



CITY OF HUDSON POWER PURCHASE RESOURCES -HUDSON PUBLIC POWER-

History

Established in 1911 the mission and purpose of the Hudson Public Power Division is to provide residential, commercial and industrial electric customers with high quality, reliable electric power and associated services in an effective and efficient manner and within a fiscally responsible framework.

Electric power is supplied to the City by American Municipal Power, Inc. (AMP). AMP was founded in 1971 when a small group of municipally owned electric systems joined together to collectively work towards lowering future power costs by entering into competitive purchasing contracts and developing their own generation assets. Hudson Mayor John Rogers (1962-1980) was instrumental in getting AMP off the ground and established as a competitive force in the power industry. Today there are 132 AMP member communities across nine states. The City of Hudson has been a member since the organizations inception.

Where does Hudson's Power come from?

AMP acquires power to provide their member communities in two basic ways. First, AMP owns several power generation plants which generate electricity from different resources such as coal, natural gas, wind, solar, hydro and methane gas. Each member community has an opportunity to be a participant or investor in all of AMP's generation projects and receive a portion of the power generated from them. Like any investment individual member communities must carefully consider the benefits, risks and costs that come with being a project participant. Second, because each member community requires a certain amount of power based on their unique needs or demand, and because not all the demand can be satisfied by AMP owned generation resources, additional power requirements are purchased off the market on behalf of the member community based on AMP recommendations and member approval. Each member community then has a unique mix of these resources which make up their power portfolio. The portfolio is often a reflection of what a community believes their power resources should be, balanced with reasonable costs and diverse resources. Hudson City Council currently maintains a policy for approximately 15%-20% of the City's power supply to come from sustainable energy resources.

How much power is required and used and what is the cost?

The attached pie chart shows the most up to date distribution of Hudson's power portfolio. The City of Hudson requires approximately 42-46 MW of power annually. As a comparison most average cities with populations up to 50,000 can meet demand with approximately 45 MW. Average monthly electric usage for a Hudson residential account is approximately 1075 Kwh. The average monthly commercial/industrial use is approximately 10,000 Kwh. This equates to approximately 180 to 2 million Kwh's used on an annually basis. The City's cost of power projections for 2017 at an average rate of 81.73 per Mwh and based on projected usage of 190,843 Mwh is 15.5 Million. 2017 projected sales revenue is 20 million.



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How does the power get to the City of Hudson?

The transmission of electric power is an industry in and of itself. Regional Transmission Organizations (RTOs) exist in several locations and service predetermined zones across country. It is the function of these RTOs to operate the transmission grid and move power across it in the most reliable and efficient manner possible. More importantly, the RTOs must ensure there is adequate power to meet peak demands. The City of Hudson is within the Pennsylvania, New Jersey, Maryland (PJM) RTO. As such, the City is invoiced for transmission services as a portion of our power costs.

The City's power comes across high voltage transmission lines owned by First Energy and connects to the City system at two connection points. The eastside substation located on Stow Road at the Ohio Turnpike Bridge and at the south main substation located on east side of South Main Street adjacent to the railroad tracks. Power is then stepped down through transformers at five system substations that send power out to the City's distribution system for residential and commercial use.

What are Hudson's specific power portfolio resources?

Generation Resources

- The Amp Freemont Energy Center (AFEC) is a natural gas generation plant located in Freemont Ohio. Power from the AFEC plant makes up 12.8% of Hudson's energy portfolio. Hudson is a participant in this resource
- The New York Power Authority (NYPA) is power generated from federal hydro plants located in the state of New York. This resource accounts for 3.9% of the City's power. This is a contract purchase agreement.
- Prairie State generation is a newly constructed coal generation plant located in southern Illinois. It generates 39% of Hudson's power. This power is through a long term participant contract agreement.
- Joint Venture 5 is a hydroelectric plant located in Belleview, Ohio. It accounts for 10.7% of the City's power portfolio.
- Greenup and Meldahl are new hydroelectric generation plants on the Ohio River that went on line in 2016. They are "run of the river" facilities, no dams. They represent about 1% of the portfolio.
- EDI Landfill Gas is power generated by methane gas from capped landfills. This resource is generated from three different landfill sites and makes up 3.6% of the portfolio.



