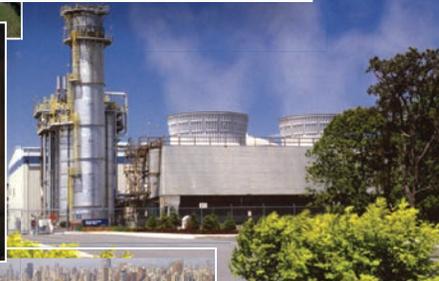
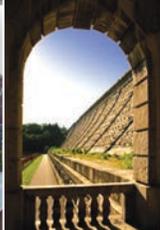
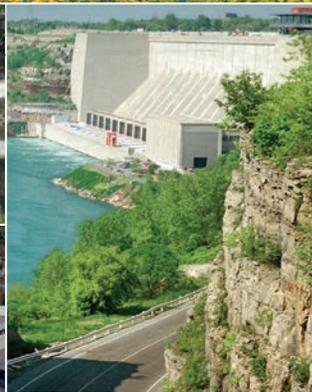


Bold Dreams Shining Legacy



A Special Reprint of the New York Power Authority's 75th Anniversary History Book

75 Years of Powering the Empire State



1931-2006

Photos clockwise from top:

St. Lawrence-Franklin D.
Roosevelt Power Project
Niagara Power Project

Richard M. Flynn Power Plant
Charles Poletti Power Project*
Small Clean Power Plant
Kensico Project**
500-Megawatt Combined
Cycle Plant
Frederick R. Clark
Energy Center
Blenheim-Gilboa Pumped
Storage Power Project

*ceased operations January 2010

**ceased operations September 2012



The Struggle for Waterpower

Long before the New York Power Authority's massive concrete structures rose above the St. Lawrence and the Niagara rivers, long before the flow of electricity into homes and factories, there was waterpower.

Waterpower at hundreds of locations on the large rivers—and at mill sites along the small streams. Waterpower to displace the muscles of men and animals.

And, eventually, waterpower to ease burdens and drudgery after its energy had been converted and carried hundreds of miles through wires.

The transformation was not quick or simple.

Along the way, New York State's political titans fought a continuing battle over who would control the state's waterpower resources.

Beginning early in the 20th century, a Republican governor and a Democratic governor and a former president of the United States proposed state development. But they were unable to devise a successful strategy that would overcome the influence of the private electric companies upon the State Legislature.

For many years, the state lacked a coordinated policy for development of its water resources. The Legislature granted franchises to private companies to build hydroelectric facilities on the Niagara, St. Lawrence and other rivers and streams, usually with little or no compensation to the state.

Then, in 1907, Republican Gov. Charles Evans Hughes tried to fashion the first public policy on state development of waterpower.

Hughes, later chief justice of the United States, declared that the state's undeveloped waterpower "should be preserved and held for the benefit of the people and should not be surrendered to private interests." To that end, he secured the passage of legislation "authorizing and directing the state water supply commission to devise plans for the progressive development of the water powers of the state for the public use and state ownership and control."

A plan submitted to the Legislature in 1912 was rejected because of its high cost, and World War I halted further progress. During the war years, former President Theodore Roosevelt lined up with those opposed to what they viewed as private exploitation of the state's water resources.

"You have in this section a most valuable asset in your natural waterpower," Teddy Roosevelt said in a 1914 speech at Potsdam, St. Lawrence County. "...Coal and oil barons cannot compare to waterpower barons. Do not let them get a monopoly on what belongs to this state."

Gov. Alfred E. Smith championed the cause of state waterpower development throughout his long career.

In his first message to the Legislature, on Jan. 1, 1919, Smith, a Democrat, urged the state to adopt a plan to harness the power potential of the Niagara and St. Lawrence rivers as well as other inland waterways. He maintained that "the state must itself retain ownership and control of waterpower at its source if the people and not private interests are to be the real beneficiaries by its development."

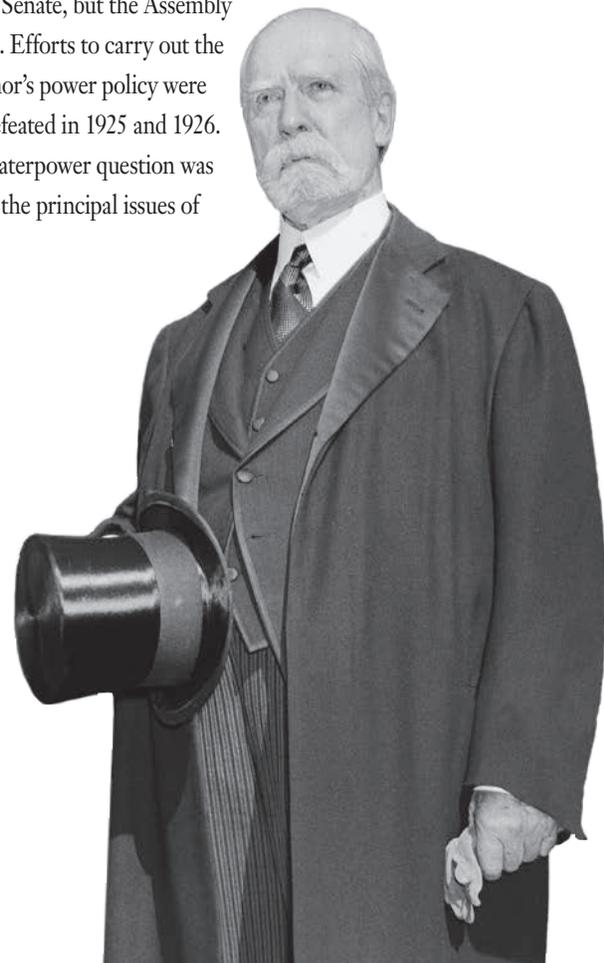
Smith again called for adoption of his waterpower policy in 1920, but the Legislature rejected his recommendations. After losing his bid for re-election in that year to Nathan L. Miller—governors then served two-year terms—Smith was returned to the executive office in 1922. He renewed his call for state waterpower development and was again rebuffed by the Legislature in 1923.

Despite difficulties in advancing his program, Smith succeeded in blocking attempts to lease waterpower sites to private interests. He believed that the only sure way to protect the consumer was to keep ownership and control in public hands.

In his annual message on Jan. 2, 1924, Smith proposed creation of a State Water Power Authority "to take over and develop the state's power resources in accordance with a plan to be submitted to the Legislature for approval by law."

The Power Authority, modeled after the Port of New York Authority, on which Smith had previously served, would be self-financing—through issuance of bonds to private investors—and would not use tax money or state credit. It would not deal directly with the ultimate consumer, but would build, own and control the development of the power at its source. Distribution of the power would be covered in the plan to be submitted to the Legislature.

State legislation to set up the new agency was approved by the Senate, but the Assembly balked. Efforts to carry out the governor's power policy were also defeated in 1925 and 1926. The waterpower question was one of the principal issues of



*Chief Justice and
former New York Gov.
Charles Evans Hughes.*

the 1926 campaign for governor. Although Smith interpreted the overwhelming vote for his re-election as a public mandate for his waterpower policy, the Legislature remained obdurate in 1927 and 1928.

Through the setbacks, Smith—"the Happy Warrior"—did not lose heart.

"Giant power combines naturally will stand against the proposal of a public authority," he said in his last annual message to the Legislature, in January of 1928. "On the other hand, there is today an insistent and growing demand for the development of these power resources by their rightful owners—the people themselves."

PRESENT AT THE BIRTH

The struggle between generations of governors and legislators over public or private development of the state's waterpower resources was finally settled by Smith's successor, Franklin Delano Roosevelt.

Governor Roosevelt shaped the climate and showed the resolve and political acumen to force creation of the Power Authority of the State of New York. He saw it as a model of government action to build a better society.

Roosevelt considered his role as father of the Power Authority a major accomplishment of his tenure as governor. His well-publicized efforts helped thrust him into position to claim the Democratic nomination for president in 1932.

A resolve to "give back to the people the waterpower which is theirs" was manifest from Roosevelt's first day as governor.

"It is intolerable," he said in his inaugural address on Jan. 1, 1929, "that the utilization of this stupendous heritage should be longer delayed by petty squabbles and partisan dispute."

He maintained it was "the duty of our legislative bodies to see that this power, which belongs to all the people, is transformed into usable electrical energy and distributed to them at the lowest possible cost."

Claiming the support of "the great preponderance of public opinion" for immediate action, Roosevelt on March 12, 1929, proposed legislation setting up a commission to study development of waterpower on the St. Lawrence River. The state owned or controlled other water rights, he said, "but it seems to me best at this time to focus recommendations and public attention on the development of the St. Lawrence River."

The commission, to be known as the Trustees of the Water Power Resources on the St. Lawrence River, "should be composed of men in whom there is great public confidence," such as former Governors Hughes and Smith, Roosevelt said. The trustees would be instructed to report to the Legislature the following January, and would be empowered to carry out their plan if and when it received legislative approval.

Sen. George W. Norris of Nebraska, a leading public-power advocate, praised the initiative as a "very brave step in the right direction," but the measure died in committee in the Legislature.

In his annual message to the Legislature on Jan. 1, 1930, Roosevelt renewed his plea that St. Lawrence waterpower "remain forever in the actual possession of the people of the State or of an agency created by them" and that the power be distributed by contract "to insure a fair and reasonable rate to the consumer, especially the household users."

Republican legislative leaders had by now recognized the growing popularity of Roosevelt's public-power position in normally Republican rural areas as well as in generally Democratic cities. They became convinced that their party could suffer in the 1930 election if waterpower remained a central issue.

In an effort to seize the initiative, Republican legislators on Jan. 13, 1930, introduced a bill to establish a commission to "devise and report a plan or plans for the development of hydroelectric power on the St. Lawrence River."

Roosevelt depicted the move as a triumph for him personally as well as for the public. "This is one of the happiest days of my life," he exulted, "and one of the most important for the people of the State of New York."

In a telegram to Al Smith, Roosevelt asserted that the Republican bill seemed to agree with "the great basic principle for which you and I have fought so long. There is no doubt it is a great victory."



Gov. Alfred E. Smith

The Legislature approved the bill creating the St. Lawrence Power Development Commission on March 17. "It is a milestone," Roosevelt said in signing the measure on March 29, "marking the end of a 20-year struggle against great odds, for it takes the first step towards securing cheaper electric light and power."

The act establishing the commission was certified by New York Secretary of State Edward J. Flynn, a Roosevelt confidant and father of future New York Power Authority Chairman Richard M. Flynn.

Roosevelt appointed the five members of the new commission and, in August 1930, joined them at a potential hydroelectric site on the St. Lawrence River.

The commission's legal advisers included a young Charles Poletti, who, years later, would become the only person to serve both as a New York governor and as a Power Authority trustee.

The commission later met with President Herbert Hoover and with officials of the Federal Power Commission and the Hydro-Electric Power Commission of Ontario. The president declined to make a commitment to New York's

bid until more progress was made in negotiating a U.S.-Canadian treaty on St. Lawrence development.

Buoyed by creation of the St. Lawrence commission, Roosevelt took the case for public power to the people during his successful 1930 re-election campaign.

He maintained in an October speech in Syracuse that "ever-growing, ever-insistent public opinion... demanding its right and due in the form of cheaper

electricity" had forced the hand of his opponents to consent to the commission's establishment.

"The time has come when electricity should be carried right into our very homes so as to lighten the drudgery of housework," Roosevelt said. He pointed out that New Yorkers paid up to eight times as much for electricity as did public power recipients in Toronto and other Canadian cities—\$25.63 versus \$3.40 a month.

In Binghamton, he promised that housewives "will have the benefit of electric lights, and of an electric refrigerator, an electric range, electric vacuum cleaner, electric radio, dishwasher, clothes washer. ..." This at a time when the proposed waterpower project on the St. Lawrence River would have provided enough electricity to light one-half of the state.

On Jan. 15, 1931, the St. Lawrence Power Development Commission issued a report calling for establishment of a Power Authority to build generating facilities on the river and arrange for transmission and distribution of the power by private utilities.

Roosevelt hailed the report as "a great step forward" and declared "the time is ripe for the creation by the Legislature of a Power Authority."

Jasper W. Cornaire, a Jefferson County Republican, introduced the Power Authority bill in the Assembly on March 4, 1931. After the lower house passed the bill, the Senate approved an amendment that would have shifted the power to appoint the Power Authority's five trustees from the governor to the Legislature.

Roosevelt believed the move was calculated to force him to veto the bill, delaying its implementation for another year. He appealed directly to the people to save the proposed agency. Hundreds of letters, resolutions and telegrams poured in against the Senate amendment.

Roosevelt then announced that he would "lay the facts before the people" in an April 7 radio speech. This prompted Republican Sen. Warren K. Thayer, from Franklin County, near the St. Lawrence, to move to strike the amendment only a few hours before the broadcast. Two other Republicans joined Thayer and 23 Democrats to kill the measure by a 26-23 vote.

In his radio talk, Roosevelt applauded the outcome as a victory over special interests. "Stronger than all these put together is the influence of Mr. and Mrs. Average Voter," he said. "It may take a good many years to translate this influence of the people of the state into terms of law, but public opinion, when it understands a policy and supports it, is bound to win in the long run."

Senate approval of the original Cornaire bill was unanimous. Roosevelt signed the Power Authority Act into law on April 27, 1931, at his Hyde Park home.

"I place first of all in importance the passage of the bill creating the Power Authority to develop the state-owned

Gov. Franklin D. Roosevelt with Edward J. Flynn, his secretary of state and confidant.





Gov. Franklin D. Roosevelt

waterpower on the St. Lawrence River,” Roosevelt said in an April 24 radio speech summing up the accomplishments of the 1931 legislative session. “It is my earnest hope that this is the forerunner of cheaper electricity for the homes and farms and small business people of the state.”

The New York Power Authority had been born.

After decades of frustration, Franklin Roosevelt had succeeded where Hughes and Smith and others had failed. And, in his successful battle, he had also mastered a growing technology. Just as Roosevelt’s infant state agency became a model for future national energy programs, radio emerged as a weapon in his waterpower fight. He later would use this new communications tool to rally a nation confronting economic adversity and world war.

MODEL FOR THE NATION

New York’s waterpower wars reflected those at the national level, where they were principally centered in the Pacific Northwest and the Tennessee Valley.

In the states of Washington and Oregon, the public-private power battles dated to the turn of the century. Tacoma and Seattle were among the cities which proved, even in the earliest days of the power industry, that community-owned electric utilities could function on a level of efficiency matching that of the private systems.

On the Tennessee River, President Theodore Roosevelt thwarted proposed private development at Muscle Shoals in 1903 and, during World War I, the government began

construction of Wilson Dam, which eliminated almost half of the rapids. Later, Presidents Calvin Coolidge and Herbert Hoover vetoed bills that would have authorized completion and public operation of a series of waterpower plants on the Tennessee. That, said Hoover, would be “the negation of the ideals upon which our civilization has been based.”

Nationally, entangled complexes of holding companies controlled much of the private power industry. Disclosures of stock speculation and other abuses further poisoned the already contentious public-versus-private power debates, and provided additional impetus for a greater government role.

In New York, the birth of Franklin Roosevelt’s New York Power Authority raised hopes among proponents of public power. When, in 1932, Roosevelt became the Democratic candidate for president, he made his position clear. At Portland in September, he declared:

“Here you have the clear picture of four great government power developments in the United States—the St. Lawrence River in the Northeast, Muscle Shoals in the Southeast, the Boulder Dam project in the Southwest and finally, but by no means the least of them, the Columbia River in the Northwest. And from there, my friends, in each of the four corners of the United States, there will exist forever a national yardstick to prevent extortion against the public and to encourage the wider use of that servant of the American people—electric power.”

The Tennessee Valley Authority Act was passed less than two months after Roosevelt began his first term as president. It was patterned after the New York Power Authority Act, with widespread development of area resources an additional mission.

Two decades remained before construction would begin in the St. Lawrence Valley, but reshaping of the Tennessee Valley—industry, agriculture, flood control, reforestation and regional planning—started almost immediately.

Historian Arthur M. Schlesinger, Jr., in “The Coming of the New Deal,” wrote: “Perhaps no law passed during [Roosevelt’s first 100 days as president] expressed more passionately a central presidential concern. The concern arose only in part from Roosevelt’s old absorption with land, forests and water. It arose equally from his continued search for a better design for national living. Utopia still presented itself to him in the cherished image of Hyde Park—tranquility

Governor Roosevelt and Lt. Gov. Herbert Lehman attend the first meeting of the Power Authority’s trustees in 1931. Seated (from left), Delos M. Cosgrove, Lehman, Chairman Frank P. Walsh, Roosevelt. Standing (from left), Morris Llewellyn Cooke, Fred Freestone, James C. Bonbright.



in the midst of rich meadows and farmlands, deep forests and a splendid, flowing river. ...As Governor of New York, he had talked of redressing the population balance between city and countryside—taking industry from crowded urban centers to airy villages and giving scrawny kids from the slums opportunity for sun and growth in the country. The depression and the presidency provided new opportunity to move toward a ‘balanced civilization.’ ”

By July of 1933, construction had begun in the Pacific Northwest on the first dam at Grand Coulee, and plans for the Bonneville Dam were approved in September.

