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**BEFORE THE
SURFACE TRANSPORTATION BOARD**

ARIZONA ELECTRIC POWER
COOPERATIVE, INC.,

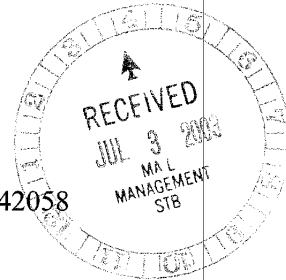
Complainant,

v.

THE BURLINGTON NORTHERN AND
SANTA FE RAILWAY COMPANY and
UNION PACIFIC RAILROAD COMPANY,

Defendants.

Docket No. 42058



**COMPLAINANT ARIZONA ELECTRIC POWER COOPERATIVE, INC.'S
REBUTTAL EVIDENCE**

EXHIBITS

PUBLIC VERSION – INFORMATION SUBJECT TO
PROTECTIVE ORDER HAS BEEN REDACTED

ARIZONA ELECTRIC POWER
COOPERATIVE, INC.

ENTERED
Office of Proceedings,

JUL 07 2003

Part of
Public Record

By: Patricia E. Cooper
Chief Legal Officer
Arizona Electric Power Cooperative, Inc.
100 S. Highway 80
Benson, AZ 85602

William L. Slover
Robert D. Rosenberg
Christopher A. Mills
Andrew B. Kolesar III
Daniel M. Jaffe
1224 Seventeenth Street, N.W.
Washington, D.C. 20036
(202) 347-7170

OF COUNSEL:

Slover & Loftus
1224 Seventeenth St., N.W.
Washington, D.C. 20036

Dated: July 3, 2003

Attorneys for Complainant

AEPCO v. BNSF/UP - List of Rebuttal Exhibits

EXHIBIT

TITLE

I-

- 4 AEPCO's Reply in Opposition to Union Pacific Railroad Company's Petition to Require Submission of New Opening Evidence or, Alternatively, to Dismiss

EXHIBIT

II-A-

- 30¹ Comparison of Rates, Variable Costs, and Rate to Variable Cost Ratios for AEPCO Coal Movements from New Mexico Origins to Apache as Presented in AEPCO's and the Railroads' Opening and Reply and AEPCO's Rebuttal – 1Q01 Through 1Q03
- 31 Variable Cost Differences by Causal Factor – AEPCO Rebuttal v. the Railroads' Reply
- 32 Comparison of Traffic and Operating Characteristics for Movements from New Mexico Origins to Apache as Presented in AEPCO's and the Railroads' Opening and Reply and AEPCO's Rebuttal – 1Q01 through 1Q03
- 33 The Railroads Have Not Demonstrated that their Account 90 Projects Are of "Short Duration"
- 34 Rebuttal Restatement: Road Return and Depreciation for Each Origin-Destination Pair Movement from New Mexico Origins to Apache
- 35 Rebuttal Restatement: Locomotive Maintenance Costs by Model – BNSF and UP

¹ Exhibits II-A-1 to 19 were included with AEPCO's February 7, 2003 Opening Evidence and Exhibits II-A-20 to 29 were included with AEPCO's May 27, 2003 Reply Evidence.

AEPCO v. BNSF/UP - List of Rebuttal Exhibits

- 36 Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal
Via the Railroads for AEPCO from Lee Ranch Mine to Apache – Base Year
2001 Indexed to 1Q01 Levels (Steel Shipper Cars)

- 37 Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal
Via the Railroads for AEPCO from Lee Ranch Mine to Apache – Base Year
2001 Indexed to 2Q01 Levels (Steel Shipper Cars)

- 38 Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal
Via the Railroads for AEPCO from Lee Ranch Mine to Apache – Base Year
2001 Indexed to 3Q01 Levels (Steel Shipper Cars)

- 39 Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal
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2001 Indexed to 4Q01 Levels (Steel Shipper Cars)

- 40 Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal
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- 41 Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal
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- 42 Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal
Via the Railroads for AEPCO from McKinley Mine to Apache – Base Year
2002 Indexed to 2Q02 Levels (Steel Shipper Cars)

- 43 Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal
Via the Railroads for AEPCO from Lee Ranch Mine to Apache – Base Year
2002 Indexed to 3Q02 Levels (Steel Shipper Cars)

- 44 Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal
Via the Railroads for AEPCO from Lee Ranch Mine to Apache – Base Year
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AEPCO v. BNSF/UP - List of Rebuttal Exhibits

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| 45 | Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal Via the Railroads for AEPCO from McKinley Mine to Apache – Base Year 2002 Indexed to 3Q02 Levels (Steel Shipper Cars) |
| 46 | Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal Via the Railroads for AEPCO from McKinley Mine to Apache – Base Year 2002 Indexed to 3Q02 Levels (Aluminum Shipper Cars) |
| 47 | Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal Via the Railroads for AEPCO from Lee Ranch Mine to Apache – Base Year 2002 Indexed to 4Q02 Levels (Aluminum Shipper Cars) |
| 48 | Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal Via the Railroads for AEPCO from McKinley Mine to Apache – Base Year 2002 Indexed to 4Q02 Levels (Aluminum Shipper Cars) |
| 49 | Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal Via the Railroads for AEPCO from Lee Ranch Mine to Apache – Base Year 2002 Indexed to 1Q03 Levels (Aluminum Shipper Cars) |
| 50 | Rebuttal Restatement: Variable Costs for Unit Train Movements of Coal Via the Railroads for AEPCO from McKinley Mine to Apache – Base Year 2002 Indexed to 1Q03 Levels (Aluminum Shipper Cars) |
| 51 | Rates, Variable Costs, and Revenue to Variable Cost Ratio – the Railroads' O/D Pairs – 1Q01 through 1Q03 |

**EXHIBIT
III-A-**

- | | |
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| 7 ² | Summary of Results of Train and Traffic Data Matching Process |
| 8 | Summary of BNSF ACE Phoenix Traffic (2001) |
| 9 | Revenue Per Ton-Mile (Mills) for ACE Traffic |

² Exhibits III-A-1 to 6 were included in AEPCO's February 7, 2003 Opening Evidence.

AEPCO v. BNSF/UP - List of Rebuttal Exhibits

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| 10 | Rebuttal Testimony of William W. Whitehurst, Jr. Regarding Assignment of Revenues on Crossover Traffic between the ACE and the Residual Incumbent BNSF and UP Railroads |
| 11 | Rebuttal Testimony of George H. Borts |
| 12 | Revenue Division Data – UP Manifest Traffic |
| 13 | Revenue Division Data – BNSF Intermodal Traffic |
| 14 | Procedures Followed to Identify ACE Revenues Based on Actual BNSF Market Place Revenue Division Data |
| 15 | ACE 2001-2020 Non-Coal Traffic and Revenues |

EXHIBIT
III-B-

TITLE

- | | |
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| 3 | Rebuttal Testimony of William W. Whitehurst, Jr. Regarding the Extent to Which the Trackage Rights Rates Payable to UP Covers UP's Attributable And Unattributable Costs Incurred with BNSF's Use of the Vaughn-El Paso Line |
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EXHIBIT
III-H

- | | |
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| 3 ³ | ACE Discounted Cash Flow Model – Base Case |
| 4 | ACE Discounted Cash Flow Model – Alternative Case |
| 5 | Reparations Calculation Based on the Higher of Stand-Alone Cost or Jurisdictional Threshold (1/02/2001 – 6/02/2003) |

³ Exhibits III-H-1 to 2 were included in AEPCO's February 7, 2003 Opening Evidence.

I Argument and Summary

STAMP & RETURN

**BEFORE THE
SURFACE TRANSPORTATION BOARD**

ARIZONA ELECTRIC POWER
COOPERATIVE, INC.,

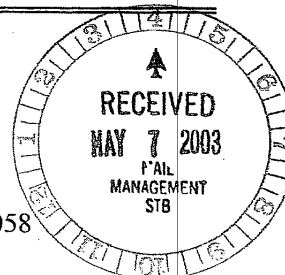
Complainant,

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THE BURLINGTON NORTHERN AND
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UNION PACIFIC RAILROAD COMPANY,

Defendants.

Docket No. 42058



**REPLY IN OPPOSITION TO UNION PACIFIC RAILROAD
COMPANY'S PETITION TO REQUIRE SUBMISSION OF
NEW OPENING EVIDENCE OR, ALTERNATIVELY, TO DISMISS**

PUBLIC VERSION

ARIZONA ELECTRIC POWER
COOPERATIVE, INC.

By: Patricia E. Cooper
Chief Legal Officer
Arizona Electric Power Cooperative, Inc.
100 S. Highway 80
Benson, AZ 85602

William L. Slover
Robert D. Rosenberg
Christopher A. Mills
Andrew B. Kolesar III
1224 Seventeenth Street, N.W.
Washington, D.C. 20036
(202) 347-7170

OF COUNSEL:

Slover & Loftus
1224 Seventeenth St., N.W.
Washington, D.C. 20036

Dated: May 7, 2003

Attorneys for Complainant

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**BEFORE THE
SURFACE TRANSPORTATION BOARD**

ARIZONA ELECTRIC POWER
COOPERATIVE, INC.

Complainant,

V.

Docket No. 42058

THE BURLINGTON NORTHERN AND
SANTA FE RAILWAY COMPANY and
UNION PACIFIC RAILROAD COMPANY,

Defendants.

**REPLY IN OPPOSITION TO UNION PACIFIC RAILROAD
COMPANY'S PETITION TO REQUIRE SUBMISSION OF
NEW OPENING EVIDENCE OR, ALTERNATIVELY, TO DISMISS**

Complainant Arizona Electric Power Cooperative, Inc. ("AEP CO"), submitted its Opening Evidence on stand-alone costs ("SAC") and other matters on February 7, 2003. On April 18, 2003, two and a half months later, and little more than a month before reply evidence is due, Defendant Union Pacific Railroad Company ("UP") filed its petition ("Petition") to require AEP CO to revise and resubmit its SAC evidence because of alleged deficiencies or, alternatively, to dismiss the complaint.

AEPCO opposes the Petition and asks that it be denied. Defendants UP and the Burlington Northern and Santa Fe Railway Company (“BNSF”) (jointly, “Defendants” or “Railroads”) have ample opportunity and ability to address any alleged

deficiencies in AEPCO's evidence in their Reply Evidence due May 27, 2003, and UP's filing should not be allowed to add any further delay to the procedural schedule.¹

UP's Petition is so utterly lacking in foundation that AEPCO can only conclude that it was submitted primarily for purposes of delay and diversion. While the Petition cites three alleged deficiencies in AEPCO's SAC evidence, only the first – the claimed inability to “decode” how AEPCO derived the traffic group and revenues for its stand-alone railroad (“SARR”) – raises the kind of issue that could be viewed as having even a remote connection to Defendants' ability to prepare reply evidence. However, AEPCO's procedure for deriving its SARR traffic and revenues is fully described and documented in AEPCO's Opening Evidence, fully understood by Defendants (contrary to the contentions in UP's Petition), and entirely reasonable, as explained infra.

The other two alleged deficiencies – the claimed inadequacy of the residual incumbents' revenue divisions for cross-over traffic, and the supposed infeasibility of the SARR's rerouting of the issue and a small portion of other traffic – are both substantively unfounded and entirely unrelated to Defendants' ability to prepare reply evidence. While

¹ Under 49 C.F.R. § 1111.8, reply evidence is normally due 60 days after opening evidence. Here, Defendants insisted on nearly a four-month interval premised on AEPCO's challenge to three different sets of rates. As a result of its settlement with UP, AEPCO withdrew its challenge to the Colorado and Powder River Basin rates prior to the filing of opening evidence. Defendants have consequently had a very long period to prepare their reply evidence – and to raise any specific questions they had concerning the formulation of AEPCO's SARR traffic group. Instead, UP waited until the eleventh-hour to file its Petition, thus evidently hoping to induce further delay in a rate case that has already been pending for well over two years.

no shipper has been required on opening to make a prima facie showing of coverage of off-SARR costs for crossover traffic, AEPCO's explanation as to the commercial reasonableness of the divisions more than suffices for that purpose. Additionally, AEPCO's rerouting of coal traffic moving via Belen-Deming to a SARR route via El Paso-Vaughn and its use of existing BNSF/UP trackage rights were both already the subject of favorable Board rulings denying Defendants' earlier motions in this case. In any event, the two claims, being heavily fact-oriented, simply do not constitute adequate grounds for a motion to dismiss or the equivalent under Board precedent and should instead be addressed through reply evidence.²

AEPCO believes its SARR traffic group and configuration, as presented on Opening and in its subsequent Errata filings, to be fully correct and feasible and has no intention of altering them significantly at a later stage of this proceeding. The UP Petition's supposition to the contrary is groundless.

² Docket No. 42057, Public Service Co. of Colorado d/b/a Xcel Energy v. Burlington N. & S.F. Ry. Co., (STB served April 4, 2003) ("Xcel") at 2 ("alleged deficiencies [in a shipper's opening SAC presentation] are better left for an assessment of the merits after development of the full evidentiary record."). See also Docket No. 37809, McCarty Farms v. Burlington N. Inc., (ICC served Feb. 13, 1995) at 8 ("Unless the model is patently incapable of meeting the shipper's needs, we will presume that the stand-alone system is feasible unless and until its feasibility is challenged in the railroad's case-in-chief."), and Cadwallader-Gibson Co., Inc. v. Alabama G.S. R. Co., 262 I.C.C. 398, 399 (1945) (overruling a motion to dismiss a rate complaint for alleged deficiencies before submission of defense evidence on grounds that claimed insufficiency related only to the weight of the complainants' evidence).

UP's Petition does, however, serve one useful function in illustrating how and why coal rate cases have become so time-consuming and expensive and why matters that seemingly should be beyond dispute are so deeply contested. As demonstrated herein, the explanation is that essential information lies in the exclusive possession of the railroad defendants, and the railroads very carefully limit and control how they make that information available to complainant shippers. The result is an uneven playing field that the railroads attempt to exploit for their own advantage.

AEPCO urges the Board to adhere to its established precedent in Xcel and McCarty Farms and refuse to excuse Defendants from filing reply evidence on schedule so that these matters can be decided on the basis of the full evidentiary record.³ To do otherwise will simply mean further delay in this and ensuing rate cases as post-opening evidence motions to dismiss (as were also filed in TMPA, PPL Montana and Xcel) will become just another standard railroad tactic for increasing the complexity and cost of these cases.

³ Beyond Xcel and McCarty Farms, the Board has declared that motions to dismiss do not affect the procedural schedule:

[T]o ensure that there is no misunderstanding as to the effect of filing any motion (whether a motion to dismiss, to compel discovery, or otherwise), we will follow a policy that, unless we issue an order altering the procedural schedule, parties to a proceeding will be expected to adhere to the established procedural schedule pending a decision on the motion.

Ex Parte No. 527, Expedited Procedures for Processing Rail rate Reasonableness, Exemption and Revocation Proceedings, (STB served Oct. 1, 1996) at 9.

ARGUMENT

I. UP's Petition Fails to Meet the Applicable Legal Standard

UP's Petition lacks any meaningful discussion of the applicable legal standards for such a motion. UP's omission of such a discussion is hardly surprising since (1) a petition to require a party to re-submit evidence is simply unheard of in Board practice,⁴ and (2) precedent is very clear that UP's alternative remedy of dismissal "is a disfavored request and rarely granted in judicial and administrative proceedings." Docket No. 31593, Garden Spot & Northern Limited Partnership and Indiana Hi-Rail Corp. – Purchase and Operate – Indiana Rail Road Co. Line Between Newton and Browns, IL, (ICC served Dec. 23, 1992) at 2.

Moreover, dismissal is allowed only when there are no material issues of fact, and in this regard all evidence must be viewed in a light most favorable to the complainant. Docket No. 42012, Sierra Pacific Power Co. & Idaho Power Co. v. Union Pacific R.R., (STB served Jan. 26, 1998). In short, UP must satisfy the Board that it is entitled to judgment as a matter of law. See, e.g., Docket No. 40169, National Grain and Feed Association v. Burlington Northern R.R., (ICC served June 1, 1990) at 4 & n.4; Docket No. 40913, Department of Public Service Regulation and Public Service Commission of the State of Montana v. Union Pacific R.R., (ICC served March 15, 1993).

⁴ UP itself acknowledges that its request to require the filing of new evidence seeks "unusual relief." UP Petition at 5.

As demonstrated herein, AEPCO disputes UP's factual assertions in all material respects, and for present purposes, all such disputed matters must be resolved in AEPCO's favor. Moreover, UP's central factual claim – that it cannot decipher AEPCO's stand-alone traffic and revenues – is belied by UP's specific (albeit entirely unfounded) criticisms of AEPCO's evidence. Its other claims are either primarily factual in nature and/or erroneous as a matter of law. In no respect does UP's Petition begin to satisfy the applicable legal standard for such a filing, and it must thus be denied.

II. AEPCO's Stand-Alone Traffic Group and the Associated Revenues are Readily Ascertainable and Well-Documented

UP claims that it and its consultants are unable to discern AEPCO's traffic group for its SARR, the Apache Cochise & Eastern Railroad ("ACE"), and that AEPCO made undocumented adjustments to the SARR's base (2001) revenues. These claims are disingenuous. First, UP has correctly discerned that the ACE's non-coal traffic includes all overhead trainload revenue freight traffic that moved over BNSF's line between Defiance and Vaughn, NM in 2001, and all overhead trainload revenue freight traffic that moved over UP's line between El Paso, TX and Cochise, AZ in 2001.⁵ Second, it is clear from the Klick/Murphy Verified Statement submitted with its Petition that UP fully understands how and why AEPCO's stand-alone revenue adjustments were made.

⁵ AEPCO Op. Exhibits III-A-3 and III-A-4 show the specific traffic flows. AEPCO excluded Amtrak, local, work, yard, helper, light engine, and service trains from the ACE's traffic group.

A. Mechanics of Traffic Group Construction

The shipper's derivation of a traffic group for its SARR begins, by necessity, with information provided by the defendant(s). In this case, as in most others, the relevant data was produced in separate parts by both Railroads. Specifically, each Defendant produced a train movement file and a revenue file (a/k/a traffic tapes).⁶

The train movement file shows the route of movement of trains and the number of loaded and empty railcars, but does not identify the specific cars transported, their origin, destination, contents, net tons, or the revenues generated by such movements. The traffic tapes identify specific cars (or trailers/containers in the case of intermodal traffic) and their origin, destination, net tons, contents, and associated revenues, but give no information as to their route of movement. Individually, the files are useless for selecting and then quantifying stand-alone traffic. It is only when their data is combined that the information can be utilized.

In order to develop the traffic group, the shipper must link the two sets of records to each other, utilizing common fields in the data sources that allow the shipper (or rather its consultants, since the shipper never sees the data, which is designated highly confidential) to determine the net tons and revenues associated with the train movements

⁶ The information contained in these files is depicted on AEPCO Op. Exhibit III-A-2, pp. 1-4. UP's data included a third database, the "Car Movement File," that contains data fields that form a bridge between the train movement file and the traffic tapes. Nothing in AEPCO's discovery requests required or asked that the information be produced in separate parts.

that its SARR will handle. In other words, the shipper must first identify the trains that move (or could reasonably move) over the route of its SARR, and then the shipper must associate the carloads and their net tons and revenues for those movements.

After the requisite linkages are made, the shipper can then determine what traffic to include in and exclude from its SARR, and then the shipper can determine the engineering and operation of the SARR to handle that traffic and evaluate its costs and revenues. Identification of the SARR's traffic group and associated revenues is thus a critical step in developing the shipper's SAC presentation.

B. Volume of Data and Difficulties in Basic Processing

The source data for the SARR traffic group and revenues as provided by the Railroads in this case were extremely voluminous. For 2001 alone, UP provided 227 tape volumes, and one CD, totaling 136.2 gigabytes of data, and BNSF provided 24 tapes, totaling 14 gigabytes.⁷ The data files provided on tape cartridges were stored in EBCDIC (mainframe) format. The BNSF train event data, UP train movement data, and UP car data were provided in compressed format, making it necessary to complete an extra time-consuming step in the data extraction process. All of the data in the tapes had to be laboriously extracted and converted (i.e., "unpacked") before it could then be sorted and analyzed into something useful for designing a SARR and preparing evidence.⁸

⁷ See AEPCO Op. Exhibit III-A-2, pp. 1, 3.

⁸ Approximately 100 hours of computer time were required to extract the data so that it could then be utilized. In addition, AEPCO had to seek several clarifications

Since parties do not submit the actual tape cartridges as evidence or workpapers,⁹ the Board should appreciate that the quantity of useful information encompassed in what the Railroads produced is actually quite a small percentage of the data included on the tape cartridges. The corresponding traffic and revenue data that AEPCO submitted with its Opening Evidence consisted of 12 CDs or 7.2 gigabytes of data. Plainly, the Railroads' approach to document production results in the inclusion of much chaff amidst relatively little grain.

Indeed, the data as produced by the Railroads is so user-unfriendly that AEPCO's consultants have every confidence that the Railroads, for purposes of their regular business operations, must have some other process for utilizing the information on a regular basis. UP's mere ability to claim that AEPCO has overstated its SARR traffic volume and revenues – notwithstanding UP's care in not stating in the Petition what the Railroads believe to be the correct traffic figures – demonstrates that the Railroads must have some other means for accessing and utilizing their data that they do not share with complainants. Unless they had some other source or means of information, they could not have any basis for criticizing AEPCO's treatment.

In fact, the Railroads have elsewhere indicated that they have considerable additional data manipulation abilities. In particular, Rick Holmes, UP's Director of

related to the decoders for the fields and the formatting of the files.

⁹ AEPCO is confident that the Board's staff has no interest in receiving copies of over 200 tape cartridges.

Information Systems Auditing, gave a presentation on October 25, 2002 to the Computer Science Engineering CSE 291 class at Michigan State University, the powerpoint version of which is available at http://web.cse.msu.edu/~cse291/Speakers_files/holmes291.pdf and included as Attachment 1. Mr. Holmes explained how UP's "Data Warehouse Offers"¹⁰ the ability to apply "Integration and Transformation" to UP's "Operational and Financial Systems" and provide "Analysis and Reporting" as to provide "Any user, any question, any data, any time" to "Subject-Oriented, Integrated, Historical Data." The integrated data included CRM [Customer Relationship Management], Transportation Control System, Accounts Receivable, Revenue Shipment Processing, and Contract Administration, that is, all the things (and more) that a shipper would want to construct its SARR traffic analysis. Despite this obviously extensive data manipulation capability, UP has chosen to present its data response to AEPCO through three separate data sources, and leave it to AEPCO to find the proper data linkages among them.

BNSF itself has not denied that it has additional data sources and/or processes. In particular, AEPCO sent BNSF a letter dated December 9, 2002 (Attachment 2), "request[ing] that BNSF provide the databases, programs, and spreadsheets (in a machine-readable format, where available), used to calculated the adjustments" in a particular data field. By letter dated January 17, 2003 (Attachment 3),

¹⁰ UP's Data Warehouse purportedly consists of 2 data centers, 359,346 programs, 76,653,381 lines of code, 34.7 terabytes of storage, and a 5.5 terabyte warehouse. AEPCO has every confidence that the costs of the warehouse are reflected in UP's variable costs.

five weeks later (and three weeks before AEPCO's Opening Evidence was due), BNSF's counsel told AEPCO that "As to your request for databases and programs, we object to producing databases and programs, as opposed to the output of those databases and programs, which we have already provided."¹¹

UP's presentation and BNSF's reply thus indicate that the carriers have the capability to produce additional information and/or to utilize more extensive capabilities beyond those provided to AEPCO in discovery, and that the Railroads have no intention of making that information available to assist shippers in their rate cases. Accordingly, shippers must, of necessity, work only with the data that the Railroads have chosen to provide and its inherent limitations.

**C. Difficulties in Matching Train and Revenue
 Data and Need for Adjustments**

Since the Railroads produced their train movement and revenue information in separate data bases, AEPCO's development of the ACE's traffic group consists in large part of matching trains from the train file with cars and revenues from the traffic tapes. Where a SARR handles primarily unit train movements, the task is greatly facilitated because the shipper can use waybills that cover multiple car movements on a single

¹¹ BNSF produced its belated response only after some prompting. On January 2, 2003, BNSF had sent an email response (Attachment 4) to an inquiry from AEPCO, stating that "we are in the process of tracking down the answer to your inquiry and will get back to you as soon as we have a response." On January 17, 2003, AEPCO had sent a follow-up letter (Attachment 5), asking where the response was. BNSF sent its response later that day.

waybill from a common origin to a common destination using a common route to associate cars with individual train movements. However, AEPCO's SARR involves a large proportion of non-unit train traffic,¹² for which waybills are of little use as each car or container may move on a separate waybill, as contrasted with unit trains, where more than one hundred cars may share a single waybill that appears in the revenue data.

Where (and to the extent) possible, AEPCO matched the traffic tape information to the train movement records, i.e., if the train file said there were 100 loaded/revenue-producing cars on a train, AEPCO attempted to find the 100 cars in the traffic tapes.¹³ In many cases, it was possible to make a 100% match; AEPCO assumes that such instances are not the subject of the Railroads' current complaints. However, in other cases, the match is not perfect because all of the records do not link up, and it becomes necessary to make appropriate adjustments.

The need for the adjustments is clear and compelling: the train movement files plainly show that the trains contained revenue-producing cars, and there is no reason to think that the train movement data – provided by the carriers and represented to

¹² The non-unit train traffic includes not only intermodal, but also manifest (both normal and priority), automotive, and agricultural products.

¹³ This linking process is described in "UP Traffic Analyses.doc" and "BNSF GF Traffic.doc" in AEPCO's electronic workpapers for Part III-A-2 of its Opening Evidence. UP is correct in asserting that approximately 100 computer programs are utilized in the process (although some of the programs are more accurately characterized as routines). The numerous programs are needed to reaggregate the data that the Railroads have produced in a disaggregated form.

constitute data to be relied upon – is defective in this regard. If the traffic data does not provide a corresponding carload or other revenue unit, there is no sound reason to think that the revenue-producing cars did not move. The far more plausible explanation is that there is some sort of defect in the traffic tapes designed by the Railroads and provided to AEPCO. Under the circumstances, there is no sound reason to exclude the movement from the universe of traffic available to the SARR. The far more appropriate approach, which AEPCO has utilized, is to assume that the missing and/or unfound revenue data would have yielded a movement whose revenue was equivalent to that of the other traffic for which a match could be made.

In this regard, the statement in the Klick/Murphy V.S. at 4 that “no revenue data were missing from the traffic databases produced by UP and BNSF in discovery” is misleading (deliberately so, in AEPCO’s opinion). The statement may well be technically true, but it in no sense demonstrates the lack of need for, or error in, AEPCO’s adjustment. The traffic data may well contain the complete set of revenues, but unless the data can be matched to a particular train, the data might as well be missing altogether. The traffic tapes are simply flat data files consisting of sequential records of “all” the revenue units for a given period of time, and they are not designated by any information that indicates the route they traveled. Without a matching data field, there is no ability to identify the revenue as having been derived from trains moving over the SARR’s route.¹⁴

¹⁴ The matching files are shown in AEPCO Op. Exhibit III-A-2.

It is the equivalent of looking for a needle in the haystack: it may well be there, but one will never find it. Furthermore, the Railroads' ability to claim that no movements are missing from the traffic tapes means they have some ability to check the integrity and accuracy of the data that is not available to AEPCO. Were that means available to AEPCO, there might well have been no need to make the type of adjustments that AEPCO properly made in its Opening Evidence.

D. Adjustment for Intermodal Traffic

A similar adjustment is required for intermodal traffic, although the task is complicated, as UP indicates, by the lack of information as to the number of trailer/container units ("TCUs") per railcar. As UP notes, its train movement file contains only the number of railcars (which are identified as to whether they are loaded or empty), and the revenue and car movement files contain the TCUs.

In many cases, AEPCO was able to associate the trains with specific TCUs using a combination of all three files. However, for numerous intermodal flat cars it was not possible to make the linkage. Knowing that the flatcars carried some TCUs (or else they would have had a different designation on the train data), AEPCO needed to calculate the number of TCUs.

More specifically, with respect to intermodal trains, the UP train file identified each intermodal train, by train identification number and date, traversing the ACE route along with the number of loaded and empty railcars in the train. (See AEPCO Op. Exhibit III-A-2, pp. 3-4.) The loaded cars reflect the equipment for which UP

received revenue. Once the train was identified, individual loaded TCU's for that train could be found in the UP car movement file.¹⁵ Then, the revenue associated with the individual TCU's was identified from the UP revenue file (see AEPCO Op. Exhibit III-A-2, page 3). However, as AEPCO noted in its Opening Evidence, not all loaded cars shown in the train file were found in the car movement file; nor were all loaded TCU's shown in the car movement file found in the UP revenue file. Thus, AEPCO was forced to impute an average revenue (and number of revenue TCU's) to the remaining loaded railcars.¹⁶

As UP notes, AEPCO used a figure of 2.0 TCUs per railcar where it was not possible to make a linkage. AEPCO believes that its figure was necessary, reasonable, and actually quite conservative. In particular, analysis of BNSF data addressed on

¹⁵ For intermodal trains, the car initial and number in the UP car movement file equaled the identification number of the trailer or container (TCU), not the identification number of the flat car transporting the trailer or container.

¹⁶ UP attempts to discredit AEPCO's methodology by implying that a car containing empty (or non-revenue) TCU's can be counted as a loaded car in UP's train movement file (although UP presents no data to quantify the magnitude of this supposed problem). If this is true, then UP has not followed the definition of loaded cars as prescribed by the Board. Instruction (H) to Schedule 755 of the Annual Report Form R-1 states that the railroads should "Report miles made by flatcars carrying loaded highway trailers or empty highway trailers moving under revenue billings as loaded freight car miles and miles made by flatcars carrying other empty highway trailers as empty freight car miles" (emphasis supplied). Instruction (P) to Schedule 755 states that "Each car moving under revenue billing shall be considered as a loaded car." Therefore, if UP is moving empty TCU's, the railcars are properly considered loaded railcars only if UP receives revenue for at least one TCU on the car. If no revenue is received, then the UP train file should classify the railcars (and TCU's) as empty cars (and TCU's).

opening indicates that the average TCU/railcar ratio for BNSF is [REDACTED], and such a figure is consistent with the general knowledge of AEPCO's consultants, L.E. Peabody & Associates, Inc.¹⁷ In considering whether a figure of 2.0, or [REDACTED], is too high, it is important to recognize that trailers/containers may vary by size, they may be double-stacked (especially on the route of AEPCO's SARR), and that it is easily possible to load six (or more) containers on a doublestack intermodal railcar.

Furthermore, it is important to scrutinize the precise wording of the Klick/Murphy criticism of AEPCO's procedure very carefully. The Klick/Murphy V.S. states at p. 8 n.7 that "a figure of two *overstates* the number of *loaded* TCU's (including revenue empties) per loaded intermodal car, which is the figure AEPCO needed to make a

¹⁷ AEPCO addressed this matter in its March 3, 2003 response to the Railroads' February 27, 2003 supplemental workpaper requests:

8. With respect to ACE Non-Coal Traffic and Revenue Forecast.xls at worksheet titled "ACE UP 2001 Traf. and Rev," provide all workpapers underlying the following statement in footnote 1: "1/ Assumed 2 units (trailer or container) per flat car. Based on ICC Statement IS4-69 (1.83 units per car for Western railroads) and 2001 BNSF revenue traffic data for ACE traffic ([REDACTED])."

Response: The basis for the first portion of the footnote (an assumed 2 units per flat car based on ICC Statement IS4-69) can be found in Surface Transportation Board's ("STB") BNSF or UP URCS unit costs for 2001, both of which are publically available electronic files available from the STB. The basis for the second portion of the footnote ([REDACTED]) is based on the query "CarTest.qpr" contained in the enclosed disk, which summarizes BNSF revenue car data stored in the file "BNCar2001.dbf" provided with AEPCO's Opening Evidence electronic workpapers.

relevant conversion from loaded TCU's from the UP traffic data to loaded cars on the train movement file" (original italics; emphasis added). While Klick/Murphy thus criticize AEPCO's adjustment as being too large, they acknowledge that "a relevant conversion" is needed, and they carefully avoid stating what the correct figure is (and certainly do not claim that the correct factor is 1.0) or explaining how it could be derived.

Their statement, like most of UP's filing, is thus an exercise in sophistry and evasion. While UP criticizes AEPCO's approach as producing a figure that is too high, UP nowhere states what the correct figure would be (with one limited exception addressed infra).¹⁸ It certainly has the data available to do so in its reply evidence.

Again, AEPCO believes that its procedures were necessary, appropriate, and reasonable in light of the limitations and gaps in the data produced by the Railroads. AEPCO acknowledges that some other adjustment figure – either higher or lower – might be more appropriate, if additional information were provided. But UP, despite its full understanding of the predicament confronting AEPCO (which, indeed, the Railroads created), has supplied none of that information (which, to the extent it favors the Railroads, should likely be barred outright because it was not originally produced in discovery). UP has thus not identified any basis for requiring AEPCO to refile its

¹⁸ Accordingly, even if AEPCO were inclined to make a correction based on the data provided in discovery, AEPCO would have no idea what precise correction to make given the Railroads' production of dis-aggregated revenue and train/car movement data. The Railroads are fully capable of making (and explaining) any needed corrections in their reply evidence.

Opening SAC Evidence, or dismissing AEPCO's complaint, especially as UP's filing provides no insight as to what UP considers to be the "relevant conversion" to be made.

UP (Klick/Murphy V.S. at 9 to 10) further chastises AEPCO for having treated priority manifest trains designated as "Q" trains as intermodal trains, and explains that "Before July 2001, 'Q' was a designation applied to stack trains other than APL, but that designation was changed and provided to AEPCO in discovery." Indeed, AEPCO did rely on a document produced by UP in discovery (UP document Bates Nos. E-9363-9365), but UP claims in its Petition that another document, U-A-C 027359, indicates that the "Q" designation was changed. That document was provided to AEPCO on December 16, 2002 (see Attachment 6),¹⁹ the day before UP advised AEPCO that "[t]he record layout, field descriptions, and data definitions [in the train data] should be the same as those contained in the Western Resources documents discussed above," which included Bates Nos. E-9363-9365. See Attachment 7. AEPCO's error (if any) should thus be readily understandable to UP's consultants.²⁰

Moreover, the error is of no consequence. Assuming UP is correct, the effect is to overstate 2001 SARR traffic volume by [REDACTED] tons and 2001 SARR revenue by [REDACTED], which reduces the percentage reduction by [REDACTED] per

¹⁹ December 17, 2003 was actually the day after the formal close of discovery. See the Board's scheduling order served November 27, 2002.

²⁰ UP has not explained whether it revised its train data for the first half of 2001 to reflect the redesignation of its "Q" trains.

ton (the resulting rate becomes █████ per ton rather than █████ per ton). Whether or not AEPCO's treatment was correct, the SAC remains far below the jurisdictional threshold of █████.

In any event, UP's contentions regarding the proper treatment of "Q" trains belong in its reply evidence, not in a petition to require a shipper to refile its opening evidence or face dismissal of its complaint. UP's use of a motion to dismiss to present such claims is simply not an appropriate use of the Board's processes.

E. Alleged Overstatement in BNSF Intermodal Revenues

UP alleges that AEPCO has vastly overstated BNSF's traffic in ways that should have been immediately apparent to AEPCO. In this instance, UP provides some quantification of the alleged overstatement, although the allegation is misdirected:

Indeed, AEPCO's adjustments for BNSF cross-over traffic are even more obviously wrong than the adjustments AEPCO applied to the UP traffic – in ways that should have been obvious to AEPCO had it paused to perform a reality check on its own figures. For example, for 2001, AEPCO's adjusted revenue figures show as much revenue earned on intermodal traffic moving over BNSF's east-west line between Defiance and Vaughn as BNSF earned on all of the intermodal traffic moving anywhere on its entire system, even though we know from available sources that the BNSF east-west line that is replicated by the ACE handles far less than all of BNSF's intermodal traffic.

Klick/Murphy V.S. at 11 (footnotes omitted). In n.9, Klick/Murphy claim that the publicly-available figure for BNSF from the 2001 Form 10-K is \$2.6 billion, "similar to what AEPCO claims would move over the ACE."

The claims are replete with errors. The \$2.6 billion figure is from BNSF's 2000 10-K (although the actual figure, \$2.654 billion, rounds to \$2.7 billion). See Attachment 8. The BNSF 2001 10-K does not list an aggregate revenue figure for intermodal, although it does list \$3.4 billion for consumer products, \$2.1 billion for industrial products, and \$1.5 billion for agricultural products. See Attachment 9.

More importantly, the volume of intermodal traffic claimed by AEPCO for the BNSF Defiance-Vaughn segment for 2001 is not \$2.6 billion, but is instead [REDACTED].²¹ The 2001 intermodal traffic of AEPCO's SARR thus corresponds to [REDACTED] of BNSF's 2000 total, which is an entirely reasonable relationship (particularly as the Petition provides no quantification for the intermodal traffic in BNSF's Chicago-Denver and Chicago-Texas corridors). Moreover, AEPCO's total non-coal traffic for its BNSF segment for 2001 is only [REDACTED].²² In contrast, BNSF's total non-coal traffic in 2001 was \$6.9 billion, of which the ACE's share equates to [REDACTED].

In short, the aggregate revenue figures for AEPCO's SARR traffic do not reveal any errors by AEPCO. Consideration of the Petition's error-ridden allegations,

²¹ See Summary of BNSF Revenue from Intermodal Trains (Train Types "B," "P," "Q," "S," and "Z"), as Classified from BNSF/AEPCO-01265 provided by BNSF in discovery (and included in AEPCO's Opening Workpapers at Vol. 4, p. AEP-02026).

²² See AEPCO Opening Workpaper "ACE Non-Coal Traffic and Revenue Forecast.xls." It should be noted that the ACE's share is considerably less as the figure reflects the total through revenue, not the ACE's division.

however, suggests an intent to exaggerate, mislead, and deceive on the part of the Railroads.

F. The Petition's Claims are Unfounded

The foregoing analysis reveals that UP's core claims – that it cannot or does not understand AEPCO's SARR traffic group, and/or that there is some fundamental flaw in AEPCO's derivation of that traffic group – are completely unfounded. The specific (albeit specious) criticisms presented by UP demonstrate that the Railroads fully understand both (a) AEPCO's general approach, which, as plainly stated in Part III-A of AEPCO's Opening Evidence, was needed to capture essentially all of the overhead freight traffic moving over the ACE's routes plus unit train coal traffic traversing the lines,²³ and (b) the specific adjustments AEPCO made to value that traffic.

There is thus no basis for granting UP's Petition either to require AEPCO to refile its Opening Evidence or to dismiss the AEPCO's complaint. The Railroads are entirely capable of presenting whatever criticisms they have in their Reply Evidence due

²³ UP (Klick/Murphy V.S. at 7) feigns some confusion as to whether AEPCO intended to include some movements (particularly those that involved the Pacific Northwest and Utah) in the ACE's traffic base. In fact, AEPCO excluded all movements that did not traverse the ACE's route – including railcars that were initially in trains that ultimately traversed that route but were removed prior to reaching the ACE lines – by examining and comparing the train, car and revenue data (and UP does not allege otherwise). Because of the inherent difficulties in working with UP's data, many of these exclusions were performed manually. Such movements also did not figure into AEPCO's "adjustment ratio," as the adjustment was calculated based on revenue data for cars that were included in the ACE traffic group for which a definitive link was made between the train movement data and the revenue data.

May 27, 2003, and they should, in accordance with Board precedent, proceed to do exactly that.

To the extent UP and BNSF had any legitimate questions, they could have, and rationally would have, chosen a different course of action. That course might have included filing a more timely motion, submitting additional workpaper requests that actually noted the nature of their alleged confusion, or even contacting counsel for AEPCO by telephone. Any of these actions would have been more appropriate than what the Railroads have done here.

In that regard, AEPCO (meaning in this case its counsel and consultants) take strong exception to UP's suggestion that if AEPCO felt it was unable to work with the Railroads' data appropriately, then AEPCO should have contacted the Railroads before filing its Opening Evidence. As explained supra, AEPCO believes that it understood quite well the data produced by the Railroads, including its limitations (introduced deliberately or not). That evidence, and particularly the "decoders" and other materials required to process the machine readable data were produced relatively late, leaving no time for consultations that, based on past experience, and the sustained practice of railroad defendants of making rate cases as difficult as possible for shippers, would likely have been fruitless.²⁴ Moreover, as confirmed by the January 17, 2003 letter

²⁴ Indeed, AEPCO's counsel and consultants recall another recent case involving a different railroad and shipper, but the same consultants, in which the shipper was simply unable to link different railroad data sources. The shipper did ask the railroad consultants for assistance in linking the data, but was told squarely that "We're not going to do your

from BNSF's counsel, the Railroads have no intention of sharing additional programs and data sources beyond that which they are willing to produce in discovery.

In short, the Railroads' criticisms have not been shown to have any foundation, although they plainly demonstrate that the Railroads understand fully the matters as to which they profess ignorance. There is no basis for granting either of the forms of relief requested, and the Railroads should be expected to file their Reply Evidence in accordance with the existing procedural schedule.

**III. AEPCO's Supposed "Failure" to Make a Prima Facie
Showing Regarding Off-System Revenues and Costs
Does not Excuse UP from Filing Reply Evidence**

UP also contends that the Board should require AEPCO to file new opening evidence – or should dismiss AEPCO's Complaint – because AEPCO supposedly failed to make a necessary demonstration that the divisions it has employed for cross-over traffic yield off-system revenues that exceed off-system costs. UP's contention, like the many unsuccessful BNSF and UP efforts to thwart the use of cross-over traffic in prior SAC cases, is both procedurally improper and substantively wrong. Nothing in Board precedent gives UP any basis for claiming that AEPCO's supposed "failure" to make such

work for you." Given such past experience, there should be no question as to the speciousness of UP's suggestion that AEPCO should have contacted the Railroads.

a detailed revenue/cost showing excuses UP from filing its Reply Evidence on May 27, 2003.²⁵

Significantly, during discovery in this case, both carriers refused to provide requested information on divisions, with UP flatly objecting on the basis that “rate division data is irrelevant in STB rate cases and therefore non-discoverable,” and BNSF similarly claiming that AEPCO’s request sought “information that is neither relevant nor reasonably calculated to lead to the discovery of admissible evidence.”²⁶ Having refused to produce division information on the grounds of relevance, the Defendants should be estopped from demanding that AEPCO resubmit opening evidence (or face dismissal) for failure to make a “particularly significan[t]” showing as to how associated costs relate to revenue divisions.

Notwithstanding the lack of divisions data from the Railroads, AEPCO’s Opening Evidence demonstrated the commercial reasonableness of AEPCO’s use of the Board’s established modified mileage block prorate methodology to calculate divisions on non-coal. AEPCO’s Opening Evidence at III-A-30 to 32, sponsored by John P. Toren, the former Vice President-Sales & Marketing for Intermodal and Consumer Products for

²⁵ UP never explains why AEPCO’s alleged silence on the issue prevents UP from pursuing the matter in its Reply Evidence.

²⁶ See UP’s Responses to Complainant’s Interrogatories and Request for Documents, at 39 (emphasis added), and BNSF’s Responses and Objections to Complainant’s Interrogatories and Requests for Production of Documents, at 33. Both UP’s and BNSF’s objections are reproduced in AEPCO Op. electronic workpaper “AEPCO Divisions Discovery.pdf.”

the former Chicago and North Western Railway ("CNW") with over thirty years' experience in railroad sales and marketing,²⁷ squarely addressed the relationship of the intermodal revenues and costs. Mr. Toren explained that the modified mileage block methodology left the residual incumbent with not just an acceptable, but a commercially desirable, revenue division, notwithstanding the terminal costs, which are often not borne entirely by the carrier:

Mr. Toren has concluded that application of the modified mileage block prorate method to intermodal traffic ... provides a sound approximation of the division that a bridge carrier in the ACE's situation would receive for handling intermodal traffic.[]²⁸ The longer hauls reflect higher total revenues, and the additional mileage blocks for the origin/destination terminal operations provide a reasonable level of compensation for those services, particularly considering that their cost often is not borne directly or entirely by the railroad. Mr. Toren further adds that there is nothing inherently problematic in the use of a bridge carrier for this purpose, particularly where (as here) the bridge carrier receives and delivers complete run-through trains, intact.

Id. at III-A-31 to 32 (emphasis added). Mr. Toren's analysis confirms the reasonableness of the ACE's divisions on the cross-over traffic.

Moreover, it is appropriate to note that the ACE's operations do not leave the residual incumbents with low-density movements over short segments that have

²⁷ See AEPCO Op. at IV-16 to 17 (setting forth Mr. Toren's qualifications).

²⁸ Mr. Toren noted that intermodal movements in the west are relatively long, which causes the terminal costs to become a smaller portion of the total cost of service. He further noted that the shipper and other parties sometimes share in the lifting costs.

proved problematic in other instances. Instead, the residual incumbents are left with long hauls over very high-density lines, *i.e.*, the remainder of major transcontinental routes.²⁹ Additionally, AEPCO objects strongly to any claim that a shipper on opening should be required to undertake a detailed cost analysis of all off-SARR cross-over traffic.

A. UP's Misstatement of Board Precedent

UP, at p. 13 of its Petition, claims that "settled Board precedent" requires AEPCO to make a prima facie showing on opening that "UP and BNSF would retain sufficient revenues to cover the 'off-line' costs associated with [] cross-over traffic." While AEPCO agrees that Board precedent is settled, the precedent stands for the opposite conclusions: (1) where, as here, railroad defendants withhold division information, the Board will rely upon simplifying assumptions regarding off-system revenues and costs; (2) to the extent defendants seek to introduce additional information on reply, shippers may certainly introduce additional information on rebuttal; and (3) when defendants withhold in discovery information regarding their actual divisions, they will not be heard to complain about the use of approved methodologies for revenue divisions for cross-over traffic.

UP's first cited authority for AEPCO's prima facie obligation is Arkansas Power & Light Co. v. Burlington Northern R.R., 3 I.C.C.2d 757 (1987) ("Arkansas").

²⁹ If AEPCO had extended the ACE's lines to include additional territory, the Defendants doubtless would be heard to complain that AEPCO had introduced a cross-subsidy by including facilities not utilized by the issue traffic.

Arkansas did not impose any obligation upon the complainant to submit detailed revenue and cost findings for traffic moving beyond the route parameters of the SARR itself. Instead, the ICC explicitly found that the shipper could rely upon a simplifying “assumption” that interline traffic would cover its off-line costs, even though the complainant’s evidence was demonstrably insufficient to document actual revenues and costs for purposes of quantifying a maximum reasonable rate. Id. at 774-75.³⁰ Furthermore, the ICC did not place the burden of proof on the complainant, but instead based its findings upon: (1) the agency’s own familiarity with the route in question; (2) the significant volume of traffic and revenue associated with that route; (3) the shortness of the relevant gathering and distribution systems relative to the high density segments of the SARR system; and with greatest relevance to the instant inquiry, (4) the defendants’ failure to demonstrate that the complainant’s approach had improperly biased the rate analysis. Id. at 775.

The next “settled” precedent cited by UP, Omaha Public Power District v. Burlington Northern R.R., 3 I.C.C.2d 123 (1986) (“OPPD”), also granted the complainant the benefit of a simplifying assumption that off-system revenues would exceed off-system costs. This assumption even “permitted [the initial decision] to disregard off-line costs and revenues.” Id. at 139 (emphasis added). Moreover, rather than require complainants

³⁰ The Commission also rejected the “network” method of SARR design advocated by the defendants, in which all included traffic must be local to the SARR, because “tracking revenues and costs becomes impractical.” Id. at 773.

to make a prima facie showing, OPPD accepted the showing that the complainant made in response to Burlington Northern's challenge:

The Burlington Northern first challenged the absence of off-line costs and revenues in its evidence to the Administrative Law Judge. Omaha Power responded with exhibits that purported to show the total costs and revenues (including auxiliary costs and investments) under the "Appendix F" methodology for a group of unit train coal shippers constituting part, but not all, of the original CMV traffic.

