who regularly works 30 hours or more per week.
GDP	Gross Domestic Product	A measurement of the value of the final goods and services produced in the United States, usually measured on an annual basis.
GFL	Grid-Following System	A system that tracks the volage of the grid to control the output of the system to synchronize to the grid.
GFM	Grid-Forming	A system that has an independent internal frequency reference that can establish grids and strengthen operating grids.
GIS	Geographic Information System	A computer system that analyzes and displays geographically referenced information
GT	Gas Turbine	A turbine designed to meet peaks in power demand very quickly that operates much like a jet engine, drawing in air at the front of the unit, compressing it, mixing it with fuel and igniting it.
HDD	Heating Degree Day	A measure of how cold the temperature was on a given day or during a period of days.
HVAC	Heating, Ventilation and Air Conditioning	The use of various technologies to heat, cool, purify, replace, circulate, and control the humidity of the air in an enclosed space.
IAC	Indiana Administrative Code	The regulations developed by the various Indiana state agency administrators who are responsible for implementing—administrating—the specific provisions of laws enacted by the State Legislature.
IBR	Inverter-Based Resource	Resources that are asynchronously connected to the electric grid and are either completely or partially interfaced with the bulk power system through power electronics. Examples include wind, solar, and battery electric storage resources.

IC	Indiana Code	The code of laws for the U.S. state of Indiana. The contents are the codification of all the laws currently in effect within Indiana.
ICAP	Installed Capacity	A MW value based on the summer net dependable capability of a unit and within the capacity interconnection right limits of the bus to which it is connected. It represents physical generating capacity adjusted for ambient weather conditions.
ICE	Internal Combustion Engine	A heat engine in which the combustion of a fuel occurs with an oxidizer (usually air) in a combustion chamber that is an integral part of the working fluid flow circuit.
IEEE	Institute of Electrical and Electronics Engineers	A non-profit technical professional organization with the mission to advance technology for the benefit of humanity.
IQW	Income Qualified Weatherization	Energy efficiency programs aimed at providing weatherization measures to low-income residential customers.
IRA	Inflation Reduction Act	H.R. 5376 of the 117 th U.S. Congress was signed into law on August 16, 2022 and has many impacts on the energy industry, including restoring the production and investment tax credits, providing new ways to monetize renewable tax credits, providing tax credits for projects using stand-alone storage and other emerging technologies, tying wage and apprenticeship requirements to renewable energy credits, extending tax incentives for electric vehicles, and increasing the amount of federal land available for lease to extract fuels.
IRP	Integrated Resource Plan	The process where a utility, the Commission, and stakeholders examine a utility’s current and planned electricity generation for the next 20 years. AES Indiana is required to file an updated Integrated Resource Plan (IRP) every three years in accordance with Indiana Administrative Code (IAC 170 4-7) under the regulatory authority of the Indiana Utility Regulatory Commission (IURC) and the Federal Energy Regulatory Commission (FERC).
ITC	Investment Tax Credit	A 26 percent federal tax credit claimed against the tax liability of residential and commercial and utility investors in solar energy property.
IURC	Indiana Regulatory Commission	An administrative agency that hears evidence in cases filed before it and makes decisions based on the evidence presented in those cases. An advocate of neither the public nor the utilities, the Commission is required by state statute to make decisions in the public interest to ensure the utilities provide safe and reliable service at just and reasonable rates. The IURC regulates various aspects of the utility business, including rates, financing, bonding, environmental compliance

