

1980 Annual Report
 To the Owners of
 Vermont Electric Cooperative, Inc.

MEMBER SERVICES

RYANT M. WATSON MARY B. GATES LARRY E. PERRY ERNEST T. AUDIBERT WILLIAM H. LAMB, JR. DEBBIE L. COLE CLAYTON C. RUSSELL



METER DEPARTMENT

LLOYD D. TILTON DANIEL C. PERKINS DONALD F. GILLEN



PURCHASING & MECHANIC

EVERETT DUBRAY GARY C. FRIEDRICH ROGER W. DUFFY



Ready to Meet the Shift Of Population from...

A Special Report

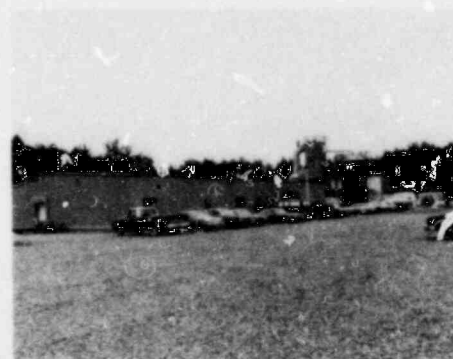
Vermont Electric Cooperative serves a population almost equal to Burlington. The 9,611 member households, of which 9,275 are residential or farm, are along 1500 miles of line in five counties. This Special Report is about the area served by the Co-op and a significant event, covering the past ten years, transpiring there.

The Setting. It has been said that Co-op lines start where blacktop stops. The Co-op does, in fact, serve rural people who live along dirt roads. Revenue per mile of line is about \$2,500 compared to the \$30,000 of utilities that serve built-up areas. There are just over six Co-op members per mile of line compared to the thirty, forty, sometimes one hundred customers per mile on city-based lines.

Moreover, a rural electric co-op is mainly residential, as the chart on Page 26 shows. There are about three hundred farms, a like number of small businesses, several schools, and one large manufacturing plant. Median income in many of the areas served by the Co-op is below state average. There is, however, another side to the coin, and that's what this Special Report is all about.

Two Parts. There are two parts to the Co-op service territory: The lines near bustling growth and

Seabrook, shown under construction, will help supply electricity for firms as varied as Spartan Industries in Fairfax, Butterfield in Derby Line and Express Foods in Georgia. Although Butterfield is the only one of the three on Co-op lines, the other firms show the varied economic activity in counties served by the Co-op.



... Urban to Rural Areas. As a

LINE



ROBERT E.
LAMB



RICHARD A.
PARKER



RICHARD L.
SIMAYS



BRUCE J.
LAMB



ALAN F.
COLE



KENNETH M.
LOCKE



LEONARD A.
SWEETSER



RICHARD H.
PERKINS



ROLAND D.
SARGENT

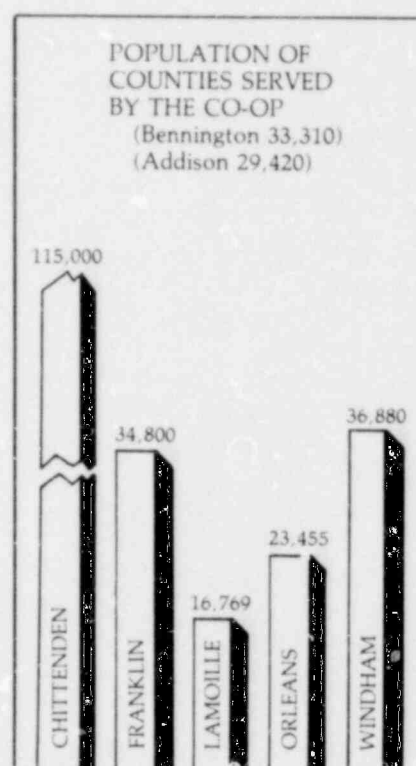
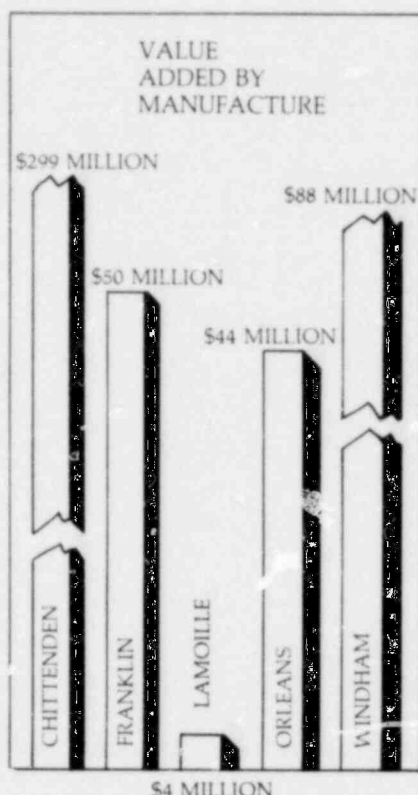


STANLEY E.
ELLOW

economic activity and lines where there is little growth, and manufacturing is non-existent.

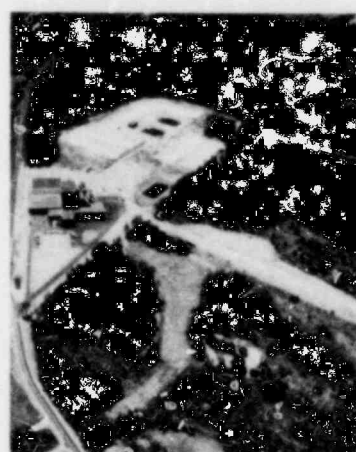
The counties in which Co-op lines are represented, in economic activity, about one third of the Vermont Gross State Product of 3.6 billion dollars. About a third of the state's labor force of 230,000 are employed within their borders. Half the state's population of 511,299 live there. Value added by manufacture in the Co-op's three most rural counties — Franklin, Lamoille and Orleans — amounts to \$87 million annually, about a third of those counties' total Gross Product. All of them increased in population from 1970 to 1980 as did the whole state.

The Shift. Where have those increases taken place? A population shift in Vermont and Co-op service territory is underway. While Burlington's population declined two percent in the decade, eight towns served by the Co-op had substantial



Columns representing amounts too large for graph are shown as broken.

Photos courtesy of Vermont Travel Department and Agency of Development and Community Affairs. Photos of Niagara and St. Lawrence power stations are courtesy of Power Authority State of New York. We are indebted to Yankee Nuclear Power Corp. for the photo of its plant in Vernon, and to Public Service Co. of New Hampshire for the photo of Seabrook.



"Special Report" Shows, It's the Trend In Which



LOUIS A. AUDIBERT



KELLY W. BURNHAM



J. ALAIN PAQUETTE



KEVIN C. KIDNEY



PETER G. HONCZAR



LEE G. HAYFORD



JOSEPH P. PICHETTE



ROBERT H. DUCKLESS



LAUREL E. PERSICO



GORDON C. SMITH

increases. One — Underhill — saw its population shoot up eighty percent. Williston, Jericho, Fairfax, Georgia, and Guilford all increased in population. Meanwhile, all urban centers in Vermont except Springfield and Bennington, lost population. (See charts).

"The trend appears clear," says the Vermont Agency of Development and Community Affairs, "larger Vermont communities are losing population and smaller adjacent communities are gaining."

The Co-op. As the new connection chart shows, the Co-op has gained in population too. Those 3,663 members represent a population of some 9,000. Since the Co-op connected 370 new members in 1980 — a year of extremely high mortgage rates — it appears that this shift to Co-op territory is only just beginning.

The Significance. The Cooperative is on the eve of an era of accelerating growth. The growth, however, will come in two ways: From new people moving into the area, and from increases in the use of electricity itself.

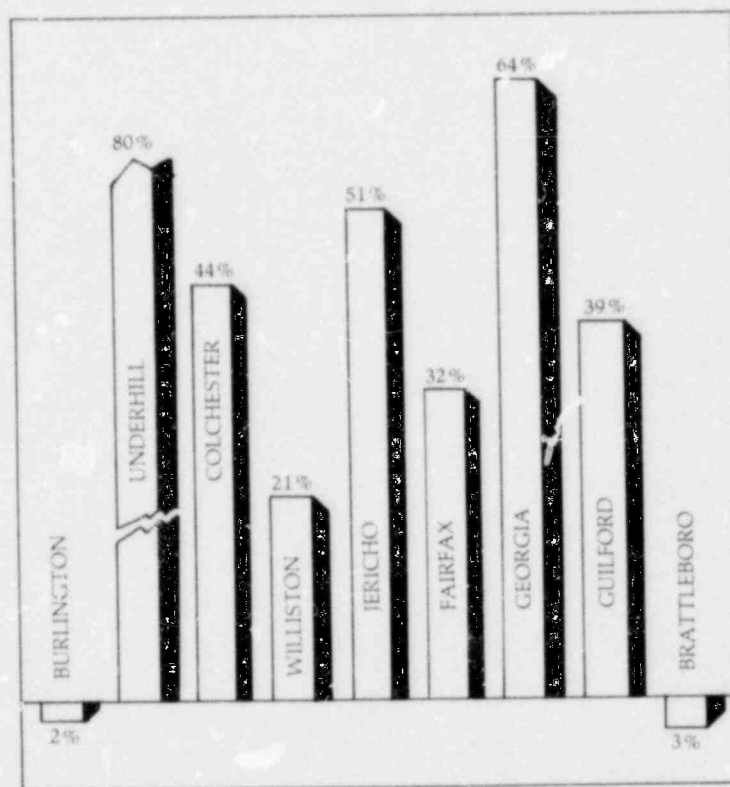
A glance at several charts underscores this fact. During 1980, the Co-op's peak demand increased 12 percent in December, and the use of kilowatt hours climbed 3.4 percent for the year. (A record, all-time peak was set in February 1981).

The charts also show the seasonal nature of the Co-op. The chart showing 24-hour use in the winter demonstrates that there is a shallow valley between midnight and morn-

ing. But chart (KW), showing yearly use, demonstrates how little used, throughout the year, the Co-op system is. As more and more residential members are added, this fact will be accentuated.

The Strategy. A new rate design or pricing method, Wise Watt Owl[®], controls on water heaters, storage heaters will all help shave peaks. But significant filling of the summertime low-use valley will need new members, like Butterfield in Derby Line, who, because they manufacture year round, help fill

Growth of areas (1970-1980) served by the Co-op and decline in population in two cities, Burlington and Brattleboro, is shown in this graph.



those summer valleys. Moreover, they provide generating capacity in the winter that can be used both by the manufacturing plant and non-residential members because manufacturing peaks and residential peaks aren't at the same time.

The Future. The Co-op provides dependable, high quality electric service. The average member outage was less than seven-tenths of one percent in 1980. In addition, present and new Co-op members are assured of an adequate supply of electricity because of the Co-op's constant action in planning for and securing future generating capacity. In the meantime, the Co-op will need to use what resources it can spare to attract suitable manufacturing firms to its lines.

the Future of the Co-op Lies. It Has Been Going

ENGINEERING



O. JOHN
BOHN



DOUGLAS E.
BRYER



GORDON C.
SMITH, JR.



