AN INFORMATION AND ANALYSIS SYSTEM FOR THE CATV INDUSTRY

A REPORT TO THE DEPARTMENT OF COMMUNICATIONS

MARCH 28, 1979

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EXECUTIVE SUMMARY

This study recommends an information reporting and analysis system for the cable television (CATV) industry which will enable the Minister of the Department of Communications and Senior Department Officers to:

1) understand and monitor key economic developments;

2) evaluate the continuing impact of CRTC and DOC policy decisions; and

3) undertake policy initiatives which are intended to accomplish DOC objectives.

This study recommends the preparation of two annual reports which are drawn primarily from data provided in the questionnaire submitted by cable television systems. The key report, referred to as the Management Report, is to be presented annually to Senior Department Officers in DOC. This Management Report highlights the major happenings in the industry in the past year, identifies the key trends in both economic and noneconomic areas, and presents a sizeup of industry conditions and current problems. The Management Report allows senior management to monitor the CATV industry and evaluate previous policy decisions.

Supporting the Management Report and providing supplemental information is the Backup Report. This report includes a set of tables prepared from the industry questionnaire which captures the economic and noneconomic variables of interest to the Department. The major purpose of this report is to supplement the explanation in the Management report and to provide an information base for requests and special studies.

The basis for these two reports is a framework for analyzing the CATV industry which classifies firms by system attributes and then evaluates the firms according to several economic and noneconomic characteristics.

The two system attributes which are identified in the study are (1) the maturity of the system and (2) the nature of the customer base. The six economic characteristics evaluated are (1) rate of return on investment, (2) behavior of revenues, (3) behavior of costs, (4) liquidity, (5) pattern of financing and (6) use of discretionary cash flows. The three noneconomic characteristics suggested are (1) programming content (2) control of the industry and (3) level of service.

Implementation of this proposed management information system requires two major activities. Firstly

the existing data collection and processing system would have to be modified to provide timely data in the form required for these reports. Secondly, expertise would have to be developed to analyse the data provided in the light of industry developments. Our experience in preparing this study suggests that the required changes in the present data collection and processing procedures would be the most difficult to achieve.

While this study focuses entirely on the internal operations of the cable television industry, the study recommends that other segments of the telecommunications industry and their interrelationships be studied with a view to extending the data reporting and analysis systems to those segments as well.

In summary, we recommend that

1. DOC annually prepares a Management Report as described herein for key policy makers.
2. DOC annually prepares a Backup Report for purposes of analysis and reference.
3. The above reports should be the responsibility of a policy analyst within DOC.
4. Further work should be done in refining the measures proposed for these reports.
5. DOC should undertake a thorough assessment of its information needs, available data and the most appropriate means of sorting, classifying and analysing data. In our judgement, until this step is taken the value of the existing data base for managerial purposes will continue to be severely limited.

I PURPOSE OF THE STUDY

The purpose of this study of the CATV industry is to recommend a data reporting and analysis system to the Department of Communications (DOC) which will enable the Minister and senior department officers to:

1. understand and monitor the key economic developments in the industry in order to respond effectively and at the appropriate time to initiatives from industry, consumers, critics and others,

2. evaluate the continuing impact of CRTC and DOC policy decisions taken in the past, and

3. undertake policy initiatives which have the greatest chance of accomplishing DOC objectives without jeopardizing the economic health of the industry.

Because the information needs of the various persons involved in developing and using the data differ significantly, we are recommending two annual reports. The first is a Management Report for senior Department officers. The other is a Backup Report which is directed to the Department staff. The Management Report emphasizes

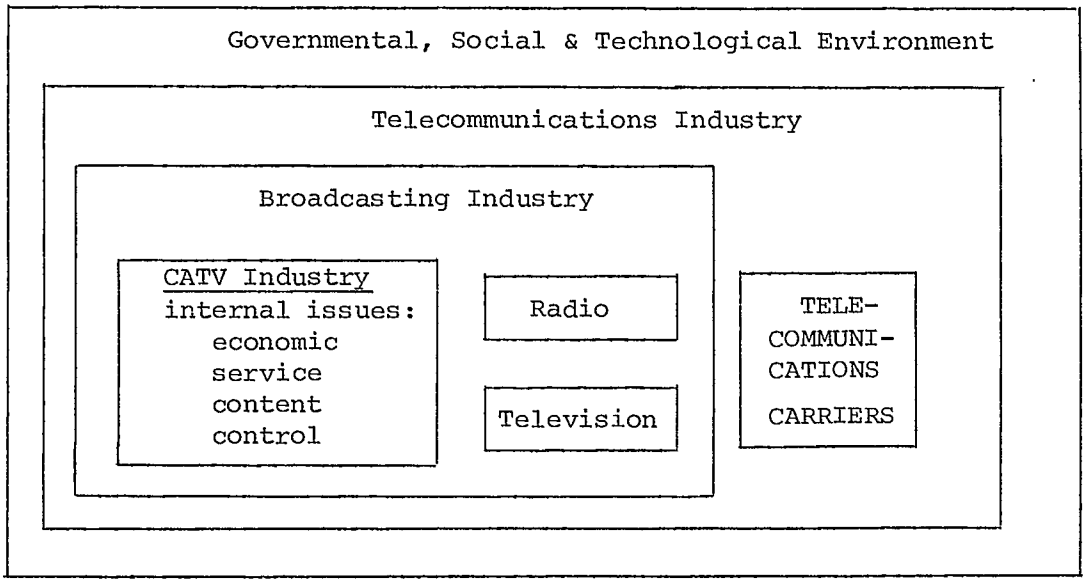
certain key performance measures, their interpretation and significance for understanding and monitoring the industry and post auditing past policy initiatives. The Backup Report is much more detailed. It provides many backup explanatory measures which will assist in the interpretation of the key measures in the Management Report, and which will help the staff respond to issues which arise in their daily activities.

II SCOPE OF THIS CATV PROJECT

The CATV industry is part of a greater telecommunications industry which exists in an ever-changing governmental, social and technological environment. This relationship is depicted in Exhibit 1 below.

Exhibit 1

Schematic Position of the CATV Industry



DOC's concern with the CATV industry may be divided into (1) issues unique to the operation of the industry, internal issues, and (2) issues involving the operation of the CATV industry in the broader context of the Canadian telecommunications industry, external issues. We have

subdivided the internal issues into those which are economic, service, content and control related. The major objective in displaying the relationships seen in Exhibit I is to emphasize the focus of this report. The goal of this study is to develop a data reporting and analysis system which will concentrate on the issues which are internal to the CATV industry.

The external issues refer to relationships among the CATV industry and (a) other members of the broadcasting industry, (b) the telecommunications industry including telephone and telegraph companies and (c) the governmental, social, and technological environment in which cable companies operate. These external relationships have broad policy implications which require a thorough understanding of each segment of the communications industry as well as knowledge of the interactions among the various segments of the industry. We believe that ultimately DOC should have a reporting system dealing with all of these sectors and their interrelationships.

Issues Facing DOC

The CATV industry has changed significantly over the past 20 years and is continually changing and maturing as an industry. Its evolution is the result of growing demands for basic and new cable services, a changing

competitive environment, rapid technological advances and the involvement of government regulatory bodies such as CRTC. A principal objective of DOC is to ensure that CATV companies operate in a manner that strengthens the cultural, political, economic and social fabric of Canada. In order to carry out this objective DOC must monitor the industry, measure the impact of past decisions and contemplate new policy initiatives.

DOC is concerned with monitoring economic conditions in the CATV industry in order to better understand and anticipate major developments that will impact on the nature of broadcasting service provided to the Canadian public. Knowledge of the economic performance and structure of cable companies in general and for particular segments of the industry is essential to achieve this objective. Specific economic information that would assist DOC in its role include the overall rate of return earned by CATV companies and specific types of systems, the generation of cash flows by cable systems and the use of these funds, and the increase in concentration resulting from mergers.

DOC and CRTC have intervened from time to time in the communications industry. The Department requires data to gauge the impact of policy actions on the industry and to assess whether the underlying objectives are being

met. Local programming and commercial substitution guidelines for example have been established by CRTC. DOC should concern itself with how fully cable firms have responded to the CRTC rulings and with the industry's economic ability to comply with such guidelines.

Several issues and areas of activity are of current or potential importance to DOC and may require policy initiatives to ensure that the Department's objectives in relation to the CATV industry are realized. We have previously identified four categories of issues; economic, service, content and control. An example of a potential economic issue is the reasonableness of levels of rates of return on investment in the CATV industry. The extent to which cable service is extended to Canadian households particularly in remote areas is an example of a service issue. From a content standpoint, DOC may be concerned with the access by Canadians to cable television through community programming. Finally, with respect to control, DOC may wish to influence the degree of concentration of ownership in the CATV industry.

The approach used in this study involves first establishing a conceptual framework for organizing the data and then developing specific measures to meet DOC's needs.

III FRAMEWORK FOR DATA ANALYSIS

Developing a Framework

A framework provides the basis for analyzing the CATV industry. The first step in developing a framework is to identify key system attributes which differentiate among classes of firms with similar economic characteristics. Analyzing data organized in this way will permit much greater insight into the economics of the different types of systems and enables much more effective response by a regulatory authority. Aggregate industry data are averages of the economic results of all firms and provide limited information about the range of firms in the industry. Because CATV systems differ substantially by size of licence area, degree of market penetration, population density, and location, to name just a few attributes, data classified and analyzed by key system attributes will provide more useful information leading to better Department actions.

The second step in the framework development is to determine the key characteristics which describe the state of firms in the various industry groupings. The primary focus of this study is on the economic characteristics of firms in the industry. Accordingly, the framework

must include a set of key characteristics which describe the economic status and trends over time of the various classes of firms. In addition, the study considers certain other characteristics of the CATV industry which are important to DOC. For convenience, we will refer to these simply as non-economic characteristics.

In summary, the framework consists of grouping firms in the industry by key attributes and then analyzing each group according to its economic and non-economic characteristics.

System Attributes

Two attributes dominate the classification of firms in the CATV industry:

1) the maturity of the system
2) the nature of the customer base.

We believe that an analysis of the economic and non-economic characteristics will show important differences when the data are organized according to these attributes.

The maturity of the system refers to the extent to which the existing system exhausts the potential in the licence area. For example a new system may have low current earnings and heavy investment requirements to service a large potential market. Older systems may have

limited opportunity to sell more of the basic cable services because of high market penetration but may have reasonable earnings and substantial cash flows.

The nature of the customer base refers to the size of the licence area and the density of the population within the area. The type of customer base will have an impact on cost and revenue patterns as well as capital expenditure requirements.

In summary, the economic and non-economic characteristics of the CATV industry are affected by two key system attributes, maturity and nature of customer base. The appropriate framework is shown in Exhibit 2.

Exhibit 2

Analytical Framework Incorporating System Attributes

CATV System Attributes	Economic Characteristics	Non Economic Characteristics
1) Maturity		
2) Customer Base		

Because of the considerable interest by the provinces in the CATV industry, the data can be organized and presented on a province by province basis as well as

nationally. While we do not consider the province of location to be either a key system attribute or an important economic or non economic characteristic, we would intend nevertheless to have available all of the exhibits presented in this study using provincial data.

Economic Characteristics

Six major areas of economic interest in monitoring the CATV industry are:

1) return on investment
2) revenue behaviour
3) cost behaviour
4) liquidity
5) financing pattern
6) use of discretionary funds.

Return on investment provides information concerning the ability of the cable systems to generate earnings relative to the amount invested. This measure of economic performance constitutes the primary means of controlling prices for public utility, electric and telephone monopolies. A determination of whether or not the rate earned is too high or low involves a comparison with the rate of return available from other investments with equivalent risk.

The behaviour of revenues and costs over time indicates the trends that each of these are following, and the analyst can then anticipate the problems and opportunities that will follow if these paths continue. The degree of stability of revenues and costs over time provides insight into the inherent riskiness of the business. Classified by the system attributes of maturity and nature of the customer base, evidence will be available about the behaviour of revenues and costs in firms of varying size and population potential.

Liquidity refers to the ease with which a firm can meet its financial obligations as they become due. Classifying by the system attributes will permit an evaluation of the liquidity of differing types of systems and companies.

The means used by the CATV industry to finance its operations provides considerable insight into the availability and cost of funds to this industry. Since technological advances may necessitate substantial future capital outlays, the ease with which systems can obtain funds from the capital market becomes especially important.

The use of discretionary funds by the management and owners of the system indicates their interests and strategies regarding the industry. Discretionary funds

are those generated by operations which may be returned to the owners as dividends, used to retire debt, reinvested within the industry or diverted to other investments. The behaviour of the systems in using these funds over time should present a pattern to DOC which shows whether firms in the various classes have the willingness and financial ability to accomplish the government's overall objectives for the CATV industry.

Exhibit 3 presents the framework for economic analysis to be used in this study.

Exhibit 3

Analytical Framework Incorporating Economic Characteristics

CATV System Attributes	Economic Characteristics					
	Return on Investment	Revenue Behaviour	Cost Behaviour	Liquidity	Financing Pattern	Use of Funds
Maturity						
Customer Base						

Non-economic Characteristics

Three areas of particular interest to DOC in the CATV industry are:

1) Level of service
2) Programming content
3) Control of systems

Level of service refers to both the quality of cable service and the number of viewing alternatives available to subscribers.

Programming content refers to the efforts made by CATV systems to provide community programming. DOC has been particularly interested in stimulating this activity and measures of its actual implementation should permit the Department to evaluate its success.

Control over CATV systems refers to the degree of ownership concentration in the industry.

Exhibit 4 presents the framework for analyzing the non-economic characteristics of the CATV industry.

Exhibit 4

Analytical Framework Incorporating
Non Economic Characteristics

CATV System Attributes	Non Economic Characteristics		
	Level of Service	Programming Content	Control
Maturity			
Customer Base			

IV THE BACKUP REPORT

A. Purpose of the Backup Report

One of the recommendations of this study is that DOC should produce two reports annually; a Management Report and a Backup Report. The purpose of the Management Report is to keep senior DOC officers informed about the major economic and non-economic happenings in the CATV industry. It is to be compiled annually by DOC staff.

The Backup Report consists entirely of tables and fills two roles. First, it provides the backup data necessary for the staff to prepare the Management Report. Second, it presents data in a manner that can be used by staff members on short notice to answer questions or undertake special studies. The purpose of the following discussion is to provide a detailed description of the contents of the Backup Report.

B. Data Employed in the Reports

All data are derived from the Cable Television Annual Return, a sample of which is seen in Appendix A. The specific methods of calculating all measures in both the Backup and Management Reports are described in Appendix B.

C. Description of the System Attributes

As discussed in Part III we propose two system attributes, one to measure maturity and the other to describe the nature of the customer base. Our purpose in this section is to define each attribute fully and to discuss its meaning.

A distinction is made between KEY measures and BACKUP measures. A KEY measure is one which will be provided to management in the Management Report and is also available in the Backup Report. A BACKUP measure is one which is found only in the Backup Report.

Maturity

$$\text{KEY Maturity Measure: Subscriber Penetration Percentage} = \frac{\text{Number of Subscriber Households}}{\text{Number of Households in License Area}}$$

The maturity of a system refers to the extent to which it has exhausted its population potential with basic cable service. One would expect a mature system to have very different economic characteristics from a new system.[1]

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1. We considered dividing the maturity measure into two parts, a measure of "availability of cable" using number of households wired/total households, and a measure of market penetration, number of subscribers/number of households wired. Using two attributes instead of one to measure maturity multiplies the number of tables by a factor of two and consequently, we did not proceed along this line. Nevertheless we feel that this breakdown warrants further study by DOC.

We propose to divide systems (and where appropriate companies) into quartiles grouped according to subscriber penetration ratios and to analyze each of the economic and non-economic characteristics. Exhibit 5 is an illustration using the economic characteristic, return on investment.

Exhibit 5

Analysis of Return on Investment for CATV Systems
Grouped by Subscriber Penetration Percentage

Subscriber Penetration (%)	Average Return on Investment				
	19X1	19X2	19X3	19X4	19X5
1) Highest 25% of systems (companies)					
2) Second 25% of systems (companies)					
3) Third 25% of systems (companies)					
4) Lowest 25% of systems (companies)					
All systems (companies)					

Customer Base

KEY
Customer Base Measure — Number of Subscribers

The economic and non-economic characteristics are thought to vary substantially depending on the size of

the license area.[1] Exhibit 6 illustrates a typical output using Number of Subscribers expressed in quartiles as the system measure and again using return on investment as an illustrative economic measure.

