

Rochester Gas and Electric Corporation



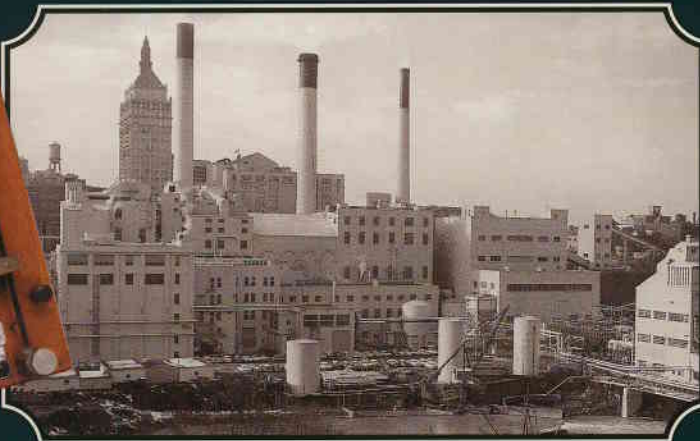
150 YEARS OF SERVICE 1848 ~ 1998



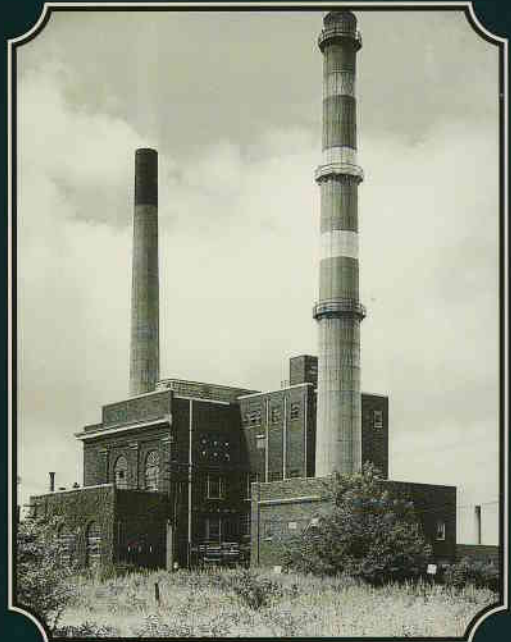
Hydro electric station #5 at lower falls.



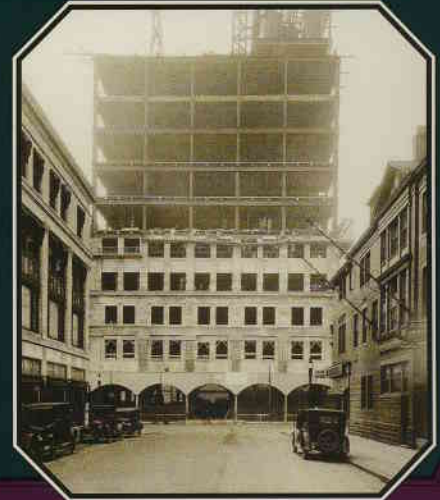
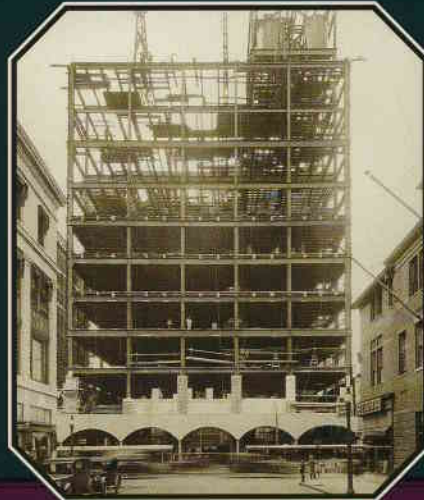
RG&E's main offices at 89 East Ave. ~ 1953.



Beebee Station on the Genesee.



Station #9 steam plant.



RG&E's main offices at 89 East Ave. under construction ~ 1925.

RG&E History



In 1848, the City of Rochester was just 14 years old. And it was a boom town. Powered by the rushing force of the Genesee River racing right through the middle of town and over a series of spectacular falls, flour mills were grinding out the lifeblood of prosperity here. The population had mushroomed to 32,000 people. Lighting dimly flickered on streets, in businesses and homes as whale oil burned in lamps and candles melted on tables.

And then comes along this new way to bring light to darkness. Flammable gas was being made from coal. Not only did gas burn brighter and more steadily than oils, it also could be delivered through pipelines right into the lighting fixture. No more running to the general store for more fuel and candles.

Early in 1848, investors raised money to create Rochester Gas Light Company. Their plan was to build a manufactured gas plant in town at the Genesee River and sell this new fuel to customers through pipelines. On December 13, 1848, curious onlookers gathered in a home to see the first gas light in Rochester. The rest, as they say, is history. And the history of Rochester Gas and Electric Corporation is a rich one, dating back to that dark December evening.

In 1879, an RG&E predecessor brought electricity to Rochester in the form of an Edison Dynamo. Electric power began to replace gas for lighting and, more importantly, powered Rochester's share of the American Industrial Revolution.

RG&E's tradition of fine customer service and community involvement over the last century and a half continues. The photos in this commemorative historical booklet depict some of that history. And you'll also get a glimpse of a few of the tens of thousands of RG&E people who have brought heat, light, industrial power and a sense of community to the Rochester region. This region is the largest remaining industrial center in New York State. That didn't happen by chance.

We at RG&E are proud to have been a sustaining part of this community since 1848. We see this 150th year as not the end of an era, but really...

Just The Beginning



Hobbs Kerosene Lamp ~ circa 1870
Courtesy of Jeanne Wenrich.

