

Utilities

Electric Power

Appalachian Power is part of the American Electric Power system (AEP), one of the largest electric utilities in the United States, delivering electricity to more than 5 million customers in 11 states. AEP ranks among the nation's largest generators of electricity, owning nearly 38,000 megawatts of generating capacity in the United States. Appalachian Power Company produces approximately 750,000 kilowatts of power at the Claytor Lake Dam. In addition, the City of Radford operates its own power distribution system, supplied by Appalachian Power Company and a 1,000 kilowatt dam on the Little River, and parts of Blacksburg are served through the Virginia Tech Electric Service.

Industrial electrical service is available throughout the New River Valley. An extensive system of 138 kV transmission lines connect Claytor Dam, a 750,000 kilowatt transformer station at Jackson's Ferry and a 330,000 kilowatt coal-fired generating plant in Glen Lyn. Initial costs for obtaining electric service depend on projected electric demands and improvements needed to accommodate those demands. Generally, Appalachian Power Company applies the gross revenue generated during a one-year period towards the cost of providing service.

Table 39 lists the cost of electric service in the New River Valley compared to other States.

Table 39
National Comparison of Electric Rates

kW Demand kWh Per Month	Electric Utility	75 30,000	1,000 400,000	50,000 25,000,000	Cents/ kWh		
New York, NY	Consolidated Edison	\$5,050	\$66,586	\$4,100,645	16.8	16.6	16.4
San Diego, CA	San Diego Electric & Gas Co.	\$4,435	\$57,720	\$2,529,133	14.8	14.4	10.1
Washington, DC	Potomac Electric Power Co.	\$5,096	\$44,096	\$2,682,006	17.0	11.0	10.7
Atlanta, GA	Georgia Power Company	\$3,057	\$41,646	\$2,047,759	10.2	10.4	8.2
Philadelphia, PA	PECO Energy Company	\$3,066	\$38,005	\$2,275,164	10.2	9.5	9.1
National Average		\$3,099	\$37,313	\$2,032,266	10.3	9.3	8.1
Tampa, FL	Tampa Electric Company	\$2,770	\$36,206	\$2,126,981	9.2	9.1	8.5
Columbia, SC	South Carolina Electric & Gas	\$3,269	\$34,708	\$1,888,550	10.9	8.7	7.6
Wilmington, DE	Delmarva Power	\$2,737	\$33,802	\$1,811,897	9.1	8.5	7.2
Raleigh, NC	Progress Energy Carolinas, Inc.	\$2,332	\$32,688	\$1,853,796	7.8	8.2	7.4
Evansville, IN	Southern Indiana G & E	\$3,292	\$32,260	\$1,893,407	11.0	8.1	7.6
Charlotte, NC	Duke Energy Carolinas	\$2,460	\$31,981	\$1,668,580	8.2	8.0	6.7
Cleveland, OH	Cleveland Elec. Illuminating	\$2,984	\$31,586	\$1,330,388	9.9	7.9	5.3
New River Valley, VA	Appalachian Power	\$2,536	\$31,225	\$1,604,179	8.5	7.8	6.4
Wise, VA	Old Dominion Power Company	\$2,446	\$30,299	\$1,638,325	8.2	7.6	6.6
Birmingham, AL	Alabama Power Company	\$3,298	\$29,796	\$1,689,651	11.0	7.4	6.8
Parkersburg, WV	Monongahela Power Company	\$2,286	\$29,414	\$1,524,733	7.6	7.4	6.1
Louisville, KY	Louisville Gas & Electric Co.	\$2,295	\$28,377	\$1,448,721	7.7	7.1	5.8
Richmond, VA	Dominion Virginia Power	\$2,382	\$27,948	\$1,533,995	7.9	7.0	6.1
Greenville, SC	Duke Energy Carolinas	\$2,463	\$27,227	\$1,579,505	8.2	6.8	6.3
Reading, PA*	Metropolitan Edison Company	\$2,209	\$26,537	\$1,430,914	7.4	6.6	5.7

Above rates do not include state or local taxes.
Source: Typical industrial bills, investor-owned utilities, July 1, 2012. Edison Electric Institute, Washington D.C.
 *Rates for PPL Utilities Corporation, Allentown, PA, are being replaced by rates for Metropolitan Edison Company, Reading, PA, due to incomplete data provided for PPL for this reporting period, as provided by the Edison Electric Institute.

Natural Gas

Natural gas is provided to Pulaski and Montgomery Counties and the City of Radford by ATMOS Energy, while Columbia Gas of Virginia serves Giles County. Bottled gas is the only type of gas service available in Floyd County.

Telephone

Telephone and telecommunication service is available to residential and business customers throughout the area. These services are offered by Citizens Telephone Cooperative, AT&T, Verizon, nTelos, Sprint, and Pembroke Telephone Cooperative in addition to several cell phone providers.