Id. at 142 (emphasis added). A case where the agency accepts the complainant's responsive evidence and employs a simplifying assumption to dismiss a railroad argument that would have required an "extremely complex and expensive" evidentiary showing plainly does not constitute precedent for requiring a prima facie showing by complainants. Id.

In PPL Montana, the Board expressly stated that the complainant was not required to make the affirmative showing contemplated by BNSF:

BNSF also contends that PPL's SAC presentation should be rejected because PPL has not shown that the revenues allocated to the residual BNSF for all cross-over traffic movements are sufficient to cover the residual BNSF's stand-alone costs associated with those movements. We do not agree that such a showing is necessary.

Id. at 10 n.20 (emphasis added).³¹ Moreover, the Board went on to note that a residual carrier would agree to move traffic so long as the revenue division covers the carrier's "attributable" (i.e., directly variable) costs. This guidance as to the standard to be applied in the event of a claim by the defendants provides no support for UP's attempt to require shippers to make a prima facie showing, particularly as to a matter where defendants withhold potentially relevant information from shippers.³²

**B. UP's Petition Ignores the Board's Actual Precedent
on Divisions on Cross-Over Traffic**

Notwithstanding UP's efforts to require AEPCO to make a burdensome and detailed prima facie showing as to off-SARR costs of cross-over traffic, the Board has repeatedly upheld use of a mileage-block approach for calculating revenue divisions, particularly where, as here, defendants withhold production of division information in discovery.

³¹ In footnote 19 on the same page the Board expressed concern that requiring such a showing "could very well eliminate the usefulness of including cross-over traffic in a SAC analysis."

³² The only other authorities cited by UP in support of its argument are McCarty Farms, Inc. v. Burlington Northern, Inc., 2 S.T.B. 460, 468 (1997), where the Board "seriously questioned," but did not rule upon, the feasibility of a SARR system which stranded BN branch lines from the balance of the BN system, and Docket No. 42056, Texas Municipal Power Agency v. The Burlington Northern and Santa Fe Ry., (STB served March 24, 2003), where the Board rejected on the merits complainant's effort to re-route certain cross-over traffic without adequately addressing potential off-system operating problems and off-system costs. Neither case provides any support for UP's claim regarding the ACE, which does not isolate the residual incumbents' branch lines from the rest of their systems or reroute any non-coal cross-over traffic.

For example, in Bituminous Coal – Hiawatha, UT to Moapa, NV, 10

I.C.C.2d 259 (1994) (“Nevada Power II”), which UP completely ignores, the ICC used a mileage prorate, consistent with its staff’s analysis of revenue divisions on historically interlined traffic:

This leaves the issue of how revenues should be allocated between the SARR and the incumbents for this cross-over traffic. In the absence of any better evidence, we will prorate the revenues attributable to the cross-over traffic among the SARR and incumbent carriers on a mileage basis, as proposed by NPC. This approach is consistent with the treatment in our staff’s preliminary analysis of historically interlined traffic for which actual (market-based) divisions are not available. See [Bituminous Coal – Hiawatha, UT to Moapa, NV, 6 I.C.C.2d 1 (1989)], at 45-46.

10 I.C.C.2d at 268 (emphasis added).

The Board has used a modified version of the mileage block prorate methodology in a number of subsequent cases, such as its recent TMPA decision:

Normally, when two or more railroads serve a shipper in joint-line service, they negotiate a market-based revenue division of the rate.[] Lacking information to determine BNSF’s typical percentage division in various market-driven situations, TMPA divided the revenues on cross-over traffic between the GCRR and the residual BNSF based on the modified mileage block prorate (MMBP) method that has been used in prior SAC cases. . . . [W]e use TMPA’s evidence.

Id. at 31. The Board also utilized that approach in Docket No. 42022, FMC Wyoming Corp. v. Union Pacific R.R., (STB served May 12, 2000) at 30-31, where UP had refused to produce divisions information during discovery:

[I]n withholding from FMC division information for all UP movements, UP denied FMC the opportunity to produce an alternative algorithm that might be more suitable for estimating market-based divisions for these movements. Thus, in the absence of any better evidence, we use FMC's modified mileage prorate method to estimate ORR divisions for these movements.

... It is inappropriate for UP to deny FMC access to actual division data and then to rely on division sheets to rebut the modified mileage block prorate method for only selected traffic. Consequently, we adhere to the use of the modified mileage prorate method here.

Id. at 30-31.

UP itself appears to have advocated use of the modified mileage block prorate method in Docket No. 42051, Wisconsin Power and Light Co. v. Union Pacific R.R., (STB served Sept. 13, 2001) at 24. Moreover, nothing in Wisconsin suggests that UP claimed that the shipper failed to make a necessary prima facie showing. As Wisconsin was served 4-15 years after the "settled" precedents cited by UP, one can only conclude that UP's current view is a very recent concoction.

C. AEPCO's Opening Evidence is Entirely Adequate Under the Board's Actual Precedent and the Circumstances of this Case

The precedent reviewed supra demonstrates that defendants that withhold information as to their divisions may not challenge a shipper's use of the modified mileage block prorate method to calculate SARR divisions on cross-over traffic.

As noted supra and explained in AEPCO's Opening Narrative at III-A-27 to 28, AEPCO sought the information in discovery, but the carriers refused to produce the

information on grounds of relevance.³³ Under Nevada Power II, FMC, and TMPA, the railroads are thus barred from attacking AEPCO's use of the modified mileage block prorate method to calculate revenue divisions.

Moreover, AEPCO's Opening Evidence went beyond the Board's requirements in this respect. As noted supra, AEPCO included at Op. Narrative III-A-30 to 32 evidence sponsored by John Toren, the former Vice President-Sales & Marketing for Intermodal and Consumer Products for CNW prior to its acquisition by UP. Mr. Toren's testimony explained the commercial reasonableness of the results under the modified mileage block prorate, taking into account the associated costs of intermodal movements. AEPCO thus has more than met any applicable burden. While Defendants may disagree, their proper course is to file reply evidence (to the extent permitted in light of their discovery responses), not to impose any further burdens on AEPCO.

IV. Governing Precedent Sanctions the ACE Route Via Vaughn and El Paso, Including the Use of BNSF's Existing Trackage Rights Over UP, and the Fact Issues Raised by UP Should Be Addressed in Defendants' Reply Evidence

The final UP-alleged deficiency in AEPCO's opening SAC presentation concerns the SARR route for transporting coal traffic from ACE-served mines in New Mexico to Cochise, AZ. UP argues that the ACE route via Vaughn and El Paso is longer

³³ At III-A-27 n.22, AEPCO noted that BNSF, nearly two years after AEPCO served its discovery, produced certain limited divisions information solely regarding non-issue coal traffic. UP did not produce any divisions information in this case.

with more grades and curves and therefore less efficient than the present BNSF/UP route via Belen, Rincon and Deming, and fails to meet the transportation needs of the affected shippers (including AEPCO). UP further argues that AEPCO improperly assumes that the ACE can use BNSF's trackage rights over UP between Vaughn and El Paso in lieu of constructing its own north-south line either between Belen and Rincon (replicating the route presently used by BNSF) or between Vaughn and El Paso.

A. Efficiency of Vaughn/El Paso Routing

UP's claims regarding the efficiency of the ACE route are strictly factual in nature. They include: whether AEPCO included all of the ACE's costs in moving coal via the longer route, whether the ACE's cycle times for moving coal via Vaughn-El Paso will significantly exceed those of BNSF/UP via Belen/Rincon/Deming, and whether the ACE will meet the affected shippers' transportation needs and cover any of their additional costs. Under Xcel and McCarty Farms, fact questions of this kind should not be addressed in a procedural motion, but "are better left for an assessment on the merits after development of the full evidentiary record." Xcel at 2.

UP also argues (Petition at 20) that it and BNSF would never agree to route AEPCO's coal traffic via Vaughn-El Paso due to the inefficiencies and higher costs, and that a SAC presentation cannot be based on a "non-viable" real-world route. But the incumbents' real-world preferences are irrelevant from a SAC perspective. BNSF-UP could plainly use the Vaughn-El Paso route if they wanted to, and in the ACE's stand-

alone world, the Belen-Rincon-Deming route does not exist (and BNSF/UP certainly cannot retaliate on that basis).

Moreover, the Board already ruled in its decision served August 20, 2002 in this proceeding denying BNSF/UP's motion to bifurcate the determination of SAC from different origins ("August 2002 Decision"), that AEPCO's Vaughn-El Paso routing was permissible. Id. at 6.³⁴ Any different result would contradict the Coal Rate Guidelines, where the agency stated:

In selecting the route of a SAC railroad, for instance, an overriding factor may be the effort to lower costs by taking advantage of economies of density. Generally, a stand-alone railroad would attempt to fully utilize plant capacity, adding other profitable traffic in order to reduce the average cost of operation. Thus, the stand-alone railroad may not represent the shortest route for the captive shipper, but the one with the highest traffic densities. . . . [T]he optimal size and placement of the physical plant must be determined on a case-by-case basis.

1 I.C.C.2d 520, 543-44 (1985).

UP further asserts that, in the real world, "none of the affected parties could force the others to accept a reroute via Vaughn" (Petition at 21). This assertion confuses legal principles governing the establishment of joint rates and routes with SAC principles. Rail carriers initially have the rate and routing initiative, and the rates under challenge were established as joint rates with the interchange point at Deming, NM.

³⁴ The Board's only condition was that AEPCO had not requested the Belen-Rincon-Deming routing. AEPCO did not do so, as noted in AEPCO's Op. Narrative at III-B-1 n.1.

However, the SARR is not limited by the parameters established by the Defendants for their joint operations. The SARR must be able to provide service from the origins to the destinations involved, but the service is single-line service and the SARR need not provide it in the same manner or using the same route that the incumbents do. August 2002 Decision at 5-7.³⁵ Whether the affected shippers would “allow” the new route (Petition at 21), and its affect on their (and the SARR’s) service and costs, are factual matters that should be developed on the record, not decided on the basis of speculative allegations in a procedural motion.

**B. Propriety of ACE’s Use of BNSF Trackage
Rights Between Vaughn and El Paso**

Prior rate cases have routinely permitted SARRs to use the incumbent’s existing trackage rights over third party railroads in providing service for the issue and other (cross-over) traffic, rather than replicate those facilities by constructing them.³⁶ UP concedes that this approach is consistent with stand-alone theory “because the ‘theory of contestability is based on the assumption that both the entrant and the incumbent can

³⁵ “But BNSF and UP are themselves free to alter or vary their routing of AEPCO’s movement in this manner at any time (by mutually changing the interchange point) without needing AEPCO’s consent and without affecting the joint rate charged to (and challenged by) AEPCO.”

³⁶ See, e.g., Westmoreland Coal Sales Co. v. Denver R.G.W. R. Co., 5 I.C.C.2d 1067, 1105 (1988); Nevada Power I, 6 I.C.C.2d at 57; Nevada Power II, 10 I.C.C.2d at 303 n.55; West Texas Utilities Co. v. Burlington Northern R.R., 1 S.T.B. 638, 673 (1996); Wisconsin, at 69; TMPA at 15 n.21 and 67 n.106.

employ the same productive technique, incurring the same costs” (Petition at 23, quoting Nevada Power I at 57).

However, UP then seeks to distinguish this precedent on the basis that AEPCO’s case involves joint service by two railroads, and that the ACE is using trackage rights of one defendant over a line of the other, rather than over the line of a third-party carrier. UP argues that the approach is improper because:

UP and BNSF together incur all of the costs associated with issue traffic moving over the entire route. It is these *total* costs that are necessary to “reproduc[e] the service capability” that are the relevant costs for stand-alone purposes.

Petition at 23-24 (citing the ICC’s 1983 interim Coal Rate Guidelines decision in Ex Parte 347 (Sub-No. 1) (original emphasis)).

UP’s argument still fails because it assumes that the ACE is replicating UP’s service between Vaughn and El Paso. However, the ACE is instead replicating BNSF service, *i.e.*, service that BNSF can provide using its existing trackage rights over UP’s line. The ACE is thus “reproducing the service capability” of BNSF, not UP. By changing the issue traffic’s route from Belen-Rincon-Deming to Vaughn-El Paso, AEPCO conceptually changed the interchange point for the joint BNSF/UP service from Deming to El Paso. Because BNSF has the capability of using its existing trackage rights to transport AEPCO’s (and other) coal trains between Vaughn and El Paso, UP’s position is conceptually that of a third-party rail carrier for purposes of the SARR routing

selected by AEPCO. The Board expressly approved that routing in its August 2002 Decision noted supra.

To be sure, as UP notes, the August 2002 Decision did not expressly address the use of trackage rights between Vaughn and El Paso as opposed to new SARR construction. But the Board accepted that exact principle for another portion of the route for both single-line UP Colorado-origin traffic and joint-line BNSF/UP PRB-origin traffic. The Board first held (id. at 7) that AEPCO's SARR for the single-line UP Colorado traffic was free to use BNSF's trackage rights over UP for Bond, CO-Denver, as well as UP's trackage rights over BNSF between Pueblo, CO-Stratford, TX. The Board's endorsement of AEPCO's use of BNSF trackage rights over a UP-constructed segment (Bond-Denver) for challenging a UP single-line movement is, by itself, sufficient to dispose of UP's key premise that a shipper cannot utilize trackage rights that one defendant has granted to another defendant, but must instead construct the line involved. However, the Board went on to hold respect to issue traffic transported under joint rates:

These guiding principles—that a SARR may replicate the cost-sharing arrangements but may not hypothesize non-existent revenue or cost-sharing arrangements—apply with equal force to SARRs designed to test the BNSF-UP joint rates from the PRB and New Mexico origins. Thus, for each segment of a route used to test the respective joint rates, only the traffic and revenues of the carrier whose portion of the route is being replicated should be included in the SARR's traffic group. But the SARR may be assumed to have the same cost-sharing arrangements as the defendant carriers have on each segment, so long as the terms of those

arrangements (including operational provisions and terms of compensation) are the same as those applicable to the defendant carriers.

Id. (emphasis added).

The ACE's use of the BNSF trackage rights over UP's line between Vaughn and El Paso complies precisely with the Board's August 2002 Decision. The ACE is doing nothing more than stepping into the BNSF's shoes under the terms and conditions of the presently-applicable UP/BNSF joint facility agreement.³⁷ AEPCO has carefully limited the ACE's traffic over the segment to coal traffic that BNSF has the present right to move over this line, and AEPCO has excluded all UP traffic moving over the line. The ACE is thus replicating a BNSF route, not a UP route. Thus, AEPCO's decision to use the existing BNSF trackage rights rather than construct a line between Vaughn and El Paso is entirely in accordance with the August 2002 Decision.³⁸

Although the issue should be regarded as settled by the August 2002 Decision, UP makes one additional argument (Petition at 23-24) against the ACE's use of trackage rights that warrants a brief response. This argument is that because the

³⁷ See AEPCO's Opening Narrative at III-A-6 (including n. 3) and III-D-71.

³⁸ UP's Petition at 23 cites Potomac Electric Power Co. v. Conrail, 367 I.C.C. 532 (1983), as "rejecting use of trackage rights fees rather than cost of constructing or purchasing line for stand alone purposes [sic]." However, that case involved a situation where a shipper unsuccessfully tried to extend an incumbent's trackage rights over a relatively short line segment being used by a SARR to the entire SARR system. Id. at 551-53. Here, consistent with the August 2002 Decision, AEPCO is not proposing any extension of existing shared-use arrangements.

incumbents built north-south lines to connect their east-west lines serving the origins and destinations, and at least one of these north-south lines is physically necessary to move the issue traffic, the ACE must also build a north-south line if the full costs incurred by the Defendants to move the issue traffic are to be recovered. This argument ignores the facts that (1) BNSF plainly has the ability to move the subject coal traffic over the UP trackage rights line; (2) as a least-cost efficient replacement for an incumbent with no barriers to entry, a SARR has the right to “step into the incumbent’s shoes” under a joint facility agreement and use that agreement to provide service that the incumbent is capable of providing; and (3) the fee paid by a tenant under a joint facility agreement such as the one in issue here normally includes a factor to compensate the owner for a pro rata portion of its investment in the line being used. UP has presented no evidence to the contrary here.

In summary, AEPCO believes the facts as developed on the full evidentiary record will fully justify the ACE route via Vaughn and El Paso for the issue and other coal traffic. The ACE’s use of BNSF trackage rights over UP’s line between Vaughn and El Paso is fully consistent with established precedent, and, absent a reversal of that precedent, AEPCO has no intention of altering the ACE’s route, configuration or the traffic moving over the Vaughn-El Paso line segment at a later stage of this proceeding.

CONCLUSION

For the reasons stated above, the Board should deny UP's Petition and permit the continued development of the evidentiary record with respect to the issues raised by UP in accordance with the established procedural schedule for this case.

Respectfully submitted,

ARIZONA ELECTRIC POWER
COOPERATIVE, INC.

By: Patricia E. Cooper
Chief Legal Officer
Arizona Electric Power Cooperative, Inc.
100 S. Highway 80
Benson, AZ 85602

OF COUNSEL:

Slover & Loftus
1224 Seventeenth Street, N.W.
Washington, DC 20036

Dated: May 7, 2003

William L. Slover
Robert D. Rosenberg
Christopher A. Mills
Andrew B. Kolesar III
Daniel M. Jaffe
1224 Seventeenth Street, N.W.
Washington, DC 20036
(202) 347-7170

Attorneys for Complainant

CERTIFICATE OF SERVICE

I hereby certify that on this 7th day of May, 2003, I caused a copy of the foregoing Reply to be served by hand upon counsel for Defendants, as follows:

Samuel M. Sipe, Jr.
Anthony J. LaRocca
Cynthia L. Quarterman
Steptoe & Johnson, LLP
1330 Connecticut Avenue, N.W.
Washington, DC 20036

Carolyn F. Corwin
David L. Meyer
Michael L. Rosenthal
Covington & Burling
1201 Pennsylvania Avenue, N.W.
Washington, DC 20004



Andrew B. Kolesar III

**II-A Quantitative
Market Dominance**

Exhibits II-A-30 to II-A-32
Have Been Redacted.

**The Railroads Have Not Demonstrated That Their
Account 90 Projects Are of “Short Duration”**

In this exhibit, AEPCO shows that neither UP nor BNSF has demonstrated that their Account 90 projects are of “short duration.” Cf. TMPA at 42.¹ In fact, neither UP nor BNSF has presented any evidence whatsoever regarding the year 2002 even though the Railroads have developed their year 2002 URCS assuming that their Account 90 projects have been of short duration. Certainly, Account 90 should not be included in the development of the 2002 BNSF and UP URCS. Below, AEPCO shows that neither UP nor BNSF has justified inclusion of Account 90 in the development of the year 2001 URCS either.

At pages II-26 and Exhibit BNSF.UP II-A-4 of their Opening Narrative, the Railroads present data allegedly supporting the position that their Construction Work in Progress projects are completed within one year. However, their conclusions are based on a qualitative interpretation of the meaning of the Account 90 data. The Railroads did not provide either the age of the Account 90 projects themselves, or the actual duration of those projects.

The Railroads assert that their Account 90 monies should be included in the variable cost determination for the Apache movement because the construction projects

¹ UP did not even provide the data required to assess their analysis until May 20, 2003 (see infra), too late for AEPCO to include in its Reply analysis submitted on May 27, 2003.

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associated with these monies are “of relatively short duration.”² In WPL the Board defined the term “relatively short duration” as “completed in one year.”³ In TMPA, the Board, based on the rule announced in the WPL case, permitted BNSF to substitute Account 90 monies for Account 76 monies because “BNSF has provided evidence that its Account 90 expenses involve only short-term construction projects.”⁴ In the instant proceeding, however, the Railroads have failed to demonstrate that all of their purported Account 90 expenses involve only construction projects that take less than a year to complete.

1. UP Account 90 Projects Have not been Shown to be of Short Duration

The Railroads, in their Opening Exhibit II.A.4 at pages 7 to 9, discuss the amounts contained in UP’s Account 90 indicating that “the expenditures that UP records in Account 90 relate to projects that are generally completed within one year.”⁵

UP purports to have reached this conclusion by:

² See Joint Reply at II-5.

³ Id. at 39-40.

⁴ TMPA at 40.

⁵ At page 7 of 9 Exhibit BNSF/UP II.A.4.

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1. Examining the charges in Account 90 as of January 1, 2003.⁶
2. Reviewing expenditures for the twelve-month period from February 2002 to January 2003 to determine how long it took to move labor and material charges from Account 90 into UP’s road property and equipment accounts.⁷

In support thereof, UP provided two electronic work papers: (i) “UP Account 90.xls;” and (ii) “UP WIP_Passed_2002.xls.”

To evaluate the reasonableness of the UP’s conclusion, AEPCO first reviewed the information contained in the two electronic spreadsheets that were provided. First, AEPCO found with respect to the UP’s Work in Progress as of January 1, 2003,² that { } that UP shows in Account 90 had been in Account 90 for over one year as of January 1, 2003. In fact, this { } had already been in Account 90 for { } as of January 1, 2003.⁸

Obviously, these charges will be in Account 90 for even longer before they are closed and moved to their respective road property and equipment accounts. When the average time spent for open amounts in Account 90 at any given point in time is measured, that provides only a snap shot and not a final determination of how long those dollars will

⁶ Electronic work paper “UP Account 90.xls.”

⁷ UP Table BNSF/UP II.A Ex.4-3 and electronic work paper “UP WIP_Passed_2002.xls.”

⁸ Electronic work paper “AEPCO UP Account 90 Feb 02 - Jan 03.xls.”

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remain in Account 90. Those dollars could remain in Account 90 for far longer than the 27 months reflected by the UP’s snap shot.

With respect to the Summary of UP Account 90 Charges Closed Out February 2002-January 2003,⁹ it is important to note that of the { } in UP’s Account 90, { } in charges { } were over one year old when they were moved to their respective road property and equipment accounts. Based on UP’s data the “average age,” to use their term, of this { } was { }.¹⁰ Comparing their data on a monthly basis, the average age ranged from { } at the time the charges were closed out. This is not a “relatively short duration.” The magnitude of the dollars and the time in Account 90 is certainly more than the “occasional” major project that remains in Account 90 for more than one year that the UP would have AEPCO and the Board accept as a given.¹¹

In addition, it must be noted that the time frame covered in the UP electronic spreadsheets does not coincide with the time frame of the 2001 URCS utilized in this case. Also, there is no assurance that the results of this current study would mimic those of other years, specifically 2001. UP (and BNSF) include Account 90 in the

⁹ UP WIP_Passed_2002.xls.

¹⁰ “AEPCO UP Account 90 Feb 02 - Jan 03.xls.”

¹¹ Exhibit BNSF/UP II.A.4 Page 7 of 9.

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development of their 2002 URCS even though neither UP nor BNSF presented any data regarding the alleged “short term” nature of their construction projects in 2002.

It was only when AEPCO obtained supplemental information as the result of workpaper requests for the source documents related to “UP’s Account 90.xls” analysis and “UP WIP_Passed_2002.xls” that AEPCO discovered just how misleading the information provided by the Railroads in their Opening Evidence actually was.

Information contained in work paper responses “AEP5.dif” and “AEP6.dif” provided the source documents utilized to produce the amounts and dates of spending for each work order summarized in the UP’s electronic work paper file “UP Account 90.xls” and the transaction month and year for each work order included in “UP WIP_Passed_2002.xls,” respectively. The detailed information provided in AEP5.dif and AEP6.dif shows that the UP’s Account 90 expenses do not involve only short-term construction projects.

Even though the TMPA Decision called for a showing that Account 90 projects are of relatively short duration, the UP detailed information shows that their projects (work orders) for the most part are not of short duration but in fact often take years from the time of the first transaction to the time the project (work order) is finally completed.

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The UP’s work paper production “AEP5.dif” was to have provided the support for their original “UP Account 90.xls” information other than for the data that related to their PMIS system. The data related to the PMIS system, which was promised by UP, but only belatedly received, relates to Work Orders that are in Account 90 as of January 1, 2003. The information provided by UP included Work Order Number, Work Order Description, Year and Month of Transactions to the Work Order, and Actual Amount Expended. This detailed information confirms the impropriety of the Railroads’ “short duration” claims.

In particular, the UP records indicate that the total number of work orders open as of January 1, 2003 was { }. The total dollars shown for these work orders was { }, with { } of that total relating to work orders that were started twelve months or more before January 1, 2003. Significantly, however, UP’s records indicate that { }. The remaining { } work orders represented only { } and AEPCO cannot predict when each project will be completed. AEPCO only knows they were begun { } before the snap shot date of January 1, 2003.¹²

¹² See AEPCO’s analysis in electronic file “AEPCO’s analysis of UPAEP5.xls.”

The UP's work paper production "AEP6.dif" provides the support for their original "UP WIP_Passes_2002.xls," a report of the work orders closed out between February 2002 and January 2003. Most of these work orders could not have been included in UP's Account 90 data reported in their Schedule 330 of the Annual Report R-1. "AEP6.dif" includes { } work orders for {

A review of the work orders included in “AEP6.dif” shows there were { } work orders open longer than twelve months before final close. While these work orders represented { } of the dollars in “AEP6.dif,” those work orders, open longer than twelve months before final close, represent { } than UP has included in their Annual Report R-1 Schedule 330 Account 90 data, Balance at Close of Year for the past four years:

¹³ Exhibit BNSF/UP II.A.4 page 9 of 9.

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UP Annual Report R-1 Sch 330 Account 90 (dollars in millions)				
	1999	2000	2001	1/1/2003
Balance in Account 90 per R-1	\$575	\$493	\$474	
Balance in Account 90 per UP				{ }

Initially, the UP provided minimal data regarding its projects in Account 90 Construction Work in Progress. This minimal data clouded the picture of the projects actually in Account 90. By producing additional information as a result of AEPCO workpaper requests, the picture has changed. The only reasonable conclusion one can reach as a result of this data review is that Account 90 should not have been included in development of the UP URCS.

In UP's Opening "UP Account 90.xls," UP reported that { } in Project Material Inventory Charges were included in Account 90. Given the magnitude of dollars in PMIS, AEPCO in its Work Paper Request 16 asked: "For Railroads electronic work paper file "UP Account 90.xls," please explain what the term "PMIS Inventory Charges in Account 90" refers to and produce the source documents for each of the Amounts and Dates utilized to calculate the number of months in inventory."

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The UP’s response – provided by facsimile and First Class Mail on April 2, 2003¹⁴ – was that: “The term “PMIS Inventory Charges in Account 90” refers to amounts in UP’s Account 90 that reflect charges recorded in UP’s Project Material Inventory System. UP will provide a supplemental response addressing the data used to produce the dates and amounts relating to PMIS inventory charges.”

UP provided this supplemental response entitled “byproj.xls” on May 20, 2003; i.e., too late for inclusion in AEPCO’s Reply response to the Railroads’ Opening Evidence. A review of the UP response “byproj.xls” by AEPCO indicates that UP’s response to AEPCO’s workpaper request regarding Account 90 PMIS Inventory Charges is incomplete and fails to provide AEPCO with substantive evidence of the age of the PMIS Inventory Charges in Account 90. Indeed, UP has not produced the dates relating to the PMIS inventory charges as they indicated they would do in their work paper response. In fact, the dollars shown as PMIS Cost in their new spreadsheet do not agree with the amount shown in PMIS Inventory Charges in Account 90 from “UP Account 90.xls.” That initial document purported to present the number of Months and Amount of PMIS, totaling { }. UP’s work paper response “byproj.xls” includes

¹⁴ Letter from Michael L. Rosenthal, Covington & Burling with attachment: “Responses of BNSF and UP to AEPCO’s Requests for Workpapers relating to Section II-A of the Defendants’ Opening Evidence, page 7.

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{ } more dollars that the original. Further their response failed to produce any dates. Rather the UP’s response merely lists the following:

- Proj Type
- Lab Chg%
- Proj Nbr
- Plan Number
- Work Order
- WO Description
- Labor Cost
- Proj Labor Est Cost
- PMIS Cost

Thus, the only documentation the UP has provided to AEPCO to determine age of the amounts in PMIS appears to be the Work Order Numbers provided by UP as “AEP5.dif” in response to work paper request 15 to provide copies of the source documents utilized to produce each of the Amounts and Dates of Spending shown in Railroads electronic work paper file “UP Account 90.xls.” A review of “AEP5.dif,” however, shows that only { } Work Orders listed in “byproj.xls” are shown in the list of Work Orders that are open on January 1, 2003 in “AEP5.dif.” These { }

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Work Orders showed a total PMIS Cost of { } of the total PMIS dollars.¹⁵

Since AEPCO was only able to find { } records that matched as a result of the analysis of open work orders in “AEP5.dif,” AEPCO compared Work Order Numbers from “byproj.xls” with “AEP6.dif.” “AEP6.dif” was provided by UP in response to Workpaper Request 18 to provide source data for the Railroads’ electronic workpaper file “UP WIP_Passed_2002.xls.” “UP WIP_Passed_2002.xls” purport to show the Work Orders Closed Out February 2002-January 2003.¹⁶ Oddly, AEPCO found { } of the PMIS Work Orders, Work Orders that were still open on January 1, 2003, in the list of “closed out” work orders contained in “AEP6.dif.” These { } PMIS Work Orders showed a total PMIS Cost of { } of the total PMIS Cost dollars.

Failing to receive a satisfactory answer from the Railroad, AEPCO has investigated the information known about the other { } Work Orders shown in “byproj.xls.” Why are these work orders open in the Project Management Inventory

¹⁵ AEPCO’s analysis of PMIS is found in “AEPCO Analysis of UP PMIS data.xls.”

¹⁶ At page 8 of 9 Exhibit BNSF/UP II.A.4.

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System but not included in the lists of open or closed work orders contained in “AEP5.dif” or “AEP6.dif”?

To resolve this question, AEPCO examined the Work Order Numbers in PMIS and found that { } Work Orders totaling { } had work order numbers higher than any of those shown in “AEP5.dif” or “AEP6.dif” leading AEPCO to the conclusion that the time frame provided in “byproj.xls” is not the same as that originally provided by UP in “UP Account 90.xls” or in “UP WIP_Passed_2002.xls.” The remaining { } Work Orders in the UP’s PMIS, totaling { } are included in the range of work order numbers included in “AEP5.dif” and “AEP6.dif” indicating that the project began prior to January 2003. Indeed, many of the work order numbers are so low that the projects included in PMIS began years before 2003. Unless there have been no expenses related to these work orders other than those in the Project Material Inventory System, these work orders are still active and should have been reported in “AEP5.dif.”

At a minimum, UP has incompletely, if not inaccurately, reported information regarding Account 90, and the UP’s determination that projects in Account 90 “are generally completed within one year”¹⁷ cannot be supported by the PMIS data

¹⁷ At page 7 of 9 Exhibit BNSF/UP II.A.4.

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provided. If anything, the opposite conclusion must be drawn. Once again, the Railroads have not shown that their Account 90 projects are of relatively short duration, so Account 76, not Account 90 should be included in the development of the URCS.

**2. BNSF Account 90 Projects Have not
been Shown to be of Short Duration**

BNSF has not successfully shouldered its burden of proof by showing that Account 90 projects used in the preparation of the Board’s 2001 URCS are of short duration. In fact, BNSF presented no evidence regarding the dollars in Account 90 as of year-end 2001, the Account 90 dollars used in the preparation of the 2001 URCS. BNSF’s Account 90 data ended as of February 28, 2001. Compounding the problem, it is impossible to reconcile BNSF’s data with the R-1 data because BNSF did not present year-end data. Therefore, BNSF has not successfully shouldered its burden of proof.

To examine the reasonableness of BNSF’s conclusion that its Account 90 expenses are of relatively short duration, AEPCO has closely inspected BNSF’s selected measurements of time from “Start Date” to “Project Completion Date” and determined the evidence produced by BNSF does not show that its Account 90 expenses involve only short-term construction projects.

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The BNSF utilizes a series of mischaracterizations and incomplete data productions at "BNSF/UP.OP.WP.II-A-511-534," and electronic workpapers "BNSF AFE 1998-2002.xls" and "BNSF Account 90 as of 10-31-02.xls" in an attempt to persuade the Board that the Account 90 expenses are of a short-term duration. Flaws in BNSF's treatment of Account 90 Construction Work in Progress as a capital investment for return on investment analyses result from BNSF's accounting/reporting and its failure to use accepted cost and economic analysis principals. BNSF's analysis contains an accounting flaw in treating Account 90 as an investment on which a Rate of Return can be calculated without placing these investment dollars in applicable Road or Equipment Property Accounts and therefore, permits an extra year of return on an undepreciated asset base.

Further, BNSF's treatment of Account 90 creates an error in costing economics which take the timing of capital expenditures and of benefits that flow from each AFE into account in determining rates of return. The ROI analysis places each outflow and inflow according to its forecast timing. The railroad then determines the project's anticipated return on investment and whether or not that potential investment should be included in its capital program. Providing a return on investment before the project starts (as BNSF has done) changes each project's anticipated return on investment, advances the timing and increases the return.

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BNSF’s data production is incomplete and/or insufficient in the following respects:

- Incomplete production of relevant dates;
- Dollar amounts that appear to be project total estimates, not dollar amounts related to the percent of project completion;
- Dollars for the AFE’s that bear little resemblance to those shown in BNSF’s R-1 Schedule 330 Road Property and Equipment and Improvements to Leased Property and Equipment, Account 90 Construction Work in Progress End of Year;
- Calculation of the average age of Account 90 expenses based on the number of AFE’s, and not weighted by dollars associated with the AFE’s;
- A current date in the measure of duration of a given AFE, rather than using an estimate of the completion date to determine the AFE’s duration; and
- Project start dates related to when the work is scheduled to begin rather than the date materials required for the AFE are purchased.

BNSF, in the Railroads’ Opening Exhibit BNSF/UP II.A.4 at page 2, states that property accounting personnel and Mr. Fisher conducted two special studies to demonstrate that projects for which funds are recorded in Account 90 are of relatively short duration. They purport to have done this by:

1. Examining the average length of time between the start date for work under an AFE and the AFE completion date for AFEs with estimated costs of greater than 1 million dollars and approved between January 1, 1998 and December 31, 2000. At Exhibit BNSF/UP II.A.4, page 3, BNSF states: “Mr. Fisher identified all AFEs that had been completed (all work

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authorized under the AFE has been performed and all charges closed out of Account 90) as of March 2001, the date the report was generated."

2. Examining monies in Account 90 as of October 31, 2002 to determine the average time those monies had resided in Account 90. (See Exhibit BNSF/UP II.A.4, page 3)

To examine the reasonableness of the BNSF's conclusion, AEPCO made a close inspection of the data supporting its calculations. Based on this examination AEPCO determined the following:

First, BNSF mischaracterized much of the data provided as being data for all AFE's approved between January 1, 1998 and December 31, 2000. {

} show a "Start Date" of January 1, 1998, and it is highly unlikely that the projects were approved and commenced on the same date. Thus, BNSF has not provided AEPCO with the date the AFE's were approved, nor of the dates that the BNSF Capital Budget and the AFE's contained therein for each year, were approved, or even the date BNSF began expending monies related to the AFE.

Second, the dollars labeled "Capital and Removal" in "BNSF/AEPCO.OP.WP. II-A-511-534" and "BNSF AFE 1998-2000.xls" show that dollars are provided for every AFE shown whether 100% complete, 95% complete, or 0% complete, etc. Thus, rather than containing actual dollars that would have been recorded in Account 90 Construction Work in Progress, it appears that these reports have been

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generated utilizing dollars estimated at the time the AFE’s were prepared. There is no other explanation for having dollars shown for projects that had not as yet been begun. This then gives rise to the question of whether any of the amounts shown by BNSF are actual or merely the AFE estimate at the time the AFE was approved.

Third, BNSF is not able to accurately determine the length of time an AFE is included in Account 90. One has only to read BNSF’s own description in recapping data at “BNSF AFE 1998-2000.xls” where BNSF states at footnote **¹⁸ as of February 28, 2001: {

} In spite of this statement, in worksheet “No Completion Date” included in the same electronic exhibit, BNSF shows that { } is still in Account 90 from AFEs started { }.

To ascertain the validity of BNSF’s position, AEPCO compared the data provided by BNSF with that reported by BNSF in its 2000 Annual Report R-1 to the STB. In that report, the Year End dollars in Schedule 330, Road Property and Equipment Improvements to Leased Property and Equipment Account 90 at December 31, 2000 were

¹⁸ Footnote to summary tables on sheets ‘No Completion Date’ and ‘Completed.’

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{ }. Thus BNSF’s own data identifies almost { }¹⁹ of the dollars in Account 90 as over one year old.

Fourth, the data below recaps BNSF Annual Report R-1, Schedule 330 Road Property and Equipment and Improvements to Leased Property and Equipment, Account 90 Construction Work in Progress End of Year totals for the period 1998 through 2001.

BNSF Account 90 End-of-Year Data (in thousands of dollars)				
2001	2000	1999	1998	
{ }	{ }	{ }	{ }	

Based on the data provided at “BNSF/AEPCO.OP.WP.II-A-511-534,” AEPCO determined that in 1998, BNSF had { } in AFE’s of over \$1 million each. Utilizing “Project Completion Date,” AEPCO determined that { }, or { } of the total 1998 AFE dollars and { } of the 1998 projects were still open at year-end 1998. In fact, based on an analysis of start and completion date, { }

¹⁹ { } in prior year projects with no completion date/{ } reported in Account 90 in BNSF’s R-1 Year End 2000. See “AFE 1998-2000 with AEPCO Calculations.xls.”

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in 1998 AFE’s were still open at the end of 1999. As data for prior years’ AFE’s still open in 1998 (and perhaps still open beyond 1998) were not provided, and since Year End Account 90’s balance was only { }, far less than { }²⁰ of the 1998 AFE dollars were actually expended in 1998 for the projects that were still open.

An analysis of 1999 data shows similar results. Of the { } in AFE’s over \$1 million dollars, { } of the total 1999 AFE dollars and { } of the 1999 AFE’s were not completed in 1999. Again, a comparison to Account 90 R-1 data shows that { } remained in the account at year end 1999. Taking into account “open” AFE’s from 1998, and recognizing that some AFE’s for less than \$1 million are still “not completed,” and that there continue to be carryovers from periods before 1998, then it is likely that less than { } of the 1999 AFE dollars shown were actually expended in 1999.²¹

The last full year for which AEPCO was provided data was 2000. Of { } in year 2000 AFEs over \$1 million, { } remained open as of January 1, 2001 based on “Project Completion Date.” The 2000 Year-End Account 90 total for Construction Work in Progress was { } according to BNSF’s R-1

²⁰ { } in BNSF’s R1 Account 90 Year End 1998/{ } shown in BNSF’s 1998 AFEs still open at year-end 1998. See “Analysis of BNSF 511-534 AFE Data.xls,” tab ‘1998.’

²¹ See “Analysis of BNSF 511-534 AFE Data.xls,” tab ‘1999.’

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data.²² If as BNSF says at footnote **²³ in “BNSF AFE 1998-2000,” there are {
} then the
mathematical calculation which BNSF would have us accept as proof that AFE’s are of
short duration cannot be accurate. Either there is a mischaracterization by BNSF of the
amount of time AFEs and their related dollars spent in Account 90, or BNSF’s Annual
Report R-1 is incorrect.

BNSF indicates that duration should be measured between Start Date and
Project Completion Date where a particular year’s AFE’s are monitored one year at a time
and where “completed” AFEs are separately accounted for. Further, BNSF indicates that
AFE’s without a completion date should only be examined for the most recent twelve
months. BNSF’s inability to reconcile the R-1 Account 90 dollars with the information
BNSF provides as evidence highlights the flaw in their approach and the inaccuracy of
their results.

Fifth, in order to determine the average duration of its AFE’s, BNSF
calculates the average number of months for AFE’s with completion dates in years 1998,
1999, and 2000. Because the dollar amount reported in Account 90 is at issue, one must
determine the average duration of the AFE’s by giving consideration to the dollar value of

²² See “Analysis of BNSF 511-534 AFE Data.xls,” tab ‘2000.’

²³ Footnote to summary tables on tabs ‘No Completion Date’ and ‘Completed.’

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each AFE and the length of time those dollar amounts are included in Account 90.

Because the age calculation was cut off as of February 28, 2001, neither the actual time between start date and project completion date, nor the actual time these AFE’s dollars spent in Account 90 can be determined from the BNSF provided data.

AEPCO also has examined pertinent information regarding AFE’s that had no Project Completion Date as of February 28, 2001. According to BNSF’s data at “BNSF AFE 1998-2000.xls” worksheet “No Completion Date,” as of February 28, 2001 there were still { } AFE’s from 1998 with a value of { } that had been open for an average of { }. In 1999, there were { } AFE’s with a value of { } that had been open for an average of { }. In 2000, there were { } AFE’s with a value of { } that had been open for an average of { } when the recording of time stopped on that date. One cannot determine when the dollar value of these AFE’s were finally removed from Account 90, however it is clear that these AFE’s were open beyond February 28, 2001. BNSF’s assumption that these AFE’s were closed as of February 28, 2001 is clearly erroneous.

One can only conclude that BNSF’s selected measurements of time from “Start Date” to “Project Completion Date” have no relevance in determining the duration of the dollars and AFE’s in Account 90. Each piece of information the BNSF has presented represents a different time period. None provides information that can be tied

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back to Account 90 in Schedule 330 of the BNSF’s Annual Reports R 1 for any year. Certainly, none comes even within a “reasonableness” level of matching the dollars in that account. The use of differing time frames for various BNSF analyses leads to a confused hodgepodge of numbers, not to a conclusion regarding the amount of time construction projects are in process or are in Account 90.

With respect to the issues of Accounting, Costing, and Economic Analysis, treating Account 90 as an investment on which a Rate of Return can be calculated without placing these investment dollars in their applicable Road or Equipment Property Account permits an extra year of return on an un-depreciated asset base. Over the life of the asset, the BNSF is thus being allowed to obtain a greater total return than they would have following generally accepted accounting procedures.

Treating Account 90 as an investment on which a Rate of Return can be calculated advances the timing of return and thus differs from standard capital budgeting return on investment analyses. In fact, when an investor determines where and when to make an investment, timing of cash flow is an important criterion in measuring the forecasted return. The capital budgeting process includes the timing of cash outflows and inflows. The cash inflows that result from the expenditure for the most part take place once the project is completed and may change over time as a result of such items as one time savings, on-going saving, traffic forecasts, etc. Rate of return calculations are

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predicated on the timing of expenditures, timing of savings, and of changes in revenues, etc. The benefits commence once the asset is in place unless perhaps a customer fronts some of the investment funding. Yet in this case that “benefit” is a deduction from the investment since the investor is sharing the burden of investment. Unless the investment is one that involves a purchase and no related elapsed time, it may be years before the investor sees savings generated and starts to receive a return on investment. Receiving a return on investment as investment dollars are being expended before the project is in place is not the norm anticipated in the capital budget analytical process. Advocating this in URCS costing certainly would be an unjustifiable boon to the carrier.

For all the foregoing reasons, the Board should reject BNSF’s URCS execution, and exclude Account 90 monies from the development of URCS.

Exhibits II-A-34 to II-A-51
Have Been Redacted.

**III-A Stand-Alone
Traffic Group**

Exhibits III-A-7 to III-A-9
Have Been Redacted.

W. W. WHITEHURST & ASSOCIATES, INC.
ECONOMIC CONSULTANTS
12421 HAPPY HOLLOW ROAD
COCKEYSVILLE, MARYLAND 21030

PHONE (410) 252-2422
FACSIMILE (410) 561-9215

June 27, 2003

Arizona Electric Power Cooperative, Inc. ("AEPCO") has asked William W. Whitehurst, Jr. of W. W. Whitehurst & Associates, Inc. to respond to criticisms presented in the separate Stand-Alone Cost Reply Evidence filings of The Burlington Northern and Santa Fe Railway Company ("BNSF") and Union Pacific Railroad Company ("UP") (together the "defendant railroads") of how AEPCO assigned revenues on crossover traffic between the ACE (Apache Cochise & Eastern, AEPCO's stand alone railroad ("SARR")) and the residual incumbent BNSF and UP railroads.

Defendant railroads focus particularly on: (a) assignment of total revenues for each movement among ACE and the residual incumbent railroad using the Modified Mileage Prorate ("MMP") method; (b) the impact of this revenue assignment method on coverage of attributable costs of the residual incumbent railroads; and (c) the significant portion of crossover movements that involve exempt traffic (intermodal and automotive). To illustrate the arguments that defendant railroads are asserting, Part III. A. 3. c. iii. of BNSF's Reply Evidence presents Sample Calculations of Off-Line Attributable Costs on intermodal movements. BNSF states that these sample calculations have been developed by BNSF witness John Klick and that the supporting details are set forth in BNSF's electronic workpapers at "bnrv 2001 examples for costing.zip."

AEPCO has asked me to:

- 1.- Review and comment on the materials presented in Part III. A. 3. c. iii. of BNSF's Reply Evidence, and on the computations contained in Mr. Klick's supporting electronic workpapers.
- 2.- Apply the methodology that Mr. Klick propounds in his calculations to a random sample of each of the three classes of non-coal cross-over traffic that defendant railroads address, namely: intermodal traffic; automotive traffic; and merchandise and other non-coal traffic.

I address these two topics in the balance of this statement.

PART III. A. 3. c. iii. OF BNSF'S REPLY EVIDENCE

Based on my review, I have the following observations and conclusions:

1.- Mr. Klick has computed variable costs for the three sample intermodal shipments he selected using the Surface Transportation Board ("STB") Phase III Uniform Railroad Costing System ("URCS"). As I develop in the body of this statement, standard URCS costing of intermodal traffic tends to overstate variable costs, particularly for the higher capacity, more efficient intermodal freight car types that have become prevalent since the time that URCS was adopted for regulatory costing purposes.

2.- For each of the three sample intermodal shipments Mr. Klick selected and costed using URCS, total revenues cover total long run marginal costs ("LRMC") and provide a positive contribution to unattributable costs.

3.- Mr. Klick terms the moves that he costed sample moves. Neither he nor BNSF makes any claim that this sample was randomly selected or otherwise purports to reflect the actual mix of intermodal traffic movements either on BNSF generally, or on the route that encompasses ACE. To the extent that the sample moves that Mr. Klick costed do not reflect the economies present in BNSF intermodal traffic generally, the variable costs he presents are overstated, and the resulting revenue to variable cost ratios presented in this section of BNSF's Reply Evidence are understated.

4.- For the three sample intermodal shipments that Mr. Klick selected, when intermodal variable costs are refined as described below, and total BNSF revenues are apportioned between the ACE and residual BNSF (the portion of the BNSF that handles the cross-over traffic interchanged with ACE) using the MMP method as applied by Mr. Klick, each shipment covers its LRMC and makes a positive contribution to unattributable costs for both residual BNSF and ACE as well as for BNSF in total. As noted in the STB's Ex Parte No. 347 (Sub-No. 2) Rate Guidelines - Non-Coal Proceedings Decision of December 27, 1996 (1 S.T.B. 1004,1016 (1996)): "As a general rule, it is better for a railroad to carry any traffic that covers its own (attributable) costs and makes any contribution (no matter how slight) to joint and common costs." Therefore, the residual BNSF would have an incentive to participate in these movements.