The Bonneville Power Administration was established in 1937 to market the output of the federal dams on the Columbia and the region’s other rivers. The agency’s first administrator was J.D. Ross, public power pioneer as superintendent of Seattle City Light and, in 1931, author of a report on marketing St. Lawrence power, work undertaken as a consultant for the New York Power Authority.

A member of the first Power Authority Board of Trustees, which had retained Ross, was Morris Llewellyn Cooke, a longtime industrial engineer. After Roosevelt became president, it was Cooke who developed the administration’s plan to bring electricity to the country’s farms and remote areas. When FDR created the Rural Electrification Administration in 1935, he named Cooke its first administrator.

DELAY AND TRIUMPH

Roosevelt’s dream of harnessing the St. Lawrence River to supply cheap electricity to the state’s homes, farms and factories went unfulfilled during his lifetime.

Twenty-four years separated Governor Hughes’ first pronouncement on state development of waterpower and the creation of the New York Power Authority to carry out the task. It took almost as long before the Power Authority could proceed with construction of the hydroelectric facility on the St. Lawrence.

But no one could foresee the long delay in the busy period that followed Roosevelt’s signing of the Power Authority Act.

The governor appointed the first Board of Trustees on May 6, 1931, prior to his departure to Europe to visit his ailing mother. He met with the trustees and Lt. Gov. Herbert Lehman on June 8, after his return.

The chairman was Frank P. Walsh of New York City, a civil rights leader, labor lawyer and utilities expert. Walsh and another trustee from New York City, Columbia University Professor James C. Bonbright, had previously served by gubernatorial appointment on a commission investigating reform of the Public Service Commission law. Other trustees also were proficient in utility matters.

Morris Llewellyn Cooke, from Philadelphia, was at the time of his appointment an efficiency engineer for the Carnegie Foundation. Delos M. Cosgrove, a Watertown lawyer with wide experience in waterpower cases, and Fred Freestone of Interlaken, master of the State Grange, provided additional expertise and perspective.

The development on the St. Lawrence was conceived as a joint power and navigation project that included construction of a St. Lawrence Seaway to link the Great Lakes with the Atlantic Ocean. A treaty between the United States and Canada covering both projects appeared to be a necessary first step.

Beginning in June 1931, the Power Authority repeatedly tried to obtain federal recognition of New York’s interests in the treaty negotiations. Although the Province of Ontario was represented on the Canadian side, the Hoover administration refused to give the Power Authority any role.

However, Roosevelt and Walsh beamed with optimism during a summer visit to the St. Lawrence.

The governor’s motorcade reached Massena late on the afternoon of August 7, an hour behind schedule. Many of

those who had turned out to welcome him had grown tired of waiting and gone home. But a crowd quickly gathered around Roosevelt's car in front of the town hall as he began to speak.

The Massena Observer reported: "Launching into the subject that lies nearest to the hearts of the people of this section, the dream of the past generation, Governor Roosevelt said he believed real progress was being made [on a treaty]."

Walsh was even more upbeat, asserting that negotiations with Canada for joint development "were rapidly nearing completion."

"Actual construction of the \$171,000,000 Massena Point project could be started before the end of this year," he said, creating 18,500 jobs with a \$1,474,000 monthly payroll.

These were welcome words to a nation caught in the grip of the Depression, but hopes for an early construction start turned out to be unrealistic.

For the next two decades, the Power Authority sought federal and international authorization to proceed with the power project, but disagreements over the seaway and opposition by proponents of private power development thwarted these efforts.

In 1932, the United States and Canada signed a treaty opening the way for power development on the St. Lawrence River. But the U.S. Senate rejected the treaty in 1934.

Walsh died in 1939, and Bonbright took over as chairman at a low point in the Power Authority's fortunes. The Legislature slashed the Authority's annual appropriation—a temporary measure until the agency could generate its own revenues—from \$85,000 to \$50,000, forcing dismissal of half the six-person staff and postponement of plans for an electric rate study.

The start of World War II focused attention on the need for the St. Lawrence power project and seaway as part of the defense effort. The United States and Canada in 1941 signed another treaty providing for development of the St. Lawrence, but the U.S. Senate again failed to approve the agreement.

President Roosevelt continued to regard the power development and the seaway as an indivisible project. When the War Production Board referred to them separately,

Roosevelt in 1942 fired off a note to House Speaker Sam Rayburn, Majority Leader John W. McCormack and Rep. Joseph J. Mansfield, chairman of the Rivers and Harbors Committee, to set the record straight.

The building of a dam "is the one simple fact to harp on," he said. "You cannot get power without a dam and you can't get a seaway without a dam. What is essential to defense, therefore, is the building of a dam."

The president ordered defense agencies to "plan for full utilization of the St. Lawrence Seaway and Power Project both in our immediate and long-term defense efforts," but aides advised that the project could not produce power before September 1945. "This three-year estimate knocks



Governor Roosevelt during 1931 visit to the St. Lawrence with (from left) Power Authority Trustees Freestone and Cosgrove and Chairman Walsh.

everything into a cocked hat," a disappointed Roosevelt commented.

Early in the war, the U.S. Army Corps of Engineers built a 77-mile transmission line from Taylorville to Massena in response to a Power Authority proposal for carrying electricity to aluminum-producing facilities in Massena. In 1951, the Power Authority purchased the line from the government, refurbished it and obtained its first revenues from lease of the facility to private utilities.

"For the first time in the 20 years of its existence," the trustees declared in the 1951 Annual Report, "the Power Authority became an operating concern with tangible property in its custody."

This promising development may have been an omen. For, in 1952, a change in strategy triggered a breakthrough in the development of the St. Lawrence.

Passage of a treaty had been blocked by strong opposition to the seaway from shipping, railroad and sectional interests. Resistance was most pronounced along the Atlantic Coast,

where the seaway was viewed as a threat to ocean shipping activities. Buffalo, the primary transfer point for Great Lakes cargo, felt particularly vulnerable.

Sen. Robert F. Wagner of New York City favored power development, but was perhaps the most vocal critic of the proposed seaway. Freshman Massachusetts Sen. John F. Kennedy backed 1954 legislation providing for construction of the seaway despite heavy opposition in his home state.



Queen Elizabeth II and Prince Philip join Vice President and Mrs. Richard M. Nixon at the dedication of the St. Lawrence project, 1959.

In the end, it was not a new treaty, but a 1909 agreement with Great Britain, that provided an opening to permit construction of the power project. Known as the Boundary Waters Treaty, it had established the International Joint Commission to resolve disputes over use of the St. Lawrence and other

waterways along the U.S.-Canadian border.

The IJC on Oct. 29, 1952, granted permits for the power project to the Power Authority and Ontario Hydro. The remaining barriers to construction fell in rapid succession. On July 15, 1953, the Federal Power Commission issued a license to the Power Authority to develop the U.S. share of St. Lawrence power.

On May 13, 1954, President Dwight D. Eisenhower signed a St. Lawrence Seaway Bill. And on June 7, the U.S. Supreme Court dismissed the last legal challenge to U.S. participation in construction of the power project.

Meanwhile, in March 1954, Gov. Thomas E. Dewey had appointed Robert Moses as chairman of the Power Authority. (Two other chairmen—Maj. Gen. Francis B. Wilby, former superintendent of West Point, and John E. Burton, vice president of Cornell University—had served since the end of Bonbright's tenure in 1946.)

Moses had won a reputation as New York's "Master Builder" during decades of public service in which he developed highways, bridges, tunnels, parks and other public works. He had served as an aide to Governor Smith during Smith's unsuccessful efforts to create the Power Authority in the '20s.

The new chairman promptly organized the St. Lawrence construction effort. He assembled a staff. Its leadership—like the general manager, Col. William S. Chapin, who helped build World War II's Burma Road—was drawn from other Moses-led agencies.

To avert delay, Moses shook hands with Ontario Hydro's chairman, Robert H. Saunders, on a split-down-the-middle sharing of power project building costs and a portion of the navigation construction expenses.

Moses arranged, largely on the basis of his own track record, for \$325 million in long-term financing without use of tax money or state backing for the bonds.

And he broke ground on Aug. 10, 1954, declaring that the power project would be finished two years ahead of schedule.

And so it would be. Despite the severe Northern New York-Southern Ontario winters, the accelerated construction schedule led to the start of electricity production on July 17, 1958, a year before completion of the seaway. Full power—800 megawatts on each side of the New York-Ontario border—was delivered on July 20, 1959, two years ahead of the original schedule.

On June 27, 1959, Queen Elizabeth II and Vice President Richard M. Nixon formally dedicated the power project as a symbol of international cooperation.

A monument unveiled by the queen at the center of the power dam attests "to the common purpose of two nations whose frontiers are the frontiers of friendship, whose ways are the ways of freedom, and whose works are the works of peace."

ON TO NIAGARA

Even as work on the St. Lawrence continued, the Power Authority prepared for a still more complex project.

The Niagara River was the second jewel in New York's waterpower crown.

The Niagara is one of America's mightiest rivers, draining the water of the upper Great Lakes—Superior, Michigan, Huron and Erie. In the 36 miles between Lakes Erie and Ontario, the river drops 326 feet, most spectacularly at Niagara Falls, where it plunges 182 feet over the American Falls.

Efforts to capture the tremendous energy of its falling water began in the 18th century. French entrepreneur Daniel Joncaire first harnessed the Niagara in 1757 to power a sawmill.

Emerging technologies over the years were used to tap the river above and below Niagara Falls, first to produce mechanical power and later, in 1881, to light a few streets and businesses in downtown Niagara Falls.

Large-scale production of electricity on the Niagara started in 1895 at the Edward Dean Adams Station above the Falls. From there, on Nov. 16, 1896, electricity began flowing to Buffalo, about 20 miles away, using the alternating current scheme devised by Nikola Tesla. It was the first long-distance transmission of electricity in large quantities from a central power station.

Over the years, individuals and companies proposed—and sometimes completed—a series of projects and power stations.

In his first annual message to the Legislature in 1919, Governor Smith urged public development of the Niagara, along with the St. Lawrence, which together “are capable of providing sufficient power for the present ordinary needs of the state.”

But Niagara River power stations already were producing major quantities of electricity, this in contrast to the St. Lawrence, whose power potential in the International Rapids section near Massena was largely untapped. So Gov. Franklin Roosevelt’s attention, and that of others in Albany, focused on the St. Lawrence. Yet Niagara still was etched in their memories.

When President Harry S. Truman in 1950 signed a treaty with Canada, making additional water available for power production while protecting the scenic beauty of Niagara Falls, it presented an opportunity for public development along the Western New York river. But, when it ratified the treaty, the U.S. Senate attached a clause reserving for Congress the right to decide who would harness the U.S. share of Niagara’s energy. Three competing interests—a consortium of private utilities, the federal government and New York State through its Power Authority—staked claims. While Canada moved ahead to build companion hydropower facilities, it was the ’20s revisited south of the border. Ideological rhetoric flowed. The debate over public versus private power development delayed the United States projects.

A private-development bill passed the Republican-controlled House of Representatives in 1954. But Governor Dewey, himself a Republican, maintained the commitment of New York’s chief executives, uninterrupted since Smith, to public development of the state’s waterpower resources. After Dewey’s dramatic testimony before the Public Works Committee, the U.S. Senate rejected the private power bill. While the political tides rose and fell for another three years, the battle was nearing an end.

“The basic underlying issue,” said Chairman Moses, “is the unquestionable public ownership and inalienability of the greatest natural resource of the State of New York.”

The controversy reached a thunderous climax on June 7, 1956, when a rockslide near the Falls destroyed two-thirds of Niagara Mohawk Power Corp.’s Schoellkopf hydropower plant, the area’s largest. Low-cost power now was in short



supply. Tens of thousands of industrial jobs were endangered.

In response to the emergency, Congress passed the Niagara Redevelopment Act. President Eisenhower signed it on Aug. 21, 1957. The law directed the Federal Power Commission to issue a license to the New York Power Authority to redevelop Niagara’s hydroelectric potential.

The Power Authority obtained the federal license the following January and started construction six weeks later. Moses established Feb. 10, 1961, less than three years hence, as the date by which electricity would flow from the project.

An army of workers, reaching 11,700 in number, labored around the clock. And on the designated day, with Moses at his side, Gov. Nelson A. Rockefeller flipped a switch symbolizing first power production. Actually, workers had beaten the deadline by several days.

President Dwight D. Eisenhower signs the Niagara Redevelopment Act, paving the way for construction of the Niagara Power Project, 1957.

The 2,400-megawatt Niagara project was the largest hydropower complex in the Western World when it was built. It still is New York State's largest power project and, in some years, the annual savings to consumers from its operations have exceeded the \$737 million cost of its construction.

Through the decades of waterpower controversy, there had been a thread of continuity in the positions of New York's governors—through the administrations of Hughes, Smith, Roosevelt, Lehman, Poletti, Dewey, Averell Harriman and Rockefeller.

The federal government had not always been consistent, but there had clearly been a federal role—lately for the better. On Feb. 10, 1961, recorded messages from President Kennedy and the living former presidents—Eisenhower, Truman and Hoover—boomed through the Niagara University Student Center, where nearly 4,500 guests had gathered for the first-power celebration. Kennedy cited the project as “an outstanding engineering achievement” and an “example to the world of North American efficiency and determination.”

Eisenhower shared those sentiments. “The achievement reflects enlightened international, national and state leadership and cooperation,” he said. “The mighty power of

the Niagara has been harnessed for the public good, and the beauty of historic Niagara Falls has been preserved for all time.”

THE SECOND GENERATION

Construction of the two giant hydropower projects signaled the coming of age of public power in New York State. From Northern and Western New York, electricity flowed to consumers in the upstate region where it could be economically dispatched.

Many of these consumers were located in the communities with publicly owned electric systems or where rural cooperatives operated, assisted by the federal Rural Electrification Administration. Still others lived in the areas served by private utilities that delivered the hydropower to their customers without making a profit on the product.

Near the projects, the low-cost energy also powered factories that supported thousands of jobs. And a portion of the electricity, under federal mandate, was sent to neighboring states.

Meanwhile, some were looking ahead to new energy sources to satisfy increasing needs. The most prominent of those sources was nuclear power. And looming with it was another clash of ideologies reminiscent of those that had punctuated the hydropower struggles.

James A. FitzPatrick, a Plattsburgh lawyer and former assemblyman, had succeeded Moses as Power Authority chairman at the start of 1963. Within a few years, he was receiving requests from companies looking for Power Authority electricity so that they could expand and create more jobs. Moreover, the public power systems would need additional electricity for their consumers as demand began to outstrip their hydropower supplies.

In this climate began the turmoil that would surround the Power Authority's “second generation” plants.

The energy vision of the '60s was of nuclear power, a process in which uranium atoms would split, creating heat to boil water that would be transformed into steam to rotate turbine-generators and produce cheap electricity. Except for the fuel and the controlled atomic reaction, the process was the same as that used in conventional thermal power plants that burned coal or oil.

By January 1967, legislation had been drafted to permit the Power Authority to build one nuclear plant and hydro

*Robert Moses,
Power
Authority chairman,
1954-1962.*





pumped storage projects. The latter would operate as giant “batteries,” storing water atop a mountain when electrical needs were lowest so that it could power generating equipment and produce energy at times of greatest consumer demand.

But even before the plan could be formally unveiled by Governor Rockefeller and Senate Majority Leader Earl W. Brydges, the state’s two most powerful Republicans, there was a negative reaction from some private power proponents.

Efforts to frame a compromise were unsuccessful. One bill would have permitted Power Authority construction of the pumped storage projects and would have transferred more of Niagara’s output from consumers to expanded industries. This plan omitted the Power Authority’s nuclear authorization.

Brydges saw the plan as solving the power problems of industries in his Niagara County district. The views of Rockefeller and FitzPatrick were along the same lines. But others were not as sanguine. Robert F. Kennedy, representing New York in the U.S. Senate, called the plan “a sellout” to the private utilities, which would maintain what he saw as “a monopoly” over a cheap and plentiful source of energy.

The bill passed the State Senate, but died in a committee of the Assembly.

The debate spilled over that July into the state’s constitutional convention, where the decibel levels were high but tangible results were absent.

In an effort to break the stalemate, Rockefeller appointed an 18-member blue-ribbon panel to study the state’s power

needs and the most economical way of meeting them. The committee, chaired by Dr. R.G. Folsom, president of Rensselaer Polytechnic Institute, included Power Authority Chairman FitzPatrick, along with representatives of the state’s municipal electric systems and rural cooperatives, the private utilities, business, labor and other interest groups.

The committee reported on Dec. 15, 1967, recommending, among other things, that the Power Authority be permitted to build pumped storage projects—and nuclear plants to serve industries and the public systems.

A bill along those lines was enacted with bipartisan support in the next session of the Legislature. In signing the measure into law on May 21, 1968, Rockefeller hailed it as “a unique partnership between government and private industry in meeting the future power needs of the state.”

By August 15, the Power Authority had applied for a Federal Power Commission license to build a pumped storage project in Schoharie County, about 40 miles southwest of Albany.

And, on December 31, the Authority applied to the federal Atomic Energy Commission for permission to build a nuclear power plant near Oswego on the south shore of Lake Ontario.

In less than a year, construction of both projects began.

The Blenheim-Gilboa Pumped Storage Power Project, named for the two towns in which it is located, produced electricity for the first time on July 5, 1973.

