Section:	**General**	**Page No.:**	**General**
Topic:	**Expert Qualifications**		
Subtopic:			
Issue:			

PREAMBLE TO IR (IF ANY)

QUESTION:

a) Please identify the any other members of Ms. Lee's firm who participated in the preparation of the pre-filed testimony. Please also provide the names of third parties (if any) retained to assist in the preparation of the pre-filed testimony.

b) Please file the curriculum vitae for Ms. Lee and for each member of Ms. Lee's firm or third party identified in MH/MIPUG/COALITION 1(a).

RATIONALE FOR QUESTION:

Information on Intervener expert qualifications is required in assessing the evidence provided.

RESPONSE:

(a)

For clarity, Ms. Lee is employed by BCRI, Inc., a Consulting and Research Company, as a BCRI associate. Ms. Lee is BCRI's principle expert on the instant case. Ms. Lee is the only person who participated in preparing the pre-filed testimony. No third party was retained in the preparation of said testimony.

(b)

Please see pages 1-2 of the Pre-Filed Testimony of P. Lee and Exhibit PSL-1 to this Testimony for a description and outline of her past experience and utility proceedings.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

Section:	**General**	**Page No.:**	**General**
Topic:	**Expert Qualifications**		
Subtopic:			
Issue:			

PREAMBLE TO IR (IF ANY):

QUESTION:

Please provide any Terms of Reference from the COALITION and MIPUG that was provided to Ms. Lee in connection with her participation in this proceeding.

RATIONALE FOR QUESTION:

To understand the terms of the engagement.

RESPONSE:

Terms of Reference are described generally on pages 2 and 3 of Ms. Lee's pre-filed testimony. Ms. Lee was asked verbally to review certain materials filed in the 2015/16 GRA before the Manitoba Public Utilities Board and provide an opinion regarding Manitoba Hydro's depreciation methodology and resulting proposals. The opinion would include highlighting major topics for concern. Ms. Lee was requested to not only direct where attentions should be focused but also suggest the approach to take to ensure understanding by all parties.

Please see the attached the Expert Declaration signed by Ms. Lee for more information on the Terms of her engagement in this GRA.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

EXPERT'S DECLARATION

EXPERT'S DECLARATION

I, PATRICIA S. LEE DECLARE THAT:

1 I understand that my duty in providing written reports and giving evidence is to help the Public Utilities Board, and that this duty overrides any obligation to the parties by whom I am engaged or the persons who have paid or are liable to pay me. I confirm that I have complied and will continue to comply with my duty.

2 I confirm that I have not entered into any arrangement where the amount or payment of my fees is in any way dependent on the outcome of the case.

3 I acknowledge that it is my duty to provide evidence in relation to this proceeding as follows:

- to provide opinion evidence that is fair, objective and non-partisan;
- to provide opinion evidence that is related only to matters that are within my area of expertise; and
- to provide such additional assistance as the Public Utilities Board may reasonably require to determine an issue.

4 I know of no conflict of interest of any kind.

5 I will advise the party by whom I am instructed if, between the date of my report and the hearing, there is any change in circumstances which affect my answers to point 4.

6 I have indentified the sources of all information I have used.

7 I have exercised reasonable care and skill in order to be accurate and complete in preparing this report.

8 I have endeavoured to include in my report those matters, of which I have knowledge or of which I have been made aware, that might adversely affect the validity of my opinion. I have clearly stated any qualifications to my opinion.

9 I have not, without forming an independent view, included or excluded anything which has been suggested to me by others, including my instructing lawyers.

10 I will notify those instructing me immediately and confirm in writing if, for any reason, my existing report requires any correction or qualification.

11 I understand that:

11.1 my report may form the evidence to be given under oath or affirmation;

11.2 questions may be put to me in writing for the purposes of clarifying my report and that my answers shall be treated as part of my report and covered by my statement of truth;

11.3 I may be required to attend at a hearing to be cross-examined on my report by a cross-examiner assisted by an expert.

STATEMENT OF TRUTH

I confirm that I have made clear which facts and matters referred to in this report are within my own knowledge and which are not. Those that are within my own knowledge I confirm to be true. The opinions I have expressed represent my true and complete professional opinions on the matters to which they refer.

Signature Patricia Lee Date May 12, 2015

Section:	**General**	**Page No.:**	**General**
Topic:	**Expert Qualifications**		
Subtopic:			
Issue:			

PREAMBLE TO IR (IF ANY):

QUESTION:

Please provide a summary of the professional education of Ms. Lee and identify whether Ms. Lee possesses the designation of Certified Depreciation Professional from the Society of Depreciation Professionals; is a member of the Society of Depreciation Professionals; and/or has been qualified as a depreciation expert in any jurisdiction. If so, please advise in which jurisdictions Ms. Lee has been qualified.

RATIONALE FOR QUESTION:

Information on Intervener expert qualifications is required in assessing the evidence provided.

RESPONSE:

Ms. Lee possesses the designation of Certified Depreciation Professional from the Society of Depreciation Professionals and is a member of said Society.

Ms. Lee is unsure what is being asked concerning whether she has been qualified as a depreciation expert in any jurisdiction. That said, through her testimonies and other work at the Florida Public Service Commission (FPSC), Ms. Lee was considered a depreciation expert witness. She was the FPSC's depreciation representative at three-way meetings between state regulators, federal regulators, and company depreciation experts to determine interstate (federal jurisdiction) telecommunications depreciation rates. In her duties at the FPSC, Ms. Lee analyzed depreciation methods, procedures, and concepts such as whole life, remaining life, and equal life group. She was also the FPSC's

depreciation expert representative on the NARUC Staff Subcommittee on Depreciation (and past president), and the National Conference of Regulatory Commission Engineers (and past president). Further, Ms. Lee taught depreciation training courses at the NARUC Annual Regulatory Studies Program, at the Society of Depreciation Professionals annual training, and within the FPSC. Ms. Lee, as a member of the NARUC Staff Subcommittee on Depreciation, published three papers in the Journal of the Society of Depreciation Professionals (1998 – Economic Depreciation; 1996-1997 – The Impact of Depreciation Expense on Infrastructure Development; and 1993 – Provision for Dismantlement of Fossil-Fueled Generating Stations – PUC Acceptance).

Please see Attachments 1 – 3 to this IR for copies of the three published papers in the Journal of the Society of Depreciation Professionals. Please see Attachment 4 to this IR for the excerpt pages of the NARUS Public Utility Depreciation Practices Manual, August 1996 showing Patricia S. Lee as co-author of various chapters of the manual and its appendices.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

JOURNAL

OF THE
SOCIETY OF DEPRECIATION PROFESSIONALS

Volume 6, Number 1, 1994-1995

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JOURNAL
OF THE
SOCIETY OF DEPRECIATION PROFESSIONALS

Volume 6, Number 1, 1994-1995

SUMMARY OF ABSTRACTS

Reserve Imbalance Tracking
Vincent M. DeMatteo

Changes in the technological and economic environments require that equipment services lives be reestimated. The common practice in the telecommunications industry is to determine a reserve imbalance to quantify the financial impact of these environmental changes. Without further changes in service life, the reserve imbalance should decrease over time with the use of remaining life depreciation rates. Tracking studies could be performed to show the rate at which the reserve deficiency decreases over time. The objective of this article is to investigate a simple approach to track a reserve imbalance for multiple asset accounts. The conclusion of this investigation is that normal investment and retirement activity in multiple asset accounts makes this tracking approach of limited value and may create misleading results.

Provision for Dismantlement of Fossil-Fueled Generating Stations - PUC Acceptance
Patricia Lee

The concept of dismantlement relates to the ultimate physical demolition/removal/disposal from service of a generating unit offset by any attendant salvage from the removed assets. Historically, provision for dismantlement has been considered as part of the cost of removal component (negative net salvage) in the design of depreciation rates for production plants. The costs associated with this process have become a growing concern over the past decade due to their significant estimated levels. This paper considers the dismantlement of fossil-fueled generating stations, specifically PUC acceptance.

Adequacy of Recording and Recovery of Salvage and Cost of Removal
John S. Ferguson

The options for recording salvage and cost of removal include accrual accounting and cash accounting, and accrual accounting can be through depreciation or through amortizing a liability. Depreciation accounting recognizes the salvage expected to be received at the end of life and the cost of removal expected to be incurred as being directly related to the underlying assets. Non-regulated entities sometimes utilize cash accounting, because net salvage (salvage less cost of removal) is not material, or liability accounting rather than depreciation accounting. The Uniform Systems of Accounts (USofA) of regulators specify that regulated entities incorporate salvage and cost of removal into depreciation rates, through accrual accounting. While accrual accounting is either specified or implied by USofA's, some regulators circumvent this requirement by imposing a cash basis or some even more deferred process.