URCS LIMITATIONS FOR COSTING INTERMODAL TRAFFIC

Mr. Klick has developed variable costs for the three sample intermodal shipments he selected using the STB Phase III URCS for BNSF for year 2001. Therefore, I begin my review of Mr. Klick's work with an evaluation of the intermodal costing aspects of URCS.

As is generally known to users of the URCS costing system, the URCS structure is not refined when it comes to the unique features of intermodal traffic. The reasons for this are largely historical and regulatory in nature. URCS was developed in the early-to-mid 1980s, at a time when the level of sophistication in intermodal traffic handling as well as its volume were substantially lower than it is today. In addition, because rates on intermodal traffic are exempt from regulation, URCS costing of intermodal traffic has not been honed in the fire of rate litigation.

The STB itself has recognized that URCS costing of intermodal traffic is in need of revision. As stated in Ex Parte No. 431 (Sub-No. 2) Review of the General Purpose Costing System Decision of September 19, 1997 (2 S.T.B. 659, 662-63):

"The assumptions applied by URCS as to how intermodal traffic is handled by the railroads are derived from a special study conducted in the late 1960s, when TOFC/COFC operations were still in the early stages of development Accordingly, the URCS assumptions with respect to intermodal traffic are outdated and do not reflect the efficiency of current intermodal operations. The most dramatic evidence of this development lies in the fact that, under current costing procedures, 67% of the TOFC/COFC and 99% of the Roadrailer traffic in 1995 appears to have variable costs that exceed revenues. Intuitively, these figures cannot be right, because railroads have continued to market intermodal services aggressively and are investing heavily in upgrading their intermodal facilities and services. Such actions are inconsistent with traffic that is marginal or money-losing."

The STB Ex Parte No. 431 (Sub-No. 2) proceeding and Decisions of September 19, 1997, and December 5, 1997 (2 S.T.B.754), improved some, but by no means all, aspects of URCS costing of intermodal traffic. Two areas where URCS intermodal traffic costing still lacks sophistication are: (1) freight car costs; and (2) assumptions of cost variability for intermodal-specific activities, such as those at terminals.

URCS Intermodal Freight Car Costing

In computing costs, URCS combines all intermodal freight car types into one group, ignoring distinctions between the principal intermodal freight car types. Among the significant differences between car types that this lumping blurs are: (1) TOFC/COFC intermodal unit carrying capacity; (2) tare weight; and (3) freight car rental rates. To illustrate these distinctions, consider the three principal intermodal freight car types as described in the January 2002 issue of The Official Railway Equipment Register at pp UMLER 155-157¹:

-Conventional Intermodal Cars (Equipment Type Code P ___) (hereinafter "type P cars") - typically built to carry 2 intermodal units in a single level configuration.

-Lighter Weight, Low Profile Intermodal Cars (Equipment Type Code Q ___) (hereinafter "type Q cars" or "Spine cars") - articulated multi-platform cars that are normally built to carry up to 5 intermodal units in a single level configuration.

-Stack Cars (Equipment Type Code S ___) (hereinafter "type S cars" or "Doublestack cars") - well cars capable of carrying double-stacked containers (that is two intermodal units per well), with 2-to-5 articulated wells per car, resulting in a carrying capacity of up to 10 intermodal units per car.

In terms of intermodal unit carrying capacity, type Q cars can usually handle more units than type P cars, and type S cars can usually handle more units than type Q cars. Type S cars generally have up to five (5) times the intermodal unit carrying capacity of type P cars.

Tare weights of these intermodal car types go up as one progresses from type P to type Q to type S, but less rapidly than their intermodal unit carrying capacity. As a consequence, the tare weight per intermodal unit carried (and associated URCS costs) tends to be lower for type S and type Q cars than for type P cars. Based on Universal Machine Language Equipment Register ("UMLER") data used by the STB to compute composite tare weights by equipment type for use in URCS, tare weights are in the range of 32 tons for type P cars (all configurations), 72 tons for type Q cars (all configurations), and 74 tons for type S cars (all configurations)². Hence, by using a composite average tare weight for all intermodal equipment car types of 61 tons for 2001, URCS masks the significant actual range of tare weights within the intermodal class of freight cars.

¹ See AEPCO Rebuttal Workpapers pp. 170-72.

² See electronic workpaper "FlatTOFCTareWt.xls", sheet "Compare 2001-1997".

Freight car rental rates also differ among type P, Q, and S intermodal cars. As with tare weights, the rental rates tend to increase from type P to type Q to type S, but less rapidly than their intermodal unit carrying capacity. As a result, the freight car rental rate per intermodal unit capacity tends to be lower for type S and type Q cars than for type P cars.

A consequence of lumping together all intermodal car types is that URCS overstates weight and costs of type P cars and understates the relative economics of type Q and type S cars. The significance of this problem has increased as the mix of intermodal car types has evolved over time.³ Table 1 below illustrates the growing role of type S cars over the recent five year period 1997 - 2001.

Table 1

Change in Car Type Mix of Intermodal Car Fleet, 1997 to 2001

Intermodal Car Type	No. of Cars		<u>2001 over/ (under) 1997</u>		<u>% of Total</u>	
	<u>1997</u>	<u>2001</u>	<u>Amount</u>	<u>Percent</u>	<u>1997</u>	<u>2001</u>
Type P cars	21,334	17,949	(3,385)	(16)%	39%	31%
Type Q cars	14,505	12,709	(1,796)	(12)%	27%	22%
Type S cars	<u>18,647</u>	<u>28,041</u>	<u>9,394</u>	<u>50%</u>	<u>34%</u>	<u>47%</u>
Total	54,486	58,699	4,213	8%	100%	100%

Source: UMLER Data for years 1997 and 2001. Type Q cars exclude RoadRailer. (See electronic workbooker "FlatTOFCTareWt.xls", sheet "Compare 2001-1997".)

As shown in this table, although the intermodal car fleet as a whole increased by 8% from 1997 to 2001, the number of type S cars increased by 50% while both type P and type Q cars actually declined in number. Type S cars, the most economical of the three types, now represent nearly one-half of the total intermodal car fleet.⁴

³ The 1989 URCS tare weight for intermodal car types was 36.7 tons, but for 2001 URCS uses an intermodal car type tare weight of 61.0 tons -- an increase of 66%. See electronic workbooker "FlatTOFCTareWt.xls", sheet "Flat TOFC by Year".

⁴ No separate equipment type designation even existed for doublestack intermodal freight cars (type S) until the end of the 1980s.

URCS Intermodal Terminal Costing

Annual Reports (Form R-1) to the STB characterize TOFC/COFC terminal activities as a "specialized service" and report costs for them in Schedule 417 (as well as in Schedule 410). Included in Schedule 417 TOFC/COFC terminal activities are costs for: Pick up and delivery of trailers and containers (highway movements - drayage); Loading and unloading intermodal units to/from intermodal freight cars (also known as lift-on/lift-off); Administration; Fringe benefits; Casualty and insurance; Joint facility - Debit; Joint facility - Credit; and Other. URCS accumulates the costs for these activities, as well as TOFC/COFC terminal maintenance costs (together with portions of other maintenance accounts) in Worktable D7: Specialized Services. URCS assigns costs for each of these activities a variability of 100%.

The reasons behind the 100% variability assignment lie in the developmental stages of URCS. The developers of URCS did not achieve reliable regression equations for "specialized service" cost categories. Therefore, a decision was made to treat variability of "specialized service" cost categories as a function of whether the service in question was offered or not - - that is, as 100% variable with the existence of the service.

For some categories of intermodal terminal costs, the 100% variable assumption is probably reasonable when applied to changes in the volume of service offered. In particular, drayage and lift-on/lift-off services are frequently performed by outside contractors on a per unit of volume basis. For the TOFC/COFC terminal maintenance and administrative functions, however, the 100% variable assumption is not likely to be accurate when applied to changes in the volume of service offered. Rather, there is a fixed component as well as a variable component to these activities. As a consequence, using a variability factor of 100% overstates variable costs per unit of volume for TOFC/COFC maintenance and administrative functions.

SPECIFICS OF MR. KLICK'S THREE MOVEMENTS

The three sample intermodal shipments that Mr. Klick selected are described at page III.A-49 of BNSF's Reply Evidence as follows:

- "The first [intermodal shipment] is a Plan I shipment, which is a hub-to-hub movement (*i.e.*, the railroad is not responsible for the drayage associated with picking the intermodal unit up at the shipper's loading dock or delivering the intermodal unit to the receiver's loading dock) in a shipper-owned intermodal unit."
- "The second [intermodal shipment] is also a Plan I, hub-to-hub shipment, but one that occurred in a railroad-owned intermodal unit."
- "The third [intermodal shipment] is a Plan II shipment in a railroad-owned intermodal unit for which the railroad *is* responsible for origin and destination drayage."

Mr. Klick's selections illustrate the impact of ownership (RR-owned vs. shipper-owned) of the intermodal unit (that is the TOFC trailer or COFC box) and the presence or absence of drayage on movement costs.

When it comes to the intermodal freight car, however, Mr. Klick did not distinguish between car types, as he used the same freight car tare weight for each shipment and the same freight car rental rate for each shipment. This, despite the fact that each of the three shipments moved in a different freight car type.

Each of the three movements was in an intermodal freight car owned by {

}

As discussed above, these three intermodal freight car types can have differing intermodal unit carrying capacities, tare weights, and freight car rental rates.

Before turning to refinements to the URCS variable costs Mr. Klick calculated for each of his three sample intermodal shipments, several other specifics of his costing should be noted.

- 1.- BNSF specifically does not claim that the three moves Mr. Klick costed are in any sense representative of the mix of intermodal traffic that BNSF handles or were even randomly selected.
- 2.- The intermodal freight car tare weight of 33.4 tons that Mr. Klick used for each of the three sample intermodal shipments that he costed does not match the value of 61 tons tare weight that appears in the STB BNSF 2001 URCS that Mr. Klick used to develop variable costs. Further, BNSF's electronic workpapers ("bnrv 2001 examples for costing.zip") that support Mr. Klick's URCS calculations do not contain the derivation of this number.
- 3.- The BNSF 2001 URCS that Mr. Klick used for purposes of costing his three sample shipments treats accounts 76 and 90 in the same manner as the standard STB URCS. And, in any event, neither tare weights or private line car rental rates would have been affected by the exchange of account 76 - account 90 amounts presented in the BNSF/UP Joint Reply filing on variable costs.

⁵ See AEPCO Rebuttal Workpapers pp. 160-62.

REFINEMENTS TO MR. KLICK'S URCS COSTING

To illustrate the economies of intermodal traffic not captured in the standard URCS variable cost development that Mr. Klick used, and to demonstrate the positive impact of these economies on the revenue to variable cost ("R/VC") ratios presented at Table III.A-3 of BNSF's Reply Evidence, I have refined the URCS intermodal costing factors that Mr. Klick used to partially take into account the matters in the preceding discussion of URCS Limitations for Costing Intermodal Traffic. My refinements address both the URCS intermodal freight car cost and the URCS intermodal terminal cost variability issues addressed in that section of this statement.

My first refinement is to substitute the intermodal unit carrying capacity, tare weight, and private line car rental rate for a type S freight car in lieu of the composite average intermodal type freight car used by URCS. The significance of double stack intermodal traffic to BNSF is illustrated by the fact that a double stack intermodal train (of type S freight cars) is featured on the cover of the BNSF 2002 Annual Report to Shareholders (AEPCO Rebuttal Workpapers p. 176), and the growth of BNSF's double stack intermodal business is presented in pictures and text within the report. As shown in Table 1 above, type S intermodal freight cars are now the most prevalent intermodal freight car type. Furthermore, type S cars comprise 98.7% of BNSF's own intermodal freight car fleet.⁶

Within the S type car category, 3-well and 5-well units are dominant - - together they account for 80% of the total type S car fleet listed in UMLER in 2001. Therefore I have used values for the simple average of these two subcategories. Schedule 755 of BNSF's Annual Report (Form R-1) for 2001 shows that, for intermodal freight cars (Flat - TOFC/COFC), private line car-miles account for 79% of total private plus railroad owned/leased car-miles. Therefore I have used private line freight car rental rates for purposes of this costing.⁷

My second refinement is to modify slightly the variability factors URCS applies to intermodal terminal costs. My treatment of the individual intermodal terminal cost components is as follows:

1.- URCS treats drayage costs as 100% variable. Considering that these services are frequently performed by outside contractors on a per unit of volume basis, I have left

⁶ The Official Railway Equipment Register of January 2002 shows that BNSF has 33 type P cars, 12 type Q cars, and 3,489 type S cars, for a total of 3,534 intermodal freight cars. See AEPCO Rebuttal Workpapers pp. 163-69, 174.

⁷ See electronic workpaper "AnalysisCarDays-CarMiles.xls".

this variability percent unchanged. In the BNSF 2001 URCS, drayage costs account for over 98% of intermodal pick up and delivery variable costs.

2.- URCS treats lift-on/lift-off costs as 100% variable. Considering that these services are frequently performed by outside contractors on a per unit of volume basis, I have left this variability percent unchanged. In the BNSF 2001 URCS, lift-on/lift-off costs account for over 80% of intermodal loading and unloading variable costs.

3.- URCS treats intermodal administrative functions as 100% variable, whereas, in fact there is both a fixed component and a variable component to these activities. For this category of activities I have imputed the same BNSF variability percent that applies to administrative support functions generally.⁸

4.- URCS treats intermodal terminal maintenance functions as 100% variable, whereas, in fact there is both a fixed component and a variable component to these activities. For this category of activities I have imputed the same BNSF variability percent that applies to fixed facilities maintenance (other than running track and switching maintenance) functions generally.⁹

Calculations incorporating these refinements to Mr. Klick's URCS costing of the three intermodal shipments he selected are set forth in electronic workpapers identified as "Rebuttal Whitehurst costing-1.zip".

The variable costs I have calculated incorporating these refinements are compared to the variable costs that Mr. Klick calculated for each of the three intermodal shipments he selected in Table 2 below.

⁸ See electronic workpaper "Analysis BNSF L&UL PU&D.xls".

⁹ Ibid.

Table 2

Comparison of Variable Costs Computed Using Refinements to URCS
with URCS Variable Costs as Computed by Mr. Klick
for the Three Intermodal Shipments Selected by Mr. Klick

Sample Shipment	Variable Cost		Refined over/ (under) Klick	
	Mr. Klick	Refined	Amount	Percent
Move 1	\$ 569.53	\$ 402.72	\$(166.81)	(29)%
Move 2	\$1,167.55	\$ 924.44	\$(243.11)	(21)%
Move 3	\$1,100.93	\$ 933.49	\$(167.44)	(15)%

Although the impact of the refinements I have made differs in accordance with the specifics of each individual movement, variable costs for each movement are reduced by at least 15 percent.

REFINEMENTS TO BNSF TABLE III.A-3

Using variable cost results of the refinements to URCS intermodal costing described in the immediately preceding section of this statement as applied to the three intermodal shipments that Mr. Klick selected, I have restated BNSF's Table III.A-3 to show refined R/VC ratios applicable to each of the movements in total and the modified mileage prorate results for each of residual BNSF and ACE.¹⁰ The refined BNSF Table III.A-3 is presented below as Table 3.

¹⁰ See electronic workpaper "RevisedKlickExamples.xls".

Table 3
Refined BNSF Table III.A-3

Item	Move 1	Move 2	Move 3
Total Revenues, Through Movement	\$ 627.00	\$1,343.00	\$1,155.00
ACE Revenues	\$ <u>105.00</u>	\$ <u>155.00</u>	\$ <u>193.00</u>
Residual BNSF Revenues	\$ <u>522.00</u>	\$ <u>1,188.00</u>	\$ <u>962.00</u>
Total One-Way Miles, Through Movement	1,499	2,202	1,499
Terminal Costs Other Than Intermodal	\$ 41.48	\$ 42.18	\$ 41.48
Intermodal-Related Terminal Costs	\$ <u>73.88</u>	\$ <u>168.29</u>	\$ <u>395.88</u>
Total Terminal Costs	\$ 115.36	\$ 210.47	\$ 437.36
Total Line-Haul Costs	\$ <u>287.36</u>	\$ <u>713.97</u>	\$ <u>496.13</u>
Total Costs, Through Movement	\$ 402.72	\$ 924.44	\$ 933.49
Total Costs, ACE	\$ <u>50.31</u>	\$ <u>84.78</u>	\$ <u>86.39</u>
Total Costs, Residual BNSF	\$ <u>352.41</u>	\$ <u>839.66</u>	\$ <u>847.10</u>
R/VC Ratio, Through Movement	1.557	1.453	1.237
R/VC Ratio, Residual BNSF	1.481	1.415	1.136
R/VC Ratio, ACE	2.087	1.828	2.234

Not surprisingly, the R/VC ratios computed using refined variable costs improve (that is increase) for each of Mr. Klick's three sample intermodal shipments. In each case, the R/VC ratios improve for residual BNSF and ACE, as well as for the total BNSF movement. Further, using refined variable costs demonstrates that, even on the third movement, the residual BNSF will receive a division of revenues using the modified mileage prorate method that covers attributable costs and makes a contribution to unattributable costs.

BNSF COST NOMENCLATURE

As a closing matter on Part III. A. 3. c. iii. of BNSF's Reply Evidence, I note that the text is laced with differing costing terms, used interchangeably, that can carry similar but not identical definitions. The terms used include "attributable costs", "directly attributable costs", "URCS-based costs", and "unattributable costs". Therefore, it may be useful to clarify just what the costs calculated by Mr. Klick do and do not represent.

The STB addresses these terms in Ex Parte No. 347 (Sub-No. 2) Rate Guidelines - Non-Coal Proceedings (1 S.T.B. 1004, 1027 (1996)):

"In economic terms, railroad costs are divided into attributable costs (the incremental costs associated with handling particular traffic) and unattributable costs (the joint and common costs incurred by a railroad). Attributable costs are subdivided into LRMC [long-run marginal costs] (the costs that would be rendered unnecessary, over the long term, if particular traffic were not handled by the railroad) and short-run marginal costs (SRMC) (the immediate or short-term costs that would not be incurred but for a particular individual shipment). (The term "going-concern value" in Long-Cannon-I refers to SRMC.)

"Because the marginal costs associated with handling particular traffic are not readily measurable, we rely on variable costs produced by the URCS formula as proxy for LRMC. (Variable costs are a measure of the portion of rail industry costs that generally vary with the level of output.) The remaining (nonvariable) portions of the rail industry's costs are characterized as fixed costs and are used as a proxy for unattributable costs. (A subset of total variable costs, known as directly variable costs (DVC), is used as a proxy for SRMC.)" (Emphasis added, footnotes omitted)

Although the term "directly variable costs" is defined in the STB text above, the term "directly attributable costs" is not used. By using URCS, Mr. Klick has computed attributable costs on a long-run basis, that is, LRMC.

RANDOM SAMPLE OF INTERMODAL, AUTOMOTIVE,
AND OTHER NON-COAL CROSS-OVER TRAFFIC

To assess defendant railroads' unquantified assertions regarding relationships between revenues assigned to residual incumbent railroads using the MMP method and the attributable costs residual incumbent railroads incur in handling ACE cross-over traffic, I have calculated variable costs and revenue to variable cost ("R/VC") ratios for 30-movement random samples of each of three classes of non-coal crossover traffic for

each of BNSF and UP. The procedures that I used and my conclusions from examining the R/VC ratios produced by these calculations are described below.

To generate random samples that encompass the traffic classes and railroads under discussion here, I asked L. E. Peabody & Associates, Inc. ("LEPA") (AEPCO's consultants that determined the traffic that would flow over the ACE) to draw a 30-movement random sample of cross-over traffic for which ACE is the intermediate carrier between two legs of residual incumbent railroad movement for each of the following:

BNSF - Intermodal traffic
BNSF - Automotive traffic
BNSF - Merchandise and other traffic

UP - Intermodal traffic
UP - Automotive traffic
UP - Merchandise and other traffic

In response to my request, LEPA provided to me information for each sample movement comprised of both revenue data and traffic characteristics for use in costing. In the case of UP intermodal movements, the UP source data available to LEPA did not permit them to identify car type, car owner, or any other information pertaining to the specific freight car used in the movement. Intermodal freight car type and ownership are important drivers of movement costs because they determine intermodal unit carrying capacity, tare weight, and car ownership costs. Distinctions between intermodal car types used for a given movement can significantly affect the resulting movement costs that are determined. Lacking this information, I was not able to use the UP intermodal movement samples for purposes of my evaluations here.¹¹

For the three BNSF traffic samples and for the other two UP traffic samples, the data that LEPA were able to provide included sufficient information to enable me to determine revenue apportionments and apply URCS Phase III costing procedures. For BNSF, the data provided was in the same format as that used by Mr. Klick.¹²

¹¹ Furthermore, one required input to the URCS Phase III costing procedures that I used to determine movement variable costs is an identification of whether the freight car is railroad-owned or privately-owned. The UP source data did not include information from which a railroad-owned vs. private line determination could be made for any of the UP intermodal sample moves.

¹² Mr. Klick did not analyze any UP movements.

For each movement in each of the five usable random samples, I computed total movement revenues, ACE movement revenues, and residual incumbent railroad revenues directly from the movement information provided by LEPA.

For each movement in each of the five usable random samples, I calculated movement variable costs using the STB 2001 URCS for BNSF or UP as applicable, and URCS Phase III costing procedures. For each movement, I applied the URCS for the applicable railroad to each leg of the movement, including the ACE leg. In costing BNSF intermodal traffic, for each sample movement I used the freight car initial and number to identify car ownership (railroad vs. private) and car type and I used the tare weight contained in the BNSF movement record, but I did not otherwise incorporate the refinements to URCS intermodal movement costing discussed in the prior section of this statement.

The R/VC ratios I calculated for each movement in the random sample for each class of traffic and each railroad are presented in Attachment WWW-1 to this statement. The source data and calculations that generate the information presented in Attachment WWW-1 are set forth in Rebuttal electronic workpapers identified as "Rebuttal Whitehurst costing-2.zip".

The arithmetic average (mean) R/VC ratios of each of the random samples are set forth in Table 4 below.

Table 4

Average R/VC Ratios of Total Railroad, Residual Incumbent Railroad, and ACE for Random Samples of Intermodal, Automotive, and Merchandise and Other Traffic with Revenues Apportioned by MMP Method and URCS Variable Costs

Railroad and Traffic Category	Average R/VC		
	Total Railroad	Residual Incumbent	ACE
BNSF			
Intermodal	{		}
Automotive	{		}
Merchandise and Other	{		}
UP			
Automotive	{		}
Merchandise and Other	{		}

Reviewing the R/VC ratios in Attachment WWW-1, I draw the following conclusions:

- 1.- For each movement, assignment of total railroad revenues between ACE and residual incumbent Railroad does not significantly reduce the R/VC of residual incumbent Railroad in comparison to total Railroad. For each sample movement, the R/VC ratio of residual incumbent Railroad is 94% or more of the R/VC ratio of total Railroad.
- 2.- For no sample movement does residual incumbent Railroad end up with a $R/VC < 1$ when total Railroad had a $R/VC > 1$. In other words, if the total Railroad revenues for the move produced a contribution to unattributable costs, then there will still be a contribution to unattributable costs for the residual incumbent Railroad.
- 3.- For each sample movement where residual incumbent Railroad has a $R/VC < 1$, the same was true for total Railroad. In other words, where the MMP revenue assignment method produces a sow's ear for residual incumbent Railroad, total Railroad did not have a silk purse to begin with. It is not ACE's responsibility to create a contribution to

unattributable costs for residual incumbent Railroad, when total Railroad had no contribution to unattributable costs for the total movement.

4.- For each sample, the average of sample movements produces a $R/VC > 1$ for residual incumbent Railroad. Also, for each sample the total sample movements revenues as compared to total sample movements variable costs produces a $R/VC > 1$.

5.- Each of the computations of variable costs is based on URCS system average costs and, as such, is subject to the estimating limits inherent in applying system average unit costs to specific movements. Further, the traffic handling characteristics for each sample movement do not incorporate movement-specific adjustments that may apply if the movement were analyzed in detail. One consequence of this is that railroad moves for which URCS Phase III costing produces a R/VC ratio less than one could well turn out to have a higher R/VC ratio if analyzed in detail.

6.- The constant cost markup ratio computed in the 2001 STB URCS is 1.35 for BNSF and 1.34 for UP. (For a given railroad, the constant cost markup ratio is the ratio of total fully allocated costs to total variable costs. Application of this ratio to the variable costs for a given movement produces an estimate of the fully allocated costs applicable to that movement.) For each of BNSF and UP, some of the sample movements produce R/VC ratios in excess of these factors, which means that the revenues earned by those moves cover their attributable costs plus all of their unattributable costs (on a pro-rata basis) plus make a further contribution to overall railroad costs, including return on investment at the current railroad cost of capital rate. Stated differently, for each railroad some of the sample movements generate revenues that exceed the fully allocated costs of the movement. This phenomenon holds true across the classes of traffic examined here.

7.- Generally speaking, for movements where total railroad receives revenues that exceed fully allocated costs of the movement, the same outcome carries through to residual incumbent Railroad when revenues are apportioned using the MMP method.

8.- In criticizing AEPCO's selection of traffic for its SARR (ACE), UP's reply evidence points out that "... the great majority of the traffic AEPCO had selected for its SARR is intermodal, automotive, boxcar, and other traffic that is exempt from Board regulation. ... It is common knowledge that railroads earn low margins on such traffic." (UP Reply at I-3) At least for the random samples that I have examined here, "common knowledge" is not always accurate knowledge. For BNSF, some random sample intermodal movements and some random sample automotive movements generate revenues that more than cover their fully allocated costs; and the same is true for the UP automotive traffic random samples.

9.- Some of the movements in the random samples I have examined here exhibit R/VC ratios that exceed the jurisdictional threshold of 180%.

Before the Surface Transportation Board

STB Docket No. 42058

Arizona Electric Power Cooperative, Inc. v. The Burlington Northern and Santa Fe
Railway Company and Union Pacific Railroad Company

Rebuttal Testimony of George H. Borts

INTRODUCTION

My name is George H. Borts. I am a Professor of Economics at Brown University. My address is 220 Slater Avenue, Providence, Rhode Island, 02906. I have presented evidence before the Surface Transportation Board ("STB" or "Board"), the Interstate Commerce Commission ("ICC"), the Canadian Transport Commission, the Federal Energy Regulatory Commission and other regulatory authorities in the U.S. and Canada. I have testified on matters concerning railroad economics, including the cost of capital, the cost and pricing of rail services, issues relating to market power, productivity, revenue adequacy, and the hire of freight cars. A summary of my qualifications and experience appears in Appendix A to my statement.

My statement is presented on behalf of Arizona Electric Power Cooperative, Inc. ("AEPCO") a coal shipper which is challenging the reasonableness of the freight rate charged by the Burlington Northern and Santa Fe Railway ("BNSF") and Union Pacific Railroad Company ("UP") for the movement of coal between locations in Northwestern New Mexico and AEPCO's electric generating plant at Cochise, Arizona. My testimony will cover the three main economic issues that are disputed in this case:

1. The Principles of Stand-Alone Cost (“SAC”) as a measure of the maximum reasonable freight rate that may be charged to captive shippers.
2. The Attack on SAC Principles by BNSF and its witness Dr. Janusz Ordover.
3. Dr. Ordover’s retreat from a single-line SARR.

1. The principles of Stand-Alone Cost as a measure of the maximum reasonable freight rate that may be charged to captive shippers.

Under the Coal Rate Guidelines, a complainant has the option of using the Stand-Alone Cost (“SAC”) methodology to determine a reasonable freight rate that should be paid by a shipper that is captive to the railroad. SAC is the cost of constructing and operating a hypothetical stand-alone railroad (SARR) to serve the complainant’s traffic under assumed conditions of contestability. Stand-Alone Cost determines the highest allowable rate for captive traffic, consistent with the need for the hypothetical railroad to cover its costs, without subsidizing the traffic of other shippers that also use the SARR and/or the traffic of railroads that connect with the SARR. Under principles of constrained market pricing (“CMP”), the Stand-Alone railroad (“SARR”) is assumed to be free to enter and exit the market without any cost barriers or other barriers to entry, and to be free to compete with other railroads for traffic.

In designing a SARR to serve its traffic, the complainant is free to choose the traffic the SARR will carry, both issue traffic and non-issue traffic. Moreover, the complainant may configure its SARR in a manner that is optimal to the hypothetical owner and provides for the most efficient railroad operations for the SARR traffic group. This means that the SARR need not cover the entire geographic area or market served by

the incumbent, and can interconnect with other railroads, including the incumbent at hypothetical interchange points. Traffic that is interchanged with the incumbent or other railroads at such hypothetical interchange points is called "cross-over traffic," and the SARR is permitted to receive revenue and profit from its carriage as long as the complainant can demonstrate that the SARR can transport this traffic and cover its costs of carrying out such operations. Cross-over traffic generally will not include any issue traffic, because the SARR will connect the complainant shipper's generating plants with the originating coal mines.

The use of cross-over traffic makes sense and is necessary from an economic standpoint, because it preserves the SARR's options to enter the market without the need to replicate the entire rail system of the incumbent. In a contestable environment, a firm has the option to decide which productive input services it will provide for itself and which it will purchase in the open market. By constructing a rail system that includes interline traffic, the SARR has in effect made a decision to purchase some of its input services from other producers. BNSF and its witness Dr. Ordover argue that cross-over traffic should be denied to the SARR. But this prevents the SARR from taking advantage of opportunities available to the incumbent railroad firms. It is thus inconsistent with contestability and has the same effect as a barrier to entry.

A strong implication of contestability is that no customer or group of customers is subsidizing any other customer or group of customers. Subsidy would not survive under conditions of free entry and exit, for it would induce the disadvantaged customer to provide its own service at lower cost. If a customer is charged more than the cost of

service, then it is in effect subsidizing other customers receiving service from the same firm.

To apply these principles it is necessary to define what is meant by a subsidy among customers. In transportation, a shipper is said to be paying a subsidy when its freight rate exceeds the SAC cost, and receiving a subsidy when its freight rate is less than the cost of providing service, i.e., less than the attributable cost of serving the shipper. The attributable cost is the cost that would be saved if the service to the shipper were not provided.

The ICC and the Board have determined that, in the contestable world of stand-alone costs, as long as the incumbent carrier receives revenues that cover its attributable costs, economic rationality will induce it to accept the "cross-over" traffic from the SARR. An improper cross-subsidy occurs however when the rate divisions received by the residual incumbent fall short of the attributable costs of handling this traffic.

Under the Guidelines, the maximum rate that may be charged the captive shipper is the SAC. The shipper is said to be improperly subsidizing the other traffic of the incumbent railroad when the revenues the SARR receives, including revenues from cross-over traffic and the challenged rates, exceeds the SAC.

These principles implement the Guidelines' fundamental policy that captive shippers should not pay for facilities that they do not use. Witness the following statement:

An important feature of CMP is that a captive shipper need not bear the costs of any facilities or services from which it derives no benefit. One means of assuring that such cross-subsidization does not occur is the "stand-alone cost" (SAC) test. This test is used to compute the rate a competitor in the market-place would need to charge in serving a captive shipper or a group of shippers who benefit from sharing joint and common costs. A rate level calculated by the SAC methodology represents the theoretical maximum rate

that a railroad could levy on shippers without substantial diversion of traffic to a hypothetical competing service. In other words, it is a simulated competitive price. (Guidelines at 528)

2. The Attack on SAC Principles by BNSF and its witness, Dr. Janusz Ordovery.

The proposed elimination of Cross-Over traffic.

Dr. Ordovery's critique of SAC principles focuses on the SARR's carriage of cross-over traffic. He argues that the "inclusion of cross-over traffic as a component of SAC analysis opens the door to manipulation by complainants of the stand-alone cost ceiling for railroad rates and, potentially, can be a vehicle for the very sort of "cross subsidy" that the Board seeks to prevent.

In opposition to the above principles, BNSF and Dr. Ordovery have changed the focus of inquiry away from the elimination of subsidies paid by the complainant shipper. They argue that the Guidelines' use of cross-over traffic is inherently biased in favor of complainant shippers by permitting the SARR to collect a subsidy from non-complainants using cross-over traffic. Indeed, they go so far as argue that the SARR should not be allowed to include cross-over traffic at all. Including cross-over traffic is said to give the complainant shipper the opportunity to manipulate the process in such a way that the incumbent is denied revenues necessary to cover its cost of capital and achieve revenue adequacy.

Dr. Ordovery states that inclusion of cross-over traffic revenues is at odds with the core principles of SAC because a hypothetical SARR that relies on revenues derived from interline traffic is not a genuine "stand-alone" railroad. (Exhibit III.A-1, page 21) He claims that a true SARR would not (and should not) benefit from the revenues generated by cross-over traffic as it would lack the necessary facilities to carry all selected traffic

end-to-end. And he concludes that in principle, the complaining shipper should be required to build all the facilities needed to carry the traffic it selects. (Id. at 3)

Dr. Ordoover argues that “The use of cross-over traffic is a vehicle for strategic cross-subsidy.” (Id at 22). Further, “the Board should not accept any allocation rule that allows the shipper to construct a SARR that thrives only because it – by fiat – appropriates cross-over revenues from the residual incumbent. Indeed, if under such an allocation rule, the residual incumbent becomes even more revenue inadequate, the allocation rule effectuates a strategic cross subsidy of the issue traffic.” (Id. at 5)

Dr. Ordoover’s argument that revenue from cross-over traffic becomes a vehicle for cross-subsidy hinges on the belief that the SARR does not appropriately compensate the residual incumbent for the carriage of cross-over traffic. But an attempt to verify the appropriate compensation for off-line traffic would vastly extend the magnitude of any complaint of excessive freight rates. For it would extend the costing exercise from the domain of the SARR to the residual complainant itself, a much larger enterprise.

To avoid this, the Board has made use of a revenue division algorithm called the Modified Mileage Prorate methodology. This is an attempt to replicate actual mileage divisions using distance as a first approximation for cost.¹ It was introduced in the McCarty Farms case, and reflects the Board’s knowledge of actual revenue division contracts. So far as I am aware, neither BNSF nor Dr. Ordoover have introduced contradicting evidence on actual revenue division contracts or rules into this proceeding. So the claim of cross-subsidy remains just that, a claim.

¹ Note that MMP can be modified to reflect costs that are a function of other dimensions of rail service, such as the number of cars handled. This can be achieved by altering the number of mileage block units allocated to the originating and terminating carriers.

The argument by BNSF and Dr. Ordovery to eliminate cross-over traffic is aimed at pressuring the Board to rewrite the Guidelines. I believe it would be a step backward. Inclusion of cross-over traffic is fundamentally consistent with the use of stand-alone costing in a free entry/free exit environment. If, as the Guidelines provide, the SARR has access to all of the productive techniques and modes of competitive behavior available to the incumbent, it must be as free as the incumbent to interline traffic and carry out revenue sharing agreements on such traffic. Every railroad in the country interlines traffic for precisely the same reasons that a SARR would interline traffic (i.e. cost sharing and operating efficiencies), and that will continue so long as there is more than a single railroad.

Just as actual railroads do not as a matter of policy build all of the facilities needed to carry their traffic from origin to destination, it would be a serious mistake to impose Dr. Ordovery's principle, that "the complaining shipper should be required to build all the facilities needed to carry the traffic it selects." (Id. at 3) The SARR should be as free to buy and sell transportation service as the firms whose operations it attempts to replicate. Anything less is a violation of the assumption of contestability under which it operates.

What BNSF and Dr. Ordovery call "manipulation" is in fact the critical policy underlying the Guidelines and SAC analysis that the SARR can and should include all of the traffic necessary for economic efficiency. Indeed, the Guidelines specifically state (at p. 544) that "there is no need for restrictions on traffic that may potentially be included in a stand-alone group," and that, "The plant should be designed to minimize construction (or acquisition) and operating costs and/or maximize the carriage of profitable traffic. In

selecting the route of a SAC railroad, for instance, an overriding factor may be the effort to lower costs by taking advantage of economies of density.” Id. At 544. The Guidelines expressly do not require the SARR to construct necessary facilities to carry all selected traffic end-to-end. Moreover, Dr. Ordoover’s claim ignores the dictum of Interstate Commerce Commission Chairman McDonald, in Nevada Power II, to the effect that:

. . . [i]n designing a stand-alone railroad (SARR), it may be assumed that existing single-line traffic would become interline traffic that is passed on at hypothetical interchange points. Permitting this assumption, and thus crediting a SARR with so-called "cross-over traffic", will allow shippers to make effective cases before the Commission using smaller hypothetical SARRs than would otherwise be required. Viewing a SARR's interline partners simply as additional customers of the SARR means that the captive shipper is not required to ensure that far-flung rail lines are earning their full replacement cost of capital. (p. 280)

Dr. Ordoover also brings in the possible threat to revenue adequacy as justification for his attack on cross-over traffic. This ignores the fact that a major purpose of using Stand-Alone costing is to identify the cost of service to the complainant shipper, not the total cost of all of the incumbent’s operations and facilities. The Board and the ICC have clearly established that a railroad’s revenue inadequacy is immaterial to a determination of the reasonableness of its rates. A railroad may lack revenue adequacy for a host of reasons, none of which relate to the costs and revenues of the issue traffic. To use revenue adequacy as a criterion to determine the reasonableness of a specific rate would deny the complainant an opportunity to identify the cost and revenue of providing his service. Indeed, revenue inadequacy is not considered to be a ground for denying relief to a captive shipper whose rate exceeds stand-alone cost. At 536, the Guidelines state that “a rate may be unreasonable even if the carrier is far short of revenue adequacy.”

3. Dr. Ordover's Retreat from a single-line SARR.

Having staked out an untenable position with regard to cross-over traffic, Dr. Ordover then retreats to a second line of argument based on the presumption that cross-over traffic should be limited. Compromising with his call for elimination of cross-over traffic, he expresses willingness to allow its continuation subject to severe limitation. What are represented as concessions, however, are actually attempts to re-write the Guidelines to reduce the efficiency of the SARR below its optimal level. The following quotations from Dr. Ordover's testimony make that clear:

- i. To provide guidance in future cases, the Board could limit the incentives and ability of the complaining shipper to rely on cross-over traffic to lower its rate(s) by limiting the amount of cross-over traffic that it permitted to be included in a SAC model. (Id. at 16)
- ii. Similarly, the board may require that the complaining shipper who wishes to include some cross-over traffic in the SAC test actually build as part of the SARR those "off-line" facilities that are effectively dedicated to the claimed cross-over traffic. Plainly, if the non-included off-line facilities are totally dedicated to cross-over traffic, the cross-over traffic should have to pay for them. (Id. at 16)
- iii. The Board can further constrain these incentives and the concomitant misallocations by insisting, as I suggested earlier, that the shipper justify why it prefers not to build out all the requisite facilities for the carriage of claimed traffic. (Id. at 16)

I will answer these below. Note first, however, that there is nothing in the Guidelines or cases construing them that requires the SARR to construct all of the facilities necessary to handle the issue traffic and other grouped traffic, or limit itself to the revenue contribution that would occur from construction and utilization of such facilities. The devices Dr. Ordover suggests are designed to limit the volume of cross-over traffic on the SARR, without any justification for doing so other than to hobble the SARR as a competitor with the residual incumbent.

Proposals to interfere with cross-over traffic have been raised in earlier rate protests before the Board, and have been rejected, as for example the decision in Nevada

Power I:

Accepting the railroad's argument [that interline traffic should be excluded from the group unless it can be shown to cover its total costs from ultimate origin to ultimate destination] would be tantamount to sanctioning an entry barrier, since respondents do not face the same requirement. Respondents do not ensure that all connecting carriers cover the costs of moving interline traffic over their systems. Respondent's argument also runs counter to a fundamental principle of contestable market theory, i.e., that an entrant can, without restriction, use the same productive techniques as the incumbents.

Dr. Ordover's specific suggestions for limiting the SARR's provision of cross-over traffic inherit the same weaknesses as earlier attempts by the railroads to prevent the SARR from carrying out such service.

i) There is no correct upper limit to the amount of cross-over traffic that may be carried by the SARR. Limiting the amount of cross-over traffic restricts the ability of the SARR to compete, constrains its productive efficiency, and reduces the prospective profitability of entering the market in the first place. Just as a competitor in the automobile industry is free to decide between buying or making components for the assembly of a finished automobile, so the SARR must be free to decide between buying transport service through interlining or providing transport service through the construction and operation of its own facilities. A firm which is forced to create all of its inputs and denied purchase from outside providers is less efficient than a firm that can purchase from the outside as well.

In application to the present proceeding, moreover, a limit to the amount of cross-over traffic sets a higher burden of proof on small shippers whose rates are the subject of complaint. For Dr. Ordover's proposal to restrict the volume of cross-over traffic would

make it impossible for a small coal shipper to add its traffic to a SARR that served as an overhead carrier whose chief freight business consisted of commodities other than coal.

ii) Moreover, if BNSF believes that the residual incumbent is forced to bear significant costs associated with facilities dedicated to the cross-over traffic, these data should be included in the railroad's evidence, so that they may be tested in rebuttal.

iii) Finally, the fact that the SARR is an overhead carrier is a matter of geography. It connects the shipper's generating station with the sources of coal, covering a route that also carries significant amounts of overhead traffic. The SARR should not need special permission to carry out the same functions that are performed by real-life railroads. Indeed, if taken to its ultimate conclusion, Dr. Ordovery's injunction against cross-over traffic would require the SARR to be a railroad that connected Atlantic, Pacific, and Gulf coasts. Anything less is bound to carry cross-over traffic.

Exhibits III-A-12 to III-A-13
Have Been Redacted.

**PROCEDURES FOLLOWED TO IDENTIFY ACE REVENUES
BASED ON ACTUAL BNSF MARKET PLACE REVENUE DIVISION DATA**

When comparing the relationship between two variables, a statistical procedure called a regression analysis can be used to develop an equation to define how the two variables are related. Specifically, the equation can be used to predict how the change in one variable, called the independent variable, will cause a change in the second variable, called the dependent variable. In this two-variable case, the regression equation forms a least-squares line through a plot of the two variables on the Y axis of a graph. In general, a linear regression equation takes the following form:

$$y = a + bx$$

In the above regression equation, “y” represents the dependent variable and “x” the independent variable. As the function is a line, “a” represents the point that the line crosses the Y axis or the Y intercept and “b” represents the slope of the line.

This simple yet effective equation can be used to predict the relationship between variables, assuming that the two variables have a linear relationship with each other. Several statistical tests may be employed to determine the relationship between the two variables and to ascertain whether or not changes in the independent variable significantly effect the dependent variable. The coefficient of determination (“R Square”) is a measure of the “fit” of the least-squares line for the regression variables. In a two-variable regression analysis, this coefficient measures the linear nature between the two variables. The coefficient value is always between zero and one, with the regression becoming a better “fit” as the coefficient becomes closer to one. One must be assured that the “x” coefficient or slope is not zero because this would signify that the independent variable has no effect

**PROCEDURES FOLLOWED TO IDENTIFY ACE REVENUES
BASED ON ACTUAL BNSF MARKET PLACE REVENUE DIVISION DATA**

on the dependent variable. A t-statistic is developed for the coefficient which represents the “x” coefficient along a normal distribution. A p-value for this t-statistic is then developed to measure the percent chance that the t-statistic is at the center of the normal curve and thus the “x” coefficient is insignificant. This p-value is a value between zero and one, with the likelihood of the “x” coefficient being significant increasing as the p-value approaches zero.

A. Cross-Over Coal Traffic Revenue Divisions

AEPCO used intermodal pricing authorities provided by BNSF¹ to develop the relationship between the percentage of the overhead carrier’s miles to total movement miles for a specific movement and the percentage of total movement revenue the overhead carrier receives from that movement. BNSF provided this data in hard-copy format and AEPCO input selected movements onto a spreadsheet used in the regression analysis.²

A regression analysis was used to determine revenue divisions for intermodal traffic handled by the ACE using revenue division data provided by BNSF. Intermodal traffic handled by the ACE is handled in overhead service. BNSF provided revenue division data included division information for each carrier involved in the interline service for the particular movement. Movements for which three carriers were involved and revenue division data was available for each of the three carriers were included in the analysis. The objective of AEPCO’s analyses was to analyze the relationship between the overhead carrier’s miles as a percentage of the total miles of the movement and the overhead

¹See BNSF/AEPCO-42191 to BNSF/AEPCO-44095.

²See electronic file “Exhibit III-A-13.xls”

**PROCEDURES FOLLOWED TO IDENTIFY ACE REVENUES
BASED ON ACTUAL BNSF MARKET PLACE REVENUE DIVISION DATA**

carrier's revenue as a percentage of the total revenue from the movement. For each movement, the percentage of the overhead carrier's miles compared to the total movement miles and the percentage of the overhead carrier's revenue compared to the total revenue were calculated and regressed. The analysis showed a favorable R-square value and the p-test showed the independent variable to be significant.³ The regression results for the cross-over intermodal overhead traffic revenue group are as follows:⁴

³For non-coal overhead movements, an R-square value of 0.91 was produced and a p-value for the variable X was 3.27e-37..

⁴See this Exhibit III-A-14, page 4 of 5.

Exhibit III-A-15
Has Been Redacted.

**III-B Stand-Alone
Railroad System**

W. W. WHITEHURST & ASSOCIATES, INC.
ECONOMIC CONSULTANTS

12421 HAPPY HOLLOW ROAD
COCKEYSVILLE, MARYLAND 21030

PHONE (410) 252-2422
FACSIMILE (410) 561-9215

June 26, 2003

In Parts I and III. B of their SAC Reply Evidence, Defendants BNSF and UP take issue with AEPCO's configuration of its SARR (known as the ACE) to use existing BNSF trackage rights over UP's line between Vaughn, NM and El Paso, TX. The trackage rights (and the fees therefor) with which BNSF and UP take issue are provided under a Trackage Rights Agreement between UP and BNSF by which BNSF is provided access to the former St. Louis Southwestern Railway Company Tucumcari Line. A copy of this agreement is included in AEPCO's Opening Evidence Workpapers Vol. 9, pp. 04218-04236. As stated at p. III-D-71 of AEPCO's Opening Evidence Narrative, the trackage rights rate "equals { } at the 2001 level for the Vaughn-El Paso trackage rights."

The BNSF and UP position on a SARR's use of trackage rights which one defendant has over a line of another defendant is summarized by the following argument at p. I-16 of BNSF's SAC Reply Evidence Narrative:

"The use of a trackage rights fee in a SAC case would be appropriate only if the complaint could show that the level of the fee was sufficient to ensure that the attributable *and unattributable* costs of the line were fully covered." (Emphasis in original)

AEPCO has asked William W. Whitehurst, Jr. of W. W. Whitehurst & Associates, Inc. to evaluate the extent to which the trackage rights rate payable to UP in accordance with this agreement covers UP's attributable and unattributable costs incurred in connection with BNSF's use of the Vaughn - El Paso line. (AEPCO has proposed that the ACE "step into the shoes" of BNSF under this agreement, which means it would pay UP the same level of compensation for use of the Vaughn - El Paso line as BNSF.)

To perform this evaluation, I have compared the trackage rights rate that BNSF pays UP to the costs (stated on a gross ton-mile basis) that UP incurs in providing the trackage rights. The costs that UP incurs in providing trackage rights are commonly referred to as "below-the-wheel" costs.

As described below, I conclude from my evaluation that the trackage rights rate of 3.2 mills per gross ton-mile at the 2001 level that BNSF pays UP EXCEEDS UP's below-the-wheel attributable costs PLUS UP's below-the-wheel unattributable costs. Thus, this trackage rights rate compensates UP for the relevant costs UP incurs, including return on UP investment, in providing the trackage rights to BNSF. In other words, the trackage rights fee that ACE is paying UP to move trains between Vaughn and El Paso satisfies the criteria that BNSF and UP demand.