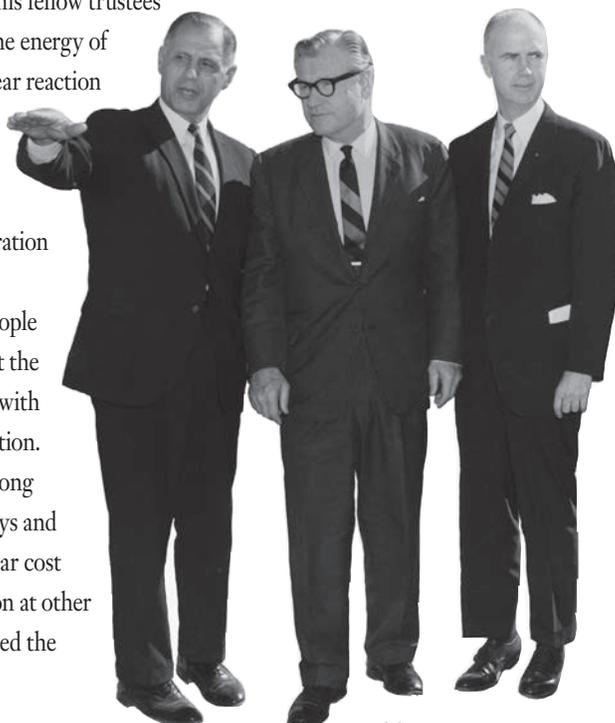
The James A. FitzPatrick Nuclear Power Plant, named for the chairman by his fellow trustees in 1968, tapped the energy of a controlled nuclear reaction to produce its first electricity on Feb. 1, 1975.

Commercial operation began in July.

Years later, people could look back at the FitzPatrick plant with renewed appreciation. By then, decade-long construction delays and multi-billion-dollar cost overruns, common at other plants, had dimmed the

Left: Gov. Nelson A. Rockefeller, after signing 1968 bill authorizing the Power Authority to build nuclear and pumped storage facilities, with (from left) Senate Majority Leader Earl W. Brydges, Power Authority Chairman James A. FitzPatrick and Assembly Minority Leader Perry B. Duryea Jr.

Below: Governor Rockefeller visits the FitzPatrick plant construction site in 1970 with Power Authority Chief Engineer Asa George (left) and Chairman FitzPatrick.





The FitzPatrick nuclear power plant under construction.

attractiveness of nuclear power. In contrast, the five-year construction period and the half-billion-dollar cost of the FitzPatrick plant were a reminder of the time when the atom had promised a cheap and plentiful energy future.

A STATEWIDE UTILITY

While the “hardhats” of the construction trades swarmed over the power sites, building the Power Authority’s “second generation” plants in the Catskills and on the shore of Lake Ontario, new assignments were in the offing. These would transform the Power Authority into a truly statewide operating utility.

Until now, geography, economics and politics had limited the Power Authority’s operations largely to the upstate region where its power plants were situated. The cost of competing fossil fuels—oil and coal—was low, and the ability to economically transmit electricity over long distances was restricted by energy losses along the way. So the power needs of New York City and the rest of the downstate metropolitan region were satisfied by nearby thermal plants burning the fossil fuels.

But that all changed starting in the 1960s.

First, in 1965, a faulty switch in Canada, across the river from the Power Authority’s Niagara project, started a cascading power failure that blacked out most of the Northeast United States. Also at about this time, a shortage of electricity began to develop in the New York City area because of difficulties in siting new power plants.

The blackout spurred greater efforts by utilities, both public and private, to coordinate operations through regional organizations like the New York Power Pool. In 1972, Governor Rockefeller and the Legislature responded to the emerging energy shortfall by giving the Power Authority a

go-ahead to build plants to power the downstate subways and commuter rail lines.

Then came the 1973 Middle East oil embargo. The price of oil increased from \$3 to \$12 a barrel. Con Edison, New York City’s electricity supplier, was heavily dependent on oil. Its customers’ bills soared, payments slowed and the company faced a financial crisis in 1974.

Charles F. Luce, the Con Edison chairman, had come to the company after serving as administrator of the Bonneville Power Administration. He had seen firsthand the benefits of public power. And so he was prepared to look for help from the Power Authority.

Meanwhile, Malcolm Wilson, a long-time Republican state official, had succeeded Rockefeller as governor when Rockefeller became vice president of the United States.

With chaos threatening the state’s largest city, Wilson, Luce and Power Authority Chairman FitzPatrick entered into discussions that produced a solution to Con Edison’s problems.

The Power Authority would purchase two power plants that Con Edison was building; the cash payments would help end the company’s financial difficulties. The Authority then would complete construction and, under the agreement with Con Edison, sell most of the plants’ electricity to government agencies in the city and Westchester County, lowering their energy costs while satisfying federal requirements for public use of the output of facilities financed with tax-exempt bonds.

One of the plants, located in the city, was named Astoria 6 and burned oil. It would be renamed in 1982 for Charles Poletti, the former governor and Power Authority trustee who had been active in the St. Lawrence debate so long ago. In another change, the plant would be converted to dual-fuel capacity so that, beginning in 1980, it could burn natural gas when available, lessening the region’s oil dependence.

The other plant, Indian Point 3, situated at Buchanan in northern Westchester, was similar to an existing Con Edison plant next door; it became the Power Authority's second nuclear plant. But before it changed hands, it stirred a disagreement between seller and buyer.

By the fall of 1975, the infusion of Power Authority cash, relief from construction requirements for the two plants and a brighter economy had restored Con Edison to financial health. With what was effectively a December 31 deadline for Power Authority acquisition of Indian Point 3 approaching, some thought company officials were playing a delaying game, hoping the year would end without a sale and that the plant, along with its relatively inexpensive power, would remain in Con Edison hands.

This raised the prospect of government agencies—responsible for the subway trains, street lights, schools, public hospitals and the like—being served only with expensive energy from oil-fueled Astoria 6. As an alternative, they might choose to remain Con Edison customers, ending the intrusion into the company's service area. Democratic Gov. Hugh L. Carey, who had taken office at the beginning of 1975, sent word to the negotiators that this was not what his predecessor had intended; the transfer was finally completed on the eve of the new year.

Less than four months later, in April 1976, Indian Point 3 produced its first electricity. It began partial commercial operation in August. And in September, Carey approved the first 17 contracts for service to governmental customers in New York City and Westchester. Electricity from Indian Point 3, and the resulting savings, began flowing to some of the customers within hours.

First power at Astoria 6 was produced in February 1977, and commercial operation began in March. Power from the two plants was then sold on a combined basis to the governmental customers, with a portion also going to Con Edison for use by its customers.

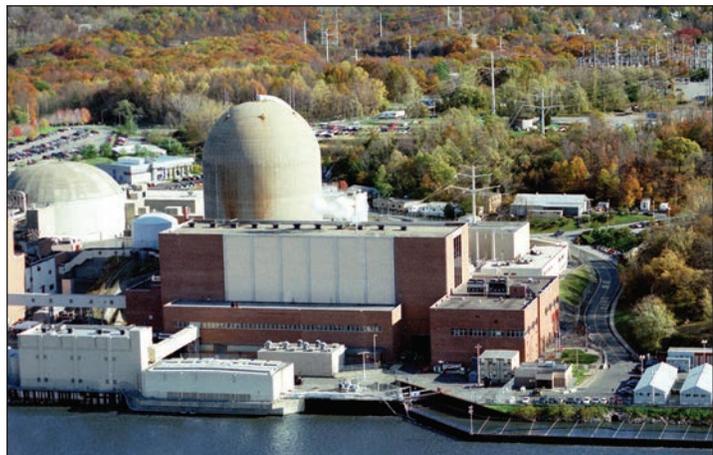
By the end of 1977, thanks to a string of further contract approvals, the list of public customers served from the two plants stood at 76 and ranged from New York City, its Housing Authority, the Metropolitan Transportation Authority and the Port Authority of New York and New Jersey to Westchester County and most of its municipalities, school districts and other government entities. Periodic additions would bring the roster to 115 by early 2006, though by that point the Power Authority no longer owned Indian

Point 3 and was meeting the customers' needs from the Astoria plant and with power purchased from other suppliers.

As Indian Point 3 and Astoria 6 came on line, the Power Authority was preparing to capitalize on improvements in transmission technology that now made it more feasible to dispatch electricity over greater distances.

In 1973, the Authority had applied to build a 765-kilovolt transmission line to tap waterpower sources in Quebec, a thousand miles north of New York City. The 155-mile line would extend from the Quebec border to Massena, near the St. Lawrence Project, and on to Marcy, near Utica. Existing lines would carry the power to other parts of the state, where it would bolster the reliability of the electricity supply and help to reduce dependence on oil.

Although some 1,400 miles of 765-kilovolt lines were already operating safely in the United States, the Authority's line would be the first of that voltage in New York State. Vocal opposition and lengthy regulatory delays were all but inevitable. The state Public Service Commission approved construction after conducting two sets of public hearings, the first dealing with conventional routing, design and environmental issues and the second an unprecedented proceeding that focused entirely on health and safety matters.



The Indian Point 3 Nuclear Power Plant.

The 765-kilovolt line was the first leg in what was to become a Power Authority transmission system extending almost without interruption from the Quebec border to Long Island. And, though the Authority's role as a direct purchaser of Quebec power would diminish in future years, the line would remain a bulwark of the New York transmission system.

The line from Quebec was one element of a \$3.5 billion construction program begun in the 1970s under the leadership of FitzPatrick and General Manager George T.



A section of the Power Authority's 765-kilovolt transmission line.

Berry, who later became the first head of the Authority's staff to hold the title of president. The goal was to meet growing electricity needs, principally in the New York City metropolitan area. However, the three large power plants that were also planned as part of the program—a pumped storage project at Prattsville, five miles south of the Blenheim-Gilboa facility; a coal- and refuse-fueled plant on Staten Island; and a nuclear power plant at Cementon in Greene County—were ultimately canceled.

Like other projects of that era, the plants fell victim to regulatory delays and resulting cost increases. Moreover, the availability of electricity from other sources, including Quebec, led some state energy planners to conclude that the immediate need for the Authority's projects had lessened.

Although not all of its ambitious plans were to come to fruition, the Power Authority of the late 1970s had moved well beyond the regional organization that had begun the decade. Indeed, by 1977, the Authority was producing about 28 percent of all the electricity generated in New York State and its power was benefiting virtually all of the state's residences and businesses.

PASSING THE TORCH

The Power Authority's evolution into a major utility serving all of New York State was accomplished under the leadership

of a single chairman and chief executive officer—James A. FitzPatrick.

During his latter years as chairman, FitzPatrick also emerged as a forceful voice in warning that protracted regulatory proceedings and opposition to new generation and transmission projects posed major threats to the nation's future power supply and its economic health. In speeches and legislative testimony, FitzPatrick cited a potentially dangerous public indifference to energy matters, including the growing reliance on oil.

“There is no surer way to widen the schism between the haves and the have-nots in this country than to permit a situation in which electricity is either too expensive or not available in sufficient quantities,” he said at the University of Vermont on May 3, 1977.

The words were vintage FitzPatrick, but the occasion had a particular poignancy. The Vermont speech was to mark FitzPatrick's last major public appearance as the Power Authority's chairman. Less than a month before, he had announced his intention to retire.

At 60, FitzPatrick had served as chairman for more than 14 years, a span unapproached, before or since, by any other leader in the Power Authority's history. (Robert Moses, FitzPatrick's predecessor, served close to eight years and 10 months, the second longest tenure.)

FitzPatrick took office barely two months after the final generating unit at the Niagara project went into service. During his time as chairman, the Authority more than doubled its generating capacity and financed approximately \$2 billion worth of new generation and transmission facilities. More than any other individual, he embodied the Authority's transformation from regional hydro operator to statewide utility.

Frederick R. Clark, an Albany banking executive, attorney and former state tax commissioner, succeeded FitzPatrick on June 1, 1977. Weeks later, the New York City area was hit by a major blackout, triggered when lightning struck Con Edison transmission lines near Indian Point. Followed by rampant rioting and looting and huge economic losses, the blackout dramatically underscored the importance of a reliable power supply.

A major immediate task facing Clark as he assumed the chairmanship was to continue shepherding the 765-kilovolt transmission line through the regulatory process. Although

construction had begun in the FitzPatrick era, numerous issues remained to be resolved. The path wasn't smooth, but the line's Quebec-Massena segment was energized in August 1978 and operation of the remaining 134-mile sector began in December.

Under a 20-year contract with Hydro-Quebec, the Power Authority received 800 megawatts of power on a firm, or assured, basis during the months from April through October, when electricity use was greatest in New York and lowest in Quebec. The Authority resold most of the power to Con Edison, with the remainder going to Rochester Gas and Electric Corp., another "summer-peaking" utility.

A separate agreement called for the Power Authority to obtain large amounts of "non-firm" energy from Hydro-Quebec throughout the year for use in various parts of the state. By December 1979, the first anniversary of energization of the entire line, the Quebec power had saved more than eight million barrels of oil that otherwise would have been needed for power production in New York State—a matter of increasing concern in the wake of a second Middle East embargo that year.

In another, more modest effort to reduce dependence on oil, Clark joined New York City Mayor Edward I. Koch in March 1978 to announce that the Power Authority would study the feasibility of installing small hydroelectric generating facilities at the city's Ashokan Reservoir in Ulster County and Kensico Reservoir in Westchester County. In June 1979, he announced a similar effort at Hinckley Reservoir, a New York State Department of Transportation facility in Oneida County. Beginning with the Ashokan project in 1982, the Authority would go on to complete small-hydro plants at these locations and at the Crescent and Vischer Ferry dams on the Mohawk River north of Albany.

One of Clark's most important, and prescient, decisions with respect to future power supplies involved the proposed Greene County nuclear plant. On March 16, 1979, Clark said that he would recommend to the trustees that the Power Authority "sell the assets" of the project and thus effectively cancel it. He cited "an enormous increase" in estimated costs, as well as uncertainties as to whether the Authority would obtain federal and state regulatory approvals.

The trustees met one week later and postponed a decision pending further study. Then, on March 28, the most serious accident in the history of the United States' nuclear power industry occurred, at the Three Mile Island plant in

Pennsylvania. It was clear that licensing and construction of nuclear plants, already difficult, would become a still more formidable challenge. On April 5, the trustees adopted Clark's recommendation.

For much of Clark's term, his attention was focused on the state's municipal electric systems and rural cooperatives, whose ranks included some of the Power Authority's oldest customers. In line with federal law, the Authority had over the years increased its hydroelectric allocations to these entities, both to meet their growing needs and to accommodate newly established systems or those switching to the Authority from other suppliers.

A milestone was reached on Dec. 1, 1978, when Power Authority electricity began flowing to the Village of Green Island municipal system in Albany County. This meant that the Authority was, for the first time, providing at least partial service to each of the state's municipal electric systems and rural cooperatives—50 in all. It had also reserved an allocation for a proposed municipal system in the Town of Massena, to take effect when that system was established.

Reflecting improvements in transmission technology, the Power Authority in March 1979 began firm service from Niagara to the three Long Island municipal systems, in the Villages of Freeport, Greenport and Rockville Centre. These



Power Authority Chairman Frederick R. Clark (left) and Green Island Mayor Michael McNulty mark the start of Power Authority service to the village in 1978.

systems previously had received non-firm energy, pending completion of transmission arrangements.

By the end of 1978, after accounting for the pending allocations to the Long Island systems and Massena, the supply of Niagara power reserved for the future needs of the municipal systems and cooperatives was exhausted. As envisioned in the 1968 legislation that authorized the Power Authority to build nuclear plants, requirements beyond the systems' hydro allocations would be met from the FitzPatrick plant—the Authority's next cheapest source.

Although the FitzPatrick allocations had long been anticipated, the municipal systems and cooperatives strongly objected to them, contending that hydropower should be diverted from other customers to meet their full needs. Years



Above: Training yard for transmission linemen at the Clark Energy Center.

Right: John S. Dyson, Power Authority chairman, 1979-1985.

of controversy lay ahead.

A less-noticed development, but one with important long-range implications, was steady progress on construction of a Power Authority systemwide energy control center and transmission line maintenance and training facility at Marcy. The new complex, which replaced the Authority's production control center at the Niagara project, was completed in 1980, after Clark had left office. It was named the Frederick R. Clark Energy Center in 1984.

"TO BREAK OPEC'S STRANGLEHOLD"

On the morning of Aug. 1, 1979, John S. Dyson swept into the Power Authority's offices on the 18th floor at 10 Columbus Circle in New York City.

The 36-year-old Dyson was fresh from 3 1/2 years as state commerce commissioner, a position in which he developed the acclaimed "I Love New York" tourism program. He previously had served as state commissioner of agriculture and markets. And on this day, he was to be elected chairman and chief executive officer of the Power Authority to succeed Clark, who had stepped down from that post but would remain as a trustee.

Dyson wasted no time in proclaiming his overriding goal: to reduce New York State's dependence on oil from members of the Organization of Petroleum Exporting Countries.

At a news conference immediately following his election by his fellow trustees, he announced that the Power Authority would launch a multi-faceted effort "to break OPEC's stranglehold on this country."