PETER J.
RODIN



DORICE S.
ALLAIRE



WILLIAM H.
TARBOX



LOIS M.
BEARD



LINDA A.
REEVE



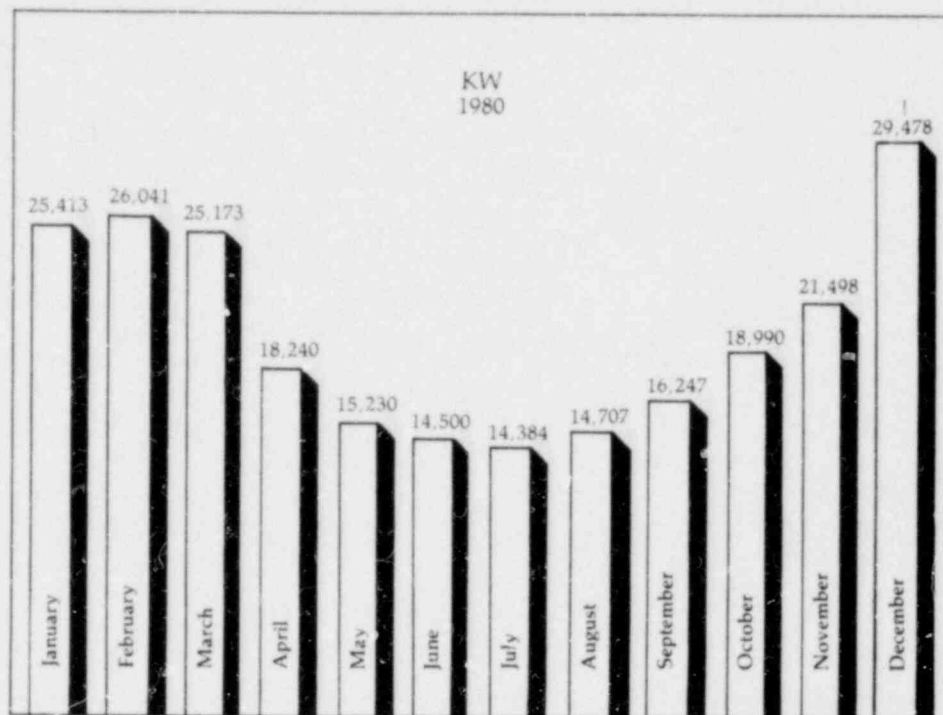
JENNIFER A.
LYNCH



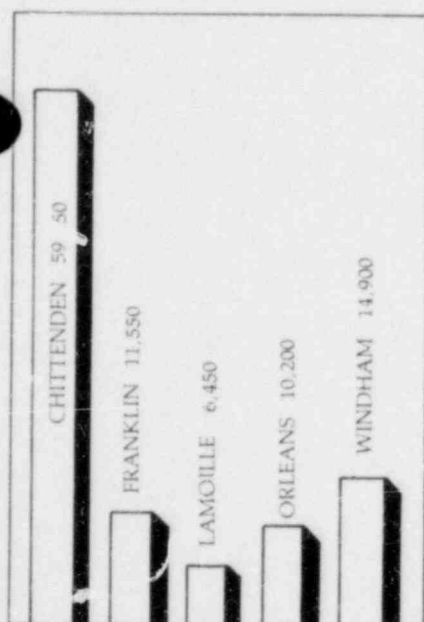
MARY ANN
PARKER

ACCOUNTING

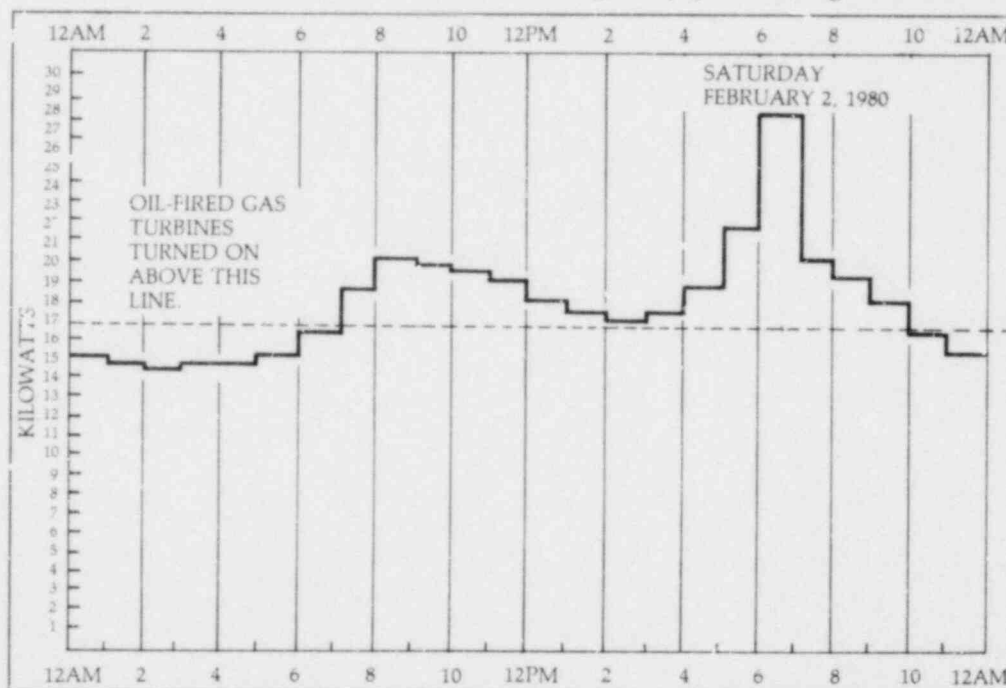
Deep summer valley of kilowatt demand shows how under-used a rural electric co-op system is. The valley — caused by the high winter peaks — applies to the whole system; wires, transformers, substations, all of which are made large enough to meet the heavy loads of winter demand.



Labor force in counties served by the Co-op.



Shallow valley in 24 hour winter period shows heavy use of system during cold weather.



On Ten Years Now. All But Two Urban Areas in

CUSTOMER ACCOUNTS



MELISSA A.
GILLEN



MARY E.
SYLVESTER



SHIRLEY A.
MESSIER



MARIE F.
WALKER



JANE T.
TALLMAN



GAIL M.
CARPENTER



RUBY R.
MCNALLY



MARY
NYE



RHODA T.
KIMBLE

EMERGENCY
DISPATCHER

RECEPTIONIST

Our theme, "Power and People" is our belief that the rural areas served by Vermont Electric Co-op are good places to settle and raise a family or be in business.

That's because the Co-op lines and rights-of-way are in excellent shape, our employees are motivated and trained and we will have the power to meet the demands of growth.

That growth, as our special report reveals, is real. People are finding the rural areas more and more attractive places to live, especially when jobs are near at hand. We welcome Butterfield to our lines as symbolic of our need for more suitable industry, not only for the jobs they offer, but because a balance of industry and residential members makes the cost of electricity much more reasonable.

As this Annual Report reveals, our plan to buy our own generation to serve growth is continuing. Investment in nuclear generating plants now stands at \$7.4 million, and our distribution plant at \$12.9 million.

The Vermont Electric Generation and Transmission Co-op was finally established on firm footing during

Vermont Electric Cooperative Annual Report

This is the June issue of Co-op Life, published each month by Vermont Electric Cooperative, Inc., School St., Johnson, Vermont 05656. Editor is Nathaniel P. Worman, Worman Associates, Franklin, Vermont 05457.

Address inquiries about this Annual Report to Assistant Treasurer and Controller Jerry Bucholz, Vermont Electric Cooperative, Inc., School St., Johnson, Vermont 05656.

1980 after many months of hard work by our manager, Bill Gallagher. This assures us of the most reasonably priced power possible. In addition, the \$7.4 million assets of generating plant and the debt incurred to buy those assets will become part of the G & T Co-op thereby reducing the margins needed by our distribution system to cover that debt.

Thus, for each dime we invest in time, in fees, and in wages, we expect to get 15 or 20 cents in return. We've been guided by that idea in our search for alternative sources of electricity; in our search for new power sources, in our hiring practices. Each day we try to do the best job possible in order to build the strongest possible co-op.

But no matter how good a job we do, we will still need to ask for rate increases to match the increases in the cost of generating, transmitting and distributing power. None of us, of course, like rate increases. I'm already paying more than \$500 a month for electricity on my farm. But all my other costs are up, too, and electricity is only about a tenth of my energy needs. If we expect services we must pay for them.

We will continue to strive to provide our members with service of the highest quality for the most reasonable price possible. To do so, we must build equity as quickly as possible to keep down the cost of long-term borrowing. We must continue to use our financing advantages to buy joint ownership in

baseload plants. We must attempt to get the approval of rate increases in the most timely way possible to avoid high-cost short-term borrowing. And we must cut costs wherever service will not be impaired. A strong, enduring co-op will be the result.



Vermont Have Lost Population While Adjacent

DATA PROCESSING



ROBERT A. CARLSON



MARK W. PERRY

TRUSTEES



PILLSBURY



CARON



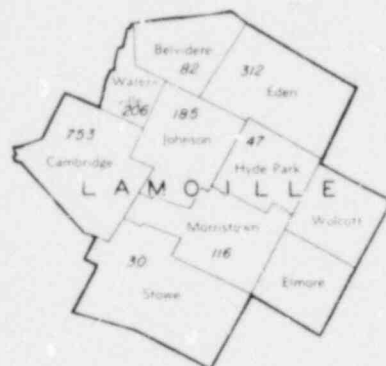
CENTABAR



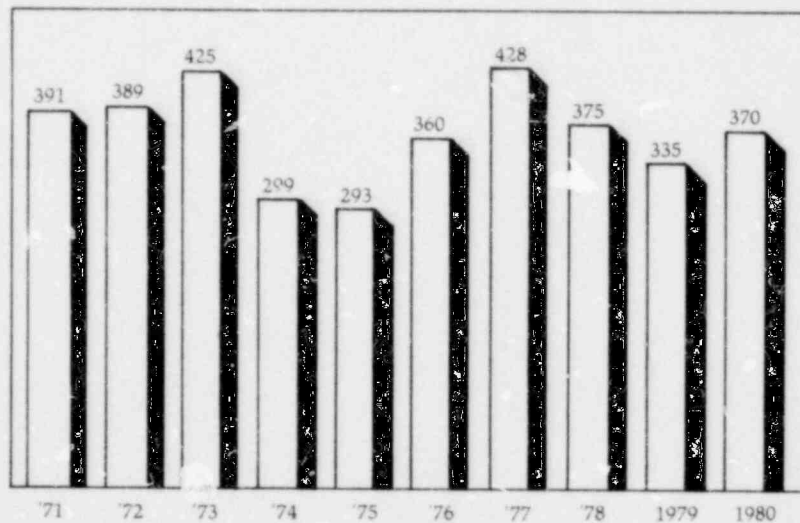
BLAIS



SNIDER



Recreation, industry, commerce in and around Co-op territory stimulate economic activity and growth. The number of Co-op member households is shown by small numbers in each town. In harmony with ten-year trend, Chittenden County has more Co-op members than any other county. Chart shows new connections during past ten years.



Areas Have Gained.

Underhill, For Example,



WARNER



BUTLER



ALLEN



EARLE



WASHER



KINNEY

TRUSTEES

I

Sumner F. Farr, 1983

Richmond

First Elected 1971

HINESBURG

HUNTINGTON

RICHMOND

STARSBORO

II

Arnold C. Centabar, 1982

Berkshire

First Elected 1977

BERKSHIRE, FRANKLIN,

SHELDON

III

Clifford Snider, 1981*

Richford

First Elected 1977

ENOSBURG, MONTGOMERY,

RICHFORD, WESTFIELD

(MONTGOMERY ROAD)

IV

Alvin Warner, 1984

Lowell

First Elected 1980

BROWNINGTON, COVENTRY,

JAY, IRASBURG, LOWELL,

NEWPORT, TROY,

WESTFIELD

V

Benoit U. Blais, 1983

Derby Line

First Elected 1971

DERBY

VI

J. Douglas Webb, 1983

Fairfax

First Elected 1952

BAKESFIELD, FAIRFAX,

FAIRFIELD, FLETCHER,

GEORGIA, ST. ALBANS,

SWANTON



VII

Marshall Washer, 1984

Johnson

First Elected 1964

BELVIDERE, JOHNSON,

MORRISTOWN, STOWE,

WATERVILLE

VIII

Ernest Earle, Jr., 1984

Eden

First Elected 1980

ALBANY, CRAFTSBURY,

EDEN, GLOVER, HYDE PARK

IX

Gerard Caron, 1981*

Westford

First Elected 1957

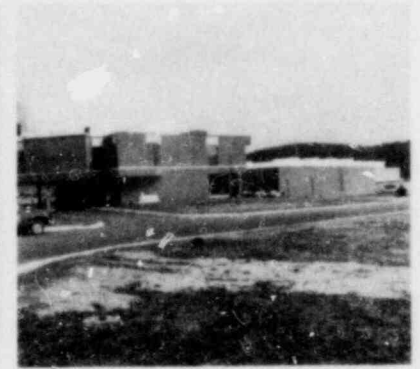
Defeated 1977

Appointed 1978

BOLTON, ESSEX, JERICO,

MILTON, WESTFORD

8



Increased 80 Percent In Population. With



WEBB

JONES

HOWE

FARR



X

William Kinney, 1982
Jeffersonville
First Elected 1970
Defeated 1974
Appointed 1979
CAMBRIDGE, UNDERHILL

XI

Henry Pillsbury, 1981*
Williston
First Elected 1977
SHELBURNE, ST. GEORGE,
WILLISTON

XII

Laura L. D. Howe, 1982
Jamaica
First Elected 1970
ANDOVER, JAMAICA,
TOWNSHEND, WARDSBORO,
WINDHAM

OFFICERS

J. Douglas Webb
Clyde W. Jones
William Kinney
J. Gallagher

Marshall Washer
Jerry Bucholz
Laura L.D. Howe
Nora H. Winckler

President
1st Vice President
2nd Vice President
Vice President &
Executive Manager
Treasurer
Asst. Treasurer
Clerk
Asst. Clerk



XIII

Clyde W. Jones, 1984
East Dover
First Elected 1963
As Trustee For Former
Halifax Electric Co-op
DOVER, NEWFANE

XIV

Richard Allen, 1983
Wilmington
First Elected 1979
MARLBORO, READSBORO,
WHITINGHAM,
WILMINGTON

XV

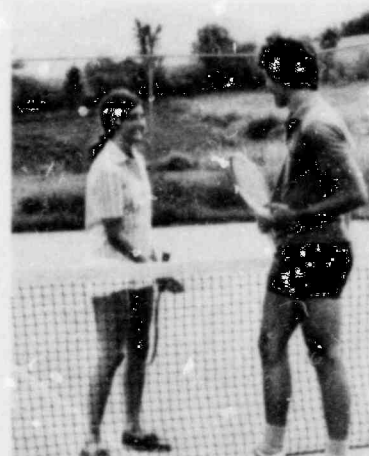
J. George Butler, 1981*
Halifax
First Elected 1977
GUILFORD, HALIFAX,
VERNON (in Vt.), COLRAIN,
LEYDEN, BERNARDSTON (in
Mass.)

*Term expires 1981. The July Co-op Life will carry names of nominees. Date following name of trustee is date term expires.



Sign of time: Old Man of the Mountain and his dog at Smuggler's Notch.

Bustling areas in and adjacent to territory served by the Co-op: Vermont Yankee, far left, makes electricity for everybody. Famolare in Brattleboro and Orleans Manufacturing (not on Co-op lines) as well as Smuggler's Notch ski area, a Co-op member, all contribute to economic health.



Teamwork and Cooperation, the Co-op Is Ready



Nineteen eighty was a tough year for our economy and for our pocketbooks.

Continuing inflation meant that, along with other cost increases, interest rates went higher and oil and gasoline costs climbed at an alarming rate. Our ski industry suffered because of poor weather. The housing market all but dried up.

In spite of these conditions, the Co-op continued to grow, and we, the trustees and management, continued to take actions aimed at keeping the Co-op healthy and viable.

The challenges facing us are formidable but not insurmountable. Fortunately, we have a staff of dedicated, competent people who understand how hard they must work to ensure you and your grandchildren an adequate supply of dependable electricity.