The Securities and Exchange Commission, through Staff Accounting Bulletin No. 92 (SAB 92), requires that public entities record and disclose environmental cleanup costs as a liability on a gross basis (i.e., without an offset for claims or regulatory promises of recovery). This has raised the threshold of awareness of how utility cost of removal is recorded and disclosed, and may lead to more widespread use of accrual accounting through depreciation or through liability accounting for some classes of assets. SAB 92 has particular significance to utilities, because it has led to a Financial Accounting Standards Board (FASB) project to evaluate whether the decontamination portion of decommissioning nuclear power plants should be recorded as a liability. This project could result in expanding the availability of liability accounting to utilities.

PROVISION FOR DISMANTLEMENT OF FOSSIL-FUELED GENERATING STATIONS - PUC ACCEPTANCE

Patricia Lee

The concept of dismantlement relates to the ultimate physical demolition/removal/disposal from service of a generating unit offset by any attendant salvage from the removed assets. Historically, provision for dismantlement has been considered as part of the cost of removal component (negative net salvage) in the design of depreciation rates for production plants. The costs associated with this process have become a growing concern over the past decade due to their significant estimated levels. However, a look at historical depreciation rates shows how this component has been understated: a historic estimate for Florida companies of about 5% versus current dismantling study estimates of 20 to 40%.

Some states have now begun to investigate the ratemaking and accounting treatment for the dismantlement of fossil-fueled generating stations. In Florida, an investigatory docket was opened in 1989 for the purpose of establishing or confirming the Commission's policy concerning the appropriate ratemaking and accounting treatment of dismantlement costs. The purpose of this investigation was to quantify those costs associated with future dismantlement and disposal and then to decide whether the provision for these costs should continue through depreciation, through a funded reserve or through a combination of both. Staff found three fundamental policy issues that the Commission needed to address: 1) whether the estimated costs to dismantle fossil-fueled generating stations should be funded or remain unfunded; 2) how the dismantlement accruals should be calculated; 3) whether the annual dismantlement accruals should be based on a percentage rate to be applied to plant in service, or a levelized fixed dollar amount.

As a result of the proceeding, the Commission decided that the provision for dismantlement should continue to accumulate in an unfunded reserve but be maintained in a separate dismantlement reserve account. The annual dismantlement accrual is to be a levelized fixed annual dollar amount rather than being based on a rate to be applied to the gross investment of the plant. The accrual is to be determined based on future dollars discounted to current dollars and levelized using an average for the next four-year period based on yearly accruals forecasted using inflation indices. The escalation rates used to project future dollars shall be derived from the same set of indices using the most current "DRI Review of the U.S. Economy." These indices are the Compensation Per Hour Index for labor; the Intermediate Materials, Supplies, and Components Index for materials, supplies, and salvage; and the GNP Price Deflator Index for disposal. Since the time of the decision in this proceeding, companies have justified the use of the Metal and Metal Products Index to inflate salvage rather than the Intermediate Material, Supplies, and Components Index. Any company specific adjustments to these escalation indices can be proposed with justification and support in subsequent studies. Further, the provision for dismantlement should be reviewed and revised, as necessary, but at least once every four years in connection with each company's required comprehensive depreciation review.

The subject of dismantlement and quantifying the associated costs is still in the formative stages. Through continued site specific dismantlement studies, recognition of improvements in technology and regulatory changes, and reevaluation of alternative methodologies and updated inflation rate forecasts, more accurate forecasts will be made. It is recognized that dismantlement costs can vary substantially from unit to unit due to such things as accessibility, presence of contaminants, and the physical nature of the unit.

Dismantlement cost studies submitted to the Commission staff in 1989, as well as those currently being received, are premised on the concept of ultimate physical removal, disposal, and site restoration, minus any attendant gross salvage upon final retirement of the site or unit from service. While the timing of ultimate removal certainly remains a question and is dependent on a number of factors, including major overhauls that extend the expected life of the unit, there will undoubtedly come a time this action will be necessary and site restoration will be required. These related costs are the subject of dismantlement.

Major cost activities of dismantlement that companies have identified include such items as the dismantlement of structures and boiler plant equipment, removal and disposal of asbestos and other hazardous materials, and the reclamation of ponds and site restoration. Some activities will vary by site and by company and will need to be identified and

quantified in subsequent dismantlement studies.

The following dismantlement costs were estimated in 1990 by each Florida regulated company:

FPL	$134,940,992
FPC	266,273,000
TECO	87,000,000
GULF	128,320,000

Within the past year, updated dismantlement studies have been received for FPC and GULF. Cost estimates in terms of 1993 dollars for these companies are:

FPC	196,800,000
GULF	138,200,000

In reviewing the updated studies, it was identified that FPC's estimated costs for dismantlement have decreased because the previous study was not site specific. The costs estimated for the dismantlement of all FPC fossil plants, including combustion turbines, were based on a study of the estimated dismantlement costs of the Bartow steam plant. Because the asbestos abatement costs at the Bartow plant are relatively extensive, this method assumed asbestos removal costs at each of the other sites to also be costly. In fact, of the $266.3 million estimated for dismantlement, about 21% or $56.8 million was attributed to the removal and disposal of asbestos at the time of dismantlement. Subsequently, the site specific studies performed for the 1994 review showed significantly lower costs for removing and disposing of asbestos - $31.2 million. Another reason for the decrease in estimated costs has been attributed to the use of power-operated shears for the steel/metal cutting. The 1989 study assumed a much more labor intensive approach using a traditional cutting torch.

Public Health and Safety Risks

In the 1989 proceeding, the Commission found that no more public health and safety risks were associated with the dismantlement of fossil-fueled generating stations than were associated with the dismantlement of other large industrial facilities. Environmental concerns requiring consideration are removal and disposal of asbestos and coal storage areas, fuel oil facility requirements, nuclear detectors, and slag ponds. It is interesting to note, however, that there are currently no federal or state laws or regulations that require the total dismantlement of a fossil unit. With the exception of fuel oil storage tanks, the unit can be retired from service with the building structures left in place if maintenance surveillance and security are provided. Naturally, companies will be subject to local ordinances that dictate the maintenance of the appearance of the site, the public health and safety protection, and the preservation of the property value of neighboring property owners.

Funded versus Unfunded Reserve

One of the main issues concerning fossil fuel dismantlement is whether the reserve should be funded, as nuclear decommissioning costs are, or remain unfunded. Annual contributions should recover the costs of dismantlement from each generation of ratepayers that are receiving the benefit from the related assets with the result that at the time of the final plant removal and disposal, the costs of dismantlement have already been recovered from the ratepayers that have had the use of the plant. The alternative is to charge future ratepayers for the dismantlement of a plant from which they may not receive any service. The economic impact on the ratepayer favors an unfunded reserve in that this method defers external capital requirements because the utility can use the amount charged to the dismantlement reserve for other company purposes. The utility collects the funds for dismantlement from the current customers and uses them for other items thus temporarily reducing the utility's need for externally raised capital. If the revenues are invested in a funded reserve, the company loses the opportunity to reduce its external financing. The rate earned on the fund will most likely be less than the company's cost of capital; therefore, there is a cost to the ratepayer.

An unfunded reserve will cause an intergenerational inequity for the future ratepayer if the cost of external capital at the time of dismantlement is unfavorable because an unfunded approach, the utility will have to raise the funds for dismantlement during the actual dismantlement stages. If the cost of debt and equity is high at the time of dismantlement, the future ratepayer may have to pay for any incremental increases in the capital structure. However, there is just as much probability that debt and equity costs will be lower at the time of dismantlement. The unfunded approach means cash flow resulting from the dismantlement reserve, produced by the dismantlement accrual, may be invested in other rate base assets.

A pertinent question to ask is, "Will the cost at the time of dismantlement place too much financial pressure on the utility?" Currently, Florida companies maintain that dismantlement costs are relatively small when compared to the capital budgets of each company and therefore will have very little impact. If there will not be a financial strain at the time of dismantlement, then an unfunded reserve is the best option.

An alternative to consider is to fund a portion of the cost. If nuclear decommissioning is risky enough to warrant 100% funding, where would fossil fuel dismantlement be on the "riskiness" scale?