Conversion of the Authority's Astoria 6 plant to permit use of natural gas, as well as oil, increased purchases of Canadian hydropower, aggressive energy conservation initiatives and development of small hydroelectric projects were among the initial elements he proposed. By the end of October, with Governor Carey's approval, the plan had evolved into a 10-Point Program, to be carried out by the Authority and others, to cut New York State's use of oil in half by 1990. Various factors, including legislative inaction and regulatory problems, sidetracked some of the proposals, but others were to have a significant impact.

The dimensions of the oil problem were clear. In 1978, the year before Dyson took office, about 45 percent of New York State's electricity was produced by burning oil (compared with 13 percent a quarter-century later). The problem was particularly acute in the New York metropolitan area, where about 60 percent of the electricity was generated from oil. Statewide, nearly two-thirds of the oil used for power production and other purposes was imported; New York was more dependent on foreign oil than any other state.

The year 1979 was marked not only by the second Middle East oil embargo, but also by the seizure of the American embassy in Tehran. There was an urgency to the message



when Dyson told cadets at West Point in November that "the United States must regain control of its destiny by re-establishing its energy independence."

As oil prices continued to soar, the Power Authority acted quickly to implement the new program.

An early target was the oil-burning Astoria 6 plant that had been acquired from Con Edison. Modification of the plant's burners to enable use of natural gas began to yield savings in both oil and money during the "warm-weather"

months of 1980—when gas, not needed for home heating, became available.

Seeking still greater savings, the Power Authority looked north to Canada and potential new sources of hydroelectric power.

At ceremonies in New York City on March 19, 1982, Governor Carey and Quebec Premier Rene Levesque presided at the signing of a contract for the sale of up to 111 billion kilowatt hours of hydroelectric energy to the Power Authority in the period from 1984 through 1997. Dyson and Hydro-Quebec Chairman Joseph Bourbeau signed the agreement, intended to largely supersede the existing arrangements for non-firm purchases and to permit imports in far greater amounts and on a more predictable basis.

It was evident that a major new transmission line would be needed to reap the full economic benefits of the Quebec hydropower and of energy from Ontario and upstate sources.

In November 1982, the Authority applied for a state permit to build a predominantly double-circuit 345-kilovolt line from Marcy, the southern point of the 765-kilovolt line, to East Fishkill in Dutchess County. Issues related to the new line were thoroughly explored in state Public Service Commission hearings that began early in 1983, continued into 1984 and resulted in about 12,500 pages of testimony and a number of changes to the proposed route. Yet disputes, largely over routing, persisted even after the PSC approved the line's construction in January 1985. Construction would not begin until the following July—two days after Dyson had left office.

The Power Authority did, however, begin and complete construction during the Dyson years of the Ashokan and Kensico small hydroelectric projects initially proposed under Clark. It also received a federal license for its small hydro project at Hinckley Reservoir and applied for a license to increase the generating capacity at the Crescent and Vischer Ferry sites.

Meanwhile, the Authority had taken its first significant steps in an area that was to become an integral part of its future—energy efficiency.

In March 1980, Dyson unveiled the “Button Up” program of free home energy audits for customers served by the state's municipal electric systems and rural cooperatives. The program achieved a response rate far greater than those for comparable programs offered by the state's investor-owned electric and gas utilities.



Dyson also broke new ground with respect to economic development, launching a “Juice for Jobs” program intended to ensure that low-cost Power Authority electricity was used to maximum benefit in creating and protecting jobs at industries and businesses. The program eventually would be linked to creation or retention of some 15,000 jobs.

In a key economic development initiative, the chairman joined executives of the Aluminum Company of America (Alcoa) and the Reynolds Metals Co. on Aug. 24, 1981, at the St. Lawrence project to sign new contracts for the continued supply of St. Lawrence hydropower to the companies' Massena plants through 2013.

Alcoa and Reynolds, mainstays of the Northern New York economy, had been two of the first St. Lawrence customers. Alcoa's original contract was scheduled to expire in 1996 and Reynolds' four years sooner. With the new long-term agreements, providing guaranteed power supplies at predictable rates, the Authority sought to ensure the ongoing operation of the plants and retention of vital jobs. (Alcoa would acquire Reynolds in 2000 and continue operation of both companies' Massena facilities.)

One day after signing the new Alcoa and Reynolds contracts, Dyson presided at another significant event at the St. Lawrence project—its renaming as the St. Lawrence-Franklin D. Roosevelt Power Project. The ceremonies took place in the year in which the Authority marked the 50th anniversary of Roosevelt's signing of the Power Authority Act.

The early 1980s also saw intensification of the hydro allocation disputes that had arisen when the municipal systems and rural cooperatives began receiving FitzPatrick power to supplement their hydro supplies.

Gov. Hugh L. Carey (right) with Chairman Dyson (left) and Quebec Premier Rene Levesque at signing of 1982 contract for Power Authority purchases from Hydro-Quebec.



An emotional moment at the 1981 renaming of the St. Lawrence project to honor Franklin D. Roosevelt. From left, Chairman Dyson; Franklin D. Roosevelt Jr.; the Rev. Alfred E. Smith, grandson of Governor Smith.

Dyson in July 1981 proposed creation of a statewide agency, to be known as the Residential and Rural Energy Authority. As a public body, it presumably would qualify to buy Power Authority hydropower for use by individual consumers not already served by municipal systems and cooperatives. The effect would be that by 1990 all state residents would receive equal shares of hydropower under a “one man, one volt” concept.

The plan, vehemently opposed by the public systems, was never acted on by the Legislature. A similar proposal by a commission appointed by Gov. Mario M. Cuomo and headed by former Power Authority Trustee Robert I. Millonzi of Buffalo met the same fate.

Meanwhile, by 1985, 52 municipal distribution agencies had been established by counties and cities throughout the state in an effort to qualify as hydropower customers on behalf of residents and businesses in their areas. Federal courts eventually ruled that the MDAs were not eligible for the hydropower since under their plan to lease distribution lines from investor-owned utilities, rather than own the lines, they would not control the means of distribution.

Amid the controversy, the Authority continued to expand its role as a major power supplier. In 1984, Dyson’s last full year as chairman, it provided about 36 percent of the state’s electricity from its own generating plants and purchases from Hydro-Quebec—a total of more than 45 billion kilowatt-hours. Equally important, only a little more than one percent of that total came from burning oil.

FROM MARCY TO HOLTSVILLE

When the Power Authority’s trustees met on June 28, 1985, the major order of business was to elect a successor to Dyson, who had resigned as chairman and chief executive officer, but would continue on the board.

The trustees normally convened in the Authority’s Columbus Circle offices or, less frequently, at one of the power projects. Now, however, they were gathered at Franklin D. Roosevelt’s home in Hyde Park, a location particularly suited to the occasion.

The new chairman was Richard M. Flynn, whose personal ties to Roosevelt had been forged as a young boy through his father, Edward. Richard Flynn had gone on to become a New York City attorney and, for 10 years, an Authority trustee, serving under FitzPatrick, Clark and Dyson and participating in the major decisions of that period.

Construction of the Marcy-South transmission line posed a critical early challenge for the new chairman. The Power Authority’s 1982 contract with Hydro-Quebec stated that either side could cancel the agreement if the new line wasn’t built by Sept. 1, 1988. This allowed little more than three years from the start of right-of-way clearing to complete a complex 207-mile project traversing eight counties, requiring an underwater crossing of the Hudson River and entailing connections with substations owned by four private utilities.

The line’s southernmost portion, linking substations in Orange and Dutchess counties and including the river crossing, began operating on a test basis in April 1987. Electricity flowed through the entire line for the first time on May 21, 1988, and the project was formally dedicated on June 30 in ceremonies at the Jacob K. Javits Convention Center in New York City.

“This is a major accomplishment,” Flynn told the audience of about 500. “Less than six years after we applied for permits, and less than three years after we started building, we have added a key new link to New York’s electric transmission network.”

The Authority’s next transmission project was already well into the licensing phase as Marcy-South neared completion. This 345-kilovolt, underground and underwater connection between Westchester County and Long Island would be known as the Sound Cable Project. Though not connected directly to Marcy-South and the 765-kilovolt line, it would effectively be the third and final element in an

Authority transmission pathway from Canadian and upstate energy sources to Long Island. It would nearly double the capacity of the Island's transmission ties to neighboring systems, helping to ease electricity supply problems and to lower costs for hard-pressed consumers.

The Public Service Commission approved construction in April 1988 along a 26.3-mile route from Yonkers in Westchester County to Hempstead in Nassau County, including an eight-mile submarine crossing of Long Island Sound.

With the cable to be buried beneath local streets and at the bottom of the Sound, the project posed new challenges for the Power Authority. The installation of 6,000 tons of cable on the Sound bottom in four separate links (one serving as a spare) was one of the largest such undertakings in the United States. Nevertheless, construction, begun in May 1989, moved quickly and was completed two years later—18 months ahead of the original schedule and, at a cost of \$330 million, \$46 million under budget.



On May 30, 1991, Governor Cuomo joined Flynn and other officials at the Long Island Lighting Co.'s East Garden City Substation, the project's Long Island terminus, to formally put the cable in service.

In assessing potential future power sources for Long Island and other parts of the oil-dependent downstate region, the Power Authority throughout the 1980s continued to look to Quebec. On April 26, 1989, Flynn signed a contract with Hydro-Quebec calling for the Authority's purchase of up to 1,000 megawatts of hydropower from the provincial utility from 1995 through 2016. Most of the power would be sold to downstate utilities for use by their customers, with

the remainder earmarked for the Authority's governmental customers in New York City and Westchester County.

By 1990, however, concerns were being raised on both sides of the border about Hydro-Quebec's plans to build a massive hydroelectric project in northern reaches of the province populated by Cree and Inuit native peoples. As the controversy continued, Flynn repeatedly emphasized that the Power Authority would insist on thorough environmental review, under Canadian procedures, of any project even indirectly related to its contract.

While Hydro-Quebec acted to ease the Authority's environmental concerns, a separate set of issues arose in light of a changed power-supply picture in New York State. The price of oil and natural gas had fallen and threats of capacity shortages had eased, in part because of conservation efforts. A provision in the Hydro-Quebec contract permitted cancellation by either party, without penalty, through the end of 1991. Faced with the new conditions in New York, Flynn negotiated an extension of that deadline through November 1992 to permit further review. On March 27, 1992, he announced termination of the contract, stating that the originally anticipated economic benefits were no longer attainable.

Meanwhile, the Power Authority had been playing a key role in the new emphasis on conservation. A series of initiatives was highlighted by a "Watt Busters" program for municipal electric systems and rural cooperatives that featured free home energy audits and weatherization. Then, in July 1990, came the start of an energy efficiency program that was to have a continuing impact throughout the decade and into the new century.

Known as the High Efficiency Lighting Program, or HELP, the new effort was initially aimed at the Power Authority's governmental customers in New York City and Westchester County. The Authority handled all aspects of a project, beginning with audits of customer facilities and continuing through installation of energy-efficient lighting by contractors and quality assurance. In addition, the Authority financed the work, recovering its costs by sharing in savings on energy bills, after which the customer retained all the savings.

The program, an immediate success, was quickly expanded to cover state government facilities throughout New York in 1991; Long Island public schools in 1992; public

Gov. Mario M. Cuomo, at 1991 ceremonies with Power Authority Chairman Richard M. Flynn, officially orders the energization of the Authority's Sound Cable Project in a call to the Long Island Lighting Co.'s Energy Control Center.

schools and community colleges statewide in 1993; and municipal and county governments in 1994, after Flynn had left office.

Efforts also intensified in the area of economic development, with Flynn directing establishment of a “Power for Jobs” program under which businesses receiving new allocations were required to protect or create specified numbers of jobs or risk losing some or all of the power.

The Authority’s economic development efforts received a major boost in 1987 with enactment of comprehensive legislation concerning allocations to businesses of hydroelectric power from Niagara and nuclear power from the FitzPatrick plant.

From the start of operations at Niagara, Western New York industries had received allocations from blocks of “replacement power” and “expansion power,” consisting of 445 megawatts and 250 megawatts, respectively. Replacement power, intended to replace electricity from the Schoellkopf plant and another Niagara Mohawk hydroelectric facility, was provided for in the federal Niagara Redevelopment Act. However, expansion power had no legislative protection, federal or state.

The 1987 legislation reserved expansion power for businesses within 30 miles of the Niagara project and in Chautauqua County. By removing uncertainties as to future availability, it enabled the Power Authority to conclude new contracts extending through at least 2007 with expansion power customers that pledged to protect thousands of vital Western New York jobs.

The law also recognized new economic realities in New York State by eliminating restrictions that had effectively limited FitzPatrick allocations to a small group of heavy industries and making companies in such growing fields as computers and communications equipment eligible for the power. It created a new category of “economic development power,” drawn from FitzPatrick allocations relinquished by industries. And it established an Economic Development Power Allocation Board to recommend allocations of this power for Authority approval. Cuomo named Flynn the first chairman of EDPAB, which held its inaugural meeting in September 1987.

FitzPatrick power was soon flowing to a raft of new customers and by the end of Flynn’s tenure as chairman in early 1994, the statewide total of jobs linked to Power Authority electricity had risen to about 170,000.

Other initiatives included the establishment of Power Authority loan funds for businesses locating or expanding in St. Lawrence and Niagara counties and of an economic development power allocation program for the Authority’s municipal system and rural cooperative customers. The latter, which provided for the use of a mix of Niagara project hydropower and other Power Authority resources, was part of a far broader resolution of the public-system allocation issues following regulatory and court decisions.

The Power Authority’s relationship with another important group of customers—the governmental entities in New York City and Westchester County—underwent a major change in this period. On March 10, 1989, Flynn and Con Edison Chairman Arthur Hauspurg signed an agreement under which the Authority assumed full responsibility for meeting these customers’ power needs. The Authority previously had been responsible for serving the public agencies only from Indian Point 3 and Poletti, with

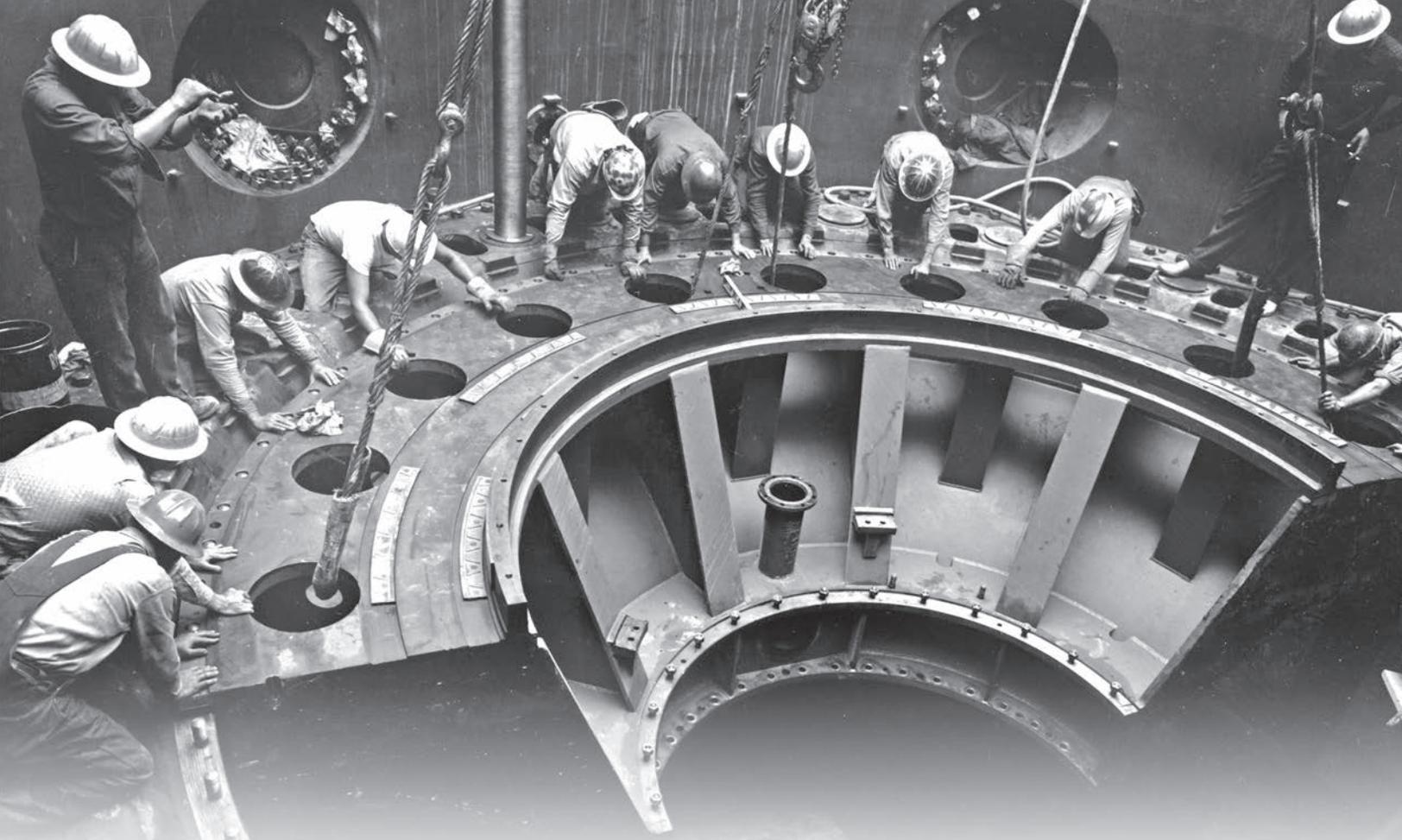
New York City Mayor Edward I. Koch (standing right) watches as Chairman Flynn (left) and Con Edison Chairman Arthur Hauspurg sign 1989 agreement for Power Authority to take full responsibility for meeting power needs of governmental customers in New York City and Westchester County. Next to the mayor is Stanley E. Grayson, deputy mayor for finance and economic development.



additional requirements to be met by Con Edison.