Distribution System

During 1980, the average member had steady and reliable voltage and electricity available 99.93 percent of the time. This is the goal toward which we bend all our efforts: when replacing old with new lines, when clearing or spraying rights-of-way, when installing fuses to "trap" a fault within fewer miles of line, when publishing Co-op Life to help people meet an emergency, when improving our maps and location numbers, when buying a digger truck and training our crews and maintaining inventory so that a crucial transformer is on hand when emergency dictates, and when maintaining high standards with experienced crews when we build new lines.

Power & People

The theme of this Annual Report, "Power & People," emphasizes the



William J. Gallagher

high quality of our electric system. We can accept — and will pursue — suitable industry to improve our load factor and lift some of the burden of rate increases from our residential system while benefiting the industry itself with dependable and reasonably-priced power.

We can do that because we have a firm grip on power supply. We softened the impact of exploding power costs by negotiating exchanges with southern New England utilities during the summer months. We saved \$916,886, most of which would have appeared in your electric bills if we had not stood firmly in the power marketplace, buying, selling and trading almost every week of the year.

Power supply doesn't end there. A strong power base, like a good distribution system, is built from many ingredients. Here is the list.

The Generation and Transmission Co-op. Modern power buying and planning demands the presence of an organization, made up of many buyers, who can buy, sell, exchange and fit blocks of power into the most frugal pattern. There had never been a generation and transmission co-op, matching our

needs exactly, in New England. Begun by this Co-op, it now has six members and will soon own and manage all of our shares in generating plants. We benefit from its low-cost REA financing and rules for debt coverage. We also benefit because the long-term debt which pays for our joint ownership of generating plant will become the obligation of the G & T and thereby reduce the amount of money members must pay in rates for building TEAM (equity/ownership).

Nuclear. During the year our investment in Seabrook, Millstone and Pilgrim increased by \$3,055,364 to \$7,895,790. The money came from the REA 5 percent loan approved in 1976, and from the Cooperative Finance Corp. Interest and principal payments on these investments appear in electric rates only when the plants start making electricity.

Four nuclear units, from which we planned on receiving power, were cancelled in 1980. We are now pursuing alternatives. Although we had spent about \$100,000 in preliminary studies of these units, we had not made any major commitments and there will be no additional loss of money.

Hydro-power. We made good progress toward a hydroelectric station at the North Hartland Flood Control Dam. We received a loan of \$500,000 from REA at 5 percent interest and used the proceeds to prepare final feasibility studies and an application for a federal license to construct and operate the project. We predict the final Federal license approval will be made by Fall of 1981. Meanwhile, we are awaiting REA approval of our loan application for \$13.5 million to build the project and, if all goes well, con-

for Growth With Able Employees, Reliable



struction will begin the Spring of 1984.

In December, we received approval of a Department of Energy loan for \$44,000 to study the feasibility of a hydro site at Union Village Flood Control Dam.

Also, in 1980, we applied for preliminary permits on Dewey's Mills and Emery's Mills, on the Ottauquechee River above North Hartland. Several private developers have filed competing applications and we are awaiting a FERC decision.

Wind Energy. In February 1980, we recieved a DOE grant to study wind currents and weather conditions on Stratton Mountain to find out if a wind turbine would be feasible. Within a short time after construction, all the equipment froze up with ice and broke off or was blown away. We have learned three things: 1) There is plenty of wind on Stratton Mountain; 2) DOE will have to design a windmill that will withstand Stratton's severe conditions, and 3) icing conditions will be difficult to overcome.

Vermont Coal Generation. The Public Service Board did not launch the study of in-state coal generation as urged last year. I firmly believe that we must study the economic and environmental feasibility of coal-fired generation. I will urge the new Department of Public Service to include coal in its long-range electric energy study.

Conservation and Load Management. As important as getting power is the proper use of it. Our Wise Watt Owl © campaign, time controls on water heaters, storage heat units and new rate design are all aimed at shaving peaks and filling valleys.

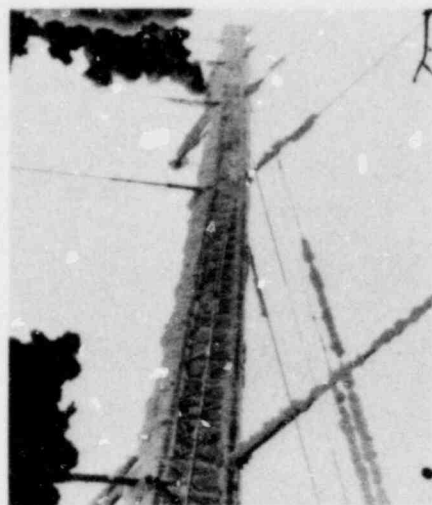
Members had made tremendous gains helping us hold peaks steady for several years. But in December the a/e fell. The price of heating oil shot up and the thermometer plunged to forty below zero. Families who had been using oil to heat whole houses, retreated to one room and portable electric heaters. On Christmas day we hit an all-time peak demand of 29,478 KW. Not only did peak increase, but members used 18.6 percent more kilowatt hours than in the previous December. When conservation is not practiced at peak times, it only results in higher costs in future. A 3,000-KW increase in peak demand, for example, adds \$180,000 in demand charges year round.

New Rate Design. In May we filed a forward-looking rate design, consistent with the objectives of the Public Utility Regulatory Policies Act of 1978 (PURPA): conservation of resources by the efficient and full use of our system, and equitable rates. We believe the design, if it had been approved by the PSB, would have done just that by holding down peaks and filling valleys with the least expenditure in sophisticated hardware. We predict the PSB will act in 1981, and the design will be implemented for the next winter peak season.

Rate Increase Request. Treasurer Marshall Washer with the help of charts explains the objectives of our request for a rate increase of 12.6 percent, its relation to equity, higher power costs and our 1980 deficit.

Staffing

There were 57 full-time employees at the end of 1980, compared to 50 at the end of 1979. Several important staff changes took place.



Co-op, working with Stratton Mountain Corp. and the Department of Energy, erected a wind-measuring tower in 1980. Strong winds, heavy icing, and storms showed the conditions a wind turbine would meet.

In November, after 25 years of service with the Cooperative, Member Services Dept. Manager Phil Locke retired. We miss him and wish him well. The new manager of the department is Bryant Watson, formerly vice president and general manager of Delta Electric Co. Data processing coordinator Page Guertin, who made significant contributions to our progress, resigned in December. Bob Carlson, formerly with Vermont Marble Corp., has been hired to fill the vacancy.

The Future

The price of electricity, like all other commodities, will continue to rise in the future. Because we have acted positively in our planning, we believe we will hold those rises in line. Please continue to use electricity wisely, conserving on peak. This cooperation of Co-op and members will mean the maximum benefit from your electric system.

Electricity Flowing 99% of The Time and Power-



In 1980, the Line Department connected its largest commercial member ever, Butterfield Division, Litton Industrial Products in Derby Line.

On the day that we connected Butterfield, we also connected Derby Line members into the VELCO lines and so into the New England Power Pool grid. This gives us much more control when restoring service to our members and we don't have to depend on another country. Hydro Quebec outages were sometimes very long. We have now improved our system in the Derby Line area and have increased the reliability of service.

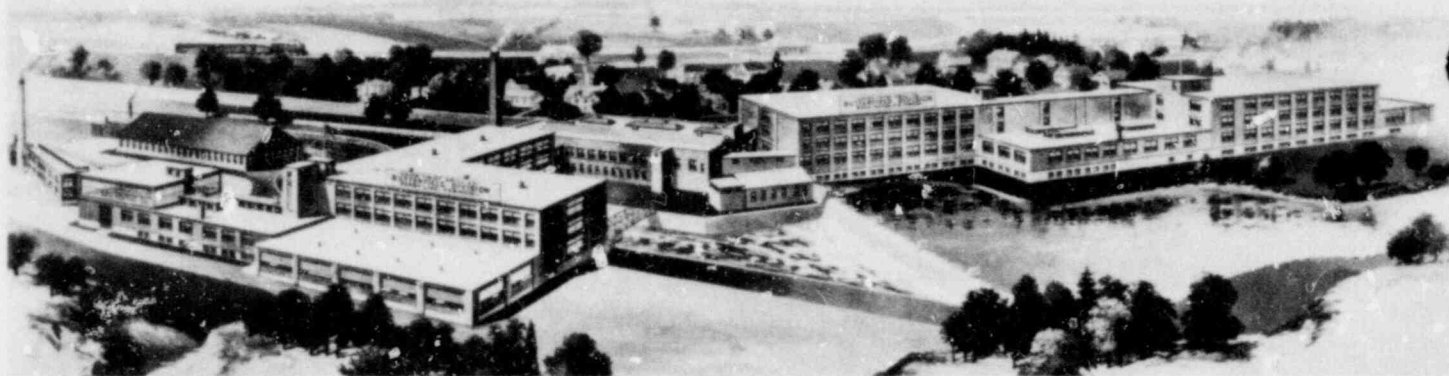
We also connected 370 residential, small commercial and seasonal members to our overhead and underground distribution system. This was an increase of 35 over member connections in 1979.

The right of way cutting and spraying program was approved by the Trustees, and rights-of-way were cut in Williston, Richmond, Hinesburg, Jericho, Bolton, St. George, Shelburne, Eden and Lowell. We also did some cutting in the Halifax District. Hand cutting of vegetation in rights-of-way adds thousands of dollars to the cost of maintenance and that is why we use herbicides.

The right of way spraying program was conducted in Belvidere, Cambridge, Fletcher, Hinesburg, Jericho, Johnson, Richmond, St. George, Starksboro, Underhill, Waterville, Williston, Westford, Shelburne, South Burlington and Bakersfield.

The Line Department has started construction work on the new substation in Westford which will serve the towns of Westford, Essex and Milton.

I want to thank members for their cooperation during our right-of-way cutting and spraying programs and our Line Department personnel for doing a very good job in 1980.



Artist's rendering of Butterfield Division Litton Industrial Products in Derby Line. Butterfield became a Co-op member in 1980, one of the most significant events of the year.

Planning and Action That Assures Co-op Members



In 1980, the Engineering Department completed its main objective along with several special projects.

Once again, it provided the engineering and design for lines and facilities needed to add 370 new members, six miles of underground distribution line, and over nine miles of overhead distribution line.

We also prepared and assembled all the technical data for the 248 hearing required for the new Westford Substation. Site preparation at this substation was completed during the fall.

The department conducted pole inventories in our Fairfax No. 1, St. Rocks No. 6, Westford No. 11 and Fairfax No. 12 substation areas. This resulted in \$15,300 added revenue from poles carrying New England Telephone Co. lines which had not been previously included in our rental program.

Our special projects made 1980 an exciting year. Our own trustee from Halifax, George Butler, saw a dream come true when on April 1 his own small hydro generating engine went into action, providing 15 KW of power.

Our Stratton Mountain Wind Tower Project was completed in November. Last winter proved to be a "Shake down" cruise. A complete set of data, with reports from four seasons, will be ready next year. Severe icing and winds in excess of 100 miles an hour were encountered. The project would not have been possible without the outstanding assistance from all the capable people of the Stratton Mountain Corporation.

Engineering studies on our North Hartland Hydro Project were completed. As a result, the Co-op filed for an operating license with the Federal Energy Regulatory Commis-



Sketch shows part of North Hartland Hydro site.

sion (FERC), for a 401 Water Quality Certificate with the Vermont Agency of Environmental conservation and a 248 hearing before the Vermont Public Service Board. Subsequently, FERC accepted the license application, we received the 401 Water Quality Certificate and the 248 hearing was held.

We continued our studies of the hydro-power potential of the Union Village Flood Control Dam, Dewey Mills Dam and the Emery Mills Dam. We have a preliminary permit from FERC for Union Village dam, and have applied for preliminary permits at the other two.

During December, the Department and the Line Department planned for the swift and efficient change-over of power sources in Derby Line, cutting our contractual ties with Hydro Quebec and connecting our system, through agreements with Citizens Utilities, with the VELCO grid.