Companies could employ a risk aversion factor. The factor would take into account how much should be funded to relieve the unpredicted costs such as contingencies at the time of dismantlement.

Since it appears that the safety, health, and cash flow risks associated with dismantlement are minimal, the Commission decided that annual provisions for dismantlement should continue to be accrued in the depreciation reserve. In the future, if risks are recognized it may become appropriate to fund in Florida.

Determination of Annual Accrual

In determining the annual dismantlement accrual, an initial payment is increased by the forecasted rate of inflation and then levelized over a four-year period. Although site-specific studies should identify unique costs associated with each plant, the homogeneous nature of the labor involved and the materials used in the dismantlement process indicates that the same inflation indices should be used for all plants to determine the appropriate escalation rate. The index for labor used is the Compensation Per Hour Index which measures total compensation including benefits, divided by total hours paid. The Intermediate Materials, Supplies and Components Index is used for materials and equipment. Recognizing that disposal includes various categories encompassing burial and shipping, a general index such as the GNP Price Deflator Index is used to inflate disposal costs. The remaining component to be addressed is salvage. Since the 1989 generic proceeding, the Commission has accepted use of the Metal and Metal Products Index for inflating the salvage value (material scrap) of the plants rather than the Intermediate Materials, Supplies and Components Index. Discussions with company and DRI representatives indicate a high correlation between price movements for metals and metal products and scrap metal.

The "DRI Review of the U.S. Economy - Long Range Focus" is relied on for the forecasts of the inflation indices just described. DRI is a common source for a wide variety of forecasted statistics that is generally recognized throughout the financial community. In addition, it is the forecast service used by the Revenue and Economic Analysis Unit of the Office of Planning and Budgeting in the Florida Governor's Office. It is also the forecast service used in Florida for nuclear decommissioning.

The accrual should be calculated so that each generation of ratepayers is treated fairly, which means it should increase at the rate of inflation. Calculating an accrual based on the current dollar estimate of dismantlement and then increasing that initial accrual by the rate of inflation will account for the compounding effect of inflation on the accrual. However, the accumulation of this annual amount will not match the total future dollars needed for dismantlement because the absolute dollars of inflation on the accrual will not match the absolute dollars of inflation on the current dollar estimate of dismantlement. It is the inflation on the total cost of dismantlement, not on the accrual, that must be taken into account.

Dismantlement Accrual versus Rate

Use of an annual fixed dollar accrual amount or a dismantlement rate to be applied to the investment can achieve that same result as long as the amount to be recovered is spread over the estimated period of time the plant is expected to be serving the public. A fixed dollar amount allows for a levelized accrual which is consistent with the Commission's policy for the annual accrual amounts associated with nuclear decommissioning. Use of a percentage rate to be applied to the gross plant investment will result in expense fluctuations due to annual activity.

Periodic Reviews

Electric utilities are required by rule to file comprehensive depreciation studies at least once every four years. A review of dismantlement costs relate to costs of removal and has been naturally considered part of the depreciation study review process. It is logical, therefore, that the provision for dismantlement be reviewed in connection with each company's required depreciation study review. The dismantlement studies should be site specific and should reflect changes in estimates and inflation, changes in regulatory or environmental requirements, and account for any newly discovered public health and safety risks.

JOURNAL

OF THE

Society of Depreciation Professionals

Volume 7, Number 1
1996-1997

Returning Retired Assets to Service

Table 1

Eric Alexander

The Impact of Depreciation Expense on Infrastructure Development
NARUC Staff Subcommittee on Depreciation

Introduction

The purpose of depreciation has been debated for a number of years. Some of the local exchange carriers claim that higher depreciation expense would allow them to modernize their infrastructure much faster. Further, some contend that construction programs will have to be curtailed if a certain level of depreciation expense is not maintained. However, this is not the purpose of depreciation. The purpose is to recover the investment in plant over its life and to allocate the depreciation expense to each accounting period on an equitable and systematic basis. Accounting principles require a depreciation method that allocates the investment in plant over its life to each accounting period on an equitable and systematic basis. Depreciation is not intended to be a source of cash for the funding of plant replacement. Net revenues from operations, additional debt or equity, provide the funds for modernization.

Background

The Finance and Technology Committee of the National Association of Regulatory Utility Commissioners (NARUC) has charged the Staff Subcommittee on Depreciation with the task of determining whether there is any relationship between depreciation expense and infrastructure development for telephone carriers.

The information for the large carriers was available through the Federal Communications Commission's Automated Reporting Management Information System (ARMIS) 43.02 Reports. However, for the small carriers, no one source was available from which the data could be obtained. Therefore, a data request was sent to all the state utility commissions requesting the following information:

- Financial information covering LECs with gross revenues under $100 million which included cash flows from operating activities and balance sheet account.
- Alternative forms of regulation for both large and small LECs.

The components of the survey that were of particular interest were the following:

- amount of depreciation expense versus Construction (less AFDUC), and
- internally generated funds versus construction.

The remainder of this paper will focus on the information obtained from ARMIS and the results of the data requests.

Large Local Exchange Companies

Attachment 1 illustrates the sources and uses of funds for the Bell Operating Companies for the period 1980 - 1994.

In the area of depreciation vs. construction, depreciation expense continually increased from 1980 - 1994 and increased drastically for the period 1980 - 1988 ($3.3 billion to $12.8 billion). During the same period, plant construction grew only 33% and, adjusted for inflation, it hardly grew at all. Another measurement of the disparity between depreciation expense and construction is the compound annual growth rate from 1980 to 1994. Depreciation expense grew 11.5% while construction grew only 2.1%. Thus, the growth rate for depreciation expense was approximately 5.5 times that of construction costs. In fact, in 1994, for the first time, depreciation expense exceeded construction (by approximately $1 billion).

A better indicator of whether carriers' modernization plans were stifled would be to compare the total amount of the carriers' internally generated funds with the cost of their telephone plant construction program. Note that depreciation expense is the largest non cash expense and for many carriers it is the largest

operating expense. As shown in Attachment 3, the Bell Operating Companies' (BOCs) funds from operations generally matched their construction until 1981. However, starting about 1984 (around the time of the AT&T divestiture), funds from telephone operations have steadily increased from 25% to 60% over telephone plant construction. This is not considered the norm (i.e., funds from operations exceeding plant construction), especially for an industry that has been "capital intensive" and for an industry considered on the doorstep of a technological explosion. Usually, expanding industries require large amounts of external funding. However, as seen in Attachment 1, it is clear that the telephone companies do not require large sources of external funding to maintain or modernize their wireline services. From these components, it is difficult to conclude that there is a relationship between increased depreciation expense and infrastructure development for the large telephone companies.

Small Local Exchange Companies (SLECs)

Fifty states and the District of Columbia were sent the data request, and eighteen provided some parts of the information. However, only eight states provided enough data to perform the analysis for telephone companies under $100 million in gross revenues. Some of the reasons why data for the SLECs was not available included:

- Cash flow statements are not required by the respective state commission.
- Only one local exchange company in the state and its revenue exceeds $100 million.
- Information only provided in annual reports.
- Information was insignificant with the state relative to the number of independent telephone companies for which the data would have to be assembled in the required format.

Therefore, the representative sample was too small to determine whether SLECs increased depreciation expense has any impact on infrastructure development.

Alternative Forms of Regulation

The data request posed four questions regarding alternative forms of regulation with a focus on whether infrastructure development was being fostered through depreciation. Of the 18 state commissions responding, 12 currently permit some form of alternative regulation for their local exchange companies. While several of the alternative regulatory plans incorporate infrastructure commitments, the data request revealed that none use depreciation to foster those commitments. The types of alternative regulation plans include the following:

- Excess Earnings Sharing Mechanism
- Price Cap Plan which focuses on prices rather than earnings regulation.
- Alternative Plan that states that the LEC will not increase local and toll rates in exchange for "no rate of return regulation" for five years.
- A combination of five-year freeze for all services except switched access service and a 50/50 sharing of revenue at predetermined target levels.