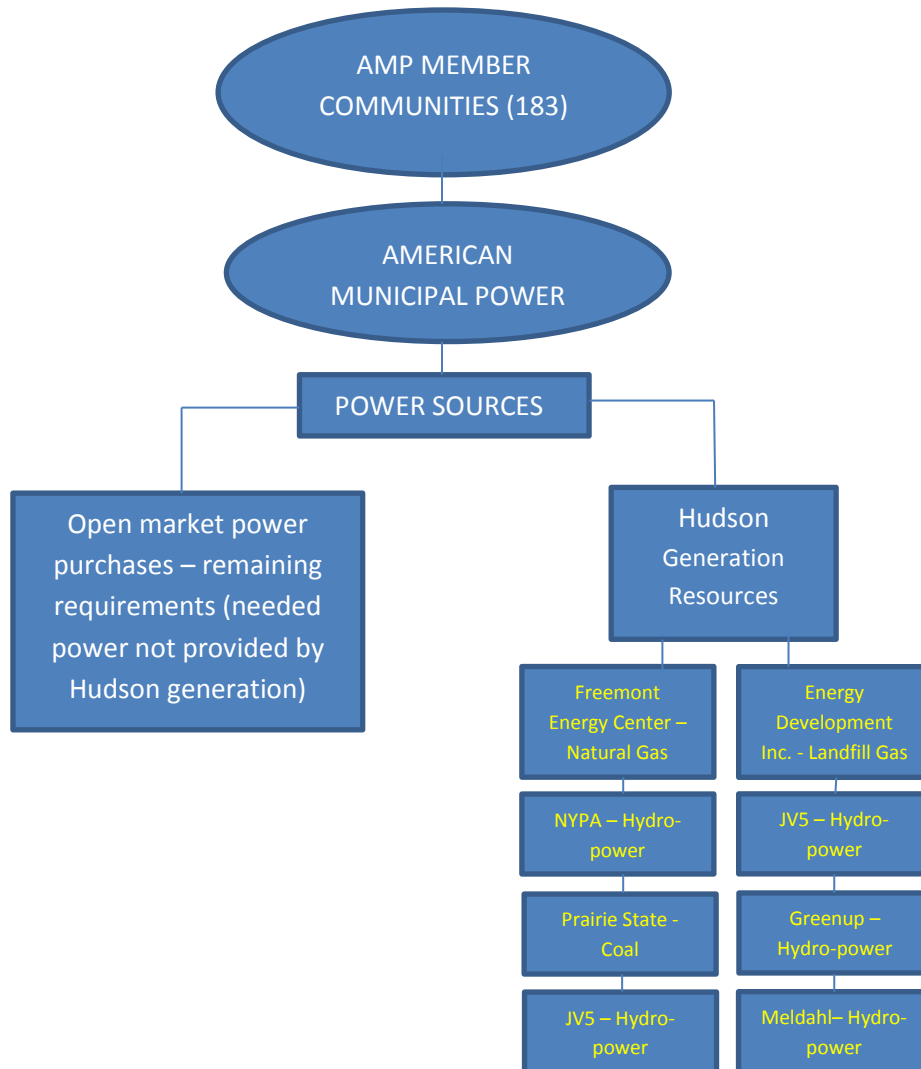
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Market Resources

AMP
Market
Purchases {
-Morgan Stanley – 7X24 power (for 24 hours a day 7 days) contract through 2020 = 4.5 %
-Barclays 5X16 power (for 6:00am – 10:00pm 5 days) contract through 2017 = 6.3%
-First Energy remaining requirements – 2015- 2022 contract through 2020 = 18.2%

Note: AMP makes these market purchases through the brokers on behalf of the City.

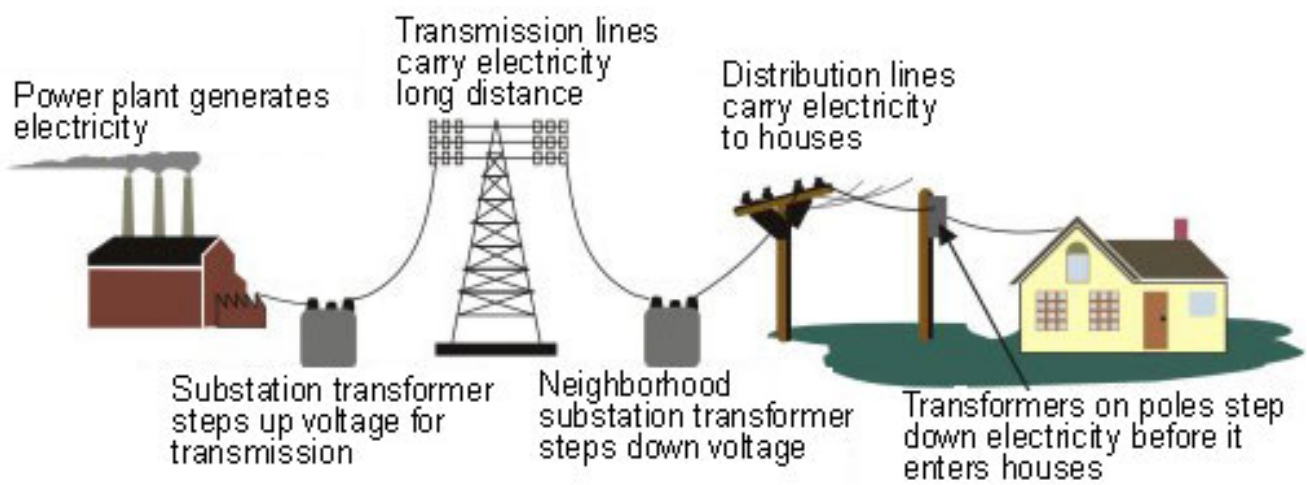
Amp Organization/City of Hudson relationship:





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How does the power get to the customer?



2016-17 HUDSON POWER RESOURCES