Exhibit 6

Analysis of Return on Investment
for CATV Systems Grouped by
Number of Subscribers

Number of Subscribers	Return on Investment				
	19X1	19X2	19X3	19X4	19X5
1) Highest 25% of systems (companies)					
2) Second 25% of systems (companies)					
3) Third 25% of systems (companies)					
4) Lowest 25% of systems (companies)					
OVERALL					

1. Both the number of subscribers and the geographical size of the license area may be important attributes for differentiating among cable systems. As a backup attribute, we would propose Subscriber Density defined as the number of subscribers/miles of trunk cable. However, our concern with substantially increasing the size of the Backup Report suggests that the importance of this backup attribute in explaining different characteristics of systems be first established.

D. Description of Economic Characteristics

We have chosen six economic characteristics, namely, return on investment, revenues, costs, liquidity, financing pattern and use of funds. In this section six KEY economic measures along with several BACKUP measures will be defined and their meaning explained. These measures are summarized in Appendix C.

Return on Investment

KEY Return on Investment Measure	Return on Investment (1.0)	=	$\frac{\text{Earnings After Tax Before Interest Expenses and Lease Payments}}{\text{Total Assets + Value of Leased Assets}}$

The numerator of this ratio measures the earning power of systems before allowing for differences in the costs associated with financing the assets. Consequently interest payments are disregarded. The denominator represents the total investment required to operate the system. Leased assets are added at their capitalized value in order to reflect the true asset utilization and to make the various systems comparable. How leases are capitalized is described in Appendix B.

The primary means of evaluating the health of an industry is to measure its rate of return. An industry which hopes to attract new investment and maintain a high technological presence must offer the potential for above

average rates of return. On the other hand, a licensee for cable service has a monopoly position and a rate of return in excess of that required to attract investment means that the price for the service exceeds a fair price to the subscriber.

The pattern of rates of return on investment across the industry classified by maturity of system and nature of customer base will add insight to the analysis. Rates of return on investment for more mature systems may be expected to exceed those from less mature systems because of the more efficient use of plant and equipment. However, large systems may achieve higher rates of return on investment even if they are not mature. A thorough analysis of current results will require an historical pattern. Changes from the historical trend will require explanation.

$$\text{BACKUP Return on Investment Measures} \quad \text{Gross Rate of Return on Investment} \quad (1.1) \quad = \quad \frac{\text{After Tax Earnings Before Interest, Programming Expenses and Lease Payments}}{\text{Total Assets + Value of Leased Assets}}$$

The numerator captures earnings from operating the system before distribution to the suppliers of funds and programming outlays. This return is available to the CATV operator before financing costs and particularly before making outlays for community programming, which we tend to regard primarily as a tax on the CATV firm.

$$\text{Operating Earnings Margin} = \frac{\text{Earnings After Tax Before Interest and Programming Expenses}}{\text{Total Revenues}} \quad (1.2)$$

This backup measure when compared with previous years examines the proportion of revenues which represent earnings to contributors of capital. Differences in this rate can explain differences in return on investment. If, for example, the earnings component fell from 10% of revenues to 8%, this would explain a corresponding decline in return on investment. Analysis of the revenue measures to be discussed later may provide further insight into the reason for this change by showing why revenues changed in the period.

$$\text{Return to Equity Investors} = \frac{\text{After Tax Earnings before Programming Expenses}}{\text{Stockholders' Equity}} \quad (1.3)$$

$$\text{Return on Equity and Deferred Taxes} = \frac{\text{After Tax Earnings before Programming Expenses}}{\text{Stockholders' Equity and Deferred Taxes}} \quad (1.4)$$

These backup measures indicate the returns earned by a particular group of investors, the stockholders. The second definition of investors' equity is broadened to include deferred taxes which represent returns from accelerated Asset writeoffs for tax purposes.

In order to effectively interpret the above rate of return measures it is useful to have some benchmark.

Before suggesting a benchmark range of returns a number of relevant factors must be highlighted. First, setting a reasonable rate of return for a CATV system with a monopoly is a difficult task that warrants much greater study than we have been able to devote to this issue. Second, any accounting measure has the deficiency that it incorporates historical costs rather than current values. As a result, comparison of ratios between firms that acquired their assets at different points in time is tenuous. Third, when one considers the time value of money, annual accounting measures are usually inadequate. For example, a firm may have extraordinary earnings in the 5th year of operations after incurring losses for four consecutive years. In this case the ratio indicates a high "rate of return" while on a time adjusted basis the return may be reasonable.

Subject to the foregoing caveats, we will suggest some benchmark rates of return. The rates of return on equity allowed by utility commissions have been approximately 14.3%. A mature cable system has many of the characteristics of a public utility so 14% may be considered reasonable for CATV companies. A cursory analysis of the three mature publicly traded CATV companies suggests that 14-16% is currently demanded by common stock investors. However, these firms represent the lower risk, more mature sector of the industry.

If the market requires 14-16 percent, what is a reasonable expectation for our accounting return to equity measure? First, the investors in most cable companies typically incur more risk than in the public companies we have discussed. Second, the accounting measure will be biased upward because the book value amounts likely understate the current value of the system's assets. Finally we are reminded of the time value of money problem introduced earlier. All of these considerations lead us to the conclusion that a range of 14% for very mature, low risk systems to 25% for higher risk systems represents a reasonable benchmark for return to equity.

Since the return on equity measure includes some assumed financial leverage from debt financing, a return on assets invested ranging from 13 to 22 percent would appear reasonable.

Revenue Behaviour

KEY Revenue Measure	Average Revenue Per Subscriber (2.0)	=	$\frac{\text{Total Subscriber Revenue}}{\text{Number of Subscribers}}$
BACKUP Revenue Measures	Direct Fees Per Subscriber (2.1)	=	$\frac{\text{Direct Fees}}{\text{Number of Direct Subscribers}}$

$$\text{Indirect Fees Per Subscriber (2.2)} = \frac{\text{Indirect or Bulk Contract Revenues}}{\text{Number of Indirect Subscribers}}$$

The purpose of the KEY measure above is to illustrate the range of total cable revenue across systems and patterns over time. The backup measures separate revenues into fees charged direct and indirect customers.

Cost Behaviour

KEY Cost Measure

$$\text{Operating Expenses Per Subscriber (3.0)} = \frac{\text{Sales Expense + Technical Expense + Admin. and General Expense less Rental on Lease Payments}}{\text{Number of Subscribers}}$$

BACKUP Cost Measures

$$\text{Sales Expenses Per Subscriber (3.1)} = \frac{\text{Sales Expenses}}{\text{Number of Subscribers}}$$

$$\text{Technical Expense Per Subscriber (3.2)} = \frac{\text{Technical Expense less Technical Lease Payments}}{\text{Number of Subscribers}}$$

$$\text{Admin. and General Expense Per Subscriber (3.3)} = \frac{\text{Admin. and General Expense less Premise Rentals}}{\text{Number of Subscribers}}$$

$$\text{Operating Margin Per Subscriber (3.4)} = \frac{\text{Operating Income + Programming + Lease Payments}}{\text{Number of Subscribers}}$$

$$\text{Asset Usage Per Subscriber (3.5)} = \frac{\text{Fixed Assets (Owned \& Leased)}}{\text{Number of Subscribers}}$$

The KEY measure indicates how operating expenses are behaving for the system. Each of the first three backup measures is a specific input for the KEY measure and therefore changes in these individual costs will help to explain changes in total cost. The fourth backup ratio combines revenues and expenses in a net measure.

When these cost measures are observed across all systems they can reveal two factors, economies of scale and efficiency. Economies of scale refer to the ability of a system to provide a lower cost per subscriber by spreading a fixed cost, namely assets for use over more subscribers. Once the most economical size of system has been identified, one may compare systems of similar size to see which system is most efficient in its operations.

Liquidity

KEY Liquidity Measure	Liquidity Ratio (4.0)	=	Liquid Current Assets / Current Cash Liabilities other than Loans
BACKUP Liquidity Measures	Liquid Assets to Current Liabilities (4.1)	=	Liquid Current Assets / Current Liabilities
	Cash Assets (4.2)		$ Amount of Cash & Securities / Total Assets

The first step in monitoring the liquidity of this industry is to compare the key measure by industry segment over time. A substantial decrease in the measure requires explanation. We would look to a change in cash and securities as the first area to see if that balance had changed and if so, then see what the funds were used for.

The liquidity measure reflects the ease with which required cash outlays are covered by cash inflows. Industries with long lead times between the date raw materials are acquired, the finished goods are sold and the account is collected, require funds to cover the costs incurred in the interim. However, once the cable system is in place there are no major costs to produce next month's services other than maintenance of the cable system. A month's service is paid for in advance in cash. Labour, materials and taxes to provide the service and run the system for the month are paid in arrears. There is very little requirement for additional funds as long as the cash inflows for the month exceed the outlays.

We consider that the liquidity ratio, as we have defined it, is satisfactory as long as it is greater than 0.25 for mature systems. This is a very low ratio in light of the requirements of other industries, but the

difference is due to the different nature of the cash flows for this industry.

Financing Pattern

KEY Financing Measure	Leverage (5.0)	= Total Debt / Total Financing
BACKUP Financing Measures	Bank Borrowing (5.1)	= Bank Loans / Total Financing
	Long Term Debt (5.2)	= Long Term Debt / Total Financing
	Leases (5.3)	= Leases / Total Financing
	Stockholders' Equity (5.4)	= Shareholders' Equity / Total Financing

The objectives of monitoring the financing patterns are to determine how firms are raising funds externally, how they are mixing the internally and externally generated funds, and how they are incorporating financial risk into their business. Financial risk involves the requirement by the firm to make cash payments which are specified in amount and time, out of cash inflows which have some degree of uncertainty associated with their receipt. Firms which do no borrowing are generally thought to be operating sub-optimally while those who borrow excessively risk bankruptcy.

Debt (loans, bonds, notes) and leasing are forms of financing which add to the financial risk of the firm. Debt requires cash outlays to pay interest and to reduce principal. A lease involves the firm acquiring the use of specific assets in exchange for the requirement to make a series of payments over time. Debt financing and leasing are similar in nature involving the acquisition of assets in exchange for a series of fixed payments.

The KEY measure gives an indication of the level of leverage employed by the firm while the backup measures indicate the sources of this debt.

The relationship of bank borrowing to total financing provides a further indication of the amount of financial risk. Loans which require regular renegotiation pose greater risks for the borrower. Bank loans are usually of a short term nature. Watching the pattern of bank loans to total financing over the period provides further insight into the financial risk in the industry and the ease of obtaining long term funds.

Analyzing the financing pattern across firms of various sizes and maturity will provide insight into the ease with which smaller, less mature systems can raise funds in the market or are able to lease plant.

The public utility type of company often has a

large debt component. The electric and water utilities have debt to total financing ratios of 55 to 60%. Such a ratio would seem reasonable as an upper bound for the larger, mature cable systems.

Use of Discretionary Funds

KEY Funds Measure	Cable Capital Expenditures (6.0)	=	Cable Capital Expense / Total Discretionary Funds Used (Funds from Operations + Programming Outlays)
BACKUP Funds Measures	Dividend Flows (6.1)	=	Dividends / Total Discretionary Funds Used
	Programming Flows (6.2)	=	Programming Expenditure After Tax / Total Discretionary Funds Used
	Debt Flows (6.3)	=	Debt Retirement / Total Discretionary Funds Used
	Non Cable Flows (6.4)	=	Non Cable Investments / Total Discretionary Funds Used
	Cash Flows to Fixed Assets (6.5)	=	Total Cash Flow / Total Fixed Assets

As firms reach high levels of market penetration, discretionary funds balances increase. The way these funds are invested or distributed provides insight into

the future growth of the system. If dividends and debt repayment accelerate, then the industry will not grow at its maximum rate. If investments in related industries or foreign cable systems grow, then the industry may mature in breadth and across borders.

E. Description of Non-Economic Characteristics

Three non-economic characteristics were identified earlier. These include level of service, content, and control.

Level of Service

KEY Service Measure	Total Channels Available (7.0)	=	Number of Canadian, U.S. and other channels provided
BACKUP Service Measures	Number of Canadian Channels (7.1)	=	Canadian Channels Available
	Number of U.S. Channels (7.2)	=	U.S. Channels Available
	Number of Other Channels (7.3)	=	Other Channels Available
	Channel Capability (7.4)	=	Number of Channels That Could Be Transmitted
	Broadcast Quality (7.5)	=	Index of Technical Quality of Transmission

The level of service provided has availability, variety, quality and cost dimensions. The measures already suggested for monitoring revenue patterns in the industry also provide considerable information on the cost of cable services to subscribers. We suggest the above additional KEY and BACKUP measures. The channel capability measure is intended to measure the capability of the system to carry a number of channels. Measures 7.1 to 7.3 outline the number of each type of channel actually being received. The last measure indicates the level of broadcast quality received by the subscriber.

A comparison of averages for each measure by the level of market penetration and size of the cable systems would indicate which types of systems have provided the highest or lowest levels of service to their subscribers. In addition, a trend analysis over time would reveal how rapidly the quality and viewing options of Canadian cable systems have been changing.

Content

KEY Content Measure	Community Programming Expenditures (8.0)	=	Program Origination Expenses / Total Revenues
BACKUP Content Measures	Amount of Community Programming (8.1)	=	Hours Per Week of Community Programming

Quality of Community Programming (8.2) = $\frac{\text{Program Origination Expenses}}{\text{Total Programming Hours}}$

Amount of Locally Produced Community Programming (8.3) = Hours Per Week of Locally Produced Community Programming

Quality of Locally Produced Community Programming (8.4) = $\frac{\text{Program Origination Expenses For Local Production}}{\text{Total Hours of Locally Produced Programming}}$

DOC's concern with local community programming centers on the accessibility by local citizens to cable television and the quality of community programming efforts. The above measures were selected to capture both the quantity and quality dimensions of local channel programming. The importance of locally produced programs versus community channel programming purchased from other systems accounts for the two sets of quantity and quality measures.

An analysis of community programming efforts by different types of systems and over time would indicate how fully cable systems are meeting DOC's objectives.

Control

KEY Control Measure	Average Size of Firm (9.0)	=	Total Assets of System + Value of Leased Assets / Total Assets of CATV Industry
BACKUP Control Measure	Overall Concentration of Ownership (9.1)	=	Total Cable Assets of 10 Largest Companies / Total Assets of CATV Industry

The KEY measure is to be computed for each system category and would indicate which type of system (e.g. mature or new) is most concentrated. The BACKUP measure is calculated for the entire industry in order to assess the general level of concentration and changes over time. Both of the concentration measures also provide some insight into the degree of local ownership of CATV systems: a higher level of overall concentration obviously indicates that fewer systems are owned by local investors.

F. The Use of the Backup Report

The Backup Report has a variety of uses. Two of the main uses are to provide additional material with which to prepare the Management Report and to assist in policy setting deliberations. The discussion of how this report may be used to formulate the Management Report is presented in Part V. At this point we will discuss how

to use the Backup Report to evaluate various contemplated policies.

A word of caution is in order at the outset. It is highly unlikely that data reported on a regular basis will be sufficiently complete or tailored to permit an in-depth study of a policy proposal. On the other hand, these data can be useful in at least two ways. First, the economic and non-economic measures provide enough information for an initial attempt at a full analysis and may point to areas where further study is required. Secondly, since the measures have been chosen to capture the characteristics of the industry, DOC, if forced into a quick decision, will have some assessment of the possible economic implications.

When appraising the economic consequences of a proposed policy action, DOC should focus on three considerations: the ability of the industry to comply with the policy directive while maintaining its general economic strength; the economic implications of the policy action and particularly, the trade-offs with other DOC concerns that may result; and finally the differing impact of the policy on the various segments of the industry. DOC may in the future formulate policies to deal with a variety of issues facing the industry. We have chosen, for illustrative purposes, three areas in

which DOC may be contemplating intervention in the CATV industry and the following discussion suggests how the Backup Report may be used. The areas are community programming, merger activity and levels of service.