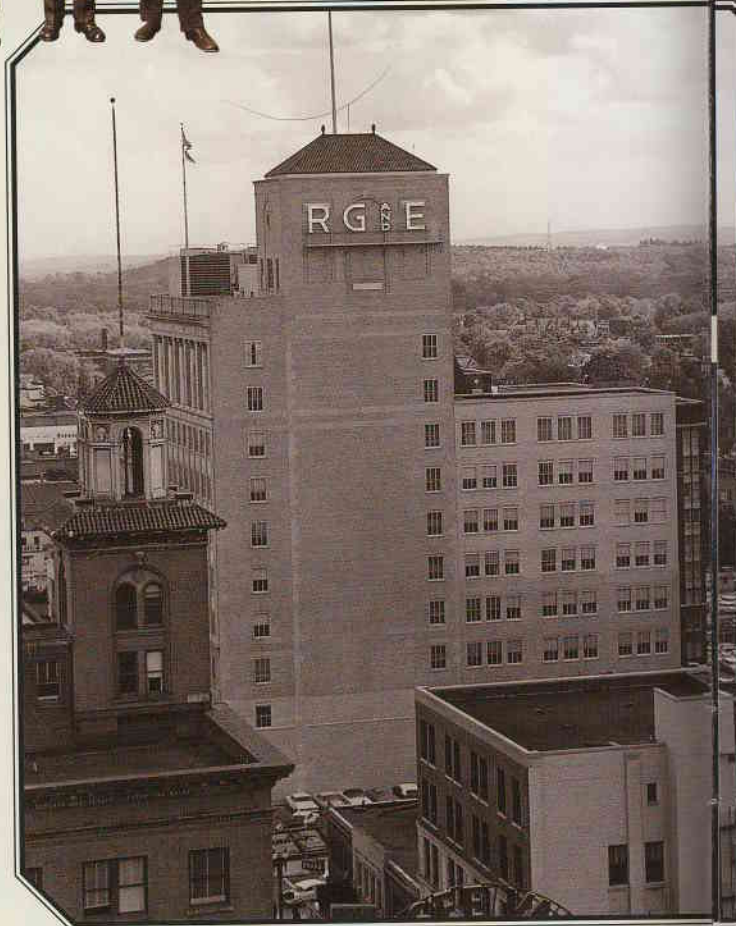
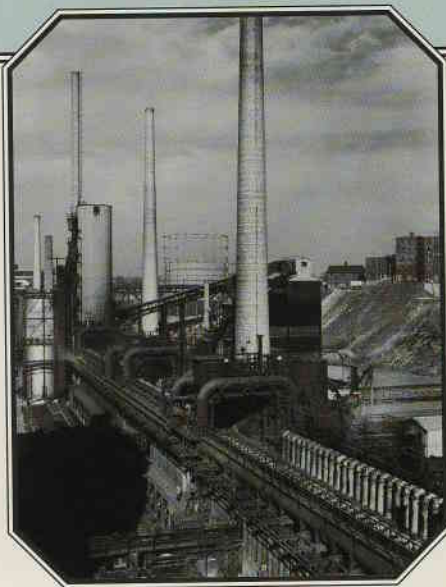


An early customer service center and store.

ALWAYS AT YOUR SERVICE



Rochester Gas Light Company's first customers are ten street lamps and lighting for 80 homes and businesses near its Mumford (Andrews) Street gas plant. The Osburn home (above) was the first home in Rochester to use gas lighting in December 1848.

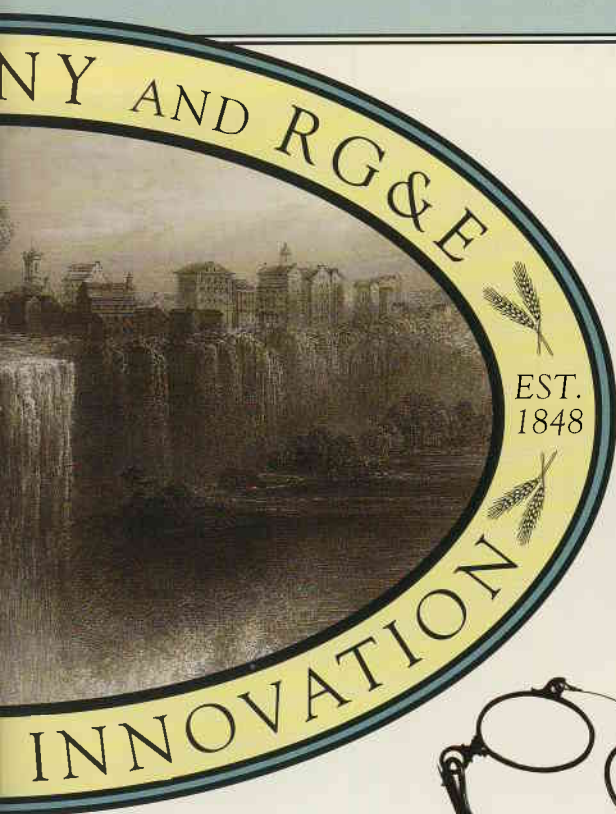


The Copier Model A, the first commercial xerographic process, was announced in 1949. This manual device provided the knowledge and revenues with which to develop automatic xerography.

Courtesy of Xerox Corporation.

1834 ⚡ Rochester, NY founded. Named after Nathaniel Rochester.

1848 ⚡ Rochester Gas Light Co. formed.



One of the first pairs of eye glasses manufactured by Bausch & Lomb, c.1900.

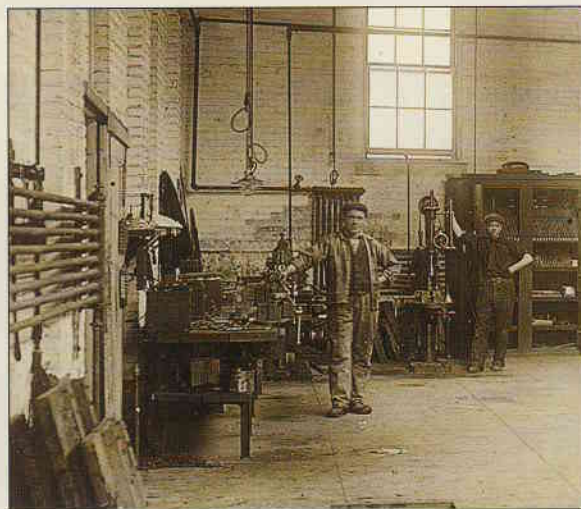
Courtesy of Bausch & Lomb Corp.



The Rochester Gas and Electric Cashiers.

Original Kodak Camera.

Courtesy of George Eastman House.



Glass insulators; Cobalt blue porcelain made by Victor Insulator, Victor, NY c.1945; Hemingway Petticoat, 1893; Whitall Tatum No.1, c.1920; Hemingway "Mickey Mouse" c.1900

Courtesy of Dick Bowman.



1853 ⚡ John Jacob Bausch opens a little eyeglass shop in Rochester's Reynolds Arcade building.

1855 ⚡ Henry Lomb partners with Bausch ~ Bausch & Lomb.

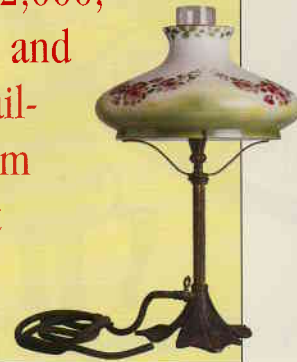
1859 ⚡ Charles Darwin publishes *The Origin of Species*.

1861 ⚡ Ft. Sumter is fired upon ~ Civil War. Rochester has 2,413 gas customers and 657 street lamps.