DETERMINATION OF UP "BELOW-THE-WHEEL" COSTS

"Below-the-wheel" costs are those operating expenses and maintenance costs incurred by the landlord railroad (here UP) to permit the tenant (here BNSF) to conduct operations over the line segment at issue.¹ The principal components of these below-the-wheel activities are maintenance of way and structures and train control, together with associated overhead expenses and general overheads.

To determine UP's below-the-wheel costs at the 2001 level, I have used the STB's 2001 URCS for UP. I have included the operating expenses (OPR), depreciation and leases (DLR), and return on investment (ROI) components of these costs. I have computed costs at both the variable cost level and at the full cost level. In accordance with STB preference, I have incorporated constant costs into full (or total) costs using the URCS Flow-Through Processing Option,² which is a selectable input to URCS.

The STB relies on variable costs produced by the URCS as the proxy for Long Run Marginal Costs ("LRMC"), which are attributable costs viewed from a long term perspective.³ Table 1 below presents my development of UP below-the-wheel variable costs using the STB 2001 URCS for UP.

¹ CSX Corporation and CSX Transportation, Inc., Norfolk Southern Corporation and Norfolk Southern Railway Company -- Control and Operating Leases/Agreements -- Conrail, Inc. and Consolidated Rail Corporation, STB Finance Docket No. 33388 (Sub-No. 69), Responsive Application -- State of New York, By and Through Its Department of Transportation, and the New York City Economic Development Corporation, Decision No. 123 served May 20, 1999, at 3.

² *Ibid*, p. 4: "We conclude that this approach [that is, the Flow-Through Option] is the most accurate method available for calculating full costs for the selected group of activities (below-the-wheel costs) at issue."

³ Ex Parte No. 347 (Sub-No. 2) Rate Guidelines - Non-Coal Proceedings, 1 S.T.B. 1004, 1027 (1996).

Table 1
UP 2001 URCS Below-the-Wheel Variable Costs
For Activities Covered by Trackage Rights Payments
(M/W and Train Control)

Line No.	Item	URCS Source or Computation	URCS Variable Amount ⁴
	(1)	(2)	(3)
	<u>GTM Costs</u>		
1	OPR	D1L157C10 * D8L607C1	\$0.00038151
2	DLR	D1L234C10 * D8L608C1	\$0.00034498
3	ROI	D1L251C10 * D8L609C1	\$0.00072930
4	Total GTM Costs	Sum(L.1 - L.3)	\$0.00145578
	<u>Train Control</u>		
5	Train Control	D3L(159+160+161+162)C10	\$0.00000000
6	Transportation Fringe Rate	Note 1	24.83%
7	Transportation Fringes	L.5 * L.6	\$0.00000000
8	OPR GOH Rate	D8L607C1	1.11020
9	Total Train Control incl Fringes & GOH	(L.5 + L.7) * L.8	\$0.00000000
10	Total Below-the-Wheel Variable Costs Per GTM	L.4 + L.9	\$0.00145578
Note 1: Transportation fringe rate calculated as: D3L(173+175+175)C3 / D3L172C(2+3).			

As shown, UP below-the-wheel variable costs at the 2001 level are 1.46 mills per gross ton-mile. Hence, the trackage rights rate (or fee) of { } that BNSF pays UP to operate over UP's line between Vaughn and El Paso exceeds UP's attributable costs by { }. Stated differently, UP realizes a revenue to variable cost ("R/VC") ratio in excess of { } from BNSF trackage rights rate payments.

⁴ The STB uses URCS variable costs as the proxy for long run marginal costs ("LRMC"), that is, attributable costs viewed from a long term perspective.

Table 2 below presents my development of UP below-the-wheel full costs using the STB 2001 URCS for UP with the Flow-Through Option. Full costs consist of attributable costs plus unattributable costs.

Table 2
UP 2001 URCS Below-the-Wheel Full Costs
For Activities Covered by Trackage Rights Payments (M/W and Train Control)
(in thousands)

Line No.	Item	URCS Source or Computation	URCS Full Cost Amount ⁵
	(1)	(2)	(3)
	<u>GTM Costs</u>		
1	OPR	D1L157C(2+3) * D8L607C1	\$ 532,360
2	DLR	D1L234C(2+3) * D8L608C1	\$ 629,329
3	ROI	D1L251C(2+3) * D8L609C1	<u>\$1,390,382</u>
4	Total GTM Costs	Sum(L.1 - L.3)	<u>\$2,552,070</u>
	<u>Train Control</u>		
5	Train Control	D3L(159+160+161+162)C3	\$ 40,921
6	Transportation Fringe Rate	Note 1	<u>24.83%</u>
7	Transportation Fringes	L.5 * L.6	\$ 10,159
8	OPR GOH Rate	D8L607C1	<u>1.13442</u>
9	Total Train Control incl Fringes & GOH	(L.5 + L.7) * L.8	<u>\$ 57,947</u>
10	Total Below-the-Wheel Costs	L.4 + L.9	\$2,610,017
11	Average Gross Ton Miles	Note 2	<u>904,053,325</u>
12	Rate per Gross Ton-Mile	L.10 / L.11	<u>\$0.002887</u>
Note 1: Transportation fringe rate calculated as: D3L(173+174+175)C3 / D3L172C(2+3).			
Note 2: Average trailing gross tons used in URCS, calculated as: D1L157C7 / D1L157C10.			

⁵ URCS full costs consist of attributable costs plus unattributable costs.

As shown in Table 2, UP below-the-wheel attributable plus unattributable costs (full costs) at the 2001 level are 2.89 mills per gross ton-mile. Hence, the trackage rights rate of { } that BNSF pays UP to operate between Vaughn and El Paso exceeds UP's attributable costs PLUS unattributable costs by { }.⁶

⁶ To test the sensitivity of the calculations I perform here to the Account 76 and Account 90 issue raised by BNSF and UP in this proceeding, I have also calculated UP below-the-wheel costs using a UP 2001 URCS in which the treatment of accounts 76 and 90 is reversed (as BNSF and UP argue should be the appropriate approach). Using the BNSF and UP version of the UP 2001 URCS, UP below-the-wheel variable costs are 1.47 mills per gross ton-mile and UP below-the-wheel full costs are 2.92 mills per gross ton-mile. (For computations deriving these amounts, see electronic workpaper Rebuttal Whitehurst UP 2001 Below the Wheel.xls.) Therefore, even using the version of URCS that the railroads argue here is appropriate, the { } trackage rights rate that BNSF pays UP to operate over UP's line between Vaughn and El Paso EXCEEDS UP's attributable costs PLUS unattributable costs by { }.

III-H Results of SAC Analysis

AGE DISCOUNTED CASH FLOW MODEL

TABLE A: AGE ANNUAL COST OF CAPITAL

Year	Industry Cost of Capital	Industry Cost of Debt	Industry Cost of Preferred Equity	Industry Cost of Equity	ACE's Cost of Debt	ACE's Cost of Preferred Equity	ACE's Cost of Equity	Debt as a Percent Investment	Preferred Equity as a Percent Investment	Equity as a Percent Investment	Composite Cost of Capital	1 + Cost of Capital	STB Prescribed Debt as a % of Capital	STB Prescribed Preferred Equity as a % of Capital
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1998	1/ 10.67%	6.60%	6.20%	13.10%	6.60%	6.20%	13.10%	36.00%	1.35%	62.65%	10.67%	1.1067	36.00%	1.35%
1999	2/ 10.76%	7.20%	6.30%	12.90%	7.20%	6.30%	12.90%	35.50%	1.80%	62.70%	10.76%	1.1076	35.50%	1.80%
2000	3/ 11.03%	8.00%	6.30%	13.90%	8.00%	6.30%	13.90%	45.40%	2.50%	52.10%	11.03%	1.1103	45.40%	2.50%
2001	4/ 10.74%	6.90%	6.30%	12.80%	7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074	41.80%	2.25%
2002					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2003					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2004					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2005					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2006					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2007					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2008					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2009					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2010					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2011					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2012					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2013					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2014					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2015					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2016					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2017					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2018					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2019					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2020					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		

Base Case
With No Revenue Adjustment

- 1/ Decision in ICC Ex Parte No. 558 (Sub No. 2) - Railroad Cost of Capital - 1998.
2/ Decision in ICC Ex Parte No. 558 (Sub No. 3) - Railroad Cost of Capital - 1999.
3/ Decision in ICC Ex Parte No. 558 (Sub No. 4) - Railroad Cost of Capital - 2000.
4/ Decision in ICC Ex Parte No. 558 (Sub No. 5) - Railroad Cost of Capital - 2001.

TABLE B. AGE INFLATION INDEXES

	Year	Percent Change				
		1998 (2)	1999 (3)	2000 (4)	2001 (5)	2002 (6)
1. Material prices, wages, and supplements, combined (excl. fuel) 1/	Year	0.0%	1.7%	3.8%	2.8%	3.3%
	2003	3.4%	2004	2005	2006	2007
	Year	2008	2009	2010-2020	3.6%	3.3%
	Year	3.2%	3.2%	3.4%		
	Year	1998 (2)	1999 (3)	2000 (4)	2001 (5)	2002 (6)
2. Materials and supplies 2/	Year	1.1%	0.1%	-1.1%	0.5%	0.9%
	2003	1.4%	2004	2005	2006	2007
	Year	2008	2009	2010-2020	1.1%	1.2%
	Year	1.3%	1.3%	1.5%		
	Year	1998 (2)	1999 (3)	2000 (4)	2001 (5)	2002 (6)
3. Wages and supplements 3/	Year	-0.1%	2.0%	4.5%	3.1%	3.6%
	2003	3.7%	2004	2005	2006	2007
	Year	2008	2009	2010-2020	3.9%	3.6%
	Year	3.5%	3.5%	3.7%		
	Year	2001-2020				
4. Land 4/	Year	1.88%				
	Year	2001	2002	2003	2004	2005
	Year	(1)	(2)	(3)	(4)	(5)
	Year	1.4%	2.5%	2.8%	2.7%	2.8%
	Year	2006	2007	2008	2009	2010-2020
5. Railroad Cost Adjustment Factor	Year	2.8%	2.8%	2.8%	2.9%	3.0%
	Year	2001	2002	2003	2004	2005
	Year	(1)	(2)	(3)	(4)	(5)
	Year	1.6%	0.3%	1.5%	2.6%	1.9%
	Year	2006	2007	2008	2009	2010-2020
Index	Year	1.4%	1.0%	0.8%	0.9%	1.0%
	Year	2001	2002	2003	2004	2005
	Year	(1)	(2)	(3)	(4)	(5)
	Year	-1.6%	0.3%	1.5%	2.6%	1.9%
	Year	2006	2007	2008	2009	2010-2020
Adjusted 6/	Year	1.4%	1.0%	0.8%	0.9%	1.0%
	Year	2001	2002	2003	2004	2005
	Year	(1)	(2)	(3)	(4)	(5)
	Year	-1.6%	0.3%	1.5%	2.6%	1.9%
	Year	2006	2007	2008	2009	2010-2020

1/ Used to index Road Property Accounts 3, 5, 6, 13, 16, 17, 19, 20, 26, 27, and 39.

2/ Used to index Road Property Accounts 8, 9, and 11.

3/ Used to index Road Property Accounts 1, and 12.

4/ Used to index Road Property Account 2.

5/ Used to index revenues in Table L.

6/ Used to index operating expenses in Table K.

TABLE C. ACE ROAD PROPERTY INVESTMENT VALUES

Construction of the ACE occurs over a three year period.
Investments are assumed to be in January 1, 2001 dollars.

Road Property Account (1)	Road Property Component (2)	Service Life in Years 1/ (3)	Investment in 7/1/1998 Dollars 2/ (4)	Investment in 7/1/1999 Dollars 3/ (5)	Investment in 7/1/2000 Dollars 4/ (6)	1998 Investment Value 5/ (7)	1999 Investment Value 6/ (8)	2000 Investment Value 7/ (9)	Total Property Investment 10/2001 8/ (10)
1	Engineering	NA	\$57,998,624	\$60,577,212	\$62,455,105	\$13,377,375	\$46,597,855	\$0	\$59,975,230
2	Land	NA	9,235,921	9,409,944	9,587,246	\$0	\$9,409,944	\$0	9,409,944
3	Grading	83	178,032,027	184,827,154	189,970,524	\$0	\$154,022,628	\$31,661,754	165,684,382
5	Tunnels	88	0	0	0	\$0	\$0	\$0	0
6	Bridges & Culverts	74	48,194,204	50,033,680	51,426,017	\$0	\$17,869,171	\$33,059,583	50,928,754
8	Ties	80	112,941,077	111,698,725	112,257,219	\$0	\$27,924,681	\$84,182,914	112,117,595
9	Rails and OTM	28	213,301,871	210,965,650	212,010,328	\$0	\$52,738,888	\$159,007,746	211,746,634
11	Ballast	25	178,382,762	176,420,551	177,302,654	\$0	\$44,105,138	\$132,976,991	177,082,128
12	Labor	39	164,333,621	171,728,634	177,052,222	\$0	\$42,932,158	\$132,789,166	175,721,325
13	Fences and Roadway Signs	81	82,170	68,505	70,411	\$0	\$17,126	\$52,808	69,934
14	Training Costs	NA	4,520,158	4,692,684	4,823,272	\$0	\$0	\$4,823,272	4,823,272
17	Roadway Buildings	26	2,517,364	2,613,447	2,686,174	\$0	\$653,362	\$2,014,631	2,667,992
19	Fuel Stations	30	18,503,304	19,209,539	19,744,102	\$0	\$4,802,385	\$14,808,076	19,610,461
20	Shops and Enginehouses	48	3,998,271	4,150,877	4,266,388	\$0	\$1,037,719	\$3,199,791	4,237,510
26	Communications Systems	23	9,380,004	9,738,020	10,009,009	\$0	\$2,434,505	\$7,506,757	9,941,262
27	Signals and Interlockers	31	39,698,574	41,213,789	42,360,687	\$0	\$10,303,447	\$31,770,515	42,073,962
39	Public Improvements	53	3,589,463	3,736,847	3,840,836	\$0	\$934,212	\$2,880,627	3,814,839
	Total		\$1,044,689,415	\$1,061,075,158	\$1,079,862,194	\$13,377,375	\$415,783,220	\$640,744,630	\$1,069,905,225

- 1/ 1 + Depreciation Rate in Schedule 332 of BNSF's 2001 Annual Report R-1.
2/ 1/1/2001 (Column (6)), indexed to 1998 dollars; Column (5) + (1 + Annual Inflation Rate from Table B, Column (3)).
3/ 1/1/2001 (Column (6)), indexed to 1999 dollars; Column (6) + (1 + Annual Inflation Rate from Table B, Column (4)).
4/ 1/1/2001 (Column (6)), indexed to 2000 dollars; Column (6) + (1 + Annual Inflation Rate from Table B, Column (5)).
5/ Column (4) x Percent constructed in 1998.
6/ Column (5) x Percent constructed in 1999.
7/ Column (6) x Percent constructed in 2000.
8/ Sum of Columns (7) through (9).

TABLE D. INTEREST DURING CONSTRUCTION

Month of Installation	Cost of Funds 1/	Timing of Account 1 Investment 2/	Timing of Account 2 Investment 2/	Timing of Accounts 3 and 13 Investment 2/	Timing of Accounts 5 and 6 Investment 2/	Timing of Accounts 8 Through 39 Investment 2/	Total Investment by Month 3/	Interest During Construction 4/	Cost of Debt 5/	Deductible Interest During Construction 6/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Jul 98	0.85%	\$2,229,562					\$2,229,562	\$18,911	0.53%	\$4,266
Aug 98	0.85%	2,229,562					2,229,562	37,982	0.53%	8,609
Sep 98	0.85%	2,229,562					2,229,562	57,216	0.53%	12,966
Oct 98	0.85%	2,229,562					2,229,562	76,612	0.53%	17,365
Nov 98	0.85%	2,229,562					2,229,562	96,173	0.53%	21,799
Dec 98	0.85%	2,229,562					2,229,562	116,842	0.58%	28,166
Jan 99	0.86%	4,659,786	\$1,176,243		5,836,028		5,836,028	167,744	0.58%	40,466
Feb 99	0.86%	4,659,786	1,176,243		5,836,028		5,836,028	219,062	0.58%	52,850
Mar 99	0.86%	4,659,786	1,176,243		5,836,028		5,836,028	270,859	0.58%	65,341
Apr 99	0.86%	4,659,786	1,176,243		5,836,028		5,836,028	323,078	0.58%	77,938
May 99	0.86%	4,659,786	1,176,243		5,836,028		5,836,028	375,744	0.58%	90,643
Jun 99	0.86%	4,659,786	1,176,243		5,836,028		5,836,028	428,961	0.58%	103,466
Jul 99	0.86%	4,659,786	1,176,243		5,836,028		5,836,028	482,431	0.58%	116,379
Aug 99	0.86%	4,659,786	1,176,243		5,836,028		5,836,028	535,456	0.58%	129,355
Sep 99	0.86%	4,659,786			5,836,028		5,836,028	588,456	0.58%	142,353
Oct 99	0.86%				5,836,028		5,836,028	641,456	0.58%	155,353
Nov 99	0.86%				5,836,028		5,836,028	694,456	0.58%	168,353
Dec 99	0.86%				5,836,028		5,836,028	747,456	0.58%	181,353
Jan 00	0.88%				5,836,028		5,836,028	800,456	0.64%	194,353
Feb 00	0.88%				5,836,028		5,836,028	853,456	0.64%	207,353
Mar 00	0.88%				5,836,028		5,836,028	906,456	0.64%	220,353
Apr 00	0.88%				5,836,028		5,836,028	959,456	0.64%	233,353
May 00	0.88%				5,836,028		5,836,028	1,012,456	0.64%	246,353
Jun 00	0.88%				5,836,028		5,836,028	1,065,456	0.64%	259,353
Jul 00	0.88%				5,836,028		5,836,028	1,118,456	0.64%	272,353
Aug 00	0.88%				5,836,028		5,836,028	1,171,456	0.64%	285,353
Sep 00	0.88%				5,836,028		5,836,028	1,224,456	0.64%	298,353
Oct 00	0.88%				5,836,028		5,836,028	1,277,456	0.64%	311,353
Nov 00	0.88%				5,836,028		5,836,028	1,330,456	0.64%	324,353
Dec 00	0.88%				5,836,028		5,836,028	1,383,456	0.64%	337,353
Total		\$59,975,230	\$9,409,944	\$185,754,316	\$50,928,754	\$759,013,709	\$1,065,081,953	\$99,412,054		\$32,263,346

- 1/ ((1 + Cost of Capital from Table A for the applicable year)^{((1/12) - 1) x 100}
2/ Applicable account value from Table C for the applicable investment period.
3/ Sum of Columns (3) through (7).
4/ Aug 98 equals Column (2) x prior Column (8), all other periods equal Column (2) x ((Sum of Column (8) for all prior periods) + (Sum of Column (9) for all prior periods)).
5/ ((1 + Cost of Debt from Table A for the applicable year)^{((1/12) - 1) x 100}.
6/ Aug 98 equals prior Column (8) x Column (10) x Table A, Column (9) for 1998, all other periods equal Column (10) x ((Sum of Column (8) for all prior periods) + (Sum of Column (9) for all prior periods)) x Table A, Column (9) for the applicable year.

TABLE E: ACE AMORTIZATION SCHEDULE OF ASSETS PURCHASED WITH DEBT CAPITAL

AMORTIZATION SCHEDULE FOR THE ACE 1988 ROAD PROPERTY INVESTMENT FOR THE 102001 START-UP										
Quarter (1)	Beginning Balance (2)	Ending Balance (3)	Payment (4)	Principal (5)	Interest (6)	1/ TOTAL INVESTMENT	2/ DC	3/ PRINCIPAL	4/ INTEREST	5/ TERM
1	\$4,919,137	\$4,888,551	\$109,817	\$30,586	\$79,231	\$13,377,375	\$286,884	\$4,919,137	6.6%	80 Quarters
2	4,888,551	4,857,472	109,817	31,079	78,738					
3	4,857,472	4,825,882	109,817	31,579	77,238					
4	4,825,882	4,793,804	109,817	32,088	76,729					
5	4,793,804	4,761,189	109,817	32,605	76,212					
6	4,761,189	4,728,089	109,817	33,130	75,687					
7	4,728,089	4,694,405	109,817	33,660	75,157					
8	4,694,405	4,660,199	109,817	34,206	74,613					
9	4,660,199	4,625,443	109,817	34,757	74,060					
10	4,625,443	4,590,126	109,817	35,317	73,500					
11	4,590,126	4,554,240	109,817	35,886	72,932					
12	4,554,240	4,517,777	109,817	37,051	72,354					
13	4,517,777	4,480,726	109,817	37,646	71,770					
14	4,480,726	4,443,079	109,817	38,250	71,185					
15	4,443,079	4,404,825	109,817	38,860	70,597					
16	4,404,825	4,365,965	109,817	39,476	70,007					
17	4,365,965	4,326,498	109,817	40,132	69,408					
18	4,326,498	4,286,325	109,817	40,779	68,809					
19	4,286,325	4,245,547	109,817	41,436	68,232					
20	4,245,547									

AMORTIZATION SCHEDULE FOR THE ACE 1988 ROAD PROPERTY INVESTMENT FOR 102001 START-UP										
Quarter (1)	Beginning Balance (2)	Ending Balance (3)	Payment (4)	Principal (5)	Interest (6)	1/ TOTAL INVESTMENT	2/ DC	3/ PRINCIPAL	4/ INTEREST	5/ TERM
1	\$150,916,957	\$150,039,879	\$3,523,174	\$877,076	\$2,646,085	\$416,783,220	\$150,916,957	\$150,916,957	7.2%	80 Quarters
2	150,039,879	149,147,422	3,523,174	882,456	2,640,717					
3	149,147,422	148,239,318	3,523,174	890,104	2,639,069					
4	148,239,318	147,315,291	3,523,174	924,027	2,599,147					
5	147,315,291	146,375,053	3,523,174	940,226	2,552,946					
6	146,375,053	145,418,550	3,523,174	953,688	2,509,466					
7	145,418,550	144,444,862	3,523,174	969,266	2,457,617					
8	144,444,862	143,454,325	3,523,174	987,539	2,407,479					
9	143,454,325	142,448,329	3,523,174	1,008,579	2,349,595					
10	142,448,329	141,420,785	3,523,174	1,032,476	2,289,699					
11	141,420,785	140,377,206	3,523,174	1,059,485	2,227,297					
12	140,377,206	139,315,329	3,523,174	1,089,440	2,162,679					
13	139,315,329	138,234,635	3,523,174	1,121,717	2,093,457					
14	138,234,635	137,135,395	3,523,174	1,156,332	2,022,863					
15	137,135,395	136,018,678	3,523,174	1,193,260	1,951,914					
16	136,018,678	134,884,447	3,523,174	1,232,559	1,880,615					
17	134,884,447	133,732,959	3,523,174	1,274,083	1,809,876					
18	133,732,959	132,564,157	3,523,174	1,317,281	1,739,878					
19	132,564,157	131,382,153	3,523,174							
20	131,382,153									

AMORTIZATION SCHEDULE FOR THE ACE 1988 ROAD PROPERTY INVESTMENT FOR 102001 START-UP										
Quarter (1)	Beginning Balance (2)	Ending Balance (3)	Payment (4)	Principal (5)	Interest (6)	1/ TOTAL INVESTMENT	2/ DC	3/ PRINCIPAL	4/ INTEREST	5/ TERM
1	\$329,473,044	\$327,724,724	\$8,148,843	\$1,748,320	\$6,400,524	\$555,921,359	\$329,473,044	\$329,473,044	8.0%	80 Quarters
2	327,724,724	325,942,440	8,148,843	1,782,264	6,366,580					
3	325,942,440	324,126,533	8,148,843	1,816,907	6,331,636					
4	324,126,533	322,273,330	8,148,843	1,852,203	6,296,640					
5	322,273,330	320,385,144	8,148,843	1,888,185	6,260,659					
6	320,385,144	318,460,278	8,148,843	1,924,866	6,223,977					
7	318,460,278	316,499,019	8,148,843	1,962,280	6,186,534					
8	316,499,019	314,507,639	8,148,843	2,000,380	6,148,654					
9	314,507,639	312,485,359	8,148,843	2,038,240	6,109,619					
10	312,485,359	310,432,567	8,148,843	2,075,926	6,069,635					
11	310,432,567	308,350,303	8,148,843	2,113,400	6,028,903					
12	308,350,303	306,248,893	8,148,843	2,150,610	5,986,644					
13	306,248,893	304,129,153	8,148,843	2,187,600	5,943,553					
14	304,129,153	301,990,977	8,148,843	2,224,314	5,899,664					
15	301,990,977	299,833,570	8,148,843	2,260,780	5,855,094					
16	299,833,570	297,657,327	8,148,843	2,297,510	5,810,810					
17	297,657,327	295,461,757	8,148,843	2,334,544	5,766,213					
18	295,461,757	293,247,380	8,148,843	2,371,882	5,721,508					
19	293,247,380	291,014,686	8,148,843	2,409,561	5,676,981					
20	291,014,686									

1/ From Table D, Column (6) for the applicable year investment.
2/ From Table D, Column (6) for the applicable year investment.
3/ From Table D, Column (6) for the applicable year investment.
4/ From Table D, Column (6) for the applicable year investment.
5/ Model life of 20 years x 4.
6/ Line 3 Principal financed over Line 5 Term at Line 4 Interest Rate on a quarterly basis.
7/ Current quarter Payment - Interest.
8/ Current quarter Beginning Balance x (1 + The Quarterly Interest Rate).
9/ Current quarter Ending Balance x (1 + The Quarterly Interest Rate).

TABLE E. ACE AMORTIZATION SCHEDULE OF ASSETS PURCHASED WITH DEBT CAPITAL (Continued)

AMORTIZATION SCHEDULE FOR THE ACE 1998 ROAD PROPERTY INVESTMENT FOR THE 10/20/01 START-UP									
Quarter	Beginning Balance	Ending Balance	Payment	Principal \$	Interest \$	1/ Total Investment	2/ IDC	3/ Principal	4/ Interest
1	\$4,204,112	\$4,162,009	\$108,817	\$42,103	\$67,714	\$130,131,001	\$129,880,714	\$3,523,174	\$1,241,697
2	4,162,009	4,119,428	108,817	42,103	67,714	127,616,755	127,364,755	3,523,174	1,235,458
3	4,119,428	4,076,848	108,817	42,103	67,714	125,152,992	124,900,992	3,523,174	1,229,219
4	4,076,848	4,034,268	108,817	42,103	67,714	122,689,230	122,437,230	3,523,174	1,222,980
5	4,034,268	3,991,688	108,817	42,103	67,714	120,225,467	119,973,467	3,523,174	1,216,741
6	3,991,688	3,949,108	108,817	42,103	67,714	117,761,704	117,509,704	3,523,174	1,210,502
7	3,949,108	3,906,528	108,817	42,103	67,714	115,297,941	115,045,941	3,523,174	1,204,263
8	3,906,528	3,863,948	108,817	42,103	67,714	112,834,178	112,582,178	3,523,174	1,198,024
9	3,863,948	3,821,368	108,817	42,103	67,714	110,370,415	110,118,415	3,523,174	1,191,785
10	3,821,368	3,778,788	108,817	42,103	67,714	107,906,652	107,654,652	3,523,174	1,185,546
11	3,778,788	3,736,208	108,817	42,103	67,714	105,442,889	105,190,889	3,523,174	1,179,307
12	3,736,208	3,693,628	108,817	42,103	67,714	102,979,126	102,727,126	3,523,174	1,173,068
13	3,693,628	3,651,048	108,817	42,103	67,714	100,515,363	100,263,363	3,523,174	1,166,829
14	3,651,048	3,608,468	108,817	42,103	67,714	98,051,599	97,799,599	3,523,174	1,160,590
15	3,608,468	3,565,888	108,817	42,103	67,714	95,587,836	95,335,836	3,523,174	1,154,351
16	3,565,888	3,523,308	108,817	42,103	67,714	93,124,073	92,872,073	3,523,174	1,148,112
17	3,523,308	3,480,728	108,817	42,103	67,714	90,660,310	90,408,310	3,523,174	1,141,873
18	3,480,728	3,438,148	108,817	42,103	67,714	88,196,547	87,944,547	3,523,174	1,135,634
19	3,438,148	3,395,568	108,817	42,103	67,714	85,732,784	85,480,784	3,523,174	1,129,395
20	3,395,568	3,352,988	108,817	42,103	67,714	83,269,021	83,017,021	3,523,174	1,123,156
21	3,352,988	3,310,408	108,817	42,103	67,714	80,805,258	80,553,258	3,523,174	1,116,917
22	3,310,408	3,267,828	108,817	42,103	67,714	78,341,495	78,089,495	3,523,174	1,110,678
23	3,267,828	3,225,248	108,817	42,103	67,714	75,877,732	75,625,732	3,523,174	1,104,439
24	3,225,248	3,182,668	108,817	42,103	67,714	73,413,969	73,161,969	3,523,174	1,098,200
25	3,182,668	3,140,088	108,817	42,103	67,714	70,950,206	70,698,206	3,523,174	1,091,961
26	3,140,088	3,097,508	108,817	42,103	67,714	68,486,443	68,234,443	3,523,174	1,085,722
27	3,097,508	3,054,928	108,817	42,103	67,714	66,022,680	65,770,680	3,523,174	1,079,483
28	3,054,928	3,012,348	108,817	42,103	67,714	63,558,917	63,306,917	3,523,174	1,073,244
29	3,012,348	2,969,768	108,817	42,103	67,714	61,095,154	60,843,154	3,523,174	1,067,005
30	2,969,768	2,927,188	108,817	42,103	67,714	58,631,391	58,379,391	3,523,174	1,060,766
31	2,927,188	2,884,608	108,817	42,103	67,714	56,167,628	55,915,628	3,523,174	1,054,527
32	2,884,608	2,842,028	108,817	42,103	67,714	53,703,865	53,451,865	3,523,174	1,048,288
33	2,842,028	2,799,448	108,817	42,103	67,714	51,240,102	50,988,102	3,523,174	1,042,049
34	2,799,448	2,756,868	108,817	42,103	67,714	48,776,339	48,524,339	3,523,174	1,035,810
35	2,756,868	2,714,288	108,817	42,103	67,714	46,312,576	46,060,576	3,523,174	1,029,571
36	2,714,288	2,671,708	108,817	42,103	67,714	43,848,813	43,596,813	3,523,174	1,023,332
37	2,671,708	2,629,128	108,817	42,103	67,714	41,385,050	41,133,050	3,523,174	1,017,093
38	2,629,128	2,586,548	108,817	42,103	67,714	38,921,287	38,669,287	3,523,174	1,010,854
39	2,586,548	2,543,968	108,817	42,103	67,714	36,457,524	36,205,524	3,523,174	1,004,615
40	2,543,968	2,501,388	108,817	42,103	67,714	34,000,000	33,748,000	3,523,174	998,376

1/ From Table D, Column (6) for the applicable year investment.
2/ From Table D, Column (7) for the applicable year investment.
3/ From Table A, Column (6) for the applicable year investment.
4/ From Table A, Column (6) for the applicable year investment.
5/ From Table A, Column (6) for the applicable year investment.
6/ From Table A, Column (6) for the applicable year investment.
7/ Current quarter Beginning Balance - Principal.
8/ Current quarter Payment - Interest.
9/ Current quarter Beginning Balance x (1 + The Quarterly Interest Rate).

(continued)

- 1/ From Table D, Column (9) for the applicable year investment.
- 2/ From Table D, Column (9) for the applicable year investment.
- 3/ From Table D, Column (9) for the applicable year investment.
- 4/ Total Investment + CDD x (Proportion of Debt from Table A, Column (3)).
- 5/ From Table A, Column (9) for the applicable year investment.
- 6/ Model life of 20 years x 4.
- 7/ Line 3 Principal financed over Line 5 Term at Line 4 Interest Rate on a quarterly basis.
- 8/ Current Quarter Beginning Balance - Principal.
- 9/ Current Quarter Payment - Interest.
- 10/ Current Quarter Beginning Balance x (1 + The Quarterly Interest Rate)

TABLE F: ACE PRESENT VALUE OF REPLACEMENT COST

Road Property Account (1)	Road Property Component (2)	Service Life In Years 1/ (3)	Investment 2/ (4)	Salvage 3/ (5)	Replacement Year Asset Net Cost 4/ (6)	Replacement Cost Adjusted To Reflect An Infinite Life 5/ (7)	Present Value Of Replacement Cost Adjusted To Reflect An Infinite Life (2001 Dollars) 6/ (8)
3	Grading	83	\$2,786,847,485	\$0	\$2,565,509,035	\$2,569,758,391	\$492,214
5	Tunnels	88	0	0	0	0	0
6	Bridges & Culverts	74	569,384,827	0	401,421,324	402,778,262	199,715
8	Ties	80	333,973,761	0	204,906,577	205,345,287	55,393
9	Rails and OTM	28	323,264,762	28,867,595	181,686,719	205,075,584	11,263,262
11	Ballast	25	259,444,985	0	159,180,121	186,326,541	14,195,740
12	Labor	39	705,296,206	0	432,729,327	456,013,003	8,555,379
13	Fences and Roadway Signs	81	983,908	0	693,664	695,007	164
14	Training Costs	NA	0	0	0	0	0
17	Roadway Buildings	26	6,516,351	0	5,231,521	6,034,185	407,078
19	Fuel Stations	30	54,176,966	0	49,874,095	55,339,869	2,507,711
20	Shops and Enginehouses	48	20,877,183	0	19,219,064	19,699,858	137,801
26	Communications Systems	23	22,077,458	0	13,545,425	16,268,771	1,492,267
27	Signals and Interlockers	31	119,018,092	4,648,519	70,570,296	77,830,319	3,267,449
39	Public Improvements	53	21,952,048	0	15,476,388	15,740,352	66,679
Total			\$5,223,816,032	\$33,516,114	\$4,120,043,553	\$4,216,905,429	\$42,640,843

- 1/ From Table C, Column (3).
2/ (Table C, Column (10) after allocation of Engineering) x (Table B, Inflation Index)/(Column (3)).
3/ [(Column (4) x Estimated Salvage %) - (Table C, Column (10) after allocation of Engineering x Salvage %)] x (1 - Current Federal Tax Rate) + (Table C, Column (10) after allocation of Engineering x Salvage %).
4/ Column (4) - (Present Value of the remaining tax deductions for depreciation, interest expense and the Present Value of any salvage).
5/ Column (6) + [(Column (6)) / ((1 + Real Cost of Capital)/(Column (3) - 1))].
6/ Column (7) / (1 + Nominal Cost of Capital)/(Column (3))].

TABLE G: AGE TAX DEPRECIATION SCHEDULES

Depreciation of Start-up Investment for tax purposes using
accounting lives from Modified Accelerated Cost Recovery System (MACRS) 1/

Road Property Account (1)	Road Property Component (2)	Asset Lives Per MACRS (3)	Total 11/1/2001 Investment (4)	Depreciable Base (5)
1	Engineering	2/	\$59,975,230	\$59,975,230
2	Land	N/A	9,409,944	0
3	Grading	50	185,684,382	185,684,382
5	Tunnels	50	0	0
6	Bridges & Culverts	15	50,928,754	50,928,754
8	Ties	7	112,117,595	112,117,595
9	Rails and OTM	7	211,746,634	211,746,634
11	Ballast	7	177,082,128	177,082,128
12	Labor	7	175,721,325	175,721,325
13	Fences and Roadway Signs	15	69,934	69,934
14	Training Costs	2/	4,823,272	4,823,272
17	Roadway Buildings	15	2,667,992	2,667,992
19	Fuel Stations	15	19,610,461	19,610,461
20	Shops and Enginehouses	15	4,237,510	4,237,510
26	Communications Systems	7	9,941,262	9,941,262
27	Signals and Interlockers	7	42,073,962	42,073,962
39	Public Improvements	15	3,814,839	3,814,839
	Total		\$1,069,905,225	\$1,060,495,281

1/ Applicable Depreciation Method: 200 or 150 percent
Declining Balance Switching to Straight Line

Applicable Recovery Periods: 7, 15 and 50 a/ years

Applicable Convention: Mid-quarter(property placed in service in first quarter)

The Depreciation Rates are as follows for the corresponding

Recovery Period and Recovery year:

Recovery Year	5-Year 20.00%	7-Year 25.00%	15-Year 8.750%	50-Year 2.00%	Recovery Year	7-Year 10.00%	15-Year 5.810%	50-Year 2.00%
1	20.00%	25.00%	8.750%	2.00%	10	0.00%	5.810%	2.00%
2	20.00%	21.43%	9.130%	2.00%	11	0.00%	5.800%	2.00%
3	20.00%	15.31%	8.210%	2.00%	12	0.00%	5.810%	2.00%
4	20.00%	10.93%	7.390%	2.00%	13	0.00%	5.800%	2.00%
5	20.00%	8.75%	6.650%	2.00%	14	0.00%	5.810%	2.00%
6		8.74%	5.990%	2.00%	15	0.00%	5.800%	2.00%
7		8.75%	5.900%	2.00%	16	0.00%	0.740%	2.00%
8		1.09%	5.910%	2.00%	17	0.00%	0.000%	2.00%
9		0.00%	5.900%	2.00%	18	0.00%	0.000%	2.00%
					19-50	0.00%	0.000%	2.00%

a/ 50 year property uses the Straight Line Method for all time periods

2/ Applicable Recovery Period of 5 years for amortization of business start-up costs

TABLE G: ACE TAX DEPRECIATION SCHEDULES
(Continued)

Year (1)	Amortization - 5 Years			Depreciation - MACRS 7 Years			Depreciation - MACRS 15 Years			Depreciation - MACRS 50 Years			Total Annual Depreciation 10/ (14)
	Unamortized Investment 1/ (2)	Rate 2/ (3)	Annual Amount 3/ (4)	Undepreciated Investment 4/ (5)	Rate 2/ (6)	Annual Amount 5/ (7)	Undepreciated Investment 6/ (8)	Rate 2/ (9)	Annual Amount 7/ (10)	Unamortized Investment 8/ (11)	Rate 2/ (12)	Annual Amount 9/ (13)	
1	\$64,798,502	20.00%	\$12,959,700	\$728,682,906	25.00%	\$182,170,727	\$81,329,491	8.75%	\$7,116,330	\$185,684,382	2%	\$3,713,688	\$205,960,445
2	51,838,801	20.00%	12,959,700	546,512,180	21.43%	156,156,747	74,213,160	9.13%	7,425,383	181,970,694	2%	3,713,688	180,255,517
3	38,879,101	20.00%	12,959,700	390,355,433	15.31%	111,561,353	66,787,778	8.21%	6,677,151	178,257,007	2%	3,713,688	134,911,892
4	25,919,401	20.00%	12,959,700	278,794,080	10.93%	79,645,042	60,110,627	7.39%	6,010,249	174,543,319	2%	3,713,688	102,328,679
5	12,959,700	20.00%	12,959,700	199,149,038	8.75%	63,759,754	54,100,377	6.65%	5,408,411	170,829,631	2%	3,713,688	85,841,553
6				135,389,284	8.74%	63,686,886	48,691,966	5.99%	4,871,637	167,115,944	2%	3,713,688	72,272,210
7				71,702,398	8.75%	63,759,754	43,820,330	5.90%	4,798,440	163,402,256	2%	3,713,688	72,271,882
8				7,942,644	1.09%	7,942,644	39,021,890	5.91%	4,798,440	159,608,569	2%	3,713,688	16,462,904
9							34,215,317	5.90%	4,798,440	155,974,881	2%	3,713,688	8,512,128
10							29,416,877	5.91%	4,806,573	152,261,193	2%	3,713,688	8,520,261
11							24,610,304	5.90%	4,798,440	148,547,506	2%	3,713,688	8,512,128
12							19,811,864	5.91%	4,806,573	144,833,818	2%	3,713,688	8,520,261
13							15,005,291	5.90%	4,798,440	141,120,130	2%	3,713,688	8,512,128
14							10,206,851	5.91%	4,806,573	137,406,443	2%	3,713,688	8,520,261
15							5,400,278	5.90%	4,798,440	133,692,755	2%	3,713,688	8,512,128
16							601,838	0.74%	601,838	129,979,067	2%	3,713,688	4,315,526
17										126,265,380	2%	3,713,688	3,713,688
18										122,551,692	2%	3,713,688	3,713,688
19										118,838,004	2%	3,713,688	3,713,688
20										115,124,317	2%	3,713,688	3,713,688
										111,410,629	2%	3,713,688	3,713,688

- 1/ From Table G, Page 10, Column (5), Road Property Account 1 and 1A.
2/ From Table G, Footnote 1/, Page 10.
3/ Column (2), Year 1 x Column (3).
4/ From Table G, Page 10, Column (5), Road Property Accounts 8, 9, 11, 12, 26, and 27.
5/ Column (5), Year 1 x Column (6).
6/ From Table G, Page 10, Column (5), Road Property Accounts 6, 13, 16, 17, 19, 20 and 39.
7/ Column (6), Year 1 x Column (9).
8/ From Table G, Page 10, Column (5), Road Property Accounts 3 and 5.
9/ Column (11), Year 1 x Column (12).
10/ Column (4) + Column (7) + Column (10) + Column (13).

TABLE H: AGE AVERAGE ANNUAL INFLATION IN ASSET PRICES

Development of average annual inflation factors for all capital assets			
1. 1Q2001 Land value		\$9,409,944	1/
2. 1Q2001 Road Property asset value accounts 3, 5, 6, 13, 17, 19, 20, 26, 27, and 39		\$319,029,097	1/
3. 1Q2001 Road Property asset value accounts 8, 9, and 11		\$500,946,357	1/
4. 1Q2001 Road Property asset value account 1, 1A and 12		\$240,519,826	1/

Period	Quarter	Inflation Index For Land 2/	Inflation Index For Road Property Assets 3/	Inflation Index For Road Property Assets 4/	Inflation Index For Road Property Assets 5/	Land Value 6/	Road Property Value 7/	1Q2001 Inflation Index 8/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0	2001 1 Qtr	1.000	1.000	1.000	1.000	\$9,409,944	\$1,060,485,281	1.000
1	2001 2 Qtr	1.005	1.024	1.000	1.026	9,453,960	1,074,670,759	1.013
2	2001 3 Qtr	1.009	1.029	1.021	1.030	9,498,181	1,087,774,318	1.026
3	2001 4 Qtr	1.014	1.037	1.024	1.039	9,542,610	1,093,553,937	1.031
4	2002 1 Qtr	1.019	1.037	1.024	1.039	9,587,246	1,093,771,740	1.031
5	2002 2 Qtr	1.024	1.067	1.020	1.074	9,632,091	1,109,721,989	1.046
6	2002 3 Qtr	1.028	1.067	1.015	1.073	9,677,146	1,107,149,031	1.044
7	2002 4 Qtr	1.033	1.074	0.984	1.085	9,722,412	1,096,517,380	1.034
8	2003 1 Qtr	1.036	1.070	0.948	1.086	9,767,889	1,077,452,246	1.016
9	2003 2 Qtr	1.043	1.079	0.951	1.096	9,813,579	1,084,370,841	1.023
10	2003 3 Qtr	1.048	1.088	0.954	1.106	9,859,483	1,091,341,266	1.029
11	2003 4 Qtr	1.053	1.098	0.958	1.116	9,905,601	1,098,363,946	1.036
12	2004 1 Qtr	1.058	1.107	0.961	1.126	9,951,936	1,105,439,306	1.043
13	2004 2 Qtr	1.063	1.116	0.964	1.137	9,998,486	1,112,319,974	1.049
14	2004 3 Qtr	1.068	1.126	0.966	1.147	10,045,255	1,119,253,932	1.056
15	2004 4 Qtr	1.073	1.135	0.969	1.158	10,092,243	1,126,241,633	1.062
16	2005 1 Qtr	1.078	1.145	0.972	1.169	10,139,450	1,133,283,537	1.069
17	2005 2 Qtr	1.083	1.155	0.974	1.180	10,186,878	1,140,526,560	1.076
18	2005 3 Qtr	1.088	1.165	0.977	1.192	10,234,528	1,147,827,407	1.082
19	2005 4 Qtr	1.093	1.176	0.980	1.203	10,282,401	1,155,186,525	1.089
20		1.098	1.186	0.982	1.215	10,330,497	1,162,604,445	1.096

1/ Table C, Page 3, Column (10).
2/ Previous Column (3) x (1 + Inflation Rate from Table B on a Quarterly Basis).
3/ Previous Column (4) x (1 + Inflation Rate from Table B on a Quarterly Basis).
4/ Previous Column (5) x (1 + Inflation Rate from Table B on a Quarterly Basis).
5/ Previous Column (6) x (1 + Inflation Rate from Table B on a Quarterly Basis).
6/ Line 1 x Column (3).
7/ (Line 2 x Column (4)) + (Line 3 x Column (5)) + (Line 4 x Column (6)).
8/ (Column (7) + Column (8)) + (Period 0; (Column (7) + Column (8))).

TABLE H: AVERAGE ANNUAL INFLATION IN ASSET PRICES
(Continued)

Development of average annual inflation factors for all capital assets

1. 1Q2001 Land value
2. 1Q2001 Road Property asset value accounts 3, 5, 6, 13, 17, 19, 20, 26, 27, and 39
3. 1Q2001 Road Property asset value accounts 8, 9, and 11
4. 1Q2001 Road Property asset value account 1, 1A and 12

Period	Quarter	Inflation Index For Land 2/	Inflation Index For Line 2 Road Property Assets 3/	Inflation Index For Line 3 Road Property Assets 4/	Inflation Index For Line 4 Road Property Assets 5/	Land Value 6/	Road Property		1Q2001 Inflation Index 8/
							Value 7/	Inflation Index 9/	
21	2006 1 Qtr	1.103	1.196	0.985	1.226	10,378,819	1,170,061,663	1.103	
22	2006 2 Qtr	1.108	1.207	0.988	1.238	10,427,367	1,177,618,760	1.110	
23	2006 3 Qtr	1.113	1.217	0.990	1.250	10,476,142	1,185,216,201	1.118	
24	2006 4 Qtr	1.119	1.228	0.993	1.262	10,525,145	1,192,874,538	1.125	
25	2007 1 Qtr	1.124	1.238	0.996	1.273	10,574,377	1,200,256,258	1.132	
26	2007 2 Qtr	1.129	1.248	0.999	1.285	10,623,839	1,207,692,494	1.139	
27	2007 3 Qtr	1.134	1.259	1.002	1.296	10,673,533	1,215,183,684	1.146	
28	2007 4 Qtr	1.140	1.269	1.005	1.307	10,723,459	1,222,730,272	1.153	
29	2008 1 Qtr	1.145	1.279	1.008	1.319	10,773,619	1,230,306,144	1.160	
30	2008 2 Qtr	1.150	1.289	1.012	1.330	10,824,014	1,237,936,539	1.167	
31	2008 3 Qtr	1.156	1.299	1.015	1.342	10,874,644	1,245,621,882	1.174	
32	2008 4 Qtr	1.161	1.310	1.018	1.353	10,925,511	1,253,362,602	1.182	
33	2009 1 Qtr	1.166	1.320	1.021	1.365	10,976,616	1,261,159,132	1.189	
34	2009 2 Qtr	1.172	1.331	1.025	1.377	11,027,960	1,269,011,907	1.196	
35	2009 3 Qtr	1.177	1.341	1.028	1.389	11,079,544	1,276,921,368	1.204	
36	2009 4 Qtr	1.183	1.352	1.031	1.401	11,131,369	1,284,887,957	1.211	
37	2010 1 Qtr	1.188	1.363	1.035	1.413	11,183,437	1,292,912,121	1.219	
38	2010 2 Qtr	1.194	1.374	1.038	1.425	11,235,749	1,300,994,310	1.226	
39	2010 3 Qtr	1.200	1.385	1.041	1.437	11,288,305	1,309,134,979	1.234	
40	2010 4 Qtr	1.205	1.396	1.045	1.450	11,341,107	1,317,334,585	1.242	

1/ Table C, Page 3, Column (10).
2/ Previous Column (3) x (1 + Inflation Rate from Table B on a Quarterly Basis).
3/ Previous Column (4) x (1 + Inflation Rate from Table B on a Quarterly Basis).
4/ Previous Column (5) x (1 + Inflation Rate from Table B on a Quarterly Basis).
5/ Previous Column (6) x (1 + Inflation Rate from Table B on a Quarterly Basis).
6/ Line 1 x Column (3).
7/ (Line 2 x Column (4)) + (Line 3 x Column (5)) + (Line 4 x Column (6)).
8/ (Column (7) + Column (8)) + (Period 0; (Column (7) + Column (8))).