Water and Sewer

Public water in the New River Valley is plentiful, of good quality, and available for residential, commercial, and industrial use. Several public service authorities serve the area. Sewer service is provided by the localities, except where public service authorities are established. Water and sewer rates are exhibited in Tables 40 and 41 (page 65 and page 66).

Waste Management

There are four jurisdictions and three regional authorities within the New River Valley providing solid waste disposal services.

Floyd County is operating a greenbox collection system for household waste, a network of recycling drop-off bins throughout the County, a main recycling center, and a solid waste transfer station. The solid waste is currently being shipped out of state via a private hauler. The Town of Floyd provides weekly residential curbside recycling and solid waste pickup, and commercial solid waste and corrugated cardboard pickup.

The New River Resource Authority (NRRA) has a solid waste management area that is projected to accept the solid waste generated in this region for the next 100 years. The NRRA member jurisdictions are Pulaski County, Giles County, the Town of Dublin, the City of Radford, and the Montgomery Regional Solid Waste Authority. NRRA services include: the main solid waste disposal site, a debris fill, a wood waste operation, and recycling options, including tires, at the waste management area. NRRA members are responsible for their own collection and transportation systems.

The Giles County Public Service Authority is responsible for coordinating the solid waste and recycling services in Giles County. There are a variety of systems in place within each of the towns and the County for solid waste and recycling, including greenbox sites, consolidation centers, a recycling center, curbside pickup, and a business corrugated collection program. Most of the recycled materials are taken to the Montgomery Regional Solid Waste Authority's Recycling Processing Facility. Except for the Town of Glen Lyn, the solid waste is currently being shipped from the County to the NRRA. Glen Lyn is shipping their solid waste out of state to Mercer County, West Virginia.

Pulaski County is a member of the NRRRA, and provides curbside pickup throughout the County. Drop-off recycling is offered to residents at the three County sites; Pulaski, Dublin, and Fairlawn. In addition to weekly curbside pickup, the City of Radford operates a curbside leaf collection system, a Christmas tree pickup service, a recycling drop-off center, and a special household items pickup for residential customers. Radford also handles solid waste collection from greenboxes for commercial customers.

The Montgomery Regional Solid Waste Authority (MRSWA) was formed to represent the Towns of Christiansburg and Blacksburg, Montgomery County, and Virginia Tech in solid waste and recycling issues. The MRSWA has been accepted as a member of the NRRRA facility and started bringing their solid waste to the new NRRRA facility in 1998. The MRSWA operates a substantial recycling processing facility which handles several grades of paper, glass bottles and jars, HDPE and PETE plastic containers, aluminum and steel food and beverage cans, non-ferrous and ferrous metal, and automotive batteries, tires, oil, and antifreeze. The MRSWA members are responsible for their own collection and transportation systems. Private haulers provide much of this service. The Town of Blacksburg offers curbside recycling for residents, while the Town of Christiansburg offers greenbox sites for recycling within the Town. Valley Curbside Recycling offers limited curbside services for residents of the Town of Christiansburg for a fee. Residents in the County can drop recyclable items at drop-sites.

There are no hazardous waste disposal sites in the New River Valley. However, several localities offer hazardous materials drop off events at least once a year. Commercial recycling and disposal firms are readily available to remove and dispose of this type of waste. Table 42 (page 67) lists hazardous waste disposal vendors.

Surface Water

The abundance of ground and surface water is one of the New River Valley's significant resources. The New River, a tributary of the Kanawa and Ohio rivers, is located in the Gulf of Mexico drainage basin. Thus, the development of property and the use of surface water does not affect water quality in the Chesapeake Bay and is not controlled by water quality standards specific to the Bay.

As reported in the New River Water Supply Plan prepared by the State Water Control Board "*it is noteworthy that the New River in Virginia has the highest base flow per unit of drainage area to be found in any major tributary in the Ohio River Basin and the highest in Virginia. Most of the factors affecting movement of water in the hydraulic cycle have some influence upon base flow of a stream, but the ground water phase of the cycle is the predominant factor*" (page 1-5). The study notes that most wells in the New River Valley produce 30 gallons per minute with some wells yielding as much as 100 gallons per minute. The New River is capable of supplying 3.2 billion gallons per day during an average flow and 467 million gallons per day during drought flow. Claytor Lake and several small reservoirs provide over 5,000 acres of surface water.