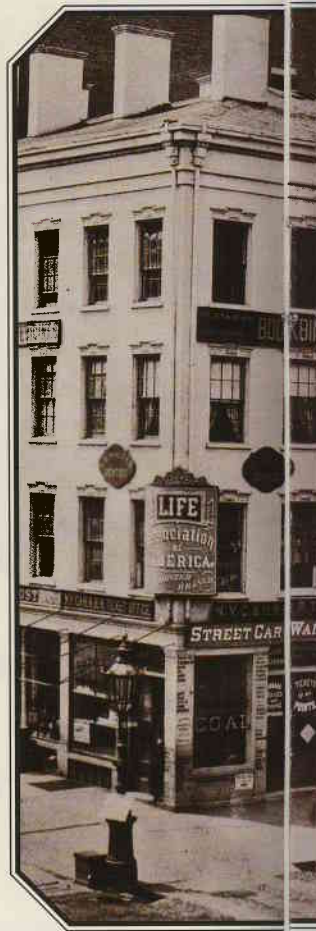
RG&E History

The year of 1848 was a stirring one in the young city of Rochester, New York. The bustling town on the Genesee River and the Erie Canal had already become the foremost flour milling center in the country. It had a population of 32,000, was a busy canal port and was located on two railroads. Conversion from whale oil to gas street lamps had begun.

~ The RG&E Story

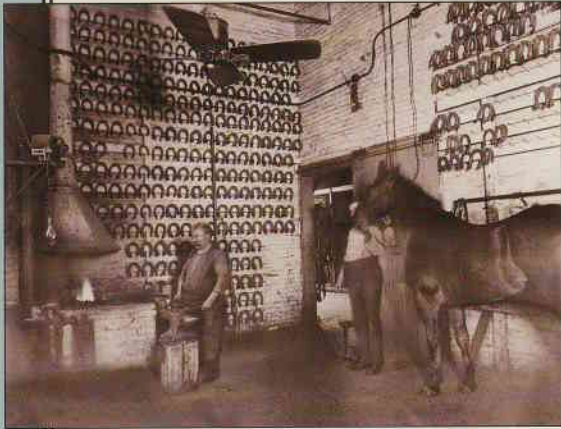


Natural gas table lamp, c.1890-1910, collection of the Rochester Museum & Science Center.



Wooden pipes wrapped in Civil War blankets and soaked in pitch were RG&E's first attempt to transport natural gas to Rochester. The pipes leaked, and the project failed. That was 1870.

Today thousands of miles of steel and plastic pipe deliver gas to our customers.

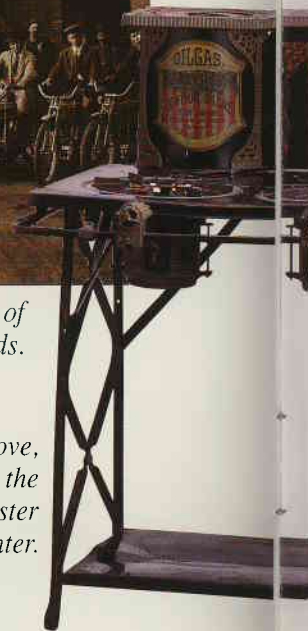


The RG&E blacksmith shop was important to operations in the early days.



Customer service field representatives of the early days ready for their rounds.

The Central Oilgas Stove, patented in 1891, from the collection of the Rochester Museum & Science Center.



1863 ⚡ President Abraham Lincoln delivers his Gettysburg Address.

1865 ⚡ The Civil War ends and the Genesee River floods its banks dousing downtown Rochester and the gas plants and mains.



*Smith's Arcade
corner of West Main
& Exchange Streets
in 1877.*

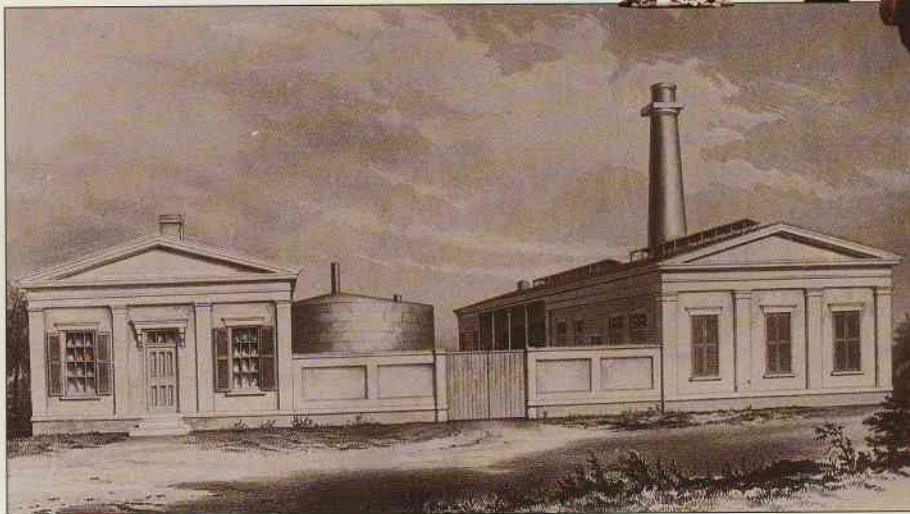
*Early General
Electric crank key
curved drawing
Voltmeter.*



*Early
kerosene
table and
street lamps.*



*The first Gas Plant at the intersection of
Mumford Street (now Andrews Street) and the
Genesee River in 1848. The Company had 150
customers at the time. Currently, we have
280,000 gas customers.*



1886 ⚡ Coal Tar as a byproduct is first sold to customers and the Company increases its stock dividend for the first time.

1870 ⚡ An attempt to bring natural gas via wooden pipes 28 miles from neighboring West Bloomfield fails.

1872 ⚡ Citizens Gas Company is formed at East Station on the banks of the Genesee River.

1876 ⚡ Philadelphia Centennial Expo.~ promotes gas for cooking versus oil, coal and wood. Rochester's gas companies follow.

1879

Thomas Edison invents the incandescent light bulb.

1879

Electricity comes to Rochester as Rochester Electric Light Co. A dynamo powers ten arc-light street lamps and lighting for Reynolds Arcade Building.

1880

Municipal Gas Light Co. is formed.

1880

Rochester bank clerk George Eastman gets a U.S. patent on a plate coating machine.

1881

The Brush Light Co. is formed and distributes alternating current over several miles of wire to Rochester factories.

1881

Electric street lamps begin to replace gas as the Brush Co. sets up hydroplant at Upper Falls on the Genesee to power streetlights.

1881

George Eastman establishes the Eastman Dry Plate Co. on State St. in Rochester.

1886

Edison Electric Illuminating Company opens a steam and electric plant downtown at the current War Memorial Site. The first telephone company sets up in Rochester.

1887

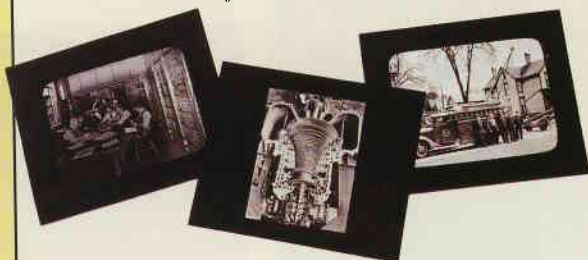
Incandescent lamps begin to replace arc lights.

