



Track: The Power Connection: Electric Generation for Gas Utilities

Unit #5: Market Fundamentals

Presentation Outline

- Functions and Pricing of Electricity Markets
- Regulatory Agencies and Policies
- Renewable Supply
- Industry Reports
- Incentives for Energy Efficiency
- State Energy Industry Requirements
- Market Players



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Functions and Pricing of Electricity Markets

- Wholesale and Retail Pricing Mechanisms
- Green Power Market/RECs
- Peak Demand Pricing
- Forecasted Energy Production
- Functions of Electricity Markets

Wholesale Pricing Mechanisms

Role of pricing mechanisms is to provide utilities, power generators, and customers a framework for grid operation, planning, decision making, and use.

Zonal Pricing – Grid is split into geographic zones that each have a single, average price for electricity.

Pros:

- Simple pricing market
- Price stability
- Reduces power of large market entities

Cons:

- True cost of electricity delivery to different areas is not always reflected
- Can encourage inefficient infrastructure decisions
- Is not necessarily transparent



Source: Diversegy (Jul 2024): <https://diversey.com/nodal-pricing-vs-zonal-pricing/>



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Wholesale Pricing Mechanisms

Nodal Pricing – Each node of the grid has a unique price for the customers it connects.

Pros:

- Pricing reflects actual grid characteristics
- Encourages investment in system efficiency and effectiveness
- Transparent

Cons:

- More complex
- Pricing can lead to unpredictability and volatility
- Avenues for manipulation by large market entities



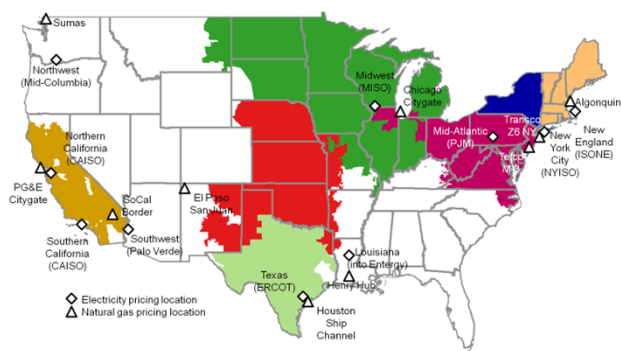
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Wholesale Pricing Markets

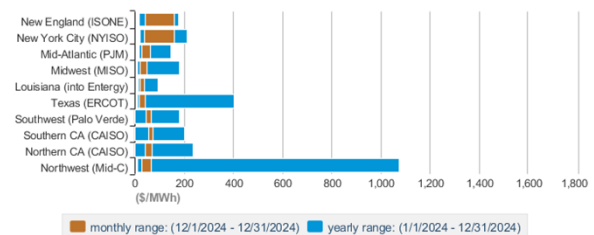
Selected Wholesale Electricity and Natural Gas Pricing Locations



Source: U.S. Energy Information Administration based on Ventyx Energy Velocity Suite.

Source: U.S. Energy Information Administration (Mar 2025):
<https://www.eia.gov/electricity/monthly/update/wholesale-markets.php>

Monthly and annual range of wholesale electricity prices for selected regional trading hubs, December 2024



Data source: U.S. Energy Information Administration based on SNL Energy



<https://www.spglobal.com/commodity-insights/en/news-research/latest-news/electric-power/111723-us-power-tracker-northwest-prices-climb-as-temperatures-drop-hydro-remains-low>

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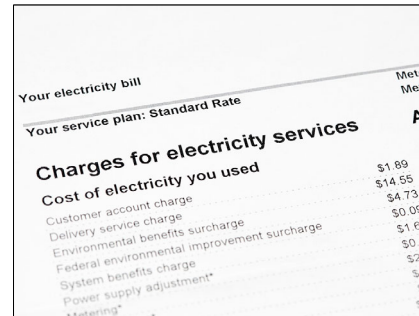
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Retail Pricing Mechanisms

Retail pricing includes the costs end-use customers pay for electricity delivery.

Components of this cost include:

- **Wholesale costs** – The cost of the electricity delivered.
- **Transmission & distribution fees** – Cost to operate and maintain the network that delivers the electricity.
- **Taxes & regulatory fees** – Government and regulatory body costs.
- **Operational costs** – Cost of business including admin, billing, and additional activities.
- **Risk and profit margins** – Protect utilities and the businesses they work with against financial risks and ensure profitability.
- **Utility and region-specific costs** – Costs to ensure low-income households have basic heating needs in winter, to restore contaminated land, to finance local projects or initiatives, to recover costs from a disaster, etc.