A Community Programming Policy

If DOC decided to require that all CATV companies comply with a rule directing 10% of revenues to community programming, for example, then the Backup Report could be utilized to address several issues:

(a) What proportion of revenues are currently being allocated to community programming, what trend has developed over time and what differences exist across different categories of firms? These questions could be answered through the suggested measures for community programming.

(b) Can the 10% rule be followed and still allow the industry to earn a satisfactory return on investment? An analysis of current returns on investment and a translation of programming expenses to return on investment costs would enable DOC to ascertain the economic feasibility of the proposed policy. If compliance with the policy resulted in returns below the minimum required by investors, then the economic health of the industry could be seriously jeopardized.

(c) What is the current cash flow position of the industry, can the 10% rule be funded, and what other uses of cash flows will be diverted to community programming? Compliance with the programming rule through a decrease in dividends would, for example, cause less concern by DOC than a reduction in cash flows that would have been alloted to further developing the system's license area or offering new services.

(d) The differential impact of such a proposal by province, size of firm and maturity of the system.

A Merger Policy

Suppose that DOC while monitoring the industry observed a trend towards increased mergers and considered restricting future merger activity. The measures and nature of the analysis required for addressing an appropriate policy regarding mergers would involve the following considerations:

(a) What is the level of ownership concentration and any trend that has developed over time? The control measures in the Backup Report monitor merger activity and its prevalence for the different types of systems.

(b) What are the reasons for the increase in mergers? Mergers could result from economies of scale considerations or expansionary efforts on the part of certain

firms. The return on investment and cost behaviour measures, classified by maturity and size of cable systems, should demonstrate the importance and nature of economies of scale opportunities in the industry and consequently, the incentive for mergers. An analysis of the concentration measures by types of CATV companies should further confirm the importance of efficiency/profitability motives underlying actual mergers. Similarly, the cash flow measures would indicate if mergers are being stimulated by a lack of internal investment opportunities for excess cash flows and whether such considerations are more important for mature versus young cable systems.

(c) What would be the impact of merger restrictions on the industry's potential returns, and perhaps through CRTC fee setting guidelines, on the cost of cable services to subscribers?

A Level of Service Policy

The extension of cable service to rural and remote areas is of concern to DOC and a possible policy directive might require cable systems to broaden their license area to include more rural customers. The Backup Report would be used to evaluate:

(a) the costs and asset investment required for such an extension by examining the cost and investment patterns of

small, sparsely populated areas.

(b) the potential impact on returns of cable companies.

(c) the ability of CATV systems to fund the required investment costs from existing cash flows and the other uses of cash flows that would likely suffer.

V THE MANAGEMENT REPORT

A. Purpose of the Management Report

The Management Report is to be prepared annually by DOC staff for the senior managers within the Department. The report will have three major sections dealing with (1) monitoring, (2) post audit and (3) current issues. Each of these three sections should consist of a series of tables plus an accompanying discussion which amplifies and interprets the data in the tables. An outline of a typical Management Report is seen in Appendix D. The overall purpose of this report is to keep management informed regarding industry trends, the impact of past policy decisions and potential major issues warranting consideration. The report is designed to highlight the major happenings in the industry and to present a succinct analysis of the current situation.

The remainder of this Part will concentrate on how the data in the Backup Report may be used to prepare each of the three major sections of the Management Report.

B. How to Monitor the Industry

The purpose of monitoring the CATV industry is simply to have a thorough understanding of its fundamental economic behaviour and to identify any major trends and their implications. Part IV contained a detailed description of each variable to be observed along with a discussion of why the variables were chosen. In this section we will illustrate the steps that could be followed with respect to each measure when preparing the Management Report.

The steps to follow for each KEY measure are:

1. Observe the pattern of the KEY measure relative to the chosen attribute.
2. Compare the observed KEY measure to some pre-determined range of acceptable results.
3. Examine the KEY measure for changes from previous periods.
4. Use BACKUP measures to explain the change wherever possible.
5. Combine several measures if it is useful to assist in interpretation.

We will illustrate each of these steps in turn.

Observation of Pattern

Suppose we chose to consider the KEY measure "Return on Investment." We may begin by observing how Return on Investment compares for firms which vary in

maturity. Our KEY measure for maturity was "Subscriber Penetration Percentage". A table reflecting a hypothetical relationship between these two KEY measures is seen in Exhibit 7.

Exhibit 7

Illustration of a Pattern in a KEY Characteristic

Subscriber Penetration Percentage	Average Return on Investment (%)
Quartile 1	10
Quartile 2	6
Quartile 3	4
Quartile 4	- 6
Industry Average	8

Our expectation is that firms which have a high penetration of their market should have higher rates of return on investment. This is supported by the data in this example. Any counterintuitive result should be investigated further.

Comparison to Standard

In the previous example we may have wanted to compare the return for CATV companies with some standard to see how well they were doing on a comparative basis. Earlier we suggested that 13 percent is the low end of

the expected range of returns. Since this is the return expected of a low risk, mature investment we compare it with the 10 percent being earned by the firms in the first quartile of penetration. In this case the 10 percent return appears to be low. On the other hand the minus 6 percent rate of return for relatively new firms may not be of great concern since these firms have not achieved the economies of scale associated with mature companies.

Observation of Trend

As the data reporting system is developed, it will be possible to look at trends in key characteristics over time. An example is provided by our Return on Investment measure used in the previous illustration. Exhibit 8 below contains an example of a possible trend in return on assets over three years.

Exhibit 8

Illustration of a Trend in a KEY Characteristic

Subscriber Penetration Percentage	Average Return on Investment (%)		
	19x1	19x2	19x3
Quartile 1	10	14	27
Quartile 2	6	10	16
Quartile 3	4	9	10
Quartile 4	-6	-2	-1
Industry Average	8	12	18

This table suggests that while the industry was not doing very well in 19x1 it has steadily improved. This steady improvement may be related to a variety of causes which may be detailed in the remainder of the report. Examples are general maturity of the industry, favorable price increases allowed by CRTC and economies of scale. The fact that mature firms have a return of 27% may warrant further investigation if DOC considers that this return exceeds acceptable limits.

Use of BACKUP Measures

As discussed earlier only the KEY measures are to be presented to management. Nonetheless DOC staff should analyse the BACKUP measures to assist in interpreting observed values of the KEY measures. In the above case suppose we observed the BACKUP measure "Return to Equity Investors" and obtained the results presented in Exhibit 9. One would expect that if a firm used relatively low cost debt capital to expand its operations and earnings, then return on equity would expand at a faster rate than return on total investment. Since that is not happening in our case it suggests that much of the increased profits were dissipated by high borrowing costs.

Exhibit 9

Illustration of a BACKUP Measure

Subscriber Penetration Percentage	Average Return to Equity Investors		
	19x1	19x2	19x3
Quartile 1	12	16	26
Quartile 2	9	11	18
Quartile 3	6	10	9
Quartile 4	-2	0	-1
Industry Average	9	13	18

Combination of Several Measures

Frequently an individual measure will not tell the entire story. Consequently it is useful to combine several characteristics for purposes of analysis. Exhibit 10 illustrates how several characteristics may be combined to provide greater insight.

Exhibit 10

Illustration of Analysis of Combined Characteristics

Subscriber Penetration	Average Return on Investment (%)	% of Cash Flow Diverted to		
		Cable TV	Dividends	Other Investments
Quartile 1	27	20	55	25
Quartile 2	16	50	40	10
Quartile 3	10	100	0	0
Quartile 4	-1	100	0	0

This purely hypothetical example shows that the most mature CATV firms are earning high profits but little of the cash flow is being plowed back into expansion of the industry. Instead the funds are going into dividends and are being funneled off into other investments, perhaps outside of the industry or of Canada. None of these possibilities are undesirable per se but all of them likely raise a red flag requiring additional information and study.

In summary, in order to prepare the monitoring section of the Management Report the staff should follow the five steps for analysis outlined at the beginning of this section for each of the KEY measures. The ideal staff person to perform this analysis would have some financial knowledge along with a reasonable knowledge of the cable industry.

C. The Post Audit of Past Policy Decisions

From time to time DOC or CRTC will issue policy directives to the industry. A concern to management in DOC is the extent to which the CATV industry is following those policy directives. We have chosen to consider the "guideline" issued by the CRTC that 10% of revenues represent a good target for community programming

expenditures in order to illustrate how one may observe the impact of a specific policy. We will follow the same steps as we did when monitoring the industry except in a sense we are now "monitoring" a specific policy.

Observation of a Pattern

A KEY characteristic which DOC will want to observe is the percent of revenue spent on community programming. Exhibit 11 below provides an example of possible results.

Exhibit 11

Illustration of a Pattern in Community Programming Policy Employing a KEY Variable

Subscriber Penetration	% of Revenue Spent on Programming
Quartile 1	8
Quartile 2	5
Quartile 3	1
Quartile 4	0

This exhibit indicates that the more mature systems are coming closest to meeting the guideline. This result is expected since these firms likely have greater earnings and larger cash flows not committed to other uses.

Comparison to Standard

Since our standard was ten percent of revenues it is clear that most, if not all firms have failed to meet the standard.

Observation of Trend

Although the above data suggested that firms were not complying with CRTC's target level of community programming expenditures a trend analysis may be revealing. Exhibit 12 illustrates such a trend.

Exhibit 12

Illustration of a Trend in Community Programming Expenditures

Subscriber Penetration	Percent of Revenue Spent on Programming		
	19x1	19x2	19x3
Quartile 1	1	4	8
Quartile 2	0	2	5
Quartile 3	0	0	1
Quartile 4	0	0	0

These data indicate that since the policy guideline was issued in 19x1 the CATV industry is gradually complying with the directive.

Use of BACKUP and Other Measures

We may wish to determine not only the dollar amount spent on community programming but other aspects as well. Exhibit 13 indicates how one may look at several variables to evaluate the impact of a policy change.

Exhibit 13

Illustration of Impact of Community Programming Policy Employing Several Variables, 19x3

Subscriber Penetration	% of Revenue Spent on Programming	Average Hours of Community Programming Per Week	Average $ Expenditure Per Hour of Community Programming	Average Hours of Locally Produced Community Programming Per Week
Quartile 1	8	30	95	20
Quartile 2	5	20	38	4
Quartile 3	1	8	5	0
Quartile 4	0	0	0	0

This table indicates that mature firms provide many more hours of community programming per week. The greater expenditure per hour suggests more effort as well in terms of equipment and support staff availability. We also note that while less mature firms are devoting some revenues to community programming, the bulk of such expenditures are for programs purchased from others which do not really represent access opportunities for the local populace.

D. Reporting on Current Issues

The purpose of this final section of the Management Report is to provide the staff with a vehicle to keep top management informed on currently developing issues. These issues are difficult to forecast but could include

1. An application by one major CATV firm to acquire another.
2. An application by a firm to set up a PATV network.
3. An indication that one of the provinces wants to influence CATV content.
4. Very poor performance of CATV Co. shares in the stock market.

In keeping with the economic nature of this report most of the discussion provided by the staff should revolve around economic issues and should be supported by whatever KEY or BACKUP measures or other data that seem appropriate.

VI RESULTS USING 1977 DATA

A. Purpose of This Part

The initial intention was that once a framework for analysis was created, we would test the applicability of the framework with the data available to DOC. For a variety of reasons summarized in Part VII, the data were not provided in either the form or to the extent contemplated. Nonetheless, some data are available and the objective in this Part is to discuss the extent to which the data support the framework. The major deficiency of this Part is that only data for one year, 1977, were available to us, thus making it impossible to isolate trends over time. The data that were provided have not been thoroughly verified and should be used with caution.

B. Classification of Companies and Systems

We obtained data on 246 CATV systems in Canada and 207 companies. Companies can include one or more systems thus accounting for the difference in numbers. Due to the constraints of the industry questionnaire from which the data were derived, some measures are available by system while others are available only by company.

Exhibits 14 to 16 classify companies and systems according to three different attributes. In Exhibit 14 where number of subscribers is the attribute, one can see that eight companies have a total of 1.47 million subscribers which amounts to 43 percent of all CATV subscribers. As a measure of concentration this indicates that the CATV industry is less concentrated than many in Canada. Even the 21 largest companies have only 65 percent of total subscribers. The same comments about concentration apply when one looks at systems rather than companies.

It is also interesting to note that the median system has only 5,00 subscribers. Thus there are many relatively small systems in Canada and policymakers must remember this important fact when implementing new procedures.

Exhibit 15 gives an indication of the extent to which CATV systems have penetrated their markets. Over 80 percent of companies and systems have penetration ratios of 50 percent or more. This indicates that the cable industry is relatively mature and helps explain the continuing pressure by the industry to expand the services offered. Note that mature firms cannot be classified as either large or small since the average number of subscribers does not seem to vary by penetration rate.

EXHIBIT 14

ANALYSIS OF CATV SYSTEMS AND FIRMS FOR 1977
CLASSIFIED BY NUMBER OF SUBSCRIBERS

Number of Subscribers (000)	COMPANIES			SYSTEMS		
	Number of Companies	Average Number of Subscribers (000)	Total Number of Subscribers (000)	Number of Systems	Average Number of Subscribers (000)	Total Number of Subscribers (000)
75-500	8	183	1467	9	119	1076
40-75	13	56	730	13	57	745
11-40	32	18	590	44	19	852
5-11	43	8	326	52	8	395
2.5-5	51	4	180	59	3	202
1-2.5	60	2	100	69	2	115
	207		3393	246		3385

EXHIBIT 15

ANALYSIS OF CATV SYSTEMS AND FIRMS FOR 1977
CLASSIFIED BY MARKET PENETRATION

Subscriber Penetration Ratios	COMPANIES				SYSTEMS			
	Number of Companies	Average Penetration Rate	Total Number of Subscribers (000)	Average Number of Subscribers Per Firm (000)	Number of Systems	Average Penetration	Total Number of Subscribers (000)	Average Number of Subscribers (000)
.85-1.00	56	.90	692	12	67	.91	797	12
.75-.85	38	.80	484	13	56	.80	797	14
.50-.75	75	.64	1631	22	80	.64	1205	15
.30-.50	23	.42	514	22	28	.42	514	18
.0 -.30	13	.21	65	5	14	.22	68	5
	205		3386		245		3381	

EXHIBIT 16

ANALYSIS OF CATV SYSTEMS AND FIRMS FOR 1977
CLASSIFIED BY SUBSCRIBERS PER MILE OF TRUNK CABLE

Subscribers Per Mile of Trunk Cable	COMPANIES				SYSTEMS			
	Number	Average (000)	Total (000)	Average Subscriber Density	Number	Average Number of Subscribers (000)	Total Number of Subscribers (000)	Average Subscriber Density Per Mile
800-50,000	12	28	337	1067	14	27	381	1044
600-800	6	42	253	713	10	55	555	709
400-600	29	46	1330	486	34	21	726	487
300-400	30	22	659	339	41	21	854	337
150-300	77	8	611	224	89	7	659	226
1-150	40	3	137	112	43	3	145	113

Another attribute initially considered useful was the density of subscribers per mile of trunk cable. As seen in Exhibit 16 this attribute does not seem related to size of the system. In an effort to cut down the number of tables this attribute was eliminated but we still believe it may merit consideration in future studies.

C. Economic Analysis

The purpose of this section is to review each of the six economic characteristics which were expected to be important in analysing and understanding the industry.

Return on Investment

The economic health of the industry is determined largely by its ability to earn a satisfactory return on the funds employed in the business. Exhibits 17 and 18 present this information for 1977.