1888

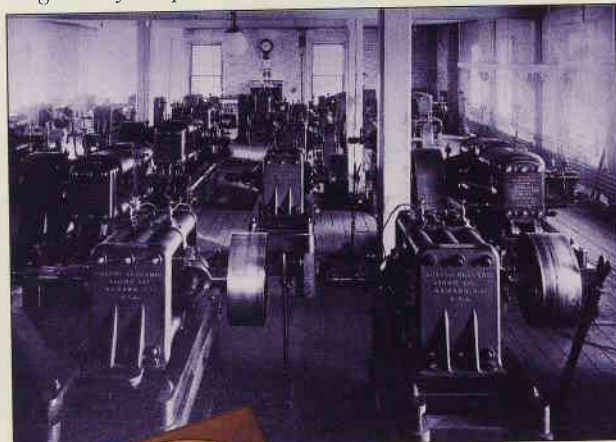
A young man, Thomas H. Yawger, takes a job with Edison Electric at the steam plant where he worked 12 hours a day, 7 days a week.



Rochester's first movie theatre, 1889



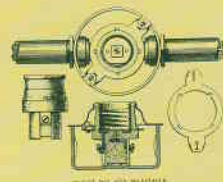
Rochester Railway & Light Company original hydro plant, Station 4 ~ 1880.



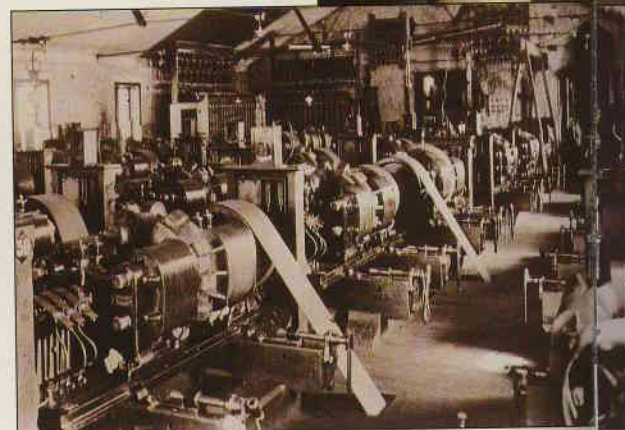
Trusted tools of the trade used by the Electrical Standards Lab. These Weston 1888 Voltmeter and Millivolt meters still operate today within manufactured specifications of .5% accuracy.

RG&E History

The dawn of the "Electric Age" comes to Rochester. The Genesee River provided the first step in the generation of electricity by furnishing the water power to animate the first generators. It was the catalyst for industrial advances and modern life.



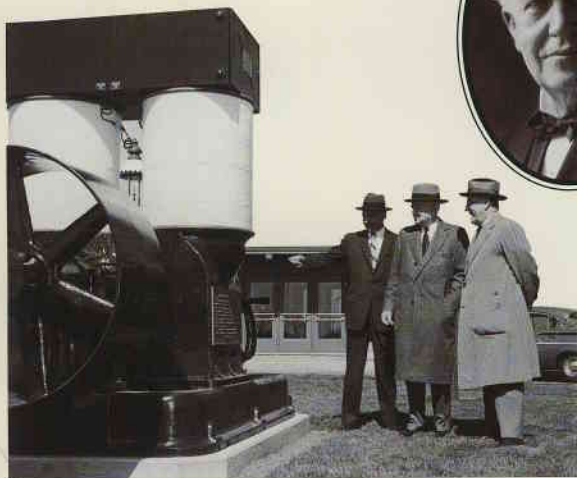
Thomson/G.E. Watthour Meter ~ 1888



1888 Edison Electric Illuminating becomes the first to meter electric use. George Eastman markets his first roll film camera and calls it Kodak.

1889 Rochester Gas Light Co., Citizens Gas and Municipal Gas combine as Rochester Gas Co.

1891 Electric lights are installed at Bausch & Lomb's manufacturing complex on St. Paul Street.



Thomas Edison, a founding father of the Electric Age.

Charles Edison, son of the famous inventor, inspects one of the first Bi-polar Direct Current Generators. Installed in 1888 by the Rochester Electric Light Co. in the Old Hydro Station at Upper Falls, it was in service for more than 50 years until it was retired and moved to an RG&E operations center for display.



Original Brush Light Company plant, 1881-1886. Now known as Station 5.

National Mazda Light display ~ 1930's

Courtesy John A. Wenrich



1892 ⚡ Rochester Railway Co. electrifies its lines and Eastman Dry Plate Co. becomes known as Eastman Kodak Co.

1892 ⚡ August 4 ~ Rochester Electric Light, Brush Electric and Edison Illuminating merge to become **Rochester Gas and Electric.**

WATT A BRIGHT IDEA!



HYLO Economical ~ began early 1900's, 2-carbon filaments.



Weston Hook Eye ~ Early 1880's, carbon filament.



Edison ~ 1879 Replica of first working light Bulb, carbonized paper filament.

RRLC (Rochester Railway and Light Company) Edison ~ 1903-1907, carbon filament.



Bernstein ~ Early 1890's, carbon filament.



Sterling Special Spiral ~ early 1900's, carbon filament.



G.E. Edison MAZDA ~ began 1911, First ductile, "drawn" Tungsten filament.



Tantalum Filament ~ 1906-1913.



Mazda ~ began 1913, single coil tungsten.



World War II Blackout Bulb ~ 1942-1945, used to dimly light critical passageways.



"Modern" Tungsten Coiled Coil filament ~ began 1936 to present.

The evolution of more lumens per watt began with the first crude filament of carbonized paper. Filaments of carbonized bamboo, squirted cellulose and General Electric's Metallized Carbon ("GEM"), lighted the early days of electric light. Pressed and drawn Tungsten filaments replaced Tantalum, and later, with GE's innovation of ductile Tungsten, higher efficiency coiled filament bulbs were possible. Today's High-Energy efficient bulbs can last up to 10 times longer and use 75% less electricity over those of just a few years ago.

Courtesy John A. Wenrich



ALWAYS AT YOUR SERVICE

1892

October 4 ~ Citizens Light & Power Co. is formed at Brown's Race, to become Station No. 3 at High Falls.

1893

July 23 ~ Central Light & Power Co. is formed to power some downtown buildings.

1903

Rochester Light & Power Co. is formed in January and absorbs Central.

1903

Wilbur and Orville Wright invent and test the first workable airplane at Kitty Hawk.

1904

June ~ Rochester Light & Power is absorbed by RG&E and renamed as Rochester Railway & Light Co.

1908

Henry Ford produces the first Model T in Detroit, Michigan.

1910

RG&E has 9,000 electric customers, 52,000 gas customers and 19 steam customers.

1916

Hydro Station #5 upgrades and goes on line with 44,000 kilowatts of power.