Charges for electricity services	
Cost of electricity you used	\$1.89
Customer account charge	\$14.55
Delivery service charge	\$4.73
Environmental benefits surcharge	\$0.09
Federal environmental improvement surcharge	\$1.60
System benefits charge	\$0.00
Power supply adjustment*	\$0.00
Metering*	\$0.00



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Retail Pricing Mechanisms

Rates are the costs customers pay for electricity they consume (usually by the kWh). Common rate structures include:

- **Fixed Rates** – Customers pay a set, unchanging price for electricity within a set period.
 - Predictable & stable
- **Tiered Rates** – Customer rates are tiered based on consumption.
 - Predictable
 - Can be used to promote energy savings to encourage customers to stay in lower rate plans.
- **Variable Rates** – Customer rates follow market changes.
 - Savings when rates are low
 - Unpredictable expenses when rates are high.
- **Time-of-Use (TOU) Rates** – Customer rates are determined by the time of day use happens.
 - Savings during off-peak periods. Higher costs during on-peak periods.
 - Encourages customers to load-shift from peak periods.
- **Debt Retirement Charge (aka Competitive Transition Charge)** - A fixed cost of \$/kWh to pay down the cost of the existing Stranded Cost of generation stations that were divested.

Other rate plans may incorporate regional differences or special rates, such as rates for green energy where fuel costs for energy production are removed from the rate while renewable energy surcharges are added.



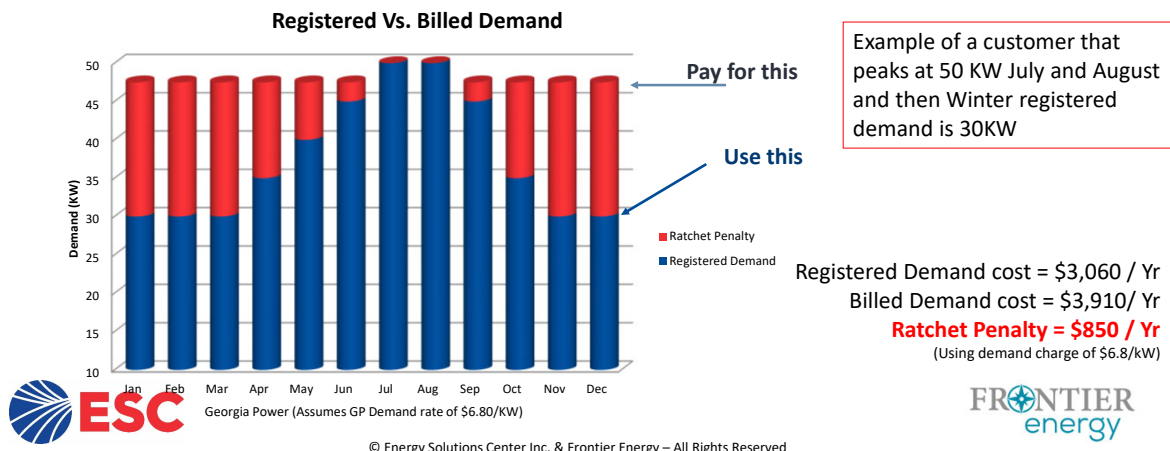
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Demand Penalties (aka ratchet penalties)

Billed demand may exceed actual demand as a result of tariff rate schedules. Being billed at a higher demand charge than actual registered demand impacts both the demand charge and also the usage charges. The higher the billed demand charge the more electric pushed into higher tier pricing.



Misc. Bill Adjustments

Miscellaneous adjustments may or may not apply

- Societal Benefits Charge – Support things like low-income household bill affordability.
- Green or Environmental Recovery Charges – Support renewable energy infrastructure development or environmental remediation.
- Standby Fees – Help things like ensuring infrastructure is maintained in undeveloped areas for future use.
- Power Factors – A charge that is applied to recover costs due to inefficiency or additional infrastructure needed in the electrical system when customers have low power factors.
- Fuel Cost Recovery – Helps utilities recover the cost for fuel in electricity generation.
- Franchise Fees
- Taxes
- Others



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Green Power Market/RECs

The **Green Power Market** refers to the market for electricity sourced from renewable energy power generation. Both regulation and customer demand drive this market.

Green power purchases – These are purchases that allow customers to specify the type of electricity they purchase, offsetting their traditional energy use by a percentage.

Renewable Energy Certificates (RECs) – These provide a framework for making renewable electricity a tradeable resource. A credit is created when one MWh of electricity is produced with renewable power and sold to a customer as a way to pay for the unique costs of generation that electricity has and claim benefits regardless of the energy mix actually delivered to them on the grid.



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Peak Demand Pricing

Since energy during peak demand periods is more expensive to produce, utilities can implement **peak demand pricing**. This increases rates during peak periods, recovering operational costs and encouraging consumers to load-shift to reduce peak demand.