TABLE H: AVERAGE ANNUAL INFLATION IN ASSET PRICES
(Continued)

Development of average annual inflation factors for all capital assets			
1. 1Q2001 Land value			\$9,409,944 1/
2. 1Q2001 Road Property asset value accounts 3, 5, 6, 13, 17, 19, 20, 26, 27, and 39			\$319,029,097 1/
3. 1Q2001 Road Property asset value accounts 8, 9, and 11			\$500,946,357 1/
4. 1Q2001 Road Property asset value account 1, 1A and 12			\$240,519,826 1/

Period	Quarter	Inflation Index For Land 2/	Inflation Index For Line 2 Road Property Assets 3/	Inflation Index For Line 3 Road Property Assets 4/	Inflation Index For Line 4 Road Property Assets 5/	Land Value 6/	Road Property Value 7/	1Q2001 Inflation Index 8/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
41	2011 1 Qtr	1.211	1.407	1.048	1.462	\$11,394,155	\$1,325,593,589	1.250
42	2011 2 Qtr	1.217	1.418	1.052	1.475	11,447,453	1,333,912,457	1.257
43	2011 3 Qtr	1.222	1.430	1.055	1.487	11,500,989	1,342,291,658	1.265
44	2011 4 Qtr	1.228	1.441	1.058	1.500	11,554,796	1,350,731,653	1.273
45	2012 1 Qtr	1.234	1.452	1.062	1.513	11,608,844	1,359,232,951	1.281
46	2012 2 Qtr	1.239	1.464	1.065	1.526	11,663,145	1,367,796,001	1.289
47	2012 3 Qtr	1.245	1.476	1.069	1.540	11,717,701	1,376,421,297	1.297
48	2012 4 Qtr	1.251	1.487	1.072	1.553	11,772,511	1,385,109,328	1.306
49	2013 1 Qtr	1.257	1.499	1.076	1.566	11,827,578	1,393,860,586	1.314
50	2013 2 Qtr	1.263	1.511	1.079	1.580	11,882,902	1,402,675,588	1.322
51	2013 3 Qtr	1.269	1.523	1.083	1.593	11,938,486	1,411,554,773	1.330
52	2013 4 Qtr	1.275	1.536	1.086	1.607	11,994,329	1,420,498,706	1.339
53	2014 1 Qtr	1.281	1.548	1.090	1.621	12,050,433	1,429,507,875	1.347
54	2014 2 Qtr	1.287	1.560	1.093	1.635	12,106,800	1,438,582,793	1.356
55	2014 3 Qtr	1.293	1.573	1.097	1.649	12,163,431	1,447,723,976	1.365
56	2014 4 Qtr	1.299	1.585	1.100	1.663	12,220,326	1,456,931,946	1.373
57	2015 1 Qtr	1.305	1.598	1.104	1.678	12,277,487	1,466,207,227	1.382
58	2015 2 Qtr	1.311	1.611	1.107	1.692	12,334,916	1,475,550,350	1.391
59	2015 3 Qtr	1.317	1.623	1.111	1.707	12,392,614	1,484,961,847	1.400
60	2015 4 Qtr	1.323	1.636	1.114	1.722	12,450,581	1,494,442,257	1.408

1/ Table C, Page 3, Column (10).
2/ Previous Column (3) x (1) + Inflation Rate from Table B on a Quarterly Basis.
3/ Previous Column (4) x (1) + Inflation Rate from Table B on a Quarterly Basis.
4/ Previous Column (5) x (1) + Inflation Rate from Table B on a Quarterly Basis.
5/ Previous Column (6) x (1) + Inflation Rate from Table B on a Quarterly Basis.
6/ Line 1 x Column (3).
7/ (Line 2 x Column (4)) + (Line 3 x Column (5)) + (Line 4 x Column (6)).
8/ (Column (7) + Column (8)) + (Period 0, (Column (7) + Column (8))).

TABLE H: ACE AVERAGE ANNUAL INFLATION IN ASSET PRICES
(Continued)

Development of average annual inflation factors for all capital assets

1. 1Q2001 Land value
2. 1Q2001 Road Property asset value accounts 3, 5, 6, 13, 17, 19, 20, 26, 27, and 39
3. 1Q2001 Road Property asset value accounts 8, 9, and 11
4. 1Q2001 Road Property asset value account 1, 1A and 12

Period	Quarter	Inflation Index For Land 2/	Inflation Index For Line 2 Road Property Assets 3/	Inflation Index For Line 3 Road Property Assets 4/	Inflation Index For Line 4 Road Property Assets 5/	Land Value 6/	Road Property Value 7/	1Q2001 Inflation Index 8/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
61	2016 1 Qtr	1,329	1,649	1,118	1,736	12,508,820	1,503,992,123	1,417
62	2016 2 Qtr	1,336	1,663	1,122	1,751	12,567,331	1,513,611,990	1,426
63	2016 3 Qtr	1,342	1,676	1,125	1,767	12,626,116	1,523,302,411	1,436
64	2016 4 Qtr	1,348	1,689	1,129	1,782	12,685,175	1,533,063,941	1,445
65	2017 1 Qtr	1,354	1,703	1,133	1,797	12,744,511	1,542,897,141	1,454
66	2017 2 Qtr	1,361	1,716	1,136	1,813	12,804,125	1,552,802,575	1,463
67	2017 3 Qtr	1,367	1,730	1,140	1,828	12,864,017	1,562,780,813	1,473
68	2017 4 Qtr	1,373	1,744	1,144	1,844	12,924,189	1,572,832,429	1,482
69	2018 1 Qtr	1,380	1,758	1,147	1,860	12,984,643	1,582,958,002	1,492
70	2018 2 Qtr	1,386	1,772	1,151	1,876	13,045,380	1,593,158,115	1,501
71	2018 3 Qtr	1,393	1,786	1,155	1,892	13,106,401	1,603,433,367	1,511
72	2018 4 Qtr	1,399	1,800	1,159	1,909	13,167,707	1,613,784,320	1,521
73	2019 1 Qtr	1,406	1,815	1,162	1,925	13,228,300	1,624,211,603	1,530
74	2019 2 Qtr	1,412	1,829	1,166	1,942	13,291,181	1,634,715,808	1,540
75	2019 3 Qtr	1,419	1,844	1,170	1,959	13,353,351	1,645,297,542	1,550
76	2019 4 Qtr	1,426	1,858	1,174	1,976	13,415,813	1,655,957,420	1,560
77	2020 1 Qtr	1,432	1,873	1,177	1,993	13,478,566	1,666,696,057	1,570
78	2020 2 Qtr	1,439	1,888	1,181	2,010	13,541,613	1,677,514,077	1,581
79	2020 3 Qtr	1,446	1,903	1,185	2,027	13,604,955	1,688,412,107	1,591
80	2020 4 Qtr	1,453	1,918	1,189	2,045	13,668,593	1,699,390,781	1,601
Annual Average								2.62%

- 1/ Table C, Page 3, Column (10)
- 2/ Previous Column (3) x (1) + Inflation Rate from Table B on a Quarterly Basis)
- 3/ Previous Column (4) x (1) + Inflation Rate from Table B on a Quarterly Basis)
- 4/ Previous Column (5) x (1) + Inflation Rate from Table B on a Quarterly Basis)
- 5/ Previous Column (6) x (1) + Inflation Rate from Table B on a Quarterly Basis)
- 6/ Line 1 x Column (3)
- 7/ (Line 2 x Column (4)) + (Line 3 x Column (5)) + (Line 4 x Column (6))
- 8/ (Column (7) + Column (8)) + (Period 0, (Column (7) + Column (8))).

TABLE I: ACE DISCOUNTED CASH FLOW

Discounted Cash Flow									
Present Value of the Cash Flow Discounted at the Cost of Capital in Table A									
Inflation in Asset Values From Table H									
1. 1Q2001 Road Property Investment									
2. Interest During Construction (1Q2001 Invest)									
3. Total 1Q2001 Investment									
4. Present Value Of Replacement Cost for the ACE									
5. Total Cost Recovered From Quarterly Revenue Flow									
Period	Quarter	Quarterly Levelized Capital Carrying Charge Requirement 7/	Interest on Investment Financed With Debt 8/	Tax Depreciation 9/	Actual Federal Tax Payments 10/	Actual State Tax Payments 11/	Cash Flow 12/	Present Value Cash Flow 13/	Cumulative Present Value 14/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	2001 1 Qtr	\$28,508,865	\$9,125,850	\$51,490,111	\$0	\$0	28,508,865	\$28,147,539	\$28,147,539
2	2001 2 Qtr	28,854,607	9,076,015	51,490,111	0	0	28,854,607	27,771,331	55,918,870
3	2001 3 Qtr	29,007,760	9,025,243	51,490,111	0	0	29,007,760	27,215,527	83,134,397
4	2001 4 Qtr	29,014,662	8,973,516	51,490,111	0	0	29,014,662	26,536,343	109,670,741
5	2002 1 Qtr	29,435,279	8,920,816	45,063,879	0	0	29,435,279	26,242,956	135,913,697
6	2002 2 Qtr	29,368,804	8,867,124	45,063,879	0	0	29,368,804	25,524,184	161,437,881
7	2002 3 Qtr	29,090,417	8,812,423	45,063,879	0	0	29,090,417	24,645,440	186,083,321
8	2002 4 Qtr	28,590,264	8,756,692	45,063,879	0	0	28,590,264	23,611,621	209,694,942
9	2003 1 Qtr	28,773,401	8,699,913	33,727,973	0	0	28,773,401	23,164,337	232,859,279
10	2003 2 Qtr	28,957,907	8,642,065	33,727,973	0	0	28,957,907	22,725,679	255,584,957
11	2003 3 Qtr	29,143,793	8,583,129	33,727,973	0	0	29,143,793	22,295,478	277,880,435
12	2003 4 Qtr	29,331,070	8,523,084	33,727,973	0	0	29,331,070	21,873,568	299,754,003
13	2004 1 Qtr	29,513,233	8,461,909	25,582,170	0	0	29,513,233	21,455,050	321,209,053
14	2004 2 Qtr	29,696,802	8,399,583	25,582,170	0	0	29,696,802	21,044,735	342,253,788
15	2004 3 Qtr	29,881,791	8,336,084	25,582,170	0	0	29,881,791	20,642,458	362,896,246
16	2004 4 Qtr	30,068,211	8,271,390	21,460,388	0	0	30,068,211	20,248,059	383,144,305
17	2005 1 Qtr	30,259,926	8,205,478	21,460,388	0	0	30,259,926	19,863,908	403,008,213
18	2005 2 Qtr	30,453,167	8,136,325	21,460,388	0	0	30,453,167	19,487,239	422,495,452
19	2005 3 Qtr	30,647,946	8,069,909	21,460,388	0	0	30,647,946	19,117,902	441,613,354
20	2005 4 Qtr	30,844,277	8,000,205	21,460,388	0	0	30,844,277	18,755,752	460,369,106
21	2006 1 Qtr	31,042,174	7,929,189	18,068,053	0	0	31,042,174	18,400,645	478,769,751
22	2006 2 Qtr	31,241,651	7,856,835	18,068,053	0	0	31,241,651	18,052,440	496,822,190
23	2006 3 Qtr	31,442,721	7,783,120	18,068,053	0	0	31,442,721	17,710,999	514,533,190
24	2006 4 Qtr	31,645,398	7,708,017	18,068,053	0	0	31,645,398	17,376,189	531,909,579
25	2007 1 Qtr	31,840,808	7,631,500	18,067,970	0	0	31,840,808	17,043,118	548,952,497

Fed. Tax Rate

35.0%

Weighted Average
State Tax Rate

7.5% 6/

TABLE I: ACE DISCOUNTED CASH FLOW
(Continued)

Period (1)	Quarter (2)	Quarterly Levelized Capital Carrying Charge Requirement 7/ (3)	Interest on Investment Financed With Debt 8/ (4)	Tax Depreciation 9/ (5)	Actual Federal Tax Payments 10/ (6)	Actual State Tax Payments 11/ (7)	Cash Flow 12/ (8)	Present Value Cash Flow 13/ (9)	Cumulative Present Value 14/ (10)
26	2007 2 Qtr	\$32,037,657	\$7,553,542	\$18,067,970	\$0	\$0	\$32,037,657	\$16,716,554	\$565,669,050
27	2007 3 Qtr	32,235,957	7,474,116	18,067,970	0	0	32,235,957	16,396,365	582,065,416
28	2007 4 Qtr	32,435,720	7,393,195	18,067,970	0	0	32,435,720	16,082,427	598,147,842
29	2008 1 Qtr	32,636,259	7,310,750	4,115,726	0	0	32,636,259	15,774,276	613,922,118
30	2008 2 Qtr	32,838,238	7,226,753	4,115,726	0	0	32,838,238	15,472,124	629,394,242
31	2008 3 Qtr	33,041,668	7,141,173	4,115,726	0	0	33,041,668	15,175,852	644,570,093
32	2008 4 Qtr	33,246,561	7,053,982	4,115,726	0	0	33,246,561	14,885,343	659,455,437
33	2009 1 Qtr	33,452,928	6,965,149	2,128,032	0	0	33,452,928	14,600,485	674,055,921
34	2009 2 Qtr	33,660,780	6,874,642	2,128,032	0	0	33,660,780	14,321,164	688,377,086
35	2009 3 Qtr	33,870,129	6,782,431	2,128,032	0	0	33,870,129	14,047,273	702,424,359
36	2009 4 Qtr	34,080,986	6,688,483	2,128,032	0	0	34,080,986	13,778,703	716,203,062
37	2010 1 Qtr	34,293,364	6,592,765	2,130,065	0	0	34,293,364	13,515,350	729,718,413
38	2010 2 Qtr	34,507,274	6,495,244	2,130,065	0	0	34,507,274	13,257,111	742,975,524
39	2010 3 Qtr	34,722,729	6,395,886	2,130,065	0	0	34,722,729	13,003,885	756,979,408
40	2010 4 Qtr	34,939,740	6,294,656	2,130,065	4,783,149	347,785	29,806,806	10,882,404	768,861,813
41	2011 1 Qtr	35,158,319	6,191,519	2,128,032	9,232,748	459,489	25,466,082	9,062,822	775,924,634
42	2011 2 Qtr	35,378,479	6,086,439	2,128,032	9,345,102	463,718	25,569,659	8,870,483	784,795,117
43	2011 3 Qtr	35,600,232	5,979,379	2,128,032	9,458,692	467,988	25,673,552	8,682,190	793,477,308
44	2011 4 Qtr	35,823,591	5,870,301	2,128,032	9,573,535	472,299	25,777,756	8,497,858	801,975,166
45	2012 1 Qtr	36,048,567	5,759,168	2,130,065	9,688,944	476,636	25,882,987	8,317,634	810,292,799
46	2012 2 Qtr	36,275,175	5,645,941	2,130,065	9,806,348	481,032	25,987,795	8,140,964	818,433,763
47	2012 3 Qtr	36,503,426	5,530,580	2,130,065	9,925,058	485,471	26,092,897	7,968,007	826,401,770
48	2012 4 Qtr	36,733,334	5,413,046	2,130,065	10,045,094	489,955	26,198,285	7,798,684	834,200,454
49	2013 1 Qtr	36,964,911	5,293,286	2,128,032	10,167,179	494,500	26,303,232	7,632,707	841,833,161
50	2013 2 Qtr	37,198,170	5,171,289	2,128,032	10,289,922	499,072	26,409,176	7,470,425	849,303,586
51	2013 3 Qtr	37,433,125	5,046,982	2,128,032	10,414,048	503,689	26,515,388	7,311,551	856,615,136
52	2013 4 Qtr	37,668,789	4,920,332	2,130,065	10,539,575	508,353	26,621,861	7,156,010	863,771,146
53	2014 1 Qtr	37,908,176	4,791,295	2,130,065	10,665,819	513,046	26,729,311	7,003,922	870,775,068
54	2014 2 Qtr	38,148,298	4,659,826	2,130,065	10,794,211	517,803	26,836,284	6,854,834	877,629,902
55	2014 3 Qtr	38,390,170	4,525,878	2,130,065	10,924,066	522,608	26,943,495	6,708,872	884,338,774
56	2014 4 Qtr	38,633,805	4,389,405	2,130,065	11,055,406	527,462	27,050,938	6,565,970	890,904,745
57	2015 1 Qtr	38,879,217	4,250,360	2,128,032	11,186,956	532,381	27,157,880	6,425,893	897,330,638
58	2015 2 Qtr	39,126,420	4,108,692	2,128,032	11,323,327	537,333	27,265,760	6,288,923	903,619,560
59	2015 3 Qtr	39,375,429	3,964,354	2,128,032	11,455,248	542,336	27,373,846	6,154,822	909,774,382
60	2015 4 Qtr	39,626,256	3,817,294	2,128,032	11,596,740	547,389	27,482,128	6,023,529	915,797,911

TABLE I: ACE DISCOUNTED CASH FLOW
(Continued)

Period (1)	Quarter (2)	Quarterly Levelized Capital Carrying Charge Requirement 7/ (3)	Interest on Investment Financed With Debt 8/ (4)	Tax Depreciation 9/ (5)	Actual Federal Tax Payments 10/ (6)	Actual State Tax Payments 11/ (7)	Cash Flow 12/ (8)	Present Value Cash Flow 13/ (9)	Cumulative Present Value 14/ (10)
61	2016 1 Qtr	\$39,878,917	\$3,667,461	\$1,078,881	\$12,099,871	\$561,515	\$27,217,532	\$5,815,277	\$921,613,188
62	2016 2 Qtr	40,133,426	3,514,803	1,078,881	12,240,575	566,672	27,326,180	5,691,433	927,304,622
63	2016 3 Qtr	40,389,798	3,359,266	1,078,881	12,382,919	571,881	27,434,997	5,570,173	932,874,794
64	2016 4 Qtr	40,648,047	3,200,796	1,078,881	12,526,929	577,145	27,543,973	5,451,441	938,326,236
65	2017 1 Qtr	40,908,187	3,039,337	928,422	12,724,835	563,756	27,599,596	5,324,864	943,651,099
66	2017 2 Qtr	41,170,235	2,874,834	928,422	12,872,248	569,129	27,708,859	5,211,292	948,862,392
67	2017 3 Qtr	41,434,204	2,707,227	928,422	13,021,399	564,557	27,818,248	5,100,087	953,962,479
68	2017 4 Qtr	41,700,111	2,536,459	928,422	13,172,316	600,042	27,927,753	4,991,198	958,953,677
69	2018 1 Qtr	41,967,969	2,362,471	928,422	13,325,023	605,583	28,037,363	4,884,578	963,838,255
70	2018 2 Qtr	42,237,795	2,185,200	928,422	13,479,547	611,183	28,147,066	4,780,177	968,618,432
71	2018 3 Qtr	42,509,604	2,004,585	928,422	13,633,914	616,842	28,256,848	4,677,950	973,296,382
72	2018 4 Qtr	42,783,412	1,820,563	928,422	13,794,154	622,560	28,366,699	4,577,852	977,874,234
73	2019 1 Qtr	43,059,235	1,633,070	928,422	13,954,292	628,338	28,476,605	4,479,836	982,354,070
74	2019 2 Qtr	43,337,088	1,442,039	928,422	14,116,357	634,177	28,586,553	4,383,861	986,737,931
75	2019 3 Qtr	43,616,987	1,247,404	928,422	14,280,379	640,079	28,696,530	4,289,862	991,027,813
76	2019 4 Qtr	43,898,949	1,049,097	928,422	14,446,385	646,043	28,806,521	4,197,859	995,225,672
77	2020 1 Qtr	44,182,989	847,048	928,422	14,614,407	652,070	28,916,512	4,107,749	999,333,421
78	2020 2 Qtr	44,469,125	641,187	928,422	14,784,474	658,162	29,026,489	4,019,514	1,003,352,935
79	2020 3 Qtr	44,757,373	431,441	928,422	14,958,617	664,319	29,136,437	3,933,114	1,007,286,048
80	2020 4 Qtr	45,047,749	217,737	928,422	15,130,866	670,543	29,246,339	3,848,510	1,011,134,558
Future		2,322,026,903		111,410,629	761,775,885	34,113,744	1,526,137,274	200,823,563	1,211,958,121

- 1/ From Table C, Column (10).
2/ From Table D, Column (9).
3/ Line 1 + Line 2.
4/ Table F Column (8).
5/ Line 3 + Line 4.
6/ Weighted average state tax rates for New Mexico, Texas, and Arizona.
7/ Quarterly carrying costs needed to recover the total investment over 80 quarters after consideration of the applicable interest payments, tax depreciation and tax liability. The Future value is an estimate of a perpetual income stream for the ACE and is calculated by taking the Period 80, Column (3) value and dividing it by the ACE's estimated quarterly Real Cost of Capital.
8/ Value from Table E.
9/ Value from Table G, Page 11, Column (14) divided by 4 quarters.
10/ Table J, Part 1 Pages 19, 20 of 27.
11/ Table J, Part 2 Pages 21, 22 of 27.
12/ Column (3) - Column (6) - Column (7)).
13/ Column (8) discounted by the fourth root of the annual Cost of Capital adjusted to midquarter dollars from Table A.
14/ Cumulative total of Column (9).

TABLE J - PART I: COMPUTATION OF FEDERAL TAX LIABILITY - TAXABLE INCOME

Time Period (1)	Taxable Income B/4 NOL's A/C-E/L (2)	Net Operating Losses Generated 2/ (3)	NOL's Generated Plus Carryforward 3/ (4)	Carryforward Utilized 4/ (5)	Carryforward Remaining 5/ (6)	Carryback Available 6/ (7)	Carryback Utilized 7/ (8)	Carryback Remaining 8/ (9)	Annual Taxable Income 9/ (10)	Annual Tax Liability 10/ (11)
1998	(\$65,027)	(\$65,027)	(\$65,027)	\$0	(\$65,027)	(\$65,027)	\$0	(\$65,027)	\$0	\$0
1999	(2,251,924)	(2,251,924)	(2,316,952)	0	(2,316,952)	(2,316,952)	0	(2,316,952)	0	0
2000	(29,946,394)	(29,946,394)	(32,263,346)	0	(32,263,346)	(32,263,346)	0	(32,263,346)	0	0
2001 1 Qtr	(32,107,097)	(32,107,097)	(64,370,442)	0	(64,370,442)	(64,370,442)	0	(64,370,442)	0	0
2001 2 Qtr	(31,711,519)	(31,711,519)	(96,081,961)	0	(96,081,961)	(96,081,961)	0	(96,081,961)	0	0
2001 3 Qtr	(31,507,594)	(31,507,594)	(127,589,555)	0	(127,589,555)	(127,589,555)	0	(127,589,555)	0	0
2001 4 Qtr	(31,448,966)	(31,448,966)	(159,038,521)	0	(159,038,521)	(159,038,521)	0	(159,038,521)	0	0
2002 1 Qtr	(24,549,416)	(24,549,416)	(183,587,937)	0	(183,587,937)	(183,587,937)	0	(183,587,937)	0	0
2002 2 Qtr	(24,562,200)	(24,562,200)	(208,150,137)	0	(208,150,137)	(208,150,137)	0	(208,150,137)	0	0
2002 3 Qtr	(24,785,885)	(24,785,885)	(232,936,022)	0	(232,936,022)	(232,936,022)	0	(232,936,022)	0	0
2002 4 Qtr	(25,230,308)	(25,230,308)	(258,166,330)	0	(258,166,330)	(258,166,330)	0	(258,166,330)	0	0
2003 1 Qtr	(13,654,485)	(13,654,485)	(271,820,814)	0	(271,820,814)	(271,820,814)	0	(271,820,814)	0	0
2003 2 Qtr	(13,412,131)	(13,412,131)	(285,232,945)	0	(285,232,945)	(285,232,945)	0	(285,232,945)	0	0
2003 3 Qtr	(13,167,309)	(13,167,309)	(298,400,254)	0	(298,400,254)	(298,400,254)	0	(298,400,254)	0	0
2003 4 Qtr	(12,919,987)	(12,919,987)	(311,320,242)	0	(311,320,242)	(311,320,242)	0	(311,320,242)	0	0
2004 1 Qtr	(4,530,846)	(4,530,846)	(315,851,088)	0	(315,851,088)	(315,851,088)	0	(315,851,088)	0	0
2004 2 Qtr	(4,284,950)	(4,284,950)	(320,136,038)	0	(320,136,038)	(320,136,038)	0	(320,136,038)	0	0
2004 3 Qtr	(4,036,462)	(4,036,462)	(324,172,500)	0	(324,172,500)	(324,172,500)	0	(324,172,500)	0	0
2004 4 Qtr	(3,785,348)	(3,785,348)	(327,957,848)	0	(327,957,848)	(327,957,848)	0	(327,957,848)	0	0
2005 1 Qtr	594,060	0	(327,363,788)	594,060	(327,363,788)	(327,363,788)	0	(327,363,788)	0	0
2005 2 Qtr	854,453	0	(326,509,335)	854,453	(326,509,335)	(326,509,335)	0	(326,509,335)	0	0
2005 3 Qtr	1,117,648	0	(325,391,686)	1,117,648	(325,391,686)	(325,391,686)	0	(325,391,686)	0	0
2005 4 Qtr	1,383,654	0	(324,008,002)	1,383,654	(324,008,002)	(324,008,002)	0	(324,008,002)	0	0
2006 1 Qtr	5,044,933	0	(318,963,069)	5,044,933	(318,963,069)	(318,963,069)	0	(318,963,069)	0	0
2006 2 Qtr	5,316,763	0	(308,054,757)	5,316,763	(308,054,757)	(308,054,757)	0	(308,054,757)	0	0
2006 3 Qtr	5,591,548	0	(302,185,428)	5,591,548	(302,185,428)	(302,185,428)	0	(302,185,428)	0	0
2006 4 Qtr	5,889,329	0	(296,044,091)	5,889,329	(296,044,091)	(296,044,091)	0	(296,044,091)	0	0
2007 1 Qtr	6,141,337	0	(289,627,947)	6,141,337	(289,627,947)	(289,627,947)	0	(289,627,947)	0	0
2007 2 Qtr	6,416,144	0	(282,934,077)	6,416,144	(282,934,077)	(282,934,077)	0	(282,934,077)	0	0
2007 3 Qtr	6,693,870	0	(275,958,523)	6,693,870	(275,958,523)	(275,958,523)	0	(275,958,523)	0	0
2007 4 Qtr	6,974,554	0	(254,749,741)	6,974,554	(254,749,741)	(254,749,741)	0	(254,749,741)	0	0
2008 1 Qtr	21,209,783	0	(233,253,981)	21,209,783	(233,253,981)	(233,253,981)	0	(233,253,981)	0	0
2008 2 Qtr	21,495,759	0	(211,469,212)	21,495,759	(211,469,212)	(211,469,212)	0	(211,469,212)	0	0
2008 3 Qtr	21,784,789	0	(189,392,359)	21,784,789	(189,392,359)	(189,392,359)	0	(189,392,359)	0	0
2008 4 Qtr	22,076,853	0	(166,032,612)	22,076,853	(166,032,612)	(166,032,612)	0	(166,032,612)	0	0
2009 1 Qtr	24,359,747	0	(140,374,507)	24,359,747	(140,374,507)	(140,374,507)	0	(140,374,507)	0	0
2009 2 Qtr	24,658,105	0	(115,414,841)	24,658,105	(115,414,841)	(115,414,841)	0	(115,414,841)	0	0
2009 3 Qtr	24,959,666	0	(90,150,370)	24,959,666	(90,150,370)	(90,150,370)	0	(90,150,370)	0	0
2009 4 Qtr	25,284,471	0	(64,579,836)	25,284,471	(64,579,836)	(64,579,836)	0	(64,579,836)	0	0
2010 1 Qtr	25,570,534	0	(38,697,871)	25,570,534	(38,697,871)	(38,697,871)	0	(38,697,871)	0	0
2010 2 Qtr	25,851,965	0	(12,501,094)	25,851,965	(12,501,094)	(12,501,094)	0	(12,501,094)	0	0
2010 3 Qtr	26,196,777	0	0	26,196,777	0	0	0	0	0	0
2010 4 Qtr	26,167,233	0	0	12,501,094	0	0	0	0	13,666,139	4,783,149

TABLE J - PART 1: COMPUTATION OF FEDERAL TAX LIABILITY - TAXABLE INCOME
(Continued)

Time Period	Taxable Income B/4 NOL's D/R 1/	Net Operating Losses Generated 2/	NOL's Plus Generated 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2011 1 Qtr	\$26,379,279	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$26,379,279	\$9,232,748
2011 2 Qtr	26,700,290	0	0	0	0	0	0	0	26,700,290	9,345,102
2011 3 Qtr	27,024,834	0	0	0	0	0	0	0	27,024,834	9,458,682
2011 4 Qtr	27,352,958	0	0	0	0	0	0	0	27,352,958	9,573,535
2012 1 Qtr	27,682,698	0	0	0	0	0	0	0	27,682,698	9,688,944
2012 2 Qtr	28,018,137	0	0	0	0	0	0	0	28,018,137	9,806,348
2012 3 Qtr	28,357,309	0	0	0	0	0	0	0	28,357,309	9,925,058
2012 4 Qtr	28,700,289	0	0	0	0	0	0	0	28,700,289	10,045,094
2013 1 Qtr	29,049,084	0	0	0	0	0	0	0	29,049,084	10,167,179
2013 2 Qtr	29,399,778	0	0	0	0	0	0	0	29,399,778	10,289,822
2013 3 Qtr	29,754,422	0	0	0	0	0	0	0	29,754,422	10,414,048
2013 4 Qtr	30,113,072	0	0	0	0	0	0	0	30,113,072	10,539,575
2014 1 Qtr	30,473,770	0	0	0	0	0	0	0	30,473,770	10,665,819
2014 2 Qtr	30,840,604	0	0	0	0	0	0	0	30,840,604	10,794,211
2014 3 Qtr	31,211,619	0	0	0	0	0	0	0	31,211,619	10,924,066
2014 4 Qtr	31,586,873	0	0	0	0	0	0	0	31,586,873	11,055,406
2015 1 Qtr	31,968,444	0	0	0	0	0	0	0	31,968,444	11,186,956
2015 2 Qtr	32,352,363	0	0	0	0	0	0	0	32,352,363	11,323,327
2015 3 Qtr	32,740,707	0	0	0	0	0	0	0	32,740,707	11,459,248
2015 4 Qtr	33,133,542	0	0	0	0	0	0	0	33,133,542	11,596,740
2016 1 Qtr	34,571,060	0	0	0	0	0	0	0	34,571,060	12,099,871
2016 2 Qtr	34,973,070	0	0	0	0	0	0	0	34,973,070	12,240,575
2016 3 Qtr	35,379,769	0	0	0	0	0	0	0	35,379,769	12,382,918
2016 4 Qtr	35,791,225	0	0	0	0	0	0	0	35,791,225	12,526,929
2017 1 Qtr	36,356,672	0	0	0	0	0	0	0	36,356,672	12,672,846
2017 2 Qtr	36,777,851	0	0	0	0	0	0	0	36,777,851	12,821,399
2017 3 Qtr	37,203,998	0	0	0	0	0	0	0	37,203,998	13,021,399
2017 4 Qtr	37,635,188	0	0	0	0	0	0	0	37,635,188	13,172,316
2018 1 Qtr	38,071,493	0	0	0	0	0	0	0	38,071,493	13,325,023
2018 2 Qtr	38,512,990	0	0	0	0	0	0	0	38,512,990	13,479,547
2018 3 Qtr	38,959,756	0	0	0	0	0	0	0	38,959,756	13,635,914
2018 4 Qtr	39,411,867	0	0	0	0	0	0	0	39,411,867	13,794,154
2019 1 Qtr	39,869,405	0	0	0	0	0	0	0	39,869,405	13,954,292
2019 2 Qtr	40,332,449	0	0	0	0	0	0	0	40,332,449	14,116,357
2019 3 Qtr	40,801,082	0	0	0	0	0	0	0	40,801,082	14,280,379
2019 4 Qtr	41,275,387	0	0	0	0	0	0	0	41,275,387	14,446,365
2020 1 Qtr	41,755,449	0	0	0	0	0	0	0	41,755,449	14,614,407
2020 2 Qtr	42,241,354	0	0	0	0	0	0	0	42,241,354	14,784,474
2020 3 Qtr	42,733,190	0	0	0	0	0	0	0	42,733,190	14,956,617
2020 4 Qtr	43,231,047	0	0	0	0	0	0	0	43,231,047	15,130,886
Future	2,176,502,530	0	0	0	0	0	0	0	2,176,502,530	761,775,886

1/ Table I, Column (3) - Table E, Columns (8), (11) & (16) - Table G, Column (14) / 4 - Table J Part 2, Column (11).
Values for 1998-2000 from Table D, Sum of Column (11).
2/ Column (2) if less than zero, otherwise zero.
3/ Cumulative total of Column (2).
4/ If Column (2) is greater than zero, and (Column (2) + Column (4)) is less than zero, then Column (2), otherwise Column (4).
5/ Column (4) + Column (5) + Column (8).
6/ Previous period Column (9) + current period Column (3) - current period Column (5).
7/ If previous Column (10) is greater than zero, and previous Column (10) is less than current Column (7), then previous Column (10), otherwise zero.
8/ If Column (7) + Column (8).
9/ If Column (2) is greater than zero, then Column (2) - Column (5) - Column (6), otherwise zero.
10/ Column (10) times applicable maximum Federal Statutory Tax Rate.

Time Period	Taxable Income B/A NOL's AOE 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward Utilized 3/ 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1998	(\$65,027)	(\$65,027)	(\$65,027)	\$0	(\$65,027)	(\$65,027)	\$0	(\$65,027)	\$0
1999	(2,251,924)	(2,251,924)	(2,316,952)	0	(2,316,952)	(2,316,952)	0	(2,316,952)	0
2000	(29,946,394)	(29,946,394)	(32,263,346)	0	(32,263,346)	(32,263,346)	0	(32,263,346)	0
2001 1 Qtr	(32,107,087)	(32,107,087)	(64,370,442)	0	(64,370,442)	(64,370,442)	0	(64,370,442)	0
2001 2 Qtr	(31,711,519)	(31,711,519)	(96,081,961)	0	(96,081,961)	(96,081,961)	0	(96,081,961)	0
2001 3 Qtr	(31,507,594)	(31,507,594)	(127,568,555)	0	(127,568,555)	(127,568,555)	0	(127,568,555)	0
2001 4 Qtr	(31,448,968)	(31,448,968)	(159,038,521)	0	(159,038,521)	(159,038,521)	0	(159,038,521)	0
2002 1 Qtr	(24,549,416)	(24,549,416)	(183,587,937)	0	(183,587,937)	(183,587,937)	0	(183,587,937)	0
2002 2 Qtr	(24,562,200)	(24,562,200)	(208,150,137)	0	(208,150,137)	(208,150,137)	0	(208,150,137)	0
2002 3 Qtr	(24,785,885)	(24,785,885)	(232,936,022)	0	(232,936,022)	(232,936,022)	0	(232,936,022)	0
2002 4 Qtr	(25,230,306)	(25,230,306)	(258,166,330)	0	(258,166,330)	(258,166,330)	0	(258,166,330)	0
2003 1 Qtr	(13,654,485)	(13,654,485)	(271,820,814)	0	(271,820,814)	(271,820,814)	0	(271,820,814)	0
2003 2 Qtr	(13,412,131)	(13,412,131)	(285,232,945)	0	(285,232,945)	(285,232,945)	0	(285,232,945)	0
2003 3 Qtr	(13,167,309)	(13,167,309)	(298,400,254)	0	(298,400,254)	(298,400,254)	0	(298,400,254)	0
2003 4 Qtr	(12,919,987)	(12,919,987)	(311,320,242)	0	(311,320,242)	(311,320,242)	0	(311,320,242)	0
2004 1 Qtr	(4,530,846)	(4,530,846)	(315,851,088)	0	(315,851,088)	(315,851,088)	0	(315,851,088)	0
2004 2 Qtr	(4,284,950)	(4,284,950)	(320,136,038)	0	(320,136,038)	(320,136,038)	0	(320,136,038)	0
2004 3 Qtr	(4,036,482)	(4,036,482)	(324,172,500)	0	(324,172,500)	(324,172,500)	0	(324,172,500)	0
2004 4 Qtr	(3,785,348)	(3,785,348)	(327,957,848)	0	(327,957,848)	(327,957,848)	0	(327,957,848)	0
2005 1 Qtr	594,060	594,060	(327,363,788)	0	(327,363,788)	(327,363,788)	0	(327,363,788)	0
2005 2 Qtr	854,453	854,453	(326,509,335)	0	(326,509,335)	(326,509,335)	0	(326,509,335)	0
2005 3 Qtr	1,117,649	1,117,649	(325,391,686)	0	(325,391,686)	(325,391,686)	0	(325,391,686)	0
2005 4 Qtr	1,383,684	1,383,684	(324,008,002)	0	(324,008,002)	(324,008,002)	0	(324,008,002)	0
2006 1 Qtr	5,044,933	5,044,933	(318,963,069)	0	(318,963,069)	(318,963,069)	0	(318,963,069)	0
2006 2 Qtr	5,316,753	5,316,753	(313,646,306)	0	(313,646,306)	(313,646,306)	0	(313,646,306)	0
2006 3 Qtr	5,591,548	5,591,548	(308,054,757)	0	(308,054,757)	(308,054,757)	0	(308,054,757)	0
2006 4 Qtr	5,869,329	5,869,329	(302,185,428)	0	(302,185,428)	(302,185,428)	0	(302,185,428)	0
2007 1 Qtr	6,141,337	6,141,337	(296,044,091)	0	(296,044,091)	(296,044,091)	0	(296,044,091)	0
2007 2 Qtr	6,416,144	6,416,144	(289,627,947)	0	(289,627,947)	(289,627,947)	0	(289,627,947)	0
2007 3 Qtr	6,693,870	6,693,870	(282,934,077)	0	(282,934,077)	(282,934,077)	0	(282,934,077)	0
2007 4 Qtr	6,974,554	6,974,554	(275,958,523)	0	(275,958,523)	(275,958,523)	0	(275,958,523)	0
2008 1 Qtr	21,209,783	21,209,783	(264,748,741)	21,209,783	(264,748,741)	(264,748,741)	0	(264,748,741)	0
2008 2 Qtr	21,485,759	21,485,759	(233,253,981)	21,485,759	(233,253,981)	(233,253,981)	0	(233,253,981)	0
2008 3 Qtr	21,784,769	21,784,769	(211,468,212)	21,784,769	(211,468,212)	(211,468,212)	0	(211,468,212)	0
2008 4 Qtr	22,076,653	22,076,653	(189,392,359)	22,076,653	(189,392,359)	(189,392,359)	0	(189,392,359)	0
2009 1 Qtr	24,389,747	24,389,747	(166,032,612)	24,389,747	(166,032,612)	(166,032,612)	0	(166,032,612)	0
2009 2 Qtr	24,658,105	24,658,105	(140,374,507)	24,658,105	(140,374,507)	(140,374,507)	0	(140,374,507)	0
2009 3 Qtr	24,989,666	24,989,666	(99,150,370)	24,989,666	(99,150,370)	(99,150,370)	0	(99,150,370)	0
2009 4 Qtr	25,264,471	25,264,471	(90,150,370)	25,264,471	(90,150,370)	(90,150,370)	0	(90,150,370)	0
2010 1 Qtr	25,570,534	25,570,534	(64,578,836)	25,570,534	(64,578,836)	(64,578,836)	0	(64,578,836)	0
2010 2 Qtr	25,881,965	25,881,965	(38,697,871)	25,881,965	(38,697,871)	(38,697,871)	0	(38,697,871)	0
2010 3 Qtr	26,196,777	26,196,777	(12,501,094)	26,196,777	(12,501,094)	(12,501,094)	0	(12,501,094)	0
2010 4 Qtr	26,515,018	26,515,018	12,501,094	0	0	0	0	0	0
								14,013,924	347,785

TABLE J - PART 2: COMPUTATION OF STATE TAX LIABILITY - TAXABLE INCOME
(Continued)

Time Period	Taxable Income Before NOL's 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income Before NOL's (10)	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2011 1 Qtr	\$26,838,768	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$26,838,768	\$459,489
2011 2 Qtr	27,164,008	0	0	0	0	0	0	0	27,164,008	463,718
2011 3 Qtr	27,492,821	0	0	0	0	0	0	0	27,492,821	467,988
2011 4 Qtr	27,825,258	0	0	0	0	0	0	0	27,825,258	472,299
2012 1 Qtr	28,159,334	0	0	0	0	0	0	0	28,159,334	476,636
2012 2 Qtr	28,499,169	0	0	0	0	0	0	0	28,499,169	481,032
2012 3 Qtr	28,842,781	0	0	0	0	0	0	0	28,842,781	485,471
2012 4 Qtr	29,190,223	0	0	0	0	0	0	0	29,190,223	489,956
2013 1 Qtr	29,543,583	0	0	0	0	0	0	0	29,543,583	494,500
2013 2 Qtr	29,898,850	0	0	0	0	0	0	0	29,898,850	499,072
2013 3 Qtr	30,258,112	0	0	0	0	0	0	0	30,258,112	503,689
2013 4 Qtr	30,621,425	0	0	0	0	0	0	0	30,621,425	508,353
2014 1 Qtr	30,986,815	0	0	0	0	0	0	0	30,986,815	513,046
2014 2 Qtr	31,358,407	0	0	0	0	0	0	0	31,358,407	517,803
2014 3 Qtr	31,734,227	0	0	0	0	0	0	0	31,734,227	522,608
2014 4 Qtr	32,114,335	0	0	0	0	0	0	0	32,114,335	527,462
2015 1 Qtr	32,500,826	0	0	0	0	0	0	0	32,500,826	532,381
2015 2 Qtr	32,889,696	0	0	0	0	0	0	0	32,889,696	537,333
2015 3 Qtr	33,283,043	0	0	0	0	0	0	0	33,283,043	542,336
2015 4 Qtr	33,680,930	0	0	0	0	0	0	0	33,680,930	547,389
2016 1 Qtr	35,132,575	0	0	0	0	0	0	0	35,132,575	561,516
2016 2 Qtr	35,539,742	0	0	0	0	0	0	0	35,539,742	566,672
2016 3 Qtr	35,951,650	0	0	0	0	0	0	0	35,951,650	571,861
2016 4 Qtr	36,368,389	0	0	0	0	0	0	0	36,368,389	577,145
2017 1 Qtr	36,940,428	0	0	0	0	0	0	0	36,940,428	583,756
2017 2 Qtr	37,366,979	0	0	0	0	0	0	0	37,366,979	589,129
2017 3 Qtr	37,798,555	0	0	0	0	0	0	0	37,798,555	594,557
2017 4 Qtr	38,235,229	0	0	0	0	0	0	0	38,235,229	600,042
2018 1 Qtr	38,677,076	0	0	0	0	0	0	0	38,677,076	605,583
2018 2 Qtr	39,124,173	0	0	0	0	0	0	0	39,124,173	611,183
2018 3 Qtr	39,576,597	0	0	0	0	0	0	0	39,576,597	616,842
2018 4 Qtr	40,034,427	0	0	0	0	0	0	0	40,034,427	622,560
2019 1 Qtr	40,497,743	0	0	0	0	0	0	0	40,497,743	628,338
2019 2 Qtr	40,966,627	0	0	0	0	0	0	0	40,966,627	634,177
2019 3 Qtr	41,441,161	0	0	0	0	0	0	0	41,441,161	640,079
2019 4 Qtr	41,921,430	0	0	0	0	0	0	0	41,921,430	646,043
2020 1 Qtr	42,407,519	0	0	0	0	0	0	0	42,407,519	652,070
2020 2 Qtr	42,899,516	0	0	0	0	0	0	0	42,899,516	658,162
2020 3 Qtr	43,397,510	0	0	0	0	0	0	0	43,397,510	664,319
2020 4 Qtr	43,901,590	0	0	0	0	0	0	0	43,901,590	670,543
Future	2,210,616,274	0	0	0	0	0	0	0	2,210,616,274	34,113,744

1/ Table I, Column (3) - Table E, Columns (8) (11) & (16) - Table G, Column (14) / 4. Values for 1998-2000 from Table D, Sum of Column (11).
2/ Column (2) if less than zero, otherwise zero.
3/ Cumulative total of Column (2).
4/ If Column (2) is greater than zero, and Column (2) + Column (4) is less than zero, then Column (2), otherwise Column (4).
5/ Column (4) + Column (5) + Column (8).
6/ Previous period Column (9) + current period Column (3) - current period Column (5).
7/ If previous Column (10) is greater than zero, and previous Column (10) is less than current Column (7), then previous Column (10), otherwise zero.
8/ Column (7) + Column (8).
9/ If Column (2) is greater than zero, then Column (2) - Column (5) - Column (8), otherwise zero.
10/ Column (10) times applicable maximum State Statutory Tax Rate.