1917

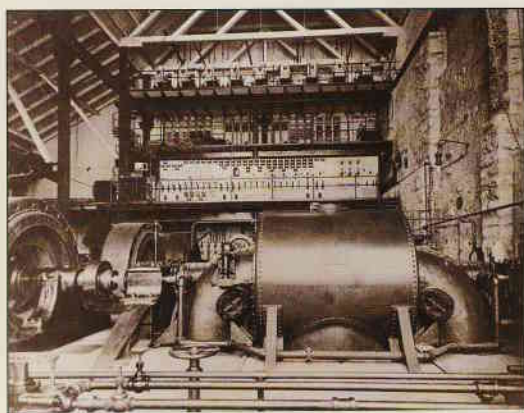
The United States enters The Great War.

1918

The Armistice signed ending World War I.



A Rochester Railway and Light representative makes a house call.



Station 5 water wheel ~ 1905.



1919 Railway operation splits off and RG&E Corporation is formed.

1920 RG&E has 35,000 electric customers, 81,000 gas customers and 81 steam customers.

1925 RG&E builds a 126-foot-high dam on the Genesee, creating hydroelectric potential and Lake Rushford.

1925 RG&E builds its corporate headquarters at 89 East Ave.



Westinghouse Electric Ampmeter ~ 1913.



Folmer Factograph meter reading camera used by Power Billing from 1915. Specially designed to overcome the errors of the pad and pencil. Manufactured in Rochester, N.Y.



RG&E History



An employee delivering meters in the early 1900's



The formation of Rochester Railway & Light Co. marked the real beginning of RG&E. For the first time a single organization had the responsibility of supplying the whole community with electricity, gas and steam.



Weston Voltmeter ~ 1888.



An early Rochester Railway & Light Co. gas department crew installs gas pipeline with its manually drawn equipment cart.



A 1909, "Judd" electric laundry machine, one of the new-fangled appliances which saved time and made home life easier. Collection of the Rochester Museum & Science Center.



Delivery of coke in the early 1900's



Type K Potentiometer & Ammeter from the turn of the century used by the Electrical Standards Lab.



Ready for duty. RG&E employees pose with their impressive fleet of vehicles at the Andrews Street facility ~ 1932.

1926 ⚡ RG&E installs 97 coke ovens at old East Station and produces dry quenched coke for resale ~ the first to do so in the U.S.

1929 ⚡ Stock Market crashes.

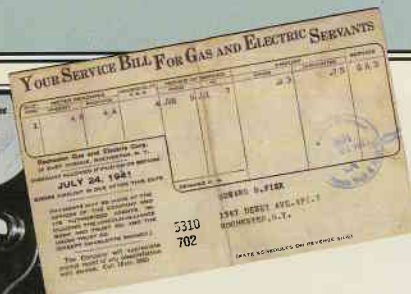
1930 ⚡ RG&E has 114,000 electric customers, 103,000 gas customers and 349 steam customers.

1935 ⚡ The first of 8 steam boilers goes on line at "The Old House," one day to be called Beebe Station.

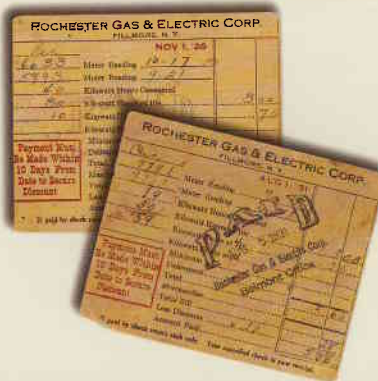


What One Pound of Fat Will Do

Save every drop of fat you can spare and turn it over to your butcher to be passed along for conversion into explosives that will defeat the enemy and into medicine that will save lives. Each pound of fat will make enough smallpox inoculations to immunize 98 soldiers...or produce 8 cellophane gas masks...or provide 10 rounds of ammunition for a 50-calibre machine gun.



Staffing the steam pressure meters at the Booster House Station



Charter members from the first meeting of the Pioneers Club held at the Rochester Club on April 27, 1938.



Reprinted from
RG&E Monthly
Messenger,
November 1943.

1936

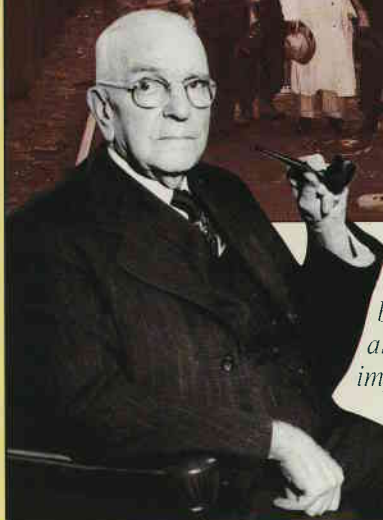
Thomas Yawger publishes a history of the development of electric utilities.

1940

RG&E has 139,000 electric customers, 113,000 gas customers and 242 steam customers.

1941

December 7 ~ Pearl Harbor attacked ~ U.S. declares war with Japan.



"It [electricity] lifted the burdens of millions of people and gave new and vital impetus to industrial progress."
~Thomas Yawger



Electrical Standards Lab running tests in the 1930's with equipment featured on these pages.

1945 VJ Day ~ The War is over and RG&E pipes in natural gas to support Post-War growth.

1946 ENIAC, the first electronic computer, goes into service at the University of Pennsylvania.

1947 Rochester's Haloid Co. purchases rights to Chester Carlson's xerographic process.

1948 On the occasion of RG&E's Centennial, the first of four coal-fired electric units goes on line at Russell Station.

RG&E History

Company prosperity is a forerunner of community growth. RG&E has an essential function in the production of the products that bring Rochester fame in industry. Today we are the largest industrial base in New York State.

Early testing equipment; Hot Stick, Fisher Cable Testing Set and portable G.E. Voltmeter.



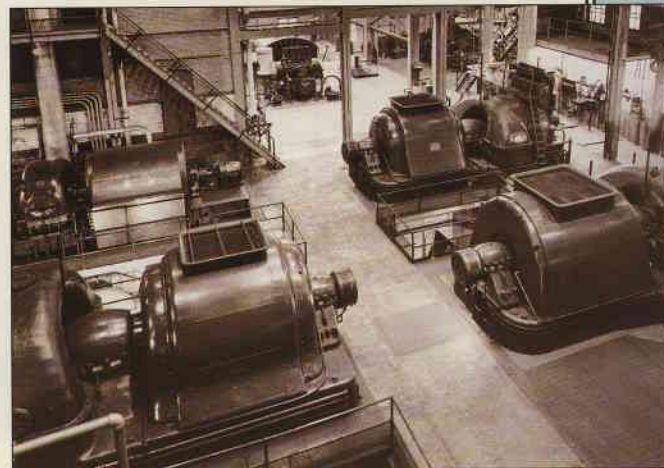
Rochester's Four Corners years ago.