Table 40
New River Valley Water Systems

JURISDICTION	SOURCE	USAGE	CAPACITY AVAILABLE	STORAGE	RESIDENTIAL	COMMERCIAL
Floyd Town/ Floyd County	Wells	109,877 gpd	NA	400,000 gal.	3,000 gal.= \$15.40 Each additional gal.= \$5.40	3,000 gal.= \$15.40 Each additional 1,000 gal.= \$5.40
Giles County	PSA	136,000 gpd		450,000 gal.	<4,000 gal.= \$22 per month Each additional 1,000 gal. = \$5.00 2,500 gal. - Minimum = \$19.50 2,501 - 150,000 gal. = \$5.60/1,000 gal. Outside Town > 2,500 gal. - Minimum = \$34.13 2,501 - 150,000 gal. = \$9.80	
Pearisburg	PSA	418,000 gpd		1.65 mg	<3,000 gal.= \$24.40/monthly Each additional 1,000 gal.= \$8.37. Outside Town <3,000 gal.= \$33.40/monthly Each additional 1,000 gal.= \$11.37	0-3,000 gal.= \$24.40/monthly Each add. 1,000 gal. = \$8.37 All over 10,000 gal. = \$4.32/1,000 gal.
Narrows	PSA	218,000 gpd		1.5 mg		
Rich Creek	PSA	107,000 gpd		317,000 gal.	2,000 gal.= Minimum = \$14.08 2,001 - 4,000 = \$7.04/1,000 gal. 4,001 - 25,000 = 3.54/1,000 gal. 25,001 - 50,000 = \$3.79/1,000 gal. >50,001 = \$3.84/1,000 gal. Outside Town 2,000 gal.= Minimum = \$24.64 2,001 - 4,000 = \$12.32/1,000 gal. 4,001 - 25,000 = 6.20/1,000 gal. 25,001 - 50,000 = \$6.63/1,000 gal. >50,001 = \$6.72/1,000 gal.	
Glen Lyn	PSA	20,000 gpd		65,000 gal.	<1,500 gal.= \$18.76 Outside Town <1,500 gal.= \$23.45	
Pembroke	PSA	80,600 gpd		626,000 gal.	\$25.20/3,500 gal. >3,501 gal.= \$3.76/1,000 gal. Outside Town \$37.80/3,500 gal. >3,501 gal.= \$6.39/1,000 gal.	
Montgomery County	Wells, B'Burg, C'Burg, City of Radford	882,000 gpd	1.38 mgd	2.562 mg	\$6.80/1,000 gal.	
Blacksburg	New River	3.3 mgd	12.4 mgd	5.5 mg	Fixed Charge - \$2.94 \$4.22/1,000 gal. Outside Town Fixed Charge - \$5.15 \$7.38 per 1,000 gal.	
Christiansburg	New River	1.8 mgd		2.8 mg	<4,000 gal.= \$17.00 4,001 - 100,000 = \$4.60/1,000 gal. 100,001 - 6,000,000 = \$2.60/1,000 gal. Outside Town <4,000 gal.= \$25.50 4,001 - 100,000 = \$6.90/1,000 gal. 100,001 - 6,000,000 = \$3.90/1,000 gal.	
Pulaski County	Claytor Lake & New River	1.85 mgd	3 mgd	8.0 mg	* Base rate = \$6.50 each 1,000 gal.= \$ 3.00 >100,000 gal. = \$2.50/1,000 gal.	Base rate = \$6.50 each 1,000 gal.= \$ 3.00 > 100,000 gal. = \$2.50/1,000 gal.
Pulaski Town	Peak Creek, Gatewood & Hogan Reservoirs	2.1 mgd	1.9 mgd	5 mg	Fixed Charge depends on meter size 1,000 - 20,000 gal.= \$2.62/1,000 gal. Next 680,000 gal.= \$2.22/1,000 gal. >700,000 gal.= \$1.66/1,000 gal. Outside Town Fixed Charge depends on meter size 1,000 - 20,000 gal.= \$4.51/1,000 gal. Next 680,000 gal.= \$3.71/1,000 gal. >700,000 gal.= \$3.31/1,000 gal.	
Dublin	Pul. Co. PSA	600,000 gpd	NA	1 mg	\$14.04 - First 2,000 gal. \$4.27/1,000 gal. Outside Town \$20.54 - First 2,000 gal. \$5.02/1,000 gal.	
City of Radford	New River	3.38 mgd	8mg	5.3 mg	0-4,000 gal.= \$14.32 4,001 - 100,000= \$3.58/1,000 gal. 100,001 - 4,000,000= \$3.23/1,000 gal. 4,000,001 - UP = \$2.51/1,000 gal. Wholesale Rate 2.24 per thousand	

Sources: Local Governments
* Rates differ for Brookmont, Shrader Hill, Case Knife, Polyester Park, and Heron's Landing.