The agreement effectively gave the Authority a franchise area with peak power requirements larger than those of three of the state’s private utilities—Central Hudson, Orange and Rockland and Rochester Gas and Electric.

With early signs of competition in the utility industry, Flynn became a leading national figure in calling for competitive bidding among public power agencies, private utilities and independent power producers for the right to build new power plants and in urging open access to transmission lines. The goal, as he told a June 1991 conference sponsored by the Federal Energy Regulatory

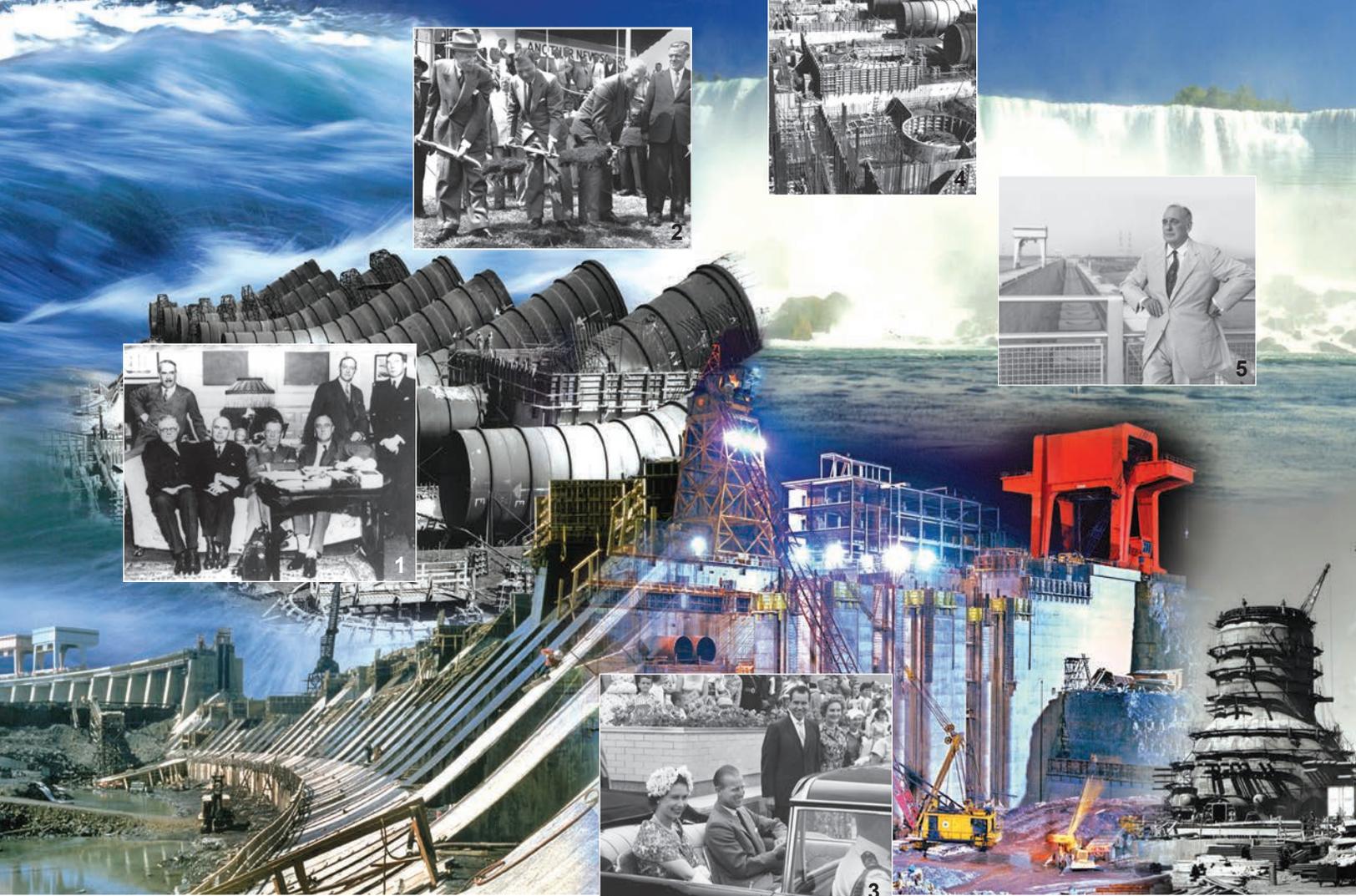


Powering the Empire State



The New York Power Authority has a rich and distinguished history of helping to meet the state's expanding energy needs. This often has required innovative solutions to complex problems, under trying circumstances and constraints. The story of the Authority's growth into the largest state electric utility in the United States is in many ways a remarkable one, without parallel in the annals of the nation's electric power industry. This review of the Power Authority's first 75 years is a tribute to what can be accomplished in the face of formidable obstacles and in the name of progress.

TIMELINE



1. Gov. Roosevelt (seated right), Lt. Gov. Lehman (seated second from left), Authority's first Board of Trustees

2. Gov. Dewey (center), Canadian Prime Minister Louis St. Laurent (left) Ontario Premier Leslie Frost at St. Lawrence project groundbreaking

3. Queen Elizabeth II, Prince Philip, Vice President and Mrs. Nixon at St. Lawrence dedication
4. Niagara project under construction

5. Chairman Moses at St. Lawrence

6. Gov. Rockefeller (center), Authority Chief Engineer Asa George (left), Chairman Fitzpatrick at Fitzpatrick plant construction site

7. G
F

1931

1954

1959

1961

1970

HIGHLIGHTS



Gov. Carey (right), Chairman Fitzpatrick at St. Lawrence

1975

8. Gvs. Wilson, Poletti, Carey, Chariman Flynn at Poletti Project

1987

9. Gov. Pataki, Chairman Rappleyea at Buffalo school participating in coal-furnace replacement program

1998

10. Authority President Zeltmnn (left), Chairman Rappleyea, Entergy executives at nuclear plant sale

2000

11. Groundbreaking for 500-megawatt plant in New York City

2002



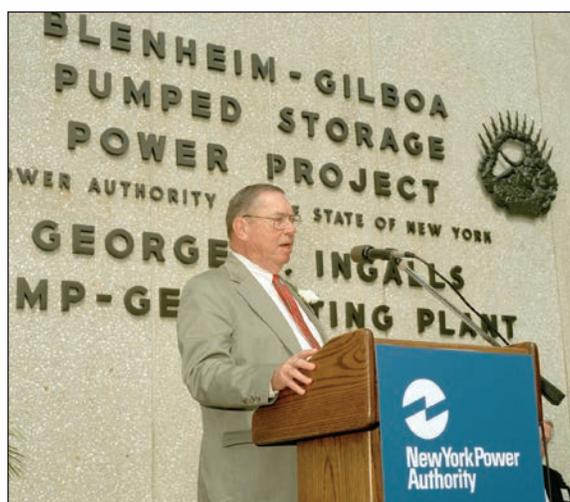
Commission—successor to the Federal Power Commission—was “to provide maximum benefits to the consumer.”

In speeches to industry groups, Flynn also cited the Power Authority as “the model for wholesale competition”—a claim reinforced in December 1990 when the Long Island Lighting Co. selected the Authority in a competitive bidding process to build a natural gas-fueled power plant in Holtsville. LILCO had received more than 20 proposals to build the plant, intended exclusively to serve the utility’s customers.

Complementing the Sound Cable Project as a vital new energy source for Long Island, the 135.6-megawatt Holtsville plant would become the Authority’s first combined-cycle facility. Hot gases normally lost in generating electricity would be used to produce steam to drive a second turbine-generator, significantly boosting the plant’s efficiency.

The new plant began operation on schedule in May 1994—as the Richard M. Flynn Power Plant. Flynn’s fellow trustees had voted to name the plant in his honor shortly before his resignation as chairman took effect the previous February 1, and the plant was formally dedicated in August.

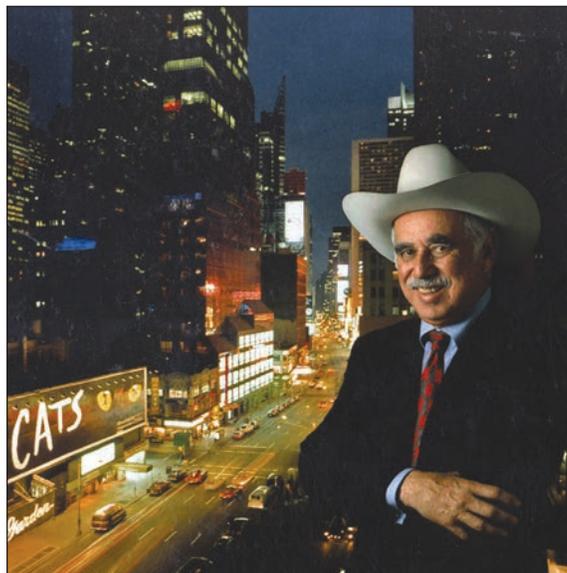
A similar ceremony had taken place in September 1991 when, following trustee approval the previous year, the powerhouse at Blenheim-Gilboa was dedicated as the George L. Ingalls Pump-Generating Plant to honor the longest-serving trustee in Power Authority history. Ingalls, who retired in 1990, was a board member for 23 years, 17 as vice chairman.



NEW DIRECTIONS

Flynn’s years as chairman and chief executive officer were in many ways a time of transition for the Power Authority.

There were construction projects reminiscent of earlier days. But there was also an increasing emphasis on energy efficiency; on new technologies, with the Authority’s first electric transportation and solar energy initiatives occurring in this period; on job creation and protection by the



Authority’s business customers; and on the power industry’s rising competitive imperatives. Each of these areas would help to define the Authority through the turn of the century and beyond as the energy landscape changed significantly nationwide and in New York State.

The Power Authority’s leadership took a new turn in March 1994 with the arrival of S. David Freeman, recruited by Governor Cuomo to serve as president and chief executive officer. Long a public power icon, Freeman had headed the Tennessee Valley Authority and the Lower Colorado River Authority and had most recently been general manager of the Sacramento Municipal Utility District. He brought a studied sense of color, with a Southern drawl and homespun expressions to match, often appearing on Manhattan streets in his trademark cowboy hat.

In a departure from past practice, the titles of chairman and chief executive officer were split during Freeman’s 16 months in office. Vice Chairman Thomas R. Frey, a former Power Authority general counsel, had become acting chairman when Flynn’s resignation took effect and served in that role until July 1994. The trustees then elected as

Above: Power Authority President and Chief Executive Officer S. David Freeman shortly after taking office in 1994.

Left: Former Power Authority Trustee George L. Ingalls in 1991 at the naming of the Blenheim-Gilboa powerhouse in his honor.

chairman Thomas G. Young, who had recently concluded two terms as mayor of Syracuse and had been nominated to the board by Cuomo.

As the new chief executive officer, the 68-year-old Freeman swiftly put his stamp on Authority policies and operations.

On March 2, 1994, his second day in office, he told two state Assembly committees that he would recommend trustee cancellation of a pending contract, signed in 1990, for the purchase of 800 megawatts from Hydro-Quebec in the warm-weather months from 1999 through 2018.

The contract was intended as a successor to the original 800-megawatt agreement with Hydro-Quebec that dated to the 1970s and that was to expire after the 1998 purchases. But Freeman noted that, unlike the previous pact, it would require the Authority to buy specified amounts of energy, whether needed or not. He also cited the same economic and



New York City Mayor Rudolph W. Giuliani (left), Power Authority Chairman Thomas G. Young and President S. David Freeman sign long-term agreement in 1995 for the Authority to continue as the city government's power supplier.

environmental concerns that had arisen with respect to the 1,000-megawatt contract with Hydro-Quebec, canceled in 1992. The trustees voted to terminate the pending contract at their next meeting, 27 days later.

Freeman also moved quickly to resolve a festering dispute over replacement power rates. A settlement, approved by the trustees in May 1994, called for a phase-in of new rates to be extended through 2006—rather than 1997, as initially proposed. It also ensured that the rates would remain among the lowest in the country for industry and that, for the first time, all replacement power would be linked to formal job commitments.

A strong advocate of energy efficiency and electric transportation, Freeman directed continuation and expansion of the Power Authority's efforts in these areas. His presidency

saw the start of what grew into ambitious efforts to take polluting coal-burning furnaces out of New York City public schools and put efficient refrigerators into City Housing Authority apartments. In addition, the Power Authority launched an electrotechnologies program in which the governmental customers in the city and Westchester County were encouraged to substitute electricity for other forms of energy.

Other priorities, in anticipation of the coming competitive era, were cost reduction and increased efficiency. Among the new approaches was creation of business units in the areas of generation, transmission, marketing, energy efficiency and corporate services; this organizational structure was to survive largely intact through the next decade and beyond.

The Power Authority recorded two major competitive successes early in 1995 when it concluded new power-supply contracts, extending through 2004, with Westchester County and New York City. The agreements, including rate freezes into the next century and prominent Authority roles in promoting energy efficiency and electric transportation for the customers, were praised at the respective signing ceremonies by County Executive Andrew P. O'Rourke and Mayor Rudolph W. Giuliani. Long-term agreements with other governmental customers followed.

Meanwhile, in November 1994, George E. Pataki had been elected New York's first Republican governor in 20 years. Pataki was familiar with the Power Authority, having served in the Legislature for 10 years in a district that included Indian Point. During his three terms as governor, he would turn repeatedly to the Authority to help carry forward his initiatives in such areas as energy efficiency, clean energy and transportation technologies and economic development.

Pataki's choice to head the Power Authority was Clarence D. "Rapp" Rappleyea, a respected public official who had served in the Assembly for more than 22 years, including a dozen as minority leader. Following Rappleyea's election on July 25, 1995, in a meeting at the FitzPatrick plant, the titles of chairman and chief executive officer were again united. Robert G. Schoenberger, who had served as interim president and chief operating officer during the final months of the Flynn era, was promoted to president and chief operating officer.

With his personable manner and uncanny knack for remembering names, Rapp, as he was universally known, established an instant rapport with Power Authority



employees. The fact that he was highly regarded on both sides of the aisle in Albany would also prove invaluable during his eventful 5 1/2-year tenure, as would his zest for competition.

“Today, I look forward to the prospects of helping the Power Authority change to meet the new competition in the electric industry, of making the Power Authority a real and active contributor to the economic revitalization of New York and of helping New York State once again become a vigorous competitor in the worldwide contest for new jobs,” Rappleyea said on his first day in office.

These would remain top priorities throughout his chairmanship, which would see fundamental changes in New York’s electric utility industry and at the Power Authority itself, along with striking evidence of the Authority’s continuing value to the state in the competitive era.

A signature development of the Rappleyea years that greatly enhanced the Power Authority’s economic development role was establishment of a “Power for Jobs” program by Governor Pataki and the Legislature in 1997. Unlike its Power Authority forerunner of the same name, which had applied generally to all Authority business allocations, the new program was created by legislation that set out specified power sources and types of customers, along with certain allocation criteria.

Up to half the total power block of 400 megawatts would come from the FitzPatrick plant, with the remainder obtained by the Authority from other sources through competitive bidding. All allocations would be recommended by the state Economic Development Power Allocation Board for consideration by the Authority’s trustees.

Conceived as a three-year program to help businesses and non-profit groups bridge the gap between a regulated power industry and the lower costs that were anticipated with

full-scale competition, Power for Jobs was an instant success. It was expected that about 40,000 jobs would be created or retained in the three-year period; the actual number within one year was more than four times that and it continued to climb. Meanwhile, new legislation in 1998 increased the total block to 450 megawatts and accelerated distribution of the power.

Power for Jobs remained an important element of the state’s economic development strategy throughout Pataki’s tenure, with legislation enacted on several occasions to extend the program. At the start of 2006, it was linked to more than 300,000 jobs at some 600 businesses and non-profit entities.

There were numerous other examples under Rappleyea’s leadership of the Power Authority’s ability to take on special assignments. These ranged from the start of work on the world’s most sophisticated transmission control device—a convertible static compensator—at the Marcy Substation to pioneering initiatives with fuel cells and other clean energy technologies to, most dramatically, the installation of a series of small, clean power plants to stave off power shortages in New York City and on Long Island.

But perhaps Rappleyea’s most far-reaching role was in leading the Power Authority through the initial stages and then formalization of deregulation and a competitive marketplace for electricity in New York State.

PRIMED FOR COMPETITION

The competitive era for New York State’s electric utility industry officially dawned on Dec. 1, 1999. On that date, responsibility for coordinating the flow of power in the state formally passed from the Power Pool, the organization created after the 1965 blackout, to a New York Independent System Operator that would take charge of the state’s high-voltage transmission system and administer its new competitive wholesale power markets.