Celebrating 100 years in 1948, complete with cake and the dancing RG&E Kiloettes.



Station 3 electric generating turbines.



1950 ⚡ Manufactured gas begins to phase out in favor of natural gas.

1950 ⚡ Korean War begins. RG&E has 168,000 electric customers, 135,000 gas customers and 518 steam customers.

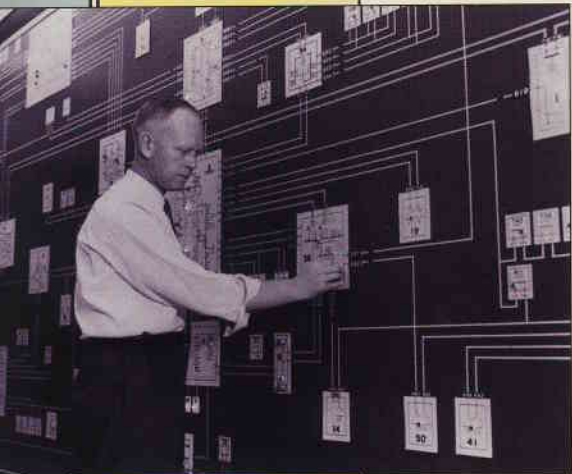
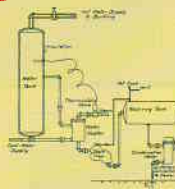
1952 ⚡ RG&E's last coke oven is shut down on August 6.

1953 ⚡ Korean War ends. Bausch & Lomb widens screens with the introduction of Cinemascope lens.

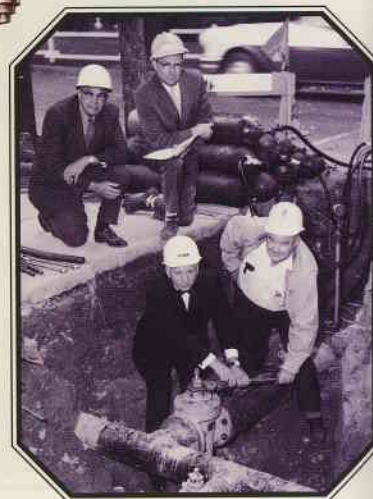
RG&E History



The end of an era, the beginning of a new. With more gas and electric customers than ever, RG&E expands its facilities and services into new territory, develops new technologies and enters the Nuclear Age as the computer revolution dawns. RG&E is in the "fast lane."



Checking a circuit map in electric line operations.



Expanding gas service, Wolcott, NY ~ 1963.

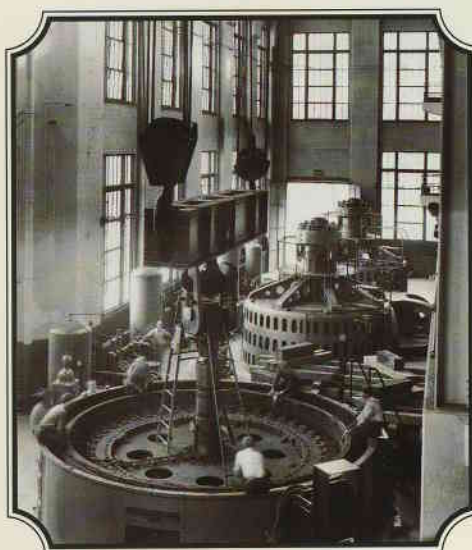


The RG&E Big Band still swings today, at community events.



Tracking wind storm damage, 1964.

Water heater installed in Lake Ontario ~ Russell Station. 1954



The "Great Blackout," do you remember where you were?



1954

Thomas Yawger dies as an active RG&E employee with 66 years of service.

1956

Last unit of Russell Station goes on line ~ 275,000 kilowatts total.

1959

An 84,000-kilowatt electric generating unit goes on line at Beebe Station.

1960

RG&E has 202,000 electric customers and 157,000 gas customers.

1961

Haloid Co. becomes Xerox Corp. First U.S. troops sent to Vietnam.

1965

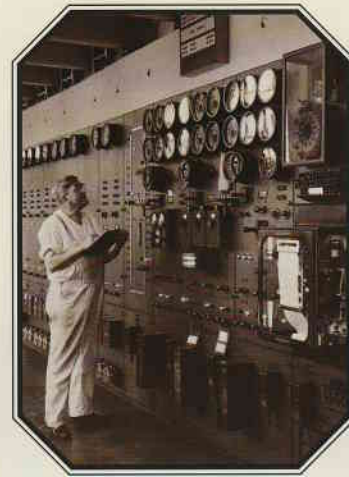
November 9 ~ Blackout affects 80,000 square miles of north east United States.

1966

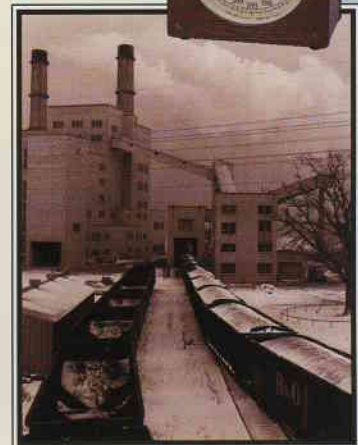
Brookwood Science Information Center opens to introduce people to the advantages of nuclear power.



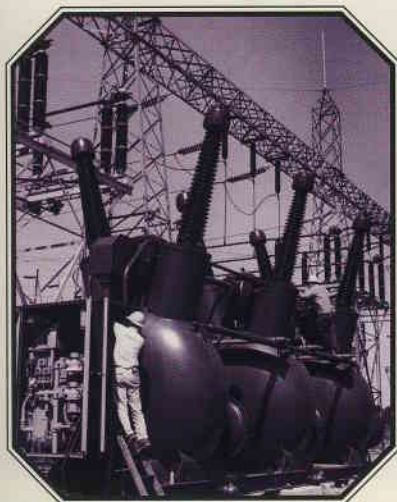
One stop shopping for the conveniences of modern life~at one of the many RG&E appliance centers from the 1950's.



Inspecting the gauges at Station 5.



Russell Station



Early pneumatic cable cutter, used by linemen.



Glass lightning resistor, circa 1940.



1969 ⚡ Ginna Station ~ 470,000 kilowatts on line, on schedule and on budget at a cost of \$88 million.

1970 ⚡ RG&E has 254,000 electric customers and 196,000 gas customers.

1971 ⚡ The Clean Air Act places heavy demand on oil and natural gas fuels for electric generation.

1973 ⚡ RG&E installs a 24-inch gas main to increase reliability between east and west sectors.