TABLE K: ACE OPERATING EXPENSES

Item (1)	2001 (2)	2002 (3)	2003 (4)	2004 (5)	2005 (6)	2006 (7)	2007 (8)	2008 (9)	2009 (10)	2010 (11)
1. Train & Engine Personnel	\$21,092,182	\$20,656,037	\$20,750,150	\$20,974,358	\$21,001,815	\$21,047,359	\$21,092,182	\$21,089,751	\$21,092,182	\$21,092,182
2. Locomotive Lease Expense	7,187,124	7,039,190	7,070,577	7,146,976	7,156,331	7,177,851	7,187,124	7,186,296	7,187,124	7,187,124
3. Locomotive Maintenance Expense	15,424,862	15,107,388	15,174,751	15,338,716	15,358,795	15,392,102	15,424,862	15,390,328	15,392,102	15,392,102
4. Locomotive Operating Expense	57,734,106	56,545,752	56,797,885	57,411,594	57,486,750	57,611,415	57,734,106	57,727,451	57,734,106	57,734,106
5. Railcar Expense	55,412,947	54,272,370	54,514,366	55,103,402	55,175,535	55,295,189	55,412,947	55,406,559	55,412,947	55,412,947
6. Material & Supply Operating	590,777	590,777	590,777	590,777	590,777	590,777	590,777	590,777	590,777	590,777
7. Ad Valorem Tax	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952
8. Operating Managers	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780
9. General & Administration	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892
10. Trackage Rights Vaughn - El Paso	1,655,335	1,621,263	1,628,492	1,646,088	1,648,243	1,651,817	1,655,335	1,651,627	1,651,817	1,651,817
11. Loss and Damage	2,470,240	2,419,394	2,430,182	2,456,441	2,459,656	2,464,990	2,470,240	2,469,955	2,470,240	2,470,240
12. Insurance	6,426,879	6,315,548	6,339,169	6,396,665	6,403,706	6,415,385	6,426,879	6,425,036	6,425,660	6,425,660
13. Maintenance of Way	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223
14. Total Annual Costs	\$197,702,319	\$194,277,565	\$195,004,195	\$196,772,862	\$196,989,455	\$197,348,733	\$197,702,319	\$197,645,626	\$197,664,802	\$197,664,802
15. Total Quarterly Cost	\$49,425,580	\$48,569,391	\$48,751,049	\$49,193,216	\$49,247,364	\$49,337,183	\$49,425,580	\$49,411,407	\$49,416,200	\$49,416,200

TABLE K: ACE OPERATING EXPENSES
(Continued)

Item (1)	2011 (2)	2012 (3)	2013 (4)	2014 (5)	2015 (6)	2016 (7)	2017 (8)	2018 (9)	2019 (10)	2020 (11)
1. Train & Engine Personnel										
2. Locomotive Lease Expense	\$21,092,182	\$21,092,182	\$21,092,182	\$21,092,182	\$21,092,182	\$21,092,182	\$21,092,182	\$21,092,182	\$21,092,182	\$21,092,182
3. Locomotive Maintenance Expense	7,187,124	7,187,124	7,187,124	7,187,124	7,187,124	7,187,124	7,187,124	7,187,124	7,187,124	7,187,124
4. Locomotive Operating Expense	15,392,102	15,392,102	15,392,102	15,392,102	15,392,102	15,392,102	15,392,102	15,392,102	15,392,102	15,392,102
5. Railcar Expense	57,734,106	57,734,106	57,734,106	57,734,106	57,734,106	57,734,106	57,734,106	57,734,106	57,734,106	57,734,106
6. Material & Supply Operating	55,412,947	55,412,947	55,412,947	55,412,947	55,412,947	55,412,947	55,412,947	55,412,947	55,412,947	55,412,947
7. Ad Valorem Tax	590,777	590,777	590,777	590,777	590,777	590,777	590,777	590,777	590,777	590,777
8. Operating Managers	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952
9. General & Administration	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780
10. Trackage Rights Vaughn - El Paso	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892
11. Loss and Damage	1,651,817	1,651,817	1,651,817	1,651,817	1,651,817	1,651,817	1,651,817	1,651,817	1,651,817	1,651,817
12. Insurance	2,470,240	2,470,240	2,470,240	2,470,240	2,470,240	2,470,240	2,470,240	2,470,240	2,470,240	2,470,240
13. Maintenance of Way	6,425,660	6,425,660	6,425,660	6,425,660	6,425,660	6,425,660	6,425,660	6,425,660	6,425,660	6,425,660
14. Total Annual Costs	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223
15. Total Quarterly Cost	\$197,664,802	\$197,664,802	\$197,664,802	\$197,664,802	\$197,664,802	\$197,664,802	\$197,664,802	\$197,664,802	\$197,664,802	\$197,664,802
	\$49,416,200	\$49,416,200	\$49,416,200	\$49,416,200	\$49,416,200	\$49,416,200	\$49,416,200	\$49,416,200	\$49,416,200	\$49,416,200

TABLE K: ACE OPERATING EXPENSES, INDEXED
(Continued)

Period (1)	Quarter (2)	Rail Cost Adjustment Factor Index 1/ (3)	Operating Expense Indexed For Inflation 2/ (4)	Period (5)	Quarter (6)	Rail Cost Adjustment Factor Index 1/ (7)	Operating Expense Indexed For Inflation 2/ (8)	Period (9)	Quarter (10)	Rail Cost Adjustment Factor Index 1/ (11)	Operating Expense Indexed For Inflation 2/ (12)
NA	2000 2 Qtr	100.0	NA	27	2007 3 Qtr	103.3	50,722,185	56	2014 4 Qtr	110.7	54,345,259
NA	2000 3 Qtr	99.2	NA	28	2007 4 Qtr	103.6	50,848,517	57	2015 1 Qtr	111.0	54,480,615
NA	2000 4 Qtr	99.3	NA	29	2008 1 Qtr	103.8	50,936,580	58	2015 2 Qtr	111.3	54,616,309
1	2001 1 Qtr	100.7	49,425,580	30	2008 2 Qtr	104.0	51,038,149	59	2015 3 Qtr	111.5	54,752,341
2	2001 2 Qtr	99.2	48,680,470	31	2008 3 Qtr	104.2	51,139,920	60	2015 4 Qtr	111.8	54,888,711
3	2001 3 Qtr	98.7	48,432,101	32	2008 4 Qtr	104.4	51,241,895	61	2016 1 Qtr	112.1	55,025,421
4	2001 4 Qtr	98.0	48,100,941	33	2009 1 Qtr	104.6	51,361,348	62	2016 2 Qtr	112.4	55,162,472
5	2002 1 Qtr	97.1	46,933,277	34	2009 2 Qtr	104.9	51,476,523	63	2016 3 Qtr	112.7	55,299,864
6	2002 2 Qtr	94.9	45,874,019	35	2009 3 Qtr	105.1	51,591,957	64	2016 4 Qtr	112.9	55,437,598
7	2002 3 Qtr	93.9	45,385,131	36	2009 4 Qtr	105.3	51,707,649	65	2017 1 Qtr	113.2	55,575,676
8	2002 4 Qtr	97.0	46,851,796	37	2010 1 Qtr	105.8	51,836,436	66	2017 2 Qtr	113.5	55,714,097
9	2003 1 Qtr	95.7	46,377,368	38	2010 2 Qtr	105.9	51,965,544	67	2017 3 Qtr	113.8	55,852,863
10	2003 2 Qtr	96.0	46,550,313	39	2010 3 Qtr	106.1	52,094,973	68	2017 4 Qtr	114.1	55,991,974
11	2003 3 Qtr	96.4	46,723,904	40	2010 4 Qtr	106.7	52,224,725	69	2018 1 Qtr	114.4	56,131,432
12	2003 4 Qtr	96.7	46,898,141	41	2011 1 Qtr	106.9	52,354,800	70	2018 2 Qtr	114.6	56,271,238
13	2004 1 Qtr	97.4	47,590,180	42	2011 2 Qtr	107.2	52,485,199	71	2018 3 Qtr	114.9	56,411,391
14	2004 2 Qtr	98.0	47,886,545	43	2011 3 Qtr	107.5	52,615,923	72	2018 4 Qtr	115.2	56,551,894
15	2004 3 Qtr	98.6	48,204,882	44	2011 4 Qtr	107.7	52,746,973	73	2019 1 Qtr	115.5	56,692,747
16	2004 4 Qtr	99.2	48,515,205	45	2012 1 Qtr	108.0	52,878,348	74	2019 2 Qtr	115.8	56,833,950
17	2005 1 Qtr	99.7	48,792,962	46	2012 2 Qtr	108.3	53,010,051	75	2019 3 Qtr	116.1	56,975,505
18	2005 2 Qtr	100.2	49,023,095	47	2012 3 Qtr	108.5	53,142,082	76	2019 4 Qtr	116.4	57,117,413
19	2005 3 Qtr	100.7	49,254,314	48	2012 4 Qtr	108.8	53,274,442	77	2020 1 Qtr	116.7	57,259,674
20	2005 4 Qtr	101.1	49,486,623	49	2013 1 Qtr	109.1	53,407,132	78	2020 2 Qtr	116.9	57,402,290
21	2006 1 Qtr	101.5	49,741,535	50	2013 2 Qtr	109.3	53,540,152	79	2020 3 Qtr	117.2	57,545,280
22	2006 2 Qtr	101.8	49,914,724	51	2013 3 Qtr	109.6	53,673,503	80	2020 4 Qtr	117.5	57,688,587
23	2006 3 Qtr	102.2	50,088,516	52	2013 4 Qtr	109.9	53,807,167				
24	2006 4 Qtr	102.5	50,262,912	53	2014 1 Qtr	110.2	53,941,203				
25	2007 1 Qtr	102.8	50,470,460	54	2014 2 Qtr	110.4	54,075,553				
26	2007 2 Qtr	103.1	50,596,186	55	2014 3 Qtr	110.4	54,210,236				

1/ 2000 equals 100.0, all other quarters equal previous quarter x (1 + Inflation Rate for the RCAF-A from Table B on a Quarterly Basis).
2/ Quarterly expense from Table K, Pages 23 and 24, for the applicable time period x Column (3), Column (7) or Column (11) / 1001 Column (3).

ACE - Stand-Alone Costs and Revenues

Quarterly Revenue Requirements to Cover Total Stand-Alone

Period	Quarter	Quarterly Capital Requirement Road Property	Quarterly Operating Expense	Annual Stand-Alone Requirement	Quarterly Stand-Alone Revenues	Annual Stand-Alone Revenues	Overpayments In Revenues	PV Difference	Cumulative PV Difference	PV Required Reduction In Revenues	Percent Reduction In Rates ^{1/}
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	2001 1 Qtr	\$28,508,865	\$49,425,580	\$77,934,444	\$124,577,100	\$124,577,100	\$46,642,655	\$47,847,830	\$47,847,830	\$47,847,830	37.44%
2	2001 2 Qtr	28,854,607	48,680,470	77,535,078	124,577,100	124,577,100	47,042,022	47,042,022	94,889,852	47,042,022	37.76%
3	2001 3 Qtr	29,007,760	48,432,101	77,439,861	124,577,100	124,577,100	47,137,239	45,949,962	140,839,814	45,949,962	37.84%
4	2001 4 Qtr	29,014,662	48,100,941	77,115,603	124,577,100	124,577,100	47,461,497	45,100,720	185,940,534	45,100,720	38.10%
5	2002 1 Qtr	29,435,279	46,860,920	76,296,200	124,300,336	124,300,336	48,004,137	44,467,399	230,407,933	44,467,399	38.62%
6	2002 2 Qtr	29,368,804	45,803,295	75,172,099	124,300,336	124,300,336	49,128,237	44,362,423	274,770,366	44,362,423	39.52%
7	2002 3 Qtr	29,080,417	45,315,161	74,405,578	124,300,336	124,300,336	49,894,758	43,919,766	318,690,122	43,919,766	40.14%
8	2002 4 Qtr	28,590,284	46,779,565	75,369,828	124,300,336	124,300,336	48,930,508	41,986,130	360,676,252	41,986,130	39.36%
9	2003 1 Qtr	28,773,401	46,321,230	75,094,631	124,714,006	124,714,006	49,819,375	41,504,810	402,181,062	41,504,810	39.79%
10	2003 2 Qtr	28,957,907	46,493,966		124,714,006						
11	2003 3 Qtr	29,143,793	46,667,346		124,714,006						
12	2003 4 Qtr	29,331,070	46,841,372	\$302,530,085	124,714,006		\$196,325,939	\$152,120,548	\$554,301,610	\$152,120,548	39.36%
13	2004 1 Qtr	29,513,233	47,570,498		125,521,137						
14	2004 2 Qtr	29,696,802	47,876,737		125,521,137						
15	2004 3 Qtr	29,881,791	48,184,946		126,521,137						
16	2004 4 Qtr	30,068,211	48,495,140	\$311,287,359	126,521,137		\$190,797,188	\$133,495,383	\$687,796,993	\$133,495,383	38.00%
17	2005 1 Qtr	30,259,926	48,777,500		127,283,172						
18	2005 2 Qtr	30,453,167	49,007,561		127,283,172						
19	2005 3 Qtr	30,647,946	49,236,706		127,283,172						
20	2005 4 Qtr	30,844,277	49,470,942	\$318,700,026	127,283,172		\$190,432,660	\$120,315,004	\$808,111,996	\$120,315,004	37.40%
21	2006 1 Qtr	31,042,174	49,733,730		129,038,376						
22	2006 2 Qtr	31,241,651	49,906,892		129,038,376						
23	2006 3 Qtr	31,442,721	50,080,656		129,038,376						
24	2006 4 Qtr	31,645,398	50,255,026	\$325,348,248	129,038,376		\$190,805,257	\$108,856,100	\$916,968,096	\$108,856,100	36.97%
25	2007 1 Qtr	31,840,808	50,470,460		130,971,867						
26	2007 2 Qtr	32,037,657	50,596,166		130,971,867						
27	2007 3 Qtr	32,235,957	50,722,185		130,971,867						
28	2007 4 Qtr	32,435,720	50,848,517	\$331,187,468	130,971,867		\$192,700,001	\$99,272,333	\$1,016,240,430	\$99,272,333	36.78%
29	2008 1 Qtr	32,636,259	50,935,300		132,755,024						
30	2008 2 Qtr	32,838,238	51,036,867		132,755,024						
31	2008 3 Qtr	33,041,668	51,138,636		132,755,024						
32	2008 4 Qtr	33,246,561	51,240,608	\$336,114,136	132,755,024		\$194,905,960	\$90,666,350	\$1,106,908,779	\$90,666,350	36.70%
33	2009 1 Qtr	33,452,928	51,360,494		134,759,022						
34	2009 2 Qtr	33,660,780	51,475,668		134,759,022						
35	2009 3 Qtr	33,870,129	51,591,099		134,759,022						
36	2009 4 Qtr	34,080,986	51,706,789	\$341,198,872	134,759,022		\$197,837,214	\$83,104,140	\$1,190,012,919	\$83,104,140	36.70%
37	2010 1 Qtr	34,293,364	51,835,574		136,011,255						
38	2010 2 Qtr	34,507,274	51,964,680		136,011,255						
39	2010 3 Qtr	34,722,729	52,094,107		136,011,255						
40	2010 4 Qtr	34,939,740	52,223,857	\$346,581,325	136,011,255		\$197,463,684	\$74,900,722	\$1,264,913,642	\$74,900,722	36.30%

^{1/} Calculated on West Texas Procedures: Column (8) divided by Column (7).

ACE - Stand-Alone Costs and Revenues

Quarterly Revenue Requirements to Cover Total Stand-Alone

Period	Quarter	Quarterly Capital Requirement Road Property	Quarterly Operating Expense	Annual Stand-Alone Requirement	Quarterly Stand-Alone Revenues	Annual Stand-Alone Revenues	Overpayments In Revenues	PV Difference	Cumulative PV Difference	PV Required Reduction In Revenues	Percent Reduction In Rates 1/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
41	2011 1 Qtr	\$35,158,319	\$52,353,930		\$137,287,643						
42	2011 2 Qtr	35,373,479	52,484,327		137,287,643						
43	2011 3 Qtr	35,600,232	52,615,048		137,287,643						
44	2011 4 Qtr	35,623,591	52,746,096	\$352,160,021	137,287,643	\$549,150,571	\$196,990,550	\$67,472,720	\$1,332,386,362	\$67,472,720	35.87%
45	2012 1 Qtr	36,048,567	52,877,469		138,589,579						
46	2012 2 Qtr	36,275,175	53,009,170		138,589,579						
47	2012 3 Qtr	36,503,426	53,141,199		138,589,579						
48	2012 4 Qtr	36,733,334	53,273,557	\$357,861,898	138,589,579	\$554,358,314	\$196,496,416	\$60,774,521	\$1,393,160,833	\$60,774,521	35.45%
49	2013 1 Qtr	36,964,911	53,406,244		139,936,209						
50	2013 2 Qtr	37,198,170	53,539,262		139,936,209						
51	2013 3 Qtr	37,433,125	53,672,611		139,936,209						
52	2013 4 Qtr	37,669,789	53,806,282	\$363,690,405	139,936,209	\$559,744,834	\$196,054,429	\$54,755,487	\$1,447,916,370	\$54,755,487	35.03%
53	2014 1 Qtr	37,908,176	53,940,306		141,299,819						
54	2014 2 Qtr	38,148,298	54,074,654		141,299,819						
55	2014 3 Qtr	38,380,170	54,209,337		141,299,819						
56	2014 4 Qtr	38,633,805	54,344,355	\$369,649,102	141,299,819	\$565,199,277	\$195,550,175	\$49,316,617	\$1,497,232,986	\$49,316,617	34.60%
57	2015 1 Qtr	38,879,217	54,479,709		142,691,380						
58	2015 2 Qtr	39,126,420	54,615,401		142,691,380						
59	2015 3 Qtr	39,375,429	54,751,430		142,691,380						
60	2015 4 Qtr	39,626,256	54,887,799	\$375,741,662	142,691,380	\$570,765,520	\$195,023,858	\$44,412,671	\$1,541,645,657	\$44,412,671	34.17%
61	2016 1 Qtr	39,878,917	55,024,507		144,117,156						
62	2016 2 Qtr	40,133,426	55,161,555		144,117,156						
63	2016 3 Qtr	40,389,798	55,298,945		144,117,156						
64	2016 4 Qtr	40,648,047	55,436,677	\$381,971,871	144,117,156	\$576,468,631	\$194,496,760	\$39,995,911	\$1,581,641,568	\$39,995,911	33.74%
65	2017 1 Qtr	40,908,187	55,574,752		145,572,818						
66	2017 2 Qtr	41,170,235	55,713,171		145,572,818						
67	2017 3 Qtr	41,434,204	55,851,934		145,572,818						
68	2017 4 Qtr	41,700,111	55,991,043	\$388,343,637	145,572,818	\$582,291,270	\$193,947,633	\$36,014,035	\$1,617,655,603	\$36,014,035	33.31%
69	2018 1 Qtr	41,967,969	56,130,499		147,060,168						
70	2018 2 Qtr	42,237,795	56,270,302		147,060,168						
71	2018 3 Qtr	42,509,604	56,410,454		147,060,168						
72	2018 4 Qtr	42,783,412	56,550,954	\$394,860,990	147,060,168	\$588,240,671	\$193,379,681	\$32,425,167	\$1,650,080,770	\$32,425,167	32.87%
73	2019 1 Qtr	43,059,235	56,691,804		148,579,911						
74	2019 2 Qtr	43,337,088	56,833,005		148,579,911						
75	2019 3 Qtr	43,616,987	56,974,558		148,579,911						
76	2019 4 Qtr	43,898,949	57,116,463	\$401,528,089	148,579,911	\$594,319,645	\$192,791,556	\$29,190,630	\$1,679,271,400	\$29,190,630	32.44%
77	2020 1 Qtr	44,182,989	57,258,722		150,132,768						
78	2020 2 Qtr	44,469,125	57,401,335		150,132,768						
79	2020 3 Qtr	44,757,373	57,544,304		150,132,768						
80	2020 4 Qtr	45,047,749	57,687,628	\$408,349,225	150,132,768	\$600,531,073	\$192,181,848	\$26,275,555	\$1,705,546,956	\$26,275,555	32.00%

1/ Calculated on West Texas Procedures: Column (8) divided by Column (7).

ACE DISCOUNTED CASH FLOW MODEL

TABLE A: ACE ANNUAL COST OF CAPITAL

Year	Industry Cost of Capital (2)	Industry Cost of Debt (3)	Industry Cost of Preferred Equity (4)	Industry Cost of Equity (5)	ACE's Cost of Debt (6)	ACE's Cost of Preferred Equity (7)	ACE's Cost of Equity (8)	Debt as a Percent of Total Investment (9)	Preferred Equity as a Percent of Total Investment (10)	Equity as a Percent of Total Investment (11)	Composite Cost of Capital (12)	1 + Cost of Debt as a % of Capital (13)	STB Prescribed Debt as a % of Capital (14)	STB Prescribed Preferred Equity as a % of Capital (15)
1998	1/ 10.67%	6.60%	6.20%	13.10%	6.60%	6.20%	13.10%	36.00%	1.35%	62.65%	10.67%	1.1067	36.00%	1.35%
1999	2/ 10.76%	7.20%	6.30%	12.90%	7.20%	6.30%	12.90%	35.50%	1.80%	62.70%	10.76%	1.1076	35.50%	1.80%
2000	3/ 11.03%	8.00%	6.30%	13.90%	8.00%	6.30%	13.90%	45.40%	2.50%	52.10%	11.03%	1.1103	45.40%	2.50%
2001	4/ 10.74%	6.90%	6.30%	12.80%	7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074	41.80%	2.25%
2002					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2003					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2004					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2005					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2006					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2007					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2008					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2009					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2010					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2011					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2012					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2013					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2014					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2015					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2016					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2017					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2018					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2019					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		
2020					7.67%	6.30%	13.18%	41.42%	2.21%	56.37%	10.74%	1.1074		

**Alternative Case
With Limited Revenue Adjustment**

- 1/ Decision in ICC Ex Parte No. 558 (Sub No. 2) - Railroad Cost of Capital - 1998.
2/ Decision in ICC Ex Parte No. 558 (Sub No. 3) - Railroad Cost of Capital - 1999.
3/ Decision in ICC Ex Parte No. 558 (Sub No. 4) - Railroad Cost of Capital - 2000.
4/ Decision in ICC Ex Parte No. 558 (Sub No. 5) - Railroad Cost of Capital - 2001.

TABLE B: AGE INFLATION INDEXES

	Year	Percent Change				
		1998	1999	2000	2001	2002
1. Material prices, wages, and supplements, combined (excl. fuel) ^{1/}	Year	(2)	(3)	(4)	(5)	(6)
	2003	0.0%	1.7%	3.8%	2.8%	3.3%
	2004			2005	2006	2007
	2008	3.4%	3.5%	3.6%	3.6%	3.3%
	2009	3.2%	3.2%	2010-2020		
2. Materials and supplies ^{2/}	Year	1998	1999	2000	2001	2002
	Year	(2)	(3)	(4)	(5)	(6)
	2003	1.1%	-0.1%	-1.1%	0.5%	0.9%
	2004	1.4%	2004	2005	2006	2007
	2008	1.3%	2009	2010-2020	1.1%	1.2%
3. Wages and supplements ^{3/}	Year	1998	1999	2000	2001	2002
	Year	(2)	(3)	(4)	(5)	(6)
	2003	-0.1%	2.0%	4.5%	3.1%	3.6%
	2004	3.7%	3.8%	3.9%	3.9%	3.6%
	2008	3.5%	3.5%	2010-2020	3.7%	
4. Land ^{4/}	Year	2001-2020				
	Year	1.88%				
5. Railroad Cost Adjustment Factor	Year	2001	2002	2003	2004	2005
	Index	(1)	(2)	(3)	(4)	(5)
	Unadjusted ^{5/}	1.4%	2.5%	2.8%	2.7%	2.8%
	Year	2006	2007	2008	2009	2010-2020
	Unadjusted ^{5/}	2.8%	2.8%	2.8%	2.9%	3.0%
Index	Year	2001	2002	2003	2004	2005
	Adjusted ^{6/}	(1)	(2)	(3)	(4)	(5)
	Year	-1.6%	0.3%	1.5%	2.6%	1.9%
	Adjusted ^{6/}	2006	2007	2008	2009	2010-2020
	Adjusted ^{6/}	1.4%	1.0%	0.8%	0.9%	1.0%

^{1/} Used to index Road Property Accounts 3, 5, 6, 13, 16, 17, 19, 20, 28, 27, and 39.
^{2/} Used to index Road Property Accounts 8, 9, and 11.
^{3/} Used to index Road Property Account 2.
^{4/} Used to index Road Property Account L.
^{5/} Used to index revenues in Table L.
^{6/} Used to index operating expenses in Table K.

TABLE C: ACE ROAD PROPERTY INVESTMENT VALUES

Construction of the ACE occurs over a three year period.
Investments are assumed to be in January 1, 2001 dollars.

Road Property Account	Road Property Component	Service Life in Years 1/	Investment In 7/1/1998 Dollars 2/	Investment In 7/1/1999 Dollars 3/	Investment In 7/1/2000 Dollars 4/	1998 Investment Value 5/	1999 Investment Value 6/	2000 Investment Value 7/	Total Property Investment 1Q2001 8/ (10)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
1	Engineering	NA	\$57,988,624	\$60,577,212	\$62,455,105	\$13,377,375	\$46,597,855	\$0	\$59,975,230
2	Land	NA	9,235,921	9,409,944	9,587,246	\$0	\$9,409,944	\$0	9,409,944
3	Grading	83	178,032,027	184,827,154	189,970,524	\$0	\$154,022,628	\$31,661,754	185,684,382
5	Tunnels	88	0	0	0	\$0	\$0	\$0	0
6	Bridges & Culverts	74	48,194,204	50,033,680	51,426,017	\$0	\$17,869,171	\$33,059,583	50,928,754
8	Ties	80	112,941,077	111,698,725	112,257,219	\$0	\$27,924,681	\$84,192,914	112,117,595
9	Rails and OTM	28	213,301,871	210,955,550	212,010,328	\$0	\$52,738,888	\$159,007,746	211,746,634
11	Ballast	25	178,382,762	176,420,551	177,302,654	\$0	\$44,105,138	\$132,976,991	177,082,128
12	Labor	39	164,333,621	171,728,634	177,052,222	\$0	\$42,932,158	\$132,789,166	175,721,325
13	Fences and Roadway Signs	81	82,170	68,505	70,411	\$0	\$17,126	\$52,808	69,934
1A	Training Costs	NA	4,520,158	4,692,684	4,823,272	\$0	\$0	\$4,823,272	4,823,272
17	Roadway Buildings	26	2,517,364	2,613,447	2,686,174	\$0	\$653,362	\$2,014,631	2,667,992
19	Fuel Stations	30	18,503,304	19,209,539	19,744,102	\$0	\$4,802,385	\$14,808,076	19,610,461
20	Shops and Enginehouses	48	3,998,271	4,150,877	4,266,388	\$0	\$1,037,719	\$3,199,791	4,237,510
26	Communications Systems	23	9,380,004	9,738,020	10,009,009	\$0	\$2,434,505	\$7,506,757	9,941,262
27	Signals and Interlockers	31	39,698,574	41,213,799	42,360,687	\$0	\$10,303,447	\$31,770,515	42,073,962
39	Public Improvements	53	3,599,463	3,736,847	3,840,836	\$0	\$934,212	\$2,860,627	3,814,839
	Total		\$1,044,689,415	\$1,061,075,158	\$1,079,862,194	\$13,377,375	\$415,783,220	\$640,744,630	\$1,089,905,225

1/ 1 + Depreciation Rate in Schedule 332 of BNSF's 2001 Annual Report R-1.
2/ 1/1/2001 (Column (6)), indexed to 1999 dollars; Column (5) - (1 + Annual Inflation Rate from Table B, Column (3)).
3/ 1/1/2001 (Column (6)), indexed to 1999 dollars; Column (6) - (1 + Annual Inflation Rate from Table B, Column (4)).
4/ 1/1/2001 (Column (6)), indexed to 2000 dollars; Column (6) - (1 + Annual Inflation Rate from Table B, Column (5)).
5/ Column (4) x Percent constructed in 1998.
6/ Column (5) x Percent constructed in 1999.
7/ Column (6) x Percent constructed in 2000.
8/ Sum of Columns (7) through (9).

TABLE D. INTEREST DURING CONSTRUCTION

Month of Installation (1)	Cost of Funds 1/ (2)	Timing of Account 1 Investment 2/ (3)	Timing of Account 2 Investment 2/ (4)	Timing of Accounts 3 and 13 Investment 2/ (5)	Timing of Accounts 5 and 6 Investment 2/ (6)	Timing of Accounts 8 Through 39 Investment 2/ (7)	Total Investment by Month 3/ (8)	Interest During Construction 4/ (9)	Cost of Debt 5/ (10)	Deductible Interest During Construction 6/ (11)
Jul 98	0.85%	\$2,229,562					\$2,229,562	\$18,911	0.53%	\$4,286
Aug 98	0.85%	2,229,562					2,229,562	37,982	0.53%	8,609
Sep 98	0.85%	2,229,562					2,229,562	57,216	0.53%	12,968
Oct 98	0.85%	2,229,562					2,229,562	76,612	0.53%	17,365
Nov 98	0.85%	2,229,562					2,229,562	96,173	0.53%	21,789
Dec 98	0.85%	4,659,786					5,836,028	116,842	0.58%	28,186
Jan 99	0.86%	4,659,786	\$1,176,243				5,836,028	167,744	0.58%	40,466
Feb 99	0.86%	4,659,786	1,176,243				5,836,028	219,082	0.58%	52,850
Mar 99	0.86%	4,659,786	1,176,243				5,836,028	270,859	0.58%	65,341
Apr 99	0.86%	4,659,786	1,176,243				5,836,028	323,078	0.58%	77,938
May 99	0.86%	4,659,786	1,176,243				5,836,028	375,744	0.58%	90,643
Jun 99	0.86%	4,659,786	1,176,243				5,836,028	428,861	0.58%	103,456
Jul 99	0.86%	4,659,786	1,176,243				40,217,814	482,431	0.58%	116,379
Aug 99	0.86%	4,659,786	1,176,243				39,041,571	830,456	0.58%	200,335
Sep 99	0.86%	4,659,786	0				101,663,736	1,171,398	0.58%	282,583
Oct 99	0.86%	0	0	30,807,951	3,573,834	\$62,622,165	97,003,950	2,050,732	0.58%	494,709
Nov 99	0.86%	0	0	30,807,951	3,573,834	62,622,165	97,003,950	2,897,740	0.58%	889,037
Dec 99	0.86%	0	0	31,714,562	3,673,287	63,460,802	98,846,651	3,843,019	0.64%	1,281,705
Jan 00	0.88%	0	0	0	3,673,287	63,460,802	67,134,088	4,742,431	0.64%	1,791,628
Feb 00	0.88%	0	0	0	3,673,287	63,460,802	67,134,088	5,371,952	0.64%	2,003,421
Mar 00	0.88%	0	0	0	3,673,287	63,460,802	67,134,088	6,006,987	0.64%	2,217,070
Apr 00	0.88%	0	0	0	3,673,287	63,460,802	67,134,088	6,647,583	0.64%	2,432,590
May 00	0.88%	0	0	0	3,673,287	63,460,802	67,134,088	7,293,791	0.64%	2,649,988
Jun 00	0.88%	0	0	0	3,673,287	63,460,802	67,134,088	7,945,658	0.64%	2,869,309
Jul 00	0.88%	0	0	0	3,673,287	63,460,802	67,134,088	8,603,234	0.64%	3,090,542
Aug 00	0.88%	0	0	0	3,673,287	63,460,802	67,134,088	9,266,569	0.64%	3,313,712
Sep 00	0.88%	0	0	0	0	0	0	9,935,714	0.64%	3,342,795
Oct 00	0.88%	0	0	0	0	0	0	10,022,795	0.64%	3,372,012
Nov 00	0.88%	0	0	0	0	0	0	10,110,518	0.64%	3,326,346
Dec 00	0.88%	0	0	0	0	0	0			
Total		\$59,975,230	\$9,409,944	\$185,754,316	\$50,928,754	\$759,013,709	\$1,065,081,953	\$99,412,054		

- 1/ ((1 + Cost of Capital from Table A for the applicable year)^(1/12) - 1) x 100.
2/ Applicable account value from Table C for the applicable investment period.
3/ Sum of Columns (3) through (7).
4/ Aug 98 equals Column (2) x prior Column (8), all other periods equal Column (2) x (Sum of Column (8) for all prior periods) + (Sum of Column (9) for all prior periods).
5/ ((1 + Cost of Debt from Table A for the applicable year)^(1/12) - 1) x 100.
6/ Aug 98 equals prior Column (8) x Column (10) x Table A, Column (9) for 1998, all other periods equal Column (10) x (Sum of Column (8) for all prior periods) + (Sum of Column (9) for all prior periods) x Table A, Column (9) for the applicable year.

TABLE A: AGE AMORTIZATION SCHEDULE OF ASSETS PURCHASED WITH DEBT CAPITAL

AMORTIZATION SCHEDULE FOR THE AGE 1989 ROAD PROPERTY INVESTMENT FOR THE 10/2001 START-UP									
Quarter (1)	Beginning Balance (2)	Ending Balance / (3)	Payment (4)	Principal \$/ (5)	Interest \$/ (6)	1. TOTAL INVESTMENT (7)	Ending Balance / (8)	Payment (9)	Principal \$/ (10)
1	\$4,919,137	\$4,888,551	\$109,817	\$30,586	\$79,231	\$150,916,957	\$150,039,879	\$3,523,174	\$877,078
2	\$4,888,551	\$4,857,472	\$109,817	\$31,079	\$78,738	\$149,147,422	\$148,269,318	\$3,523,174	\$882,466
3	\$4,857,472	\$4,826,392	\$109,817	\$31,579	\$78,228	\$148,269,318	\$147,315,291	\$3,523,174	\$887,854
4	\$4,826,392	\$4,793,804	\$109,817	\$32,088	\$77,729	\$147,315,291	\$146,375,083	\$3,523,174	\$893,242
5	\$4,793,804	\$4,761,199	\$109,817	\$32,595	\$77,212	\$146,375,083	\$145,418,350	\$3,523,174	\$898,630
6	\$4,761,199	\$4,728,089	\$109,817	\$33,130	\$76,697	\$145,418,350	\$144,444,862	\$3,523,174	\$904,018
7	\$4,728,089	\$4,694,405	\$109,817	\$33,684	\$76,153	\$144,444,862	\$143,454,306	\$3,523,174	\$909,406
8	\$4,694,405	\$4,660,199	\$109,817	\$34,208	\$75,680	\$143,454,306	\$142,448,385	\$3,523,174	\$914,794
9	\$4,660,199	\$4,625,443	\$109,817	\$34,757	\$75,197	\$142,448,385	\$141,427,785	\$3,523,174	\$920,182
10	\$4,625,443	\$4,590,126	\$109,817	\$35,317	\$74,702	\$141,427,785	\$140,377,206	\$3,523,174	\$925,570
11	\$4,590,126	\$4,554,240	\$109,817	\$35,886	\$74,202	\$140,377,206	\$139,315,329	\$3,523,174	\$930,958
12	\$4,554,240	\$4,517,777	\$109,817	\$36,463	\$73,697	\$139,315,329	\$138,234,835	\$3,523,174	\$936,346
13	\$4,517,777	\$4,480,726	\$109,817	\$37,051	\$73,185	\$138,234,835	\$137,135,395	\$3,523,174	\$941,734
14	\$4,480,726	\$4,443,079	\$109,817	\$37,646	\$72,668	\$137,135,395	\$136,018,619	\$3,523,174	\$947,122
15	\$4,443,079	\$4,404,825	\$109,817	\$38,254	\$72,153	\$136,018,619	\$134,878,347	\$3,523,174	\$952,510
16	\$4,404,825	\$4,365,955	\$109,817	\$38,870	\$71,633	\$134,878,347	\$133,716,587	\$3,523,174	\$957,898
17	\$4,365,955	\$4,326,458	\$109,817	\$39,498	\$71,107	\$133,716,587	\$132,534,457	\$3,523,174	\$963,286
18	\$4,326,458	\$4,286,329	\$109,817	\$40,132	\$70,579	\$132,534,457	\$131,342,193	\$3,523,174	\$968,674
19	\$4,286,329	\$4,245,547	\$109,817	\$40,772	\$70,038	\$131,342,193	\$130,121,901	\$3,523,174	\$974,062
20	\$4,245,547	\$4,204,112	\$109,817	\$41,435	\$69,493	\$130,121,901			

AMORTIZATION SCHEDULE FOR THE AGE 1989 ROAD PROPERTY INVESTMENT FOR 10/2001 START-UP									
Quarter (1)	Beginning Balance (2)	Ending Balance / (3)	Payment (4)	Principal \$/ (5)	Interest \$/ (6)	1. TOTAL INVESTMENT (7)	Ending Balance / (8)	Payment (9)	Principal \$/ (10)
1	\$4,919,137	\$4,888,551	\$109,817	\$30,586	\$79,231	\$150,916,957	\$150,039,879	\$3,523,174	\$877,078
2	\$4,888,551	\$4,857,472	\$109,817	\$31,079	\$78,738	\$149,147,422	\$148,269,318	\$3,523,174	\$882,466
3	\$4,857,472	\$4,826,392	\$109,817	\$31,579	\$78,228	\$148,269,318	\$147,315,291	\$3,523,174	\$887,854
4	\$4,826,392	\$4,793,804	\$109,817	\$32,088	\$77,729	\$147,315,291	\$146,375,083	\$3,523,174	\$893,242
5	\$4,793,804	\$4,761,199	\$109,817	\$32,595	\$77,212	\$146,375,083	\$145,418,350	\$3,523,174	\$898,630
6	\$4,761,199	\$4,728,089	\$109,817	\$33,130	\$76,697	\$145,418,350	\$144,444,862	\$3,523,174	\$904,018
7	\$4,728,089	\$4,694,405	\$109,817	\$33,684	\$76,153	\$144,444,862	\$143,454,306	\$3,523,174	\$909,406
8	\$4,694,405	\$4,660,199	\$109,817	\$34,208	\$75,680	\$143,454,306	\$142,448,385	\$3,523,174	\$914,794
9	\$4,660,199	\$4,625,443	\$109,817	\$34,757	\$75,197	\$142,448,385	\$141,427,785	\$3,523,174	\$920,182
10	\$4,625,443	\$4,590,126	\$109,817	\$35,317	\$74,702	\$141,427,785	\$140,377,206	\$3,523,174	\$925,570
11	\$4,590,126	\$4,554,240	\$109,817	\$35,886	\$74,202	\$140,377,206	\$139,315,329	\$3,523,174	\$930,958
12	\$4,554,240	\$4,517,777	\$109,817	\$36,463	\$73,697	\$139,315,329	\$138,234,835	\$3,523,174	\$936,346
13	\$4,517,777	\$4,480,726	\$109,817	\$37,051	\$73,185	\$138,234,835	\$137,135,395	\$3,523,174	\$941,734
14	\$4,480,726	\$4,443,079	\$109,817	\$37,646	\$72,668	\$137,135,395	\$136,018,619	\$3,523,174	\$947,122
15	\$4,443,079	\$4,404,825	\$109,817	\$38,254	\$72,153	\$136,018,619	\$134,878,347	\$3,523,174	\$952,510
16	\$4,404,825	\$4,365,955	\$109,817	\$38,870	\$71,633	\$134,878,347	\$133,716,587	\$3,523,174	\$957,898
17	\$4,365,955	\$4,326,458	\$109,817	\$39,498	\$71,107	\$133,716,587	\$132,534,457	\$3,523,174	\$963,286
18	\$4,326,458	\$4,286,329	\$109,817	\$40,132	\$70,579	\$132,534,457	\$131,342,193	\$3,523,174	\$968,674
19	\$4,286,329	\$4,245,547	\$109,817	\$40,772	\$70,038	\$131,342,193	\$130,121,901	\$3,523,174	\$974,062
20	\$4,245,547	\$4,204,112	\$109,817	\$41,435	\$69,493	\$130,121,901			

AMORTIZATION SCHEDULE FOR THE AGE 2000 ROAD PROPERTY INVESTMENT FOR 10/2001 START-UP									
Quarter (1)	Beginning Balance (2)	Ending Balance / (3)	Payment (4)	Principal \$/ (5)	Interest \$/ (6)	1. TOTAL INVESTMENT (7)	Ending Balance / (8)	Payment (9)	Principal \$/ (10)
1	\$329,473,044	\$327,724,724	\$327,724,724	\$327,724,724	\$0	\$329,473,044	\$327,724,724	\$327,724,724	\$327,724,724
2	\$327,724,724	\$325,942,440	\$325,942,440	\$325,942,440	\$0	\$325,942,440	\$325,942,440	\$325,942,440	\$325,942,440
3	\$325,942,440	\$324,125,533	\$324,125,533	\$324,125,533	\$0	\$324,125,533	\$324,125,533	\$324,125,533	\$324,125,533
4	\$324,125,533	\$322,273,530	\$322,273,530	\$322,273,530	\$0	\$322,273,530	\$322,273,530	\$322,273,530	\$322,273,530
5	\$322,273,530	\$320,385,144	\$320,385,144	\$320,385,144	\$0	\$320,385,144	\$320,385,144	\$320,385,144	\$320,385,144
6	\$320,385,144	\$318,480,516	\$318,480,516	\$318,480,516	\$0	\$318,480,516	\$318,480,516	\$318,480,516	\$318,480,516
7	\$318,480,516	\$316,568,619	\$316,568,619	\$316,568,619	\$0	\$316,568,619	\$316,568,619	\$316,568,619	\$316,568,619
8	\$316,568,619	\$314,650,399	\$314,650,399	\$314,650,399	\$0	\$314,650,399	\$314,650,399	\$314,650,399	\$314,650,399
9	\$314,650,399	\$312,735,843	\$312,735,843	\$312,735,843	\$0	\$312,735,843	\$312,735,843	\$312,735,843	\$312,735,843
10	\$312,735,843	\$310,820,303	\$310,820,303	\$310,820,303	\$0	\$310,820,303	\$310,820,303	\$310,820,303	\$310,820,303
11	\$310,820,303	\$308,909,893	\$308,909,893	\$308,909,893	\$0	\$308,909,893	\$308,909,893	\$308,909,893	\$308,909,893
12	\$308,909,893	\$306,997,513	\$306,997,513	\$306,997,513	\$0	\$306,997,513	\$306,997,513	\$306,997,513	\$306,997,513
13	\$306,997,513	\$305,082,520	\$305,082,520	\$305,082,520	\$0	\$305,082,520	\$305,082,520	\$305,082,520	\$305,082,520
14	\$305,082,520	\$303,169,327	\$303,169,327	\$303,169,327	\$0	\$303,169,327	\$303,169,327	\$303,169,327	\$303,169,327
15	\$303,169,327	\$301,257,557	\$301,257,557	\$301,257,557	\$0	\$301,257,557	\$301,257,557	\$301,257,557	\$301,257,557
16	\$301,257,557	\$299,346,587	\$299,346,587	\$299,346,587	\$0	\$299,346,587	\$299,346,587	\$299,346,587	\$299,346,587
17	\$299,346,587	\$297,436,399	\$297,436,399	\$297,436,399	\$0	\$297,436,399	\$297,436,399	\$297,436,399	\$297,436,399
18	\$297,436,399	\$295,526,989	\$295,526,989	\$295,526,989	\$0	\$295,526,989	\$295,526,989	\$295,526,989	\$295,526,989
19	\$295,526,989	\$293,618,359	\$293,618,359	\$293,618,359	\$0	\$293,618,359	\$293,618,359	\$293,618,359	\$293,618,359
20	\$293,618,359	\$291,711,509	\$291,711,509	\$291,711,509	\$0	\$291,711,509	\$291,711,509	\$291,711,509	\$291,711,509

1/ From Table D, Column (8) for the applicable year investment.
2/ From Table D, Column (9) for the applicable year investment.
3/ (Total Investment + IDC) x Proportion of Debt from Table A, Column (9).
4/ From Table A, Column (6) for the applicable year investment.
5/ Model line of 20 years x 4.
6/ From Table A, Column (6) for the applicable year investment.
7/ Current quarter Payment - Interest.
8/ Current quarter Beginning Balance - Principal.
9/ Current quarter Beginning Balance x (1 + The Quarterly Interest Rate).

TABLE E: FACE AMORTIZATION SCHEDULE OF ASSETS PURCHASED WITH DEBT CAPITAL

(Continued)

AMORTIZATION SCHEDULE FOR THE ACE 1998 ROAD PROPERTY INVESTMENT FOR THE 102001 START-UP									
Quarter	Beginning Balance	Ending Balance	Payment	Principal	Interest	Beginning Balance	Ending Balance	Payment	Principal
1	\$4,204,112	\$4,162,009	\$109,817	\$42,103	\$67,714	\$130,121,901	\$129,880,214	\$3,523,174	\$1,245,687
2	4,162,009	4,119,228	109,817	42,103	67,714	129,880,214	129,638,527	3,523,174	1,245,687
3	4,119,228	4,076,447	109,817	42,103	67,714	129,638,527	129,396,844	3,523,174	1,245,687
4	4,076,447	4,033,666	109,817	42,103	67,714	129,396,844	129,155,161	3,523,174	1,245,687
5	4,033,666	3,990,885	109,817	42,103	67,714	129,155,161	128,913,478	3,523,174	1,245,687
6	3,990,885	3,948,104	109,817	42,103	67,714	128,913,478	128,671,795	3,523,174	1,245,687
7	3,948,104	3,905,323	109,817	42,103	67,714	128,671,795	128,430,112	3,523,174	1,245,687
8	3,905,323	3,862,542	109,817	42,103	67,714	128,430,112	128,188,429	3,523,174	1,245,687
9	3,862,542	3,819,761	109,817	42,103	67,714	128,188,429	127,946,746	3,523,174	1,245,687
10	3,819,761	3,776,980	109,817	42,103	67,714	127,946,746	127,705,063	3,523,174	1,245,687
11	3,776,980	3,734,199	109,817	42,103	67,714	127,705,063	127,463,380	3,523,174	1,245,687
12	3,734,199	3,691,418	109,817	42,103	67,714	127,463,380	127,221,697	3,523,174	1,245,687
13	3,691,418	3,648,637	109,817	42,103	67,714	127,221,697	126,979,914	3,523,174	1,245,687
14	3,648,637	3,605,856	109,817	42,103	67,714	126,979,914	126,738,231	3,523,174	1,245,687
15	3,605,856	3,563,075	109,817	42,103	67,714	126,738,231	126,496,548	3,523,174	1,245,687
16	3,563,075	3,520,294	109,817	42,103	67,714	126,496,548	126,254,865	3,523,174	1,245,687
17	3,520,294	3,477,513	109,817	42,103	67,714	126,254,865	126,013,182	3,523,174	1,245,687
18	3,477,513	3,434,732	109,817	42,103	67,714	126,013,182	125,771,499	3,523,174	1,245,687
19	3,434,732	3,391,951	109,817	42,103	67,714	125,771,499	125,529,816	3,523,174	1,245,687
20	3,391,951	3,349,170	109,817	42,103	67,714	125,529,816	125,288,133	3,523,174	1,245,687
21	3,349,170	3,306,389	109,817	42,103	67,714	125,288,133	125,046,450	3,523,174	1,245,687
22	3,306,389	3,263,608	109,817	42,103	67,714	125,046,450	124,804,767	3,523,174	1,245,687
23	3,263,608	3,220,827	109,817	42,103	67,714	124,804,767	124,563,084	3,523,174	1,245,687
24	3,220,827	3,178,046	109,817	42,103	67,714	124,563,084	124,321,401	3,523,174	1,245,687
25	3,178,046	3,135,265	109,817	42,103	67,714	124,321,401	124,079,718	3,523,174	1,245,687
26	3,135,265	3,092,484	109,817	42,103	67,714	124,079,718	123,838,035	3,523,174	1,245,687
27	3,092,484	3,049,703	109,817	42,103	67,714	123,838,035	123,596,352	3,523,174	1,245,687
28	3,049,703	3,006,922	109,817	42,103	67,714	123,596,352	123,354,669	3,523,174	1,245,687
29	3,006,922	2,964,141	109,817	42,103	67,714	123,354,669	123,112,986	3,523,174	1,245,687
30	2,964,141	2,921,360	109,817	42,103	67,714	123,112,986	122,871,303	3,523,174	1,245,687
31	2,921,360	2,878,579	109,817	42,103	67,714	122,871,303	122,629,620	3,523,174	1,245,687
32	2,878,579	2,835,798	109,817	42,103	67,714	122,629,620	122,387,937	3,523,174	1,245,687
33	2,835,798	2,793,017	109,817	42,103	67,714	122,387,937	122,146,254	3,523,174	1,245,687
34	2,793,017	2,750,236	109,817	42,103	67,714	122,146,254	121,904,571	3,523,174	1,245,687
35	2,750,236	2,707,455	109,817	42,103	67,714	121,904,571	121,662,888	3,523,174	1,245,687
36	2,707,455	2,664,674	109,817	42,103	67,714	121,662,888	121,421,205	3,523,174	1,245,687
37	2,664,674	2,621,893	109,817	42,103	67,714	121,421,205	121,179,522	3,523,174	1,245,687
38	2,621,893	2,579,112	109,817	42,103	67,714	121,179,522	120,937,839	3,523,174	1,245,687
39	2,579,112	2,536,331	109,817	42,103	67,714	120,937,839	120,696,156	3,523,174	1,245,687
40	2,536,331	2,493,550	109,817	42,103	67,714	120,696,156	120,454,473	3,523,174	1,245,687

1/ From Table D, Column (6) for the applicable year investment.
2/ From Table D, Column (7) for the applicable year investment.
3/ (Total Investment + IDC) x (Proportion of Debt from Table A, Column (8)).
4/ From Table A, Column (6) for the applicable year investment.
5/ Maturity of 20 years x 4.
6/ From Table D, Column (6) for the applicable year investment.
7/ Current quarter Beginning Balance - Principal.
8/ Current quarter Beginning Balance - Interest.
9/ Current quarter Beginning Balance x (1 + The Quarterly Interest Rate).