But more important than anything else, we connected our largest commercial customer, Butterfield Division, Litton Industrial Products of Derby Line. This makes our system more efficient by improving our load factor, helps fill our low-use

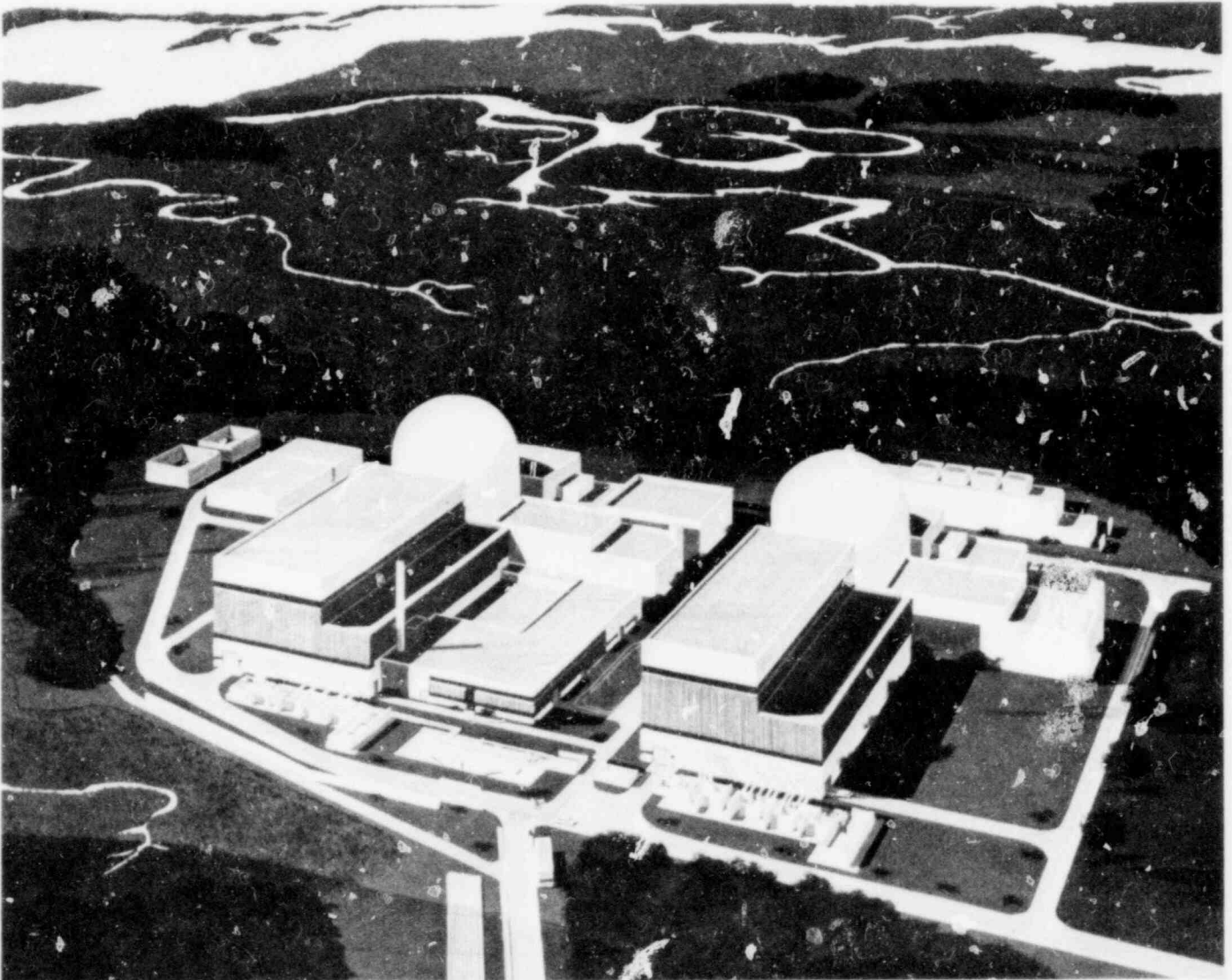
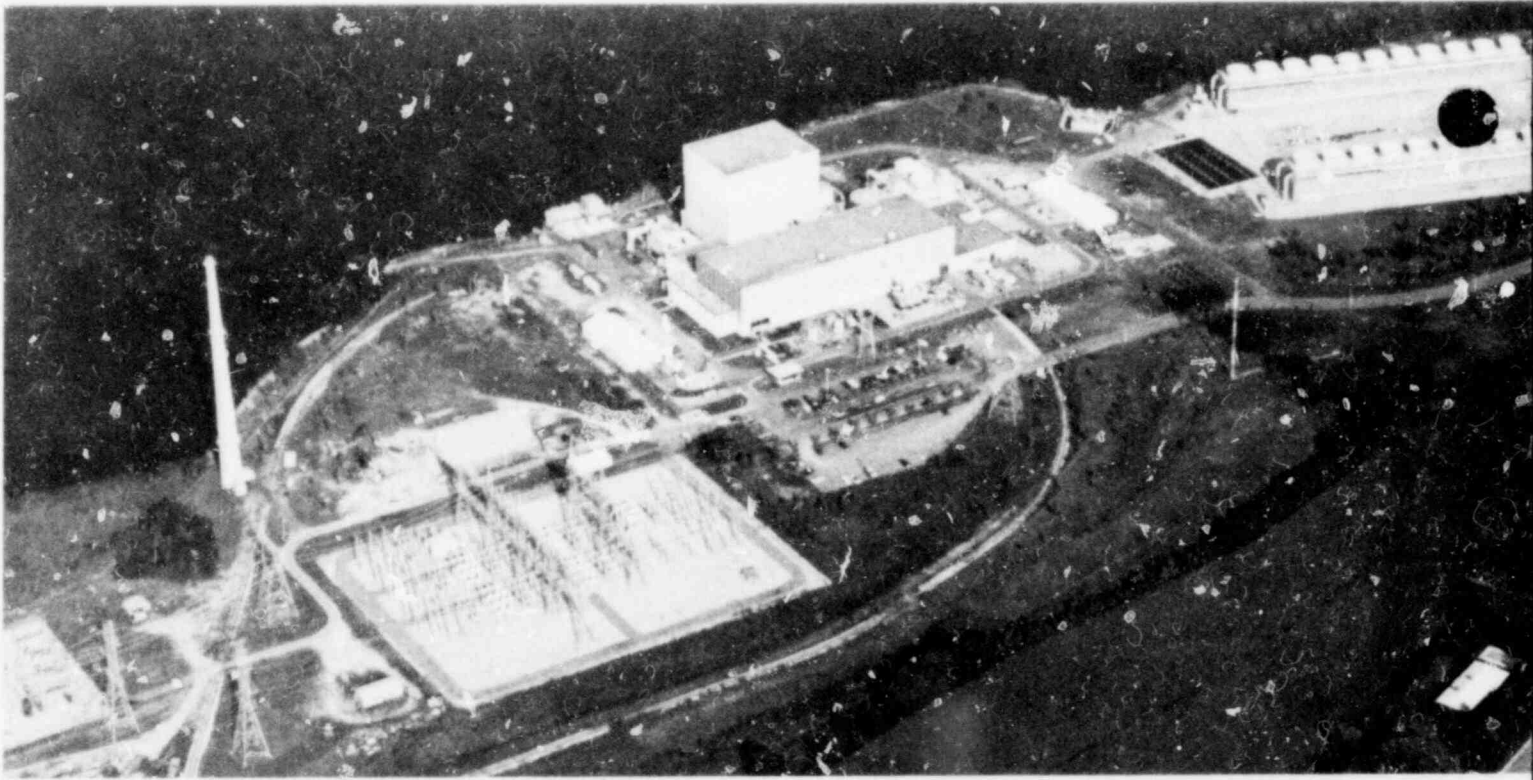
valleys while missing our peaks and demonstrates our ability to handle large loads well. Our campaign to persuade suitable industry to settle near our lines is continuing.

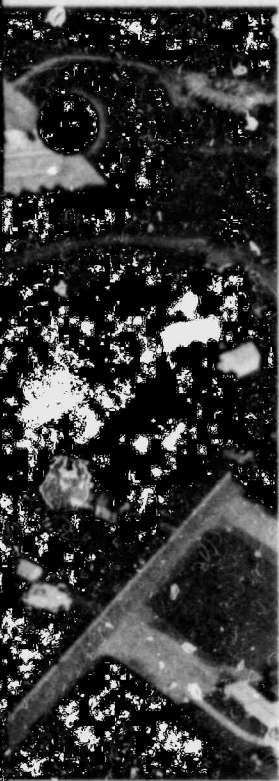
Although not a part of our accomplishment in 1980, I should mention a problem that is taking more and more of the Department's time and energy: Members who put up buildings or building additions too near or within our rights-of-way. This year alone we have had to oversee relocation of several buildings that were built in the right of way. Relocation is a costly business; the rights-of-way should be thought of as "safety avenues," areas to be avoided with buildings or construction. Anyone planning to build anywhere near rights-of-way should contact the Engineering Department before beginning construction.

Finally, we said goodbye to Associate Engineer Larry Fortin who resigned to travel and see the United States. He had become an efficient and courteous member of our team. We have since hired Douglas Bryer of Morrisville. We believe that Doug's talents will be of great value to the Co-op and its members.

Sufficient Power for Growth Into the 21st Century.







15



Power Options: Co-op power planning balances possibilities in searching for future sources. Niagara and St. Lawrence may play diminishing roles, which means Yankee, upper left, and Seabrook, lower left, will shoulder increasing burdens. Almost 30 percent of the Co-op's present supply comes from Niagara, above, and St. Lawrence, upper right.

The Member Services Department stocks, sells, installs and services major Hotpoint appliances, A. O. Smith electric water heaters, and farm and home electrical equipment.

We also handle high-energy use complaints, low-voltage complaints, heat loss calculations, special meter tests, inquiries about members' electrical problems and we assist other departments with advice, material and manpower.

The Department maintains all the standby generators of the Co-op, checks fire extinguishers, assists line crews in repairing storm damage, provides on-call helpers for linemen on trouble calls outside regular working hours and assists in the upkeep and maintenance of buildings.

We also do all non-energy billing and collections, assist with special projects, such as annual meetings, special mailings and member relations. We help open mail and assist other departments whenever or wherever needed.

The department is responsible for the installation of secondary underground services, member disconnect switches and we assist the Line Department in installing primary underground feeders, from pole to house.

We also offer members all types of wiring supplies at below retail cost, including underground wiring materials for any member who wants to install his own service.

Hotpoint Sales

We are able to sell Hotpoint appliances at reasonable prices because we buy them in half or full trailer loads. We provide emergency same-day service and maintain a stock of over 2,000 spare parts.

Electric Heat

As in the past, we make heat-loss calculations on new and old houses for members or their contractors to determine the number of kilowatts

of baseboard (resistance) heat needed. Twenty-three members installed electric heat in 1980, and 173 rented electric water heaters.

As oil increases in price, more people will turn to electric heat. They will also use it in conjunction with passive or active solar heat systems as well as other designs, using photo-voltaic cells, for example, which make electricity directly from the sun's rays.

Several new heaters are on the market this year, designed to be used in retrofitting existing systems to all-electric. One such system to be installed on our system by a member used an electric hydronic boiler to replace an oil-fired boiler.

Storage Heat

We have 41 storage heat installations on our system with a total connected load of 1,027 KW of off-peak demand, receiving power between 12 midnight and 6 a.m. At present the average storage heat installation is 25 KW each.

We have a detailed brochure explaining the pros and cons of the storage heat systems and this can be sent on request. We will include a questionnaire which, when filled out by the member after reading the brochure, will tell us whether storage heat will be a benefit. Presently the Co-op has enough capacity to supply another 95 members with storage heat.

Water Heater Plan

There were 621 accounts on our lease-purchase plan as of December 31, 1980. One hundred and ten new accounts began and 47 were paid off.

Until last year, the normal request for removal of a heater was because a member had installed a hot water furnace system. This year, some members who have hot water heating systems are either removing the entire system or the domestic hot water coil and are installing an

electric water heater. Monthly payments on water heaters are \$3.25.

The Co-op has three storage-type water heater contracts with 27 KW connected load of peak. There are six with 4.5 KW each.

Off-Peak Controls

One of our major contributions to the financial health of the Co-op is the installation of off-peak water heater controls. There are approximately 2,400 controls installed. They turn off power between 4 p.m. and 8 p.m. Based on the premise that the coincidence factor and natural diversity will place a one KW load per water heater on the Co-op system at any one time, the off-peak control program shaves 2,400 KW from the peak, avoiding \$144,000 in demand charges every year.

Special Analysis

Once again, the results of the analysis of the Member Services Department labor cost for 1979 show that only 35.4 percent of the total payroll of the Department is devoted to the sale and servicing of appliances and the water heater programs. Almost two thirds is devoted to the main business of the Co-op — supplying electricity.

Conclusion

It is my personal belief that as we enter this new decade, the Member Services Dept. will continue to play a dramatic role in the day-to-day operation of the Co-op and that as time passes our role will become even more useful. Electric usage will continue to grow and it will be our responsibility to see that electricity is used wisely and efficiently.



In my view, one major responsibility of the Treasurer of an electric co-op is to insist that we build equity/ownership as quickly as reasonably possible. In this Report we include a diagram on Page 21 that shows the connection between the financial statement and the growth of equity. We have given equity its full name as shown in the Balance Sheet, Total Equities and Margin (TEAM).

The amount of TEAM in relation to Assets is the most significant measure of our financial standing in the eyes of those from whom we must borrow today and from whom we may have to borrow tomorrow. There is no telling how long low-interest Rural Electrification financing will be with us. We must be ready.

We must also increase TEAM in order to decrease borrowing because cash from TEAM (equity) can be used to build and replace lines.

Every dollar of equity replaces a dollar of debt on which we must pay higher and higher interest.