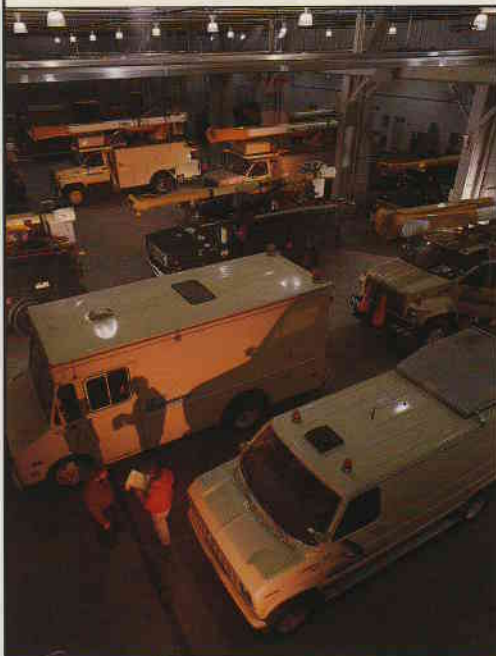
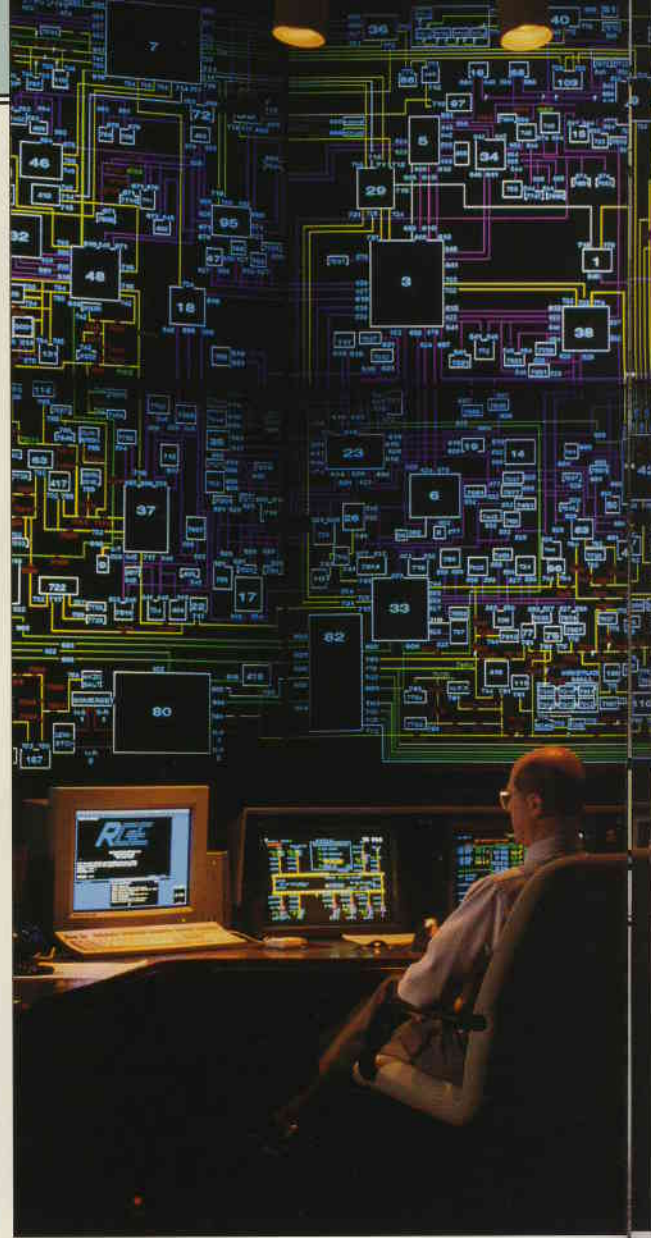
Service • Solutions • Satisfaction

As the previous pages have shown, we have deep roots in the Rochester community and a charter commitment as one of its founding contributors. We support and serve its people, our customers. RG&E is poised for sweeping change, and has anticipated and embraced the future by leading the way with its deregulation agreement which the PSC recently approved. We're ready for competition. And at RG&E we're saying that the first 150 years is *just the beginning*.



Futuristic technology in remote meter reading devices: ENSCAN, and the Itron MERLIN units; convenience, accuracy and efficiency.

One-of-a-kind technology is featured in the Energy Control Center at West Avenue. Precise monitoring of gas and electric operations 24 hours a day allows the most rapid and efficient energy service response in utility history.



RG&E sponsorship of the Rochester Museum & Science Center's Challenger Space Center Exhibit benefits the community at large.

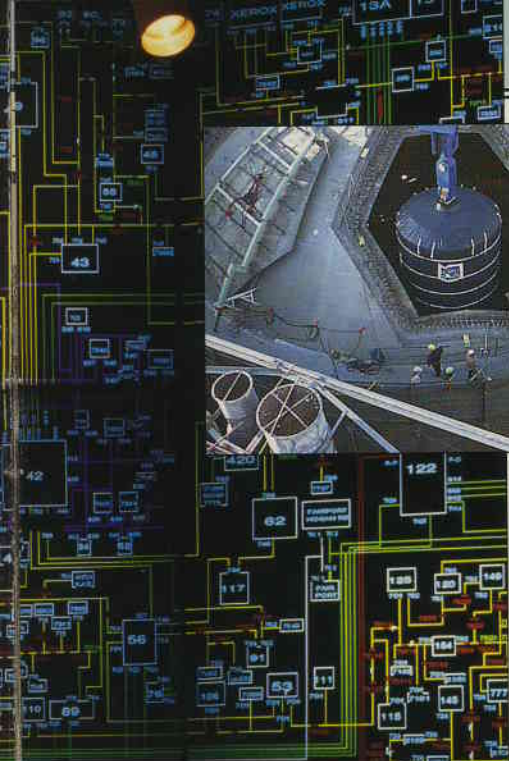


1973 ⚡ Heavy oil demand combined with the Arab Oil Embargo creates the energy crisis of the 70s.

1975 ⚡ Vietnam War ends.

1983 ⚡ RG&E establishes The Community Heating Fund with the American Red Cross.

1985 ⚡ With declining use, RG&E goes out of the steam heating business.



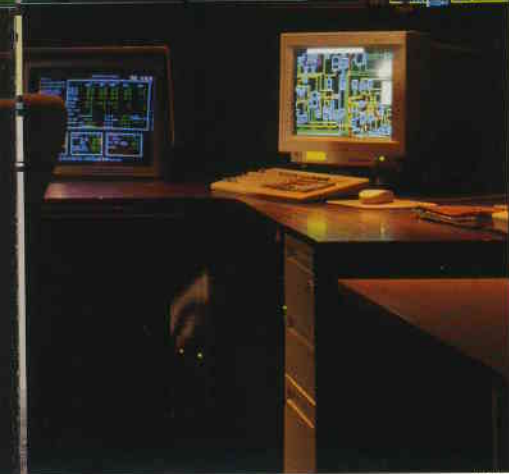
The history-making, unprecedented process of removal and replacement of a nuclear steam generator through the top of the containment dome at Ginna.