Utilities may conversely implement off-peak pricing that encourages customers to better utilize extra energy resources during these times.

Time-of-Use (TOU) Plans – Incorporate rates with unique energy costs for different times of the day.

Critical Peak Pricing (CPP) Plans – As critical peak periods are anticipated (those worst peaking events of the year), utilities can notify customers of significantly higher rates during these times in advance.

Reductions in peak demand reduce energy costs, infrastructure needs, and construction of new power plants.



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Forecasted Energy Production

Utilities and grid operators rely on energy production forecasts to inform decisions and actions that can ensure **supply and demand are balanced**, and **reduce market volatility**. Government agencies and investors use them to **inform policy** and **plan projects** and investments. Customers use them to make decisions on **plans for energy use**.

Energy production forecasts use historic and real-time data to inform statistical and advanced models.

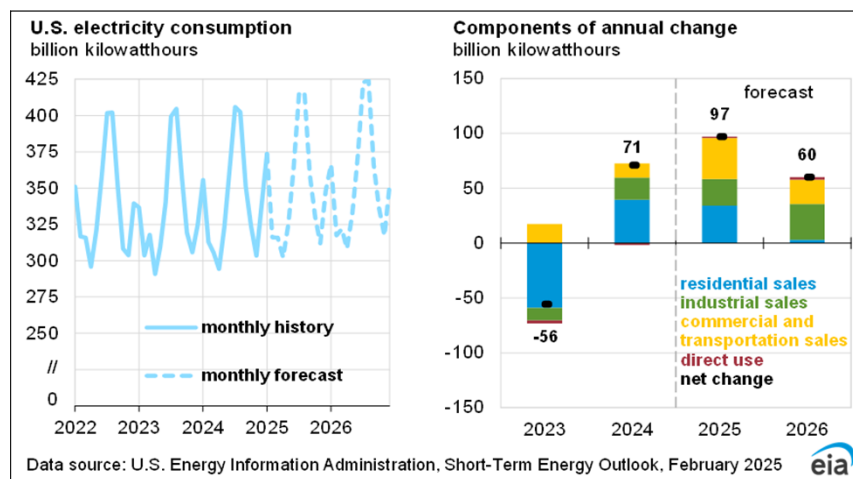
The International Energy Agency, and the U.S. Energy Information Administration (EIA) produce forecasts, as do regional grid operators, research institutions, think tanks, and private entities.



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Forecasted Energy Production



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Functions of Energy Markets

Electricity and supporting services are bought and sold in markets between producers, utilities, and their customers. Markets can be:

- **Wholesale** – The active buying and selling electricity based on both real and projected demand.
- **Retail** – The buying and selling of electricity between utilities and their customers.
- **Capacity** – The purchase of future electricity sources to ensure capacity when needed.
- **Ancillary Service** – The purchase of services that help ensure grid services such as transmission, stability, and reliability.
- **Environmental** – The purchase of commodities such as RECs or carbon credits.



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Functions of Energy Markets

Electricity markets ensure:

- Energy producers and utilities recover their costs.
- Ensure resources can be appropriately allocated, such as electricity based on its type, cost, availability, and use in supplying the grid.
- Reliability through the purchase of capacity, which ensures there is enough generation to support future needs, and ancillary services which can include grid stability infrastructure (spinning reserves, batteries, etc.)
- The integration of new technologies which can compete with existing resources.
- Competition which can reduce costs and improve reliability.
- A customer voice in the market, such as through carbon credits.



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Regulatory Agencies & Policies

Regulatory agencies and policies shape electricity generation, infrastructure, and markets.

- DOE
- Office of Electricity
- EPA
- EIA
- ACEEE
- NERC
- FERC
- PUCs



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DOE

The **US Department of Energy (DOE)**, formed in 1977, oversees national efforts in energy as a whole.

- Shapes energy policy
- Oversees energy production
- Guides innovation and conduct research and development
- Ensures nuclear safety
- Addresses environmental challenges related to energy



Image - By US DOE - From <https://www.energy.gov/>, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=160004194>

“The mission of the Energy Department is to ensure America’s security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.” – DOE



[Mission | Department of Energy](#)
[United States Department of Energy - Wikipedia](#)

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Office of Electricity

The **Office of Electricity (OE)** is a program in the **DOE** that ensures electricity infrastructure is reliable, resilient, and secure.