Although we are financially strong — and getting stronger — TEAM decreased slightly in 1980, pulled down by our deficit of \$278,163. Nor did rates in effect during the year make the margin of \$213,505 our mortgage requires — a 1.5 TIER which means margins equal to half the interest expense on Long-Term Debt (LTD). Revenue from rates paid for electricity were thus short \$491,668 of paying expenses and making a minimum TIER.*

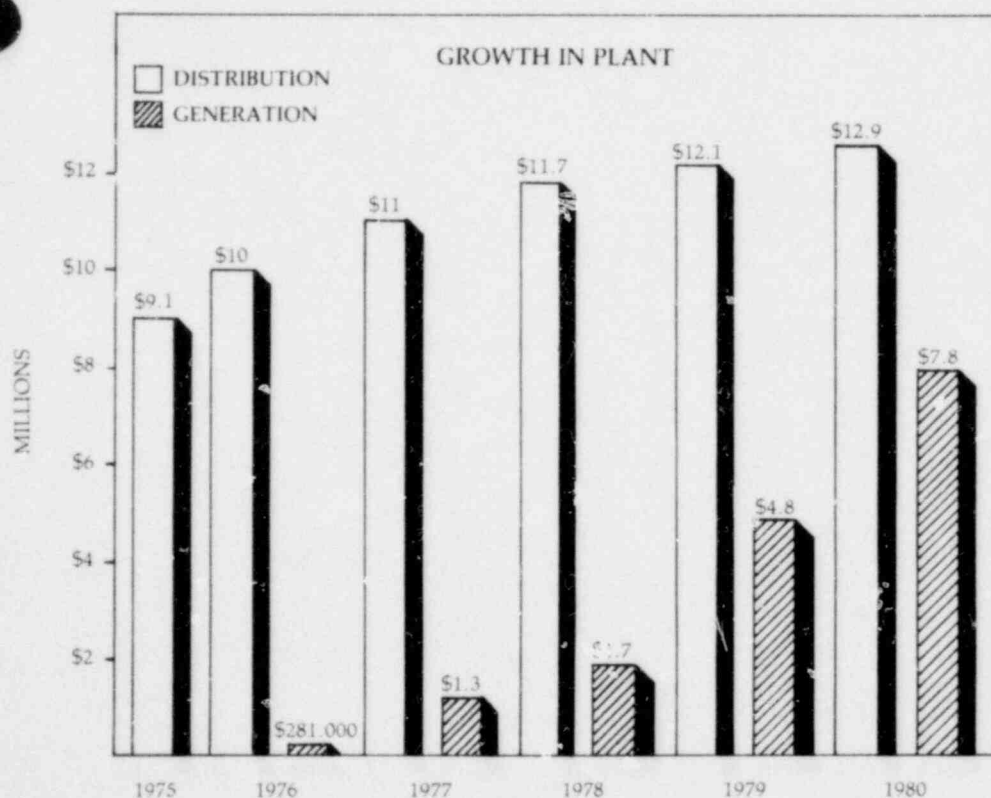
In the years ahead, however, this minimum equity-building will not be enough. The chart on Page 21 shows what is required: for every dollar paid out in long-term debt interest expense, a dollar must be taken in to add to TEAM (equity/ownership). This is a 2.0 TIER which will make a strong equity

position possible by the year 2000. The short-range view is that we should sit tight, borrow more and build less equity.

We Trustees do not agree. In 1973 we took the long-range view. The best interests of the Co-op and its members, we decided, would be served by building equity at the rate of two percent per year. In rate increase requests to meet more than increases in the cost of power, we have taken the position that a substantial part of any increase should increase equity.

We filed for a 12.6 percent overall rate increase May 28, 1980. A little over a third was for increases in the cost of power, about 15 percent to meet increases in controllable costs, about two percent for fixed costs, and almost 50 percent to build equity. Approval would have resulted in a slight margin for the year and a start toward our equity-building goal.

Equity building in an electric co-op is more than a financial matter. It is also one of justice — for the Cooperative house should be built in fair proportion by present and future members, the present contributing their fair share of equity, and the future accepting their fair obligation of debt.



*Because electric companies must always borrow to build, bankers set rules for lending. Over time, they like to see the gap between a company's debt and equity narrowed. The rate at which this narrowing takes place is determined by the rate at which equity grows and the need for borrowing slackens. It's a good rule of thumb, bankers conclude, that for every dollar paid out in long-term debt interest expense, another dollar be added to equity (TEAM) or margin for the year. That is a 2.0 TIER.



BALANCE SHEET

Summary. The Balance Sheet is a picture of the Co-op's Assets (left side) and Liabilities (right side) "snapped" December 31, 1980. Two shaded bands tell the story. Total Assets, bottom left, increased, while Total Equities and Margins (TEAM), middle right, decreased \$39,073, to \$2,781,405, the result of the 1980 deficit. TEAM, the same thing as equity or ownership, grows mainly from what is left over (Margins) of revenues paid by members for electricity after all expenses have been paid. And when there is an operating deficit, TEAM decreases.

The chart headed "TEAM and Assets" shows that TEAM is 17 percent of Assets. An explanation is in order. Here we are concerned only with those distribution system assets of Vermont Electric Cooperative. The \$7,437,910* of the "Work in Progress (top left) and the "Nuclear Fuel in Process" of \$474,714, pertain to the Cooperative's participation as a joint owner in generation projects. These assets and associated debt will be transferred to the Vermont Electric Generation and Transmission Cooperative. The TEAM of \$2,781,405, then, is 17 percent of \$16,321,217, the Total Assets of Vermont Electric Cooperative distribution system as of December 31, 1980. (Plant is \$12.9 million of Total Assets.)

*This is the net amount after subtracting distribution plant work-in-progress and Eagle Mountain. Kindly see Page 26.

BALANCE SHEET: LEFT SIDE: TOTAL ASSETS

Subtracting "Work in Progress" and "Nuclear Fuel in Process," the total assets of Vermont Electric Cooperative distribution system grew from \$14,940,897 in 1979 to \$16,321,217 in 1980.

Utility Plant is the greatest asset, totaling \$12,401,305 in 1979 and \$12,949,316 in 1980, an increase of \$548,011. Of that, \$276,321 was for connecting new members who paid \$220,997 of that amount. The \$220,997 is not seen in the Statement of Operating Revenues and Expenses. Instead, the amount goes straight to Patronage Capital, is assigned to each member who con-

tributed it, is seen opposite Patron's Capital Credit under Liabilities and Other Credits, and thus becomes a part of TEAM (equity/ownership).

The investment in general plant — buildings and equipment — increased \$92,316.

Other Property & Investments. Income received from the investments represented here reduces the amount members must pay in rates. These investments now stand

at \$1 million, and include stock in Vermont Yankee Nuclear Corp. and Vermont Electric Power Company, Inc. (VELCO). It also includes investment in the Cooperative's banker, the National Rural Utilities Cooperative Finance Corp. (CFC). The increase of \$46,363 in this category is the purchase of Capital Term Certificates from CFC, a loan requirement. The extent of this obligation is set forth in Auditor's

BALANCE SHEET DECEMBER 31, 1979 AND 1980 ASSETS (Note 1)

	1979	1980	Increase (Decrease)
Utility Plant: (Note 2)			
Electric plant in service — at cost	\$16,015,791	\$16,834,177	\$ 818,386
Completed construction not classified	482,388	651,080	168,692
Work in progress	4,837,735	7,705,032	2,867,297
	<u>21,335,914</u>	<u>25,190,289</u>	<u>3,854,375</u>
Less: Retirement work in progress (dr)	(1,229)	(4,829)	(3,600)
Accumulated provisions for depreciation	4,411,553	4,873,864	462,311
	<u>4,410,324</u>	<u>4,869,035</u>	<u>458,711</u>
Net utility plant	<u>16,925,590</u>	<u>20,321,254</u>	<u>3,395,664</u>
Electric plant acquisition	73,701	63,172	(10,529)
Electric plant held for future use	2,800	2,800	—
Nuclear fuel in process	239,640	474,714	235,074
	<u>316,141</u>	<u>540,686</u>	<u>224,545</u>
Investment in Utility Plant	<u>17,241,731</u>	<u>20,861,940</u>	<u>3,620,209</u>
Other Property and Investment — At Cost:			
Non-utility property (Note 3)	42,952	42,952	—
Patronage capital from associated organizations (Note 4)	10,330	22,480	12,150
Investments in associated organizations (Note 5)	354,194	400,557	46,363
Other investments	563,521	560,667	(2,854)
Restricted funds	20,105	22,421	2,316
	<u>991,102</u>	<u>1,049,077</u>	<u>57,975</u>
Current Assets:			
Cash — general funds	15,131	40,400	25,269
Cash — construction funds	—	18,845	18,845
Temporary cash investments	54,356	57,316	2,960
Special deposits	475	475	—
Notes receivable — net (Note 6)	231,974	276,321	44,347
Accounts receivable — net (Note 7)	438,802	454,984	16,182
Account receivable — associated company	—	32,941	32,941
Materials and supplies	398,839	486,234	87,395
Prepayments	52,905	52,123	(782)
Total Current Assets	<u>1,192,482</u>	<u>1,419,639</u>	<u>227,157</u>
Deferred Charges and Debits	<u>356,008</u>	<u>903,185</u>	<u>547,177</u>
TOTAL ASSETS	<u>\$19,781,323</u>	<u>\$24,233,841</u>	<u>4,452,518</u>

(The accompanying notes are an integral part of this statement)

Note No. 5, and is seen in the graph on Page 26. The income — about \$100,000 yearly — helps reduce rates paid for electricity.

Current Assets. These assets, which increased \$227,157 in 1980, include cash and also other assets which will be turned into cash within the following year.

The increase of \$44,347 in Notes Receivable represents increases in the amounts financed by the Cooperative for members building line extensions to serve their houses. The notes are for 96 months and are secured by mortgages upon the property receiving service.

The item "Accounts Receivable — Associated Company," shows the amounts owed the Cooperative by the Vermont Electric Generation and Transmission Cooperative, Inc.

The increase in materials and supplies is an increase in costs of items and not the quantity. Inventory items are constantly balanced with requirements to keep investment as low as practicable.

The accounts receivable increased a half of a percent over 1979 to 8.2 percent of operating revenues while

those revenues themselves increased 9.4 percent during the same period. This is due to the Co-op's strict collect on policy. This prompt payment by members gives us the cash flow needed to pay our bills and cut down short-term borrowing.

Deferred Charges & Debits increase of \$547,177 is due mainly to generation, load control and rate case expenses.

BALANCE SHEET: RIGHT SIDE: LIABILITIES AND OTHER CREDITS

This is a record of what the Cooperative corporation owes. The two most important categories, for a member-owned co-op, are Total Equities and Margins (TEAM), and Long-Term Debt. When TEAM is increased and Long-Term reduced, the Co-op doesn't need to borrow as much, and what it does borrow, it can get on better terms. (TEAM is held by the Co-op corporation, invested in the plant and, after a period of time, is repaid the members who contributed it. Thus, it is shown as a liability owed members).

Total Equities and Margins. In 1980, TEAM decreased only \$39,073, a little under one-and-a-half percent. It would have decreased much more without the money paid by members for new line extensions (\$220,997) and which goes straight to Patrons Capital Credits.

Long-Term Debt. Referred to in the technical journals as LTD, Long-Term Debt is a source of capital used to replace older parts of the system and add new as the system grows. Growth must also be paid out of an electric co-op's other major source of capital — equity (TEAM). The utility with the best mix (usually 60 percent debt and 40 percent equity) borrows money on the best terms. The Rural Electrification Administration and the National Rural Utilities Cooperative Finance Corp. (CFC) are the Co-op's major sources of LTD. Both want the Co-op to build equity faster.

Although LTD increased \$2.8 million in 1980 (about \$2.5 million for progress payments for generating plants under construction), we still have \$12.6 million of unadvanced long-term funds committed by REA and CFC. This is the result of our strict cash management. "Unadvanced long-term funds" are monies the REA bank has agreed to loan as needed.

Current Liabilities. These items generally include all debts which will become payable during the year. Total Current Liabilities increased \$1.6 million, to \$2.9 million at year's end. The major increase was in Notes Payable, a \$1,445,804 increase in short-term borrowing over 1979 to acquire an additional 0.13215 percent joint ownership in Seabrook Units 1 and 2. This will be converted to long-term debt in 1981. The continued application of strict cash management policies reduced general short-term borrowing as of December 31, 1980 to \$667,000, even though we borrowed short-term from the Cooperative Finance Corp. during the year to meet expenses when the Public Service Board did not act on our request for a 12.6 percent increase in rates.

BALANCE SHEET DECEMBER 31, 1979 AND 1980 LIABILITIES AND OTHER CREDITS

	1979	1980	Increase (Decrease)
Equities and Margins:			
Membership	\$ 45,775	\$ 47,825	\$ 2,050
Patronage Capital (Note 8)	2,599,823	2,748,877	149,054
Other equities	137,023	(56,900)	(193,923)
Donated capital	37,857	41,603	3,746
Total Equities and Margins (TEAM)	2,820,478	2,781,405	(39,073)
Long-Term Debt (Note 9)	15,635,172	18,446,813	2,811,641
Current Liabilities:			
Notes payable	960,000	2,405,804	1,445,804
Accounts payable	225,161	370,039	144,878
Consumers' deposits	62,413	72,671	10,258
Taxes accrued and payable	30,796	37,247	6,451
Other current and accrued liabilities	—	79,427	79,427
Total Current Liabilities	1,278,370	2,965,188	1,686,818
Deferred Credits	28,050	20,133	(7,917)
Operating Reserves	19,253	20,302	1,049
TOTAL LIABILITIES AND OTHER CREDITS	\$19,781,323	\$24,233,858	\$ 4,452,518

(The accompanying notes are an integral part of this statement)

BALANCE SHEET DETAIL

Statement of Patronage Capital and Other Equities. For a member-owned electric co-op, this is the heart of the financial report, and shows in detail what makes up TEAM, shown on the preceding page.

Patronage Capital. "Because of the cooperative nature of our rural electric systems and the bylaws under which they are generally operated, each dollar of payment by a patron in excess of the cost of providing electric service is an investment in the cooperative by the patron, which the patron is entitled to recover at some time," says the report of The Capital Credits Study Committee. An amendment before voters this year will allow Trustees more freedom in returning Patronage Capital (in the form of Capital Credits) to members. This exhibit shows the growth of Patronage Capital, from \$2.5 million in 1979 to \$2.7 million in 1980, an increase of \$149,054. This

is the lion's share of TEAM — Total Equities and Margins — which is the same thing as equity and member ownership.

Other Equities. This shows the effect of margins on TEAM. The Operating deficit of \$278,163 was reduced by the non-operating margin of \$84,240 and this resulted in a \$193,923 (\$278,163 — \$84,240) decline in Other Equities. The net decline in TEAM was only \$39,073,

due mainly to contributions to Patronage Capital by members building line extensions under GO 52.

Patronage Capital and Other Credits. The right hand column shows the balance at the end of the year in Patrons Capital, Patrons Capital Credits and Other Equities. All of these are summed up in TEAM, on the right side of the Balance Sheet.