Rick Meier

Dick Biedenticht
Kim Magnuson



New infrared coal thawing shed technology at Russell Station.



Lori Farr



Alan Reimer

Station 5 automation makes hydro functions easier, safer and more efficient with the new Master Controller Console.



Today's computerized Electrical Standards Lab equipment features fully automated calibration and remote site measurement. It is 10,000 times more accurate than the analog meters shown throughout these pages.

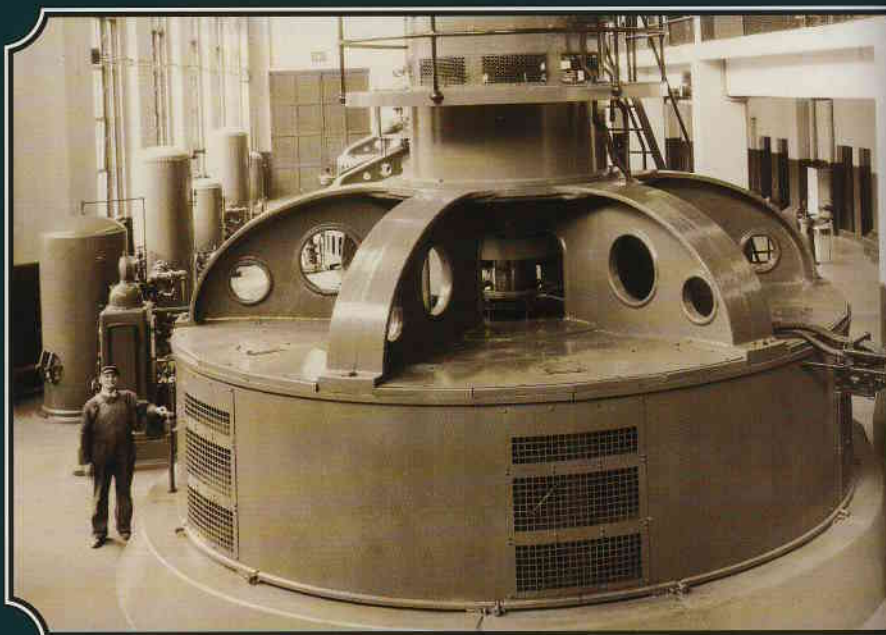
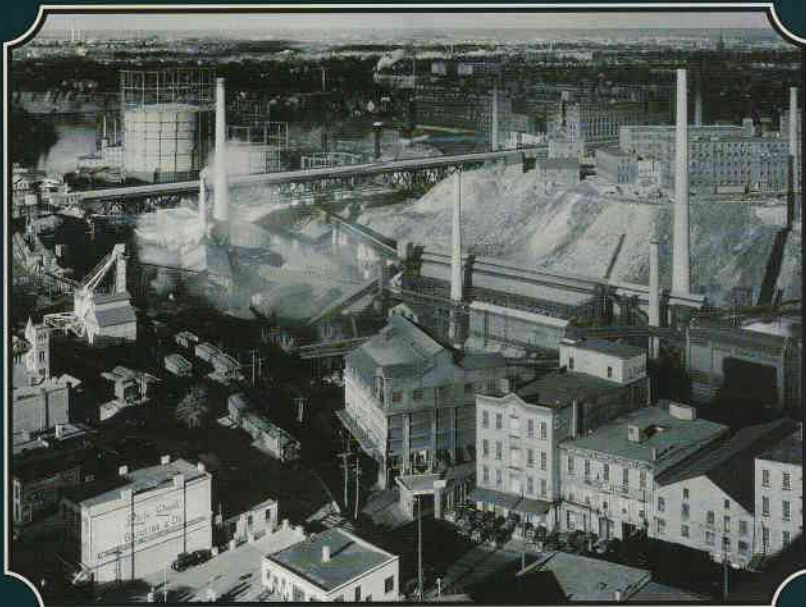
State-of-the-art Customer Telephone Service Dept. handles over a million calls annually.

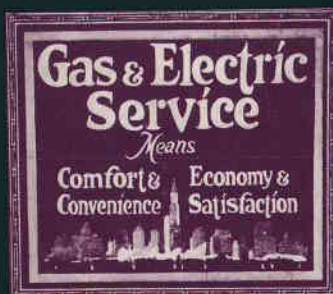
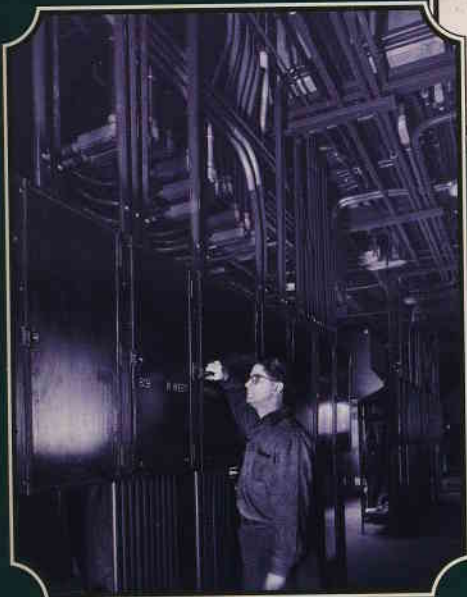


Rick Meier

- 1991 ⚡ The worst ice storm in NY history. Two thirds of customers without electric. 75% of service back in 7 days, 100% back in 13 days.
- 1992 ⚡ Setting the edge for competition, RG&E's corporate business plan aims to break the utility mentality mode.
- 1996 ⚡ RG&E replaces the steam generators in the Ginna plant on time and under budget.
- 1997 ⚡ Deregulation plan approved by PSC. RG&E has 342,000 electric and 280,000 gas customers. The Beginning.

"RG&E's FIRST 150 YEARS - JUST THE BEGINNING"





RG&E wishes to thank all of those contributors who went out of their way to be so accommodating and informative; giving of their time and expertise, lending their artifacts for photography, and providing their photos for inclusion.

The informal archivists of RG&E:

Dick Biedenbach, Ginna
Kim Magnuson, Ginna
Rick Meier, Corporate Communications
Bill Meyers, Operations
Dan Schlegel, Operations
Paul Sisson, Laboratory & Inspection Services, Operations
Betty Weis, Marketing
Jim White, Operations
Steve Wright, Operations
Lea Zimmerman, Employee Emeritus and former RG&E Killoette

Private Collectors and Our Friends in the Community:

Dick Bowman, Webster, NY: glass insulator collection
John A. and Jeanne Wenrich, Avon, NY: Kerosene lamp and light bulb collection
Daniel M. Barber, Deputy Director, Collections; Eugene Umberger, Curator of History Chairman and Stephen Pentress, Director, Strasenburgh Planetarium; the Rochester Museum & Science Center

The George Eastman House, International Museum of Photography and Film
Bausch & Lomb Corporation
Xerox Corporation

Our apologies to all those who heeded the call and contributed items but were left out due to space limitations.

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