Many of the incentive regulatory plans are relatively new and there has been no evaluation of them. However, one state commission indicated that the largest telephone company in its area was on an experimental three year profit sharing plan in which it returned several million dollars to subscribers. At the end of the experiment, the carrier chose to return to rate of return of regulation. In a report by The National Regulatory Research Institute, the conclusion was reached that variations in modern technology deployment are possibly due to corporate or regional economic variables rather than variations in state regulatory policy.[1]

Conclusion

Based on the data provided, depreciation expense has continually increased for the period 1980 - 1994. However, this increase appears not to have fueled any increase in local exchange companies' infrastructure development. The construction and internally generated funds activity has been somewhat

sporadic since 1989 despite the continuous increase in depreciation expense. Regardless of the amount of depreciation expense booked by local exchange companies, other factors such as population growth, demand for new services, technology, public and regulatory pressure, competition and corporate strategy may also affect the infrastructure development of the local exchange companies. One state responded that while a specific company operating in its state cutback on basic infrastructure, it continues to plow money into selective technological enhancements which it finds strategically attractive. Based on the above facts, no direct relationship between depreciation expense and construction was found.

Reference
1. Larry R. Blank, Vivian Witkind Davis, Catherine E. Reed, "Telecommunications Infrastructure Investments and State Regulatory Reform: A Preliminary Look At the Data", The National Regulatory Research Institute (1994): 5.

NARUC Staff Subcommittee on Depreciation

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Thomas Spinks, Washington
Steve Wilt, Oklahoma

Attachment 1

Sources and Uses of Funds
Total Bell Operating Companies
($ Millions)

	Sources						Uses
Year	Net Income* (a)	Depre-ciation (b)	Net Deferred Income Tax (c)	Net Investment Tax Credit (d)	Allowance For Funds Used During Construction (e)	Total Internally Generated Funds (f)	Construction (Gross Plant Additions) (g)
1980	4,504	3,281	1,687	920	(235)	10,157	10,703
1981	5,159	3,714	1,836	935	(245)	11,399	11,359
1982	6,027	4,730	2,638	474	(268)	13,601	11,167
1983	6,387	5,556	2,179	375	(304)	14,193	12,052
1984	6,158	7,078	2,277	403	(299)	15,617	12,280
1985	6,727	8,523	2,109	528	(330)	17,557	13,894
1986	7,369	9,934	2,068	(135)	(280)	18,956	13,828
1987	7,535	11,613	664	(576)	(244)	18,992	13,630
1988	8,772	12,761	165	(661)	(192)	20,845	14,354
1989	8,128	12,827	35	(637)	(100)	20,254	13,309
1990	8,221	13,096	(598)	(584)	(100)	20,035	14,514
1991	8,187	13,430	(897)	(545)	(84)	20,091	14,306
1992	10,234	13,803	(830)	(504)	(81)	22,622	14,609
1993	11,678	14,243	(3,069)	(469)	(82)	22,301	14,872
1994	8,914	15,067	(653)	(414)	(87)	22,827	14,232
Percentage Increase from 1980 to 1994							
	97.9%	359.2%				124.7%	33.0%
Compound Annual Growth Rate from 1980 to 1994							
	5.0%	11.5%				6.0%	2.1%

	Depreciation Expense vs Construction			Total Internal Funding vs Construction			Construction - Nominal vs Real Dollars		
Year	Depre-ciation (b)	Construction less AFUDC (g+e)	Ratio (b/(g+e))	Total Internally Generated Funds (f)	Construction less AFUDC (g+e)	Ratio (f/(g+e))	Construction less AFUDC Nominal Dollars (g+e)	Communications Equipment Price Index** 1980=100 (m)	Construction less AFUDC Real Dollars (g+e)/m
1980	3,281	10,468	31.3%	10,157	10,468	97.0%	10,468	100	10,468
1981	3,714	11,114	33.4%	11,399	11,114	102.6%	11,114	108	10,308
1982	4,730	10,899	43.4%	13,601	10,899	124.8%	10,899	114	9,552
1983	5,556	11,748	47.3%	14,193	11,748	120.8%	11,748	117	10,070
1984	7,078	11,981	59.1%	15,617	11,981	130.4%	11,981	120	9,952
1985	8,523	13,564	62.8%	17,557	13,564	129.4%	13,564	122	11,078
1986	9,934	13,548	73.3%	18,956	13,548	139.9%	13,548	125	10,838
1987	11,613	13,386	86.8%	18,992	13,386	141.9%	13,386	128	10,441
1988	12,761	14,162	90.1%	20,845	14,162	147.2%	14,162	128	11,102
1989	12,827	13,209	97.1%	20,254	13,209	153.3%	13,209	129	10,221
1990	13,096	14,414	90.9%	20,035	14,414	139.0%	14,414	131	11,012
1991	13,430	14,222	94.4%	20,091	14,222	141.3%	14,222	133	10,697
1992	13,803	14,528	95.0%	22,622	14,528	155.7%	14,528	135	10,792
1993	14,243	14,790	96.3%	22,301	14,790	150.8%	14,790	137	10,822
1994	15,067	14,145	106.5%	22,827	14,145	161.4%	14,145	138	10,216
Percentage Increase from 1980 to 1994									
	359.2%	35.1%		124.7%	35.1%		35.1%	38.5%	-2.4%
Compound Annual Growth Rate from 1980 to 1994									
	11.5%	2.2%		6.0%	2.2%		2.2%	2.4%	-0.2%

*All figures are adjusted to reflect changes in accounting and regulation of Customer Premises Equipment and Station Connections Investment. Pre-1988 figures are adjusted to reflect the adoption in 1988 of the new Uniform System of Accounts. The 1991, 1992 and 1993 net income figures include other non-cash items such as expenses associated with workforce reductions.

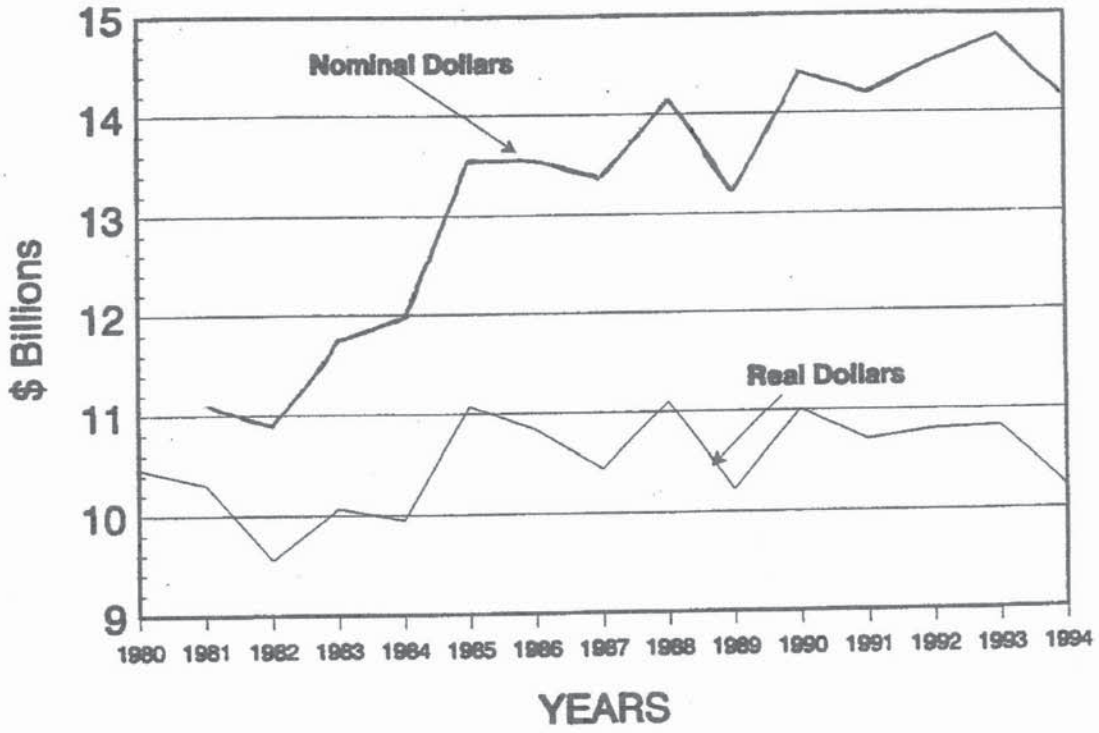
**Source: Price index for Nonresidential Communication Equipment, Survey of Current Business, Table 7.8, and National Income and Product Accounts, 1959-1988.