		plans and service territories. The Commission has regulatory oversight concerning construction and acquisition of additional plants and equipment.
kW	Kilowatt	A measure of how much power an appliance needs to run. A kilowatt is 1,000 watts.
kWh	Kilowatt-Hour	A unit of energy equal to one kilowatt of power sustained for one hour or 3600 kilojoules. It is commonly used as a billing unit for energy delivered to consumers by electric utilities.
LED	Light Emitting Diode	A lighting technology that works by passing current through a microchip, which illuminates the small light sources referred to as LEDs, which results in producing visible light. LED lighting products produce light up to 90% more efficiently than incandescent light bulbs.
Li-ion	Lithium-ion	An advanced battery technology that uses lithium ions as a key component of its electrochemistry.
LMR	Load Modifying Resource	Demand Resources and Behind the Meter Generation not typically modeled or measured as part of MISO's operations, but used during capacity shortages to help meet the energy balance.
LNBL	Lawrence Berkeley National Laboratory	A Department of Energy (DOE) Office of Science lab managed by University of California.
MATS	Mercury and Air Toxics Standards	Standards implemented by the U.S. Environmental Protection Agency to limit the amount of mercury and other emissions from power plants.
Max Gen	Maximum Generation Emergency Warning	An emergency warning to power plant operators that the supply of electricity on the grid is getting tight, and that they need all units on standby, ready to produce electricity when called upon.
MDMS	Meter Data Management System	Software that performs long-term data storage and management for large amounts of data delivered by smart metering systems.
MIP	Mixed Integer Programming	A problem where some of the decision variables are constrained to be integer values at the optimal solution. With data from dozens of different sources available at different frequencies and qualities, Mixed Integer Programming (MIP) is a useful framework for filling gaps in data.
MISO	Midcontinent Independent System Operator	An independent, not-for-profit, member-based organization responsible for operating the power grid across 15 U.S. states

		and the Canadian province of Manitoba and one of the world's largest real-time energy markets.
MPS	Market Potential Study	Analyses used by businesses to analyze a potential market with the aim of finding out how viable such a market is with regard to the product that the company has to offer.
MS	Millisecond	A unit of time that represents one one-thousandth of a second.
MVA	Mega Volt Ampere	A unit of apparent power, which refers to the total current and voltage in an electrical circuit.
MW	Megawatt	A unit of energy equal to one million watts.
Nat. Gas	Natural Gas	A naturally occurring mixture of gaseous hydrocarbons consisting primarily of methane and ethane in addition to smaller amounts of various hydrocarbons.
NDA	Nondisclosure Agreement	A legal contract or part of a contract between at least two parties that outlines confidential material, knowledge, or information that the parties wish to share with one another for certain purposes but wish to restrict access to.
NOX	Nitrogen Oxides	A family of highly reactive gases. These gases form when fuel is burned at high temperatures. NOX pollution is emitted by automobiles, trucks, and various non-road vehicles as well as industrial sources such as power plants, industrial boilers, cement kilns, and turbines.
NPV	Net Present Value	A normalized calculation of the difference between cash inflows and outflows discounted to recognize the time value of money.
NREL	National Renewable Energy Laboratory	A laboratory specializing in the research and development of renewable energy, energy efficiency, energy systems integration, and sustainable transportation. NREL is a federally funded research and development center sponsored by the Department of Energy and operated by the Alliance for Sustainable Energy, a joint venture between MRIGlobal and Battelle.
NTG	Net to Gross	The ratio applied to the realistic achievable potential to estimate the demand-side management program potential.
OMS	Outage Management System	Software used by electric utility operators that models network topology to assist with safe, efficient outage restoration.
PLL	Phase-Locked Loop	An electronic circuit that generates an output signal that has a phase related to the phase of an input signal.

PPA	Power Purchase Agreement	A contract between two parties, one which generates electricity and one which is looking to purchase electricity.
PRA	Planning Resource Auction	An annual capacity auction through which electricity providers can procure planning resources to meet MISO's resource adequacy requirements.
PRMR	Planning Reserve Margin Requirement	A margin to measure the amount of generation capacity available to meet expected demand in planning horizon.
PSSE	Power System Simulator for Engineering	Software that provides applications for simulating, analyzing, and modeling transmission, distribution, and industrial power systems.
PTC	Renewable Electricity Production Tax Credit	A per kilowatt-hour (kWh) federal tax credit included under Section 45 of the U.S. tax code for electricity generated by qualified renewable energy resources.
PV	Photovoltaic	The conversion of light into electricity using semiconducting materials that exhibit the photovoltaic effect, a phenomenon studied in physics, photochemistry, and electrochemistry.
PVRR	Present Value Revenue Requirement	The revenue that a regulated utility needs to earn in a test year in order to provide adequate service to its customers and a fair return for its shareholders.
PY	Planning Year	A designated 12-month period that can be the calendar year or an alternative period, for example, July 1 to June 30.
RA	Resource Adequacy	The ability to meet consumers' energy needs.
RAN	Resource Availability and Need	An initiative established to identify near-term solutions to increase the conversion of committed capacity resources into energy during times of need.
RAP	Realistic Achievable Potential	All cost-effective demand-side management measures that are determined to be achievable based on current or proxy incentive levels.
RCx	Retrocommissioning	The process of improving the performance and energy efficiency of existing buildings by optimizing equipment and systems.
REC	Renewable Energy Credit	A certificate corresponding to the environmental attributes of energy produced from renewable sources.
REP	Renewable Energy Production	Energy that is collected from renewable resources that are naturally replenished on a human timescale.