TABLE E: ACE AMORTIZATION SCHEDULE OF ASSETS PURCHASED WITH DEBT CAPITAL
(Continued)

AMORTIZATION SCHEDULE FOR THE AGE 1990 ROAD PROPERTY INVESTMENT FOR THE 10/2001 START-UP						AMORTIZATION SCHEDULE FOR THE AGE 1990 ROAD PROPERTY INVESTMENT FOR 10/2001 START-UP						AMORTIZATION SCHEDULE FOR THE AGE 2000 ROAD PROPERTY INVESTMENT FOR 10/2001 START-UP					
1. TOTAL INVESTMENT						1. TOTAL INVESTMENT						1. TOTAL INVESTMENT					
2. IDC						2. IDC						2. IDC					
3. PRINCIPAL						3. PRINCIPAL						3. PRINCIPAL					
4. INTEREST						4. INTEREST						4. INTEREST					
5. TERM						5. TERM						5. TERM					
6. PAYMENT =====>						6. PAYMENT =====>						6. PAYMENT =====>					
Quarter	Beginning Balance	Ending Balance	Payment	Principal	Interest	Beginning Balance	Ending Balance	Payment	Principal	Interest	Beginning Balance	Ending Balance	Payment	Principal	Interest		
1	\$3,219,659	\$3,161,902	\$109,817	\$57,956	\$31,861	\$100,862,158	\$98,924,291	\$3,523,174	\$1,757,868	\$1,765,206	\$226,173,941	\$221,399,449	\$8,148,843	\$8,148,843	\$353,927,359		
2	\$3,161,902	\$3,103,012	109,817	58,689	50,828	98,924,291	97,135,007	3,523,174	1,788,689	1,754,494	221,399,449	217,551,633	8,148,843	8,148,843	3,847,816		
3	\$3,103,012	\$3,043,175	109,817	59,889	49,979	97,135,007	95,315,550	3,523,174	1,820,055	1,703,123	217,551,633	213,629,687	8,148,843	8,148,843	3,927,556		
4	\$2,982,373	\$2,922,525	109,817	60,802	48,015	95,315,550	93,493,957	3,523,174	1,851,963	1,671,211	213,629,687	209,630,259	8,148,843	8,148,843	3,989,750		
5	\$2,890,928	\$2,829,516	109,817	61,761	46,058	93,493,957	91,579,155	3,523,174	1,884,348	1,639,738	209,630,259	205,553,348	8,148,843	8,148,843	4,072,450		
6	\$2,829,516	\$2,767,028	109,817	62,769	44,141	91,579,155	89,681,706	3,523,174	1,917,475	1,605,989	205,553,348	201,398,206	8,148,843	8,148,843	4,155,664		
7	\$2,767,028	\$2,729,214	109,817	63,769	42,264	89,681,706	87,760,354	3,523,174	1,951,085	1,570,209	201,398,206	197,161,355	8,148,843	8,148,843	4,235,372		
8	\$2,729,214	\$2,729,214	109,817	64,815	40,335	87,760,354	85,801,658	3,523,174	1,985,304	1,537,269	197,161,355	192,844,365	8,148,843	8,148,843	4,315,670		
9	\$2,663,355	\$2,596,438	109,817	65,859	42,868	85,801,658	83,705,279	3,523,174	2,019,517	1,497,541	192,844,365	188,440,889	8,148,843	8,148,843	4,402,566		
10	\$2,596,438	\$2,508,348	109,817	66,919	42,868	83,705,279	81,648,633	3,523,174	2,054,533	1,462,541	188,440,889	184,046,365	8,148,843	8,148,843	4,484,085		
11	\$2,508,348	\$2,459,348	109,817	67,997	40,725	81,648,633	79,555,059	3,523,174	2,128,246	1,394,828	184,046,365	179,372,505	8,148,843	8,148,843	4,567,251		
12	\$2,459,348	\$2,389,141	109,817	69,022	39,612	79,555,059	77,429,813	3,523,174	2,165,562	1,357,612	179,372,505	175,000,000	8,148,843	8,148,843	4,650,281		
13	\$2,389,141	\$2,317,605	109,817	70,205	38,481	77,429,813	75,284,251	3,523,174	2,242,167	1,281,007	175,000,000	169,169,845	8,148,843	8,148,843	4,734,772		
14	\$2,317,605	\$2,245,320	109,817	71,535	36,665	75,284,251	73,060,720	3,523,174	2,321,462	1,204,994	169,169,845	165,132,549	8,148,843	8,148,843	4,819,141		
15	\$2,245,320	\$2,171,955	109,817	72,688	34,978	73,060,720	70,816,593	3,523,174	2,397,405	1,120,862	165,132,549	160,997,355	8,148,843	8,148,843	4,903,294		
16	\$2,171,955	\$2,098,629	109,817	73,532	33,476	70,816,593	68,537,073	3,523,174	2,462,186	1,040,882	160,997,355	156,837,386	8,148,843	8,148,843	4,983,912		
17	\$2,098,629	\$2,020,784	109,817	74,289	32,448	68,537,073	66,333,405	3,523,174	2,502,505	959,357	156,837,386	152,472,444	8,148,843	8,148,843	5,064,912		
18	\$2,020,784	\$1,943,515	109,817	75,041	31,304	66,333,405	64,084,056	3,523,174	2,543,446	874,427	152,472,444	148,002,876	8,148,843	8,148,843	5,148,843		
19	\$1,943,515	\$1,865,002	109,817	75,794		64,084,056	61,449,802	3,523,174			148,002,876	143,425,076	8,148,843	8,148,843	5,234,912		
20																	

- 2/ From Table D, Column (9) for the applicable year investment.
- 3/ (Total Investment + D0) x (proportion of Debt from Table A, Column (9)).
- 4/ From Table A, Column (6) for the applicable year investment.
- 5/ Model life of 20 years x_4 .
- 6/ Line 3 Principal financed over Line 5 Term at Line 4 Interest Rate on a quarterly basis.
- 7/ Current quarter Beginning Balance - Principal.
- 8/ Current quarter Payment - Interest.
- 9/ Current quarter Beginning Balance $x_4(1 + \text{The Quarterly Interest Rate})$.

TABLE E: ACE AMORTIZATION SCHEDULE OF ASSETS PURCHASED WITH DEBT CAPITAL
(continued)

AMORTIZATION SCHEDULE FOR THE ACE 1998 ROAD PROPERTY INVESTMENT FOR THE 102001 START-UP										
Quarter (1)	Beginning Balance (2)	Ending Balance 1/ (3)	Payment (4)	Principal 2/ (5)	Interest 3/ (6)	1. TOTAL INVESTMENT (7)	2. IDC (8)	3. PRINCIPAL (9)	4. INTEREST (10)	5. TERM (11)
61	\$1,965,002	\$1,765,224	\$109,817	\$79,776	\$30,039	\$59,004,056	\$56,515,427	\$3,523,174	\$2,458,629	\$1,034,545
62	1,765,224	1,704,160	109,817	81,063	28,754	56,515,427	53,985,164	3,523,174	2,532,263	980,511
63	1,704,160	1,621,792	109,817	82,369	27,448	53,985,164	51,406,502	3,523,174	2,597,662	946,511
64	1,621,792	1,536,098	109,817	83,695	26,122	48,784,681	46,116,851	3,523,174	2,667,610	901,333
65	1,536,098	1,453,053	109,817	85,044	24,774	46,116,851	43,402,285	3,523,174	2,714,585	865,584
66	1,453,053	1,368,834	109,817	86,413	22,012	43,402,285	40,640,083	3,523,174	2,762,162	808,588
67	1,368,834	1,280,514	109,817	87,805	20,588	40,640,083	37,836,471	3,523,174	2,809,692	760,982
68	1,280,514	1,189,615	109,817	89,217	19,093	37,836,471	34,989,578	3,523,174	2,859,882	712,561
69	1,189,615	1,096,842	109,817	90,640	17,701	34,989,578	32,098,483	3,523,174	2,901,056	663,281
70	1,096,842	1,003,242	109,817	92,117	16,217	32,098,483	29,098,506	3,523,174	2,940,056	613,137
71	1,003,242	913,242	109,817	93,600	14,709	29,098,506	26,085,506	3,523,174	3,012,977	561,107
72	913,242	818,134	109,817	95,108	13,177	26,085,506	23,019,701	3,523,174	3,085,805	507,589
73	818,134	721,494	109,817	96,640	11,621	23,019,701	19,900,143	3,523,174	3,119,256	453,616
74	721,494	623,290	109,817	98,198	10,039	19,900,143	16,726,887	3,523,174	3,147,255	398,818
75	623,290	523,290	109,817	101,266	8,432	16,726,887	13,498,976	3,523,174	3,229,811	293,533
76	523,290	422,155	109,817	103,918	6,759	13,498,976	10,208,434	3,523,174	3,268,543	236,631
77	422,155	318,117	109,817	106,523	5,454	10,208,434	6,868,287	3,523,174	3,344,502	179,007
78	318,117	214,440	109,817	108,523	3,454	6,868,287	3,462,485	3,523,174	3,462,485	120,072
79	214,440	108,076	109,817	108,076	1,741	3,462,485	0	3,523,174	3,462,485	60,759
80	108,076	0	109,817	109,817	0	0	0	3,523,174	3,462,485	0

AMORTIZATION SCHEDULE FOR THE ACE 1999 ROAD PROPERTY INVESTMENT FOR THE 102001 START-UP										
Quarter (1)	Beginning Balance (2)	Ending Balance 1/ (3)	Payment (4)	Principal 2/ (5)	Interest 3/ (6)	1. TOTAL INVESTMENT (7)	2. IDC (8)	3. PRINCIPAL (9)	4. INTEREST (10)	5. TERM (11)
1	\$1,965,002	\$1,765,224	\$109,817	\$79,776	\$30,039	\$59,004,056	\$56,515,427	\$3,523,174	\$2,458,629	\$1,034,545
2	1,765,224	1,704,160	109,817	81,063	28,754	56,515,427	53,985,164	3,523,174	2,532,263	980,511
3	1,704,160	1,621,792	109,817	82,369	27,448	53,985,164	51,406,502	3,523,174	2,597,662	946,511
4	1,621,792	1,536,098	109,817	83,695	26,122	48,784,681	46,116,851	3,523,174	2,667,610	901,333
5	1,536,098	1,453,053	109,817	85,044	24,774	46,116,851	43,402,285	3,523,174	2,714,585	865,584
6	1,453,053	1,368,834	109,817	86,413	22,012	43,402,285	40,640,083	3,523,174	2,762,162	808,588
7	1,368,834	1,280,514	109,817	87,805	20,588	40,640,083	37,836,471	3,523,174	2,809,692	760,982
8	1,280,514	1,189,615	109,817	89,217	19,093	37,836,471	34,989,578	3,523,174	2,859,882	712,561
9	1,189,615	1,096,842	109,817	90,640	17,701	34,989,578	32,098,483	3,523,174	2,901,056	663,281
10	1,096,842	1,003,242	109,817	92,117	16,217	32,098,483	29,098,506	3,523,174	2,940,056	613,137
11	1,003,242	913,242	109,817	93,600	14,709	29,098,506	26,085,506	3,523,174	3,012,977	561,107
12	913,242	818,134	109,817	95,108	13,177	26,085,506	23,019,701	3,523,174	3,085,805	507,589
13	818,134	721,494	109,817	96,640	11,621	23,019,701	19,900,143	3,523,174	3,119,256	453,616
14	721,494	623,290	109,817	98,198	10,039	19,900,143	16,726,887	3,523,174	3,147,255	398,818
15	623,290	523,290	109,817	101,266	8,432	16,726,887	13,498,976	3,523,174	3,229,811	293,533
16	523,290	422,155	109,817	103,918	6,759	13,498,976	10,208,434	3,523,174	3,268,543	236,631
17	422,155	318,117	109,817	106,523	5,454	10,208,434	6,868,287	3,523,174	3,344,502	179,007
18	318,117	214,440	109,817	108,523	3,454	6,868,287	3,462,485	3,523,174	3,462,485	120,072
19	214,440	108,076	109,817	108,076	1,741	3,462,485	0	3,523,174	3,462,485	60,759
20	108,076	0	109,817	109,817	0	0	0	3,523,174	3,462,485	0

AMORTIZATION SCHEDULE FOR THE ACE 2000 ROAD PROPERTY INVESTMENT FOR THE 102001 START-UP										
Quarter (1)	Beginning Balance (2)	Ending Balance 1/ (3)	Payment (4)	Principal 2/ (5)	Interest 3/ (6)	1. TOTAL INVESTMENT (7)	2. IDC (8)	3. PRINCIPAL (9)	4. INTEREST (10)	5. TERM (11)
1	\$1,965,002	\$1,765,224	\$109,817	\$79,776	\$30,039	\$59,004,056	\$56,515,427	\$3,523,174	\$2,458,629	\$1,034,545
2	1,765,224	1,704,160	109,817	81,063	28,754	56,515,427	53,985,164	3,523,174	2,532,263	980,511
3	1,704,160	1,621,792	109,817	82,369	27,448	53,985,164	51,406,502	3,523,174	2,597,662	946,511
4	1,621,792	1,536,098	109,817	83,695	26,122	48,784,681	46,116,851	3,523,174	2,667,610	901,333
5	1,536,098	1,453,053	109,817	85,044	24,774	46,116,851	43,402,285	3,523,174	2,714,585	865,584
6	1,453,053	1,368,834	109,817	86,413	22,012	43,402,285	40,640,083	3,523,174	2,762,162	808,588
7	1,368,834	1,280,514	109,817	87,805	20,588	40,640,083	37,836,471	3,523,174	2,809,692	760,982
8	1,280,514	1,189,615	109,817	89,217	19,093	37,836,471	34,989,578	3,523,174	2,859,882	712,561
9	1,189,615	1,096,842	109,817	90,640	17,701	34,989,578	32,098,483	3,523,174	2,901,056	663,281
10	1,096,842	1,003,242	109,817	92,117	16,217	32,098,483	29,098,506	3,523,174	2,940,056	613,137
11	1,003,242	913,242	109,817	93,600	14,709	29,098,506	26,085,506	3,523,174	3,012,977	561,107
12	913,242	818,134	109,817	95,108	13,177	26,085,506	23,019,701	3,523,174	3,085,805	507,589
13	818,134	721,494	109,817	96,640	11,621	23,019,701	19,900,143	3,523,174	3,119,256	453,616
14	721,494	623,290	109,817	98,198	10,039	19,900,143	16,726,887	3,523,174	3,147,255	398,818
15	623,290	523,290	109,817	101,266	8,432	16,726,887	13,498,976	3,523,174	3,229,811	293,533
16	523,290	422,155	109,817	103,918	6,759	13,498,976	10,208,434	3,523,174	3,268,543	236,631
17	422,155	318,117	109,817	106,523	5,454	10,208,434	6,868,287	3,523,174	3,344,502	179,007
18	318,117	214,440	109,817	108,523	3,454	6,868,287	3,462,485	3,523,174	3,462,485	120,072
19	214,440	108,076	109,817	108,076	1,741	3,462,485	0	3,523,174	3,462,485	60,759
20	108,076	0	109,817	109,817	0	0	0	3,523,174	3,462,485	0

1/ From Table D, Column (8) for the applicable year investment.
2/ From Table D, Column (9) for the applicable year investment.
3/ Total investment - IDC x (Proportion of Debt from Table A, Column (5)).
4/ From Table A, Column (6) for the applicable year investment.
5/ From Table A, Column (7) for the applicable year investment.
6/ Line 3 Principal financed over Line 5 Term at Line 4 Interest Rate on a quarterly basis.
7/ Current quarter Beginning Balance - Principal.
8/ Current quarter Payment - Interest.
9/ Current quarter Beginning Balance x (1 + The Quarterly Interest Rate).

TABLE F: AGE PRESENT VALUE OF REPLACEMENT COST

Road Property Account	Road Property Component	Service Life in Years 1/	Investment 2/ (4)	Salvage 3/ (5)	Replacement Year Asset Net Cost 4/ (6)	Replacement Cost Adjusted To Reflect An Infinite Life 5/ (7)	Present Value Of Replacement Cost Adjusted To Reflect An Infinite Life (2001 Dollars) 6/ (8)
(1)	(2)	(3)					
3	Grading	83	\$2,786,847,485	\$0	\$2,565,509,035	\$2,569,758,391	\$492,214
5	Tunnels	88	0	0	0	0	0
6	Bridges & Culverts	74	569,384,827	0	401,421,324	402,778,262	199,715
8	Ties	80	333,973,761	0	204,906,577	205,345,287	55,393
9	Rails and OTM	28	323,264,762	28,867,595	181,686,719	205,075,584	11,263,282
11	Ballast	25	259,444,985	0	159,180,121	186,326,541	14,195,740
12	Labor	39	705,298,206	0	432,729,327	456,013,003	8,555,379
13	Fences and Roadway Signs	81	983,908	0	693,664	695,007	164
14	Training Costs	NA	0	0	0	0	0
17	Roadway Buildings	26	6,516,351	0	5,231,521	6,034,185	407,078
19	Fuel Stations	30	54,176,966	0	49,874,095	55,339,869	2,507,711
20	Shops and Enginehouses	48	20,877,183	0	19,219,064	19,699,858	137,801
26	Communications Systems	23	22,077,458	0	13,545,425	16,268,771	1,492,267
27	Signals and Interlockers	31	119,018,092	4,648,519	70,570,296	77,830,319	3,267,449
39	Public improvements	53	21,952,048	0	15,476,388	15,740,352	66,679
	Total		\$5,223,816,032	\$33,516,114	\$4,120,043,553	\$4,216,905,429	\$42,640,843

- 1/ From Table C, Column (3).
2/ (Table C, Column (10) after allocation of Engineering) x (Table B, Inflation Index)/(Column (3)).
3/ [(Column (4) x Estimated Salvage %) - (Table C, Column (10) after allocation of Engineering x Salvage %)] x (1 - Current Federal Tax Rate) + (Table C, Column (10) after allocation of Engineering x Salvage %).
4/ Column (4) - (Present Value of the remaining tax deductions for depreciation, interest expense and the Present Value of any salvage).
5/ Column (6) + [(Column (6)) / ((1 + Real Cost of Capital)^(Column (3) - 1))].
6/ Column (7) / ((1 + Nominal Cost of Capital)^(Column (3))).

TABLE G. AGE TAX DEPRECIATION SCHEDULES

Depreciation of Start-up Investment for tax purposes using
accounting lives from Modified Accelerated Cost Recovery System (MACRS) 1/

Road Property Account (1)	Road Property Component (2)	Asset Lives Per MACRS (3)	Total 1/1/2001 Investment (4)	Depreciable Base (5)
1	Engineering	2/	\$59,975,230	\$59,975,230
2	Land	N/A	9,409,944	0
3	Grading	50	185,684,382	185,684,382
5	Tunnels	50	0	0
6	Bridges & Culverts	15	50,928,754	50,928,754
8	Ties	7	112,117,595	112,117,595
9	Rails and OTM	7	211,746,634	211,746,634
11	Ballast	7	177,082,128	177,082,128
12	Labor	7	175,721,325	175,721,325
13	Fences and Roadway Signs	15	69,934	69,934
14	Training Costs	2/	4,823,272	4,823,272
17	Roadway Buildings	15	2,667,992	2,667,992
19	Fuel Stations	15	19,610,461	19,610,461
20	Shops and Enginehouses	15	4,237,510	4,237,510
26	Communications Systems	7	9,941,262	9,941,262
27	Signals and Interlockers	7	42,073,962	42,073,962
39	Public Improvements	15	3,814,839	3,814,839
	Total		\$1,069,905,225	\$1,060,485,281

1/ Applicable Depreciation Method: 200 or 150 percent
Declining Balance Switching to Straight Line

Applicable Recovery Periods: 7, 15 and 50 at years

Applicable Convention: Mid-quarter (property placed in service in first quarter)

The Depreciation Rates are as follows for the corresponding

Recovery Period and Recovery year.

Recovery Year	5-year Recovery Period --- 7-year Recovery Period --- 15-year Recovery Period ---	15-year Recovery Period --- 7-year Recovery Period --- 50-year Recovery Period ---	50-year Recovery Period ---
1	20.00%	25.00%	10
2	20.00%	8.750%	10
3	20.00%	21.43%	11
4	20.00%	9.130%	11
5	20.00%	15.31%	12
6	20.00%	8.210%	12
7	20.00%	10.93%	13
8	20.00%	7.380%	13
9	20.00%	6.650%	14
		2.00%	14
		2.00%	15
		2.00%	15
		2.00%	16
		2.00%	17
		2.00%	17
		2.00%	18
		2.00%	18
		2.00%	19-50

a/ 50 year property uses the Straight Line Method for all time periods

2/ Applicable Recovery Period of 5 years for amortization of business start-up costs.

TABLE G: AGE TAX DEPRECIATION SCHEDULES
(Continued)

Year (1)	Amortization - 5 Years			Depreciation - MACRS 7 Years			Depreciation - MACRS 15 Years			Depreciation - MACRS 50 Years			Total Annual Depreciation 10/ (14)
	Unamortized Investment 1/ (2)	Rate 2/ (3)	Annual Amort. 3/ (4)	Undepreciated Investment 4/ (5)	Rate 2/ (6)	Annual Amount 5/ (7)	Undepreciated Investment 6/ (8)	Rate 2/ (9)	Annual Amount 7/ (10)	Unamortized Investment 8/ (11)	Rate 2/ (12)	Annual Amount 9/ (13)	
1	\$64,798,502	20.00%	\$12,959,700	\$728,682,906	25.00%	\$182,170,727	\$81,329,491	8.75%	\$7,116,330	\$185,684,362	2%	\$3,713,688	\$205,960,445
2	51,836,801	20.00%	12,959,700	546,512,180	21.43%	156,156,747	74,213,160	9.13%	7,425,383	181,970,694	2%	3,713,688	180,255,517
3	38,879,101	20.00%	12,959,700	390,355,433	15.31%	111,561,353	66,787,778	8.21%	6,677,151	178,257,007	2%	3,713,688	134,911,882
4	25,919,401	20.00%	12,959,700	278,794,080	10.93%	79,645,042	80,110,627	7.39%	6,010,249	174,543,319	2%	3,713,688	102,328,679
5	12,959,700	20.00%	12,959,700	199,149,036	8.75%	63,759,754	54,100,377	6.65%	5,408,411	170,829,631	2%	3,713,688	85,841,553
6				135,389,284	8.74%	63,686,886	48,691,966	5.99%	4,871,637	167,115,944	2%	3,713,688	72,272,210
7				71,702,398	8.75%	63,759,754	43,820,330	5.90%	4,798,440	163,402,256	2%	3,713,688	72,271,882
8				7,942,644	1.09%	7,942,644	39,021,890	5.91%	4,806,573	159,688,569	2%	3,713,688	16,462,904
9							34,215,317	5.90%	4,798,440	155,974,881	2%	3,713,688	8,512,128
10							28,416,877	5.91%	4,806,573	152,261,193	2%	3,713,688	8,520,261
11							24,610,304	5.90%	4,798,440	148,547,506	2%	3,713,688	8,512,128
12							19,811,864	5.91%	4,806,573	144,833,818	2%	3,713,688	8,520,261
13							15,005,291	5.90%	4,798,440	141,120,130	2%	3,713,688	8,512,128
14							10,206,851	5.91%	4,806,573	137,406,443	2%	3,713,688	8,520,261
15							5,400,276	5.90%	4,798,440	133,692,755	2%	3,713,688	8,512,128
16							601,838	0.74%	601,838	129,979,067	2%	3,713,688	4,315,526
17										126,265,380	2%	3,713,688	3,713,688
18										122,551,692	2%	3,713,688	3,713,688
19										118,838,004	2%	3,713,688	3,713,688
20										115,124,317	2%	3,713,688	3,713,688
										111,410,629	2%	3,713,688	3,713,688

- 1/ From Table G, Page 10, Column (5), Road Property Account 1 and 1A.
2/ From Table G, Footnote 1f, Page 10.
3/ Column (2), Year 1 x Column (3).
4/ From Table G, Page 10, Column (5), Road Property Accounts 8, 9, 11, 12, 26, and 27.
5/ Column (5), Year 1 x Column (6).
6/ From Table G, Page 10, Column (5), Road Property Accounts 8, 13, 16, 17, 19, 20 and 39.
7/ Column (8), Year 1 x Column (9).
8/ From Table G, Page 10, Column (5), Road Property Accounts 3 and 5.
9/ Column (11), Year 1 x Column (12).
10/ Column (4) + Column (7) + Column (10) + Column (13).

TABLE H: ACE AVERAGE ANNUAL INFLATION IN ASSET PRICES

Development of average annual inflation factors for all capital assets

1. 1Q2001 Land value
2. 1Q2001 Road Property asset value accounts 3, 5, 6, 13, 17, 19, 20, 26, 27, and 39
3. 1Q2001 Road Property asset value accounts 8, 9, and 11
4. 1Q2001 Road Property asset value account 1, 1A and 12

Period	Quarter	Inflation Index For Land 2/	Inflation Index For Road Property Assets 3/	Inflation Index For Road Property Assets 4/	Inflation Index For Road Property Assets 5/	Land Value 6/	Road Property Value 7/	1Q2001 Inflation Index 8/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
0	2001 1 Qtr	1.000	1.000	1.000	1.000	\$9,409,944	\$1,060,495,281	1.000
1	2001 2 Qtr	1.005	1.024	1.000	1.028	9,453,960	1,074,670,759	1.013
2	2001 3 Qtr	1.009	1.029	1.021	1.030	9,498,181	1,087,774,318	1.026
3	2001 4 Qtr	1.014	1.037	1.024	1.039	9,542,610	1,093,553,937	1.031
4	2002 1 Qtr	1.019	1.037	1.024	1.039	9,587,246	1,093,771,740	1.031
5	2002 2 Qtr	1.024	1.067	1.020	1.074	9,632,091	1,109,721,989	1.046
6	2002 3 Qtr	1.028	1.067	1.015	1.073	9,677,146	1,107,149,031	1.044
7	2002 4 Qtr	1.033	1.074	0.984	1.085	9,722,412	1,096,517,380	1.034
8	2003 1 Qtr	1.038	1.070	0.948	1.086	9,767,889	1,077,452,246	1.016
9	2003 2 Qtr	1.043	1.079	0.951	1.086	9,813,579	1,084,370,841	1.023
10	2003 3 Qtr	1.048	1.088	0.954	1.106	9,859,483	1,091,341,266	1.029
11	2003 4 Qtr	1.053	1.098	0.956	1.116	9,905,601	1,098,363,946	1.036
12	2004 1 Qtr	1.058	1.107	0.961	1.126	9,951,936	1,105,439,306	1.043
13	2004 2 Qtr	1.063	1.116	0.964	1.137	9,998,486	1,112,319,974	1.049
14	2004 3 Qtr	1.068	1.126	0.966	1.147	10,045,255	1,119,253,932	1.056
15	2004 4 Qtr	1.073	1.135	0.969	1.158	10,092,243	1,126,241,633	1.062
16	2005 1 Qtr	1.078	1.145	0.972	1.169	10,139,450	1,133,283,537	1.069
17	2005 2 Qtr	1.083	1.155	0.974	1.180	10,186,878	1,140,526,580	1.076
18	2005 3 Qtr	1.088	1.165	0.977	1.192	10,234,528	1,147,827,407	1.082
19	2005 4 Qtr	1.093	1.176	0.980	1.203	10,282,401	1,155,186,525	1.089
20		1.098	1.186	0.982	1.215	10,330,497	1,162,604,445	1.096

- 1/ Table C, Page 3, Column (10).
- 2/ Previous Column (3) x (1 + Inflation Rate from Table B on a Quarterly Basis).
- 3/ Previous Column (4) x (1 + Inflation Rate from Table B on a Quarterly Basis).
- 4/ Previous Column (5) x (1 + Inflation Rate from Table B on a Quarterly Basis).
- 5/ Previous Column (6) x (1 + Inflation Rate from Table B on a Quarterly Basis).
- 6/ Line 1 x Column (3).
- 7/ (Line 2 x Column (4)) + (Line 3 x Column (5)) + (Line 4 x Column (6)).
- 8/ (Column (7) + Column (8)) ÷ (Period 0, (Column (7) + Column (8))).

TABLE H: ACE AVERAGE ANNUAL INFLATION IN ASSET PRICES
(Continued)

Development of average annual inflation factors for all capital assets

1. 1Q2001 Land value \$9,409,944 1/
2. 1Q2001 Road Property asset value accounts 3, 5, 6, 13, 17, 19, 20, 26, 27, and 39 \$319,029,097 1/
3. 1Q2001 Road Property asset value accounts 8, 9, and 11 \$500,946,357 1/
4. 1Q2001 Road Property asset value account 1, 1A and 12 \$240,519,826 1/

Period (1)	Quarter (2)	Inflation Index For Land 2/ (3)	Inflation Index For Line 2 Road Property Assets 3/ (4)	Inflation Index For Line 3 Road Property Assets 4/ (5)	Inflation Index For Line 4 Road Property Assets 5/ (6)	Land Value 6/ (7)	Road Property Value 7/ (8)	1Q2001 Inflation Index 8/ (9)
21	2006 1 Qtr	1.103	1.196	0.985	1.226	10,378,819	1,170,081,683	1.103
22	2006 2 Qtr	1.108	1.207	0.988	1.236	10,427,367	1,177,618,760	1.110
23	2006 3 Qtr	1.113	1.217	0.990	1.250	10,476,142	1,185,216,201	1.118
24	2006 4 Qtr	1.119	1.228	0.993	1.262	10,525,145	1,192,874,538	1.125
25	2007 1 Qtr	1.124	1.238	0.996	1.273	10,574,377	1,200,256,258	1.132
26	2007 2 Qtr	1.129	1.248	0.999	1.285	10,623,839	1,207,692,494	1.139
27	2007 3 Qtr	1.134	1.259	1.002	1.296	10,673,533	1,215,183,694	1.146
28	2007 4 Qtr	1.140	1.269	1.005	1.307	10,723,459	1,222,730,272	1.153
29	2008 1 Qtr	1.145	1.279	1.008	1.319	10,773,619	1,230,306,144	1.160
30	2008 2 Qtr	1.150	1.289	1.012	1.330	10,824,014	1,237,936,539	1.167
31	2008 3 Qtr	1.156	1.299	1.015	1.342	10,874,644	1,245,621,882	1.174
32	2008 4 Qtr	1.161	1.310	1.018	1.353	10,925,511	1,253,362,602	1.182
33	2009 1 Qtr	1.166	1.320	1.021	1.365	10,976,616	1,261,159,132	1.189
34	2009 2 Qtr	1.172	1.331	1.025	1.377	11,027,960	1,269,011,907	1.196
35	2009 3 Qtr	1.177	1.341	1.028	1.389	11,079,544	1,276,921,368	1.204
36	2009 4 Qtr	1.183	1.352	1.031	1.401	11,131,369	1,284,887,957	1.211
37	2010 1 Qtr	1.188	1.363	1.035	1.413	11,183,437	1,292,912,121	1.219
38	2010 2 Qtr	1.194	1.374	1.038	1.425	11,235,749	1,300,994,310	1.226
39	2010 3 Qtr	1.200	1.385	1.041	1.437	11,288,305	1,309,134,979	1.234
40	2010 4 Qtr	1.205	1.396	1.045	1.450	11,341,107	1,317,334,585	1.242

- 1/ Table C, Page 3, Column (10).
- 2/ Previous Column (3) x (1) + Inflation Rate from Table B on a Quarterly Basis.
- 3/ Previous Column (4) x (1) + Inflation Rate from Table B on a Quarterly Basis.
- 4/ Previous Column (5) x (1) + Inflation Rate from Table B on a Quarterly Basis.
- 5/ Previous Column (6) x (1) + Inflation Rate from Table B on a Quarterly Basis.
- 6/ Line 1 x Column (3).
- 7/ (Line 2 x Column (4)) + (Line 3 x Column (5)) + (Line 4 x Column (6)).
- 8/ (Column (7) + Column (8)) + (Period 0, (Column (7) + Column (8))).

TABLE H: ACE AVERAGE ANNUAL INFLATION IN ASSET PRICES
(Continued)

Development of average annual inflation factors for all capital assets			
1. 1Q2001 Land value			\$9,409,944 1/
2. 1Q2001 Road Property asset value accounts 3, 5, 6, 13, 17, 19, 20, 26, 27, and 39			\$3,19,029,097 1/
3. 1Q2001 Road Property asset value accounts 8, 9, and 11			\$600,946,357 1/
4. 1Q2001 Road Property asset value account 1, 1A and 12			\$240,519,826 1/

Period	Quarter	Inflation Index For Land 2/	Inflation Index For Line 2 Road Property Assets 3/	Inflation Index For Line 3 Road Property Assets 4/	Inflation Index For Line 4 Road Property Assets 5/	Land Value 6/	Road Property Value 7/	1Q2001 Inflation Index 8/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
41	2011 1 Qtr	1.211	1.407	1.048	1.462	\$11,394,155	\$1,325,593,589	1.250
42	2011 2 Qtr	1.217	1.418	1.052	1.475	11,447,453	1,333,912,457	1.257
43	2011 3 Qtr	1.222	1.430	1.055	1.487	11,500,999	1,342,291,658	1.265
44	2011 4 Qtr	1.228	1.441	1.058	1.500	11,554,796	1,350,731,663	1.273
45	2012 1 Qtr	1.234	1.452	1.062	1.513	11,608,844	1,359,232,951	1.281
46	2012 2 Qtr	1.239	1.464	1.065	1.526	11,663,145	1,367,796,001	1.289
47	2012 3 Qtr	1.245	1.476	1.069	1.540	11,717,701	1,376,421,297	1.297
48	2012 4 Qtr	1.251	1.487	1.072	1.553	11,772,511	1,385,109,328	1.306
49	2013 1 Qtr	1.257	1.499	1.076	1.566	11,827,578	1,393,860,586	1.314
50	2013 2 Qtr	1.263	1.511	1.079	1.580	11,882,902	1,402,675,568	1.322
51	2013 3 Qtr	1.269	1.523	1.083	1.593	11,938,486	1,411,554,773	1.330
52	2013 4 Qtr	1.275	1.536	1.086	1.607	11,994,329	1,420,498,706	1.339
53	2014 1 Qtr	1.281	1.548	1.090	1.621	12,050,433	1,429,507,875	1.347
54	2014 2 Qtr	1.287	1.560	1.093	1.635	12,106,800	1,438,582,793	1.356
55	2014 3 Qtr	1.293	1.573	1.097	1.649	12,163,431	1,447,723,976	1.365
56	2014 4 Qtr	1.299	1.585	1.100	1.663	12,220,326	1,456,931,946	1.373
57	2015 1 Qtr	1.305	1.598	1.104	1.678	12,277,487	1,466,207,227	1.382
58	2015 2 Qtr	1.311	1.611	1.107	1.692	12,334,916	1,475,550,350	1.391
59	2015 3 Qtr	1.317	1.623	1.111	1.707	12,392,614	1,484,981,847	1.400
60	2015 4 Qtr	1.323	1.636	1.114	1.722	12,450,581	1,494,442,257	1.408

1/ Table C, Page 3, Column (10).
2/ Previous Column (3) x (1) + Inflation Rate from Table B on a Quarterly Basis.
3/ Previous Column (4) x (1) + Inflation Rate from Table B on a Quarterly Basis.
4/ Previous Column (5) x (1) + Inflation Rate from Table B on a Quarterly Basis.
5/ Previous Column (6) x (1) + Inflation Rate from Table B on a Quarterly Basis.
6/ Line 1 x Column (3).
7/ (Line 2 x Column (4)) + (Line 3 x Column (5)) + (Line 4 x Column (6)).
8/ (Column (7) + Column (8)) + (Period 0, (Column (7) + Column (8))).

TABLE H: AGE AVERAGE ANNUAL INFLATION IN ASSET PRICES
(Continued)

Development of average annual inflation factors for all capital assets

1. 1Q2001 Land value \$9,409,944 1/
2. 1Q2001 Road Property asset value accounts 3, 5, 6, 13, 17, 19, 20, 26, 27, and 39 \$319,029,097 1/
3. 1Q2001 Road Property asset value accounts 8, 9, and 11 \$500,946,357 1/
4. 1Q2001 Road Property asset value account 1, 1A and 12 \$240,519,826 1/

Period (1)	Quarter (2)	Inflation Index For Land 2/ Assets 3/	Inflation Index For Line 2 Road Assets 3/	Inflation Index For Line 3 Road Assets 4/	Inflation Index For Line 4 Road Assets 5/	Land Value 6/	Road Property Value 7/	1Q2001 Inflation Index 8/
61	2016 1 Qtr	1.329	1.649	1.118	1.736	12,508,820	1,503,992,123	1.417
62	2016 2 Qtr	1.336	1.663	1.122	1.751	12,567,331	1,513,611,990	1.426
63	2016 3 Qtr	1.342	1.676	1.125	1.767	12,626,116	1,523,302,411	1.436
64	2016 4 Qtr	1.348	1.689	1.129	1.782	12,685,175	1,533,063,941	1.445
65	2017 1 Qtr	1.354	1.703	1.133	1.797	12,744,511	1,542,897,141	1.454
66	2017 2 Qtr	1.361	1.716	1.136	1.813	12,804,125	1,552,802,575	1.463
67	2017 3 Qtr	1.367	1.730	1.140	1.828	12,864,017	1,562,780,813	1.473
68	2017 4 Qtr	1.373	1.744	1.144	1.844	12,924,189	1,572,832,429	1.482
69	2018 1 Qtr	1.380	1.758	1.147	1.860	12,984,643	1,582,958,002	1.492
70	2018 2 Qtr	1.386	1.772	1.151	1.876	13,045,380	1,593,158,115	1.501
71	2018 3 Qtr	1.393	1.786	1.155	1.892	13,106,401	1,603,433,357	1.511
72	2018 4 Qtr	1.399	1.800	1.159	1.909	13,167,707	1,613,784,320	1.521
73	2019 1 Qtr	1.406	1.815	1.162	1.925	13,229,300	1,624,211,603	1.530
74	2019 2 Qtr	1.412	1.829	1.166	1.942	13,291,181	1,634,715,808	1.540
75	2019 3 Qtr	1.419	1.844	1.170	1.959	13,353,351	1,645,297,542	1.550
76	2019 4 Qtr	1.426	1.858	1.174	1.976	13,415,813	1,655,957,420	1.560
77	2020 1 Qtr	1.432	1.873	1.177	1.993	13,478,566	1,666,696,057	1.570
78	2020 2 Qtr	1.439	1.888	1.181	2.010	13,541,613	1,677,514,077	1.581
79	2020 3 Qtr	1.446	1.903	1.185	2.027	13,604,955	1,688,412,107	1.591
80	2020 4 Qtr	1.453	1.918	1.189	2.045	13,668,593	1,699,390,781	1.601
Annual Average								2.62%

- 1/ Table C, Page 3, Column (10).
- 2/ Previous Column (3) x (1) + Inflation Rate from Table B on a Quarterly Basis.
- 3/ Previous Column (4) x (1) + Inflation Rate from Table B on a Quarterly Basis.
- 4/ Previous Column (5) x (1) + Inflation Rate from Table B on a Quarterly Basis.
- 5/ Previous Column (6) x (1) + Inflation Rate from Table B on a Quarterly Basis.
- 6/ Line 1 x Column (3).
- 7/ (Line 2 x Column (4)) + (Line 3 x Column (5)) + (Line 4 x Column (6)).
- 8/ (Column (7) + Column (8)) + (Period 0, (Column (7) + Column (8))).

TABLE I: ACE DISCOUNTED CASH FLOW

Discounted Cash Flow									
Present Value of the Cash Flow Discounted at the Cost of Capital in Table A									
Inflation in Asset Values From Table H									
1. 1Q2001 Road Property Investment									
2. Interest During Construction (1Q2001 Invest.)									
3. Total 1Q2001 Investment									
4. Present Value Of Replacement Cost for the ACE									
5. Total Cost Recovered From Quarterly Revenue Flow									
Fed. Tax Rate									
Weighted Average									
State Tax Rate									
7.5% 6/									
Period	Quarter	Quarterly Levelized Capital Carrying Charge Requirement 7/	Interest on Investment Financed With Debt 8/	Tax Depreciation 9/	Actual Federal Tax Payments 10/	Actual State Tax Payments 11/	Cash Flow 12/	Present Value Cash Flow 13/	Cumulative Present Value 14/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1	2001 1 Qtr	\$28,508,865	\$9,125,850	\$51,490,111	\$0	\$0	28,508,865	\$28,147,539	\$28,147,539
2	2001 2 Qtr	28,854,607	9,076,015	51,490,111	0	0	28,854,607	27,771,331	55,918,870
3	2001 3 Qtr	29,007,760	9,025,243	51,490,111	0	0	29,007,760	27,215,527	83,134,397
4	2001 4 Qtr	29,014,662	8,973,516	51,490,111	0	0	29,014,662	26,536,343	109,670,741
5	2002 1 Qtr	29,435,279	8,920,816	45,063,879	0	0	29,435,279	26,242,956	135,913,697
6	2002 2 Qtr	29,388,804	8,867,124	45,063,879	0	0	29,388,804	25,524,184	161,437,881
7	2002 3 Qtr	29,090,417	8,812,423	45,063,879	0	0	29,090,417	24,645,440	186,083,321
8	2002 4 Qtr	28,590,264	8,756,692	45,063,879	0	0	28,590,264	23,611,621	209,694,942
9	2003 1 Qtr	28,773,401	8,699,913	33,727,973	0	0	28,773,401	23,164,337	232,859,279
10	2003 2 Qtr	28,957,907	8,642,065	33,727,973	0	0	28,957,907	22,725,679	255,584,957
11	2003 3 Qtr	29,143,793	8,583,129	33,727,973	0	0	29,143,793	22,295,478	277,880,435
12	2003 4 Qtr	29,331,070	8,523,084	33,727,973	0	0	29,331,070	21,873,568	299,754,003
13	2004 1 Qtr	29,513,233	8,461,909	25,582,170	0	0	29,513,233	21,455,050	321,209,053
14	2004 2 Qtr	29,696,802	8,399,583	25,582,170	0	0	29,696,802	21,044,735	342,253,788
15	2004 3 Qtr	29,881,791	8,336,084	25,582,170	0	0	29,881,791	20,642,458	362,896,246
16	2004 4 Qtr	30,068,211	8,271,390	25,582,170	0	0	30,068,211	20,248,059	383,144,305
17	2005 1 Qtr	30,259,926	8,205,478	21,460,388	0	0	30,259,926	19,863,908	403,008,213
18	2005 2 Qtr	30,453,167	8,138,325	21,460,388	0	0	30,453,167	19,487,239	422,495,452
19	2005 3 Qtr	30,647,946	8,069,909	21,460,388	0	0	30,647,946	19,117,902	441,613,354
20	2005 4 Qtr	30,844,277	8,000,205	21,460,388	0	0	30,844,277	18,755,752	460,369,106
21	2006 1 Qtr	31,042,174	7,929,189	18,068,053	0	0	31,042,174	18,400,645	478,769,751
22	2006 2 Qtr	31,241,651	7,856,835	18,068,053	0	0	31,241,651	18,052,440	496,822,190
23	2006 3 Qtr	31,442,721	7,783,120	18,068,053	0	0	31,442,721	17,710,999	514,533,180
24	2006 4 Qtr	31,645,398	7,708,017	18,068,053	0	0	31,645,398	17,376,189	531,909,379
25	2007 1 Qtr	31,840,808	7,631,500	18,067,970	0	0	31,840,808	17,043,118	548,952,497

TABLE I: ACE DISCOUNTED CASH FLOW
(Continued)

Period (1)	Quarter (2)	Quarterly Levelized Capital Carrying Charge Requirement 7/ (3)	Interest on Investment Financed With Debt 8/ (4)	Tax Depreciation 9/ (5)	Actual Federal Tax Payments 10/ (6)	Actual State Tax Payments 11/ (7)	Cash Flow 12/ (8)	Present Value Cash Flow 13/ (9)	Cumulative Present Value 14/ (10)
26	2007 2 Qtr	\$32,037,657	\$7,553,542	\$18,067,970	\$0	\$0	\$32,037,657	\$16,716,554	\$565,669,050
27	2007 3 Qtr	32,235,957	7,474,116	18,067,970	0	0	32,235,957	16,396,365	582,065,416
28	2007 4 Qtr	32,435,720	7,393,195	18,067,970	0	0	32,435,720	16,082,427	598,147,842
29	2008 1 Qtr	32,636,259	7,310,750	4,115,726	0	0	32,636,259	15,774,276	613,922,118
30	2008 2 Qtr	32,838,238	7,226,753	4,115,726	0	0	32,838,238	15,472,124	629,394,242
31	2008 3 Qtr	33,041,668	7,141,173	4,115,726	0	0	33,041,668	15,175,852	644,570,093
32	2008 4 Qtr	33,246,561	7,053,982	4,115,726	0	0	33,246,561	14,885,343	659,455,437
33	2009 1 Qtr	33,452,928	6,965,149	2,128,032	0	0	33,452,928	14,600,485	674,055,921
34	2009 2 Qtr	33,660,780	6,874,642	2,128,032	0	0	33,660,780	14,321,164	688,377,086
35	2009 3 Qtr	33,870,129	6,782,431	2,128,032	0	0	33,870,129	14,047,273	702,424,359
36	2009 4 Qtr	34,080,986	6,688,483	2,128,032	0	0	34,080,986	13,778,703	716,203,062
37	2010 1 Qtr	34,293,364	6,592,765	2,130,065	0	0	34,293,364	13,515,350	729,718,413
38	2010 2 Qtr	34,507,274	6,495,244	2,130,065	0	0	34,507,274	13,257,111	742,975,524
39	2010 3 Qtr	34,722,729	6,395,886	2,130,065	0	0	34,722,729	13,003,885	756,979,408
40	2010 4 Qtr	34,939,740	6,294,656	2,130,065	4,783,149	347,785	29,806,806	10,862,404	766,861,813
41	2011 1 Qtr	35,158,319	6,191,519	2,128,032	9,232,748	469,489	25,466,082	9,062,822	775,924,634
42	2011 2 Qtr	35,378,479	6,086,439	2,128,032	9,345,102	463,718	25,569,659	8,870,483	784,795,117
43	2011 3 Qtr	35,600,232	5,979,379	2,128,032	9,458,692	467,988	25,673,552	8,682,190	793,477,308
44	2011 4 Qtr	35,823,591	5,870,301	2,128,032	9,573,535	472,299	25,777,756	8,497,858	801,975,166
45	2012 1 Qtr	36,048,567	5,759,168	2,130,065	9,688,944	476,636	25,882,987	8,317,634	810,292,799
46	2012 2 Qtr	36,275,175	5,645,941	2,130,065	9,806,348	481,032	25,987,795	8,140,964	818,433,763
47	2012 3 Qtr	36,503,426	5,530,580	2,130,065	9,925,058	485,471	26,092,897	7,968,007	826,401,770
48	2012 4 Qtr	36,733,334	5,413,046	2,130,065	10,045,094	489,955	26,198,285	7,798,664	834,200,454
49	2013 1 Qtr	36,964,911	5,293,296	2,128,032	10,167,179	494,500	26,303,232	7,632,707	841,833,161
50	2013 2 Qtr	37,198,170	5,171,289	2,128,032	10,289,922	499,072	26,409,176	7,470,425	849,303,586
51	2013 3 Qtr	37,433,125	5,046,982	2,128,032	10,414,048	503,689	26,515,388	7,311,551	856,615,136
52	2013 4 Qtr	37,669,789	4,920,332	2,130,065	10,539,575	508,353	26,621,861	7,156,010	863,771,146
53	2014 1 Qtr	37,908,176	4,791,295	2,130,065	10,665,819	513,046	26,729,311	7,003,922	870,775,068
54	2014 2 Qtr	38,148,298	4,659,826	2,130,065	10,794,211	517,803	26,836,284	6,854,834	877,629,902
55	2014 3 Qtr	38,390,170	4,525,878	2,130,065	10,924,066	522,608	26,943,495	6,708,872	884,338,774
56	2014 4 Qtr	38,633,805	4,389,405	2,130,065	11,055,406	527,462	27,050,938	6,565,970	890,904,745
57	2015 1 Qtr	38,879,217	4,250,360	2,128,032	11,188,956	532,381	27,157,880	6,425,893	897,330,631
58	2015 2 Qtr	39,126,420	4,108,682	2,128,032	11,323,327	537,333	27,265,760	6,288,923	903,619,560
59	2015 3 Qtr	39,375,429	3,964,354	2,128,032	11,459,248	542,336	27,373,846	6,154,822	909,774,382
60	2015 4 Qtr	39,626,256	3,817,294	2,128,032	11,596,740	547,389	27,482,128	6,023,529	915,797,911

TABLE I: ACE DISCOUNTED CASH FLOW
(Continued)

Period (1)	Quarter (2)	Quarterly Levelized Capital Carrying Charge Requirement 7/ (3)	Interest on Investment Financed With Debt 8/ (4)	Tax Depreciation 9/ (5)	Actual Federal Tax Payments 10/ (6)	Actual State Tax Payments 11/ (7)	Cash Flow 12/ (8)	Present Value Cash Flow 13/ (9)	Cumulative Present Value 14/ (10)
61	2016 1 Qtr	\$39,878,917	\$3,667,461	\$1,078,881	\$12,099,871	\$561,515	\$27,217,532	\$5,815,277	\$921,613,188
62	2016 2 Qtr	40,133,426	3,514,803	1,078,881	12,240,575	566,672	27,326,180	5,691,433	927,304,622
63	2016 3 Qtr	40,389,798	3,359,266	1,078,881	12,382,919	571,881	27,434,997	5,570,173	932,874,794
64	2016 4 Qtr	40,648,047	3,200,796	1,078,881	12,526,929	577,145	27,543,973	5,451,441	938,326,236
65	2017 1 Qtr	40,906,187	3,039,337	928,422	12,724,835	583,756	27,599,596	5,324,864	943,651,099
66	2017 2 Qtr	41,170,235	2,874,834	928,422	12,872,248	589,129	27,708,859	5,211,292	948,862,392
67	2017 3 Qtr	41,434,204	2,707,227	928,422	13,021,399	594,557	27,816,248	5,100,087	953,962,479
68	2017 4 Qtr	41,700,111	2,536,459	928,422	13,172,316	600,042	27,927,753	4,991,198	958,953,677
69	2018 1 Qtr	41,967,969	2,362,471	928,422	13,325,023	605,583	28,037,363	4,884,578	963,838,255
70	2018 2 Qtr	42,237,795	2,185,200	928,422	13,479,547	611,183	28,147,066	4,780,177	968,618,432
71	2018 3 Qtr	42,509,604	2,004,585	928,422	13,635,914	616,842	28,256,848	4,677,950	973,296,382
72	2018 4 Qtr	42,783,412	1,820,563	928,422	13,794,154	622,560	28,366,699	4,577,852	977,874,234
73	2019 1 Qtr	43,059,235	1,633,070	928,422	13,954,292	628,336	28,476,605	4,479,836	982,354,070
74	2019 2 Qtr	43,337,088	1,442,039	928,422	14,116,357	634,177	28,586,553	4,383,861	986,737,931
75	2019 3 Qtr	43,616,987	1,247,404	928,422	14,280,379	640,079	28,696,530	4,289,882	991,027,813
76	2019 4 Qtr	43,898,949	1,049,097	928,422	14,446,385	646,043	28,806,521	4,197,859	995,225,672
77	2020 1 Qtr	44,182,989	847,048	928,422	14,614,407	652,070	28,916,512	4,107,749	999,333,421
78	2020 2 Qtr	44,469,125	641,167	928,422	14,784,474	658,162	29,026,489	4,019,514	1,003,352,935
79	2020 3 Qtr	44,757,373	431,441	928,422	14,956,617	664,319	29,136,437	3,933,114	1,007,286,048
80	2020 4 Qtr	45,047,749	217,737	928,422	15,130,866	670,543	29,246,339	3,848,510	1,011,134,558
Future		2,322,026,903		111,410,629	761,775,885	34,113,744	1,526,137,274	200,823,563	1,211,958,121

- 1/ From Table C, Column (10).
2/ From Table D, Column (9).
3/ Line 1 + Line 2.
4/ Table F Column (8).
5/ Line 3 + Line 4.
6/ Weighted average state tax rates for New Mexico, Texas, and Arizona.
7/ Quarterly carrying costs needed to recover the total investment over 80 quarters after consideration of the applicable interest payments, tax depreciation and tax liability. The Future value is an estimate of a perpetual income stream for the ACE and is calculated by taking the Period 80, Column (3) value and dividing it by the ACE's estimated quarterly Real Cost of Capital.
8/ Value from Table E.
9/ Value from Table G, Page 11, Column (14) divided by 4 quarters.
10/ Table J: Part 1 Pages 19, 20 of 27.
11/ Table J: Part 2 Pages 21, 22 of 27.
12/ Column (3) - Column (6) - Column (7).
13/ Column (8) discounted by the fourth root of the annual Cost of Capital adjusted to midquarter dollars from Table A.
14/ Cumulative total of Column (9).