- Ensures electricity infrastructure is reliable, resilient, and secure.
- Helps grid modernization through research and development
- Collaborates with the industry and other stakeholders
- Helps oversee policy and planning related to electricity

“The Office of Electricity leads the Department of Energy’s research, development, and demonstration programs to strengthen and modernize our nation’s power grid so that our nation maintains a reliable, resilient, and secure electricity delivery infrastructure.” – DOE



[Office of Electricity | Department of Energy](#)
[Office of Electricity - Wikipedia](#)

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EPA

The **Environmental Protection Agency (EPA)** is an independent US government agency formed in 1970 that focuses on ensuring clean air, land, and water, and protecting human health from hazards related to environmental pollution.

- Develops and enforces regulations related to pollution and cleanup of contaminated lands.
- Reviews chemicals for safety.
- Gives grants.
- Studies environmental issues.
- Sponsors partnerships.
- Educates the public.



Image - By Original: United States Environmental Protection Agency/Vectorization: Cpicon92/Upload: Jadebenn - <https://www.epa.gov/sites/all/themes/epa/img/svg/epa-seal.svg>, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=1669010>



[Our Mission and What We Do | US EPA](#)
[United States Environmental Protection Agency - Wikipedia](#)

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EIA

The **Energy Information Agency (EIA)** is a part of the DOE with roots from 1974 that is responsible for ensuring government, the market, and the public have access to impartial energy information.

- Conducts data collection from all energy sources, end uses, and energy flows.
- Prepares energy analyses, forecasts, and outlooks.
- Provides data to the public.



Image - By U.S. Energy Information Administration - https://www.eia.gov/about/eia_logo.php, Public Domain, <https://commons.wikimedia.org/w/index.php?curid=125821389>

“The U.S. Energy Information Administration (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.” – EIA



[U.S. Energy Information Administration - EIA - Independent Statistics and Analysis](#)
[Energy Information Administration - Wikipedia](#)

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ACEEE

The **American Council for an Energy-Efficient Economy (ACEEE)** is a nonprofit founded in 1980 dedicated to driving advancement in energy efficiency policies. It has played a key role in various federal and state policies over the years targeted at energy waste, energy security, and environmental protection.

- Conducts research and develops policies
- Collaborates with private, public, and government entities.

“The American Council for an Energy-Efficient Economy (ACEEE), a nonprofit research organization, develops transformative policies to reduce energy waste and combat climate change. With our independent analysis, we aim to build a vibrant and equitable economy – one that uses energy more productively, reduces costs, protects the environment, and promotes the health, safety, and well-being of everyone.” – ACEEE



Image - By American Council for an Energy-Efficient Economy - American Council for an Energy-Efficient Economy, Public Domain,
<https://commons.wikimedia.org/w/index.php?curid=151818093>



[About Us | ACEEE](#)
[American Council for an Energy-Efficient Economy – Wikipedia](#)



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NERC

The **North American Electric Reliability Corporation (NERC)** is a not-for-profit international regulatory authority with roots back to 1968 focused on grid operation.

- Develops and enforces reliability standards
- Assesses seasonal and long-term reliability
- Monitors bulk power system
- Educates, trains, and certifies industry personnel

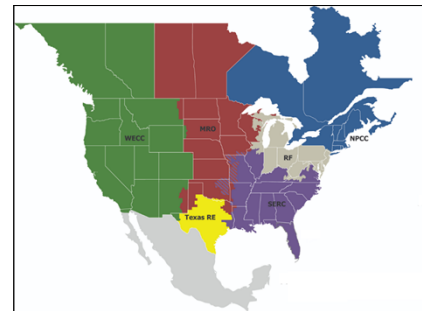


Image - By User:DevonJade - A commons file NERC-map.jpg updated to the 2021 state of affairs per the NERC document "Balancing and Frequency Control" (May 11, 2021), CC BY-SA 4.0, <https://commons.wikimedia.org/w/index.php?curid=125050144>

“The North American Electric Reliability Corporation (NERC) is a not-for-profit international regulatory authority whose mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid.” – NERC



<https://www.nerc.com/AboutNERC/Pages/default.aspx>
North American Electric Reliability Corporation – Wikipedia



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FERC

The **Federal Energy Regulatory Commission (FERC)** is an independent agency that regulates the interstate transmission of natural gas, oil, and electricity. FERC also regulates natural gas and hydropower projects.