RFP	Request for Proposals	A project announcement posted publicly by an organization indicating that bids for contractors to complete the project are sought.
RIIA	MISO’s Renewable Integration Impact Assessment	An assessment to find inflection points of renewable integration complexity by MISO, organization responsible for operating the power grid across 15 U.S. states and the Canadian province of Manitoba which includes AES Indiana’s service territory.
RTO	Regional Transmission Organization	Organizations that operate transmission systems and develop innovative procedures to manage transmission equitably.
SAC	MISO’s Seasonal Accredited Capacity	An assessment of the potential for electricity generation resources to provide electricity to the grid reliably.
SAE	Small Area Estimation	A methodology of applying statistical techniques to utilize data collected from a subset of the population to make inferences about the total population of a small area.
SCADA	Supervisory Control and Data Acquisition	Software applications and hardware used to automate monitoring, protecting, and controlling distribution system equipment.
SCR	Selective Catalytic Reduction System	A mechanism that removes nitrogen oxides from flue gas emitted by power plant boilers and other combustion sources.
SEM	Strategic Energy Management	Processes that allow organizations to implement energy management actions for continuous energy performance improvement through benchmarking, tracking, and monitoring.
SMR	Small Modular Reactor	An advanced nuclear power generation system with 300 MW of capacity or less per unit.
SO2	Sulfur Dioxide	A colorless gas or liquid that belongs to a group of highly reactive gasses known as “oxides of sulfur” and is largely emitted into the air by fossil fuel generation plants.
ST	Steam Turbine	A mechanical device that extracts thermal energy from pressurized steam and transforms it into mechanical work by spinning the turbine’s blades.
SUFG	State Utility Forecasting Group	A group that assists the State of Indiana through its forecasts of electricity consumption, prices, and resource requirements and performs analyses of a number of issues facing the energy industries based at Purdue University.
T&D	Transmission and Distribution	Refers to the stages of carrying electricity over poles and wires from generators to end-use customers with the primary distinction being related to the voltage level at which electricity moves in each stage. Transmission lines move larger

		amounts of power at a high voltage level while distribution lines move lower amounts of power at lower voltages to end-use customers.
TOU	Time-of-use	A rate structure designed to reduce peak usage by incentivizing customer usage during non-peak times through price signals.
TRM	Technical Resource Manual	A guide used to help plan and evaluate energy efficiency programs.
UCAP	Unforced Capacity	The MW value of a capacity resource. For a generating unit, the unforced capacity value is equal to the installed capacity of the unit multiplied by (1- unit's EFORd).
UCT	Utility Cost Test	A test that determines whether a DSM program or portfolio is cost effective from the utility's perspective measuring the benefits of a program or portfolio of programs with respect to the cost of achieving those benefits.
VAR	Volt-Amp Reactive	A unit of measurement of reactive power, which is necessary to measure real power on alternating current circuits.
VPN	Virtual Private Network	A private network extended upon a public network that enables users to send and receive data across shared networks in a similar manner as a direct connection to a private network.
WTP	Willingness to Participate	A survey provided to customer to gauge customers' likelihood of participation based on various incentive levels as well as gauge non-incentive motivational factors for various end-uses that impact participation levels.
XEFORd	X Equivalent Demand Forced Outage Rate	A measure of the probability that a generating unit will not be available due to forced outages or forced deratings when there is demand on the unit to generate calculated by excluding causes of outages that are outside management control.