**Table 41
New River Valley Sewer Systems**

JURISDICTION	TREATMENT	CAPACITY AVAILABLE	EXCESS CAPACITY	RESIDENTIAL	COMMERCIAL
Floyd Town/ Floyd County	Secondary	N/A	100,648 gpd	3,000 gal.= \$20.00 +1,000 gal.= \$7.25	4,000 gal.= \$30.25 +1,000 gal.= \$8.50
Giles County					
Pearisburg	Secondary		100,000 gpd	<1,500 gal.-Minimum = \$25.75 Each additional 1,000 gal. = \$4.50 <2,500 gal. = \$21.00/1,000 gal. Each additional 1,000 gal.= \$5.55	
Narrows	Secondary		150,000 gpd	<3,000 gal.= \$24.40 Each additional 1,000 gal. = \$8.37 Outside Town <3,000 gal.= \$31.28 Each additional 1,000 gal. = \$6.96	\$2.90 per 1,000 gal.
Rich Creek	Secondary		80,000 gpd	<2,000 gal.= \$20.50 >2,000 gal.= \$7.55/1,000 gal. Outside Town <2,000 gal.= \$28.20 >2,000 gal.= \$10.36/1,000 gal.	
Glen Lyn	Secondary	20,000 gpd.	40,000 gpd	<1,500 gal.= \$7.20 Minimum Outside Town <1,500 gal.= \$9.00 Minimum \$20.35/1,500 gal. \$3.90/1,000 gal.	
Pembroke	Secondary	200,000 gpd.	60,000 gpd	Outside Town \$25.75/1,500 gal. \$4.50/1,000 gal.	
Montgomery County	Secondary	555,000 gpd	300,000 gpd	\$42.00 without water meter \$7.10/1,000 gal.	
Blacksburg	Secondary	9 mgd		Fixed charge - \$2.47 \$4.70/1,000 gal. Outside Town Fixed charge - \$5.20 \$8.23/1,000 gal.	
Christiansburg	Secondary		700,000 gpd	0-4,000 gal.= \$27.00 Minimum (bi-monthly) Each additional 1,000 gal.= \$7.20 Outside Town 0-4,000 gal.= \$40.50 Minimum (bi-monthly) Each additional 1,000 gal.= \$10.80	
Pulaski County	Secondary	NA	3.0mgd	* Base rate - \$6.50 each 1,000 gal. = \$ 4.50 > 100,000 gal. = \$4.00/1,000 gal.	Base rate - \$6.50 each 1,000 gal. = \$ 4.50 > 100,000 gal. = \$4.00/1,000 gal.
Pulaski Town**	Secondary	1.4 mgd	1.2 mgd	Fixed charge depends on meter size 1,000-700,000 gal. = \$6.26 > 700,000 gal. = \$5.98 Outside Town Fixed charge depends on meter size 1,000-700,000 gal. = \$11.41 > 700,000 gal. = \$11.41	
Dublin	Secondary		30,000 gpd	0-1,500 gal.= \$8.28 + 1,000 gal. = \$2.75 Outside Town 0-1,500 gal.= \$9.35 + 1,000 gal. = \$3.05 Manufacturing = 0-1,500 gal.= \$75 +1,000 gal.= \$4.55	0-1,500 gal.= \$16.75 +1,000 gal.= \$3.05
City of Radford	Secondary	2.2 mgd	340,000 gpd	0-2,000 gal.= \$11.18 = Minimum Over 2,000 gallons - \$5.59 / per 1,000 gal. No Sewer Rate = \$2.80	

Source: Local Governments.

* Rates differ for New River, Highland Park/Rolling Hills/Orchard Hills and Polyester Park.

** The Town of Pulaski has 2.6 mgd capacity in the PFRWTA.

**Table 42
Hazardous Waste Disposal Vendors**

<p>Clean Harbors Environmental Services Companies 7515 Harvest Road Prince George, VA 23875 804-452-1800 (phone) 804-452-1700 (fax) www.cleanharbors.com</p>	<p>Safety Kleen Corporation 16090 Stewartville Road Vinton, VA 24179 540-890-4478 (phone) 540-890-1840 (fax) www.safety-kleen.com</p>
<p>Environmental Options, Inc. 720 Energy Blvd. Rocky Mount, VA 24151 540-483-3920 (phone) 540-483-3855 (fax) www.environmentaloptions.com</p>	<p>W.E.L. Inc. Environmental Services 800 Liberty Road, NE Roanoke, VA 24012 540-561-0735 (phone) 540-561-0734 (fax) www.welinc.com</p>
<p>Allied Chemical Disposal Services-Southeast 6118 Wisteria Place Ct. Roanoke, VA 24012 540-797-1580 (phone) 540-977-3036 (fax) www.alliedchemicaldisposal.com</p>	<p>Potomac Environmental, Inc. 241 Garrisonville Road, Suite 201 Stafford, VA 22554 540-659-1894 (phone) 540-659-9527 (fax) www.potomacenv.com</p>
<p>Source: Thomasnet.com and Yellow Pages.</p>	