STATEMENT OF PATRONAGE CAPITAL AND OTHER EQUITIES FOR THE YEARS ENDED DECEMBER 31

	1979	1980	Increase (Decrease)
Patronage Capital:			
Assignable	\$1,522,250	\$1,450,307	(\$ 71,943)
Assigned	12,212	12,212	-0-
Patrons' capital credit — G.O. 52 (Assigned)	1,065,361	1,286,358	220,997
	<u>\$2,599,823</u>	<u>\$2,748,877</u>	<u>\$ 149,054</u>
Other Equities:			
Operating margin	(\$ 207,501)	(\$ 485,664)	(\$ 278,163)
Non-operating margin	334,726	418,966	84,240
Capital gain	9,798	9,798	-0-
	<u>\$ 137,023</u>	<u>(\$ 56,900)</u>	<u>(\$ 193,923)</u>

STATEMENT OF PATRONAGE CAPITAL AND OTHER CREDITS DECEMBER 31, 1980

PATRONAGE CAPITAL

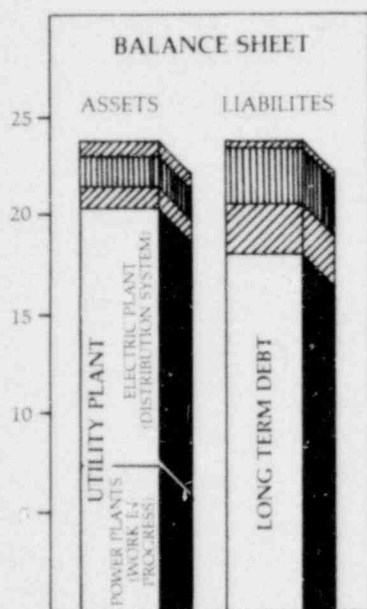
	Assignable	Assigned	Balance
Balance — January 1, 1980	\$1,510,708	\$ 12,212	\$1,522,920
Operating margin			
Non-operating margin transfer	(71,943)		(71,943)
Transfer from Halifax Cooperative, Inc.	11,542		11,542
Balance — December 31, 1980	<u>\$1,450,307</u>	<u>\$ 12,212</u>	<u>\$1,462,519</u>

Patrons Capital Credits G.O. 52:

Balance — January 1, 1980	\$1,065,361	\$1,065,361
Additions 1980 — net	220,997	220,997
Balance — December 31, 1980	<u>\$1,286,358</u>	<u>\$1,286,358</u>

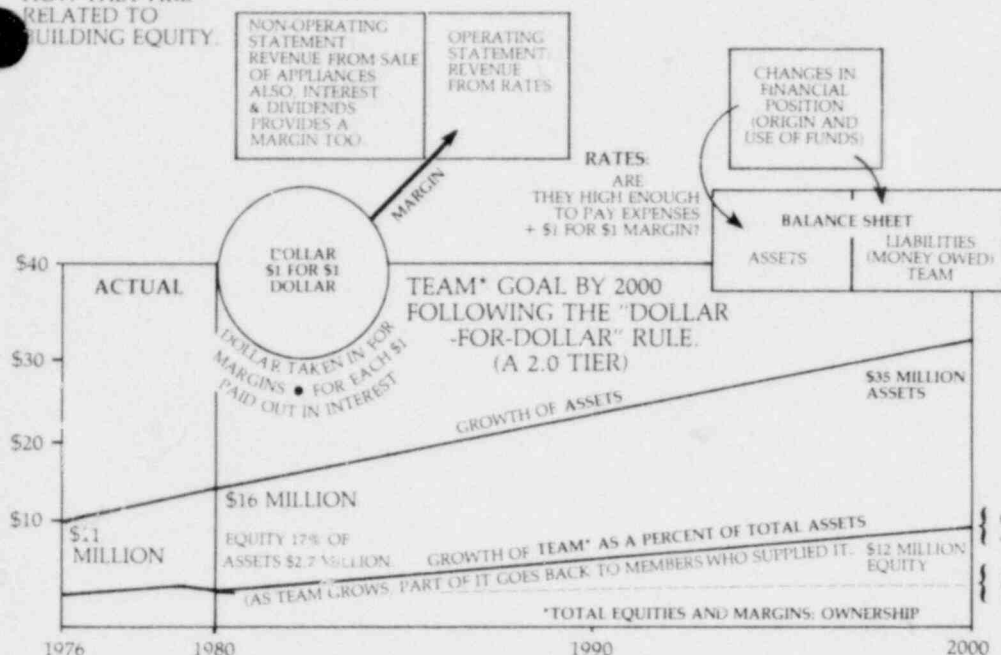
OTHER EQUITIES

	Operating Margin	Non-Operating Margin	Capital Gain	Total
Balance — January 1, 1980 (deficit)	(\$207,501)	\$334,726	\$9,798	\$137,023
Operating margin				
Non-operating margin 1980 — net	(278,163)	84,240		(193,923)
BALANCE — December 31, 1980	<u>(\$485,664)</u>	<u>\$418,966</u>	<u>\$9,798</u>	<u>(\$ 56,900)</u>



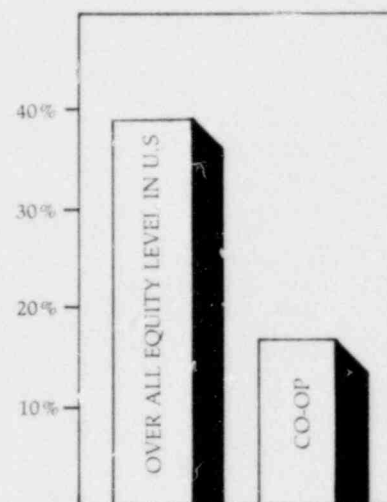
Graph shows, in summary form, the various categories that make up the Assets and Liabilities of the Co-op. On the left, the major portion of Assets (from the bottom up) is Utility Plant followed by Other Property and Investments, Current Assets and then Deferred Charges and Debits. On the right, the major portion of Liabilities is Long Term Debt (LTD) followed by Current Liabilities and then TEAM (Total Equities and Margins).

THE PARTS OF
A FINANCIAL
STATEMENT AND
HOW THEY ARE
RELATED TO
BUILDING EQUITY.



*TIER is a common financial measure used to determine earnings capacity or capability. A TIER ratio is obtained by adding a borrower's margin to interest expense and then dividing by the interest expense. A 1.5 is the "Fifty Cent Rule," for every dollar paid out in long-term interest costs, fifty cents must be taken in for margins. A 2.0 TIER is the "Dollar Rule," for every dollar paid out, a dollar must be taken in for margin.

The Co-op must build equity in order to borrow less on more favorable terms. The chart shows the number of years it will take to reach a level acceptable to lenders. The dotted line shows a 1.5 TIER, the solid line a 2.0 TIER. The 1.5 TIER rate is not acceptable. The chart also shows how the financial report is related to equity growth, where equity/ownership is recorded in the Balance Sheet (under Liabilities, Total Equities and Margins — TEAM), and where equity comes from: operating and non-operating reports, and the report on changes in financial position (origin and use of funds). The 2.0 TIER plan shown includes enough to return a portion of TEAM to members each year. TEAM is assigned each member and returned to him as a capital credit in proportion to the amount of patronage capital contributed during the year. A member contributes patronage capital when rates are high enough to make a margin.



Overall equity level in rural electric co-ops throughout the United States is 38 percent while that of Vermont Electric Cooperative is 17 percent.

Box Score: How Much Extra Is Needed to Build Equity at Acceptable Rate?

	1980 Deficit	Margin Needed	Extra Revenue Needed
50c Rule 1.5 TIER	(\$278,163)	\$213,505	\$491,668
\$1 Rule 2.0 TIER	(\$278,163)	\$427,010	\$705,173

(These figures are based upon Long-Term Debt Interest Charges of \$427,010)

Operating Revenues & Expenses. This statement shows revenues from rates. It also shows whether those rates are sufficient to pay Long-Term Debt (LTD) interest expenses for the year and a margin either equal to it (a 2.0 TIER) or half of it (a 1.5 TIER).

Operating Revenues & Expenses. This statement shows revenues from rates members pay for electricity. Beneath the revenue, expenses are shown. Thus this statement shows whether rates are sufficient to pay Long-Term Debt interest and a margin. The REA mortgage requires a margin equal to half the interest

expense for the year — for every dollar paid in interest, rates must take in 50 cents for margin. The Co-op's bankers, however, insist the Co-op seek yearly margins equal to the interest expense — for every dollar paid in interest, rates must take in a dollar for margins. (See chart on Page 21).

The box score shows the two goals, side by side, and how far short of each we fell in 1980.

Operating Revenues. Members used 93,656,118 KWH during 1980 up 3.4 percent from the 90,688,477 KWH in 1979. Meanwhile, operating revenues increased 9.4

percent, from \$5 million in 1979 to \$5.5 million in 1980. An overall rate increase of 6.95 percent, which became effective January 1, 1980, and increased KWH sales — mainly to new members — accounted for the revenue increase.

Operating Expenses. The chart, right, shows four categories of expense: I. Cost of Power. II. Consumer Service-Related Operational Costs. III. Utility Plant-Related Fixed Costs. IV. Patronage Capital and Margins.

I. COST OF POWER

Although members used only 3.4 percent more kilowatt hours in 1980, the cost of power — which is just under 60 percent of your monthly bill — went up 22 percent, or \$503,833 from \$2.3 million in 1979 to \$2.8 million in 1980. There are three main reasons for this climb in price. Fossil fuels cost more. Peaking power, for which we must pay the whole year, shot up in price. But the major reason, as far as the Co-op is concerned, is the fact that the cost per kilowatt hour — not increased purchases — accounted for 18 percent of the increase. Finally, the cost of transmission climbed 8.2 percent.

II. CONSUMER SERVICE-RELATED OPERATIONAL COSTS

We call costs in this area "controllable," but that is only relatively speaking. Wages and goods rise in price. So do power, taxes and borrowing. Thus, there is no area that, because prices rise, we simply shove aside. With rates at 17 percent and higher we curb short-term borrowing. Power is bought, sold and swapped week to week, sometimes hour to hour. We use our Long-Term Debt with its low interest to

STATEMENT OF OPERATING REVENUES AND EXPENSES FOR THE YEARS ENDED DECEMBER 31

	1979	1980	Increase (Decrease)
Operating Revenues:	\$5,036,517	\$5,508,867	\$ 472,350

I	Operating Expenses:			
	COST OF POWER	2,264,648	2,768,481	503,833
	Transmission expense — by others	452,292	489,248	36,956
	Subtotal	\$2,716,940	\$3,257,729	\$ 540,789

II	CONSUMER SERVICE-RELATED OPERATIONAL COSTS			
	Transmission expense — operation	\$ 31	\$ —	(\$ 31)
	Distribution expense — operation	228,030	243,082	15,052
	Transmission expense — maintenance	1,417	2,228	811
	Distribution expense — maintenance	347,363	323,452	(23,911)
	General plant maintenance	16,206	15,339	(867)
	Customer accounts expense	251,432	303,007	51,575
	Sales expense	13,371	19,386	6,015
	Administrative and general expense	508,168	555,137	46,969
	Subtotal	\$1,366,018	\$1,461,631	\$ 95,613

III	UTILITY PLANT-RELATED FIXED COSTS			
	Amortization	\$ 10,529	\$ 10,529	\$ -0-
	Depreciation	481,370	512,542	31,172
	Tax expense	186,994	207,574	20,580
	Interest on long-term debt — net	469,375	649,982	180,607
	Allowance for borrowed funds used during construction	(82,334)	(222,972)	(140,638)
	Other interest charges	6,819	18,977	12,158
	Subtotal	\$1,072,753	\$1,176,632	\$ 103,879

	Miscellaneous income deductions	13,772	16,814	3,092
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	Total Operating Expenses	\$5,169,433	\$5,912,806	\$ 743,373
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IV	PATRONAGE CAPITAL AND MARGINS			
	Net Operating Margin (Deficit)	(\$ 132,916)	(\$ 403,939)	(\$ 271,023)
	Income Applicable to Prior Years	52,252	52,349	97
	1980 Vt. Yankee and Velco			
	Dividends	—	73,427	73,427
	Operating Margin	(\$ 80,664)	(\$ 278,163)	(\$ 197,499)

(The accompanying notes are an integral part of this statement)

the best possible advantage. Even so, costs do rise in this category, but slowly. From 1978 to the end of 1980 while general inflation shoved prices up 30 percent, Co-op controllable costs went up 9 percent, seven percent of that rise occurring in 1980. The 1980 inflation rate was 12 percent.

Distribution expense — operation. Increases were caused by increases in labor and material.

Customer accounts expense. A one-time expense of \$27,482 of the \$51,575 increase was due to the conversion to a new computer system. The balance of the increase is due to labor and expenses in Consumer Accounts Dept.

Administrative and general expense. \$42,379 of the \$46,969 increase is the amortization of regulatory expenses in three dockets before the Vermont Public Service Board.