Representing the Power Pool at the transfer ceremony was Power Authority Chairman Rapp Rappleyea, in his capacity as chairman of the Pool’s Executive Committee.

“The passing of the torch to the New York Independent System Operator is something in which we can all take tremendous satisfaction and pride,” Rappleyea told the gathering at the Power Pool’s headquarters in Guilderland, near Albany. “This is a major milestone on the road to a competitive marketplace for electricity in the Empire State.”

Gov. George E. Pataki (right) accepts a national award from Power Authority Chairman Rapp Rappleyea recognizing the governor’s efforts to promote electric vehicles and other clean transportation options. Rappleyea presented the award in 1999 on behalf of the Electric Transportation Coalition, a major industry organization.



Above: Power Authority Chairman Rappleyea, in his role as chairman of the New York Power Pool's Executive Committee, signs 1999 agreement marking transfer of control of the state's power system from the Power Pool to the New York Independent System Operator. With Rappleyea are Richard J. Grossi (seated), chairman of the ISO board, and William J. Museler, ISO president and chief executive officer.

Right: Workers at the Power Authority's round-the-clock energy transaction center in White Plains, established to help meet the demands of a competitive power industry.

The Power Pool for most of its history had consisted of the Power Authority and the state's seven investor-owned utilities; the Long Island Power Authority became a member in 1998 after replacing LILCO as the Island's utility.

The ISO, in contrast, served more than 100 "market participants," including power generators, transmission owners, power marketers and energy service companies. (The total would climb to more than 260 by early 2006.)

The changes went well beyond the numbers.

For nearly a century, the investor-owned electric utilities in New York State had served defined territories. They were regulated monopolies, their rates determined by the state Public Service Commission based largely on their costs of constructing facilities and producing power, plus a rate of return.

The new system promised to eliminate those service boundaries and let customers buy power from suppliers anywhere in or out of the state, on the premise that customer choice and competing prices would lower energy costs that in New York State were 50 percent above the national average.

The Power Authority had always been different—a power wholesaler, serving customers as directed by the Legislature, with no guaranteed service territory. (Even the agreements with the downstate governmental customers allowed them to switch suppliers after appropriate notice.) The Authority had thus been New York State's only competitive utility, supplying the least-expensive electricity in all parts of the state in order to retain its customers. Now those customers would have access to power at prices offered by other potential suppliers in the open market.

The move to a competitive power industry, nationally and in New York State, had been gaining impetus during the 1990s.

The federal Energy Policy Act of 1992 gave wholesale power suppliers greater access to transmission lines and sought to establish the foundation for deregulated markets nationally, in line with similar moves for such industries as airlines, telecommunications and natural gas. Then, in April

1996, the Federal Energy Regulatory Commission issued Order 888, requiring the opening of the nation's power grid to wholesale buyers and sellers of electricity and the filing of non-discriminatory open access tariffs.

Less than a month later, the New York Public Service Commission issued its own order in a Competitive Opportunities proceeding it had begun in 1993. The order called for full customer choice in electricity supply, a course strongly urged by the Power Authority; required establishment of an Independent System Operator; and envisioned the investor-owned utilities' sale of their non-nuclear generating plants, with the utilities to focus on transmission and distribution.

Over the next three years, the restructured industry in New York continued to take shape. There would be day-ahead and hourly markets under ISO control. A complex pricing plan would reflect the varying costs of supplying electricity on a wholesale basis in 11 separate zones across the state. The Power Authority and the investor-owned utilities would retain ownership of their transmission lines, but effectively cede operational control to the ISO.

The Authority and the other utilities had previously told the Power Pool how much electricity they wanted to generate and sell, largely managing their own destinies. Now they would be able to sell their power into the markets only if the ISO accepted the prices they bid for individual power plants.



All of this meant that the Authority would have to operate with the greatest possible efficiency. Power plant staff members would have to keep the facilities in optimum working order to avert increased operating and capital costs and assure their success in the new bidding system.

There was no doubt that the Power Authority intended to be a force in the revamped industry.

“Competition works best when there is plenty of it,” Rappleyea told the state Municipal Electric Utilities Association in April 1997. “You don’t increase competition by eliminating competitors—and that includes public power.”

Yet, as the Authority prepared for the coming changes and touted their benefits, some of the state’s investor-owned utilities became increasingly apprehensive. Already uncertain about their futures and financial stability in the deregulated era, the utilities viewed potential competition from the Authority as an added cause for concern.

It thus became a top priority for Rappleyea and Eugene W. Zeltmann, named the Power Authority’s president and chief operating officer in September 1997, to articulate the Authority’s intentions.

Zeltmann, who held a doctorate in physical chemistry from Johns Hopkins University and had worked for more than 20 years as a manager and senior executive at the General Electric Co., was appointed to the PSC by Governor Pataki in December 1995 and became the commission’s deputy chairman in May 1996. He had been heavily involved in the restructuring initiatives and was therefore well-suited to help convey the Authority’s message.

“I believe that it’s our responsibility to seek collaboration—not confrontation—with the state’s investor-owned utilities and others involved in the reshaping of our industry,” he said in a speech to Multiple Intervenors, an organization of large industrial energy users, less than a month after coming to the Authority.

In a point emphasized in numerous other settings, he said the Authority wanted “to facilitate the transition from regulation to competition” and that its goal was not to take the utilities’ customers, but only to retain its own so that it could best carry out its mandated responsibilities.

Nevertheless, the Authority had to quickly adapt to the new realities. In 1996, it had launched a training program for all employees that stressed new ideas and strategies tailored to the competitive industry. Also that year, it adopted quantifiable and challenging performance measures in such critical areas as net revenues, average cost of power, and jobs created and retained through its power allocations.

To coordinate its participation in the ISO and the bid-based markets, the Authority pulled various functions together under a new Energy Resource Management group, complete with a round-the-clock energy transaction center.

The drive to meet the new challenges also influenced the Power Authority’s financial strategies, with the goal of lowering the costs of serving customers and strengthening the Authority’s competitive position.

Between December 1997 and April 1998, the Authority carried out a \$2.6 billion debt restructuring program in which all of its outstanding bonds were refunded at lower interest rates. Debt-service savings were projected at more than \$700 million through 2020, when the last of the new debt was scheduled to mature.

The program also included adoption of a flexible bond indenture to replace a 1974 resolution that had covered all outstanding bonds. The new resolution eliminated restrictive provisions that could have been detrimental in



a competitive environment, but retained fundamental bondholder protections. It was the first of its kind for a public power entity and became a model for others.

The restructuring enabled the Authority to accelerate repayment of its debt at various facilities, beginning with its nuclear power plants. (Between 1997 and 2005, it would cut its outstanding debt by more than 25 percent.)

In October 1998, the Authority concluded extended contracts with 81 of its business customers that provided nearly 90,000 jobs in return for the economical electricity. Thanks to aggressive actions to reduce its own costs, it was able to offer rate cuts totaling almost \$54 million—a solid incentive for the businesses to sign on rather than seek other suppliers.

It thus was evident by the late 1990s that the Power Authority was primed for success in the new era. Yet, its most striking response to competition lay ahead. It was a response that would drastically change the face of the Authority and the means by which it served its customers.

*Power Authority
President Eugene W.
Zeltmann and
Chairman Rappleyea.*

EXITING THE NUCLEAR BUSINESS

Utility deregulation and competition were to be major factors in one of the most important decisions in Power Authority history—to sell the Authority’s two nuclear power plants and get out of the nuclear generating business.

On March 28, 2000, Authority trustees unanimously approved the sale of the Indian Point 3 and FitzPatrick plants to Entergy Corp. of New Orleans for \$967 million, a record price at that time for the U.S. nuclear industry.

But that stark fact gives no hint of the intense behind-the-scenes drama that unfolded before the sale was completed, including a spirited bidding war and an extraordinary marathon meeting of the trustees that ended late at night with a decision on the buyer still eight days off.

During the 1980s and ’90s, many nuclear power plants came to be seen as white elephants, expensive to operate and a drain on a utility’s bottom line. Deregulation of the industry offered markets and potential profits to those who could run the plants more efficiently and at lower cost than others.

The convergence of those trends sparked the creation within large utilities of nuclear operating companies responsible for running nuclear plants at multiple sites. Entergy was among the utilities that formed such units.

Meanwhile, both Indian Point 3 and the FitzPatrick plant experienced serious performance problems in the early to mid-1990s. Turning the plants around became a major priority as the Authority under Flynn, Freeman and Rappleyea made significant investments in the physical facilities and revamped the management and procedures. But the effort was slow and often frustrating.

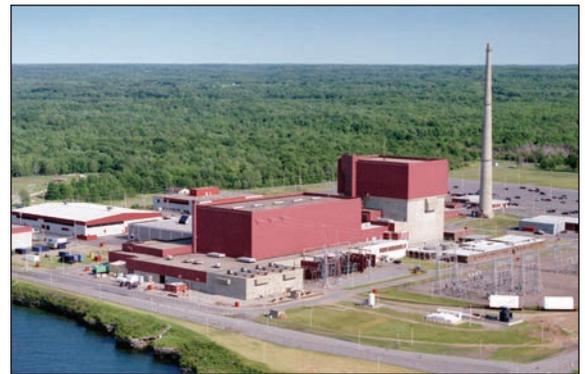
A breakthrough occurred in April 1994 with the hiring of William J. Cahill Jr., a 40-year veteran of the nuclear power industry, as the Power Authority’s chief nuclear officer. Cahill, then 70, had worked most recently at TU Electric in Dallas, but had spent most of his career at Con Edison, where he was heavily involved in the licensing and construction of Indian Point 3 and the transfer of its federal license to the Power Authority. He thus felt a special commitment to resolving the problems at that plant, which had been lagging FitzPatrick in the improvement process and was in the midst of a lengthy shutdown when he arrived.

The two plants made progress under Cahill’s supervision, but remained a financial and operational challenge. In July 1996, the Power Authority and Entergy agreed to pursue a

contract under which Entergy would provide management services for the plants, with the Authority retaining ownership. However, the discussions ended that October because of disagreements on financial terms.

Despite this setback, the plants continued to improve and would set combined production records for three consecutive years beginning in 1998. The improvements attracted the attention of Entergy and other prospective buyers. And while the Power Authority had not intended to sell the plants, it now had to consider whether that might be the best way to maximize their value to the Authority and the people of the state in the competitive era.

It became apparent to Rappleyea, Zeltmann and other Authority executives that large nuclear operators had several inherent advantages, including economies of scale; a focus on



nuclear issues and operations; and the ability to pool financial, physical and staff resources. They recognized that an entity like the Authority, with only two nuclear plants, at widely separated sites and using two different nuclear technologies, would find it difficult to succeed in the new industry.

The Authority was therefore willing to listen to potential purchasers. And in November 1999 it joined Entergy in announcing that the two utilities would begin exclusive negotiations for the possible sale of Indian Point 3 and FitzPatrick.

On Feb. 14, 2000, the Authority and Entergy announced an agreement in principle for the sale. Despite some opposition, and the need for approval by the two utilities’ boards and federal and state regulators, the matter seemed headed for a relatively quick and tidy conclusion.

Then, on Feb. 24, Dominion Resources, based in Richmond, Va., announced that it was submitting its own bid and that it was ready to beat Entergy’s offer. For the next 33 days, the two suitors pursued the plants, with first one

The James A. FitzPatrick Nuclear Power Plant.

and then the other seeming to gain the advantage as they continually enhanced their offers.

The Power Authority's trustees met on March 20 at the Authority's offices at 1633 Broadway in Manhattan; the New York City staff had moved there from Columbus Circle in 1989. A bevy of print and television reporters was on hand, along with officials from Entergy and Dominion. A decision was widely anticipated.

"There was tremendous tension in the room," Zeltmann later recalled. "I'd never seen anything remotely like it at a board meeting."

The trustees met for nearly 11 hours, mostly in executive session that permitted separate conversations with representatives of the competing utilities. Finally, at about 10 p.m., they announced that they would recess for eight days to permit clarification of financial and tax issues.

When the trustees convened again on March 28, they assessed the utilities' final offers. The bids were financially close. But several factors weighed in Entergy's favor. Chief among them was the utility's willingness to shield the Power Authority from the effects of a potentially significant tax liability for funds that had been set aside for decommissioning the plants when their operating lives ended.

Other considerations included Entergy's pledge to maintain a Northeast regional headquarters in New York State for at least seven years (it established the headquarters in White Plains) and its demonstrated ability, through its 1999 purchase of Boston Edison's Pilgrim plant, to complete a nuclear transaction.

And so the trustees selected Entergy. The \$967 million price tag included \$636 million for the two plants, nearly \$171 million for fuel on hand or ordered, \$92 million toward eventual decommissioning and \$68 million in return for the Authority's commitment to buy power from the FitzPatrick plant beyond what had been previously envisioned. The payment of \$536 for each kilowatt of generating capacity was almost four times the previous high for a nuclear power plant sale and would provide the benchmark for other, still higher amounts.

"Our thorough and carefully planned negotiating process has worked to bring the people of New York State outstanding value for these significant public assets," Rappleyea said after the trustee vote.

Each of the four prime objectives that the Authority had set at the start of negotiations was met. In addition to



President Zeltmann, Chairman Rappleyea and Entergy executives Don Hintz and Jerry Yelverton after the sale of the Authority's nuclear power plants in 2000.

a sale price reflecting the plants' value and excellent recent performance, these included a strong prospect that the plants would continue to operate safely and efficiently, employment and career opportunities at Entergy for Authority nuclear employees and provisions for the Authority to keep serving its Indian Point 3 and FitzPatrick customers after the sale.

Entergy's extensive nuclear experience satisfied the first of the additional requirements, and the plants operated successfully in the years following the sale. More than 1,500 Power Authority employees transferred to Entergy at their Authority salaries and with comparable benefits. Agreements with Entergy enabled the Authority to purchase, at fixed prices that proved to be below market levels, all of Indian Point 3's output and at least part of FitzPatrick's through the end of 2004, providing sizable savings to customers. (The Authority subsequently purchased power on the market through competitive bidding, with some of it coming from Indian Point.)

Following the decision to sell the plants to Entergy, attention turned to obtaining the necessary regulatory approvals and to surmounting various administrative and court challenges. The Power Authority established seven transition teams, involving about 100 staff members, to work on matters related to finalizing the sale. Eight months, a relatively short time for such processes, passed before the deal was closed on Nov. 21, 2000. Rappleyea, Zeltmann and Entergy executives Don Hintz and Jerry Yelverton signed the last of the transfer documents at 11:38 a.m. The Power Authority's post-nuclear era officially began at noon.

“POWER NOW!”— AND FOR THE FUTURE

With the sale of its nuclear power plants, the Power Authority relinquished about one-quarter of its generating capacity and half its employees. But any thoughts that the Authority would no longer be a major presence in the state’s power business were quickly dispelled. Indeed, even before the deal with Entergy was finalized, the Authority had embarked on an undertaking that would rank among the most extraordinary in its history.

By the summer of 2000, it was clear to state energy officials that the New York City metropolitan area would face a severe threat of electricity shortages in the following summer unless additional power supplies were found. Three main factors made the situation critical: growing demand for electricity, sparked by an expanding economy and population and widespread use of computers and other electrical devices; chronic transmission constraints into the region; and a lack



A small, clean power plant in the Bronx.

of new power plants. While several plants had been proposed, none could be ready by 2001.

With no private-sector entity coming forward to meet the challenge, the state turned to the Power Authority.

On Aug. 29, 2000, the Authority’s trustees approved the purchase of up to 11 small gas-turbine generators for installation primarily in New York City. Thus began what became known as the “PowerNow!” project, an effort that would compress into months a multitude of tasks that normally would require two years or more.

Ten of the 47-megawatt generators were installed at six sites in the New York City boroughs of the Bronx, Brooklyn, Queens and Staten Island, with four of the locations each housing two units. The 11th generator was sited at

Brentwood, Long Island, in Suffolk County. With regulatory requirements limiting the total production at dual-unit sites to 79.9 megawatts, the plants’ combined output was about 460 megawatts—equivalent to the capacity of a medium-sized power plant.

As the Power Authority pressed forward with the “PowerNow!” project, the warnings of imminent power shortages—by the Public Service Commission, the Independent System Operator and others—intensified, along with the pressure to finish the job on time. The Authority mounted an ambitious public outreach effort to explain the urgent need for the small, clean plants and to identify and address local concerns. And the work continued without letup—on siting and licensing, on engineering and design and on installation of the units and of environmental-protection components that would make the new power plants the cleanest in the city at that time.

“I’ve been in this business for more than 35 years and I’ve been involved in some fast-track projects,” Woodrow W. Crouch, the Power Authority’s vice president-project management, told a national utility audience in March 2001 as the construction sites teemed with activity. “But I’ve never seen anything like this one. It’s created a whole new dimension.”

The first of the small, clean plants, at a Bronx site, began operation in early June of 2001, just over nine months after the Power Authority launched the project. Most of the others went into service during June, with all but one—in Brooklyn—in full operation when a blistering heat wave in August sent power use soaring to record highs. The final unit produced its first electricity during that critical week; it began full operation later in the month, essentially bringing the project’s construction phase to a close.

The plants’ performance during the heat wave earned praise from the city’s editorial writers, with the New York Post noting that “[Governor] Pataki and NYPA scurried to get the turbines up and running. Thankfully, they succeeded.”