File Ref. BELINDX3 WK4

12-Feb-96

Attachment 2

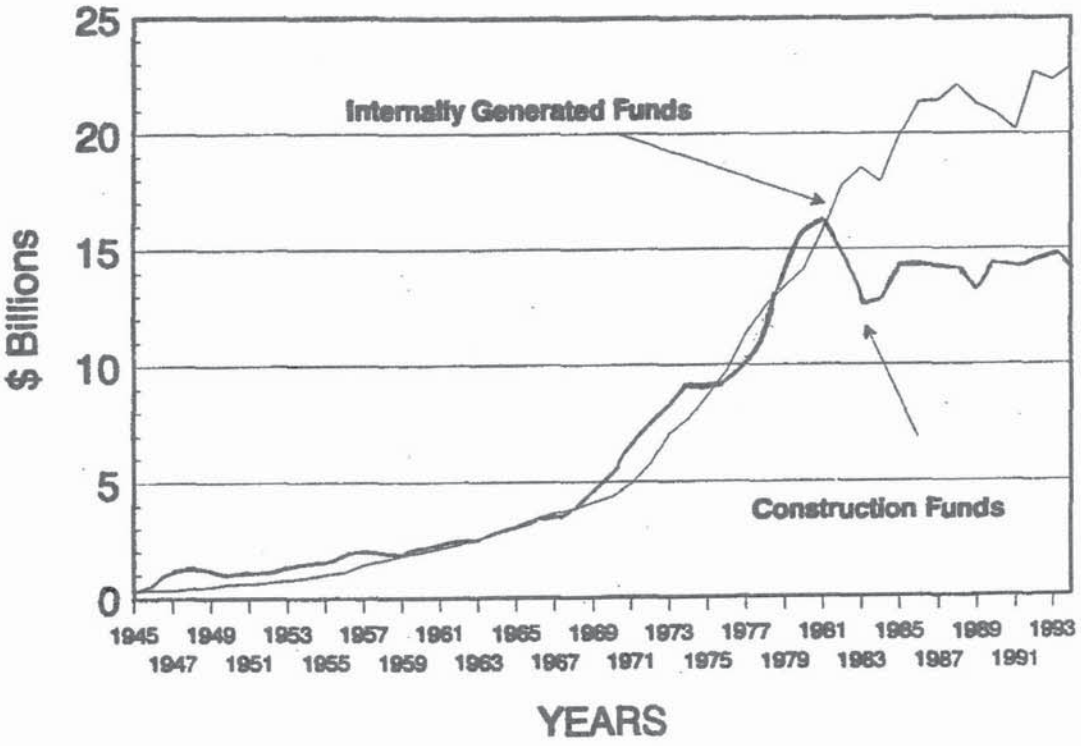
Construction - Total Bell Operating Cos.
Nominal Vs. Real Dollars
1980 TO 1994



1980 =100, Using Communications Equipment Price Index

Attachment 3

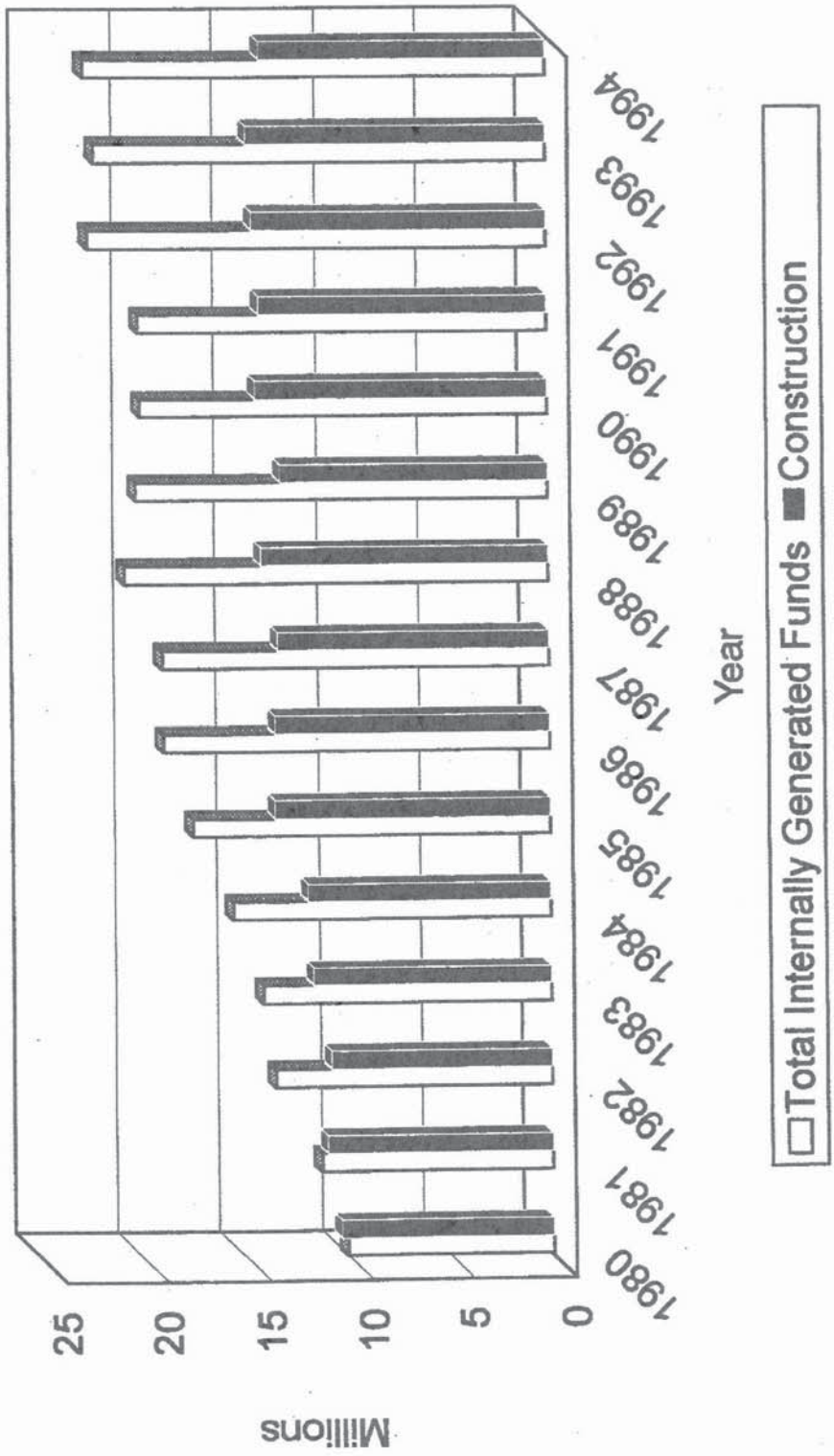
Internally Generated Funds vs. Construction for the Bell Operating Companies 1945 TO 1994



Attachment 4

Total Internally Generated Funds vs. Construction

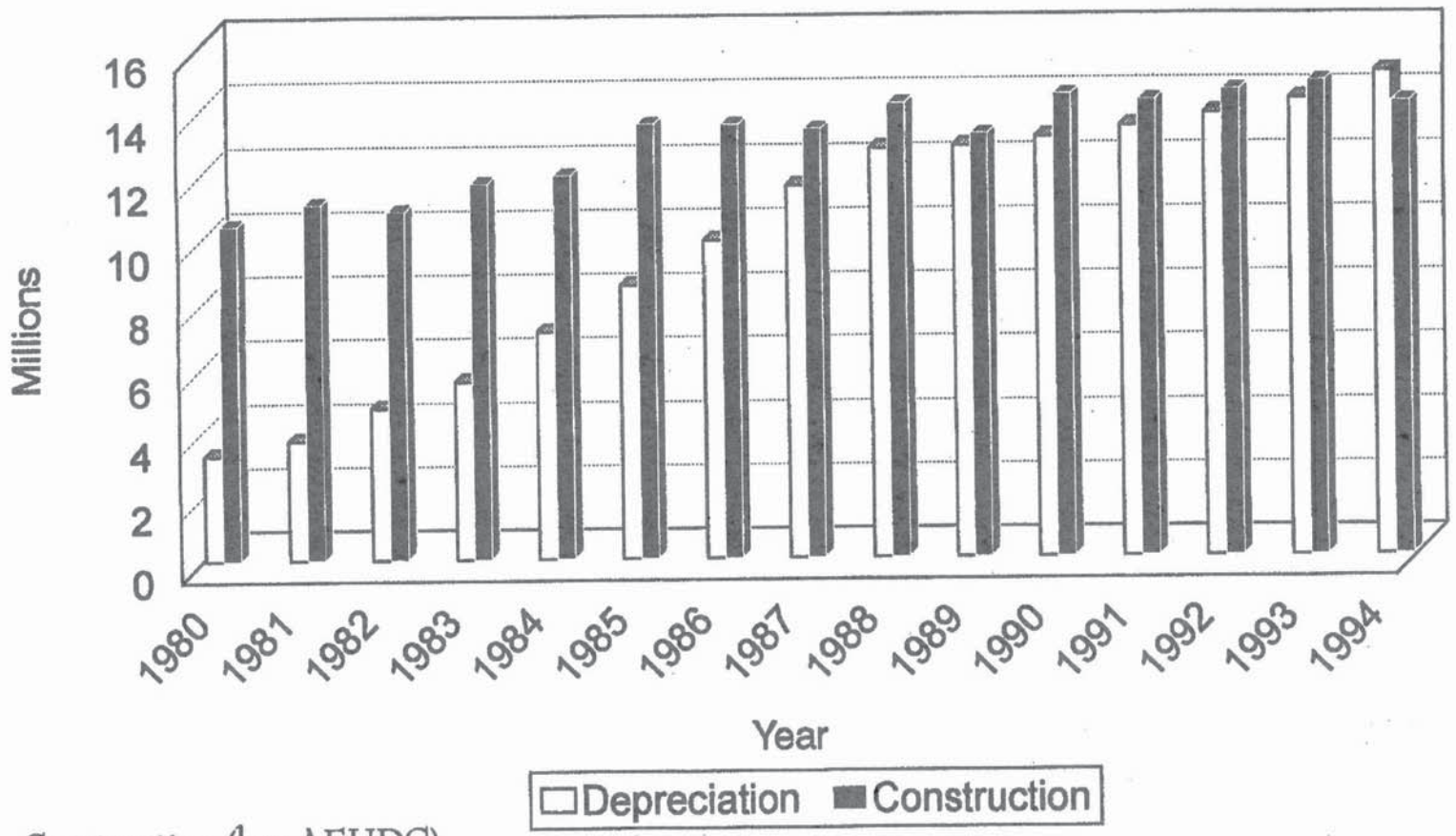
Sources and Uses of Funds - Total Bell Operating Companies