- Regulation and oversight of energy markets
- Ensuring interstate energy infrastructure reliability
- Licensing and permitting of energy infrastructure development and retirement
- Overseeing some environmental matters

“Assist consumers in obtaining reliable, safe, secure, and economically efficient energy services at a reasonable cost through appropriate regulatory and market means, and collaborative efforts.” – FERC



Image - By U.S. Government - Extracted from PDF version of Guide to Electronic Information at FERC (direct PDF URL here), Public Domain, <https://commons.wikimedia.org/w/index.php?curid=3070122>



<https://www.ferc.gov/what-ferc>
Federal Energy Regulatory Commission – Wikipedia



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PUCs

Public Utility Commissions (PUCs) are quasi-governmental bodies, sometimes appointed and sometimes elected, that regulate electric, gas, telecommunications, water, and waste water utilities. These are intended to prevent monopoly operation by these utilities, as utility customers are usually not in a position that allows them to choose their utility providers. For electric utilities, PUCs:

- Have oversight of utility planning processes
- Set prices (rates)
- Determine clean energy targets, budgets, incentives and funding sources
- Deciding whether and how to address utility incentives related to energy efficiency and distributed generation.

“As a general rule, utility commissions are charged with assuring that utilities provide reasonable, adequate and efficient service to customers at just and reasonable prices.” – EPA



Source: https://www.epa.gov/sites/default/files/2016-03/documents/background_paper.pdf
Public utilities commission – Wikipedia



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Important Policies

Some policies that have been key in defining electricity today include:

- The Clean Air Act
- Net Metering
- Interconnection Standards
- Energy Efficiency Resource Standards



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Clean Air Act

The **Clean Air Act** refers to a statute of Congress that is the result of multiple acts and amendments of Congress since 1963 that together have the goal of limiting air pollution across the US. The corresponding activities are administered by the EPA.

The Clean Air Act includes regulatory programs including:

- National Ambient Air Quality Standards
- National Emissions Standards for Hazardous Air Pollutants
- New Source Performance Standards
- Acid Rain Program
- Ozone layer protection
- Mobile source programs
- Fuel controls
- Stationary source operating permits
- Monitoring and enforcement
- Greenhouse gas regulation
- And more...



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Net Metering

Net Metering is a policy where customers that generate electricity for the grid are compensated for that generation against their grid usage.

This is usually the total energy produced by the system minus the energy the customer consumes on site. By doing this, customers sell their excess energy at a retail price instead of wholesale.

Net metering can be implemented differently in different states or by different utilities, and some states may not implement a policy at all. Customers may,

- Be offered credit for the extra energy at full utility rates.
 - Effectively negating any usage with generation.
- Be offered credit at a lower rate.
- Be credited up to a specific cap.

In effect, customers can run their meters backwards and "store" excess energy they generate and do not use in the grid.



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Interconnection Standards

Interconnection standards are policies that dictate the requirements and procedures for energy resources that connect to the grid. These ensure power sources and storage solutions are compatible with the grid and connected in a way that they will not harm the grid's reliability, resiliency, or security.

This has become more important in the new era of **distributed energy resources** where large numbers of smaller customers are connecting systems to the grid. Things that standards dictate are:

- Technical specifications – How can a resource connect?
- Safety – What safety standards must be met?
- Reliability – Control things like voltage or frequency fluctuations.
- Resilience – Specify relays, breakers, inverters and other equipment to prevent faults.



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Energy Efficiency Resource Standards

Policies that encourage efficient energy use targets for utilities and other entities are **Energy Efficiency Resource Standards (EERS)**. These are primarily implemented at the state level and implementation varies across the US. Some are voluntary, while others are mandatory. For example:

“Minnesota electric utilities and natural gas utilities are required to invest at least 1.5 percent and 0.5 percent of their gross operating revenues, respectively, on Conservation Improvement Programs (CIP) each year.” – MN Commerce Department

New Mexico policy “requires efficiency programs by public utilities to achieve savings no less than 5% of 2020 total retail kWh sales from programs implemented in years 2021 through 2025.” – ACEEE



Source: [Conserving Energy / Minnesota Department of Commerce – Energy Efficiency Resource Standards](#) | [ACEEE](#)



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Renewable Supply Dependencies

Both traditional and renewable electricity sources have dependencies that impact how they can be used and relied on in electricity generation on the wider grid.

Traditional energy sources:

- Rely on well-established construction and maintenance timelines and constraints.
- Rely on fuel supply chains that, while often stable, are susceptible to occasional strong market swings.

Renewable energy sources:

- Often have unlimited long-term access to resources to fuel electricity generation, but with intermittent supply which can complicate grid integration.
- Often rely on newer manufacturing processes and material supply chains to construct.
- Can be logistically difficult to transport or locate.



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Renewable Supply Arrangements

Renewable energy can be sourced, produced, and delivered in different ways. Some examples are:

- **Power Purchase Agreements (PPAs)** – Contracts between a renewable energy generator and a customer for the purchase of power and associated renewable energy certificates.
 - There are multiple kinds such as VPPAs, Sleeved PPAs, and Block Delivery PPAs.
- **Self-Supply** – Customers can generate and supply their own renewable power.
- **Community Solar** – A solar installation can be collectively bought or leased by participants to claim benefits on their bills.
- **Green Tariffs** – Utilities can allow their customers to purchase renewable energy directly from them at a different price.
- **Renewable Energy Certificates (RECs)** – Customers can buy RECs on the market to claim the associated energy generated.



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Renewable Supply Priority

Renewable energy generation has shaped interconnection policies and processes to allow for faster and more streamlined integration of these often smaller and more distributed energy resources.

- Smaller systems in some jurisdictions are given simpler, and quicker interconnection approval processes.
- Large scale renewables projects are also given improved interconnection processes.
- Renewables may be given priority over non-renewable interconnection proposals due to lower-cost energy generation after initial investment.
- Net metering policies can mandate compensation for renewable generation, causing utilities to prioritize the energy they provide.
- Renewable Portfolio Standards in some areas require utilities to have a certain percentage of grid electricity from renewable sources.
- Due to the low cost of generation, renewables can be prioritized in electricity dispatch.



Source: [Connecting to the Grid - Interstate Renewable Energy Council \(IREC\)](#)
[Policies and Regulations](#) | [US EPA](#)
[Renewable Energy System Interconnection Standards](#) | [State, Local, and Tribal Governments](#) | [NREL](#)

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Renewable Supply Take or Pay Contracts

Take-or-Pay contracts are arrangements where the electricity buyer pays for an energy capacity, no matter how much is used. This has the benefit of providing revenue assurance for renewable energy generation, as the capacity they provide may not necessarily be used.

Take-or-Pay contracts may also work against renewable energy generators. Their expense in transmission connection and operation can exceed electricity sources with higher capacity factors (more constant generation) on a per-kWh produced basis. Recovering these costs can mean charging higher per-kWh costs than other energy sources for the same capacity.

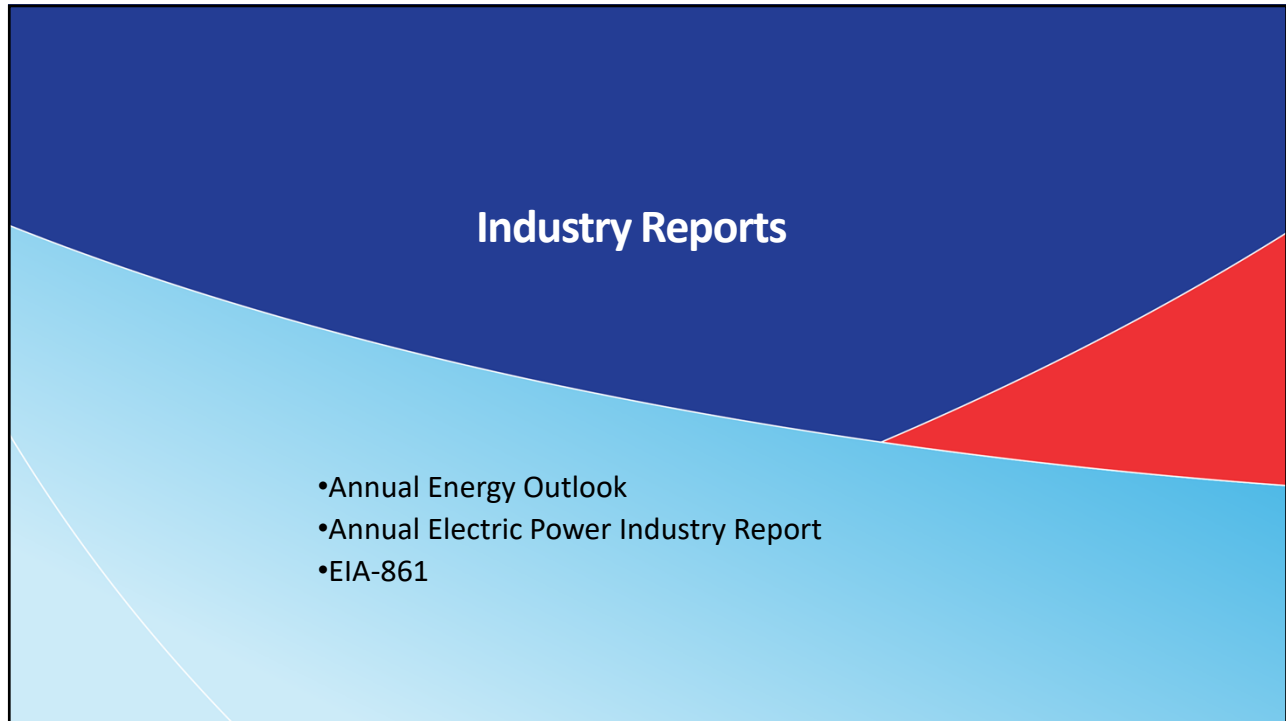


Source: <https://www.kslaw.com/blog-posts/key-considerations-energy-take-pay-contracts>
<https://eta-publications.lbl.gov/sites/default/files/report-lbnl-39845.pdf>

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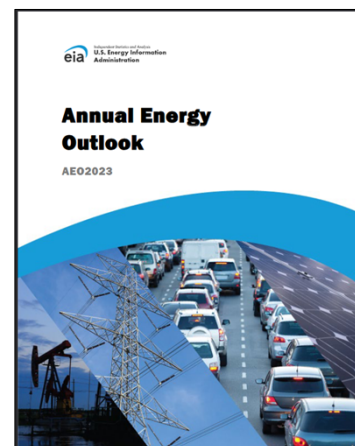
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Annual Energy Outlook

The EIA releases an Annual Energy Outlook report each year summarizing long-term trends in US energy. It includes information about:

- Markets
- Generation
- Technology
- Policy
- Environment
- Economy



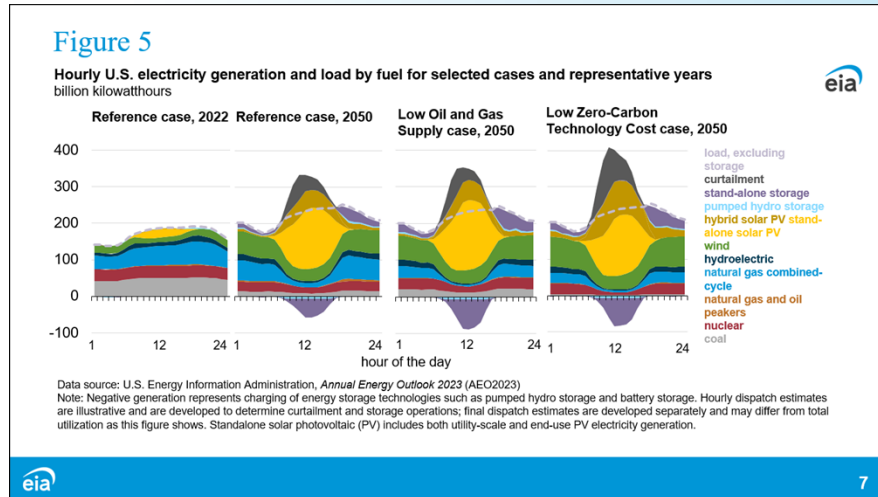
Source: <https://www.eia.gov/outlooks/aeo/>

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Annual Energy Outlook



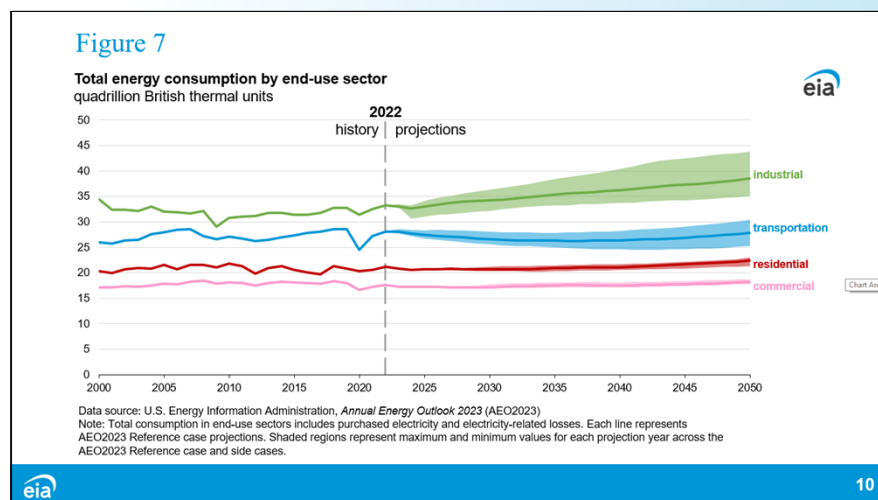
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Annual Energy Outlook



<https://www.eia.gov/outlooks/aeo/>

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Annual Electric Power Industry Report

The EIA requires entities from the energy industry (utilities, demand side management program managers, wholesale power marketers, energy service providers, transmission owners and operators, and others) to report on the status of the electric power industry including things such as sales, generation, transmission, and distribution in the US. **Form EIA-861 (Annual Electric Power Industry Report)** is used for this collection.

Data collected helps inform the EIA's research and reporting, ensuring government, the market, and the public have access to impartial energy information.

Data collection began in 1990.



Source: <https://www.eia.gov/electricity/data/eia861/>



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Incentives for Energy Efficiency

- DSIRE – Incentive Programs by State
- Federal and Local Market Subsidies

DSIRE

The **Database of State Incentives for Renewables & Efficiency® (DSIRE®)** is operated by the N.C. Clean Energy Technology Center at N.C. State University. The database provides detailed information about state policies, programs, and incentives related to:

- Biomass
- Fuel-Cells
- Geothermal
- Hydroelectric
- Solar
- Wind
- Energy-Efficiency
- Energy Storage
- Emerging Technologies



Source: <https://www.dsireusa.org/>

Resources include presentations, publications, summary maps, and more.



Source: <https://www.dsireusa.org/>



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DSIRE – State Incentives

Examples of state incentives include:

- **WI** – *“Focus on Energy is a statewide program that partners with utilities to provide commercial and residential customers with financial incentives, information, and other resources that encourage the development and implementation of renewable energy and energy efficiency projects that may not have happened otherwise.”*
- **OR** – *“Energy Trust of Oregon invested in cost-effective energy efficiency and helped to pay the above-market costs of renewable energy resources. The organization provides energy efficiency and renewable energy programs to customers across Oregon and Southwest Washington.”*



Source: <https://www.dsireusa.org/>



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Federal & Local Market Subsidies

Federal:

- Tax credits – Certain renewable or energy efficiency projects qualify for federal tax credits.
- Grants & Loans – The DOE and Department of Agriculture provide grants and loans for energy efficiency projects.
- Weatherization Assistance Program (WAP) – Assists income qualified households improve the energy efficiency of their homes.

Local:

- State or Utility Rebate and Savings Programs – Rebates for purchasing energy-efficient equipment or making efficiency improvements.



Source: <https://www.dsireusa.org/>



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State Energy Industry Requirements

State Energy Industry Requirements

States can implement energy industry requirements that mandate specific action from utilities or other market actors. Requirements can include:

- Specific percentage of electric resources be from renewables.
- A specified portion of utility revenue be spent on energy efficiency amongst their customers.
- Savings or reduction in usage by a specific percentage.
- Net metering or interconnection standards.
- Emission reduction requirements.
- Creation of specific customer-focused programs, such as those targeting efficiency in a specific portion of the market or providing essential services to income qualified households.
- Resource planning for future based on certain requirements.
- Grid modernization or resiliency measures.



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State Energy Industry Requirements

Examples:

“Minnesota electric utilities and natural gas utilities are required to invest at least 1.5 percent and 0.5 percent of their gross operating revenues, respectively, on Conservation Improvement Programs (CIP) each year.” – MN Commerce Department

“Under the RES [Renewable Energy Standard], Vermont’s DUs [distribution utilities] must acquire and retire a minimum quantity of renewable energy attributes or Renewable Energy Credits (RECs), and to achieve fossil fuel savings from energy transformation projects.”- VT Department of Public Service



Source: <https://mn.gov/commerce/energy/conserving-energy/eco/efficiency/>
<https://publicservice.vermont.gov/renewables/renewable-energy-standard>



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State Energy Industry Requirements

State industry requirements can impact utility rates, as utilities are often allowed to place additional charges on customer bills to cover:

- Compliance costs.
- Infrastructure investment costs.
- Costs to support incentives, rebates, and programs.

While these charges can increase bills, often the purpose for these costs is to reduce energy rates in the long term through:

- Avoided infrastructure upgrades through energy efficiency.
- Investment in renewable energies that have no fuel costs and low operational costs.



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Utilities

Utilities are the companies that transmit and distribute electricity to customers. In some locales, they also generate electricity. Utilities can be operated as:

- **Publicly Owned Utilities** – Owned by state or local governments and operating not-for-profit.
- **Investor-Owned Utilities (IOUs)** – Owned by shareholders and operating for profit. Regulated by state and federal government.
- **Cooperatives** – Owned by the customers they serve.
- **Federal Utilities** – Owned by government.



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Independent Power Producers

Independent Power Producers (IPPs), also known as merchant plants, are entities that own and operate facilities that generate power for bulk sale and use by others. IPPs are not utilities.

Facilities owned by IPPs mostly have been built in regions that support competitive wholesale markets.

IPPs attract investment from outside capital, reducing strain on local markets. They can also reduce costs due to the competitive markets they operate in.



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Regulators

Regulators are government agencies that oversee electricity generation, transmission, and distribution to ensure markets are fair, efficient, and reliable. They can have control of licensing and permitting, regulation enforcement, rate setting, service specifications, and consumer protection activities.

Examples are the FERC (Federal Energy Regulatory Commission) and PUCs (Public Utility Commissions).



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