The small, clean plants again proved their worth in the summers of 2002 and 2005, when power demand records were set, and in the wake of the World Trade Center disaster of Sept. 11, 2001, when power deliveries into New York City were limited because of security concerns. They were among the first city power plants to return to service after a major blackout hit parts of the Northeast, the Midwest and Canada



on Aug. 14, 2003. And their value was continually evidenced on a more routine basis as they provided environmental and economic benefits by displacing older generators in the city that would otherwise have been needed.

To ensure that the plants would have minimal environmental impact, the Authority invested a total of more than \$85 million in the most advanced available technology for controlling air pollution and reducing noise. Federal statistics showed that the plants' nitrogen-oxide emissions, per unit of electricity produced, were nearly 99 percent below those from other power plants of similar size in New York City.

In a further step, the Authority voluntarily implemented a \$23 million "zero net emissions" program to offset even the low level of emissions from its plants by reducing pollution from other New York City sources. The program's centerpieces were installation of eight fuel cells to generate virtually emission-free electricity from the gas produced in sewage treatment at four city wastewater treatment plants and retrofitting of up to 2,000 diesel school buses in the city with tailpipe emission-reduction technology.

As it focused on completing the small, clean power plants, the Power Authority was also moving ahead with plans for another major project to help meet New York City's growing power needs while improving air quality.

The Authority had announced in 1999 that it intended to build a 500-megawatt combined-cycle plant, fueled by natural gas, with low-sulfur oil as a backup, at the site of its existing Poletti project in Queens. The new plant would be the largest addition of generating capacity in New York City since the Poletti project itself began operating in 1977.

With its combined-cycle technology, identical in concept to the Flynn plant's, but still more advanced, the new plant would be the most efficient in New York City's history.

Its sophisticated controls would enable it to meet federal emissions standards at least equal to any then in place for the nation's power plants. Its air-cooled condenser would avoid the need to use East River water, ensuring that it would have no impact on aquatic life and water quality.

The Poletti site had been home to other power plants, fuel storage and related industries since 1905, making it ideally suited for a new plant. Nevertheless, local officials and environmental leaders maintained that with a large share of the city's power generation already coming from Queens plants, another plant—no matter how clean or efficient—would only add to the burden. A lengthy struggle ensued over the Authority's bid for state certification of the plant.

On Sept. 5, 2002, Governor Pataki announced an agreement under which the Power Authority would close the existing Poletti project by 2008, if power-supply conditions in the city permitted, and no later than 2010.* In return, opponents agreed to support the Authority's application to build the new plant, which was quickly approved. The Authority pledged to impose operating restrictions at the existing facility; increase its already sizable investment in energy efficiency projects in New York City; and target \$2 million for projects to clean the air in Queens, all of which were completed or under way by early 2006.

Ground was broken for the new plant on Nov. 6, 2002. Testing began in September 2005 and the plant went into commercial operation on the final day of that year, exactly 30 years to the day of the Authority's year-end purchase of Indian Point 3 from Con Edison. Indian Point 3 had been the first source of power for the Authority's governmental customers in New York City and Westchester County; now the new plant would play a major role in meeting their future needs.

The plant's importance had been underscored earlier in 2005 when the Authority reached innovative



Left: Some of the New York City school buses that were equipped with pollution controls in a major element of the Power Authority's emissions-offset program.

Below: Power Authority officials and other participants in the groundbreaking for the 500-megawatt combined-cycle plant in Queens, 2002. From left, Jerry Connolly, business manager/secretary-treasurer; Local 5, International Brotherhood of Boilermakers; President Zeltmann; Trustee Joseph J. Seymour; Chairman Louis P. Ciminelli; Trustee Timothy S. Carey; Vice President-Project Management Woodrow W. Crouch; Vice Chairman Frank S. McCullough, Jr.; Hugh Weinberg, counsel to Queens Borough President Helen M. Marshall; and State Sen. George Onorato.

* The Poletti plant ceased operations in January 2010.

power-supply agreements with the New York City customers that extended through 2017. The agreements created a collaborative process that called for the customers to participate extensively in the Authority's planning and decision-making and to choose from among various payment options.

As the 500-megawatt plant began operation, the Independent System Operator was forecasting the need for still more resources to serve the downstate area within the



The 500-megawatt combined-cycle plant in Queens.

next few years. But it appeared that any new power plants or transmission lines would not be built by the Power Authority.

On May 12, 2004, Zeltmann announced at an Independent Power Producers of New York conference in Albany that the Authority did “not foresee the need” to build additional generation or transmission facilities of its own beyond the Queens plant, except “in response to a compelling public need that is not being fulfilled.”

“We recognize that it is vitally important to New York’s power industry that there be a competitive private sector,” he said, noting that the Authority believed the most efficient way to meet its customers’ future needs would be to buy electricity in the competitive markets.

His words were welcome to the audience. The independent power producers, who had replaced the investor-owned utilities as the state’s primary private-sector generating sources, often contended that the Authority’s presence skewed the New York markets and inhibited investment in their proposed facilities. Zeltmann said he did not share this view and that the problems stemmed largely

from other factors; however, he acknowledged that even unfounded concerns about the Authority’s role could be detrimental.

He said the Power Authority would concentrate on other activities, including its expanding emphasis on energy efficiency, new power technologies and clean transportation and its efforts to use-low cost electricity to create and protect jobs.

CHANGES AT THE TOP

The Power Authority’s completion of the downstate power plants and its diverse activities in other areas came against the backdrop of unusually rapid changes in the Authority’s leadership.

Rappleyea, who had guided the difficult early process of siting and licensing the small, clean plants and winning support from public officials, stepped down as chairman and chief executive officer on Jan. 31, 2001. One day earlier, the other trustees had named the Authority’s office building in White Plains—purchased a decade before—the Clarence D. Rappleyea Building.

Succeeding Rappleyea was Joseph J. Seymour, who brought to the Authority more than 30 years of managerial experience in state and local government, most recently as commissioner of the state’s Office of General Services.

Seymour immediately focused on meeting the summer deadline for the small, clean plants. He also presided over the settlement of various controversial issues in the Power Authority’s bid for a new 50-year federal license for the St. Lawrence-FDR project, enabling the Authority to submit its relicensing application on schedule, in October 2001, with the support of major interested parties.

A challenge of a far different nature had arisen on Sept. 11, 2001, with the attack on the World Trade Center. Legislation quickly enacted at Governor Pataki’s initiative authorized the Authority to provide 80 megawatts of economical electricity for area businesses affected by the attack. The Authority previously had supplied the power to the Port Authority of New York and New Jersey for use in the Trade Center.

The entire block of World Trade Center Economic Recovery Power was allocated by August 2002, helping to support more than 40,000 jobs at some 40 locations.

Among the casualties on September 11 had been Neil Levin, the Port Authority's executive director. To replace Levin at a critical time for the bistate agency, Pataki turned to Seymour, who resigned from his Power Authority post in January 2002 while remaining as a trustee. In June 2004, recognizing Seymour's pivotal role in completion of the small, clean power plants, his fellow trustees named one of



the two-unit plants, in Brooklyn, the Joseph J. Seymour Power Project.

Louis P. Ciminelli, the Authority's vice chairman since 2001 and a trustee since 1995, was elected on April 30, 2002, to succeed Seymour as chairman. The trustees also promoted Zeltmann to president and chief executive officer, again splitting the chairman and CEO functions.

As the owner of a prominent Western New York construction company, Ciminelli was well aware of the need for efforts to strengthen the region's economy. In October 2003, he joined representatives of Buffalo Niagara Enterprise, a local economic development group; Niagara Mohawk; and the state's Empire State Development Corporation in signing an agreement to streamline the allocation of Niagara power to Western New York businesses. Allocations under the new procedures, begun in January 2004, were helping to support more than 13,000 jobs at about 35 companies two years later.

Ciminelli also focused on the relicensing process for the Niagara project, which began in earnest during his tenure, and brought his construction expertise to bear on issues concerning the combined-cycle plant in New York City. But the most dramatic event of this period was the blackout of Aug. 14, 2003.

Beginning just after 4 p.m. with transmission disruptions in Ohio, the failure surged through New York, seven other states and Ontario, leaving 50 million people without electricity.

Alone among the major power plants in New York State, the Authority's Niagara and St. Lawrence-FDR hydroelectric projects continued to operate. For a time, about 60 percent of the electricity still available in the state was coming from the two projects, with much of the remainder carried from Quebec on the Authority's 765-kilovolt transmission line.

Along with the Blenheim-Gilboa project, which resumed operation in relatively short order, Niagara and St. Lawrence-FDR played an essential part in stabilizing the statewide system and enabling other plants to return to service. The small, clean plants and the Authority's Poletti project performed similar functions in New York City.

While blackout postmortems would take center stage at the Power Authority and throughout the electric utility industry for months to come, the Authority also turned its attention to other important matters.

Several months earlier, it had entered a new phase in its sometimes tempestuous relationship with the state's municipal electric systems and rural cooperatives. Broad agreements with these customers assured them of continuing supplies of Niagara power through 2025—the previous



contracts were scheduled to expire in 2013—and called for the Authority to work with them to promote economic development, energy efficiency and clean transportation in their service territories.

Left: Joseph J. Seymour (left) and Louis P. Ciminelli at a small, clean power plant construction site in 2001. Seymour was at the time the Power Authority's chairman and Ciminelli its vice chairman.

Below: Power Authority staff member Steven Zammiello uses a computer at the Authority's Energy Control Center in Marcy to monitor power restoration after the 2003 blackout.



The Village of Brocton municipal electric system in Chautauqua County, like all of the state's municipal systems and rural electric cooperatives, signed a comprehensive long-term agreement with the Power Authority in 2003.

“This is indeed the start of a new era in the relationship between the Municipal Electric Utilities Association and the Power Authority—an era filled with the promise of unprecedented benefits to our state and to the customers we help you serve,” Zeltmann told the state association at its semi-annual meeting in Syracuse on April 23, 2003.

Less than a month later, the Authority’s trustees approved a \$1.2 million loan fund to help the municipal and cooperative systems purchase electric and hybrid-electric vehicles for their fleets. By early 2006, individual systems and the MEUA had obtained 19 vehicles.

Meanwhile, the Authority was working to help solve a power-supply problem that for decades had plagued the municipal systems serving the Northern New York villages of Lake Placid and Tupper Lake and other parts of the Adirondack region in the high-demand winter months.

Pataki in November 2004 announced an agreement involving the Authority, Niagara Mohawk (later known as National Grid) and the villages for construction of a 46-kilovolt transmission line, scheduled for completion in 2008, and other system improvements. The Authority would finance the work and seek regulatory approvals for the 26.8-mile line, to be built and ultimately owned by National Grid. In addition, the Authority would help the two municipal systems expand their existing energy efficiency efforts and would carry out clean-energy projects in the villages.

On a broader front, the Power Authority continued the vital task of using economical electricity to maximum benefit in buttressing the state’s economy. The Authority had been engaged in that effort since the very beginning at the St. Lawrence project. Now its involvement had become still more critical as New York competed in a global economy for

jobs and investments with other states and countries, and energy costs significantly influenced companies’ decisions.

At the start of 2006, more than 430,000 jobs at some 800 businesses and non-profit organizations throughout New York depended on electricity or related economic benefits provided by the Power Authority. While Power for Jobs accounted for the majority of the jobs, thousands more depended on electricity produced at the Niagara and St. Lawrence-FDR hydroelectric projects or obtained by the Authority from other sources.

Various factors had for some time threatened the continuation of these initiatives. This led to enactment in 2005 of the most far-reaching economic development legislation concerning the Authority since the 1987 law dealing with expansion power and allocations from the FitzPatrick plant.

A key element of the new law provided for the continued allocation of replacement power from the Niagara project to Western New York businesses. The federal authorization for replacement power had been set to expire at the end of 2005; now that power, like expansion power, would be reserved for the region’s businesses under state law.

The new legislation also created a block of “preservation power” from the St. Lawrence-FDR project that would remain in Northern New York if relinquished by Alcoa or General Motors Powertrain in Massena, the project’s industrial customers. In addition, it authorized the Authority to use specified amounts of available hydropower to support job creation or protection throughout the state. This power would be sold into the ISO markets, with proceeds used through the end of 2006 to help lower the energy costs of companies that had been served from the FitzPatrick plant and whose guaranteed economical rates from the Authority were expiring.

Other provisions extended the World Trade Center power program for three years and allowed Power for Jobs



customers not meeting their full jobs commitments to receive partial benefits rather than being dropped from the program. (Power for Jobs had been continued through the end of 2006, with customers given the choice of extending their power contracts or receiving payments to account for the anticipated savings.)

Coincidentally, Pataki signed the new legislation on July 26, 2005, the day on which the Authority elected a new chairman to replace Ciminelli, who had retired. Taking office as the Authority's first chairman to serve non-consecutive terms was Seymour, who had concluded his Port Authority assignment. Zeltmann continued as president and chief executive officer.

Zeltmann himself retired in February 2006 after nearly 8 1/2 years in which he figured prominently in the major events and developments affecting the Power Authority and brought the Authority considerable external recognition by serving two terms as chairman of the Electric Power Research Institute, the electricity industry's international research and technology organization. He also emphasized employee safety, helping the Authority extend a record that saw it win the American Public Power Association's top safety award in its class in 14 of the years from 1988 through 2004 and place second in the three others.

Timothy S. Carey, who had served as a Power Authority trustee for nearly five years through September 2005, and then been appointed the Authority's chief operating officer, succeeded Zeltmann, becoming the first former trustee to head the Authority's staff.

Carey, a former Westchester County legislator, was from 1999 through 2005 the president and chief executive officer of the Hugh L. Carey Battery Park City Authority in Lower Manhattan, where he spearheaded the development of strict environmental guidelines and oversaw construction of the nation's first residential high-rise building to meet such standards. These efforts, which earned him a national award from the U.S. Green Building Council, were in line with some of the Power Authority's top priorities as he took office.



Left: Chairman Seymour, on the day of his election to a second term in 2005, with State Sen. James W. Wright (center) and Assemblyman Darrel J. Auberline at the dedication of a new visitors center at the St. Lawrence-Franklin D. Roosevelt project.

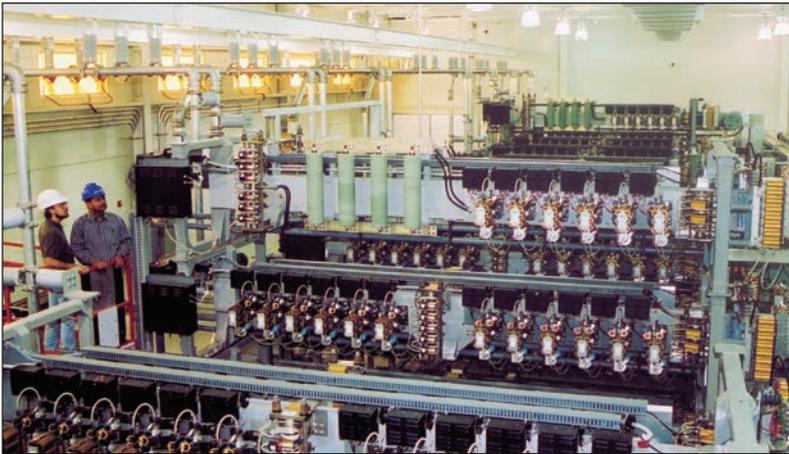
Right: Timothy S. Carey, a former Power Authority trustee, became president and chief executive officer in February 2006.

“WHAT OTHERS CAN’T OR WON’T DO”

At various times in its history, the Power Authority had responded to challenges that others in the industry were unable or unwilling to meet.

Among them were the purchase and completion of the two Con Edison power plants, the construction of the 765-kilovolt and Marcy-South transmission lines and the rapid installation of the small, clean power plants in New York City and on Long Island. Another such project was the convertible static compensator, the Authority's groundbreaking transmission control device at Marcy.

Completed in 2004, the CSC was the latest in a series of Flexible Alternating Current Transmission Systems, or FACTS. All relied on high-speed electronics instead of conventional electromechanical devices, permitting quick reactions to changed conditions on transmission lines. But the CSC was the first device in the world that could instantly shift power between two lines in the same substation.



Above: The convertible static compensator at Marcy.

Right: Governor Pataki and Chairman Rappleyea in 1998 at the Early Childhood Center (PS 61) in Buffalo, where the Authority replaced the school's antiquated coal furnaces with clean boilers using oil or natural gas.

By permitting electricity to be transferred from heavily loaded lines to those with available capacity, the CSC technology, if widely applied, promised to improve the reliability and efficiency of transmission systems. More power could be carried on existing lines, reducing the need to build new ones—a matter of particular relevance as the coming of competition put increasing demands on the nation's transmission network.

The Power Authority's device increased the statewide capability of the New York system by nearly 200 megawatts. Also noteworthy was the Authority's investment of \$41 million in the CSC with no assurance that it would recover its costs through transmission revenues. While the Electric Power Research Institute and some 30 electric utilities and industry organizations from as far away as New Zealand also provided funding for the \$54 million project, it was unlikely that others in the industry would have been willing to take on a hefty commitment such as the Authority's in light of the financial uncertainties.

"As a public entity, we thought it was important for us to be out front in demonstrating this extraordinary technology and encouraging others to adapt it to their needs," Zeltmann told an industry forum in June 2003 in explaining the Authority's decision to invest in the CSC.