III. UTILITY PLANT-RELATED FIXED COSTS

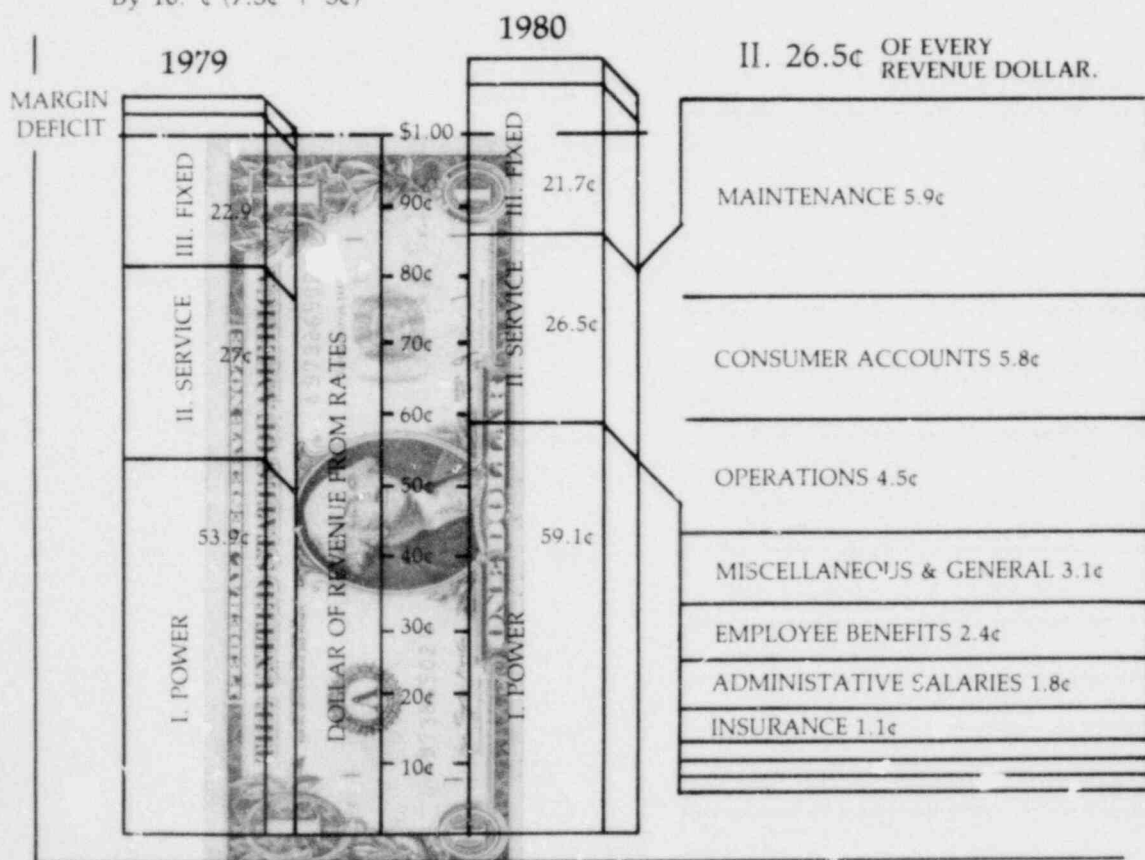
In order to keep proper accounting of them, the interest charges on Long-Term Debt for work in progress (generating plants under construction) is included in the \$649,982 and then removed as shown in the allowance for borrowed funds used during construction. The \$222,972 is not paid in rates. (Subtracting \$222,972 from \$649,982 you get \$427,010, the interest on which the Co-op's TIER is figured). (See Page 21). Expenses and increases shown in this category are the result of the growth in investment in facilities.

IV. MARGINS & PATRONAGE CAPITAL

We have discussed margins in other parts of the Report. They are the only source of equity capital.

They are the primary source of patronage capital which is the same as member ownership (TEAM). When there is a deficit TEAM is reduced, as shown on the Balance Sheet. Other sources do contribute, and help off-set the loss of equity due to the deficit. There is income from investments, and from the Member Services Dept. (mainly the sale of appliances). Also, the money paid by members when the Co-op connects them to the system goes straight to Patrons Capital Credit and adds to TEAM — Total Equities and Margins, as we stated before.

Revenues Fell Short of Meeting
Expenses by 7.3¢ of Each Dollar of Revenue,
And Of Earning a Margin Equal to a 1.5 TIER
By 10.¢ (7.3¢ + 3¢)



*Expenses are shown as a percent of revenues and revenues are represented as 100 percent or \$1.

Statement of Non-Operating Revenues and Expenses. This statement shows the revenue brought in by the sale of appliances — revenue which also contributes to TEAM, and which helps defray the overall labor costs of the department, 60% of which are related to the department's main job — supplying electricity to members.

The other source of non-operating revenues is from interest and dividend income. One of the Co-op's sources of financial strength, the investment portfolio of the Co-op is just under \$1 million dollars, and produces income of over \$100,000.

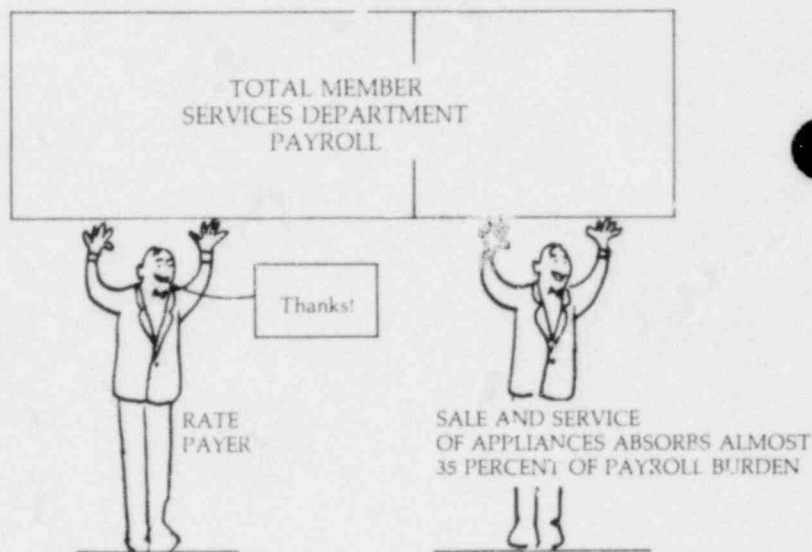
STATEMENT OF NON-OPERATING REVENUES AND EXPENSES FOR THE YEARS ENDED DECEMBER 31

	1979	1980	Increase (Decrease)
Merchandising revenues	\$365,913	\$336,022	(\$ 29,891)
Merchandising costs	357,074	333,645	(23,429)
Net Merchandising	\$ 8,839	\$ 2,377	(\$ 6,462)
Allowance for funds used during construction (A)	40,309	37,348	(2,961)
Miscellaneous income and C.F.C. capital credits	6,032	12,150	6,118
Interest and dividend income — net	99,609	105,792	6,183
Net Margin for Period	\$154,789	\$157,667	\$ 2,878
Less: Transfer to patronage capital	(71,943)	—	71,943
	82,846	157,667	74,821
BALANCE — BEGINNING OF YEAR	\$251,880	\$334,726	\$ 82,846
Transfer year Velco and Vt. Yankee dividends	—	(73,427)	(73,427)
BALANCE — END OF YEAR	\$334,726	\$418,966	\$ 84,240

(A) Represents the capitalized interest charge of funds expended on nuclear generation projects.

Revenue and Expenses

	1979	1980
APPLIANCE		
Revenue	\$292,509	\$265,924
Expense	277,511	248,853
	\$ 14,998	\$ 17,071
ELECTRIC HEAT		
Revenue	\$ 1,299	
Expense	739	
	\$ 560	
WATER HEATERS		
Revenue	\$ 30,389	\$ 37,187
Expense	28,132	36,070
	\$ 2,257	\$ 1,117
JOBGING		
Revenue	\$ 17,298	\$ 8,532
Expense	16,341	12,207
	\$ 957	(\$ 3,675)
SERVICE OUT OF WARRANTY		
Revenue	\$ 24,418	\$ 24,379
Expense	34,351	38,515
	(\$ 9,933)	(\$ 12,136)
TOTAL REVENUE	\$365,913	\$336,022
TOTAL EXPENSE	357,074	333,645
	\$ 8,839	\$ 2,377



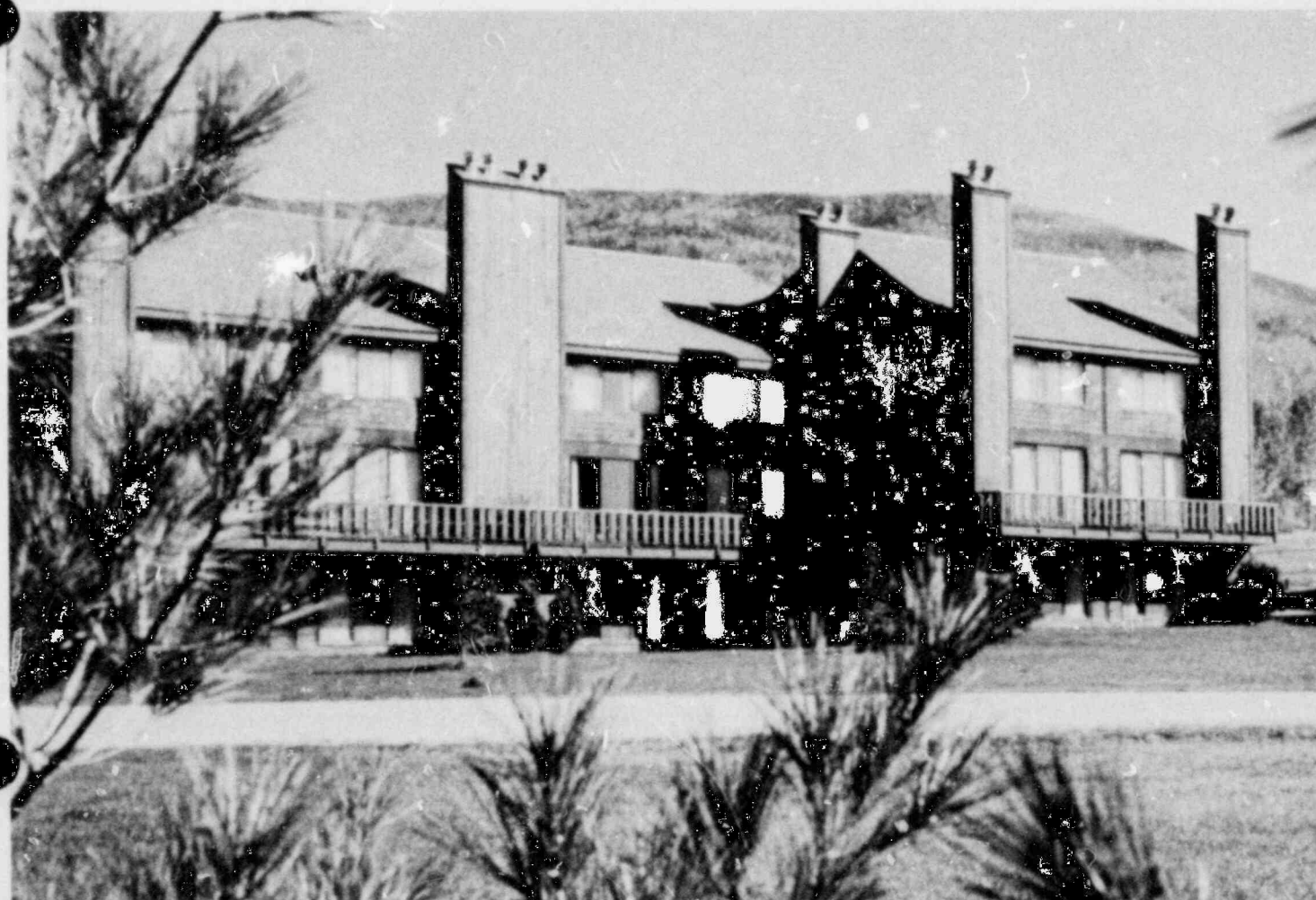
Statement of Changes in Financial Position. This is better called "Origin and Application of Funds."

As in previous years, most of the funds — 75.9 percent — were used for plant additions and replacement, and the major source of funds continued to be the CFC and KEA. To continue to borrow on the best possible terms we must build equity/ownership faster. The proper balance of Long-Term Debt and Equity/Ownership is good business sense. But it is also just: the Cooperative house should be built in fair proportion by present and future members, the present contributing their fair share of equity, and the future accepting their fair obligation of debt.

Condominiums at Village at Smuggler's Notch, a Co-op member.

STATEMENT OF CHANGES IN FINANCIAL POSITION FOR THE YEARS ENDED DECEMBER 31

	1979	1980
Funds Were Provided By:		
Operating margin — net	(\$ 80,664)	(\$ 278,163)
Non-operating margin	154,789	84,240
Depreciation and amortization expense	491,899	523,071
	<u>566,024</u>	<u>329,148</u>
Reduction patronage capital assignable	—	(71,943)
Depreciation allocated	48,091	42,874
Memberships	480	2,050
Advances from R.E.A. and C.F.C.	3,142,000	3,201,000
Retirement salvage	71,956	74,134
Decrease in working capital (increase)	728,396	1,451,293
Operating reserve	969	1,048
Donated capital	4,816	3,746
Other patronage capital — G.O. 52	205,272	220,997
	<u>\$4,786,004</u>	<u>\$5,254,347</u>
Funds Were Used For:		
Extension and replacement of classified plant	\$1,378,749	\$ 950,329
Payments on long-term debt	377,793	389,359
Cost of plant retirement	26,842	35,296
Increase in other property and investments	116,164	57,975
Increase in net deferred debits over deferred credits	126,475	546,724
Electric plant held for future use	(800)	—
Addition to plant unclassified and under construction	2,546,696	3,035,990
Addition to nuclear assets	197,582	235,074
Retirement work in progress — credit (debit)	(1,497)	3,600
	<u>\$4,768,004</u>	<u>\$5,254,347</u>



NOTES TO FINANCIAL STATEMENTS
DECEMBER 31, 1980

1. Assets Pledged:

All assets are subject to the first mortgage lien held by the United States Government.