Construction (less AFUDC)

Depreciaton Expense vs. Construction

Sources and Uses of Funds - Total Bell Operating Companies



Construction (less AFUDC)

Attachment 5

JOURNAL

OF THE

Society of Depreciation Professionals

Volume 8, Number 1
1998

ECONOMIC DEPRECIATION?

NARUC Staff Subcommittee on Depreciation

INTRODUCTION

The Finance and Technology Committee of the National Association of Regulatory Utility Commissioners (NARUC), at the February, 1997 Meetings in Washington, D.C., requested that the Staff Subcommittee on Depreciation prepare a discussion paper comparing economic depreciation with traditional regulatory depreciation.

There is much discussion today in federal and state decisions, comments from industries, and various academic papers on the use of economic depreciation. Unfortunately, some use the terms "economic life" and "economic depreciation" synonymously. This paper clarifies and discusses the differences between these terms and the more traditional depreciation terms.

Traditional Regulatory Depreciation

Traditionally, regulatory depreciation is an accounting issue. The objective of computing depreciation is to allocate the cost or depreciable base of a group of assets over the service life, on a straight line basis, by charging a portion of the consumption of the assets to each accounting period. The accounting principle upon which depreciation is based is called the matching principle. Under the matching principle, the goal of depreciation is to provide for a reasonable, consistent matching of revenue and expense by allocating the cost of depreciable assets over their estimated useful life.

The federal government regulatory agencies and state public utility commissions (PUCs) typically prescribe Uniform Systems of Accounts (USOA) for utilities they regulate. The USOAs contain the rules and regulations that the utilities must follow. For example, the USOA for telecommunications carriers prescribed by the Federal Communications Commission (FCC) provides the following instructions for depreciation: "(g) Depreciation Accounting - (1) Computation of depreciation rates...(iii) The company shall keep such records of property and property retirements as will allow the determination of the service life of property..."(18 CFR§32.2000(g)(1)(iii)). Currently, most federal and state PUCs use some form of service life and require a straight-line method on which to base depreciation charges. The life of an asset refers to the period of time during which the depreciable plant is in service. Generally, regulators have determined that only assets that are used and useful in the provision of utility services should be included in Plant In Service accounts. Presumably, these assets are revenue producing assets.

Determination Of Service Life And Economic Life

Traditionally, regulatory agencies determine service life by considering past and future forces of retirement. Such forces considered are wear and tear, action of the elements, inadequacy, economic and technological obsolescence, changes in demand, requirements of public authorities, and management decisions. NARUC's *Public Utility Depreciation Practices* defines economic life as "The total revenue producing life of an asset". Economic life also considers the forces of retirement as they relate to future revenues generated by a particular group of assets. Service lives of a group of assets using either traditional or economic viewpoints should therefore be expected to be similar when considering the same future forces of retirement.

ECONOMIC DEPRECIATION

Economic depreciation is not a new term and has evolved over time. In the 1960s, for example, economic depreciation was defined as "...the cost of depreciable assets consumed during a year, expressed in terms of purchasing power of the original investment. Economic depreciation can be calculated by adjusting either the actual-cost depreciation base or the actual-cost depreciation accrual so as to produce an annual depreciation accrual reflecting changes in the value of money brought about by price-level changes".[1] During the 1980s, the term was attached to the theory that measures depreciation by the periodic change in present value of an asset's remaining cash flows. More recently, economic depreciation has been defined as the change in the value of an asset during a given year.[2]

DISCUSSION

The straight-line method of depreciation provides for uniform allocation of expense to each accounting period during the service life of the assets. Economic depreciation is driven by the income generated by an asset or assets. It is therefore a measure of change in the value of a group of assets from one year to the next. In theory, economic depreciation differs from traditional regulatory depreciation in that economic depreciation rates will not be on a straight-line basis. This is because future income used in the economic depreciation model varies from year to year.

Since either traditional or economic viewpoints consider the same future forces of retirement, the service life or economic life of an asset should be the same. The period of time the depreciable assets are in service is the service life. The period of time the assets are producing revenues is the economic life. If the assets are in service, it then follows that the assets are producing revenues. Perhaps the revenues being produced are not the same amount as in the past; however, this is not a life issue.

As seen above, there is a marked difference between determining the economic life of an asset or a group of assets, which is the period over which depreciation occurs, and the depreciation accrual pattern, which could be calculated using the economic depreciation model. Economic life is expressed in terms of time while economic depreciation is expressed in terms of value.

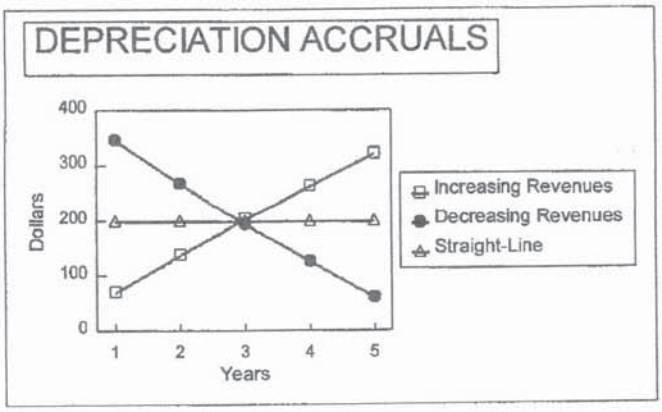
One example of the differences in accrual patterns between traditional and economic depreciation is shown in Table 1. This example assumes a $1,000 investment, a 5-year service/economic life, a 5% annual inflation rate, and a 3% real rate of interest.[3] Column B shows depreciation accruals based on a straight-line method. These accruals are developed by dividing the investment by the service/economic life of 5 years. Under straight-line depreciation, accruals are constant each year. Columns C and D are examples of economic depreciation. Column C shows that when revenues are increasing, depreciation accruals are greater in later years than in earlier years. Column D shows that when revenues are declining each year, the annual accruals are greater in the earlier years than in the later years. A graph of these accrual patterns is shown in Figure 1. It must be noted that when assumptions concerning inflation, interest rates, or revenues change, the economic depreciation schedules must be recalculated.

[1] Paul J. Garfield, Ph.D. and Wallace F. Lovejoy, Ph.D., *Public Utility Economics*, (Prentice Hall, Inc. 1964).

[2] See, for example, Michael L. Katz and Harvey S. Rosen, *Micro economics*, 2nd Edition, (Burr Ridge, IL: 1994). Page 213.

[3] See Appendix 1.