TABLE J - PART 1: COMPUTATION OF FEDERAL TAX LIABILITY - TAXABLE INCOME

Time Period	Taxable Income B/4 AOE/L	Net Operating Losses Generated 2/	NOL's Plus Generated Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1998	(\$65,027)	(\$65,027)	(\$65,027)	\$0	(\$65,027)	(\$65,027)	\$0	(\$65,027)	\$0	\$0
1999	(2,251,924)	(2,251,924)	(2,316,952)	0	(2,316,952)	(2,316,952)	0	(2,316,952)	0	0
2000	(29,946,394)	(29,946,394)	(32,263,346)	0	(32,263,346)	(32,263,346)	0	(32,263,346)	0	0
2001 1 Qtr	(32,107,097)	(32,107,097)	(64,370,442)	0	(64,370,442)	(64,370,442)	0	(64,370,442)	0	0
2001 2 Qtr	(31,711,519)	(31,711,519)	(96,081,961)	0	(96,081,961)	(96,081,961)	0	(96,081,961)	0	0
2001 3 Qtr	(31,507,594)	(31,507,594)	(127,588,555)	0	(127,588,555)	(127,588,555)	0	(127,588,555)	0	0
2001 4 Qtr	(31,448,966)	(31,448,966)	(159,038,521)	0	(159,038,521)	(159,038,521)	0	(159,038,521)	0	0
2002 1 Qtr	(24,549,416)	(24,549,416)	(183,587,937)	0	(183,587,937)	(183,587,937)	0	(183,587,937)	0	0
2002 2 Qtr	(24,562,200)	(24,562,200)	(208,150,137)	0	(208,150,137)	(208,150,137)	0	(208,150,137)	0	0
2002 3 Qtr	(24,785,885)	(24,785,885)	(232,936,022)	0	(232,936,022)	(232,936,022)	0	(232,936,022)	0	0
2002 4 Qtr	(25,230,308)	(25,230,308)	(258,166,330)	0	(258,166,330)	(258,166,330)	0	(258,166,330)	0	0
2003 1 Qtr	(13,654,485)	(13,654,485)	(271,820,814)	0	(271,820,814)	(271,820,814)	0	(271,820,814)	0	0
2003 2 Qtr	(13,412,131)	(13,412,131)	(285,232,945)	0	(285,232,945)	(285,232,945)	0	(285,232,945)	0	0
2003 3 Qtr	(13,167,309)	(13,167,309)	(298,400,254)	0	(298,400,254)	(298,400,254)	0	(298,400,254)	0	0
2003 4 Qtr	(12,919,987)	(12,919,987)	(311,320,242)	0	(311,320,242)	(311,320,242)	0	(311,320,242)	0	0
2004 1 Qtr	(4,530,846)	(4,530,846)	(315,851,088)	0	(315,851,088)	(315,851,088)	0	(315,851,088)	0	0
2004 2 Qtr	(4,284,950)	(4,284,950)	(320,136,038)	0	(320,136,038)	(320,136,038)	0	(320,136,038)	0	0
2004 3 Qtr	(4,036,462)	(4,036,462)	(324,172,500)	0	(324,172,500)	(324,172,500)	0	(324,172,500)	0	0
2004 4 Qtr	(3,785,346)	(3,785,346)	(327,957,848)	0	(327,957,848)	(327,957,848)	0	(327,957,848)	0	0
2005 1 Qtr	594,060	0	(327,957,848)	594,060	(327,363,788)	(327,363,788)	0	(327,363,788)	0	0
2005 2 Qtr	854,453	0	(327,363,788)	854,453	(326,509,335)	(326,509,335)	0	(326,509,335)	0	0
2005 3 Qtr	1,117,649	0	(326,509,335)	1,117,649	(325,391,686)	(325,391,686)	0	(325,391,686)	0	0
2005 4 Qtr	1,383,684	0	(325,391,686)	1,383,684	(324,008,002)	(324,008,002)	0	(324,008,002)	0	0
2006 1 Qtr	5,044,933	0	(324,008,002)	5,044,933	(318,963,069)	(318,963,069)	0	(318,963,069)	0	0
2006 2 Qtr	5,316,763	0	(318,963,069)	5,316,763	(313,646,306)	(313,646,306)	0	(313,646,306)	0	0
2006 3 Qtr	5,591,548	0	(308,054,757)	5,591,548	(308,054,757)	(308,054,757)	0	(308,054,757)	0	0
2006 4 Qtr	5,869,329	0	(302,185,428)	5,869,329	(302,185,428)	(302,185,428)	0	(302,185,428)	0	0
2007 1 Qtr	6,141,337	0	(296,044,091)	6,141,337	(296,044,091)	(296,044,091)	0	(296,044,091)	0	0
2007 2 Qtr	6,416,144	0	(289,627,947)	6,416,144	(289,627,947)	(289,627,947)	0	(289,627,947)	0	0
2007 3 Qtr	6,693,870	0	(282,934,077)	6,693,870	(275,939,523)	(275,939,523)	0	(275,939,523)	0	0
2007 4 Qtr	6,974,554	0	(275,939,523)	6,974,554	(254,749,741)	(254,749,741)	0	(254,749,741)	0	0
2008 1 Qtr	21,209,783	0	(233,253,981)	21,209,783	(233,253,981)	(233,253,981)	0	(233,253,981)	0	0
2008 2 Qtr	21,495,789	0	(211,469,212)	21,495,789	(211,469,212)	(211,469,212)	0	(211,469,212)	0	0
2008 3 Qtr	21,784,769	0	(189,392,359)	21,784,769	(189,392,359)	(189,392,359)	0	(189,392,359)	0	0
2008 4 Qtr	22,076,853	0	(165,032,612)	22,076,853	(165,032,612)	(165,032,612)	0	(165,032,612)	0	0
2009 1 Qtr	24,359,747	0	(140,374,507)	24,359,747	(140,374,507)	(140,374,507)	0	(140,374,507)	0	0
2009 2 Qtr	24,658,105	0	(115,414,841)	24,658,105	(115,414,841)	(115,414,841)	0	(115,414,841)	0	0
2009 3 Qtr	24,959,666	0	(90,150,370)	24,959,666	(90,150,370)	(90,150,370)	0	(90,150,370)	0	0
2009 4 Qtr	25,264,471	0	(64,579,836)	25,264,471	(64,579,836)	(64,579,836)	0	(64,579,836)	0	0
2010 1 Qtr	25,570,534	0	(38,697,871)	25,570,534	(38,697,871)	(38,697,871)	0	(38,697,871)	0	0
2010 2 Qtr	25,881,965	0	(12,501,094)	25,881,965	0	0	0	0	0	0
2010 3 Qtr	26,196,777	0	0	26,196,777	0	0	0	0	0	0
2010 4 Qtr	26,167,233	0	0	12,501,094	0	0	0	0	13,666,139	4,783,149

TABLE J - PART I: COMPUTATION OF FEDERAL TAX LIABILITY - TAXABLE INCOME
(continued)

Time Period	Taxable Income B4 NOL's DRR 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2011 1 Qtr	\$26,379,279	\$0	\$0	\$0	\$0	\$0	\$-0	\$0	\$26,379,279	\$9,232,748
2011 2 Qtr	26,700,290	0	0	0	0	0	0	0	26,700,290	9,345,102
2011 3 Qtr	27,024,534	0	0	0	0	0	0	0	27,024,534	9,458,692
2011 4 Qtr	27,352,958	0	0	0	0	0	0	0	27,352,958	9,573,535
2012 1 Qtr	27,682,898	0	0	0	0	0	0	0	27,682,898	9,688,944
2012 2 Qtr	28,018,137	0	0	0	0	0	0	0	28,018,137	9,808,348
2012 3 Qtr	28,357,309	0	0	0	0	0	0	0	28,357,309	9,928,058
2012 4 Qtr	28,700,269	0	0	0	0	0	0	0	28,700,269	10,046,094
2013 1 Qtr	29,049,084	0	0	0	0	0	0	0	29,049,084	10,167,179
2013 2 Qtr	29,399,776	0	0	0	0	0	0	0	29,399,776	10,289,922
2013 3 Qtr	29,754,422	0	0	0	0	0	0	0	29,754,422	10,414,048
2013 4 Qtr	30,113,072	0	0	0	0	0	0	0	30,113,072	10,539,575
2014 1 Qtr	30,473,770	0	0	0	0	0	0	0	30,473,770	10,665,819
2014 2 Qtr	30,840,604	0	0	0	0	0	0	0	30,840,604	10,794,211
2014 3 Qtr	31,211,619	0	0	0	0	0	0	0	31,211,619	10,924,066
2014 4 Qtr	31,586,873	0	0	0	0	0	0	0	31,586,873	11,055,406
2015 1 Qtr	31,968,444	0	0	0	0	0	0	0	31,968,444	11,188,966
2015 2 Qtr	32,352,363	0	0	0	0	0	0	0	32,352,363	11,323,327
2015 3 Qtr	32,740,707	0	0	0	0	0	0	0	32,740,707	11,459,248
2015 4 Qtr	33,133,542	0	0	0	0	0	0	0	33,133,542	11,598,740
2016 1 Qtr	34,571,060	0	0	0	0	0	0	0	34,571,060	12,089,871
2016 2 Qtr	34,973,070	0	0	0	0	0	0	0	34,973,070	12,240,575
2016 3 Qtr	35,379,769	0	0	0	0	0	0	0	35,379,769	12,382,919
2016 4 Qtr	35,791,225	0	0	0	0	0	0	0	35,791,225	12,526,929
2017 1 Qtr	36,356,672	0	0	0	0	0	0	0	36,356,672	12,724,835
2017 2 Qtr	36,777,851	0	0	0	0	0	0	0	36,777,851	12,872,248
2017 3 Qtr	37,203,998	0	0	0	0	0	0	0	37,203,998	13,021,399
2017 4 Qtr	37,635,188	0	0	0	0	0	0	0	37,635,188	13,172,316
2018 1 Qtr	38,071,493	0	0	0	0	0	0	0	38,071,493	13,326,023
2018 2 Qtr	38,512,990	0	0	0	0	0	0	0	38,512,990	13,479,547
2018 3 Qtr	38,959,756	0	0	0	0	0	0	0	38,959,756	13,635,914
2018 4 Qtr	39,411,867	0	0	0	0	0	0	0	39,411,867	13,794,154
2019 1 Qtr	39,869,405	0	0	0	0	0	0	0	39,869,405	13,954,292
2019 2 Qtr	40,332,449	0	0	0	0	0	0	0	40,332,449	14,116,357
2019 3 Qtr	40,801,082	0	0	0	0	0	0	0	40,801,082	14,280,379
2019 4 Qtr	41,275,397	0	0	0	0	0	0	0	41,275,397	14,446,385
2020 1 Qtr	41,755,449	0	0	0	0	0	0	0	41,755,449	14,614,407
2020 2 Qtr	42,241,354	0	0	0	0	0	0	0	42,241,354	14,784,474
2020 3 Qtr	42,733,190	0	0	0	0	0	0	0	42,733,190	14,956,617
2020 4 Qtr	43,231,047	0	0	0	0	0	0	0	43,231,047	15,130,886
Future	2,176,502,530	0	0	0	0	0	0	0	2,176,502,530	761,775,866

1/ Table J, Column (3) - Table E, Columns (6), (11) & (15) - Table G, Column (4) / 4 - Table J Part 2, Column (11).
Values for 1998-2000 from Table D, Sum of Column (11).
2/ Column (2) if less than zero, otherwise zero.
3/ Cumulative total of Column (2).
4/ If Column (2) is greater than zero, and (Column (2) + Column (4) is less than zero, then Column (2), otherwise Column (4).
5/ Column (4) + Column (5) + Column (8).
6/ Previous period Column (9) + current period Column (3) - current period Column (5).
7/ If previous Column (10) is greater than zero, and previous Column (10) is less than current Column (7), then previous Column (10), otherwise zero.
8/ Column (7) + Column (8).
9/ If Column (2) is greater than zero, then Column (2) - Column (5) - Column (8), otherwise zero.
10/ Column (10) times applicable maximum Federal Statutory Tax Rate.

TABLE J - PART 2. COMPUTATION OF STATE TAX LIABILITY - TAXABLE INCOME

Time Period	Taxable Income B44 NOL's ACE 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1998	(\$65,027)	(\$65,027)	(\$65,027)	\$0	(\$65,027)	(\$65,027)	\$0	(\$65,027)	\$0	\$0
1999	(2,251,924)	(2,251,924)	(2,316,952)	0	(2,316,952)	(2,316,952)	0	(2,316,952)	0	0
2000	(29,946,394)	(29,946,394)	(32,263,346)	0	(32,263,346)	(32,263,346)	0	(32,263,346)	0	0
2001 1 Qtr	(32,107,097)	(32,107,097)	(64,370,442)	0	(64,370,442)	(64,370,442)	0	(64,370,442)	0	0
2001 2 Qtr	(31,711,519)	(31,711,519)	(96,081,961)	0	(96,081,961)	(96,081,961)	0	(96,081,961)	0	0
2001 3 Qtr	(31,507,594)	(31,507,594)	(127,589,555)	0	(127,589,555)	(127,589,555)	0	(127,589,555)	0	0
2001 4 Qtr	(31,448,966)	(31,448,966)	(159,038,521)	0	(159,038,521)	(159,038,521)	0	(159,038,521)	0	0
2002 1 Qtr	(24,548,416)	(24,548,416)	(183,587,937)	0	(183,587,937)	(183,587,937)	0	(183,587,937)	0	0
2002 2 Qtr	(24,562,200)	(24,562,200)	(208,150,137)	0	(208,150,137)	(208,150,137)	0	(208,150,137)	0	0
2002 3 Qtr	(24,785,885)	(24,785,885)	(232,936,022)	0	(232,936,022)	(232,936,022)	0	(232,936,022)	0	0
2002 4 Qtr	(25,230,308)	(25,230,308)	(258,166,330)	0	(258,166,330)	(258,166,330)	0	(258,166,330)	0	0
2003 1 Qtr	(13,654,485)	(13,654,485)	(271,820,814)	0	(271,820,814)	(271,820,814)	0	(271,820,814)	0	0
2003 2 Qtr	(13,412,131)	(13,412,131)	(286,232,945)	0	(286,232,945)	(286,232,945)	0	(286,232,945)	0	0
2003 3 Qtr	(13,167,309)	(13,167,309)	(298,400,254)	0	(298,400,254)	(298,400,254)	0	(298,400,254)	0	0
2003 4 Qtr	(12,919,987)	(12,919,987)	(311,320,242)	0	(311,320,242)	(311,320,242)	0	(311,320,242)	0	0
2004 1 Qtr	(4,530,846)	(4,530,846)	(315,851,088)	0	(315,851,088)	(315,851,088)	0	(315,851,088)	0	0
2004 2 Qtr	(4,284,950)	(4,284,950)	(320,136,038)	0	(320,136,038)	(320,136,038)	0	(320,136,038)	0	0
2004 3 Qtr	(4,036,462)	(4,036,462)	(324,172,500)	0	(324,172,500)	(324,172,500)	0	(324,172,500)	0	0
2004 4 Qtr	(3,785,348)	(3,785,348)	(327,957,848)	0	(327,957,848)	(327,957,848)	0	(327,957,848)	0	0
2005 1 Qtr	594,060	0	(327,363,788)	594,060	(327,363,788)	(327,363,788)	0	(327,363,788)	0	0
2005 2 Qtr	854,453	0	(326,509,335)	854,453	(326,509,335)	(326,509,335)	0	(326,509,335)	0	0
2005 3 Qtr	1,117,649	0	(325,391,686)	1,117,649	(325,391,686)	(325,391,686)	0	(325,391,686)	0	0
2005 4 Qtr	1,383,684	0	(324,008,002)	1,383,684	(324,008,002)	(324,008,002)	0	(324,008,002)	0	0
2006 1 Qtr	5,044,933	0	(318,963,069)	5,044,933	(318,963,069)	(318,963,069)	0	(318,963,069)	0	0
2006 2 Qtr	5,316,763	0	(308,054,757)	5,316,763	(308,054,757)	(308,054,757)	0	(308,054,757)	0	0
2006 3 Qtr	5,591,548	0	(296,044,091)	5,591,548	(296,044,091)	(296,044,091)	0	(296,044,091)	0	0
2006 4 Qtr	5,889,329	0	(289,627,947)	5,889,329	(289,627,947)	(289,627,947)	0	(289,627,947)	0	0
2007 1 Qtr	6,141,337	0	(282,934,077)	6,141,337	(282,934,077)	(282,934,077)	0	(282,934,077)	0	0
2007 2 Qtr	6,416,144	0	(275,959,523)	6,416,144	(275,959,523)	(275,959,523)	0	(275,959,523)	0	0
2007 3 Qtr	6,693,870	0	(254,749,741)	6,693,870	(254,749,741)	(254,749,741)	0	(254,749,741)	0	0
2007 4 Qtr	6,974,554	0	(233,253,981)	6,974,554	(233,253,981)	(233,253,981)	0	(233,253,981)	0	0
2008 1 Qtr	21,209,783	0	(211,469,212)	21,209,783	(211,469,212)	(211,469,212)	0	(211,469,212)	0	0
2008 2 Qtr	21,486,759	0	(189,392,359)	21,486,759	(189,392,359)	(189,392,359)	0	(189,392,359)	0	0
2008 3 Qtr	21,784,768	0	(166,032,612)	21,784,768	(166,032,612)	(166,032,612)	0	(166,032,612)	0	0
2008 4 Qtr	22,076,853	0	(140,374,507)	22,076,853	(140,374,507)	(140,374,507)	0	(140,374,507)	0	0
2009 1 Qtr	24,359,747	0	(90,150,370)	24,359,747	(90,150,370)	(90,150,370)	0	(90,150,370)	0	0
2009 2 Qtr	24,658,105	0	(64,579,836)	24,658,105	(64,579,836)	(64,579,836)	0	(64,579,836)	0	0
2009 3 Qtr	24,959,666	0	(38,697,871)	24,959,666	(38,697,871)	(38,697,871)	0	(38,697,871)	0	0
2009 4 Qtr	25,264,471	0	(12,501,094)	25,264,471	(12,501,094)	(12,501,094)	0	(12,501,094)	0	0
2010 1 Qtr	25,670,534	0	0	25,670,534	0	0	0	0	14,013,924	347,765
2010 2 Qtr	25,881,965	0	0	25,881,965	0	0	0	0	0	0
2010 3 Qtr	26,196,777	0	0	26,196,777	0	0	0	0	0	0
2010 4 Qtr	26,515,018	0	0	26,515,018	0	0	0	0	0	0

TABLE J - PART 2. COMPUTATION OF STATE TAX LIABILITY - TAXABLE INCOME
(Continued)

Time Period	Taxable Income Before NOL's DRL 1/	Net Operating Losses Generated 2/	NOL's Generated Plus Carryforward 3/	Carryforward Utilized 4/	Carryforward Remaining 5/	Carryback Available 6/	Carryback Utilized 7/	Carryback Remaining 8/	Annual Taxable Income Before Income 9/	Annual Tax Liability 10/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
2011 1 Qtr	\$26,838,768	\$0	\$0	\$0	\$0	\$0	\$-0	\$0	\$26,838,768	\$459,489
2011 2 Qtr	27,164,008	0	0	0	0	0	0	0	27,164,008	463,718
2011 3 Qtr	27,492,821	0	0	0	0	0	0	0	27,492,821	467,988
2011 4 Qtr	27,825,258	0	0	0	0	0	0	0	27,825,258	472,299
2012 1 Qtr	28,159,334	0	0	0	0	0	0	0	28,159,334	476,636
2012 2 Qtr	28,489,189	0	0	0	0	0	0	0	28,489,189	481,032
2012 3 Qtr	28,842,781	0	0	0	0	0	0	0	28,842,781	485,471
2012 4 Qtr	29,190,223	0	0	0	0	0	0	0	29,190,223	489,955
2013 1 Qtr	29,543,583	0	0	0	0	0	0	0	29,543,583	494,500
2013 2 Qtr	29,898,850	0	0	0	0	0	0	0	29,898,850	499,072
2013 3 Qtr	30,258,112	0	0	0	0	0	0	0	30,258,112	503,689
2013 4 Qtr	30,621,425	0	0	0	0	0	0	0	30,621,425	508,353
2014 1 Qtr	31,358,407	0	0	0	0	0	0	0	31,358,407	513,046
2014 2 Qtr	31,734,227	0	0	0	0	0	0	0	31,734,227	517,803
2014 3 Qtr	32,114,335	0	0	0	0	0	0	0	32,114,335	522,608
2014 4 Qtr	32,500,826	0	0	0	0	0	0	0	32,500,826	527,462
2015 1 Qtr	32,886,696	0	0	0	0	0	0	0	32,886,696	532,381
2015 2 Qtr	33,283,043	0	0	0	0	0	0	0	33,283,043	537,333
2015 3 Qtr	33,680,930	0	0	0	0	0	0	0	33,680,930	542,336
2015 4 Qtr	35,132,575	0	0	0	0	0	0	0	35,132,575	547,389
2016 1 Qtr	35,539,742	0	0	0	0	0	0	0	35,539,742	551,515
2016 2 Qtr	35,951,650	0	0	0	0	0	0	0	35,951,650	556,672
2016 3 Qtr	36,368,369	0	0	0	0	0	0	0	36,368,369	561,861
2016 4 Qtr	36,940,428	0	0	0	0	0	0	0	36,940,428	567,145
2017 1 Qtr	37,366,979	0	0	0	0	0	0	0	37,366,979	569,129
2017 2 Qtr	37,798,555	0	0	0	0	0	0	0	37,798,555	569,557
2017 3 Qtr	38,235,229	0	0	0	0	0	0	0	38,235,229	570,042
2017 4 Qtr	38,677,076	0	0	0	0	0	0	0	38,677,076	571,881
2018 1 Qtr	39,124,173	0	0	0	0	0	0	0	39,124,173	577,145
2018 2 Qtr	39,576,597	0	0	0	0	0	0	0	39,576,597	583,756
2018 3 Qtr	40,034,427	0	0	0	0	0	0	0	40,034,427	589,129
2018 4 Qtr	40,497,743	0	0	0	0	0	0	0	40,497,743	594,557
2019 1 Qtr	40,966,627	0	0	0	0	0	0	0	40,966,627	600,042
2019 2 Qtr	41,441,161	0	0	0	0	0	0	0	41,441,161	605,983
2019 3 Qtr	41,921,430	0	0	0	0	0	0	0	41,921,430	611,183
2019 4 Qtr	42,407,519	0	0	0	0	0	0	0	42,407,519	616,842
2020 1 Qtr	42,899,516	0	0	0	0	0	0	0	42,899,516	622,560
2020 2 Qtr	43,397,510	0	0	0	0	0	0	0	43,397,510	628,336
2020 3 Qtr	43,901,590	0	0	0	0	0	0	0	43,901,590	634,177
2020 4 Qtr	2,210,616,274	0	0	0	0	0	0	0	2,210,616,274	640,079
Future										646,043
										652,070
										658,162
										664,319
										670,543
										34,113,744

1/ Table I, Column (3) - Table E, Columns (6), (11) & (16) - Table G, Column (14) / 4. Values for 1998-2003 from Table D. Sum of Column (11).
2/ Column (2) if less than zero, otherwise zero.
3/ Cumulative total of Column (2).
4/ If Column (2) is greater than zero, and (Column (2) + Column (4) is less than zero, then Column (2), otherwise Column (4).
5/ Column (4) + Column (5) + Column (6).
6/ Previous period Column (9) + current period Column (3) - current period Column (6).
7/ If previous Column (10) is greater than zero, and previous Column (10) is less than current Column (7), then previous Column (10), otherwise zero.
8/ If Column (7) + Column (6).
9/ If Column (2) is greater than zero, then Column (2) - Column (5) - Column (8), otherwise zero.
10/ Column (10) times applicable maximum State Statutory Tax Rate.

TABLE K: ACE OPERATING EXPENSES

Item (1)	2001 (2)	2002 (3)	2003 (4)	2004 (5)	2005 (6)	2006 (7)	2007 (8)	2008 (9)	2009 (10)	2010 (11)
1. Train & Engine Personnel	\$21,092,182	\$20,696,065	\$20,780,109	\$20,984,679	\$21,009,730	\$21,051,285	\$21,092,182	\$21,089,964	\$21,092,182	\$21,092,182
2. Locomotive Lease Expense	7,187,124	7,052,148	7,080,786	7,150,492	7,159,029	7,173,188	7,187,124	7,186,368	7,187,124	7,187,124
3. Locomotive Maintenance Expense	15,424,882	15,135,198	15,196,660	15,346,263	15,364,584	15,394,973	15,424,882	15,393,354	15,394,973	15,394,973
4. Locomotive Operating Expense	57,734,106	56,649,842	56,879,890	57,439,844	57,508,416	57,622,162	57,734,106	57,728,034	57,734,106	57,734,106
5. Railcar Expense	55,412,947	54,372,275	54,593,074	55,130,515	55,196,331	55,305,504	55,412,947	55,407,119	55,412,947	55,412,947
6. Material & Supply Operating	590,777	590,777	590,777	590,777	590,777	590,777	590,777	590,777	590,777	590,777
7. Ad Valorem Tax	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952	1,302,952
8. Operating Managers	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780	5,043,780
9. General & Administration	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892	13,271,892
10. Trackage Rights Vaughn - El Paso	1,655,335	1,624,247	1,630,843	1,646,898	1,648,864	1,652,125	1,655,335	1,651,952	1,652,125	1,652,125
11. Loss and Damage	2,470,240	2,423,848	2,433,691	2,457,650	2,460,584	2,465,450	2,470,240	2,469,980	2,470,240	2,470,240
12. Insurance	6,426,879	6,325,300	6,346,852	6,399,311	6,405,736	6,416,392	6,426,879	6,425,198	6,425,787	6,425,787
13. Maintenance of Way	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223	10,089,223
14. Total Annual Costs	\$197,702,319	\$194,577,546	\$195,240,528	\$196,854,275	\$197,051,896	\$197,379,704	\$197,702,319	\$197,650,592	\$197,668,088	\$197,668,088
15. Total Quarterly Cost	\$49,425,580	\$48,644,386	\$48,810,132	\$49,213,569	\$49,262,974	\$49,344,926	\$49,425,580	\$49,412,648	\$49,417,022	\$49,417,022

TABLE K: ACE OPERATING EXPENSES
(Continued)

[illegible]

TABLE K: AGE OPERATING EXPENSES, INDEXED
(Continued)

Period (1)	Quarter (2)	Rail Cost Adjustment Factor Index 1/ (3)	Operating Expense Indexed For Inflation 2/ (4)	Period (5)	Quarter (6)	Rail Cost Adjustment Factor Index 1/ (7)	Operating Expense Indexed For Inflation 2/ (8)	Period (9)	Quarter (10)	Rail Cost Adjustment Factor Index 1/ (11)	Operating Expense Indexed For Inflation 2/ (12)
NA	2000 2 Qtr	100.0	NA	27	2007 3 Qtr	103.3	50,722,185	56	2014 4 Qtr	110.7	54,345,259
NA	2000 3 Qtr	99.2	NA	28	2007 4 Qtr	103.6	50,848,517	57	2015 1 Qtr	111.0	54,480,615
NA	2000 4 Qtr	99.3	NA	29	2008 1 Qtr	103.8	50,936,580	58	2015 2 Qtr	111.3	54,616,309
1	2001 1 Qtr	100.7	49,425,580	30	2008 2 Qtr	104.0	51,036,149	59	2015 3 Qtr	111.5	54,752,341
2	2001 2 Qtr	99.2	48,680,470	31	2008 3 Qtr	104.2	51,139,920	60	2015 4 Qtr	111.8	54,888,711
3	2001 3 Qtr	98.7	48,432,101	32	2008 4 Qtr	104.4	51,241,895	61	2016 1 Qtr	112.1	55,025,421
4	2001 4 Qtr	98.0	48,100,941	33	2009 1 Qtr	104.6	51,361,348	62	2016 2 Qtr	112.4	55,162,472
5	2002 1 Qtr	97.1	46,933,277	34	2009 2 Qtr	104.9	51,476,523	63	2016 3 Qtr	112.7	55,289,864
6	2002 2 Qtr	94.9	45,874,019	35	2009 3 Qtr	105.1	51,591,957	64	2016 4 Qtr	112.9	55,437,598
7	2002 3 Qtr	93.9	45,385,131	36	2009 4 Qtr	105.3	51,707,649	65	2017 1 Qtr	113.2	55,575,676
8	2002 4 Qtr	97.0	46,851,796	37	2010 1 Qtr	105.6	51,836,436	66	2017 2 Qtr	113.5	55,714,097
9	2003 1 Qtr	95.7	46,377,368	38	2010 2 Qtr	105.9	51,965,544	67	2017 3 Qtr	113.8	55,852,863
10	2003 2 Qtr	96.0	46,550,313	39	2010 3 Qtr	106.1	52,094,973	68	2017 4 Qtr	114.1	55,991,974
11	2003 3 Qtr	96.4	46,723,904	40	2010 4 Qtr	106.4	52,224,725	69	2018 1 Qtr	114.4	56,131,432
12	2003 4 Qtr	96.7	46,893,141	41	2011 1 Qtr	106.7	52,354,800	70	2018 2 Qtr	114.6	56,271,238
13	2004 1 Qtr	97.4	47,590,180	42	2011 2 Qtr	106.9	52,485,199	71	2018 3 Qtr	114.9	56,411,391
14	2004 2 Qtr	98.0	47,896,545	43	2011 3 Qtr	107.2	52,615,923	72	2018 4 Qtr	115.2	56,551,894
15	2004 3 Qtr	98.6	48,204,862	44	2011 4 Qtr	107.5	52,746,973	73	2019 1 Qtr	115.5	56,692,747
16	2004 4 Qtr	99.2	48,515,205	45	2012 1 Qtr	107.7	52,878,348	74	2019 2 Qtr	115.8	56,833,950
17	2005 1 Qtr	99.7	48,792,962	46	2012 2 Qtr	108.0	53,010,051	75	2019 3 Qtr	116.1	56,975,505
18	2005 2 Qtr	100.2	49,023,095	47	2012 3 Qtr	108.3	53,142,082	76	2019 4 Qtr	116.4	57,117,413
19	2005 3 Qtr	100.7	49,254,314	48	2012 4 Qtr	108.5	53,274,442	77	2020 1 Qtr	116.7	57,259,674
20	2005 4 Qtr	101.1	49,486,623	49	2013 1 Qtr	108.8	53,407,132	78	2020 2 Qtr	116.9	57,402,280
21	2006 1 Qtr	101.5	49,741,535	50	2013 2 Qtr	109.1	53,540,152	79	2020 3 Qtr	117.2	57,545,260
22	2006 2 Qtr	101.8	49,914,724	51	2013 3 Qtr	109.3	53,673,503	80	2020 4 Qtr	117.5	57,688,587
23	2006 3 Qtr	102.2	50,085,516	52	2013 4 Qtr	109.6	53,807,187				
24	2006 4 Qtr	102.5	50,262,912	53	2014 1 Qtr	109.9	53,941,203				
25	2007 1 Qtr	102.8	50,470,460	54	2014 2 Qtr	110.2	54,075,553				
26	2007 2 Qtr	103.1	50,596,166	55	2014 3 Qtr	110.4	54,210,238				

1/ 2000 equals 100.0, all other quarters equal previous quarter x (1 + Inflation Rate for the RCAF-A from Table B on a Quarterly Basis).
2/ (Quarterly) expense from Table K, Pages 23 and 24, for the applicable time period x Column (5), Column (7) or Column (11) / 1001 Column (3).

ACE - Stand-Alone Costs and Revenues

Quarterly Revenue Requirements to Cover Total Stand-Alone

Period	Quarter	Quarterly Capital Requirement Road Property	Quarterly Operating Expense	Annual Stand-Alone Requirement	Quarterly Stand-Alone Revenues	Annual Stand-Alone Revenues	Overpayments In Revenues	PV Difference	Cumulative PV Difference	PV Required Reduction In Revenues	Percent Reduction In Rates 1/
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	2001 1 Qtr	\$28,508,865	\$49,425,580	\$77,934,444	\$136,889,891	\$136,889,891	\$58,955,447	\$60,478,765	\$60,478,765	\$60,478,765	43.07%
2	2001 2 Qtr	28,854,607	48,680,470	77,535,078	136,889,891	136,889,891	59,354,813	59,354,813	119,833,578	59,354,813	43.36%
3	2001 3 Qtr	29,007,760	48,432,101	77,439,861	136,889,891	136,889,891	59,450,030	57,952,623	177,786,201	57,952,623	43.43%
4	2001 4 Qtr	29,014,662	48,100,941	77,115,603	136,889,891	136,889,891	59,774,288	56,801,062	234,587,263	56,801,062	43.67%
5	2002 1 Qtr	29,435,279	46,933,277	76,368,556	136,683,852	136,683,852	60,315,295	55,871,524	290,458,787	55,871,524	44.13%
6	2002 2 Qtr	29,368,804	45,874,019	75,242,823	136,683,852	136,683,852	61,441,028	55,480,780	345,939,567	55,480,780	44.95%
7	2002 3 Qtr	29,080,417	45,385,131	74,475,548	136,683,852	136,683,852	62,208,303	54,758,741	400,698,308	54,758,741	45.11%
8	2002 4 Qtr	28,590,264	46,851,796	75,442,059	136,683,852	136,683,852	61,241,792	52,550,156	453,248,464	52,550,156	44.81%
9	2003 1 Qtr	28,773,401	46,377,368	75,150,769	137,163,422	137,163,422	62,012,653	51,871,337	505,119,801	51,871,337	45.21%
10	2003 2 Qtr	28,957,907	46,550,313	46,723,904	137,163,422	137,163,422					
11	2003 3 Qtr	29,143,793	46,723,904	\$302,765,898	137,163,422	137,163,422	\$245,897,789	\$190,530,638	\$695,650,439	\$190,530,638	44.82%
12	2003 4 Qtr	29,331,070	46,698,141		138,111,155						
13	2004 1 Qtr	29,513,233	47,590,180		138,111,155						
14	2004 2 Qtr	29,696,802	47,896,545		138,111,155						
15	2004 3 Qtr	29,881,791	48,204,882	\$311,386,850	138,111,155		\$241,077,770	\$168,675,281	\$864,325,720	\$168,675,281	43.64%
16	2004 4 Qtr	30,068,211	48,515,205		140,032,156						
17	2005 1 Qtr	30,259,926	48,792,962		140,032,156						
18	2005 2 Qtr	30,453,167	49,023,095		140,032,156						
19	2005 3 Qtr	30,647,946	49,254,314		140,032,156						
20	2005 4 Qtr	30,844,277	49,486,623	\$318,762,310	141,951,450		\$241,366,314	\$152,494,793	\$1,016,820,513	\$152,494,793	43.09%
21	2006 1 Qtr	31,042,174	49,741,535		141,951,450						
22	2006 2 Qtr	31,241,651	49,914,724		141,951,450						
23	2006 3 Qtr	31,442,721	50,088,516		141,951,450						
24	2006 4 Qtr	31,645,398	50,262,912	\$325,379,632	144,048,089		\$242,426,166	\$138,306,289	\$1,155,126,801	\$138,306,289	42.70%
25	2007 1 Qtr	31,840,808	50,470,460		144,048,089						
26	2007 2 Qtr	32,037,657	50,596,166		144,048,089						
27	2007 3 Qtr	32,235,957	50,722,185		144,048,089						
28	2007 4 Qtr	32,435,720	50,848,517	\$331,187,468	145,932,009		\$245,004,887	\$126,217,990	\$1,281,344,792	\$126,217,990	42.52%
29	2008 1 Qtr	32,636,259	50,936,580		145,932,009						
30	2008 2 Qtr	32,838,238	51,038,149		145,932,009						
31	2008 3 Qtr	33,041,668	51,138,920		145,932,009						
32	2008 4 Qtr	33,246,561	51,241,895	\$336,119,270	148,038,900		\$247,608,765	\$115,185,180	\$1,396,529,972	\$115,185,180	42.42%
33	2009 1 Qtr	33,452,928	51,361,348		148,038,900						
34	2009 2 Qtr	33,660,760	51,476,523		148,038,900						
35	2009 3 Qtr	33,870,129	51,591,957		148,038,900						
36	2009 4 Qtr	34,080,986	51,707,649	\$341,202,289	149,396,202		\$250,963,301	\$105,416,255	\$1,501,946,227	\$105,416,255	42.38%
37	2010 1 Qtr	34,293,364	51,836,436		149,396,202						
38	2010 2 Qtr	34,507,274	51,965,544		149,396,202						
39	2010 3 Qtr	34,722,729	52,084,973		149,396,202						
40	2010 4 Qtr	34,939,740	52,224,725	\$346,584,765	149,396,202		\$251,000,024	\$95,207,796	\$1,597,154,023	\$95,207,796	42.00%

1/ Calculated on West Texas Procedures. Column (8) divided by Column (7).

ACE - Stand-Alone Costs and Revenues

Quarterly Revenue Requirements to Cover Total Stand-Alone

Period (1)	Quarter (2)	Quarterly Capital Requirement Road Property (3)	Quarterly Operating Expense (4)	Annual Stand-Alone Requirement (5)	Quarterly Stand-Alone Revenues (6)	Annual Stand-Alone Revenues (7)	Overpayments In Revenues (8)	PV Difference (9)	Cumulative PV Difference (10)	PV Required Reduction In Revenues (11)	Percent Reduction In Rates, If (12)
41	2011 1 Qtr	\$35,158,319	\$52,354,800		\$150,779,882						
42	2011 2 Qtr	36,378,479	52,465,199		150,779,882						
43	2011 3 Qtr	35,600,232	52,615,923		150,779,882						
44	2011 4 Qtr	35,823,591	52,746,973	\$352,163,516		\$603,119,526	\$250,956,010	\$85,956,838	\$1,683,110,861	\$85,956,838	41.61%
45	2012 1 Qtr	36,048,567	52,878,348		152,191,378						
46	2012 2 Qtr	36,275,175	53,010,051		152,191,378						
47	2012 3 Qtr	36,503,426	53,142,082		152,191,378						
48	2012 4 Qtr	36,733,334	53,274,442	\$357,865,427		\$608,765,512	\$250,900,086	\$77,601,071	\$1,760,711,932	\$77,601,071	41.21%
49	2013 1 Qtr	36,964,911	53,407,132		153,649,887						
50	2013 2 Qtr	37,196,170	53,540,182		153,649,887						
51	2013 3 Qtr	37,433,285	53,673,503		153,649,887						
52	2013 4 Qtr	37,669,789	53,807,167	\$363,693,970		\$614,699,546	\$250,905,576	\$70,074,709	\$1,830,786,641	\$70,074,709	40.82%
53	2014 1 Qtr	37,908,176	53,941,203		155,127,744						
54	2014 2 Qtr	38,148,298	54,075,553		155,127,744						
55	2014 3 Qtr	38,390,170	54,210,238		155,127,744						
56	2014 4 Qtr	38,633,805	54,346,259	\$369,652,703		\$620,510,975	\$250,858,272	\$63,264,997	\$1,894,051,636	\$63,264,997	40.43%
57	2015 1 Qtr	38,879,217	54,480,615		156,635,970						
58	2015 2 Qtr	39,126,420	54,616,309		156,635,970						
59	2015 3 Qtr	39,375,429	54,752,341		156,635,970						
60	2015 4 Qtr	39,626,256	54,888,711	\$375,745,299		\$626,543,878	\$250,798,579	\$57,114,216	\$1,951,165,853	\$57,114,216	40.03%
61	2016 1 Qtr	39,878,917	55,025,421		158,180,883						
62	2016 2 Qtr	40,133,425	55,162,472		158,180,883						
63	2016 3 Qtr	40,389,798	55,299,864		158,180,883						
64	2016 4 Qtr	40,648,047	55,437,598	\$381,975,544		\$632,723,531	\$250,747,987	\$51,563,297	\$2,002,729,150	\$51,563,297	39.63%
65	2017 1 Qtr	40,908,187	55,575,676		159,758,202						
66	2017 2 Qtr	41,170,235	55,714,097		159,758,202						
67	2017 3 Qtr	41,434,204	55,852,863		159,758,202						
68	2017 4 Qtr	41,700,111	55,991,974	\$386,347,347		\$639,032,808	\$250,685,461	\$46,549,653	\$2,049,278,804	\$46,549,653	39.23%
69	2018 1 Qtr	41,967,869	56,131,432		161,369,790						
70	2018 2 Qtr	42,237,795	56,271,238		161,369,790						
71	2018 3 Qtr	42,509,604	56,411,391		161,369,790						
72	2018 4 Qtr	42,783,412	56,551,894	\$394,864,737		\$645,479,158	\$250,614,421	\$42,022,070	\$2,091,300,874	\$42,022,070	38.83%
73	2019 1 Qtr	43,059,235	56,692,747		163,016,404						
74	2019 2 Qtr	43,337,088	56,833,950		163,016,404						
75	2019 3 Qtr	43,616,987	56,975,505		163,016,404						
76	2019 4 Qtr	43,898,949	57,117,413	\$401,531,873		\$652,065,616	\$250,533,743	\$37,933,393	\$2,129,234,266	\$37,933,393	38.42%
77	2020 1 Qtr	44,182,969	57,259,674		164,699,823						
78	2020 2 Qtr	44,469,125	57,402,290		164,699,823						
79	2020 3 Qtr	44,757,373	57,545,260		164,699,823						
80	2020 4 Qtr	45,047,749	57,688,587	\$408,353,046		\$658,795,293	\$250,442,247	\$34,241,054	\$2,163,475,321	\$34,241,054	38.02%

1/ Calculated on West Texas Procedure; Column (9) divided by Column (7).

Exhibit III-H-5
Has Been Redacted.