2. Electric Plant and Depreciation Procedures:

The major classification of plant is as follows:

	1979	1980
Intangible plant	\$ 1,548	\$ 1,548
Transmission plant	945,316	960,640
Distribution plant	13,575,135	14,285,879
General plant	1,493,794	1,586,110
Completed construction unclassified	482,388	651,080
Construction work in progress (A)	4,837,735	7,705,032
	<u>\$21,335,914</u>	<u>\$25,190,289</u>

(A) Construction work in progress consists of:

General and distribution plant		\$ 265,627
Generation:		
Millstone Nuclear Unit #3 of which the Cooperative has a .2% interest	\$ 1,678,745	
Pilgrim Nuclear Unit #2 of which the Cooperative has a .2% interest	822,427	
Stratton Mt. Wind Project	16,834	
Seabrook Nuclear Units #1 and #2 in which the Cooperative acquired a .41259% interest	4,919,904	7,417,910
Eagle Mountain project		1,495
		<u>\$ 7,705,032</u>

The Cooperative is obligated for the proportionate share of the carrying and progress costs in the nuclear projects.

Provision has been made for straight line composite depreciation of the transmission and distribution plant at the rates of 2.6% and 3.0% per annum.

General plant depreciation rates have been applied on a straight line basis at the following rates:

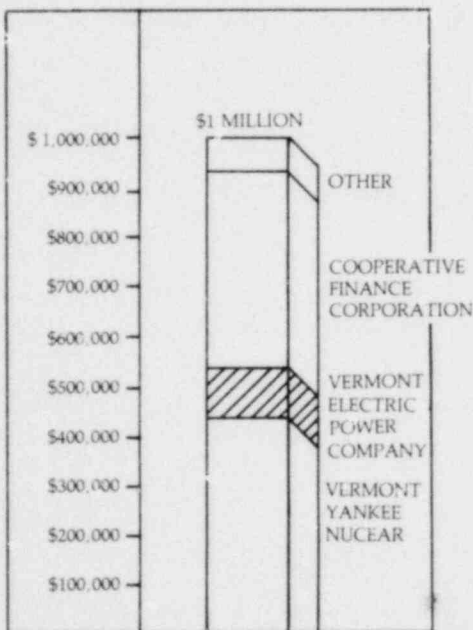
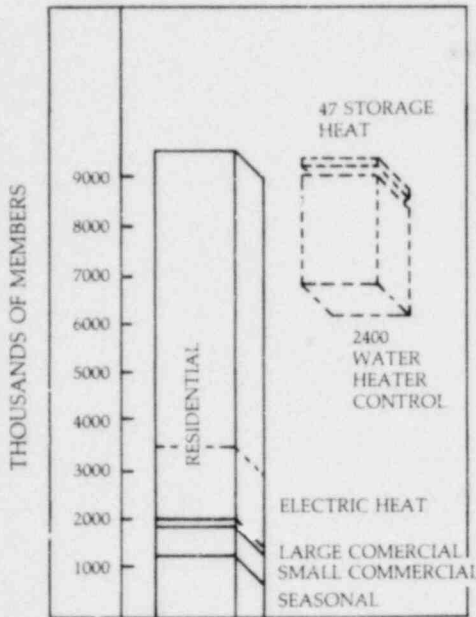
Leasehold improvements	2 years
Buildings	composite rate
Office furniture and equipment	composite rate
Stores equipment	10 years
Shop equipment	composite rate
Laboratory equipment	composite rate
Power operated equipment	based on usage
Communication equipment	8 years
Miscellaneous equipment	composite rate
Demonstration equipment	composite rate
Transportation equipment	3-10 years

Electric plant acquisition is being amortized over a fifteen year period. During 1980 the amortization totaled \$10,528.80.

Electric plant held for future use represents the cost of the Waterville pump storage project.

Nuclear fuel in process represents the cost aggregates of the proportionate share of the fuel costs to date of:

Seabrook Nuclear units	\$387,789
Pilgrim Nuclear units	21,054
Millstone Nuclear units	65,871
	<u>\$474,714</u>



Co-op's portfolio includes almost \$1 million in stocks. Income from stocks reduces amount members must pay in rates. Bulk of stocks are Vermont Yankee and CFC.

3. Represents 20 acres located in the town of Troy, Vermont, the Van Everest property and properties in Jay Valley.

4. Patronage capital from associated organizations:

The balance represents the patronage capital certificates received of the National Rural Utilities Cooperative Finance Corporation.

5. Capital term certificates:

Investments in associated organizations include capital term certificates (CTC) of the National Rural Utilities Cooperative Finance Corporation in the following amounts:

	<u>1979</u>	<u>1980</u>
Capital term certificates	<u>\$353,194</u>	<u>\$399,557</u>

The Cooperative is obligated to purchase additional CTCs in 1981 through 1985 in the amount of \$378,125.00 in annual installments based on the estimated revenue of the years.

6. Net of the following provisions for doubtful accounts:

<u>1979</u>	<u>1980</u>
<u>\$4,185</u>	<u>\$4,185</u>

7. Net of the following provisions for doubtful accounts:

<u>1979</u>	<u>1980</u>
<u>\$54,628</u>	<u>\$43,774</u>

8. Under the provisions of the first mortgage note agreements with the U.S.D.A. accumulated patronage credits may not be remitted the applicable patrons until the total of equities and margins equals or exceeds 40 percentum of the total assets of the Cooperative.

9. The long-term debt to R.E.A. is represented by two percentum first mortgage notes payable to the United States Government, totaling \$7,337,667.61 remaining balance and five percentum notes of \$10,379,671.32 outstanding balance. The notes are for 35 year periods each and principal and interest installments are due quarterly in equal amounts or approximately \$258,000.00. It is estimated that installments of \$1,032,000.00 due within the next twelve months will include \$376,900.00 in principal. The notes are scheduled to be fully repaid at various times from April, 1979 to June, 2014. Long-term debt to N.R.U.C.F.C. was \$729,423.60 at December 31, 1980.

10. Litigation:

We have requested that corporate counsel advise us of any litigation of which he is cognizant.

11. Pension benefits are provided for all eligible employees under the retirement and security program of the National Rural Electric Cooperative Association. The cost of the plan to the Cooperative was \$126,031.85 which was allocated to expense and construction and retirement cost aggregates.

12. The Cooperative has a financial interest in the Vermont Electric Generation and Transmission Cooperative, Inc., represented by account receivable from associated company.

Certification of Certified Public Accountant

PETER A. CASTALDE
Certified Public Accountant
44 Highland Place
Ridgefield Park, N.J. 07660

March 16, 1981

J. Douglas Webb, President
The Board of Directors
Vermont Electric Cooperative, Inc.

Gentlemen:

We have examined the Balance Sheet of the Vermont Electric Cooperative, Inc. (a Vermont corporation) as at December 31, 1980, and the related statements of Operating Revenue and Expense, Income and Earned Surplus and Source and Application of Funds for the twelve months then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of the Vermont Electric Cooperative, Inc. at December 31, 1979 and 1980, and the results of its operation and changes in financial position for the twelve months then ended in conformity with generally accepted utility accounting principles applied as a basis consistent with that of the preceding period.

Peter A. Castalde, C.P.A.



1980 Annual Report
 Vermont Electric Cooperative, Inc.
 Johnson, Vermont 05656

GENERAL & ADMINISTRATIVE

WILLIAM J.
GALLAGHER



JERRY L.
BUCHOLZ



NORA H.
WINCKLER



KATHLEEN R.
MCQUIN



Power and People:

Bulk Rate
 U.S. Postage Paid
 Permit 11
 Enosburg Falls, Vt.
 05450

CENTRAL VERMONT PUBLIC SERVICE CORPORATION

Units No. 1 and No. 2

Seabrook Nuclear Power Station

Seabrook, New Hampshire

Information furnished pursuant to §50.33
or Commission's Rules and Regulations with
respect to the particular Applicant named
above as part of the Final Safety Analysis
Report and Operating License Application
for the above Units.

July 1981

I. ORGANIZATION AND CONTROL

(a) Name of Applicant

Central Vermont Public Service Corporation (CVPS)

(b) Address of Applicant

77 Grove Street
Rutland, Vermont 05701

(c) Description of Business of Applicant

CVPS, the largest utility in Vermont, is engaged in the purchase, production, transmission, distribution and sale of electricity. Its wholly-owned subsidiary, Connecticut Valley Electric Company Inc. ("Connecticut Valley"), distributes and sells electricity in parts of New Hampshire bordering the Connecticut River. CVPS also owns 58.4% of the common stock of Vermont Electric Power Company, Inc. ("Velco"), which owns the high voltage transmission system in Vermont, and 31.3% of the common stock of Vermont Yankee Nuclear Power Corporation ("Vermont Yankee"), a nuclear generating company. CVPS and Connecticut Valley serve a large portion of Vermont (about 103,000 customers) and portions of New Hampshire (about 9,000 customers). CVPS serves 174 of the 245 towns in Vermont and Connecticut Valley 12 towns in New Hampshire. Over 60% of the Vermont population and about 3% of the population of New Hampshire reside in this service area. CVPS owns and operates 22 generating units with an effective capability of 85,000 KW and in addition purchases power from other sources including the four Yankee nuclear generating companies and is entitled to shares of the output thereof

aggregating approximately 219 MW. In addition, CVPS owns an 11,000 KW undivided interest in the W. F. Wyman Unit #4 located in Maine. The maximum all-time one-hour peak demand of 394,500 kilowatts occurred on January 13, 1981. Energy generated by operating and proposed units in which CVPS has an interest together with energy purchased pursuant to firm power contracts are anticipated to be sufficient to meet its projected customer demand for energy through 1985. Because the generation and transmission systems of CVPS and the other major New England utilities are operated through the New England Power Pool ("NEPOOL") as if they were a single system, the ability of CVPS to meet its load is related to the ability of all the New England utilities to meet all of the New England load.

(d) Corporate Organization

CVPS is a business corporation organized under the laws of the State of Vermont. As of October 1, 1980, CVPS had 14,472 domestic shareholders owning 2,973,962 common shares and 19 foreign shareholders owning 5,377 common shares.

(e) Corporate Officers and Directors

The names and residence addresses of CVPS's principal officers and directors are as follows:

<u>Officers' Name</u>	<u>Residence</u>
L. Douglas Meredith, Chairman	1500 Spear St. So. Burlington, Vt. 05401
James E. Griffin, President & Chief Executive Officer	81 Lincoln Avenue Rutland, Vt. 05701
Richard W. Mallary, Executive Vice President	RD Rutland, Vt. 05701

Robert E. Schill, Vice President Finance and Corporate Planning	Brookwood Rutland, Vt. 05701
Donald L. Rushford, Vice President and General Counsel	63 Chestnut Ave. Rutland, Vt. 05701
Thomas J. Hurcomb, Vice President-External Affairs	80 Davis Street Rutland, Vt. 05701
Theodore W. Millspaugh, Treasurer	Brookwood Rutland, Vt. 05701
Alice L. DelBianco, Secretary	East Proctor Road Center Rutland, Vt. 05736

<u>Directors' Name</u>	<u>Residence</u>
Robert P. Bliss, Jr.	171 No. Main St. St. Albans, Vt. 05478
Frances C. Hutner	28 Hibben Road Princeton, N.J. 08540
Allen O. Eaton	77 Arlington St. Winchester, Ma. 01890
James E. Griffin	81 Lincoln Avenue Rutland, Vermont 05701
Luther F. Hackett	1299 Spear St. So. Burlington, Vt. 05401
Robert T. Holden	R. D. 1 Bennington, Vt. 05201
F. Ray Keyser, Jr.	64 Warner St. Proctor, Vt. 05765
Gordon P. Mills	Peacham, Vermont 05862
L. Douglas Meredith	1500 Spear St. So. Burlington, Vt. 05401
Preston Leete Smith	Roaring Brook Road Killington, Vt. 05751
Holmes H. Whitmore	Walpole, New Hampshire 03608
Fred W. Yeadon, Jr.	Orchard Heights Brattleboro, Vt. 05301

All of the directors and principal officers of CVPS are citizens of the United States of America. CVPS is not owned, controlled or dominated by an alien, foreign corporation or foreign government.

II. FINANCIAL QUALIFICATIONS

Under the Joint Ownership Agreement, CVPS is responsible for its Ownership Share of the operation and maintenance cost of the Units which, when the pending transactions described herein have been consummated prior to commercial operation, will be 1.59096% of those costs, and a similar percentage of the ultimate cost of decommissioning the Units.

Based upon the estimates set forth above under Part IV of the General Information, CVPS's share of these costs should amount approximately to \$2,386,000 and \$2,386,000 for the first five years of operations of Units 1 and 2, respectively; and approximately \$6,682,000 to \$13,682,000 for the decommissioning of the two Units. In addition, CVPS's share of fuel expenses during the period would be \$8,162,000.

As evidence of its financial qualifications to meet those costs, CVPS submits herewith:

- (i) 1980 Annual Report to Stockholders
(Exhibit).
- (ii) 1980 Annual Report on Form 10-K
(Exhibit).
- (iii) 1981 Quarterly Report on Form 10-Q
(Exhibit).

(iv) Prospectus, dated August 15, 1980, relating to Dividend Reinvestment and Common Stock Purchase Plan (Exhibit).

(v) Rate order dated February 26, 1981 from State of Vermont Public Service Board (Exhibit).

III. REGULATORY AGENCIES AND PUBLICATIONS

(a) Regulatory Agencies

The following regulatory agencies have jurisdiction over the rates and services of CVPS.

Vermont Public Service Board
7 School Street
Montpelier, Vermont 05602

New Hampshire Public Utilities Commission
26 Pleasant Street
Concord, New Hampshire 03301

Federal Energy Regulatory Commission
Washington, D. C. 20426

(b) Publications

The following trade and news publications are used by CVPS for official notifications, and/or are otherwise appropriate for notices regarding this unit:

The Wall Street Journal

The New York Times

Rutland Herald, Rutland, Vermont 05701

Burlington Free Press, Burlington, Vermont 05401