ACCRUAL
ECONOMIC



PATTERNS

DEPRECIATION VERSUS STRAIGHT LINE

Table 1

ASSUMPTIONS

Investment = $1,000
Average Service/Economic Life = 5 years
Annual Inflation Rate = 5%
Real Interest Rate = 3%
Straight-Line Depreciation Rate: 100%/5 = 20%

		Economic Depreciation with	
Year	Straight Line	Increasing Revenues	Decreasing Revenues
A	B	C	D
1	200	72	346
2	200	139	269
3	200	204	196
4	200	264	127
5	200	321	62

Figure 1

Based on the foregoing analysis, it is clear that the straight-line method of depreciation is a simpler calculation of depreciation that results in equal annual accruals for each of the five years. On the other hand, economic depreciation is more complex and requires more judgement and annual re-evaluation of the future interest rates, demand, future revenues, and a subsequent modification of the depreciation amounts.

Notwithstanding that service life and economic life should be the same, and having explained the differences between economic and traditional depreciation, the remaining question is which method should be used by regulatory agencies. Proponents of economic depreciation have made statements that regulators have required Incumbent Local Exchange Carriers (ILECs) to utilize depreciation lives for their plant and equipment that are longer than the economic lives used by competitive firms. This is an argument over the life of assets rather than the value of assets. Bell Atlantic and NYNEX, in comments to the FCC, stated that current commission-mandated depreciation methods do not reflect the loss in economic value.[4] Shooshan and Jackson, Inc., in their primer prepared for the United States Telephone Association (USTA), state that the economic value of the asset in place would always be less than the cost of replacing it with another model that, new or used, is expected to contribute more to the firm's earnings.[5]

Conversely, testimonies submitted on behalf of some Alternative Local Exchange Carriers (ALECs) in certain state PUC proceedings proffer that not all cost-reducing technologies operate to the detriment of existing technologies; some cost-reducing technologies are complementary to existing technologies and give rise to increasing cash flows from existing assets over time. Further, it is important to consider "demand-enhancing technological progress"; that is, change that causes the demand curve to shift upwards, perhaps as a result of improvements in quality or in the form of new products brought about as a result of the technological change. According to these testimonies, the effect of such demand-enhancing technological progress is not to reduce the value (and the resulting cash flows) of existing networks, but rather to increase their value[6].

NARUC, in its 1943 and 1944 reports [7], stated that the cost of plant is a definitely known amount and is not subject to the vagaries of estimates of value or of replacement cost. An embedded cost depreciation base conforms to the accepted accounting principle that operating expenses should be based on cost and not be influenced by fair value estimates nor by what costs may be at some future time. NARUC further stated that the claims advanced in support of economic depreciation were lacking in probative force. As a result, economic depreciation has not been used in a regulatory environment.

From an accounting perspective, the

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[4] See Joint Comments of Bell Atlantic and NYNEX, CC Docket No. 92-262, January 29, 1997.

[5] Shooshan & Jackson Inc. "*Primer on Capital Recovery, Regulatory Treatment of Taxes and Cash Flow Financial Analysis*," January 1987.

[6] See Direct Testimony of Dr. Michael A. Crew on behalf of AT&T Communications of the Midwest, Inc. and MCIMETRO Access Transmission Services, Inc., State of Iowa Department of Commerce Utilities Board, Docket No. RPU-96-9, April, 1997. See also Direct Testimony of Richard B. Lee on behalf of AT&T Communications of Delaware, Inc. Before the Public Service Commission of Delaware, Docket No. 96-324, February, 1997.

[7] See NARUC, *Reports of Committee on Depreciation for The Years 1943 and 1944* (Washington, DC: NARUC, 1943, 1944).

straight-line depreciation method continues to be appropriate for calculating depreciation rates. Since the early 1980's, regulatory depreciation procedures have been continuously modified and the process now reflects changes in both the business and technological environment. For example, for telecommunications carriers, the accumulated depreciation reserve ratio has increased significantly from approximately 20% in the early 1980's to nearly 50% today.[8] This ratio is an important indicator of the accuracy of past accounting results and current financial well being. It represents the portion of a carrier's current investment that has already been charged to depreciation expense. Notwithstanding, many ILECs argue that they have an economic value problem (i.e., the economic value of the network is less than its book value). Although the economic and accounting values for ILECs' assets may be different, the available evidence indicates that economic values of the assets are above accounting values, not below. The market value of all outstanding Regional Bell Operating Company (RBOC) shares is more than two times the total RBOC book equity. Additionally, sales of telecommunications exchanges and companies as well as sales of publicly traded stock have been at a premium, demonstrating that the economic value of the ILECs' assets are substantially greater than their book value. This is further confirmation that traditional straight-line depreciation methodology is working.

SUMMARY

Depreciation charges based on service life or economic life rather than the time value of money remains appropriate. Forecasting additional items, such as revenues, expenses, and future inflation rates in a valuation process, will add less stability and more complexity to the current depreciation process. In addition, as discussed above and as indicated in previously discussed ALEC testimony submitted in PUC proceedings, there may be an increase in value of the assets rather than a decrease in value. Although, the economic and accounting values for LECs' assets may be different, current financial information indicates that economic values of the LECs' assets are above the accounting values, not below.

[8] Filings with the FCC.

Appendix 1

In the two scenarios shown below, the revenues (Column D) are calculated assuming prices increase 5% per year with varying physical units of output (physical quantity). The fourth column shown for the decreasing revenue scenario is calculated assuming prices increase 5% per year but physical units of output decline each year. The nominal values each year are then discounted to the present value assuming an 8% nominal interest rate.

ECONOMIC DEPRECIATION VERSUS STRAIGHT LINE

Increasing Revenues:

YEAR	INFLATION RATE	OUTPUT UNITS	OUTPUT VALUE (REVENUES)	DISCOUNT FACTOR	PRESENT VALUE	ANNUAL ECONOMIC DEPRECIATION	ANNUAL STRAIGHT LINE DEPRECIATION
A	B	C	D=B*C	E	F=D/E	G=(F/PV TOTAL)*$1000	H=20%*$1000
1	1.000000	200	200	1.000000	200	72	200
2	1.050000	400	420	1.080000	389	139	200
3	1.102500	600	662	1.166400	568	204	200
4	1.157625	800	926	1.259712	735	264	200
5	1.215506	1,000	1,216	1.360489	894	321	200
TOTAL			$3,424		$2,786	$1,000	$1,000

ECONOMIC DEPRECIATION VERSUS STRAIGHT LINE

Decreasing Revenues:

YEAR	INFLATION RATE	OUTPUT UNITS	OUTPUT VALUE (REVENUES)	DISCOUNT VALUE	PRESENT VALUE	ANNUAL ECONOMIC DEPRECIATION	ANNUAL STRAIGHT LINE DEPRECIATION
A	B	C	D=B*C	E	F=D/E	G=(F/PV TOTAL)*1000	H=20%*$1000
1	1.000000	1,000	1,000	1.000000	1,000	346	200
2	1.050000	800	840	1.080000	778	269	200
3	1.102500	600	662	1.166400	568	196	200
4	1.157625	400	463	1.259712	368	127	200
5	1.215506	200	243	1.360489	179	62	200
TOTAL			$3,208		$2,893	$1,000	$1,000

NARUC Staff Subcommittee on Depreciation

Patricia Lee, Florida PSC, Chair
Angelo Rella, New York, Vice Chair
Darrell Baker, Alabama
David Berquist, Michigan
David Birenbaum, Missouri
Fatina Franklin, FCC
William Irby, Virginia
Susan Jensen, STB
Ramesh Joshi, California
Christopher Kotting, Ohio
Bruce Mitchell, Colorado
Clarence Mougin, Wisconsin
Thomas Spinks, Washington
Emmanuel Tzanakis, FERC
Steve Wilt, Oklahoma

Volume 8, Number 1, 1998

Public Utility

Depreciation Practices

August 1996

Compiled and Edited by

Staff Subcommittee on Depreciation of

The Finance and Technology Committee

of the

National Association of Regulatory Utility Commissioners

Published by

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FOREWORD

To the National Association of Regulatory Utility Commissioners (NARUC):

In 1937, realization of the importance of depreciation in public utility regulation prompted the National Association of Railroad and Utilities Commissioners to create a Special Committee on Depreciation. In 1939, that Committee was reconstituted under the reissued constitution adopted by the Association and given the status of a standing committee. A series of extended meetings was held by the Committee in the ensuing years, leading to the publication of a comprehensive report in 1943 on the entire subject of depreciation in public utility regulation. That report, an informative text on utility depreciation, was used by regulatory commissions and their staffs for many years and is still referred to today.