By then, "doing what others can't or won't do" had become something of a mantra for the Power Authority. The philosophy also applied to the Authority's national leadership in advancing energy efficiency and new energy technologies. This, like the CSC, embodied an awareness that building new power plants and transmission lines wasn't the only way to meet the growing demand for electricity and that it was essential to ensure a reliable power supply while protecting

the environment and reducing dependence on expensive and potentially unstable supplies of oil and natural gas.

By the beginning of 2006, the Authority had completed energy efficiency projects at some 2,350 schools and other public facilities across the state. The projects were saving more than \$90 million in energy costs per year and were lowering annual greenhouse-gas emissions by about 730,000 tons by permitting reduced use of power plants. They had also cut peak demand for electricity by about 190 megawatts—enough to serve more than 150,000 homes.

The program covered sites as diverse as the Museum of Modern Art and the American Museum of Natural History in the heart of New York City, small-town municipal buildings and public libraries and virtually all State University of New York campuses. Among the major elements were the coal furnace and refrigerator replacement programs conceived during Freeman's tenure and begun in the Rappleyea years.

Between 1997 and late 2003, the Authority replaced polluting coal-burning furnaces, some dating to the early 20th century, with clean boilers fueled by natural gas or oil at 86 public schools in New York City and Buffalo and on Long Island. The project eliminated hundreds of tons of harmful emissions each year, largely in inner-city neighborhoods



where children were at high risk for asthma. The first 12 furnace replacements were carried out as part of an Authority pilot program, while the others were funded with proceeds from Governor Pataki's Clean Water/Clean Air Bond Act of 1996.

The first of the efficient refrigerators for the New York City Housing Authority were installed in 1996. At the program's completion in early 2005, the Power Authority

had supplied new refrigerators, using one-half to one-third the energy of the previous models, in all of the Housing Authority's nearly 185,000 units, saving about \$7.7 million a year in electricity costs. A similar Power Authority program in Buffalo led to the replacement of more than 1,600 refrigerators in 2002 and 2003. Numerous other housing authorities and electric utilities around the nation launched similar efforts, using the Power Authority model.

The Power Authority could take particular pride in a \$3.4 million energy efficiency project it completed in 2002 at its Rappleyea building in White Plains. (Most of the Authority's headquarters staff was by then housed in the building, following the transfer of the last of the New York City employees in November 2000.)

Featuring a new chilled-water cooling plant brought in by helicopter and other energy-saving measures, the project cut the building's annual electricity use by more than 50 percent, exceeding the ambitious energy conservation goals that Governor Pataki set for state entities in an Executive Order issued in 2001.

Another vital initiative was the Authority's Peak Load Management Program for its government and business customers in New York City, intended to cut electricity use on hot summer days when the threat of power shortages was greatest. The program, begun on a trial basis in 1999 with one participant, had grown by 2005 to include some 90 locations at which peak demand was cut by a total of more than 60 megawatts in return for payments from the Authority.

The Authority's energy-saving programs were complemented in these years by its national leadership in demonstrating clean, renewable energy technologies and electric and hybrid-electric transportation.

Among the promising new power sources were fuel cells, which produced electricity through a chemical reaction, rather than combustion, significantly cutting emissions. In 1997, at the Westchester County Wastewater Treatment Plant in Yonkers, the Authority installed one of the world's first fuel cells to run on the anaerobic digester gas produced in the treatment process. The gas had previously been flared off, polluting the air.

An Authority fuel cell, using natural gas, followed in 1999 at Manhattan's Central Park police station, a historic building that dated to the 1870s. Thanks to the fuel cell, which was

independent of the power grid, the station was one of the few New York City locations where the lights stayed on during the 2003 blackout.

By early 2006, the Authority had installed 13 fuel cells, including two other natural-gas-fueled projects in the city, the eight ADG units at the city's wastewater treatment plants and a unit at the State University's College of Environmental Science and Forestry in Syracuse.

The Authority's first solar energy project, at White Plains High School, had been installed in 1993. By 2006, the roster included 23 projects from Buffalo to Long Island, among them one of the nation's largest rooftop solar facilities—a 300-kilowatt project atop a city bus depot in the Bronx.

Other energy sources that the Authority was demonstrating or studying in the early years of the new



century included biomass, such as wood and other organic materials; landfill gases; and gasified coal.

While the electric power industry had over time decreased its reliance on oil, this was not true of the transportation sector, which accounted for more than two-thirds of the United States' oil use. With much of the supply coming from the OPEC nations that Dyson had confronted a quarter of a century before, the need to promote new forms of transportation was clear.

The Authority as of early 2006 had helped to put about 800 electric and hybrid-electric vehicles, which had traveled more than 5 million miles, into service in its own fleet and those of others. (Some 300 of the vehicles had been retired over time.) The list ranged from passenger cars and small "neighborhood electric vehicles" to delivery vans for the U.S. Postal Service, electric school buses and hybrid-electric transit buses.

The Power Authority's fuel cell at the Central Park police station in Manhattan at the time of its dedication in 1999.

Along the way, the Authority from 2001 through 2004 carried out the nation's largest electric vehicle station-car demonstration program, in which nearly 100 commuters used electric cars to travel to and from their train stations. And in 2005, it began a Green Zones program in which it helped to obtain clean vehicles and electric outdoor power equipment for municipalities, parks and college campuses.

The Authority by then was also part of a national effort to demonstrate the benefits of "plug-in" hybrid vehicles that would be connected to the power system, achieving far greater gasoline savings and environmental benefits than conventional hybrids. And, looking still further ahead, it was exploring the production and use of hydrogen as a potential fuel for transportation and other purposes.

COMING FULL CIRCLE

The Power Authority's emphasis on emerging technologies was one way to prepare for its own future, as well as the future energy needs of New York State. Another was to assure that one of the state's primary assets, the low-cost power produced at the great hydroelectric projects on the St. Lawrence and Niagara rivers, would be preserved for many years to come.

That effort was two-pronged. In the mid-1990s, with the original federal licenses for St. Lawrence-FDR and Niagara due to expire in 2003 and 2007, respectively, the Authority began planning for its pursuit of new 50-year licenses. In parallel, it moved ahead with a multi-year program to upgrade and modernize the generating units at Niagara and began a similar effort at St. Lawrence-FDR.

For all of the Power Authority's diverse activities over the years, the hydro projects had remained central to its operations and to its identity. Now, as the Authority looked ahead with the relicensing and modernization efforts, it was also returning to its roots and evoking memories of the extraordinary period in which the two projects had been approved and built in less than a decade.

The relicensing processes for both projects were arduous long-term assignments, entailing a maze of energy-related, regulatory, political, environmental, financial and community issues, all endlessly intertwined and generating mountains of paperwork.

Communities in the project areas, environmental groups and others viewed the relicensings as an opportunity to

obtain sizable monetary commitments and additional pledges from the Authority for various purposes. Authority officials continually stated that while they recognized these desires, the only means of meeting them would be with revenues from power sales to the projects' customers, principally the businesses and industries at the heart of the Northern and Western New York economies.

In early 2006, about 60 percent of St. Lawrence-FDR's output flowed to Alcoa and General Motors Powertrain* in Massena, helping to protect about 1,850 jobs. At Niagara, 37 percent of the electricity went to more than 100 businesses and industries in Western New York that together accounted for more than 43,000 jobs. Multiplier effects made the projects' economic benefits still greater.

It was clear from the start of the relicensing efforts that a balance would have to be struck between the wishes for substantial payments from the Authority and the need to maintain some of the nation's lowest rates for businesses, as well as residential consumers. This objective was ultimately



met, but not without intense, sometimes contentious, negotiation and considerable compromise.

At both projects, the Power Authority employed innovative procedures providing for full participation from the outset by interested parties, with the goal of making them partners in decision-making, reducing or eliminating unresolved issues and winning broad support before the license application was submitted to the Federal Energy Regulatory Commission. The traditional relicensing process, in contrast, allowed only limited public involvement before filing of the application.

* When General Motors Powertrain closed its Massena plant in 2009, its hydropower allocation became part of the new block of Preservation Power set aside for Northern New York customers.

Alcoa, NYPA's first power allocation customer, is the North Country's largest private employer.



The Power Authority officially began the St. Lawrence-FDR relicensing program in 1996, after a lengthy public consultation phase. More than 60 parties eventually participated in the cooperative process. Matters did not go smoothly at first, and Governor Pataki intervened to help resolve certain issues and improve the overall atmosphere. But by October 2001, the deadline for filing the application, the Authority had reached a number of agreements with various entities, who agreed to support the new license.

These agreements and others became part of a comprehensive settlement package that the Authority submitted to FERC in February 2003. Key provisions called for the Authority to make annual payments to governments and school districts in the project area over the 50-year license term, to return land not required for St. Lawrence-FDR project operations to local communities and adjacent property owners, to provide millions of dollars for improvements to state and local parks and other recreational attractions and to invest millions more in environmental projects and studies, including a ladder to facilitate eel migration, and fish and wildlife habitat enhancements.

FERC approved the new license on Oct. 22, 2003, less than two years after the Authority had filed its application and more than a week before the previous license was scheduled to expire; the process at other, smaller hydro projects around the nation had sometimes taken years longer. The commission noted that the success at St. Lawrence-FDR, the largest project to that point to use the new relicensing procedures, reflected “the value of intense collaboration among interested parties.”

Power Authority Chairman Ciminelli said the new license “marks an end and a beginning. It is the end of a long, difficult, but extremely productive relicensing process that

was successful because of the hard work and cooperation of state and local officials, public and private agencies and the local communities and industries. It is the beginning of another 50 years of work for the benefit of Northern New York.”

A successful Power Authority effort produced a further benefit, for the entire state, when FERC cut roughly in half the amount of valuable St. Lawrence-FDR power that the Authority was required to sell to neighboring states. The Authority had sought during the relicensing process to retain at least some of the power in New York. Under the new license, about 34 megawatts of additional power became available for use within the state.

At Niagara, the formal relicensing process began in late 2002, again after extensive communication with interested parties. Numerous controversies arose during the proceedings, which involved more than 100 entities. But the Authority was able to submit its application, along with several major agreements, on Aug. 18, 2005.

As at St. Lawrence-FDR, major elements of the agreements included annual payments by the Authority to local governments and school districts and funding for economic development, environmental and recreational projects. In addition, the Authority committed to supply 25 megawatts of Niagara power for use by the governments and school districts, to fund recreational and environmental features of a proposed Niagara River Greenway that would extend about 35 miles along the river from Lake Erie to



Lake Ontario and to provide annual payments and a Niagara power allocation to the Tuscarora Indian Nation.

Missing from the August submittal was an agreement with the City of Buffalo and Erie County, which remained in intense negotiations with the Authority over settlement terms. The issue was resolved in December 2005 with an agreement in principle for the Authority to provide funding

Left: Participants in the Niagara project relicensing process at a meeting in 2003.

Below: Work proceeds at the Massena town beach in 2004 as part of the recreational improvements that the Power Authority committed to provide under its new license for the St. Lawrence-Franklin D. Roosevelt project.

The admission-free visitors center, opened in 2005, at the St. Lawrence-Franklin D. Roosevelt Power Project.



throughout the license term for redevelopment of the Buffalo waterfront and for the Erie County portion of the Greenway.

The settlement meant that most of the principal parties were now supporting the Authority's bid for a new license. It meant as well that the Authority's funding commitments to local entities under the St. Lawrence-FDR and Niagara licenses would total about \$1 billion, along with the millions of dollars earmarked for environmental and recreational improvements in the project areas.

Meanwhile, the Niagara project upgrade, begun in 1991, was on course for completion by the end of 2006. The work entailed replacement of each of the 13 turbines at the Robert Moses Niagara Power Plant, the project's main generating facility, and other improvements to the generating units. At St. Lawrence-FDR, a similar undertaking involving the 16 turbine-generators began in 2000, with completion scheduled for 2013. (A four-year program at the Blenheim-Gilboa Project was to begin in the fall of 2006, bringing the Authority's total investment in the upgrades and modernizations at the three projects to more than \$700 million.)

The Authority further demonstrated its commitment to the projects and the local communities by completing renovations of the admission-free visitors centers at each facility from 1998 through 2001, then building a new St. Lawrence-FDR center, which opened in 2005. Planning for the \$5 million facility, in a scenic setting across the water from the power dam, began when security concerns after

Sept. 11, 2001, prompted closing of the previous center, located within the dam structure.

Featuring interactive exhibits and videos dealing with electricity, the environment and local history, the centers were focal points for

tourists and school groups and served as gathering places for meetings and community events. An added attraction at Blenheim-Gilboa was the historic Lansing Manor House, built in 1819 and restored by the Authority to reflect 19th-century rural life.

These facilities complemented the environmental and recreational features that the Authority had provided when it built the projects—parks and marinas, places for wildlife, scenic vistas, prime fishing spots. The initiatives at St. Lawrence-FDR set the standard for other hydroelectric projects; subsequent efforts at Niagara and Blenheim-Gilboa would contribute further to what in time would become the Authority's environmental tradition. Now, thanks to the emphasis on the environment in the new license at St. Lawrence-FDR and the pending license at Niagara, that tradition would be strengthened anew.

Hammering out the relicensing agreements and balancing a raft of competing interests had been difficult. But, for all the contention and controversy, it had never been seriously suggested that the new license for either project be awarded to anyone other than the Power Authority.

That, as much as anything, testified to the Authority's stewardship of these priceless public resources, to its keeping of the trust placed in it with the original licenses. The struggle for waterpower was long over. The victory was secure.



The Power Authority's leadership in 2006 as the 75th anniversary neared: Seated (from left), Chairman Joseph J. Seymour, Trustee Elise M. Cusack, Vice Chairman Frank S. McCullough, Jr. Standing (from left), Trustee Michael J. Townsend, President and Chief Executive Officer Timothy S. Carey, Trustee Robert E. Moses. Not pictured is Trustee Thomas W. Scozzafava, who, like Moses, joined the board in March 2006. One seat remained to be filled on the newly expanded board.

Epilogue-2006

As the year 2006 began, the Power Authority was preparing to celebrate its 75th anniversary.

The tiny agency that had been born in conflict on April 27, 1931, and had endured for more than two decades before starting construction of its first power project, had long since claimed its place as the nation's largest state-owned electric utility.

Electricity produced at its 18 generating plants* or purchased by it from other sources flowed to consumers in every corner of New York. Its 1,400 miles of high-voltage transmission lines accounted for more than one-third of all the high-voltage transmission in the state. The value of its assets exceeded \$6 billion.

As restructuring transformed New York's electric power industry, the Power Authority emerged as the only entity in the state to function as a major generator, transmission owner and customer-serving utility. It brought to these roles a solid financial foundation, recognized in strong credit ratings for the bonds and notes that funded its activities, without use of tax revenues or state credit.

The anniversary year, by coincidence, marked the first change in the size of the Authority's Board of Trustees, which had consisted of five members since the beginning. Legislation enacted in response to calls for greater accountability by all of the state's public authorities increased the number to seven. Fittingly, one of the new trustees was a Syracuse attorney named Robert E. Moses, though he was no relation to the chairman who led the monumental St. Lawrence and Niagara construction efforts.

In addition to the chairmen and trustees who had guided the Authority's growth over the years, a distinguished group of general managers and presidents had led a talented, multi-disciplined staff at the power projects and in the administrative offices. Besides the three presidents who doubled as chief executive officers, they included William Chapin, Asa George and George Berry, followed by Leroy Sinclair, former Nuclear Navy officers J. Phillip Bayne and John Brons, and Robert Schoenberger.

From Franklin Roosevelt, who willed the Power Authority into being, to George Pataki, who called on it to help meet his ambitious energy, environmental and economic development goals, a succession of governors from both major parties had recognized the Authority's value as a singular asset of New York State. With Pataki having declined to seek a fourth term in 2006, a new governor would take office in January 2007. But, at a time of tenuous energy supplies, rising costs and increasing environmental concerns, there could be little doubt that the coming administration, like its predecessors, would rely heavily on the Authority.

Its reputation forged through decades of achievement, its impact acknowledged throughout the state and beyond, its future offering the promise of ongoing and still unimagined successes, the New York Power Authority at 75 was poised for a new era of service and accomplishment.

The bold dream of the 20th century had become the shining legacy of the 21st.

* As of 2013, NYPA owned and operated 16 generating facilities.

Power Authority Act (excerpts)



Chapter 772 of the Laws of New York, 1931

AN ACT to declare the policy of the state of New York in respect to the use of the Saint Lawrence river for the improvement and furtherance of commerce and navigation and the protection and development of the water power resources thereof, and providing for the creation of "the Power Authority of the State of New York" to effectuate the same, and making an appropriation for the purposes of the act

Became a law April 27, 1931, with the approval of the Governor. Passed,
three-fifths being present

*The People of the State of New York, represented in Senate and Assembly, do enact
as follows:*

Section 1. That part of the Saint Lawrence river within the boundaries of the state of New York is hereby declared to be a natural resource of the state for the use and development of commerce and navigation in the interest of the people of this state and of the United States, and for the creation and development of hydro-electric power in the interest of the people of this state, and such natural resources...shall always remain inalienable to, and ownership, possession and control thereof shall always be vested in, the people of the state.

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