Exhibit 17 illustrates that the smallest systems are earning the lowest rates of return, well below a satisfactory rate to maintain and encourage more investment. If these smaller systems have just not penetrated their market and have growth potential, then the situation may be corrected over time. However, since there are 111 CATV companies with fewer than 5,000 subscribers and only 46 companies with penetration less than .50, it is clear

EXHIBIT 17

CATV INDUSTRY - KEY AND BACKUP MEASURES OF RETURN ON INVESTMENT FOR 1977 USING COMPANY DATA AND CLASSIFIED BY NUMBER OF SUBSCRIBERS

		KEY	BACKUP
Number of Subscribers (000)	# of Companies	Return on Investment	Return to Equity Investors
75-500	8	.11	.20
40-75	13	.12	.33
11-40	32	.09	.30
5-11	43	.09	.21
2.5-5	51	.05	.10
1-2.5	60	.03	(.04)
Overall		.10	

EXHIBIT 18

CATV INDUSTRY - KEY AND BACKUP RETURN ON INVESTMENT MEASURES FOR 1977 USING COMPANY DATA AND CLASSIFIED BY DEGREE OF MARKET PENETRATION

		KEY	BACKUP
Subscriber Penetration Ratio	# of Companies	Return on Investment	Return to Equity Investors
.85-1.00	56	.13	.31
.75-.85	38	.13	.28
.50-.75	75	.12	.25
.30-.50	23	.05	.09
.00-.30	13	(.03)	(.35)
Overall		.10	

that there is a substantial number of small companies with high penetration and poor returns. Although the size of the system, expressed in number of subscribers, influences ROI, the results across all classifications are not consistent. The highest ROI is in the second classification of between 40,000 and 75,000 subscribers. This suggests that the optimum size may lie below the largest category. This finding recurs throughout the subsequent analysis; however, one must be careful about drawing this conclusion since size of system may be a proxy for subscriber penetration or some other confounding variable.

The return on equity for firms in the 11,000 to 40,000 subscriber category is high at 30 percent. Much of this result, as will be seen in Exhibit 25, is due to a higher degree of leverage (debt financing) for these firms.

As seen in Exhibit 18 subscriber penetration significantly affects return on investment. The industry ROI of 9.7% in 1977 is close to the average for all Canadian industry for the years 1972 and 1977 of 9.6%. While differences in ROI's among the first three classifications are not substantial, nonetheless, they are consistent, higher penetration is associated with higher ROI's.

The highest average ROI of 13 percent is earned by the 94 companies in the two highest penetration categories. This average ROI is at the lower end of the scale we considered as a reasonable standard.

Exhibit 19 provides further support for the notion that an optimal size may be 40,000 to 75,000 subscribers since these firms generate the largest operating earnings margins. There is also an indication that systems below 5,000 subscribers have such low operating margins that they are not economically visible, possibly due to high fixed costs associated with the industry.

In summary, the CATV industry Return on Investment for 1977 of 9.7% is below our range of acceptable rates of return as set out earlier. Return on investment is directly related to degree of market penetration. Smaller systems, with fewer than 11,000 subscribers, have earned generally unsatisfactory returns perhaps due to certain fixed costs.

Revenue Behaviour

As seen in Exhibit 20 there is no clear pattern of revenues across system size, although large systems (over 75,000) seem to have substantially lower revenues per subscriber than small systems (below 5,000). This may reflect more generous price increases allowed to small

EXHIBIT 19

CATV INDUSTRY – KEY AND BACKUP MEASURES OF RETURN ON INVESTMENT FOR 1977 USING SYSTEM DATA AND CLASSIFIED BY DEGREE OF MARKET PENETRATION AND NUMBER OF SUBSCRIBERS

Subscriber Penetration Ratio	Number of Systems	BACKUP Operating Earnings Margin (%)	Number of Subscribers (000)	Number of Systems	BACKUP Operating Earnings Margin (%)
85-1.00	67	.37	75-500	9	.37
75-.85	56	.39	40-75	13	.38
50-.75	80	.34	11-40	44	.35
30-.50	28	.30	5-11	52	.36
00-.30	14	(.08)	2.5-5	59	.19
			1-2.5	69	.13

systems by the CRTC.

In Exhibit 21 the average revenue per subscriber increases as the degree of penetration falls until it reaches the .50 level, and then the ratio declines. However, systems with low penetration are adding relatively large numbers of subscribers through the year and the average is likely to be affected by partial year subscriptions.

Cost Behaviour

Exhibits 20 and 21 provide data on cost behaviour as well.

The most obvious trend in total costs per subscriber is related to number of subscribers. Costs per subscriber are lowest for larger systems and increase as system size decreases. The total annual cost per subscriber for the smallest systems of $43.44 is over one and one half times the $25.77 cost for the largest systems. This same relationship is reflected in the trend of total costs to an increasing penetration ratio.

The breakdown of total cost into its major components provides considerable insight into this trend.

Sales expenses vary according to degree of penetration but not by size. Systems which have high penetration

EXHIBIT 20

CATV INDUSTRY – KEY AND BACKUP MEASURES OF OPERATING REVENUES AND EXPENSES PER SUBSCRIBER FOR 1977 USING SYSTEMS DATA CLASSIFIED BY NUMBER OF SUBSCRIBERS

	KEY	BACKUP						KEY	
Number of Subscribers (000)	Average Revenue per Subscriber	Sales Expense Per Subscriber	% of Revenue	Technical Expense per Subscriber	% of Revenue	Admin. & General Expense per Subscriber	% of Revenue	Total Expense	% of Revenue
75-500	63.36	3.16	.05	11.63	.18	10.98	.17	25.77	.40
40-75	71.30	3.75	.05	10.69	.15	12.51	.18	26.95	.38
11-40	68.72	2.50	.04	10.66	.16	14.79	.22	27.95	.42
5-11	68.00	2.16	.03	14.36	.21	18.07	.27	34.59	.51
2.5-5	77.07	2.47	.03	18.65	.24	20.41	.26	41.53	.53
1-2.5	73.02	2.56	.04	19.08	.26	21.80	.30	43.44	.60

EXHIBIT 21

CATV INDUSTRY – KEY AND BACKUP MEASURES OF OPERATING REVENUES AND EXPENSES PER SUBSCRIBER FOR 1977 USING SYSTEMS DATA CLASSIFIED BY DEGREE OF MARKET PENETRATION

	KEY	BACKUP						KEY	
Subscriber Penetration Ratio	Average Revenue per Subscriber	Sales Expense Per Subscriber	% of Revenue	Technical Expense Per Subscriber	% of Revenue	Admin. & General Expense Per Subscriber	% of Revenue	Total Total Expense	% of Revenue
.85-1.00	68.43	1.76	.03	16.84	.25	18.70	.27	37.20	.55
.75-.85	68.92	1.61	.02	14.15	.21	17.79	.26	33.56	.49
.50-.75	77.62	2.93	.04	15.34	.20	17.27	.22	35.54	.46
.30-.50	71.78	3.01	.04	17.68	.25	19.89	.28	40.58	.57
0.0 -.30	61.64	5.83	.09	15.86	.26	26.25	.43	47.94	.78

have low sales expenses. This finding conforms to expectation, systems entering new markets advertise and promote to a greater extent to attract new customers than mature systems.

The highest margins, revenues minus total expenses, are earned by systems with a penetration between .50 and .75 and a size between 40,000 and 75,000 subscribers.

Large systems are thought to provide economies of scale, both in terms of better utilization of fixed cost resources and in permitting efficiencies from large scale operations. An analysis of the technical and administrative expenses per subscriber for CATV systems supports this hypothesis. Although technical expenses per subscriber are slightly higher for the largest systems, administrative costs vary directly with size.

Further evidence of economies of scale is provided in Exhibit 22 where asset usage becomes more intensive with system size and market penetration.

In summary the pattern of costs supports the notion of economies of scale provided by system size and market penetration.

EXHIBIT 22

CATV INDUSTRY – BACKUP MEASURE OF ECONOMIES OF SCALE FOR 1977 USING SYSTEM DATA AND CLASSIFIED BY DEGREE OF MARKET PENETRATION AND NUMBER OF SUBSCRIBERS

Subscriber Penetration Ratio	Number of Systems	BACKUP Asset Usage per Subscriber	Number of Subscribers (000)	Number of Systems	BACKUP Asset Usage per Subscriber
85-1.00	67	102	75-500	9	100
75-.85	56	123	40-75	13	130
50-.75	80	135	11-40	44	131
30-.50	28	182	5-11	52	148
00-.30	14	308	2.5-5	59	208
			1-2.5	69	172

Liquidity

The liquidity ratio we have developed shows the capability of the industry to pay its maturing obligations. This ratio is presented in Exhibits 23 and 24.

The ratios are low relative to most Canadian industries. The firms with highest market penetration only keep $0.25 in liquid assets (cash, marketable securities and accounts receivable) for each $1.00 of obligation requiring a cash outlay. The criteria for low ratios generallywere set out earlier and related to the nature of the cash flows in the firms. Because fees are received in advance, operating costs are paid after the services are provided, and it is a service industry not requiring large inventories, firms do not need to keep liquid assets in large amounts.

For this measure, comparisons over time would be especially helpful; absolute measures are not too meaningful.

It is interesting to note that liquidity is lowest for companies with high penetration (.25) and for large companies (.22). These two measures are lower than we would think reasonable; that is, the firms are trading on their short term credit more than we would expect. Liquidity increases as penetration declines and as

EXHIBIT 23

CATV INDUSTRY - KEY MEASURE OF LIQUIDITY RATIOS FOR 1977 USING COMPANIES DATA AND CLASSIFIED BY MARKET PENETRATION

Subscriber Penetration	# of Companies	KEY Liquidity Ratio
.85-1.00	56	.25
.75-.85	38	.31
.50-.75	75	.37
.30-.50	23	.31
.00-.30	13	.25

EXHIBIT 24

CATV INDUSTRY - KRY MEASURE OF LIQUIDITY RATIOS FOR 1977 USING COMPANIES DATA AND CLASSIFIED BY NUMBER OF SUBSCRIBERS

Number of Subscribers (000)	# of Companies	KEY Liquidity Ratio
75-500,000	8	.22
40-75	13	.37
11-40	32	.38
5-11	43	.57
2.5-5	51	.43
1-2.5	60	.36

subscriber size declines but only so far, when the ratio turns around. The small companies, fewer than 5,000 subscribers, have a liquidity measure of about .40 which also seems low for this type of relatively high risk firm.

Financing Pattern

The sources of financing to CATV companies are outlined in Exhibits 25 and 26. The most obvious point is that newer and smaller firms tend to use more debt financing than more mature and larger firms. Also, as expected, the smaller firms tend to make greater proportionate use of bank financing than larger firms, a common pattern in other industries.

Since debt financing adds risk to the total operation, it is of some concern that the firms with highest business risk, low penetration and a small number of subscribers, carry the most debt.

Since these higher risk firms in the industry have about 80% debt financing, it would appear that the other firms with less debt would have additional debt financing capacity if they wished to use it. While a categorical statement about the ease of financing and the ability of firms to raise funds is not possible, nevertheless, it does appear that the firms have used debt extensively and the fact that the most risky firms have the highest debt

EXHIBIT 25

CATV INDUSTRY – KEY AND BACKUP MEASURES OF FINANCING PATTERN FOR 1977 USING COMPANY DATA AND CLASSIFIED BY NUMBER OF SUBSCRIBERS

Number of Subscribers (000)	Number of Firms	KEY	BACKUP			
		Total Debt to Total Financing (%)	Bank Loans to Total Financing (%)	Long Term Debt to Total Financing (%)	Leases to Total Financing (%)	Owners Equity to Total Financing (%)
75-500	8	.55	.05	.47	.03	.45
40-75	13	.63	.09	.46	.08	.37
11-40	32	.75	.12	.56	.07	.25
5-11	43	.61	.13	.44	.04	.39
2.5-5	51	.79	.26	.47	.06	.21
1-2.5	60	.74	.19	.52	.03	.26

EXHIBIT 26

CATV INDUSTRY – KEY AND BACKUP MEASURES OF FINANCING PATTERN FOR 1977 USING COMPANY DATA AND CLASSIFIED BY DEGREE OF MARKET PENETRATION

Subscriber Penetration Ratio	Number of Firms	KEY	BACKUP			
		Total Debt to Total Financing (%)	Bank Loans to Total Financing (%)	Long Term Debt to Total Financing (%)	Leases to Total Financing (%)	Owners Equity to Total Financing (%)
.85-1.00	56	.43	.10	.30	.03	.57
.75-.85	38	.55	.11	.42	.02	.45
.50-.75	75	.61	.05	.52	.04	.39
.30-.50	23	.73	.15	.54	.04	.27
.00-.30	13	.82	.19	.60	.03	.18

ratios suggests that the capital market has been receptive to industry demands for funds.

Use of Discretionary Funds

The pattern of spending of funds generated by operations provides a valuable insight into the nature of the industry. An analysis of these flows is presented in Exhibits 27 and 28. Cable capital expenditures as a percent of discretionary funds is inversely related to both size and market penetration. This is sensible since size and penetration bring economies of scale as noted earlier.

With one exception dividend payout is directly related to size and penetration. This is as expected since the more mature firm does not have as many internal investment demands and shareholders expect merger dividends as the system approaches maturity.

There are no clear patterns for non-cable expenditures, which is somewhat surprising, since the expectation was that large companies with high penetration were diversifying their holdings. However, the definition of fund uses on the questionnaire is sufficiently vague that the resulting pattern is meaningless.

Programming expenditures constitute a larger

EXHIBIT 27

CATV INDUSTRY – KEY AND BACKUP MEASURES OF USE OF DISCRETIONARY FUNDS FOR 1977 USING COMPANIES DATA AND CLASSIFIED BY NUMBER OF SUBSCRIBERS

		ITEMS AS % OF DISCRETIONARY FUNDS				
		KEY	BACKUP			
Number of Subscribers (000)	Number of Companies	Cable Capital Expenditures	Programming Expenditures	Non Cable Investments	Debt Retirement	Dividends
75-100	8	.71	.13	.40	(.16)	.33
40-75	13	.92	.15	.30	.01	.23
11-40	32	1.10	.18	.16	(.36)	.09
5-11	43	1.34	.17	.43	(.06)	.07
2.5-5	51	1.83	.28	.18	(.15)	.21
1-2.5	60	2.66	.31	.40	(1.61)	.04

EXHIBIT 28

CATV INDUSTRY – KEY AND BACKUP MEASURES OF USE OF DISCRETIONARY FUNDS FOR 1977 USING COMPANIES DATA AND CLASSIFIED BY MARKET PENETRATION

		ITEMS AS % OF DISCRETIONARY FUNDS				
		KEY	BACKUP			
Subscriber Penetration	Number of Companies	Cable Capital Expenditures	Programming Expenditures	Non Cable Investment	Debt Retirement	Dividends
.85-1.00	56	.74	.15	.06	.22	.60
.75-.85	38	.94	.14	.30	(.24)	.28
.50-.75	75	.66	.14	.21	.07	.09
.30-.50	23	1.73	.21	.65	(1.18)	.09
0.0 -.30	13	*	*	*	*	*

*Discretionary funds flows are negative.

proportion of the discretionary flows of companies which have lower penetration ratios and which are smaller in number of subscribers. Since these firms are making relatively larger cable capital expenditures, these programming costs take funds which might better be used for other purposes.

Exhibits 29 and 30 support the observation that larger firms have economies of scale and that they are able to generate more cash per dollar invested in fixed assets.

D. Non Economic Analysis

Channel Availability

One variable of interest is the number of channels available to deliver services to subscribers. Exhibit 31 demonstrates clearly that larger systems have greater channel capability. This may be due to the fact that these large systems are located in the more highly populated areas which have more television stations available.

The newer systems tend to have a lower penetration ratio, thus explaining why low penetration systems appear to have greater channel capability.

EXHIBIT 29

CATV INDUSTRY - BACKUP MEASURES OF USE OF DISCRETIONARY FUNDS FOR 1977 USING SYSTEM DATA AND CLASSIFIED BY NUMBER OF SUBSCRIBERS

Number of Subscribers (000)	# of Systems	BACKUP Cash Flows to Fixed Assets (%)
75-500	9	.21
40-75	13	.18
11-40	44	.16
5-11	52	.12
2.5-5	59	.07
1-2.5	69	.06

EXHIBIT 30

CATV INDUSTRY - BACKUP MEASURES OF USE OF DISCRETIONARY FUNDS FOR 1977 USING SYSTEM DATA AND CLASSIFIED BY DEGREE OF MARKET PENETRATION

Subscriber Penetration Ratio	# of Systems	BACKUP Cash Flows to Fixed Assets (%)
.85-1.00	67	.17
.75-.85	56	.17
.50-.75	80	.18
.30-.50	28	.10
.00-.30	14	(.01)

EXHIBIT 31

CATV INDUSTRY – BACKUP MEASURES OF LEVEL OF SERVICE FOR 1977 USING SYSTEM DATA AND CLASSIFIED BY NUMBER OF SUBSCRIBERS AND DEGREE OF MARKET PENETRATION

Number of Subscribers (000)	Number of Systems	BACKUP Average Channel Capability	Subscriber Penetration Ratio	Number of Systems	BACKUP Average Channel Capability
75-500	9	27	.85-1.00	67	16
40-75	13	26	.75-.85	56	18
11-40	44	22	.50-.75	80	20
5-11	52	18	.30-.50	28	23
2.5-5	59	18	.00-.30	14	24
1-2.5	69	16			

Community Programming

Exhibits 32 and 33 provide further insight into non economic factors. Systems with low penetration and small size spend a larger proportion of their revenue on community programming. This seems contrary to what might be expected since these firms are more likely to need these funds for other purposes.

Larger firms provide more community programming and have greater production expenses per hour offered. This is consistent with the notion of profitability, availability of cash and location of large systems mentioned earlier. Somewhat surprisingly there appears to be no similar pattern by penetration ratio.

E. Concluding Comments

Many of the relationships postulated earlier in this report were confirmed by the analysing of data. It has been demonstrated that number of subscribers and penetration are attributes that contribute to a greater understanding of the CATV industry economic performance. It is also apparent that there are marked differences in economic and non economic characteristics among systems, and that the differences observed were consistent with the expectations. These results suggest that it would be fruitful to pursue this line of analysis in a variety

EXHIBIT 32

CATV INDUSTRY – KEY AND BACKUP MEASURES OF CONTENT FOR 1977 USING SYSTEM DATA AND CLASSIFIED BY NUMBER OF SUBSCRIBERS

Number of Subscribers (000)	Number of Systems	KEY	BACKUP			
		Community Programming Expenditure to Total Revenue (%)	Amount of Community Programming Hours/Week	Program Origination Expenses per Hour of all Programs ($)	Hours of Locally Produced Community Programs/Week	Program Origination Expense per Hour of Community Programs ($)
75-500	9	.05	139	2697	126	2855
40-75	13	.06	157	1423	129	1833
11-40	44	.06	142	605	132	626
5-11	52	.07	139	261	128	278
2.5-5	59	.08	127	157	126	147
1-2.5	69	.07	108	85	99	84

EXHIBIT 33

CATV INDUSTRY – KEY AND BACKUP MEASURES OF CONTENT FOR 1977 USING SYSTEM DATA AND CLASSIFIED BY DEGREE OF MARKET PENETRATION

Subscriber Penetration Ratio	Number of Systems	KEY	BACKUP			
		Community Programming Expenditure to Total Revnue (%)	Amount of Community Programming Hours/Week	Program Expense per Hour of all Programs ($)	Hours of Locally Produced Community Programs/Week	Program Origination Expense per Hour of Community Programs ($)
.85-100	67	.06	122	382	120	377
.75-.85	56	.06	141	434	131	453
.50-.75	80	.07	136	522	123	553
.30-.50	28	.08	119	888	106	1059
.00-.30	14	.09	113	214	108	209

of directions. Firstly, cross tabulation of data by both firm size and penetration would allow a separation of the joint effects of these two variables. Second, given the relatively simple level of analysis done here, the specifics involved in the calculation of each ratio should be reconsidered with a view to greater precision in interpretation. Third, DOC should proceed to gather and analyze the data in the manner recommended for a series of years so as to provide greater depth of analysis.

VII IMPLEMENTATION OF THE MANAGEMENT AND BACKUP REPORTS

The measures and methods of analysis discussed in the preceding segments of this study constitute an information and analysis report that should provide useful and timely information for managers at DOC as they consider problems facing the industry and answer questions from their many constituents. The difficulties that were encountered in our attempts to prepare a sample management report using 1977 data, however, suggest that the proposed Management and Backup Reports should be viewed as an ideal that will require time and experiences to reach. Developing the capacity to gather and appropriately analyze the necessary data will require a careful appraisal of questionnaire information needs, the relationship between the Social Policy and Programs branch and the Economic Policy and Statistics group and a determination of who will have responsibility for preparing the management report.

A. Data Requirements

Data for the Measures

The computer data bank produced from the Cable Television Annual Return contains several hundreds of pieces of information for approximately 400 individual systems and roughly 300 companies. The most extensive

data is provided for larger systems (more than 1000 subscribers). Since small systems account for only 2% of total Canadian subscribers and disclose limited data to Statistics Canada, the report should focus principally on the larger systems.

We believe that it is preferable that the report concentrate on individual systems rather than company results since the company data may suffer from an averaging of performance for systems that are disparate across the attributes that are important. We acknowledge that some of the measures proposed in this report require data that are available on a company basis only.

The source of information and the exact calculations for the attributes, economic and non-economic measures are described in Appendix B. The distinction between company and system measures is also noted.

Information Modifications or Additions

We have attempted to confine our Backup Report to the information that is currently obtained from the Statistics Canada Return and stored on computer. In fact, we are proposing that only a small portion of the data available is of value to DOC for purposes of the two reports. We anticipate that new types of information may be desirable. We also believe that the nature of the information being obtained from CATV firms must be more precisely

defined and communicated to the industry.

New information should include a technical measure of broadcast quality which would permit DOC to monitor the quality of cable television, as well as answers to questions regarding the number and types of television channels offered subscribers. Much of the data required of the cable companies are no longer sufficient to address current problems and issues. The ownership of cable systems and the investment of cable cash flows are issues that may be of concern to DOC. However, the ownership information, including interdirectorships, collected on the Annual Return is complex in nature and not stored on computer. Similarly, the investments of cable companies are divided into "cable television only", "non-cable television" and "additions to investments and advances". DOC should be interested in monitoring investments in foreign cable systems, other sectors of the broadcasting industry, etc. and ask for such details.

Our involvement with this study revealed several instances of confusion regarding the information provided in the Annual Return. The investment items above are examples and others include 1.5 education services (12), 3.4 other adjustments (12), 1.5 package shows (13), etc. In such cases, DOC, CRTC and Statistics Canada appeared to have differing understandings of what the items included.

B. Relationship with the Economic Policy and Statistics Branch (EPS)

Control and processing of the computer data bank lies with the EPS group. Working papers on cable television statistics that are currently being generated internally indicate that EPS analysts are also examining several of the issues and relationships presented in this study. The Backup Report should provide a focus for EPS efforts to ensure that the type of data collected and form of analysis will match the needs of DOC management in monitoring developments in the CATV industry and implementing policy initiatives.

Our experience with EPS in requesting a data run for 1977 revealed several problems that will have to be addressed before the information and analysis system can effectively function. EPS is currently unable to provide the required information in a well structured form and within reasonable turn-around time for what we consider to be the following reasons:

- the data base maintained by EPS is extremely large and cumbersome. We believe that most of the pieces of data stored on the computer would seldom be used for management information purposes.

- the storage structure and coding of the data cause serious problems in analysing the data. For example, systems are not coded in a manner that permits easy consolidation to a company basis. Missing data items are also often coded as zero, thereby not permitting the user to distinguish between missing values and an actual zero value.

- the "user software packages" provided by Computer Sciences Canada Ltd. (CSC) permit very limited analysis of the data. Ratios that require multiple calculations, for example, cannot be performed in a single operation.

- the in-house programming capacity is very limited. The limited capacity of the analysis package, the size and complexity of the data base and limited programming staff in EPS necessitates a delay in processing, or contracting for outside programming.

- the costs of CSC programming services are very high. Quotes of $1000 to $3000 for programming and data runs by CSC appears excessive given our experience of the costs of analyzing a properly structured and coded data file.

Unless the above problems are overcome, we anticipate that the management and backup reports will not be prepared in a complete or timely manner. We encountered long delays in obtaining the data runs for 1977 (up to 2-3

months) and received output that was incomplete, obviously incorrect and extremely difficult to interpret. The cost estimates by CSC for programming and running the Analysis Report were sufficiently large to force in-house preparation of the report with the consequent problems of delays and poor quality.

C. Recommendations for Implementation of the Information and Analyse System

The above discussion indicates that attention must be paid to developing a computer data base and the capacity to analyze it effectively in order to meet the information needs of DOC management. We would recommend the following:

(1) DOC should undertake a thorough assessment of its information needs and the most appropriate means of storing, classifying and analyzing data. An extremely limited use of the computer data base by DGSP to date and the problems we experienced during this study indicate that a reappraisal is warranted. Such a project should entail an analysis of data required to meet management's needs, the appropriate location for storing the data (i.e. should DOC, CRTC and Statistics Canada all maintain the same data), classification and coding procedures and the capacity for programming and analyzing the data.

(2) A subfile of computer data should be created which contains only the information elements used for the report and is continually updated as new yearly returns are received. With a separate file that can be easily accessed, the Management Report or specific types of analysis could be prepared as required at any time during the year. The industry's performance for a particular year could be analyzed with less than a 100% receipt of returns provided that results for the sample group are carefully interpreted. It should be emphasized that timeliness is essential so the preparation of these reports should not be unduly delayed.

(3) DOC should carefully examine each item on the Annual Return with the aim of adding quality of broadcast and channels offered measures, obtaining more information on investments by cable companies and requiring more precise definitions of each data item.

(4) An analyst within DGSP should develop a complete familiarity with the computer data base and the "software package" to act as a link between management's information needs and EPS analysts.

(5) A senior policy analyst in DGSP should be responsible for preparing and analyzing the Backup Report and providing the interpretative discussion for the

Management Report. The Analysis Report and accompanying summary document would be prepared at least annually.

Appendix A

Sample Cable Television Annual Return

Statistics Canada Statistique Canada

CONFIDENTIAL

(when completed)

in co-operation with

Canadian Radio-television Telecommunications Commission

Authority – Statistics Act, Chapter 15, Statutes of Canada 1970-71-72.

Broadcasting Act, Chapter 25, Statutes of Canada, 1967-68.

Broadcasting Information Returns Regulations, Part II, Vol. 106 No. 13 Canada Gazette June 29, 1972 (SOR/DORS 72-234) and other applicable statutes and regulations.

Si vous préférez recevoir ce questionnaire en français, veuillez cocher ☐

1978
Annual Return
Cable Television

(ANNUAL RETURN OF "BROADCASTING RECEIVING" LICENSEE)

FOR THE FISCAL PERIOD ENDED, AUGUST 31, 1978
TO BE SUBMITTED BY NOVEMBER 30th, 1978.

LICENCE FEES ARE NOT TO BE REMITTED WITH THIS RETURN

Keep one copy of this return for your files and mail 3 completed copies to: Chief, Communications Section, Transportation and Communications Division, Statistics Canada, Ottawa, K1A 0T6.

See Section 1, page 2(a) for notice of agreements made by Statistics Canada under Section 10 and 11 of the Statistics Act with other federal and provincial government bodies concerning information contained in the Annual Return.

FOR INSTRUCTIONS SEE OVER

5-3511-101.1: 11-8-78.

INSTRUCTIONS

These reporting instructions are to assist in the completion of the Cable Television Annual Return. If you have any queries regarding this questionnaire, please contact the Chief, Communications Section, Transportation and Communications Division, Statistics Canada, Ottawa, K1A 0T6 (Telephone: Area Code 613-996-9274).

(a) COMPLETION OF THE RETURN:
The return is to be typed or legibly written – PLEASE DO NOT USE BLUE INK OR BLUE BALL POINT PEN.

(b) LICENSEE NUMBER AND SYSTEM NUMBER:
On page 3 and pages 5 to 18 enter the licensee file number in the appropriate place. On pages 12 to 18 also enter the system number so that these pages can be related to the Cable Television licence. This information has been preprinted on page 1 of the questionnaire. The licensee file number is the four digit number to the right of the licensee's name. The municipality served by each system is listed below the licensee's name. The system number is represented by three letters and three digits.

(c) CHANGE OF OWNERSHIP:
When a change of ownership has been approved, whithin 90 days thereof the licensee shall file with Statistics Canada three copies of an Annual Return covering the period of operations between the first day of September prior to the transfer, to the day of transfer.

(d) CRTC LICENCE FEES:
CRTC licence fees should be remitted directly to:

The Canadian Radio-television and Telecommunications Commission,
Ottawa, Ontario,
K1A 0N2

5-3511-101.1: 11-8-78

SUPPLEMENTARY SCHEDULE OF HISTORICAL COST AND STANDARDIZED DEPRECIATION

$ (omit cents)

Year of assets acquisition	(8) Other Property Plant and Equipment (10 years at 10%)				(9) Cable Casting Equipment (6-7 years at 15%)			
	Cost of assets acquired during the year	Standardized depreciation (2) x .10	Multiplier	Accumulated depreciation (2) x (4)	Cost of assets acquired during the year	Standardized depreciation (6) x .15	Multiplier	Accumulated depreciation (6) x (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978								
1977			.10				.15	
1976			.20				.30	
1975			.30				.45	
1974			.40				.60	
1973			.50				.75	
1972			.60				.90	
1971			.70				1.00	
1970			.80		Total	Total		Total
1969			.90					
1968 and prior			1.00		Enter on line 9 column 1 page 15	Enter on line 9 column 3 page 15		Enter on line 9 column 2 page 15
Total	Enter on line 8 column 1 page 15	Enter on line 8 column 3 page 15		Enter on line 8 column 2 page 15				

Year of assets acquisition	(10) Leasehold Improvements (except cablesystem Plant) (10 years at 10%)				(11) Automobiles and Trucks (5 years at 20%)			
	Cost of assets acquired during the year	Standardized depreciation (2) x .10	Multiplier	Accumulated depreciation (2) x (4)	Cost of assets acquired during the year	Standardized depreciation (6) x .20	Multiplier	Accumulated depreciation (6) x (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978								
1977			.10				.20	
1976			.20				.40	
1975			.30				.60	
1974			.40				.80	
1973			.50				1.00	
1972			.60		Total	Total		Total
1971			.70					
1970			.80					
1969			.90		Enter on line 11 column 1 page 15	Enter on line 11 column 3 page 15		Enter on line 11 column 2 page 15
1968 and prior			1.00					
Total	Enter on line 10 column 1 page 15	Enter on line 10 column 3 page 15		Enter on line 10 column 2 page 15				

Licensee File Number

System No.

SUPPLEMENTARY SCHEDULE OF HISTORICAL COST AND STANDARDIZED DEPRECIATION

$ (omit cents)

Year of assets acquisition	(4) Distribution System Plant (10 years at 10%) Cost of assets acquired during the year	Standardized depreciation (2) x .10	Multiplier	Accumulated depreciation (2) x (4)	(5) Cost of Subscribers Drops and Devices (10 years at 10%) Cost of assets acquired during the year	Standardized depreciation (6) x .10	Multiplier	Accumulated depreciation (6) x (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978								
1977			.10				.10	
1976			.20				.20	
1975			.30				.30	
1974			.40				.40	
1973			.50				.50	
1972			.60				.60	
1971			.70				.70	
1970			.80				.80	
1969			.90				.90	
1968 and prior			1.00				1.00	
Total	Enter on line 4 column 1 page 15	Enter on line 4 column 3 page 15		Enter on line 4 column 2 page 15	Enter on line 5 column 1 page 15	Enter on line 5 column 3 page 15		Enter on line 5 column 2 page 15

Year of assets acquisition	(6) Test equipment and tools (10 years at 10%) Cost of assets acquired during the year	Standardized depreciation (2) x .10	Multiplier	Accumulated depreciation (2) x (4)	(7) Furniture and fixtures (10 years at 10%) Cost of assets acquired during the year	Standardized depreciation (6) x .10	Multiplier	Accumulated depreciation (6) x (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978								
1977			.10				.10	
1976			.20				.20	
1975			.30				.30	
1974			.40				.40	
1973			.50				.50	
1972			.60				.60	
1971			.70				.70	
1970			.80				.80	
1969			.90				.90	
1968 and prior			1.00				1.00	
Total	Enter on line 6 column 1 page 15	Enter on line 6 column 3 page 15		Enter on line 6 column 2 page 15	Enter on line 7 column 1 page 15	Enter on line 7 column 3 page 15		Enter on line 7 column 2 page 15

Licensee File Number

System No.

SUPPLEMENTARY SCHEDULE OF HISTORICAL COST AND STANDARDIZED DEPRECIATION

Year of Assets Acquisition	(2) Buildings (including land improvements) (20 years at 5%)				(3) Head End and Components (10 years at 10%)			
	Cost of assets acquired during the year	Standardized depreciation (2) x .05	Multiplier	Accumulated depreciation (2) x (4)	Cost of assets acquired during the year	Standardized depreciation (6) x .10	Multiplier	Accumulated depreciation (6) x (8)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	$ (omit cents)				$ (omit cents)			
1978								
1977			.05				.10	
1976			.1				.20	
1975			.15				.30	
1974			.2				.40	
1973			.25				.50	
1972			.3				.60	
1971			.35				.70	
1970			.4				.80	
1969			.45				.90	
1968			.5				1.00	
1967			.55		Total	Total		Total
1966			.6		Enter on line 3 column 1 page 15	Enter on line 3 column 3 page 15		Enter on line 3 column 2 page 15
1965			.65					
1964			.7					
1963			.75					
1962			.8					
1961			.85					
1960			.9					
1959			.95					
1958 and prior			1.00					
Total	Enter on line 2 column 1 page 15	Enter on line 2 column 3 page 15		Enter on line 2 column 2 page 15				

Licensee File Number

System No.

SUMMARY OF STANDARDIZED DEPRECIATION OF FIXED ASSETS AND LEASE PAYMENTS
FIXED ASSETS USED FOR EARNING BROADCASTING REVENUE

(System summary at August 31, 1978)

(To be completed by licensees with more than 1,000 subscribers)

Classification of Fixed Assets	Historic cost of assets in use at Aug. 31, 1978 (1)	Accumulated standardized depreciation at Aug. 31, 1977 (2)	1978 Annual depreciation: Straight line (Standardized) (3)	1978 Annual depreciation: Recorded in licensee's accounts (4)	1978 Annual lease payments (5)
	001	$ (omit cents)			002
1. Land					
2. Buildings (and land improvements)	003	004	005	006	007
3. Head-end and components	008	009	010	011	012
4. Distribution system plant	013	014	015	016	017
5. Cost of subscriber drops and devices	018	019	020	021	022
6. Test equipment and tools	023	024	025	026	027
7. Furniture and fixtures	001	002	003	004	005
8. Other property, plant and equipment	006	007	008	009	010
9. Cable casting equipment	011	012	013	014	015
10. Leasehold improvements (except cable system plant)	016	017	018	019	020
11. Automobiles and trucks	021	022	023	024	025
12. TOTAL					
	Enter on page 12, L.13		Enter on page 12, 3.2	Enter on page 11, L.2	

INSTRUCTIONS

Column (1) is Net of disposals of fixed assets up to August 31, 1978.

Column (2) is Net of accumulated standardized depreciation on fixed assets disposed of up to August 31, 1977.

Standardized depreciation is designed to adjust the fixed asset account to establish a common basis for reporting cost and accumulated depreciation. It must be completed to provide uniform reporting of historical costs of assets devoted to cable television activities and the straight line depreciation of those assets.

Detail for columns 1, 2 and 3, is obtained from pages 16-18. Fixed assets acquired in 1978 for use in cable television may require an adjustment to the rate of depreciation depending on the month in which these were acquired before calculating the current depreciation.

Assets which have been revalued through appraisal or because of purchase after prior use should be included in column 1 but depreciation recorded in the accounts or a variation thereof, that more adequately reflects the write-off "cost" or "value" over the remaining useful life of the assets should be used instead of calculating straight line (standardized) depreciation. If an asset in use is not owned by the licensee then the annual cost must be included in column 5.

Cost of subscriber drops and devices:
Costs of subscriber drops and devices should be dealt with in all cases as capital expenditures of the licensee. This may not reflect the company's tax or corporate practice, but is required for uniformity of reporting by all licensees. These costs will be:

(a) Where the licensee makes his own connection, the costs for labour and material (electronic equipment, miscellaneous hardware and wire); and

(b) Where the licensee engages a contractor or other agent to make the connection, the amount paid or payable to such agent.

Both the costs of disconnections from and reconnections to existing subscriber drops and the cost of complete removal of the service from any premises should be treated as expenses of the year in which they are incurred. (Amounts received from the subscribers for original connections or for reconnections are to be included in the licensee's current income).

INSTRUCTIONS

1. Service rates:

Service rates should be consistent with current practice, indicating the prevailing rates charged to households subscribing and billed directly. Estimate typical rates on a per household or per suite basis for indirect subscribers (i.e. those provided with cable television service collectively through a third party such as a landlord or community association).

2. Area:

Three distinct stages of cable television service in relation to households are asked for: first, the number of households (both in single and multiple dwellings) connected to the cable service, second, the number of households in the area which is wired for cable service, and finally, the total number of households in the licensed area.

Item 2.1, second column, should agree with item 4.3, page 12.
Item 2.2, second column, should agree with item 4.4, page 12.
Items 2.3, 2.4 and 2.5 should agree with items 4.8, 4.9 and 4.10, page 12.
Item 2.6, should agree with item 4.11, page 12. It should include all dwelling units in the licensed area (i.e. single homes, apartments, each section of a row of houses etc.).

3. Equipment:

Items 3.1. Cable distribution plant – Aerial
2. – Conduit
3. – Buried
4. Main or trunk cable (not used for taps or drops)
5. Total

This information must be given in either kilometres or miles or both (to the nearest 1/10th). These figures should agree with the information on page 12, 4.6 and 4.7.

Item 3.7 System channel capability:

State the number of channels currently operational including those carrying programs ("off air" and local origination) as well as vacant channels.

Item 3.8 Cost per pole:

The contract annual rental per pole for attachment rights should be shown.

Item 3.12 Radio relay including microwave channel route distance:

The channel distance is obtained by multiplying the number of one way microwave or radio relay channels in operation by the distance between terminals. This information must be given in either kilometres or miles or both.

4.1 Program Hours:

State the typical hours per week of programming on the local channel by source and type, for all programs originated by the system.

4.2 Program Capability:
Check the facilities which are used by the system.

SYSTEM INFORMATION

(To be completed by licensees with more than 1,000 subscribers)

1	3	7	12	22
5 7				

1. SERVICE RATES:

	Subscribers Rates					
	Direct			Indirect (contract)		
		$	¢		$	
1. Basic monthly	001			002		
2. Connection (installation)	003			004		
3. Re-connect or move	005			006		
4. Additional outlets (each) per month	007			008		
5. FM service outlet per month	009			010		
6. Monthly charge for channel converter service	011			012		

2. AREA:

	Reporting Year	
	Beginning	End
Households connected to cable service:		
1. By direct subscription	013	014
2. By indirect subscription	015	016
Households in area wired for cable services		
3. Individual houses	017	018
4. Household units in multiple dwellings	019	020
5. Total households offered cable services	021	022
6. Total households in licensed area	023	024

3. EQUIPMENT:

	Reporting Year		Reporting Year	
	Beginning	End	Beginning	End
1. Cable distribution plant – Aerial	km	km	mi.	025
2. – Conduit	km	km	mi.	026
3. – Buried	km	km	mi.	027
4. Main or trunk cable (not used for taps or drops)	km	km	mi.	028
5. Total	km	km	mi.	029
6. Number of amplifiers in use				
7. Channel capability				
8. Number of channels in use				
9. Annual cost per pole (if pole attachment contract is in effect)			$	
10. Number of poles used				
11. Monthly cost per 1000 feet of cable (if leased)			$	
12. Radio relay (includes microwave). Number of microwave channels *Route			km	

	Yes	No
13. Pole attachment contract in effect	☐	☐
14. Partial lease in effect	☐	☐
15. Full lease in effect	☐	☐

4. CABLE TV PROGRAMMING:

	Hours per week on local channel				
	Automated	Live	Film	Tape	Total
1. Program Hours					
1. Licensee produced					
2. Local community produced					
3. Other canadian programs					
4. Non-Canadian programs					
5. Total program hours					

2. Program Capability

1. Telecine	☐ 8m/m	☐ 16m/m	☐ 35m/m		☐ Film Camera	☐ Colour
2. VTR	☐ ¼"	☐ ½"	☐ 1"	☐ 2"	☐ Videcon Camera	☐ Colour
3. Automated	☐ TW	☐ News	☐ Sports	☐ Other		
4. Service	☐ Fire	☐ Burglar	☐ Police	☐ Facsimile	☐ Polling	☐ Meter Reading

Licensee File Number | System No.

FOR INSTRUCTIONS SEE OVER

INSTRUCTIONS

Item 2.1 should include microwave and other equipment for acquiring signals "off air".

Remuneration should include: payments for regular hours worked, overtime, vacation and holidays, commissions paid to staff under the sales and promotion category. Directors' fees and emoluments should be shown separately. Fringe benefits should include the taxable items shown on employees T4 form such as profit sharing and bonus arrangements; also include cost to the employer of providing retirement pensions to employees, whether or not under the Canada Pension Plan, Quebec Pension Plan or other government pension plans and the cost of providing benefits such as group medical, group life and unemployment insurance, workmen's compensation and other employee benefits. Do not include the value of board and lodging or other payments in kind.

Number of staff should be the typical weekly total of full and equivalent part time employees.

Where there are part-time employees, include them as equivalent full-time employees by calculating their work time in proportion to a typical full week's work.

Non-staff commissioned sales representatives should not be included as employees and their cost should be reported in 3.1.

*Any single item which exceeds 10% of departmental expenses should be specified.

DIRECT OPERATING EXPENSE SUMMARY

(To be completed by licensees with more than 1,000 subscribers)

1	3	7	12	22
5 5				

		$ (omit cents)
	Program Origination	
1.	1. Payments for non-staff talent	001
	2. Material and supplies	002
	3. Other production costs	003
	4. Theatrical and short film or tape (rental and distribution costs)	004
	5. Package shows	005
	6. Program services	006
	7. Other (non production) origination costs *	007
	8. Remuneration (6.1.(4) below)	008
	9. Sub-total (to page 12 (2.1))	009
	Technical	
2.	1. Rent, lease or other payments: Headend	010
	2. Distribution system	011
	3. Parts and supplies	012
	4. Vehicle expenses	013
	5. Other technical costs *	014
	6. Remuneration (6.2.(4) below)	015
	7. Deduct wages capitalized	016
	8. Sub-total (to page 12 (2.2))	017
	Sales and Promotion	
3.	1. Sales commission (non-staff)	018
	2. Promotion (including travel)	019
	3. Other sales and promotion expenses *	020
	4. Remuneration (6.3.(4) below)	021
	5. Sub-total (to page 12 (2.3))	022

1	3	7	12	22
5 6				

	Administration and General	
4.	1. Cost of premises (rent or lease etc.)	001
	2. Professional services	002
	3. C.R.T.C. licence fee	003
	4. Other licence fees, dues and subscriptions	004
	5. Office supplies and services (including telephone etc.)	005
	6. Management services (involving direction of operations)	006
	7. Bad debt expense	007
	8. Other administration and general *	008
	9. Remuneration (6.4.(4) and 6.5.(4) below)	009
	10. Sub-total (to page 12 (2.4))	010
5.	1. TOTAL (1.9, 2.8, 3.5 and 4.10 above)	011

TOTAL REMUNERATION

	Number of Staff (1)	Wages & Salaries (2)	Fringe Benefits (3) $ (omit cents)	Total (4)
6. 1. Program origination	012	013	014	015
2. Technical	016	017	018	019
3. Sales and promotion (including commissions paid to staff)	020	021	022	023
4. Administration and general	024	025	026	027
5. Directors fees (not included in above)				028
6. Total				

Licensee File Number

System No.

* FOR INSTRUCTIONS SEE OVE

INSTRUCTIONS

Item 3.4 Other adjustments – expenses (or income) items 1.4, 1.5, 1.6, 1.7, 1.9, and 1.10 from page 11.

Item 4.2 Number of employees must agree with 6.6 column 1 page 13.

Item 4.3 Direct subscribers:

Direct subscribers should correspond to the number of single dwellings billed directly by the cable system operator. Single dwellings would include single houses, each half of a semi-detached (or double) house and each section of a row or terrace. Each single dwelling would be served by one main outlet. Auxiliary or additional outlets are not to be counted.

Item 4.4 Indirect subscribers:

State the number of indirect subscribers billed under each contract. Each indirect subscriber is considered to be served by one main outlet; additional outlets of indirect subscribers are not to be counted.

Item 4.6 Distribution cable:

Item 4.7 Main or trunk cable (not used for customer service drops):

This information must be given in either kilometres or miles or both.

Item 4.8 Individual households in area served by distribution cable:

State the total number of households not in multiple dwellings in the area served by cable whether or not the occupant of the household is a subscriber. The number reported should be credible with item 4.6, Distribution cable.

Item 4.9 Households in multiple dwellings offered service (i.e. apartments):

State the total number of apartments, not the number of apartment buildings, in the area served by cable regardless of whether or not the occupant of the apartment is a subscriber.

Item 4.11 Total dwelling units in licensed area:

State the total number of dwelling units in the licensed area irrespective of whether these are served by cable. The number reported should include all households in the area (i.e. apartments plus other single dwellings).

This page has been revised to facilitate reporting broadcast licence fee. Enquires pertaining to licence fees should be directed to Canadian Radio-television and Telecommunications Commission, Hull, Area Code 819-997-1009.

OPERATING AND FINANCIAL SUMMARY

(To be completed for each Cable TV licence)

1	3	7	12	22
5	4			

For office use

File No. _____

SYSTEM OFFICE

Street _____

Municipality _____

County _____ Province _____

		$ (omit cents)
Information on this page covers the period from _____ to _____		001
1. Revenue:		
1. Direct subscribers	$	002
2. Indirect subscribers	$	003
3. Installation (including re-connect)	$	004
4. Revenue subject to licence fees (items 1.1, 2 and 3 above)	$	
5. Education services	$	005
6. Other cable operations (specify) _____	$	006
7. Total	$	007
2. Expenses:		
1. Program origination (from page 13, line 1.9)	$	008
2. Technical (from page 13, line 2.8)	$	009
3. Sales and promotion (from page 13, line 3.5)	$	010
4. Administrative and general (from page 13, line 4.10)	$	011
5. Total	$	012
3. Other Items:		
1. Operating income (loss) before under noted items	$	013
2. Less: Standardized depreciation (from page 15, col. 3, line 12)	$	014
3. Interest expense	$	015
4. Other adjustments – expenses (or income)	$	016
5. System Pre-tax profit (loss)	$	017
4. Operating Data		
1. Salaries and other staff benefits (included in 2 above)		018
2. Number of employees (weekly average)		019
3. Direct subscribers (paying directly to licensee at standard rates) – from page 14, line 2.1		020
4. Indirect subscribers (residential units served by bulk contracts) – from page 14, line 2.2		021
5. Total (4.3. and 4.4. above)		022
6. Distribution cable (to the nearest 1/10th) from page 14, lines 3.1, 3.2, and 3.3.	km.	023
7. Main or trunk cable (not used for customer service drops) – from page 14, line 3.4.	km.	024
8. Individual households in area served by distribution cable – from page 14, line 2.3.		025
9. Households in multiple dwellings offered service (i.e. apartments) – from page 14, line 2.4.		026
10. Total residential units served by distribution cable (total of 4.8 and 4.9 above) from page 14, line 2.5.		027
11. Total dwelling units in licensed area (including area not served by cable plant) from page 14, line 2.6.		028
12. Standard monthly rate for direct subscribers from page 14, line 1.1.		029
13. Historical cost of fixed assets (from page 15, col. 1, line 12.)		

Licence Fee	$
Penalty (if any) for late filing	$
Total	$

Licensee File Number

System No.

FOR INSTRUCTIONS SEE OVER

INSTRUCTIONS

Income Statement:

Line 1.1 should equal page 12, 3.1 for each system (A, B, C, etc.).

Line 1.2 should equal page 15 col. 4, line 12 for each operation.

The sum of lines 1.4, 1.5, 1.6, 1.7, 1.9 and 1.10 must agree with 3.4 on page 12 for each operation.

In the absence of other criteria, where a licensee reports the results of several systems on page 11, the following guidelines are suggested as a basis for allocating corporate expenses:

Line 1.3 Interest expense:

Interest expense should be allocated to the system in the same proportion which the system's annual depreciation (item I.2 page 11) is to the total depreciation (item 1.2 page 11. Total).

Line 1.7 Amortization of organization and start-up expense:

Amortization of organization and start-up expense should be allocated in the same manner as interest expense.

Line 1.4 Investment and interest income:

Line 1.5 Incidental cable television income:

Line 1.6 Adjustment of prior years' income:

Line 1.9 Amortization of goodwill:

Line 1.10 Gain (loss) from sale of fixed assets, investments, etc.

All these items (lines 1.4 – 1.10) should be allocated to the system in the same proportion which the system's gross revenue (item 1.6, page 12) is to the total gross revenue of all operations.

Line 1.12 Provision for income taxes:

Provision for income taxes should be allocated in the same proportion which the net profit (item 1.11, page 11), for each system is to the total net profit (item 1.11, page 11. Total).

Statement of source and application of funds:
Only income or expenses related to cable television by the licensee should flow into line 2.1 "Net profit (loss) from cable television operations after income taxes".

All other revenues and expenses should be netted out after provision for income taxes and included in line 2.2. However, where the licensee company records it's portion of profits or losses of a subsidiary on an equity accounting basis then an increase in equity should be recorded in line 2.11 and 3.3 where there is a profit, and a decrease in equity should be recorded in line 2.10 and 3.9 where there is a loss.

LICENSEE INCOME STATEMENT FOR THE YEAR ENDED AUGUST 31, 1978

(To be completed by licensees with more than 1,000 subscribers)

1 | 3 | 7 | 12 | 22
4 | 2

Do not punch

1 | 3 | 7 | 12 | 22
4 | 2

Do not punch

System numbers	LICENSED OPERATIONS OWNED BY LICENSEE A	B	C	D	TOTAL
1. CONSOLIDATION: $ (omit cents)	001	014	001	014	
1. Operating income (loss)	002	015	002	015	
2. Depreciation of cable television assets (per accounts)	003	016	003	016	
3. Interest expense	004	017	004	017	
4. Investment and interest income	005	018	005	018	
5. Incidental cable television income	006	019	006	019	
6. Adjustment of prior years' income (loss)	007	020	007	020	
7. Amortization of organization and start up expense	008	021	008	021	
8. Net operating profit (loss)	009	022	009	022	
9. Amortization of goodwill	010	023	010	023	
10. Gain (loss) from sale of fixed assets, investments, etc.	011	024	011	024	
11. Net profit (loss) before income taxes	012	025	012	025	
12. Provision for income taxes	013	026	013	026	
13. Net profit (loss) after income taxes					

STATEMENT OF SOURCE & APPLICATION OF FUNDS FOR THE YEAR ENDED AUGUST 31, 1978

1 | 3 | 7 | 12 | 22
4 | 3

Do not punch

	$ (omit cents)	
2. SOURCE OF FUNDS:		
OPERATIONS:		
1. Net profit (loss) from Cable television after income taxes (from line 1.13)	001	
2. Net profit (loss) from non-Cable television after taxes	002	
EXPENSES NOT REQUIRING OUTLAY OF FUNDS: –		
3. Depreciation and amortization (recorded in accounts)	003	
4. Deferred Income Taxes	004	
5. Total funds provided from operations		005
OTHER:		
6. Increase in long-term debt	006	
7. Proceeds from sale of share capital	007	
8. Decrease in fixed assets (a) Cable television only	008	
9. (b) Non-cable television	009	
10. Decrease in investments and advances	010	
11. Other sources of funds provided (specify) _____	011	
12. Total funds provided from other sources		012
13. Total funds provided		013
3. APPLICATION OF FUNDS:		
1. Additions to fixed assets (a) Cable television only	014	
2. (b) Non-cable television	015	
3. Additions to investments and advances	016	
4. Deferred expenditures	017	
5. Dividends declared (a) common shares	018	
6. (b) preferred shares	019	
7. Reduction of long-term debt	020	
8. Redemption of shares	021	
9. Other application of funds (specify) _____	022	
10. Total funds used		023
4. WORKING CAPITAL:		
1. Increase (decrease) in working capital (net of 2.13 and 3.10)		024
2. Working capital at beginning of year		025
3. Working capital at end of year (current assets minus current liabilities on page 10)		026

Licensee File Number

FOR INSTRUCTIONS SEE OVER

BALANCE SHEET AS AT AUGUST 31, 1978

(To be completed by licensees with more than 1,000 subscribers)

ASSETS

1 3 7 12 22
4 0
Do not punch

		$ (omit cents)
1. CURRENT		
1. Cash	001	
2. Securities	002	
3. Receivables (net)	003	
4. Inventories	004	
5. Prepaid program rights	005	
6. Other prepaid expenses	006	
7. Other (specify) _____	007	
_____		
_____		
8. Total Current Assets	008	
2. INVESTMENTS AND ADVANCES		
1. Associated companies	009	
2. Other (specify) _____	010	
_____		
_____		
3. Total investments and advances	011	
3. FIXED AND OTHER ASSETS		
FIXED ASSETS: Cable Television	012	
1. Land, property and equipment	013	
2. Less: Accumulated depreciation	014	
3. Net Fixed Assets:– Cable Television	015	
4. Net Fixed Assets: – Non-Cable Television	016	
5. Intangible assets	017	
6. Other Assets		
(specify) _____		
_____		
_____		
_____		
7. Total fixed and other assets	018	
4. TOTAL ASSETS	019	

LIABILITIES

1 3 7 12 22
4 1
Do not punch

		$ (omit cents)
5. CURRENT		
1. Bank loans and overdraft	001	
2. Other loans	002	
3. Accounts payable and accrued	003	
4. Income tax payable	004	
5. Dividends payable	005	
6. Unearned income	006	
7. Current portion long-term debt	007	
8. Other (specify) _____	008	
_____		
9. Total Current Liabilities	009	
6. NON-CURRENT LIABILITIES		
Long-term debt		
1. Notes	010	
2. Mortgages and bonds	011	
3. Debentures	012	
4. Less: Current portion	013	
5. Total long-term debt	014	
6. Deferred income taxes	015	
7. Associated companies	016	
8. Other liabilities	017	
(specify) _____		
_____		
_____		
9. Total Non-Current Liabilities	018	
10. TOTAL LIABILITIES	019	
7. SHAREHOLDERS' EQUITY	020	
Share capital issued:		
1. Preferred	021	
2. Common	022	
3. Retained earnings (accumulated deficit) at end of period	023	
4. Other surplus	024	
5. Total shareholders' equity		
8. TOTAL LIABILITIES AND EQUITY	025	

INSTRUCTIONS

If not incorporated, please supply details of Capital Account. If appropriate attach a note for clarification of any entry.

Sec. 3. Fixed Assets should be segregated as to those that are used or allocated for use in the earning of broadcasting revenues. Item 3.1 should agree with the total of page 15 col. 1 for all systems reporting. All other fixed assets should be reported net of book depreciation in line 3.4.

5–3511–101.1: 11-8-78

Licensee File Number

INTERNATIONAL PAYMENTS AND RECEIPTS

(To be completed by licensees with more than 1000 subscribers)

Business Services should include all commercial, financial, professional, technical, administrative or management services, including royalties, patents, copyrights, advertising, commissions, salaries, insurance premiums, equipment rentals. Merchandise imports and exports; freight and shipping are to be omitted. All amounts should be expressed in Canadian dollars. Withholding taxes should not be included.

1. Non-merchandise charges related to broadcasting operations

	Payments to non-residents			Receipts from non-residents		
	Business services	Interest	Dividends	Business services	Interest	Dividends
	$ (omit cents)					
1. United States						
2. United Kingdom						
3. Other Western European countries						
4. Other Commonwealth countries						
5. All other countries						
6. Total						

BROADCASTING INFORMATION RETURNS REGULATIONS

Information Returns

"3. (1) On or before November 30 in each year, every licensee shall file with the Commission in respect of each broadcasting undertaking that is being carried on by him an annual information return, in the form entitled Annual Return of Broadcasting Licensee obtainable by him from Statistics Canada.

(2) A return filed pursuant to subsection (1), shall contain the information required by the Annual Return of Broadcasting Licensee for the period commencing on September 1 of the year preceding the year in which the return is filed and ending on August 31 of the year in which the return is filed."

ACCOUNTANTS' COMMENTS

(2(a) or 2(b) must be signed)

2. (a) In our opinion, the financial statements as presented on pages 6 and 10 to 15 herein, present fairly the financial position of: –

_____

as at August 31, 1978 and the results of its operations and the change in financial position for the period then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

City _____ Signed _____

Date _____ Professional Designation _____

Disclaimer of Opinion

(b) The accompanying balance sheet and statements of income and change in financial position as reflected on pages 6 and 10 to 15 herein, related to the year ended August 31, 1978 have been prepared from the records of: –

_____

In accordance with the terms of our engagement we have not performed an audit, and consequently do not express an opinion on these financial statements.

City _____ Signed _____

Date _____ Professional Designation _____

PROPRIETARY PAYMENTS

	$ (omit cents)
1. State the total of salary, fees, bonuses, fringe benefits and other remuneration paid by the company to its three highest paid individuals	
2. State the total of any salary, fee, bonus, fringe benefit or other remuneration paid to shareholders, directors, officers and employees not included in page 13	
3. Total interest earned by shareholders holding debt (Completion not required by companies whose securities are listed on a stock exchange)	

Licensee File Number

OTHER RELATED INVESTMENTS BY LICENSEE OR MAJOR SHAREHOLDERS – continued

(To be completed by licensees with more than 1,000 subscribers)

Name of security holder	Name of business in which securities is held	Business Classification code	Security held				Office held				Code	Business Classification
			Class or Description of security held	Voting rights Yes	Voting rights No	Per cent of total in class	Director	President	Chairman	Other		
											A	CRTC licence holder
											B	Newspaper or other media publisher
											C	Theatre or cinema
											D	Advertising agency
											E	Broadcasting sales representative
											F	Broadcasting program material producer or distributor
											G	Music recording producer or music publisher
											H	Lessor of property, plant or equipment to the licensee
											I	Company owning security in any of the above categories

5-3511-101.1: 11-8-78

Licensee File Number

OTHER RELATED INVESTMENTS BY LICENSEE OR MAJOR SHAREHOLDERS

(To be completed by licensees with more than 1,000 subscribers)

Name of security holder	Name of business in which security is held	Business Classification code	Security held				Office held				Code	Business Classification
			Class or Description of security held	Voting rights Yes	Voting rights No	Per cent of total in class	Director	President	Chairman	Other		
											A	CRTC licence holder
											B	Newspaper or other media publisher
											C	Theatre or cinema
											D	Advertising agency
											E	Broadcasting sales representative
											F	Broadcasting program material producer or distributor
											G	Music recording producer or music publisher
											H	Lessor of property, plant or equipment to the licensee
											I	Company owning security in any of the above categories

5-3511-101.1: 11-8-78

Give details of any investment by the licensee or major debt or shareholders (listed on page 5, 6 and 7) resulting in ownership in Canada of more than one per cent of any enterprise in business classification A and B or ten per cent of any enterprise in the business classification from C to I.

Licensee File Number

OWNERSHIP OF LICENSEE'S EQUITY SECURITIES

(To be completed by all incorporated licensees)

Name	City of permanent residence or head office	Citizenship or jurisdiction of incorporation	Type of equity security issued					
			Describe:		Describe:		Describe:	
			Number of units or shares	Per cent of total issued	Number of units or shares	Per cent of total issued	Number of units or shares	Per cent of total issued

Include at least: (i) ten largest shareholders; (ii) all non-Canadian shareholders in accordance with P.C. 1969-2229 as amended; (iii) all Directors & Executive Officers holding shares. Where applicable please specify name of beneficial owner in addition to registered holder. In the same manner give the names of owners of securities in all companies shown. If any of these persons hold public office by election or appointment please specify the office held under the name of the person.

Where two or more licensee companies are subsidiaries of a parent company or where a company holds a minority interest in two or more licensee companies, only one licensee company is required to submit detailed ownership information relative to the parent company (Pages 7 and 8 of the return). The subsidiaries not filing complete ownership information should cross-reference their annual return to the subsidiary filing the detailed ownership data.

Licensee File Number

Incorporated Licensees

DEBT AND EQUITY SECURITIES AUTHORIZED AND OUTSTANDING

(To be completed by all incorporated licensees)

Incorporated licensees

Full description of each class of debt stating name of 10 largest debt holders for each class of debt and guarantors if applicable	Principal sum	Terms of Payment	Rate %	Date of Maturity
DEBT:				

Full description of each class of equity securities	Number of units or shares		Votes per unit or share	Total number of unit holders or shareholders
PREFERRED:	Authorized	Outstanding		
COMMON:				

Licensee File Number

PROPRIETORS, DIRECTORS AND EXECUTIVE OFFICERS

During year ending August 31, 1978

(To be completed by all licensees)

Name	Address of residence	Citizenship (Use Can., U.S., U.K., Other)	Directors and Executive Officers			
			Term of office		*Director	Office held
			Date of commencement	Duration		
Include details for all Proprietors, Directors and Executive Officers. Indicate all Directors by *. If any of these persons hold public office by election or appointment please specify the office held under the name of the person. Definition of Executive Officers; the persons designated in the by-laws of the corporation as the Chairman of the Board, President, Vice-President, Secretary, Assistant-Secretary, Comptroller, Treasurer and Assistant Treasurer or by similar titles.						

Licensee File Number

SUPPLEMENTARY DOCUMENTATION

(To be completed by licensees with more than 1,000 subscribers)

1. Incorporation:

(a) Date _____ (b) Place _____

(c) Method of incorporation ☐ Letters patent ☐ Memorandum of association ☐ Special Act

	NO	YES; details: Filed with CRTC	YES; details: Attached
2. Are there any incorporating documents (including supplementary and amending documents)?	☐	☐	☐
3. Are THREE copies of the most recent audited Financial Statements enclosed? In addition, submit consolidated financial statements where the licensee company engages in business with affiliated companies, in accordance with Research recommendation 3050–07 of the Canadian Institute of Chartered Accountants			☐
4. Are contingency voting rights attached to any securities?	☐	☐	☐
5. Are voting trust agreements attached to any outstanding securities?	☐	☐	☐
6. Are special privileges in the election of directors attached to any issue of security?	☐	☐	☐
7. Are there any subsidiary enterprises?	☐	☐	☐
8. Are any subsidiary enterprises consolidated with this return?	☐	☐	☐
9. Were there any transactions during the year between the licensee and associated companies and/or individuals? *	☐	☐	☐
10. Have management fees been paid to or received from other divisions, corporations or individuals?	☐	☐	☐
11. Have any changes in accouating practices occurred since August 31st, 1977?	☐	☐	☐
12. Were there any uausual or non-recurring transactions during the year?	☐	☐	☐
13. Are any significant items of the Cable Televisioa plant not owned by the licensee?	☐	☐	☐

INSTRUCTIONS

Check the appropriate box as far as these questions relate to the enterprise during the reporting period. If the unswer is "Yes" details should either already be on file with the C.R.T.C. or should be attached to this return. Three copies of audited financial statements are required but only one copy of other documentation is required for the use of the C.R.T.C.

*Item 9. For the purpose of this item only, an associated company or individual is a company or individual owning directly or indirectly more than 10% of the common shares of the licensee company during the fiscal period. Details of the transaction should include a full explanation such as the affiliate's name, nature of the transaction (purchase or sale of programs, technical, management or administrative services, program production and syndication, rental of property, debt financing etc.) and the amounts involved.

Licensee File Number

S–3511–101.1: 11-8-78

GENERAL INFORMATION

(To be completed by all licensees)

1. Complete name of licensee:

2. Mailing address for correspondence:

Name _____

Street and number _____

City and province _____

Postal code _____

3. Licensed broadcasting operations for which the enterprise holds a C.R.T.C. licence.

	System Number	Municipality or County	Province
A			
B			
C			
D			

4. Name of staff member who should be contacted in connection with this form

Telephone No.

5. During the period covered by this return, has the licensee conducted business under a name or address other than that listed above?

☐ No ☐ Yes

Give other names and addresses used _____

6. The Annual Return should cover the 12 month period ending August 31, 1978

Is the information in this return for a period less than the 12 months ending August 31, 1978?

☐ No ☐ Yes

From: _____ to: _____

Reasons: _____

7. Type of business organization:

☐ Sole proprietorship

☐ Incorporated company, shares publicly traded

☐ Incorporated company, shares NOT publicly traded

☐ Other (specify) _____

8. ## MANAGEMENT CERTIFICATION

I, _____ (Name) _____ (Title) am authorized to certify on behalf of

_____ (Licensee)

that the information shown in this Return, and all the attachments thereto are true and complete in all respects to the best of my knowledge and belief.

_____ (Signature) _____ (Date)

BROADCASTING INFORMATION RETURNS REGULATIONS

Information Returns

"3. (1) On or before November 30 in each year, every licensee shall file with the Commission in respect of each broadcasting undertaking that is being carried on by him an annual information return, in the form entitled Annual Return of Broadcasting Licensee obtainable by him from Statistics Canada.

(2) A return filed pursuant to subsection (1) shall contain the information required by the Annual Return of Broadcasting Licensee for the period commencing on September 1 of the year preceding the year in which the return is filed and ending on August 31 of the year in which the return is filed."

Date received

_____ (Official use only)

Licensee File Number

3511-101.1: 11-8-78

SECTION 1 — GENERAL INFORMATION — AGREEMENTS

In order to avoid duplication of enquiry, this survey is conducted jointly by Statistics Canada:

A. Under Section 10 of the Statistics Act with the Bureau of Statistics, Quebec for Quebec respondents only (l'article 6 de la Loi du bureau de la statistique S.R.Q. 1974, chapitre 207); in all cases information on Quebec broadcasting stations situated in Quebec will be shared with the bureau; and

B. Under Section 11 of the Statistics Act with:

(a) The Canadian Radio-television and Telecommunications Commission, Ottawa, for all respondents.

(b) The Canada Department of Communications, Ottawa, for all respondents, and,

(c) The Quebec Department of Communications, Quebec, for Quebec respondents.

Under Subsection 11(2) of the Statistics Acl, you may give notice in writing to the Chief Statistician that you object to the sharing of information with organizations named in B above. If you object to sharing the information, you must indicate in your notice of objection the specific organizations which shall not receive it. Unless objection is made in writing and mailed together with the completed return to Statistics Canada, the information will be shared with these organizations, as indicated. Any refusals to share information will be reported to the applicable organization, who may contact you under its own authority to obtain the information.

* DEFINITIONS:

Licensee – means a person licensed by CRTC to carry on a broadcasting receiving undertaking.

Cable Television System – means a broadcasting receiving undertaking.

Reporting unit – means the smallest unit capable of reporting revenue, expenses, profit and fixed assets used in operations. A Reporting Unit may consist of: (a) a single cable television system, or (b) a combination of cable television systems operated as a single unit or entity.

CABLE TELEVISION ANNUAL RETURN

INDEX

Enquiries concerning this return should be referred to Chief of Communications Section, Statistics Canada Ottawa, Telephone Area Code 613-996-9274.

Enquiries pertaining to licence fees should be referred to Canadian Radio-television and Telecommunications Commission, Hull, Area Code 819-997-4009.

1. For the licensee:

   All licensees will return pages 1, 3 and 5.

   All incorporated licensees will also return pages 6 and 7.

   All licensees having a total of more than 1,000 subscribers (in all systems combined) will also return pages 4 and 8 to 11.

2. For the Cable Television System or Reporting Unit:

   All licensees will return one copy of page 12 for each cable television system.

   All licensees having more than 1,000 subscribers (in all licensed systems combined) will also return pages 13 to 18 for each licensed system.

For each Licensee*

Page	Title	Who must File
1.	Cover.	All licensees.
2.	Index.	
3.	General Information.	All licensees.
4.	Supplementary Documentation.	Licensees with more than 1,000 subscribers (in all systems).
5.	Proprietors, Directors & Executive Officers.	All licensees.
6.	Debt & Equity Securities.	All incorporated licensees.
7.	Ownership of Securities.	
8.	Investments.	All licensees with more than 1,000 subscribers.
9.	International Payments, Accountants' Comments Proprietary Payments.	
10.	Balance Sheet.	
11.	Income Statement, Source and Application of Funds Statement.	

For each Cable Television System or Reporting Unit*

Page	Title	Who must file
12.	Summary.	All systems.
13.	Expenses.	All systems operated by licensees with more than 1,000 subscribers.
14.	System Information.	
15.	Summary of Standardized Depreciation of Fixed Assets and Lense Payments.	
16. - 18.	Supplementary Schedules of Historical Cost and Standardized Depreciation.	

APPENDIX B

Description of Measures

For each of the large systems, the following attributes would be calculated:

SYSTEM ATTRIBUTES

#A Subscriber Penetration Percentage [14] (2.1 + 2.2) ÷ 2.6[1]

#B Number of Subscribers [14] 2.1 + 2.2

Similar data would be calculated on a company basis where all the systems for a particular company would be aggregated (including single system firms).

COMPANY ATTRIBUTES

#A* Average Subscriber Penetration Ratio

#B* Total Number of Subscribers

} Same calculations as for systems but aggregated for companies

Economic and Non-Economic Measures

The following ratios would be calculated for system or companies:

[1]The numbers in brackets refer to the page number of the Cable Television Annual Return and the other numbers are question numbers on the indicated pages.

Measure		Numerator		Demoninator	
#1.0	Return on Investment (COMPANY MEASURE)	[11]	$1.13 + (1 - \frac{1.12}{1.11})$ (1.9 + 1.3 + [15] total of lease payments)	[10]	8 - 3.5 + value of leased assets
#1.1	Gross Rate of Return on Investment (COMPANY MEASURE)	[11]	$1.13 + (1 - \frac{1.12}{1.11})$ (1.9 + 1.3 + [12] 2.1 for all systems + [15] total of lease payments)	[10]	8 - 3.5 + value of leased assets
#1.2	Operating Earnings Margin (SYSTEM MEASURE)	[12]	(3.5 - 3.3 + 2.1 + 3.4)	[12]	1.6
#1.3	Return to Equity Investors (COMPANY MEASURE)	[11] [12]	$1.13 + (1 - \frac{1.12}{1.11})$ (1.9 + 2.1 for all systems)	[10]	7.5
#1.4	Return on Equity and Deferred Taxes (COMPANY MEASURE)		"	[10]	7.5 + 6.6
#2.0	Average Revenue per Subscriber (SYSTEM MEASURE)	[12]	1.6	[12]	4.5
#2.1	Direct Fees per Subscriber (SYSTEM MEASURE)	[14]	1.1 direct	None	
#2.2	Indirect Fees per Subscriber (SYSTEM MEASURE)	[14]	1.1 indirect	None	
#3.0	Operating Expenses per Subscriber (SYSTEM MEASURE)	[13]	5.1 - 1.9 - 2.1 - 2.2 - 4.1	[12]	4.5
#3.1	Sales Expenses per Subscriber (SYSTEM MEASURE)	[13]	3.5	[12]	4.5
#3.2	Technical Expenses per Subscriber (SYSTEM MEASURE)	[13]	2.8 - 2.1 - 2.2	[12]	4.5
#3.3	Admin. and General Expenses per Subscriber (SYSTEM MEASURE)	[13]	4.10 - 4.1	[12]	4.5
#3.4	Operating Margin per Subscriber (SYSTEM MEASURE)	[12]	1.6 - 2.5 + [13] 1.9 + 2.1 + 2.2 + 4.1	[12]	4.5

Measure		Numerator	Denominator
#3.5	Asset Usage per Subscriber (SYSTEM MEASURE)	[15] row 12, col 1 - total of columns 2 and 3 + value of leased assets	[12] 4.5
#4.0	Liquidity Ratio (COMPANY MEASURE)	[10] 1.1 + 1.2 + 1.3	[10] 5.3 + 5.4 + 5.5 + 5.7 + 5.8
#4.1	Liquid Assets to Current Liabilities (COMPANY MEASURE)	[10] 1.1 + 1.2 + 1.3	[10] 5.9
#4.2	Cash Assets (COMPANY MEASURE)	[10] 1.1 + 1.2	[10] 4 + value of leased asset
#5.0	Leverage (COMPANY MEASURE)	[10] 5.1 + 5.2 + 5.7 + 6.5 + 6.7 + 6.8 + value of leased assets	[10] 5.1 + 5.2 + 5.7 + 6.5 + 6.6 + 6.7 + 6.8 + 7.5 + value of leased assets
#5.1	Bank Borrowing (COMPANY MEASURE)	[10] 5.1 + 5.2	[10] " " " "
#5.2	Long Term Debt (COMPANY MEASURE)	[10] 6.5 + 5.7 + 6.7 + 6.8 + value of leased assets	[10] " " " "
#5.3	Leases (COMPANY MEASURE)	value of leased assets	[10] " " " "
#5.4	Stockholders Equity (COMPANY MEASURE)	[10] 7.5 + 6.6	[10] " " " "
#6.0	Cable Capital Expenditures (COMPANY MEASURE)	[11] 3.1	[11] 2.5 + $\left[\text{[12] 2.1 for all systems } (1 - \text{[11]} \frac{1.12}{1.11})\right]$
#6.1	Dividend Flows (COMPANY MEASURE)	[11] 3.5 + 3.6	[11] 2.5 " " "
#6.2	Programming Flows (COMPANY MEASURE)	[12] 2.1 for all systems	[11] 2.5 " " "
#6.3	Debt Flows (COMPANY MEASURE)	[11] 3.7 - 2.6	[11] 2.5 " " "
#6.4	Non Cable Flows (COMPANY MEASURE	[11] 3.2 + 3.3	[11] 2.5 " " "
#6.5	Cash Flows to Fixed Assets (SYSTEM MEASURE)	[11] 1.13 + 1.9 + 1.7 - 1.6 - 1.4 $(1 - \frac{1.12}{1.11})$ + 1.2 all for each system + $\left[\text{[12] 2.1 } (1 - \text{[11]} \frac{1.12}{1.11})\right]$	[15] row 12, col 1 - total of columns 2 and 3 + value of leased assets

Measure	Numerator	Denominator
#7.0 Total Channels Available (SYSTEM MEASURE)	To be obtained	
#7.1 Number of Canadian Channels (SYSTEM MEASURE)		
#7.2 Number of U.S. Channels (SYSTEM MEASURE)		
#7.3 Number of Other Channels (SYSTEM MEASURE)		
#7.4 Channel Capability (SYSTEM MEASURE)	[14] 3.7	None
#7.5 Index of Broadcast Quality (SYSTEM MEASURE)	To be obtained	
#8.0 Community Programming Expenditures (SYSTEM MEASURE)	[12] 2.1	[12] 1.6
#8.1 Amount of Community Programming (SYSTEM MEASURE)	[14] row 4.5 total	None
#8.2 Quality of Community Programming (SYSTEM MEASURE)	[12] 2.1	[14] row 4.5 total x 52
#8.3 Amount of Locally Produced Community Programming (SYSTEM MEASURE)	[14] row 4.1.1 & 4.1.2 totals	None
#8.4 Quality of Locally Produced Community Programming (SYSTEM MEASURE)	[13] 1.9 - 1.4 - 1.5	[14] rows 4.1.1 & 4.1.2 totals x 52
#9.0 Average size of Firm (COMPANY MEASURE)	[10] 4 + value of leased assets	Total assets for industry (book and leased)
#9.1 Overall Concentration of Ownership (COMPANY MEASURE)	Measure #9.0 aggregated for 10 largest CATV companies	

Calculating the Value of Leased Assets

The following calculations provide lease factors for various assets:

1.	land lease factor	[15]	lease payment x 8.92
2.	buildings lease factor	[15]	lease payment x 7.96
3.	head-end lease factor	[15]	lease payment x 5.89
4.	distribution plant lease factor	[15]	lease payment x 5.89
5.	subscriber drops lease factor	[15]	lease payment x 5.89
6.	test equipment lease factor	[15]	lease payment x 5.89
7.	furniture and fixtures lease factor	[15]	lease payment x 5.89
8.	other property lease factor	[15]	lease payment x 5.89
9.	cablecasting equipment lease factor	[15]	lease payment x 4.47
10.	leasehold improvement lease factor	[15]	lease payment x 5.89
11.	automobile and trucks lease factor	[15]	lease payment x 3.70

The total of lease factors should be summed across all categories of assets and multiplied by:

$$\frac{[15]\ [\text{row 12, col 1} - \text{total of cols 2 and 3}]}{\text{row 12, col 1}} \left\{ \frac{\text{Book Value of Assets} - \text{Accumulated Depreciation}}{\text{Book Value of Assets}} \right\}$$

to equal "value of leased assets".

Adjustments for Losses

For measures #6.0 to #6.4: all companies where the denominator is negative should be excluded from the analysis.

APPENDIX C

Illustration of Backup Report

Typical Output

Subscriber Penetration Percentage	Return on Investment				
	19x1	19x2	19x3	19x4	19x5
First Quartile Second Quartile Third Quartile Fourth Quartile					

Variables for which Typical Output is Produced

	Attributes		
Characteristics	Subscriber Penetration Percentage	# of Subscribers	Province
1.0 Return on Investment 1.1 Gross Return on Investment 1.2 Operating Earnings Margin 1.3 Return to Equity Investors 2.0 Average Revenue Per Subscriber 2.1 Direct Fees Per Subscriber 2.2 Indirect Fees Per Subscriber			

Variables for which Typical Output is Produced (Cont'd)

Characteristics	Subscriber Penetration Percentage	# of Subscribers	Province
3.0 Operating Expenses Per Subscriber			
3.1 Sales Expenses Per Subscriber			
3.2 Technical Expenses Per Subscriber			
3.3 Admin. & General Expenses Per Subscriber			
3.4 Operating Margin Per Subscriber			
3.5 Asset Usage Per Subscriber			
4.0 Liquidity Ratio			
4.1 Liquid Assets to Current Liabilities			
4.2 Cash Assets			
5.0 Leverage			
5.1 Bank Borrowing to Total Financing			
5.2 Long Term Debt to Total Financing			
5.3 Leases to Total Financing			
5.4 Equity to Total Financing			
6.0 Cable Capital Expenditures			
6.1 Dividends to Discretionary Funds			
6.2 Programming to Discretionary Funds			
6.3 Debt Flows to Discretionary Funds			
6.4 Non Cable Investments to Discretionary Funds			
6.5 Cash Flows to Fixed Assets			

Variables for which Typical Output is Produced (Cont'd)

Characteristics	Subscriber Penetration Percentage	# of Subscribers	Province
7.0 Total Channels Available			
7.1 Canadian Channels			
7.2 U.S. Channels			
7.3 Other Channels			
7.4 Channel Capability			
7.5 Index Broadcast Quality			
8.0 Community Programming Expenditures			
8.1 Amount of Community Programming			
8.2 Quality of Community Programming			
8.3 Amount of Locally Produced Programming			
8.4 Quality of Locally Produced Programming			
9.0 Average Size of Firm			
9.1 Overall Concentration of Ownership			

APPENDIX D

Illustration of Management Report

Industry Monitoring

Subscriber Penetration	Return on Investment				
	19x1	19x2	19x3	19x4	19x5
First Quartile Second Quartile Third Quartile Fourth Quartile					

Discussion: [This discussion would be written by DOC analysts incorporating a variety of backup measures.]

[This format would be repeated for each of the KEY attributes discussed in the study]

Policy Impacts

Subscriber Penetration	Programming Expenditure/Total Revenue				
	19x1	19x2	19x3	19x4	19x5
First Quartile Second Quartile Third Quartile Fourth Quartile					

Discussion: [The attribute reported along with the discussion would both be determined by the particular policy under consideration. An outline of the policy would be useful.]

[This format would be repeated for each specific policy which is of interest to management.]

Current Issues

Number of Subscribers	Number of Systems		
	Quebec	Saskatchewan	All Canada
xxxx-xxxx xxx-xxxx xx-xxx x-xx			

Discussion: [This discussion should be of some current or anticipated issue about which management should be informed. Backup information for the discussion could be from other data or current non-data bank information.]

[This format would be repeated for each specific current issue.]