In 1961, the duties of the Committee on Depreciation were assigned to the Committee on Engineering, Depreciation and Valuation. Upon further consideration, the Staff Subcommittee on Depreciation was formed in May 1962. In September of that year, the Subcommittee decided to compile a *Manual of Depreciation Practices* using the 1943-44 Report of the NARUC Committee on Depreciation as a base. Emphasis was placed on the development of a manual which would be useful particularly to Commissions and Commission staffs. Work ensued over the next several years, resulting in publication of a manual of *Public Utility Depreciation Practices* in December 1968.

Time has proven the value of the 1968 manual, as it has well served the multitude of regulatory Commissioners and their staffs for many years. In the fall of 1984, however, the NARUC Engineering Committee questioned whether work should commence on revising the 1968 manual. After seeking and receiving input from the state commissions, it was decided to revise the manual and the work was assigned to the Staff Subcommittee on Depreciation. By early 1986 a proposed outline for the revised manual was developed, but work on the project did not begin in earnest until mid-1988. At that time the Staff Subcommittee on Depreciation was composed of the following members:

Darrell A. Baker, Alabama, Chair
Alyson Anderson, Idaho
James J. Augstell, New York
David J. Berquist, Michigan
Jack Butler, Arkansas
Eric de Gruyter, West Virginia
Edward H. Feinstein, FERC
Michael J. Gruber, Pennsylvania
E. C. Hostettler, ICC
William Irby, Virginia
Ramesh U. Joshi, California
Ben Kitashima, FERC
Daniel C. McLean, Washington
Kenneth P. Moran, FCC
Noel J. Sheehan, IRS
Mark Wilkerson, Florida
Steve Wilt, Oklahoma

In late 1988, the first assignments of specific chapters of the manual were made to several Subcommittee members and work on the text commenced. At a Subcommittee meeting in Oklahoma City in June 1989, several key decisions were made regarding the best way to

proceed with the project. It was decided that the Subcommittee would meet at least twice a year to ensure that the project would continue to move forward despite the heavy demands on the authors' time caused by the hectic pace of events at their respective Commissions; and an external review committee, consisting of individuals designated by the Society of Depreciation Professionals and an internal review committee, consisting of several Subcommittee members, would review draft chapters once they had been revised in response to Subcommittee members' comments. The internal review committee was comprised of the following members:

Susan Jensen, Ph.D., STB, Chair
Fatina K. Franklin, FCC
William Irby, Virginia
Ronald Lenart, FERC

In the ensuing years the Subcommittee changed as Commission personnel changed. In August, 1991, following dissolution of the Staff Subcommittee on Engineering (to which this Subcommittee reported), the Staff Subcommittee on Depreciation was given NARUC standing committee status and was directed to report to the Finance and Technology Committee of NARUC.

Following the appointment of Fatina Franklin, of the FCC staff, as Subcommittee Chair in June of 1992, the project moved forward at a steady pace. As decided earlier, the Subcommittee also met twice in 1993 and 1994. Between meetings drafts and rewrites of the text were exchanged among Subcommittee members. In late February 1995, the Subcommittee met for four days in Washington, D.C., followed by lengthy conference calls. At those meetings all of the chapters of the manual were given final review before submission to the National Regulatory Research Institute for final editing.

The Subcommittee on Depreciation wishes to acknowledge the following individuals who authored the various chapters of the manual and its appendices:

James J. Augstell, New York, now retired
Darrell A. Baker, Alabama
David J. Berquist, Michigan
David M. Birenbaum, Missouri
Bryan Clopton, FCC
Fatina Franklin, FCC
Wade Herriman, FCC
Richard Huriaux, DOT
William Irby, Virginia
Dr. Susan Jensen, Ph.D., STB (formerly ICC)
Ramesh U. Joshi, California
Christopher Kotting, Ohio
Patricia Lee, Florida
Ronald J. Lenart, FERC, now retired
Clarence Mougin, Wisconsin
Steve Wilt, Oklahoma

The Subcommittee on Depreciation also wishes to acknowledge the following individuals who made major contributions toward the editing of the manual:

Scott Bohler, New York
Michael Dean, Maryland
Terry Fowler, Arkansas
Angelo Rella, New York
Emmanuel Tzanakis, FERC

The Subcommittee further wishes to express its appreciation to the members of the external review committee who provided valuable assistance and guidance to the Subcommittee:

Dave Ashbaugh, GTE Telephone Operations North
Thomas Clark, U S WEST Communications, now retired
Harold Cowles, Professor Emeritus, Consultant, now retired
John Ferguson, Deloitte and Touche
Thomas McKitrick, American Water Works Service Company
Donald Myers, GTE Service Corporation, now retired
Joe Poitras, Technology Futures, Inc.
Branko Terzic, Yankee Energy Systems, Inc. (formerly Comm., FERC)
Robert Warnek, Consultant, now retired
Ronald White, Ph.D., Foster Associates, Inc.

Finally, the Subcommittee would like to acknowledge its debt of gratitude to the National Regulatory Research Institute for its invaluable assistance in editing the text, ensuring consistency of presentation, and making publication possible.

Staff Subcommittee On Depreciation:

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Thomas Spinks, Washington
Emmanuel Tzanakis, FERC
Steve Wilt, Oklahoma

Section:	**General**	**Page No.:**	**General**
Topic:	**Expert Qualifications**		
Subtopic:			
Issue:			

PREAMBLE TO IR (IF ANY):

QUESTION:

Please provide a summary of the extent to which Ms. Lee has been directly involved in the implementation of IFRS by a public utility. Please indicate if Ms. Lee holds a professional accounting designation.

RATIONALE FOR QUESTION:

Information on Intervener expert qualifications is required in assessing the evidence provided.

RESPONSE:

Ms. Lee has not been directly involved in the implementation of IFRS by a public utility. She is not an accountant and does not proclaim to be one. Ms. Lee's IFRS involvement has been in conversations with FPSC accounting staff and Florida electric company representatives (Florida Power and Light Company and Florida Progress now Duke Florida). The conversations were generalized concerning how Florida companies are dealing with IFRS, are there any potential problems, will regulated utilities be required to comply, etc.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

Section:	**General**	**Page No.:**	**General**
Topic:	**Expert Qualifications**		
Subtopic:			
Issue:			

PREAMBLE TO IR (IF ANY):

QUESTION:

Please provide a list of utilities for which Ms. Lee has performed a comprehensive depreciation study.

RATIONALE FOR QUESTION:

Information on Intervener expert qualifications is required in assessing the evidence provided.

RESPONSE:

Ms. Lee has not performed a comprehensive depreciation study for any utility. That said, Ms. Lee has over 30 years of experience in reviewing, analyzing, and presenting testimony and recommendations on comprehensive depreciation studies filed by Florida telecommunications, electric, and gas companies. In this capacity, Ms. Lee also analyzed and evaluated depreciation methods, procedures, and concepts. The review process included prudency of company planning (including additions and retirements), retirement practices, and basic accounting data used in the development of life characteristics.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION:

Section:	**III**	**Page No.:**	**13**
Topic:	**Accounting Changes**		
Subtopic:			
Issue:			

PREAMBLE TO IR (IF ANY):

Ms. Lee states at page 13, line 26 of her testimony "I do not understand the adversity to keeping two sets of books as this can also be handled by the computer."

QUESTION:

Please explain how the above noted statement, which appears to be discussing the fact that a computer is used to calculate depreciation rates as part of a periodic depreciation study, relates to maintaining two full sets of asset subledgers, one for ASL and one for ELG, on an ongoing basis (i.e. two set of books).

RATIONALE FOR QUESTION:

To clarify Ms. Lee's understanding with respect to the requirements for developing and maintaining two sets of accounting records.

RESPONSE:

The two sets of books Ms. Lee is referencing are regulatory books and financial books. Depreciation rates can be and sometimes are different between regulatory and financial accounting. The regulatory books maintain the depreciation rates approved for regulatory purposes including the corresponding depreciation related accounts/categories, depreciation expenses, and accumulated reserve. The basic accounting data (additions, retirements, adjustments/transfers, and plant balances) used in the life analyses for determining the underlying lives whether ASL or ELG should be expected to be the same whether for regulatory or financial purposes. It is Ms. Lee's experience in dealing with Florida utilities that accounting data is computerized and to the extent regulatory books and financial books differ, regulatory assets/liabilities are often created.

RATIONALE FOR REFUSAL TO FULLY ANSWER THE QUESTION: