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A Capital Requirements Estimating Model (CREMOD) for Electric Utilities

Volume III: User's Manual Appendices Program and Input Data Listings

January 1980

Prepared for:

U.S. Department of Energy

Energy Information Administration

Assistant Administrator for Applied Analysis

Under Contract No. EC-77-C-01-8558

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A Capital Requirements Estimating Model (CREMOD) for Electric Utilities

Volume III: User's Manual Appendices Program and Input Data Listings

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PREFACE

In the past, using the Mid-Term Energy Forecasting System (MEFS) to estimate the capital requirements of the U.S. energy sector involved a time consuming and cumbersome process. An off-line computer program called the "Capital Report Writer" was used to multiply appropriate supply activity levels obtained from a given MEFS equilibrium solution by predetermined capital coefficients to arrive at aggregate capital requirements of the various energy subsectors. However, this approach was simplistic and ignored critical aspects of the dynamics of the capital investment process. Hence, it could not be used with confidence to analyze the question of capital availability; and its output required considerable manual adjustment to obtain accuracy.

As a part of a program of improvement, under Department of Energy Contract EC-77-C-01-8558, the Logistics Management Institute (LMI) was tasked with the development of a rapid and automated method of determining the capital requirements of the electric utility sector which is the energy sector with the highest capital needs and that having the potential for the greatest financial problems.

The automated model developed by LMI disaggregates new plant capacity activity levels from the MEFS Integrating Model solution over time using actual projected commissioning dates. It computes the effect on aggregate capital requirements of the dispersal of new plant capital expenditures over relatively long (e.g., 7-10 years) construction lead times. It also incorporates the effects of real escalation in the electric utility construction industry.

This series of documents (Volumes I, II, and III) supports the computerized model developed by LMI for estimating capital requirements for each year between the current year and the MEFS target year.

Portions of the model documentation assume that the reader has a rudimentary knowledge of the manner in which electric utility capital requirements are presently modeled within the overall MEFS framework. This documentation is divided into three volumes. Volume I contains a methodological description, model description, and a guide to model applications. Volume II is the user's manual. The user's manual outlines the model's capabilities and constraints, specific data requirements to run the model and a detailed operational guide to the model. The user's manual was organized in such a way as to provide an appreciation for the environment in which the model operates. Volume III contains listings of the computer program and input data for the model. This volume serves the user as a reference guide to the computer model. This documentation complies with the Interim Model Document Standards issued by the Office of Analysis, Oversight, and Access of the Energy Information Administration in December 1978.

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1978 AAR CAPITAL REQUIREMENTS

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Capital Coefficient File FCOEF* (Scenarios B, C, D)
Capital Expenditures Profile File FCEP*
(Scenarios B, C, D)
Annual BUILD Limit File FBLD* (Scenarios B, C, D)

APPENDIX A. PROGRAM AND CONTROL FILE LISTINGS

This appendix contains (1) the source code listing for the Capital Requirements estimating Model CREMOD.FORT, (2) its control file, CREMOD.CLIST, (3) the DIRECT.FORT source code listing, and (4) its control file DIRECT.CLIST.

In addition, a catalogue of the CREMOD system implemented on the DOE computer is shown along with associated data files required by the system to function properly.

Also, an example of a program compilation and linkage is shown for CREMOD. The control file LINKER.CLIST is used to link/edit the CREMOD program.

LISTING FOR CREMOD.CLIST

LIST CREMOD.CLIST

CREMOD.CLIST

00010 CONTROL MAIN

00020 CONTROL NOMSG

00030 ATTN DO

00040 GO TO DONE

00050 END

00060 ALLOC DA(♦) F(FT05F001)

00070 ALLOC DA(♦) F(FT06F001)

00080 WRITE

♦♦♦ CREMOD ♦♦♦

00090 WRITE

00100 WRITE

00110 WRITENR LOW,MEDIUM,HIGH OR INDIVIDUALLY SPECIFIED SUPPLY SCENARIO:
L/M/H/I)

00120 READ &SCEN

00130 WRITE

00140 WRITE

00150 WRITENR ENTER PIES SOLUTION FILES(SN85♦♦,SN90♦♦,SN95♦♦):

00160 READ &FSOL85,&FSOL90,&FSOL95

00170 ALLOCATE DS('CN6121.GJ3.&FSOL85') F(FT08F001)

00180 ALLOCATE DS('CN6121.GJ3.&FSOL90') F(FT09F001)

00190 ALLOCATE DS('CN6121.GJ3.&FSOL95') F(FT10F001)

00200 IF &SCEN EQ L, THEN DO

00210 ALLOCATE DS('CN6121.GJ3.FMASTL.DATA') F(FT11F001) OLD

00220 ALLOCATE DS('CN6121.GJ3.FCDEFL.DATA') F(FT12F001)

00230 ALLOCATE DS('CN6121.GJ3.FCEPL.DATA') F(FT13F001) OLD

00240 ALLOCATE DS('CN6121.GJ3.FBLDL.DATA') F(FT14F001) OLD

00250 CALL 'CN6121.GJ3.CREMOD.LOAD(CREMOD)'

00260 GO TO DONE

00270 END

00280 IF &SCEN EQ M, THEN DO

00290 ALLOCATE DS('CN6121.GJ3.FMASTM.DATA') F(FT11F001) OLD

00300 ALLOCATE DS('CN6121.GJ3.FCDEFM.DATA') F(FT12F001)

00310 ALLOCATE DS('CN6121.GJ3.FCEPM.DATA') F(FT13F001) OLD

00320 ALLOCATE DS('CN6121.GJ3.FBLDM.DATA') F(FT14F001) OLD

00330 CALL 'CN6121.GJ3.CREMOD.LOAD(CREMOD)'

00340 GO TO DONE

00350 END

00360 IF &SCEN EQ H, THEN DO

00370 ALLOCATE DS('CN6121.GJ3.FMASTH.DATA') F(FT11F001) OLD

00380 ALLOCATE DS('CN6121.GJ3.FCDEFH.DATA') F(FT12F001)

00390 ALLOCATE DS('CN6121.GJ3.FCEPH.DATA') F(FT13F001) OLD

00400 ALLOCATE DS('CN6121.GJ3.FBLDH.DATA') F(FT14F001) OLD

00410 CALL 'CN6121.GJ3.CREMOD.LOAD(CREMOD)'

00420 GO TO DONE

00430 END

00440 IF &SCEN EQ I, THEN DO

00450 WRITE INDIVIDUALLY SPECIFIED INPUT FILES (DATA' EXTENSION ASSUMED)

00460 WRITE INPUT MASTER FILE, COEFFICIENT FILE, PROFILE FILE, BUILD LIMIT
FILE

00470 READ &F1,&F2,&F3,&F4

00480 ALLOCATE DS('CN6121.GJ3.&F1..DATA') F(FT11F001) OLD

00490 ALLOCATE DS('CN6121.GJ3.&F2..DATA') F(FT12F001)

00500 ALLOCATE DS('CN6121.GJ3.&F3..DATA') F(FT13F001) OLD

00510 ALLOCATE DS('CN6121.GJ3.&F4..DATA') F(FT14F001) OLD

00520 CALL 'CN6121.GJ3.CREMOD.LOAD(CREMOD)'

00530 GO TO DONE

00540 END

00550 DONE: FREEALL

00560 ALLOCATE DA(♦) F(FT05F001)

00570 ALLOCATE DA(♦) F(FT06F001)

00580 EXIT

00590 END

READY

LISTING FOR CREMOD.FORT

```

00010 C*****
00020 C
00030 C PROGRAM: CAPITAL REQUIREMENTS ESTIMATING MODEL
00040 C PROGRAMMER: JULIAN GAMMON IIT /LMI
00050 C DATE: 1/3/79
00060 C FUNCTION: THIS IS THE MAIN CONTROL ROUTINE FOR THE CREMOD MODEL
00070 C IT DIRECTS THE EXECUTIONS OF ALL THE SUBROUTINES
00080 C CREMOD ESTIMATES CAPITAL REQUIREMENTS FOR THE ELECTRIC UTILITY
00090 C INDUSTRY THROUGH 1995.
00100 C THE MODEL USES DATA SUPPLIED TO IT FROM THE DOE PIES OUTPUT
00110 C WHICH GIVES ACTIVITY LEVELS FOR VARIOUS PLANT TYPES UP TO 1995
00120 C CREMOD APPLIES A CAPITAL COEFFICIENT ($ KW) TO THE ACTIVITY LEVEL
00130 C AND A CAPITAL EXPENDITURE PROFILE FOR EACH PLANT TYPE TO THIS
00140 C DATA TO ESTIMATE THE TOTAL CAPITAL REQUIREMENTS OF THE ELECTRIC
00150 C UTILITY INDUSTRY IN THE UNITED STATES.
00160 C
00170 C
00180 C*****
00190 COMMON/FLSTAT/ IFSTAT(10)
00200 COMMON/PCKSLN/NAME(3,1500),ACTIVY(3,1500),MDPTR(1500),IP
00210 COMMON/PMAS/PTYPE(2,150),PTDES(8,150),UDCODE(150),
00220 1 IDCODE(150),IPTR2,IAV
00230 COMMON /COEFF/ COBASE(150),CTYPE(2,150),ICDEF(10,150)
00240 1,CRATE(6,150),IPTR3,IFPTR
00250 COMMON /CCR/ITRYR,IPBYR,IUBYR,RATE,IROPT,ITYPE,JOPT,R1,ISCEN
00260 COMMON /PROF/ PRTYPE(2,150),YPACE(150),IPACE(20,150),IPTR4,JAV
00270 COMMON /POUT/ CCWC(75),CDEXP(75),CIEXP(75),CEXP(75),CWIP(75)
00280 COMMON/SRTKEY/IPNT(15,2),JLIST(1500),ICHAR(16),KNUM
00290 COMMON /BUILD/ BKEY(3,750),BLIM(20,750),BPOINT
00300 LOGICAL IFSTAT
00310 DOUBLE PRECISION CCWC,CDEXP,CIEXP,CEXP,CWIP
00320 INTEGER MDPTR,IP,IPTR2,PTDES,YPACE,IPACE,IPTR4,JAV,BLIM
00330 INTEGER*2 NAME,BKEY,PTYPE,UDCODE,IDCODE
00340 INTEGER*2 CTYPE,PRTYPE,ICHAR
00350 INTEGER COBASE,BPOINT,ICDEF,CRATE,IPTR3,IFPTR
00360 5 IFSTAT(8)=.FALSE.
00370 10 WRITE(6,1001)
00380 1001 FORMAT(///30X,'*** CREMOD ***'///)
00390 IF(IFSTAT(8))GO TO 20
00400 WRITE(6,1002)
00410 1002 FORMAT(1X,'CREMOD FUNCTIONS'/)
00420 WRITE(6,1003)
00430 1003 FORMAT(1X,'(1) COMPUTE CAPITAL REQUIREMENTS')
00440 WRITE(6,1004)
00450 1004 FORMAT(1X,'(2) DISPLAY BUILD LIMITS')
00460 WRITE(6,1005)
00470 1005 FORMAT(1X,'(3) REVISE/DISPLAY PLANT TYPE MASTER FILE')
00480 WRITE(6,1007)
00490 1007 FORMAT(1X,'(4) REVISE/DISPLAY CAPITAL COEFFICIENTS')
00500 WRITE(6,1008)
00510 1008 FORMAT(1X,'(5) REVISE/DISPLAY CAPITAL EXPENDITURE PROFILES')
00520 WRITE(6,1009)
00530 1009 FORMAT(1X,'(6) DISPLAY INTERIM PIES SOLUTION FILES')
00540 WRITE(6,1010)
00550 1010 FORMAT(1X,'(7) STOP')

```

```

00560 20 WRITE(6,1011)
00570 1011 FORMAT(/1X,'ENTER FUNCTION DESIRED (0 TO LIST): ')
00580 READ(5,1012)ITASK
00590 1012 FORMAT(I1)
00600 IF(ITASK.LT.1.OR.ITASK.GT.7)GO TO 5
00610 IFSTAT(8)=.TRUE.

00620 GO TO(101,102,103,104,105,106,107),ITASK
00630 C COMPUTE CAPITAL REQUIREMENTS
00640 101 CALL GTINFO
00650 GO TO 10
00660 C COMPUTE BUILD LIMITS
00670 102 CALL DYBLIM
00680 GO TO 10
00690 C REVISE/DISPLAY PLANT TYPE MASTER FILE
00700 103 CALL RVMAS
00710 GO TO 10
00720 C REVISE/DISPLAY CAPITAL COEFFICIENTS
00730 104 CALL RVCOEF
00740 GO TO 10
00750 C REVISE/DISPLAY CAPITAL EXPENDITURE PROFILES
00760 105 CALL RVPROF
00770 GO TO 10
00780 C DISPLAY INTERIM PIES SOLUTION FILES
00790 106 CALL DYSOLN
00800 GO TO 10
00810 C TERMINATE THE PROGRAM
00820 107 CALL EXIT
00830 STOP
00840 END

00850 C*****
00860 C
00870 C SUBROUTINE NAME: RDSOLN
00880 C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
00890 C PROGRAMMER: JULIAN GAMMON III/LOGISTICS MANAGEMENT INSTITUTE
00900 C DATE: 12/21/78
00910 C
00920 C*****
00930 SUBROUTINE RDSOLN
00940 COMMON /FLSTAT/ IFSTAT(10)
00950 COMMON/PCKSLN/ NAME(3,1500),ACTIVY(3,1500),MDPTR(1500),IPTR
00960 LOGICAL IFSTAT
00970 INTEGER*2 STATUS,JNAM(3),NAME
00980 INTEGER*2 IN,BS,LL,UL,EQ,E,N
00990 REAL ACTIVY,VALUE
01000 DATA E/1HE/,N/1HN/
01010 DATA BS/'BS'/,LL/'LL'/,UL/'UL'/,EQ/'EQ'/
01020 C READ 1985 ACTIVITY LEVELS INTO TABLE
01030 IF(IFSTAT(1))RETURN
01040 CALL READRE
01050 IPTR=0
01060 IDA=99
01070 IYEAR=1
01080 100 READ(8,1001,END=199)IN
01090 IF(IN.NE.BS.AND.IN.NE.LL.AND.IN.NE.UL.AND.IN.NE.EQ)GO TO 100
01100 READ(99,1010)JNAM,STATUS,VALUE
01110 C CONVERT TO MW
01120 VALUE=VALUE/.024
01130 IPTR=IPTR+1

```

```

01140      NAME(1,IPTR)=JNAM(1)
01150      NAME(2,IPTR)=JNAM(2)
01160      NAME(3,IPTR)=JNAM(3)
01170      ACTVY(IYEAR,IPTR)=VALUE
01180      GO TO 100
01190  199  CONTINUE
01200  C    READ 1990 ACTIVITY LEVELS INTO TABLE
01210      IYEAR=2
01220  200  READ(9,1001,END=299)IN
01230      IF(IN.NE.B8.AND.IN.NE.LL.AND.IN.NE.UL.AND.IN.NE.EQ)GO TO 200
01240      READ(99,1010)JNAM,STATUS,VALUE
01250  C    CONVERT TO MW
01260      VALUE=VALUE/.024
01270      DO 201 I=1,IPTR
01280      IF(JNAM(1).EQ.NAME(1,I).AND.JNAM(2).EQ.NAME(2,I).AND.
01290      .JNAM(3).EQ.NAME(3,I))
01300      1GO TO 202
01310  201  CONTINUE
01320      IPTR=IPTR+1
01330      I=I+1
01340      NAME(1,IPTR)=JNAM(1)
01350      NAME(2,IPTR)=JNAM(2)
01360      NAME(3,IPTR)=JNAM(3)
01370  202  ACTVY(IYEAR,I)=VALUE
01380      GO TO 200
01390  299  CONTINUE
01400  C    READ IN ACTIVITY LEVELS FOR 1995
01410      IYEAR=3
01420  300  READ(10,1001,END=399)IN
01430      IF(IN.NE.B8.AND.IN.NE.LL.AND.IN.NE.UL.AND.IN.NE.EQ)GO TO 300
01440      READ(99,1010)JNAM,STATUS,VALUE
01450  C    CONVERT TO MW
01460      VALUE=VALUE/.024
01470      DO 301 I=1,IPTR
01480      IF(JNAM(1).EQ.NAME(1,I).AND.JNAM(2).EQ.NAME(2,I).AND.
01490      .JNAM(3).EQ.NAME(3,I))
01500      1GO TO 302
01510  301  CONTINUE
01520      IPTR=IPTR+1
01530      I=I+1
01540      NAME(1,IPTR)=JNAM(1)
01550      NAME(2,IPTR)=JNAM(2)
01560      NAME(3,IPTR)=JNAM(3)
01570  302  ACTVY(IYEAR,I)=VALUE
01580      GO TO 300
01590  399  CONTINUE
01600      DO 303 I=1,IPTR
01610      IF(ACTVY(1,I).GT.ACTVY(2,I).OR.ACTVY(2,I).GT.
01620      .ACTVY(3,I))WRITE(6,1011)NAME(1,I),NAME(2,I),NAME(3,I)
01630      .,ACTVY(1,I),ACTVY(2,I),ACTVY(3,I)
01640  303  CONTINUE
01650  1011  FORMAT(1X,'REGION: U',A1,1X,'MODE: ',2A1,1X,
01660  1'1985: ',F9.3,1X,'1990: ',F9.3,1X,'1995: ',F9.3)
01670  1001  FORMAT(10X,A2)

```



```

01680 1010 FORMAT(1X,2X,3A1,4X,A2,1X,G12.5,55X)
01690 IFSTAT(1)=.TRUE.
01700 RETURN
01710 END
01720 C*****
01730 C SUBROUTINE NAME: DYSOLN
01740 C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
01750 C PROGRAMMER: JULIAN GAMMON III/LMI
01760 C DATE: 12/28/78
01770 C FUNCTION: DISPLAY PIES SOLUTION FILES FOR 1985,1990, 1995
01780 C
01790 C
01800 C*****
01810 SUBROUTINE DYSOLN
01820 COMMON/PCKSLN/ NAME(3,1500),ACTIVY(3,1500),MDPTR(1500),IP
01830 COMMON/PMAS/PTYPE(2,150),PTDES(8,150),UDCODE(150)
01840 1,IDCODE(150),IPTR2,IAV
01850 INTEGER IRNUM,IMNUM,PTDES
01860 INTEGER*2 COMAND(72),PTYPE,UDCODE,IDCODE,NAME
01870 INTEGER*2 IREG(50,2),IMOD(50,2)
01880 INTEGER*2 BLANK,U,E,N,IRG(10)
01890 LOGICAL ALLM,ALLR
01900 DATA BLANK/1H /,U/1HU/,IRG/1H1,1H2,1H3,1H4,1H5,1H6,1H7,1H8
01910 1,1H9,1HA/,E/1HE/,N/1HN/
01920 WRITE(6,1001)
01930 1001 FORMAT(22X,'*** SOLUTION FILE MODULE ***')
01940 CALL RDMAS
01950 CALL RDSOLN
01960 CALL TMATCH
01970 DO 5 I=1,72
01980 5 COMAND(I)=BLANK
01990 WRITE(6,1002)
02000 1002 FORMAT(1X,'ENTER REGIONS')
02010 READ(5,1003)COMAND
02020 1003 FORMAT(72A1)
02030 CALL PARSE(COMAND,IREG,IFLAG,IRNUM,ALLR)
02040 10 WRITE(6,1004)
02050 1004 FORMAT(1X,'ENTER MODES')
02060 READ(5,1003)COMAND
02070 CALL PARSE(COMAND,IMOD,IFLAG,IMNUM,ALLM)
02080 IF(IFLAG.EQ.1)GO TO 10
02090 C INITIALIZE REGION SUBTOTALS FOR 1985, 1990 1995
02100 UA85=0.0
02110 UA90=0.0
02120 UA95=0.0
02130 C INITIALIZE TOTALS FOR 1985,1990 1995 ACTIVITY LEVELS
02140 TA85=0.0
02150 TA90=0.0
02160 TA95=0.0
02170 IF(.NOT.ALLR)GO TO 99
02180 IRNUM=10
02190 DO 90 I=1,IRNUM
02200 IREG(I,2)=IRG(I)

```

```

02210 90 CONTINUE
02220 99 CONTINUE
02230 DO 100 I=1,IRNUM
02240 WRITE(6,1005)U,I,REG(I,2)
02250 1005 FORMAT(/,32X,'REGION: ',2A1,
02260 1/49X,'ACTIVITY LEVEL (MWE)'/
02270 29X,'PLANT TYPE NAME',11X,2X,'MODE',6X,
02280 3'1985',6X,'1990',6X,'1995'
02290 4/9X,'-----',13X,'----',6X,
02300 5'-----')
02310 DO 101 J=1,IP
02320 IF(NAME(1,J).EQ.IREG(I,2))GO TO 104
02330 GO TO 101
02340 104 CONTINUE
02350 IF(ALLM)GO TO 103
02360 DO 102 K=1,IMNUM
02370 IF(NAME(2,J).EQ.IMOD(K,1).AND.NAME(3,J).EQ.IMOD(K,2))
02380 1GO TO 103
02390 102 CONTINUE
02400 GO TO 101
02410 C REGION AND MODE MATCH OK TO PUT IN OUTPUT TABLE
02420 103 CONTINUE
02430 WRITE(6,1006)(PTDES(L,MDPTR(J)),L=1,8),NAME(2,J),NAME(3,J)
02440 1,ACTIVY(1,J),ACTIVY(2,J),ACTIVY(3,J)

02450 1006 FORMAT(1X,8A4,5X,2A1,4X,F9.2,1X,F9.2,1X,F9.2)
02460 IF(ALLM.AND.NAME(2,J).EQ.E.AND.NAME(3,J).EQ.N)GO TO 101
02470 UA85=UA85+ACTIVY(1,J)
02480 UA90=UA90+ACTIVY(2,J)
02490 UA95=UA95+ACTIVY(3,J)
02500 TA85=TA85+ACTIVY(1,J)
02510 TA90=TA90+ACTIVY(2,J)
02520 TA95=TA95+ACTIVY(3,J)
02530 101 CONTINUE
02540 C WRITE TOTALS FOR REGION
02550 WRITE(6,1007)UA85,UA90,UA95
02560 1007 FORMAT(9X,'TOTAL FOR REGION',12X,'TOTAL',1X
02570 1,F9.1,1X,F9.1,1X,F9.1)
02580 UA85=0.0
02590 UA90=0.0
02600 UA95=0.0
02610 100 CONTINUE
02620 C WRITE TOTALS FOR ALL REGIONS
02630 WRITE(6,1008)TA85,TA90,TA95
02640 1008 FORMAT(12X,'GRAND TOTAL',14X,'TOTAL',1X
02650 1,F9.1,1X,F9.1,1X,F9.1)
02660 RETURN
02670 END

```

```

02680 C*****
02690 C
02700 C SUBROUTINE NAME: RDMAST
02710 C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
02720 C PROGRAMMER: JULIAN GAMMON III/LMI
02730 C DATE: 1/2/79
02740 C FUNCTION: READ PLANT MASTER FILE INTO CORE (NAMED COMMON "PMAST")
02750 C
02760 C*****
02770 SUBROUTINE RDMAST
02780 COMMON /FLSTAT/ IFSTAT(10)
02790 COMMON /PMAST/ PTYPE(2,150),PTDES(8,150),UDCODE(150),IDCODE(150)
02800 1,IPTR2,IAV
02810 LOGICAL IFSTAT
02820 INTEGER*2 PTYPE,UDCODE,IDCODE
02830 INTEGER PTDES,MES(8),ZEROS
02840 DATA MES/'NAME','NOT','AVA','ILAB','LE I'
02850 1,'N M','ASTE','R'
02860 1,ZEROS/'0000'/
02870 IF(IFSTAT(2))RETURN
02880 DEFINE FILE 11(150,80,E,IAV)
02890 IPTR2=0
02900 100 IPTR2=IPTR2+1
02910 READ(11,IPTR2,1001)
02920 1(PTDES(1,IPTR2),I=1,8),PTYPE(1,IPTR2),PTYPE(2,IPTR2)
02930 2,UDCODE(IPTR2),IDCODE(IPTR2)
02940 IF(PTDES(1,IPTR2).EQ.ZEROS)GO TO 199
02950 GO TO 100
02960 199 IPTR2=IPTR2-1
02970 PTDES(1,IPTR2+1)=MES(1)
02980 PTDES(2,IPTR2+1)=MES(2)
02990 PTDES(3,IPTR2+1)=MES(3)
03000 PTDES(4,IPTR2+1)=MES(4)
03010 PTDES(5,IPTR2+1)=MES(5)
03020 PTDES(6,IPTR2+1)=MES(6)
03030 PTDES(7,IPTR2+1)=MES(7)
03040 PTDES(8,IPTR2+1)=MES(8)
03050 IFSTAT(2)=.TRUE.
03060 RETURN
03070 1001 FORMAT(
03080 18A4,2A1,A1,A1,44X)
03090 END
03100 C*****
03110 C
03120 C SUBROUTINE NAME: TMATCH
03130 C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
03140 C PROGRAMMER: JULIAN GAMMON III/LMI
03150 C DATE: 1/3/79
03160 C FUNCTION: THIS SUBROUTINE MATCHES THE MODE CODE IN THE BUILD
03170 C NAME FROM THE SOLUTION FILES TO THE PLANT TYPE IN THE PLANT
03180 C TYPE MASTER FILE (SAME AS ALLMODES). THIS FACILITATES A LOOKUP
03190 C LATER ON THROUGH THE USE OF A POINTER
03200 C
03210 C*****
03220 SUBROUTINE TMATCH

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03230      COMMON/FLSTAT/ IFSTAT(10)
03240      COMMON/PMASST/ PTYPE(2,150),PTDES(8,150),UDCODE(150)
03250      1,IDCODE(150),IPTR2,IAV
03260      COMMON/PCKSLN/ NAME(3,1500),ACTIVY(3,1500),MDPTR(1500),IP
03270      LOGICAL IFSTAT
03280      INTEGER*2 PTYPE,UDCODE,IDCODE,NAME
03290      INTEGER PTDES,IP,IPTR2,MDPTR
03300      C      SEE IF THIS ROUTINE WAS PREVIOUSLY CALLED
03310      IF(IFSTAT(3))RETURN
03320      C      SCAN THE ENTIRE SOLUTION FILE
03330      DO 100 I=1,IP
03340      C      MATCH TO THE PLANT TYPE MASTER FILE
03350      DO 101 J=1,IPTR2
03360      IF(NAME(2,I).EQ.PTYPE(1,J).AND.NAME(3,I).EQ.PTYPE(2,J))
03370      1GO TO 102
03380      101 CONTINUE
03390      C      NO MATCH
03400      MDPTR(I)=IPTR2+1
03410      GO TO 100
03420      102 CONTINUE
03430      C      MODE IN BUILD NAME MATCHES TO PLANT NAME TABLE
03440      MDPTR(I)=J
03450      100 CONTINUE
03460      IFSTAT(3)=.TRUE.
03470      RETURN
03480      END
03490      C*****
03500      C
03510      C SUBROUTINE NAME: PARSE
03520      C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
03530      C PROGRAMMER: JULIAN GAMMON III/ LMI
03540      C DATE: 1/3/78
03550      C FUNCTION: THIS SUBROUTINE PARSSES STATEMENTS FROM THE
03560      C SUBROUTINE DYSOLN WHICH TAKES COMMANDS FROM THE USER TO
03570      C DISPLAY THE PIES SOLUTION FILES WHICH ARE IN A TABLE
03580      C
03590      C*****
03600      SUBROUTINE PARSE(COMAND,IBUF,IFLAG,INUM,ALL)
03610      INTEGER*2 COMAND(72),IBUF(50,2)
03620      INTEGER*2 A,L,BLANK,COMMA
03630      LOGICAL ALL,ONCOM
03640      DATA A/1HA/,L/1HL/,BLANK/1H /,COMMA/1H,/
03650      ONCOM=.FALSE.
03660      ALL=.FALSE.
03670      K=0
03680      IF(COMAND(1).EQ.A.AND.COMAND(2).EQ.L
03690      1.AND.COMAND(3).EQ.L)GO TO 200
03700      IF(IFLAG.EQ.1)GO TO 99
03710      J=1
03720      99 CONTINUE
03730      DO 100 I=1,72
03740      IF(COMAND(I).EQ.BLANK)GO TO 199
03750      IF(COMAND(I).EQ.COMMA)GO TO 101
03760      K=K+1

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03770      IBUF(J,K)=COMAND(I)
03780      ONCOM=.FALSE.
03790      IF(K.EQ.1)GO TO 100
03800      K=0
03810      J=J+1
03820      GO TO 100
03830 101    ONCOM=.TRUE.
03840      K=0
03850 100    CONTINUE
03860 199    IFLAG=0
03870 C      LINE ENDING IN COMMA MEANS ANOTHER INPUT LINE TO FOLLOW
03880      IF(ONCOM)IFLAG=1
03890      INUM=J-1
03900      RETURN
03910 200    ALL=.TRUE.
03920      IFLAG=0
03930      RETURN
03940      END
03950 C*****
03960 C
03970 C SUBROUTINE NAME: RVMAST
03980 C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
03990 C PROGRAMMER: JULIAN GAMMON III (LMI)
04000 C FUNCTION: REVISE/DISPLAY PLANT TYPE MASTER FILE FMAST.DATA
04010 C
04020 C
04030 C*****
04040      SUBROUTINE RVMAST
04050      COMMON /PMAST/ PTYPE(2,150),PTDES(8,150),UDCODE(150),IDCODE(150)
04060      1,IPTR2,IAV
04070      COMMON /FLSTAT/ IFSTAT(10)
04080      INTEGER *2 PTYPE,UDCODE,IDCODE
04090      INTEGER*2 E,D,R,Y,N,IM1,IM2,IAN5
04100      INTEGER PTDES
04110      LOGICAL IFSTAT
04120      DATA E/1HE/,D/1HD/,R/1HR/
04130      1,Y/1HY/,N/1HN/
04140      WRITE(6,1001)
04150 1001    FORMAT(/13X,'*** REVISE/DISPLAY PLANT TYPE MASTER FILE ***')
04160      CALL RDMAST
04170 100    WRITE(6,1002)
04180 1002    FORMAT(/1X,'REVISE,DISPLAY OR END (R/D/E) ?')
04190      READ(5,1003)IAN5
04200      IF(IAN5.EQ.E)RETURN
04210      IF(IAN5.EQ.D)GO TO 200
04220      IF(IAN5.EQ.R)GO TO 300
04230      GO TO 100
04240 1003    FORMAT(A1)
04250 200    CONTINUE
04260      WRITE(6,1004)
04270 1004    FORMAT(/1X,'PIES',15X,'PIES',16X,'UNIT DATA',3X,'IDC'

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04280      1/1X,'CODE',12X,'DESCRIPTOR',15X,'CODE',5X,'CODE'
04290      2/1X,'----',12X,'-----',13X,
04300      3,'-----',2X,'----')
04310  1005  FORMAT(1X,2A1,2X,8A4,5X,A1,9X,A1)
04320      DO 101 I=1,IPTR2
04330          J=(I/25)*25
04340          IF(I.EQ.J)WRITE(6,1004)
04350          WRITE(6,1005)PTYPE(1,I),PTYPE(2,I)
04360      1,(PTDES(J,I),J=1,8),UDCODE(I),IDCODE(I)
04370  101   CONTINUE
04380      GO TO 100
04390  C      REVISE PLANT TYPE MASTER FILE
04400  300   CONTINUE
04410      WRITE(6,1006)
04420  1006  FORMAT(1X,'ENTER PLANT TYPE (I.E. MODE)')
04430      READ(5,1007)IM1,IM2
04440  1007  FORMAT(2A1)
04450      DO 301 I=1,IPTR2
04460          IF(IM1.EQ.PTYPE(1,I).AND.IM2.EQ.PTYPE(2,I))GO TO 303
04470  301   CONTINUE
04480          WRITE(6,1008)IM1,IM2
04490  1008  FORMAT(/1X,'NO RECORD FOR PLANT TYPE: ',2A1)
04500  302   WRITE(6,1009)IM1,IM2
04510  1009  FORMAT(' DO YOU WANT TO ADD ',2A1,' TO THE FILE(Y/N) ?')
04520      READ(5,1003)IANS
04530          IF(IANS.EQ.Y)GO TO 400
04540          IF(IANS.EQ.N)GO TO 100
04550      GO TO 302
04560  C      REVISE DATA
04570  303   CONTINUE
04580          WRITE(6,1010)
04590  1010  FORMAT(/1X,'FIELD NO.',7X,'DATA ELEMENT'
04600      1,19X,'CONTENTS'/1X,'-----'
04610      2,7X,'-----',19X
04620      3,'-----')
04630          WRITE(6,1011)PTYPE(1,I),PTYPE(2,I)
04640          WRITE(6,1012)(PTDES(J,I),J=1,8)
04650          WRITE(6,1013)UDCODE(I)
04660          WRITE(6,1014)IDCODE(I)
04670  1011  FORMAT(1X,4X,'1',6X,'PLANT TYPE DESIGNATOR',
04680      118X,2A1)
04690  1012  FORMAT(1X,4X,'2',6X,'PLANT TYPE DESCRIPTOR',3X,8A4)
04700  1013  FORMAT(1X,4X,'3',6X,'UNIT DATA CODE',26X,A1)
04710  1014  FORMAT(1X,4X,'4',6X,'IDC CODE',32X,A1)
04720  304   WRITE(6,1015)
04730  1015  FORMAT(/1X,'ENTER FIELD NO. TO REVISE (1-4,0 TO END)')
04740      READ(5,1017)IFLD
04750  1017  FORMAT(I1)
04760          IF(IFLD.EQ.0)GO TO 500
04770          IF(IFLD.LT.1.OR.IFLD.GT.4)GO TO 304
04780          WRITE(6,1019)
04790  1019  FORMAT(1X,'NEW VALUE ?')

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04800      GO TO(311,312,313,314),IFLD
04810  311  READ(5,1007)PTYPE(1,I),PTYPE(2,I)
04820      IFSTAT(3)=.FALSE.
04830      GO TO 304
04840  312  READ(5,1016)(PTDES(J,I),J=1,8)
04850  1016  FORMAT(8A4)
04860      GO TO 304
04870  313  READ(5,1018)UDCODE(I)
04880  1018  FORMAT(A1)
04890      GO TO 304
04900  314  READ(5,1018)IDCODE(I)
04910      GO TO 304
04920  C    ADD RECORD TO FMAST FILE
04930  400  CONTINUE
04940      I=I+1
04950      PTDES(1,I+1)=PTDES(1,I)
04960      PTDES(2,I+1)=PTDES(2,I)
04970      PTDES(3,I+1)=PTDES(3,I)
04980      PTDES(4,I+1)=PTDES(4,I)
04990      PTDES(5,I+1)=PTDES(5,I)
05000      PTDES(6,I+1)=PTDES(6,I)
05010      PTDES(7,I+1)=PTDES(7,I)
05020      PTDES(8,I+1)=PTDES(8,I)
05030      IPTR2=I
05040      PTYPE(1,I)=IM1
05050      PTYPE(2,I)=IM2
05060      WRITE(6,1020)
05070  1020  FORMAT(1X,'ENTER PLANT TYPE DESCRIPTOR')
05080      READ(5,1016)(PTDES(J,I),J=1,8)
05090      IFSTAT(3)=.FALSE.
05100      WRITE(6,1021)
05110  1021  FORMAT(1X,'ENTER UNIT DATA CODE')
05120      READ(5,1018)UDCODE(I)
05130      WRITE(6,1022)
05140  1022  FORMAT(1X,'ENTER IDC CODE')
05150      READ(5,1018)IDCODE(I)
05160  C    WRITE UPDATED RECORD BACK OUT TO FILE
05170  500  CONTINUE
05180      WRITE(11'I,1023)
05190      1(PTDES(J,I),J=1,8),PTYPE(1,I),PTYPE(2,I)
05200      2,UDCODE(I),IDCODE(I)
05210  1023  FORMAT(
05220      18A4,2A1,A1,A1,44X)
05230      GO TO 100
05240      END
05250  C*****
05260  C
05270  C SUBROUTINE NAME: RDCOEF
05280  C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
05290  C PROGRAMMER: JULIAN GAMMON III
05300  C FUNCTION: READ CAPITAL COEFFICIENT FILE INTO TABLE
05310  C
05320  C*****

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05330      SUBROUTINE RDCDEF
05340      COMMON /FLSTAT/ IFSTAT(10)
05350      COMMON /COEFF/ COBASE(150),CTYPE(2,150),ICDEF(10,150)
05360      1,CRATE(6,150),IPTR3,IFPTR
05370      C      COBASE = ARRAY OF COEFFICIENT BASE YEARS
05380      C      CTYPE = ARRAY OF PLANT TYPE DESIGNATORS
05390      C      ICDEF = 1985 CAPITAL COEFFICIENT FOR THE TEN DOE REGIONS
05400      C      (U1,U2,U3,U4,U5,U6,U7,U8,U9,UA)
05410      C      CRATE(*,1)=REAL ESC. RATE TO 1985
05420      C      CRATE(*,2)=REAL ESC. RATE 1985-1990
05430      C      CRATE(*,3)=REAL ESC. RATE 1990-1995
05440      C      CRATE(*,4)=IDC RATE
05450      LOGICAL IFSTAT
05460      INTEGER*2 CTYPE
05470      INTEGER COBASE,ICDEF,CRATE,IPTR3,IFPTR
05480      IF(IFSTAT(4))RETURN
05490      DEFINE FILE 12(150,80,E,IFPTR)
05500      IPTR3=0
05510      100      IPTR3=IPTR3+1
05520      READ(12,IPTR3,1001)
05530      1COBASE(IPTR3),CTYPE(1,IPTR3),CTYPE(2,IPTR3)
05540      2,(ICDEF(J,IPTR3),J=1,10),(CRATE(J,IPTR3),J=1,6)
05550      IF(COBASE(IPTR3).EQ.0)GO TO 199
05560      GO TO 100
05570      199      IPTR3=IPTR3-1
05580      IFSTAT(4)=.TRUE.
05590      RETURN
05600      1001      FORMAT(
05610      1I2,2A1,10I4,3I4,3I3,15X)
05620      END
05630      C*****
05640      C
05650      C SUBROUTINE NAME: RVCDEF
05660      C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
05670      C PROGRAMMER: JULIAN GAMMON III
05680      C FUNCTION: REVISE/DISPLAY CAPITAL COEFFICIENTS FILE
05690      C
05700      C*****
05710      SUBROUTINE RVCDEF
05720      COMMON /COEFF/ COBASE(150),CTYPE(2,150),ICDEF(10,150)
05730      1,CRATE(6,150),IPTR3,IFPTR
05740      INTEGER*2 CTYPE,U(10),NO(10)
05750      INTEGER*2 R,D,E,Y,N,IAN5,IM1,IM2
05760      INTEGER COBASE,ICDEF,CRATE,IPTR3,IFPTR
05770      DOUBLE PRECISION ARATE(6)
05780      DATA R/1HR/,D/1HD/,E/1HE/,Y/1HY/,N/1HN/
05790      DATA U/'U1','U2','U3','U4','U5','U6','U7','U8','U9','UA'/
05800      DATA NO/' 3',' 4',' 5',' 6',' 7',' 8',' 9','10','11','12'/
05810      WRITE(6,1001)
05820      1001      FORMAT(/13X,
05830      1'*** REVISE/DISPLAY CAPITAL COEFFICIENT FILE ***')
05840      CALL RDCDEF
05850      100      WRITE(6,1002)
05860      1002      FORMAT(/1X,'REVISE,DISPLAY OR END (R/D/E) ?')

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05870      READ(5,1003) IANS
05880 1003  FORMAT(A1)
05890      IF(IANS.EQ.E) RETURN
05900      IF(IANS.EQ.D) GO TO 200
05910      IF(IANS.EQ.R) GO TO 300
05920      GO TO 100
05930 200   CONTINUE
05940 329   WRITE(6,1033)
05950 1033  FORMAT(1X,'DISPLAY COEFFICIENTS OR INT/ESC RATES (1/2)')
05960      READ(5,1034) IPRTOP
05970 1034  FORMAT(I1)
05980      IF(IPRTOP.NE.1.AND.IPRTOP.NE.2) GO TO 329
05990 C     DISPLAY CAPITAL COEFFICIENTS FILE
06000      IF(IPRTOP.EQ.1) WRITE(6,1004)
06010      IF(IPRTOP.EQ.2) WRITE(6,1035)
06020 1035  FORMAT(/20X,'ESCALATION RATES',20X,
06030      1'INT. DUR. CONST.'/1X,
06040      2'PIES',3X,'(-84/YR)',2X,'(85-89/YR)',2X,
06050      3'(90-94/YR)',2X,'(84/TOTAL)',3X,
06060      4'RATE/YR % TOTAL'/1X,'CODE',6X,'E1',9X,'E2',10X,'E3',
06070      510X,'E4',8X,'IDC # 1',2X,'IDC # 2'/1X,'---',3X,
06080      68(' '),2X,3(10(' '),2X),1X,7(' '),2X,7(' '))
06090 1004  FORMAT(
06100      1/' Y PIES'/
06110      2' R CODE',2X,'U1',3X,'U2',
06120      33X,'U3',3X,'U4',3X,'U5',
06130      43X,'U6',3X,'U7',3X,'U8',3X,'U9',
06140      53X,'UA'
06150      6/1X,'-----',1X,'----',
06160      71X,9('----',1X))
06170      DO 201 I=1,IPTR3
06180          ARATE(1)=CRATE(1,I)*.001
06190          ARATE(2)=CRATE(2,I)*.001
06200          ARATE(3)=CRATE(3,I)*.001
06210          ARATE(4)=CRATE(4,I)*.0001
06220          ARATE(5)=CRATE(5,I)*.001
06230          ARATE(6)=CRATE(6,I)*.001
06240          J=(I/25)*25
06250          IF(I.EQ.J.AND.IPRTOP.EQ.1) WRITE(6,1004)
06260          IF(I.EQ.J.AND.IPRTOP.EQ.2) WRITE(6,1035)
06270          IF(IPRTOP.EQ.1) WRITE(6,1005)
06280          1COBASE(I),CTYPE(1,I),CTYPE(2,I)
06290          2,(ICDEF(J,I),J=1,10)
06300          IF(IPRTOP.EQ.2) WRITE(6,1036)
06310          1CTYPE(1,I),CTYPE(2,I)
06320          1,ARATE(1),ARATE(2),ARATE(3)
06330          2,ARATE(5),ARATE(4),ARATE(6)
06340 201   CONTINUE
06350 1005  FORMAT(
06360      11X,I2,1X,2A1,2X
06370      2,10(I4,1X))
06380 1036  FORMAT(1X,2A1,5X,F5.3,6X,F5.3,7X,F5.3,8X,F5.3,7X,F6.4,4X,
06390      .F5.3)
06400      GO TO 100
06410 300   CONTINUE

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06420 C      REVISE CAPITAL COEFFICIENTS FILE
06430      WRITE(6,1006)
06440 1006    FORMAT(1X,'ENTER PLANT TYPE (I.E. MODE)')
06450      READ(5,1007)IM1,IM2
06460 1007    FORMAT(2A1)
06470      DO 301 I=1,IPTR3
06480      IF(IM1.EQ.CTYPE(1,I).AND.IM2.EQ.CTYPE(2,I))GO TO 303
06490 301      CONTINUE
06500      WRITE(6,1008)IM1,IM2
06510 1008    FORMAT(/1X,'NO RECORD FOR PLANT TYPE: ',2A1)
06520 302      WRITE(6,1009)IM1,IM2
06530 1009    FORMAT(1X,'DO YOU WANT TO ADD ',2A1,' TO THE FILE(Y/N) ?')
06540      READ(5,1003)IANS
06550      IF(IANS.EQ.Y)GO TO 400
06560      IF(IANS.EQ.N)GO TO 100
06570      GO TO 302
06580 303      CONTINUE
06590      WRITE(6,1010)
06600 1010    FORMAT(/1X,'FIELD NO.',8X,'DATA ELEMENT',
06610      110X,'CONTENTS'/1X,'-----',8X,'-----',
06620      210X,'-----')
06630      WRITE(6,1011)CDBASE(I)
06640      WRITE(6,1012)CTYPE(1,I),CTYPE(2,I)
06650      WRITE(6,1013)NO(1),U(1),ICDEF(1,I)
06660      WRITE(6,1013)NO(2),U(2),ICDEF(2,I)
06670      WRITE(6,1013)NO(3),U(3),ICDEF(3,I)
06680      WRITE(6,1013)NO(4),U(4),ICDEF(4,I)
06690      WRITE(6,1013)NO(5),U(5),ICDEF(5,I)
06700      WRITE(6,1013)NO(6),U(6),ICDEF(6,I)
06710      WRITE(6,1013)NO(7),U(7),ICDEF(7,I)
06720      WRITE(6,1013)NO(8),U(8),ICDEF(8,I)
06730      WRITE(6,1013)NO(9),U(9),ICDEF(9,I)
06740      WRITE(6,1013)NO(10),U(10),ICDEF(10,I)
06750      ARATE(1)=CRATE(1,I)*.001
06760      ARATE(2)=CRATE(2,I)*.001
06770      ARATE(3)=CRATE(3,I)*.001
06780      ARATE(4)=CRATE(4,I)*.0001
06790      ARATE(5)=CRATE(5,I)*.001
06800      ARATE(6)=CRATE(6,I)*.001
06810      WRITE(6,1014)ARATE(1)
06820      WRITE(6,1015)ARATE(2)
06830      WRITE(6,1016)ARATE(3)
06840      WRITE(6,1017)ARATE(4)
06850      WRITE(6,1040)ARATE(5)
06860      WRITE(6,1041)ARATE(6)
06870 1011    FORMAT(1X,5X,'1',5X,'COEFFICIENT BASE YEAR',11X,I2)
06880 1012    FORMAT(1X,5X,'2',5X,'PLANT TYPE DESIGNATOR',11X,2A1)
06890 1013    FORMAT(1X,4X,A2,5X,'1985 CAP. COEFF. FOR ',A2,7X,I4)
06900 1014    FORMAT(1X,4X,'13',5X,'REAL ESC. RATE TO 1985',7X,F5.3)
06910 1015    FORMAT(1X,4X,'14',5X,'REAL ESC. RATE TO 1985-1990',2X,F5.3)
06920 1016    FORMAT(1X,4X,'15',5X,'REAL ESC. RATE TO 1990-1995',2X,F5.3)
06930 1017    FORMAT(1X,4X,'16',5X,'IDC RATE',21X,F6.4)
06940 1040    FORMAT(1X,4X,'17',5X,'COMPOSITE ESCALATION RATE',4X,F5.3)
06950 1041    FORMAT(1X,4X,'18',5X,'IDC # 2 RATE',18X,F4.3)
06960 304      WRITE(6,1018)

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06970 1018 FORMAT(/IX,'ENTER FIELD NO. TO REVISE (1-16,0 TO END)')
06980 READ(5,*)IFLD
06990 IF(IFLD.EQ.0)GO TO 500
07000 IF(IFLD.LT.1.OR.IFLD.GT.18)GO TO 304
07010 WRITE(6,1020)
07020 1020 FORMAT(1X,'NEW VALUE ')
07030 GO TO (311,312,313,314,315,316,317,318,319,
07040 1320,321,322,323,324,325,326,327,328),IFLD
07050 311 CONTINUE
07060 READ(5,*)COBASE(I)
07070 GO TO 304
07080 312 CONTINUE
07090 READ(5,1007)CTYPE(1,I),CTYPE(2,I)
07100 GO TO 304
07110 313 CONTINUE
07120 READ(5,*)ICDEF(1,I)
07130 GO TO 304
07140 314 CONTINUE
07150 READ(5,*)ICDEF(2,I)
07160 GO TO 304
07170 315 CONTINUE
07180 READ(5,*)ICDEF(3,I)
07190 GO TO 304
07200 316 CONTINUE
07210 READ(5,*)ICDEF(4,I)
07220 GO TO 304
07230 317 CONTINUE
07240 READ(5,*)ICDEF(5,I)
07250 GO TO 304
07260 318 CONTINUE
07270 READ(5,*)ICDEF(6,I)
07280 GO TO 304
07290 319 CONTINUE
07300 READ(5,*)ICDEF(7,I)
07310 GO TO 304
07320 320 CONTINUE
07330 READ(5,*)ICDEF(8,I)
07340 GO TO 304
07350 321 CONTINUE
07360 READ(5,*)ICDEF(9,I)
07370 GO TO 304
07380 322 CONTINUE
07390 READ(5,*)ICDEF(10,I)
07400 GO TO 304
07410 323 CONTINUE
07420 READ(5,*)ARATE(1)
07430 CRATE(1,I)=(ARATE(1)*1000.0)+.5
07440 GO TO 304
07450 324 CONTINUE
07460 READ(5,*)ARATE(2)
07470 CRATE(2,I)=(ARATE(2)*1000.0)+.5
07480 GO TO 304
07490 325 CONTINUE
07500 READ(5,*)ARATE(3)

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07510      CRATE(3,I)=(ARATE(3)*1000.0)+.5
07520      GO TO 304
07530 326    CONTINUE
07540      READ(5,*)ARATE(4)
07550      CRATE(4,I)=(ARATE(4)*10000.0)+.5
07560      GO TO 304
07570 327    CONTINUE
07580      READ(5,*)ARATE(5)
07590      CRATE(5,I)=(ARATE(5)*1000.0)+.5
07600      GO TO 304
07610 328    CONTINUE
07620      READ(5,*)ARATE(6)
07630      CRATE(6,I)=(ARATE(6)*1000.0)+.5
07640      GO TO 304
07650 400    CONTINUE
07660 C      INCREMENT POINTER TO ACCOMMODATE ADDITIONAL RECORD
07670      I=I+1
07680      IPTR3=IPTR3+1
07690      CTYPE(1,I)=IM1
07700      CTYPE(2,I)=IM2
07710      WRITE(6,1023)
07720 1023   FORMAT(' ENTER COEFFICIENT BASE YEAR')
07730      READ(5,*)COBASE(I)
07740      DO 401 J=1,10
07750      WRITE(6,1024)U(J)
07760 1024   FORMAT(' ENTER 1985 CAP. COEFF. FOR ',A2)
07770      READ(5,*)ICOEFF(J,I)
07780 401    CONTINUE
07790      WRITE(6,1025)
07800 1025   FORMAT(1X,'ENTER REAL ESC. RATE TO 1985')
07810      READ(5,*)ARATE(1)
07820      WRITE(6,1026)
07830 1026   FORMAT(1X,'ENTER REAL ESC. RATE TO 1985-1990')
07840      READ(5,*)ARATE(2)
07850      WRITE(6,1027)
07860 1027   FORMAT(1X,'ENTER REAL ESC. RATE TO 1990-1995')
07870      READ(5,*)ARATE(3)
07880      WRITE(6,1028)
07890 1028   FORMAT(1X,'ENTER IDC # 1 RATE')
07900      READ(5,*)ARATE(4)
07910      WRITE(6,1030)
07920 1030   FORMAT(1X,'ENTER COMPOSITE ESCALATION TO 1985')
07930      READ(5,*)ARATE(5)
07940      WRITE(6,1032)
07950 1032   FORMAT(1X,'ENTER IDC # 2 RATE')
07960      READ(5,*)ARATE(6)
07961      CRATE(1,I)=(ARATE(1)*1000.0)+.5
07962      CRATE(2,I)=(ARATE(2)*1000.0)+.5
07963      CRATE(3,I)=(ARATE(3)*1000.0)+.5
07964      CRATE(4,I)=(ARATE(4)*10000.0)+.5
07965      CRATE(5,I)=(ARATE(5)*1000.0)+.5
07966      CRATE(6,I)=(ARATE(6)*1000.0)+.5
07970 500    CONTINUE
07980      WRITE(12'I,1029)
07990      1COBASE(I),CTYPE(1,I),CTYPE(2,I)
08000      2,(ICOEFF(J,I),J=1,10)

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08010      3,(CRATE(J,I),J=1,6)
08020      GO TO 100
08030 1029  FORMAT(
08040      1I2,2A1,10I4,3I4,3I3,15X)
08050      END
08060 C*****
08070 C
08080 C SUBROUTINE NAME: GTINFO
08090 C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
08100 C PROGRAMMER: JULIAN GAMMON III /LMI
08110 C DATE: 1/16/79
08120 C FUNCTION: GET PARAMETERS FOR COMPUTING CAPITAL REQUIREMENTS
08130 C
08140 C*****
08150      SUBROUTINE GTINFO
08160      COMMON /FLSTAT/ IFSTAT(10)
08170      COMMON /CCR/ITRYR,IPBYR,IUBYR,RATE,IROPT,ITYPE,JOPT,R1,ISCEN
08180      COMMON /PMAST/PTYPE(2,150),PTDES(8,150),UDCODE(150)
08190      1,IDCODE(150),IPTR2,IAV
08200      DIMENSION I2(3),I3(9),I4(9),I5(6),I7(6),I8(6),I12(6),I13(6)
08210      DIMENSION I14(6),I15(9),I17(6),I18(6),I19(5),I20(5)
08220      DIMENSION I21(7),I23(10),I6(6)
08230      DIMENSION I9(21),I10(21),I11(42),I22(29),IA(150),I24(4)
08240      DIMENSION RVAL(3)
08250      INTEGER MDNUM(26),PTDES,IPTR2,IAV
08260      INTEGER*2 Y,Z,O,A,PTYPE,UDCODE,IDCODE
08270      INTEGER*2 DRULE(8),S,C,RPT,CC,AC,B0
08280      INTEGER*2 IMD(50,2),IRG(50,2),COMAND(72),BLANK
08290      INTEGER*2 U,REGND(10)
08300      LOGICAL ALLR,ALLM,IFSTAT
08310      DATA RVAL/.0534,.0530,.0513/
08320      DATA S/1HS/,C/1HC/,CC/'CC'/,AC/'AC'/,B0/'B0'/
08330      DATA Y/1HY/,Z/1HZ/,O/1HO/,A/1HA/
08340      DATA U/1HU/,REGND/1H1,1H2,1H3,1H4,1H5,1H6,1H7,
08350      11H8,1H9,1HA/
08360 C      MDNUM IS A BUFFER SHOWING THE NUMBER OF PLANT TYPES
08370 C      IN A GIVEN OPTION CHOICE
08380      DATA MDNUM/0,3,9,9,6,6,6,6,21,21,42,6,6,6,9,69,6,6,5
08390      X,5,7,29,10,118,4,114/
08400 C      ARRAYS I2-I22 HOLD POINTERS TO THE PROPER MODE (PLANT TYPE)
08410 C      FOR EACH OPTION NUMBER
08420 C      E.G. ARRAY I2 HOLDS POINTERS FOR THE NUCLEAR PLANT TYPE OPTION
08430 C      NUMBER 2 OF 23,46,69 WHICH ARE NY,NZ,NO RESPECTIVELY
08440      DATA I2/23,46,69/
08450      DATA I3/2,3,4,25,26,27,48,49,50/
08460      DATA I4/10,11,12,33,34,35,56,57,58/
08470      DATA I5/13,14,36,37,59,60/
08480      DATA I6/15,16,38,39,61,62/

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08490      DATA I7/17,18,40,41,63,64/
08500      DATA I8/19,20,42,43,65,66/
08510      DATA I9/2,3,4,13,14,17,18,25,26,27,36,37,40,41
08520      1,48,49,50,59,60,63,64/
08530      DATA I10/10,11,12,15,16,19,20,33,34,35,38,39,42,43
08540      1,56,57,58,61,62,65,66/
08550      DATA I11/2,3,4,13,14,17,18,25,26,27,36,37,40,41,48,49
08560      1,50,59,60,63,64,10,11,12,15,16,19,20,33,34,35,38,39,42
08570      2,43,56,57,58,61,62,65,66/
08580      DATA I12/5,6,28,29,51,52/
08590      DATA I13/7,8,30,31,53,54/
08600      DATA I14/21,22,44,45,67,68/
08610      DATA I15/5,7,9,28,30,32,51,53,55/
08620      DATA I17/70,71,72,73,74,75/
08630      DATA I18/76,77,78,79,80,81/
08640      DATA I19/82,83,84,85,86/
08650      DATA I20/87,88,89,90,91/
08660      DATA I21/92,93,94,95,96,97,98/
08670      DATA I22/70,71,72,73,74,75,76,77,78,79,80,81,82,83,84,85
08680      1,86,87,88,89,90,91,92,93,94,95,96,97,98/
08690      DATA I23/99,100,101,102,103,104,105,106,107,108/
08700      DATA I24/115,116,117,118/
08710      WRITE(6,1001)
08720 1001  FORMAT(/19X,'*** COMPUTE CAPITAL REQUIREMENTS ***'/)
08730      CALL RDSOLN
08740      CALL RDMAST
08750      ITYPE=0
08760      ITRYR=90
08770 1003  FORMAT(I2)
08780      IF(IFSTAT(10))GO TO 126
08790 118    WRITE(6,1020)
08800 1020  FORMAT(1X,'ENTER SUPPLY SCENARIO LOW(1),MED(2),HIGH(3)')
08810      READ(5,119)ISCEN
08820 119   FORMAT(I1)
08830      IF(ISCEN.LT.1.OR.ISCEN.GT.3)GO TO 118
08840      IFSTAT(10)=.TRUE.
08850 126   R1=RVAL(ISCEN)
08860      IF(IFSTAT(7))GO TO 102
08870 101   WRITE(6,1004)
08880 1004  FORMAT(1X,'ENTER PIES BASE YEAR (YY)')
08890      READ(5,1003)IPBYR
08900      IF(IPBYR.LT.75.OR.IPBYR.GT.85)GO TO 101
08910      IFSTAT(7)=.TRUE.
08920 102   WRITE(6,1005)
08930 1005  FORMAT(1X,'ENTER USER BASE YEAR (YY)')
08940      READ(5,1003)IUBYR
08950      IF(IUBYR.LT.70.OR.IUBYR.GT.99)GO TO 102
08960      WRITE(6,1006)

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08970 1006 FORMAT(1X,'ENTER INFLATION RATE (DEC.)')
08980 READ(5,*)RATE
08990 IF(RATE.GE.1.0)RATE=RATE*.01
09000 1009 FORMAT(8A1)
09010 1011 FORMAT(A2)
09020 IROPT=3
09030 105 WRITE(6,1012)
09040 1012 FORMAT(/1X,
09050 1'ENTER PLANT TYPE COMBINATION OPTION(0 TO LIST OPTIONS)')
09060 READ(5,*)JOPT
09070 IF(JOPT.LT.0.OR.JOPT.GT.26)GO TO 105
09080 IF(JOPT.GT.0)GO TO 106
09090 WRITE(6,1013)
09100 1013 FORMAT(/
09110 11X,'(1) INDIVIDUALLY SPECIFIED'/
09120 21X,'(2) NUCLEAR'/
09130 31X,'(3) BITUMINOUS WITH SCRUBBER'/
09140 41X,'(4) BITUMINOUS WITHOUT SCRUBBER'/
09150 51X,'(5) SUB-BITUMINOUS WITH SCRUBBER'/
09160 61X,'(6) SUB-BITUMINOUS WITHOUT SCRUBBER'/
09170 71X,'(7) LIGNITE WITH SCRUBBER'/
09180 81X,'(8) LIGNITE WITHOUT SCRUBBER'/
09190 91X,'(9) COAL WITH SCRUBBER'/
09200 A1X,'(10) COAL WITHOUT SCRUBBER'/
09210 B1X,'(11) ALL COAL BUILDS'/
09220 C1X,'(12) TURBINE'/
09230 D1X,'(13) COMBINED CYCLE'/
09240 E1X,'(14) HYDROELECTRIC'/
09250 F1X,'(15) ALL FUEL GAS'/
09260 G1X,'(16) ALL BUILDS'/
09270 H1X,'(17) ALL OIL TO COAL CONVERSIONS'/
09280 I1X,'(18) ALL GAS TO COAL CONVERSIONS')
09290 WRITE(6,1014)
09300 1014 FORMAT(
09310 J1X,'(19) ALL NEW PLANT COAL TO COAL CONVERSIONS'/
09320 K1X,'(20) ALL EXISTING PLANT CONVERSIONS'/
09330 L1X,'(21) ALL OTHER CONVERSIONS'/
09340 M1X,'(22) ALL CONVERSIONS'/
09350 N1X,'(23) ALL EMERGING TECHNOLOGIES'/
09360 O1X,'(24) ALL (UTILITY CAPITAL)'/
09370 P1X,'(25) TRANSMISSION & DISTRIBUTION'/
09380 Q1X,'(26) ALL (NET OF T & D)')
09390 GO TO 105
09400 106 CONTINUE
09410 NMODE=MDNUM(JOPT)
09420 IF(JOPT.GE.2.AND.JOPT.LE.16)GO TO 107
09430 IF(JOPT.EQ.1)GO TO 108
09440 GO TO 109
09450 C *** OPTIONS 2=16 *****
09460 107 CONTINUE
09470 C COMMITTED , DEFERABLE OR NEW PLANT TYPES OR ALL
09480 WRITE(6,1015)

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09490 1015 FORMAT(/1X,
09500 1'COMMITTED,DEFERABLE,NEW OR ALL (Y,Z,0,ALL)')
09510 READ(5,1016)DRULE(1),DRULE(2),DRULE(3)
09520 1016 FORMAT(3A1)
09530 IF(DRULE(1).EQ.Y)ITYPE=1
09540 IF(DRULE(1).EQ.Z)ITYPE=2
09550 IF(DRULE(1).EQ.O)ITYPE=3
09560 IF(DRULE(1).EQ.A)ITYPE=4
09570 IF(ITYPE.EQ.O)GO TO 107
09580 GO TO 109
09590 C **** ENTER MODES *** OPTION 1
09600 108 CONTINUE
09610 110 WRITE(6,1017)
09620 1017 FORMAT(1X,'ENTER MODES')
09630 READ(5,1018)COMAND
09640 1018 FORMAT(72A1)
09650 CALL PARSE(COMAND,IMD,IFLAG,NMODE,ALLM)
09660 IF(IFLAG.EQ.1)GO TO 110
09670 109 CONTINUE
09680 WRITE(6,1019)
09690 1019 FORMAT(1X,'ENTER REGIONS')
09700 READ(5,1018)COMAND
09710 CALL PARSE(COMAND,IRG,IFLAG,NREG,ALLR)
09720 IF(.NOT.ALLR)GO TO 111
09730 DO 112 I=1,10
09740 IRG(I,1)=U
09750 IRG(I,2)=REGND(I)
09760 112 CONTINUE
09770 NREG=10
09780 111 CONTINUE
09790 C LOAD POINTER ARRAY WITH POINTERS TO MODES FOR THAT OPTION
09800 GO TO (201,202,203,204,205,206,207,208,209,210,211,212,
09810 1 213,214,215,216,217,218,219,220,221,222,223,224,225,226),
09820 2 JOPT
09830 C INDIVIDUALLY SPECIFIED
09840 201 CONTINUE
09850 K=0
09860 C PUT POINTERS TO MODE TABLE IN IA BUFFER LIST
09870 DO 116 I=1,NMODE
09880 DO 117 J=1,IPTR2
09890 IF(IMD(I,1).EQ.PTYPE(1,J).AND.IMD(I,2).EQ.PTYPE(2,J))
09900 1GO TO 120
09910 117 CONTINUE
09920 GO TO 116
09930 120 K=K+1
09940 IA(K)=J
09950 116 CONTINUE
09960 NMODE=K
09970 IF(K.EQ.0)RETURN
09980 GO TO 300
09990 C NUCLEAR
10000 202 CALL SETUP(IA,I2,NMODE)
10010 GO TO 300

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10020 C      BITUMINOUS WITH SCRUBBER
10030 203    CALL SETUP(IA,I3,NMODE)
10040      GO TO 300
10050 C      BITUMINOUS WITHOUT SCRUBBER
10060 204    CALL SETUP(IA,I4,NMODE)
10070      GO TO 300
10080 C      SUB-BITUMINOUS WITH SCRUBBER
10090 205    CALL SETUP(IA,I5,NMODE)
10100      GO TO 300
10110 C      SUB-BITUMINOUS WITHOUT SCRUBBER
10120 206    CALL SETUP(IA,I6,NMODE)
10130      GO TO 300
10140 C      LIGNITE WITH SCRUBBER
10150 207    CALL SETUP(IA,I7,NMODE)
10160      GO TO 300
10170 C      LIGNITE WITHOUT SCRUBBER
10180 208    CALL SETUP(IA,I8,NMODE)
10190      GO TO 300
10200 C      COAL WITH SCRUBBER
10210 209    CALL SETUP(IA,I9,NMODE)
10220      GO TO 300
10230 C      COAL WITHOUT SCRUBBER
10240 210    CALL SETUP(IA,I10,NMODE)
10250      GO TO 300
10260 C      ALL COAL BUILDS
10270 211    CALL SETUP(IA,I11,NMODE)
10280      GO TO 300
10290 C      TURBINE
10300 212    CALL SETUP(IA,I12,NMODE)
10310      GO TO 300
10320 C      COMBINED CYCLE
10330 213    CALL SETUP(IA,I13,NMODE)
10340      GO TO 300
10350 C      HYDROELECTRIC
10360 214    CALL SETUP(IA,I14,NMODE)
10370      GO TO 300
10380 C      ALL FUEL GAS
10390 215    CALL SETUP(IA,I15,NMODE)
10400      GO TO 300
10410 C      ALL BUILDS
10420 216    CONTINUE
10430      DO 113 I=1,NMODE
10440          IA(I)=I
10450 113    CONTINUE
10460      GO TO 300
10470 C      ALL OIL TO COAL CONVERSIONS
10480 217    CALL SETUP(IA,I17,NMODE)
10490      GO TO 300
10500 C      ALL GAS TO COAL CONVERSIONS
10510 218    CALL SETUP(IA,I18,NMODE)
10520      GO TO 300
10530 C      ALL NEW PLANT COAL-TO-COAL CONVERSIONS
10540 219    CALL SETUP(IA,I19,NMODE)

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10550      GO TO 300
10560 C      ALL EXISTING PLANT CONVERSIONS
10570 220    CALL SETUP(IA,I20,NMODE)
10580      GO TO 300
10590 C      ALL OTHER CONVERSIONS
10600 221    CALL SETUP(IA,I21,NMODE)
10610      GO TO 300
10620 C      ALL CONVERSIONS
10630 222    CALL SETUP(IA,I22,NMODE)
10640      GO TO 300
10650 C      ALL EMERGING TECHNOLOGIES
10660 223    CALL SETUP(IA,I23,NMODE)
10670      GO TO 300
10680 C      ALL (UTILITY -CAPITAL)
10690 224    CONTINUE
10700      NMODE=IPTR2
10710      DO 115 I=1,NMODE
10720      IA(I)=I
10730 115    CONTINUE
10740      GO TO 300
10750 C      TRANSMISSION & DISTRIBUTION
10760 225    CALL SETUP(IA,I24,NMODE)
10770      GO TO 300
10780 C      ALL (NET OD T & D )
10790 226    CONTINUE
10800      DO 125 I=1,IPTR2
10810      IF(I.EQ.115.OR.I.EQ.116.OR.I.EQ.117.OR.I.EQ.118)GO TO 125
10820      IA(I)=I
10830 125    CONTINUE
10840      NMODE=IPTR2-4
10850 C
10860 300    CONTINUE
10870 C      NEXT SUBROUTINE IN MAINCOMP SEQUENCE IS CALLED TO PROCESS
10880 C      THE AGGREGATION OPTION SELECTED BY THE USER
10890      CALL ACTIME(IA,NMODE,IRG,NREG)
10900      RETURN
10910      END
10920 C*****
10930 C
10940 C SUBROUTINE NAME: SETUP
10950 C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
10960 C PROGRAMMER: JULIAN GAMMON III
10970 C DATE: 1/23/78
10980 C FUNCTION: SET UP POINTERS TO MODES (BUILD TYPES)
10990 C           TO BE PROCESSED BY THE MODEL
11000 C
11010 C*****
11020      SUBROUTINE SETUP(IA,INUM,NUM)
11030      DIMENSION IA(150),INUM(NUM)
11040      DO 100 I=1,NUM
11050      IA(I)=INUM(I)
11060 100    CONTINUE
11070      RETURN
11080      END

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11090 C*****
11100 C
11110 C SUBROUTINE NAME: RDPROF
11120 C PROGRAMMER: JULIAN GAMMON III/LMI
11130 C DATE: 1/25/79
11140 C FUNCTION: THIS SUBROUTINE READS THE CAPITAL EXPENDITURE PROFILE
11150 C             FILE INTO NAMED COMMON "PROF". LOGICAL SWITCH 5
11160 C             IS SET TO .TRUE. AFTER THE FILE HAS BEEN READ INTO
11170 C             TABLES
11180 C*****
11190 SUBROUTINE RDPROF
11200 COMMON/PROF/PRTYPE(2,150),YPACE(150),IPACE(20,150),IPTR4,JAV
11210 COMMON/FLSTAT/ IFSTAT(10)
11220 LOGICAL IFSTAT
11230 INTEGER YPACE,IPACE,IPTR4,JAV
11240 INTEGER*2 PRTYPE,0
11250 DATA 0/1H0/
11260 C HAS FILE ALREADY BEEN ACCESSED ?
11270 IF(IFSTAT(5))RETURN
11280 DEFINE FILE 13(150,80,E,JAV)
11290 IPTR4=0
11300 100 IPTR4=IPTR4+1
11310 READ(13,IPTR4,1001)
11320 1 PRTYPE(1,IPTR4),PRTYPE(2,IPTR4),YPACE(IPTR4),
11330 2 (IPACE(J,IPTR4),J=1,20)
11340 C CHECK FOR END OF PROFILE DATA
11350 IF(PRTYPE(1,IPTR4).EQ.0.AND.PRTYPE(2,IPTR4).EQ.0)GO TO 199
11360 IONE=0
11370 LIMIT=YPACE(IPTR4)
11380 DO 102 I=1,LIMIT
11390 102 IONE=IONE+IPACE(I,IPTR4)
11400 IF(IONE.EQ.1000)GO TO 100
11410 WRITE(6,1002) PRTYPE(1,IPTR4),PRTYPE(2,IPTR4),IONE
11420 1002 FORMAT(1X,2A1,1X,'PROFILE DOES NOT SUM TO 1',1X,'(',I6,')')
11430 GO TO 100
11440 199 IPTR4=IPTR4-1
11450 IFSTAT(5)=.TRUE.
11460 RETURN
11470 1001 FORMAT(2A1,I2,I4,19(I3),15X)
11480 END
11490 C*****
11500 C
11510 C SUBROUTINE NAME: RVPROF
11520 C PROGRAMMER: JULIAN GAMMON III/LMI
11530 C DATE: 1/25/79

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11540 C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL (CRE)
11550 C FUNCTION: THIS SUBROUTINE IS USED TO REVISE/DIPLAY THE
11560 C CAPITAL EXPENDITURE PROFILES IN THE CAPITAL
11570 C EXPENDITURE PROFILE FILE
11580 C*****
11590 SUBROUTINE RVPROF
11600 COMMON /PROF/PRTYPE(2,150),YPACE(150),IPACE(20,150),IPT,JAV
11610 INTEGER YPACE,IPACE,IPT,JAV
11620 INTEGER*2 PRTYPE
11630 INTEGER*2 IANS,R,E,D,IM1,IM2,Y,N
11640 REAL PACE(20)
11650 DATA R/1HR/,E/1HE/,D/1HD/
11660 DATA Y/1HY/,N/1HN/
11670 WRITE(6,1001)
11680 1001 FORMAT(/11X
11690 1,'*** REVISE/DISPLAY CAPITAL EXPENDITURE PROFILES ***')
11700 CALL RDPROF
11710 100 WRITE(6,1002)
11720 1002 FORMAT(/1X,'REVISE,DISPLAY OR END (R/D/E) ?')
11730 READ(5,1003)IANS
11740 1003 FORMAT(A1)
11750 IF(IANS.EQ.E)RETURN
11760 IF(IANS.EQ.D)GO TO 200
11770 IF(IANS.EQ.R)GO TO 300
11780 GO TO 100
11790 C DISPLAY CAPITAL EXPENDITURE PROFILES
11800 200 CONTINUE
11810 WRITE(6,1004)
11820 1004 FORMAT(/1X,
11830 1,'PLANT TYPE',1X,'LEAD TIME',18X,'PROFILE'/1X,
11840 2'-----',1X,'-----',18X,'-----')
11850 DO 201 I=1,IPT
11860 J=(I/25)*25
11870 IF(I.EQ.J)WRITE(6,1004)
11880 LIMIT=YPACE(I)
11890 DO 202 K=1,LIMIT
11900 PACE(K)=IPACE(K,I)*.001
11910 202 CONTINUE
11920 L1=LIMIT
11930 IF(LIMIT.GT.10)L1=10
11940 L2=L1+1
11950 WRITE(6,1005)
11960 1PRTYPE(1,I),PRTYPE(2,I),YPACE(I)
11970 2,(PACE(K),K=1,L1)
11980 IF(LIMIT.GT.10)WRITE(6,1006)
11990 1 (PACE(K),K=L2,LIMIT)
12000 201 CONTINUE
12010 1005 FORMAT(1X,4X,2A1,
12020 18X,12,3X,F5.3,9(1X,F4.3))

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12030 1006 FORMAT(20X,10(1X,F4.3))
12040 GO TO 100
12050 C REVERSE CAPITAL EXPENDITURE PROFILES
12060 300 CONTINUE
12070 WRITE(6,1007)
12080 1007 FORMAT(1X,'ENTER PLANT TYPE (I.E. MODE)')
12090 READ(5,1008)IM1,IM2
12100 1008 FORMAT(2A1)
12110 DO 301 I=1,IPT
12120 IF(IM1.EQ.PRTYPE(1,I).AND.IM2.EQ.PRTYPE(2,I))GO TO 303
12130 301 CONTINUE
12140 WRITE(6,1009)IM1,IM2
12150 1009 FORMAT(/1X,'NO RECORD FOR PLANT TYPE: ',2A1)
12160 302 WRITE(6,1010)IM1,IM2
12170 1010 FORMAT(1X,'DO YOU WANT TO ADD ',2A1,' TO THE FILE(Y/N) ?')
12180 READ(5,1003)IANS
12190 IF(IANS.EQ.Y)GO TO 400
12200 IF(IANS.EQ.N)GO TO 100
12210 GO TO 302
12220 C PRINT OUT THE RECORD TO REVISE
12230 303 CONTINUE
12240 WRITE(6,1011)PRTYPE(1,I),PRTYPE(2,I)
12250 1011 FORMAT(21X,'PLANT TYPE: ',2A1)
12260 WRITE(6,1012)YPACE(I)
12270 1012 FORMAT(14X,'CONSTRUCTION LEAD TIME: ',I2,1X,'YEARS')
12280 WRITE(6,1013)
12290 1013 FORMAT(14X,'YEAR',13X,'PROFILE ELEMENT'/
12300 114X,'-----',13X,'-----')
12310 LIMIT=YPACE(I)
12320 DO 304 J=1,LIMIT
12330 PACE(J)=IPACE(J,I)*.001
12340 WRITE(6,1014)J,PACE(J)
12350 1014 FORMAT(15X,I2,19X,F4.3)
12360 304 CONTINUE
12370 305 WRITE(6,1015)
12380 1015 FORMAT(/1X,'ENTER NEW CONSTRUCTION LEAD TIME')
12390 READ(5,*)LTIME
12400 IF(LTIME.LT.1.OR.LTIME.GT.20)GO TO 305
12410 YPACE(I)=LTIME
12420 306 WRITE(6,1016)
12430 1016 FORMAT(/1X,'ENTER NEW PROFILE AND RETURN')
12440 READ(5,*)(PACE(K),K=1,LTIME)
12450 CUM=0.0
12460 DO 307 J=1,LTIME
12470 CUM=CUM+PACE(J)
12480 307 CONTINUE
12490 IF(ABS(CUM-1.0).LT..001)GO TO 310
12500 WRITE(6,1017)CUM
12510 1017 FORMAT(1X,'PACE SUMS TO ',F7.3,
12520 1 ' MUST SUM TO 1.0')
12530 GO TO 306
12540 310 DO 311 J=1,LTIME
12550 IPACE(J,I)=PACE(J)*1000.0+.5
12560 311 CONTINUE

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12570      GO TO 500
12580 C      INCREMENT MAX POINTER TO ADD NEW RECORD
12590 400    I=I+1
12600      IPT=I
12610      PRTYPE(1,I)=IM1
12620      PRTYPE(2,I)=IM2
12630      GO TO 304
12640 C      WRITE UPDATED RECORD BACK OUT TO FCEP FILE
12650 500    WRITE(13'I,1018)
12660      1    PRTYPE(1,I),PRTYPE(2,I),YPACE(I),
12670      2    (IPACE(J,I),J=1,20)
12680 1018   FORMAT(2A1,I2,I4,19(I3),15X)
12690      GO TO 100
12700      END
12710 C*****
12720 C
12730 C SUBROUTINE NAME: ACTIME
12740 C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL
12750 C PROGRAMMER: JULIAN GAMMON III/LMI
12760 C DATE: 1/30/79
12770 C FUNCTION: SPREAD ACTIVITY LEVELS OVER TIME
12780 C
12790 C*****
12800      SUBROUTINE ACTIME(IA,NMODE,IRG,NREG)
12810      COMMON /CCR/ITRYR,IPBYR,IUBYR,RATE,IROPT,ITYPE,JOPT,R1,ISCEN
12820      COMMON /PMAST/ PTYPE(2,150),PTDES(8,150),UDCODE(150)
12830      1,IDCODE(150),IPTR2,IAV
12840      COMMON /PCKSLN/NAME(3,1500),ACTIVY(3,1500),MDPTR(1500),IP
12850      COMMON /PROF/PRTYPE(2,150),YPACE(150),IPACE(20,150)
12860      1,IPTR4,JAV
12870      COMMON /CDEFF/COBASE(150),CTYPE(2,150),ICDEF(10,150)
12880      1,CRATE(6,150),IPTR3,IFPTR
12890      COMMON /POUT/ CCWC(75),CDEXP(75),CIEXP(75),CEXP(75),CWIP(75)
12900      DOUBLE PRECISION CCWC,CDEXP,CIEXP,CEXP,CWIP
12910      DOUBLE PRECISION DCAPTL,DUMMY,SUM,ACAPTL
12920      DIMENSION IA(150)
12930      INTEGER*2 IRG(50,2),PTYPE,UDCODE,IDCODE,NAME,IANB,N
12940      INTEGER*2 REGION,MODE(2),Y,Z,O,A,PRTYPE,CTYPE,UR(10)
12950      INTEGER*2 T,V,F,M,ONE
12960      INTEGER PTDES,MDPTR,COBASE,CRATE,YPACE,IPACE
12970      REAL PACE(20),ALYEAR(75)
12980      LOGICAL ISET,BSET,CSET
12990      DATA Y/1HY/,N/1HN/,O/1HO/,Z/1HZ/,A/1HA/
13000      DATA UR/1H1,1H2,1H3,1H4,1H5,1H6,1H7,1H8,1H9,1HA/
13010      DATA T/1HT/,V/1HV/,F/1HF/,M/1HM/,ONE/1H1/
13020 C      INITIALIZE OUTPUT BUCKETS
13030      CALL RDCDEF
13040      CALL RDPFOP
13050      CALL RDBLIM
13060      CALL BLDKEY
13070 12      WRITE(6,1007)

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13080 1007 FORMAT(' USE AVAILABLE BUILD LIMITS ?')
13090 READ(5,1002) IANS
13100 IF(IANS.NE.Y.AND.IANS.NE.N)GO TO 12
13110 IF(IANS.EQ.Y)CSET=.TRUE.
13120 IF(IANS.EQ.N)CSET=.FALSE.
13130 NYEAR=95-IPBYR
13140 N1=(85-IPBYR)
13150 N2=(90-IPBYR)
13160 N3=(95-IPBYR)
13170 DO 10 I=1,75
13180 CCWC(I)=0.0
13190 COEXP(I)=0.0
13200 CIEXP(I)=0.0
13210 CWIP(I)=0.0
13220 CEXP(I)=0.0
13230 10 CONTINUE
13240 C OUTSIDE PROCESSING LOOP
13250 11 WRITE(6,1003)
13260 1003 FORMAT(' LIST PLANT TYPES/REGIONS IN PIES OPTION ? (Y/N)')
13270 READ(5,1002) IANS
13280 1002 FORMAT(A1)
13290 IF(IANS.EQ.N)GO TO 20
13300 IF(IANS.NE.Y)GO TO 11
13310 WRITE(6,1004)((IRG(I1,J1),J1=1,2),I1=1,NREG)
13320 1004 FORMAT(/1X,'REGIONS: ',10(2A1,2X)/)
13330 CALL TMATCH
13340 WRITE(6,1005)JOPT
13350 1005 FORMAT(/24X,'PLANT TYPES FOR OPTION ',I2,/
13360 C IDC/CAPITAL REPORT
13370 124X,25(' '))
13380 20 CONTINUE
13390 DO 100 J=1,NMODE
13400 IX=IA(J)
13410 C LOOK FOR COMMITTED(Y)/DEFERABLE(Z)/NEW(O) PROCESSING
13420 IF(ITYPE.EQ.0.OR.ITYPE.EQ.4)GO TO 201
13430 C COMMITTED
13440 IF(ITYPE.EQ.1.AND.PTYPE(2,IX).NE.Y)GO TO 100
13450 C DEFERABLE
13460 IF(ITYPE.EQ.2.AND.PTYPE(2,IX).NE.Z)GO TO 100
13470 C NEW
13480 IF(ITYPE.EQ.3.AND.PTYPE(2,IX).NE.O)GO TO 100
13490 201 CONTINUE
13500 C LOOK UP PROFILE
13510 DO 206 IPF=1,IPTR4
13520 IF(PTYPE(1,IX).EQ.PRTYPE(1,IPF).AND.
13530 1PTYPE(2,IX).EQ.PRTYPE(2,IPF))GO TO 207
13540 206 CONTINUE
13550 C NO PROFILE FOUND
13560 GO TO 100
13570 207 LTIME=YPACE(IPF)
13580 INX=LTIME
13590 DO 208 JJ=1,LTIME
13600 PACE(JJ)=IPACE(JJ,IPF)*.001

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13610 208 CONTINUE
13620 C LOOK UP CAPITAL COEFFICIENT
13630 DO 209 ICF=1,IPTR3
13640 IF(PTYPE(1,IX).EQ.CTYPE(1,ICF).AND.PTYPE(2,IX)
13650 1.EQ.CTYPE(2,ICF))GO TO 210
13660 209 CONTINUE
13670 C NO COEFFICIENT FOUND
13680 GO TO 100
13690 210 CONTINUE
13700 AN6=IPBYR-COBASE(ICF)
13710 AN6=AN6+.50
13720 FACTOR=(1.+RATE)**(IUBYR-COBASE(ICF))
13730 C PROCESS MODES BY NUMBER OF REGIONS FOR THAT MODE
13740 IF(IANS.EQ.Y)WRITE(6,1006)
13750 1IX,(PTDES(L,IX),L=1,8),PTYPE(1,IX),PTYPE(2,IX)
13760 1006 FORMAT(14X,I3,2X,8A4,2X,2A1)
13770 MODE(1)=PTYPE(1,IX)
13780 MODE(2)=PTYPE(2,IX)
13790 ISET=.FALSE.
13800 BSET=.FALSE.
13810 IF(IDCODE(J).EQ.ONE)BSET=.TRUE.
13820 C CHECK FOR T & D
13830 IF((MODE(1).EQ.T).AND.(MODE(2).EQ.V.OR.MODE(2).EQ.F
13840 1.OR.MODE(2).EQ.N.OR.MODE(2).EQ.M))ISET=.TRUE.
13850 DO 200 I=1,NREG
13860 C GET CORRECT COEFFICIENT FOR THE REGION
13870 DO 205 JJ=1,10
13880 IF(UR(JJ).EQ.IRG(I,2))GO TO 215
13890 205 CONTINUE
13900 215 CONTINUE
13910 REGION=IRG(I,2)
13920 IF(ISET)CALL TRANDT(FACTOR,REGION,JJ,MODE,N1,N2,N3)
13930 IF(ISET)GO TO 200
13940 CALL LOOKUP(REGION,MODE,K,IFLAG)
13950 IF(IFLAG.NE.0)GO TO 200
13960 C LOOKUP RECORD IN SOLUTION TABLE
13970 C DONT BOTHER PROCESSING MODES WITH ZERO ACTIVITY LEVELS
13980 IF(ACTIVY(1,K).EQ.0.0.AND.ACTIVY(2,K).EQ.0.0
13990 1.AND.ACTIVY(3,K).EQ.0.0)GO TO 200
14000 C MONOTONICALLY INCREASING ACTIVITY LEVELS FOR 1985,1990,1995
14010 C ARE REQUIRED
14020 C 1985 > 1990 ?
14030 IF(ACTIVY(1,K).GT.ACTIVY(2,K))ACTIVY(2,K)=ACTIVY(1,K)
14040 C 1990 > 1995 ?
14050 IF(ACTIVY(2,K).GT.ACTIVY(3,K))ACTIVY(3,K)=ACTIVY(2,K)
14060 C CALCULATE INCREMENTAL ACTIVITY LEVELS
14070 C ** 1980 = 1985 **
14080 ACT1=ACTIVY(1,K)
14090 C ** 1985=1990 **
14100 ACT2=ACTIVY(2,K)-ACTIVY(1,K)
14110 C ** 1990=1995 **
14120 ACT3=ACTIVY(3,K)-ACTIVY(2,K)
14130 C SPREAD ACTIVITY LEVELS EVENLY INTO A QUARTERLY ACTIVITY

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14140 C      BUFFER
14150      FRACT1=ACT1/N1
14160      FRACT2=ACT2/(N2=N1)
14170      FRACT3=ACT3/(N3=N2)
14180      DO 204 II=1,N3
14190      IF (II.LE.N1) ALYEAR(II)=FRACT1
14200      IF (II.GT.N1.AND.II.LE.N2) ALYEAR(II)=FRACT2
14210      IF (II.GT.N2) ALYEAR(II)=FRACT3
14220 204    CONTINUE
14230      IF (BSET.OR.CSET) CALL CMBLIM
14240      .(ALYEAR,MODE,REGION,N1,N2,N3,ACT1,ACT2,ACT3)
14250      CCOEF=ICDEF(JJ,ICF)
14260      S=CRATE(4,ICF)
14270      S=S*.0001
14280      RIDC2=CRATE(6,ICF)*.001
14290      E4=CRATE(5,ICF)*.001
14300      CCOEF=CCOEF*(1.0-RIDC2)*(1.0-E4)
14310 C      SPREAD ACTIVITY LEVELS BY PACE AND MULTIPLY BY
14320 C      THE CAPITAL COEFFICIENT
14330      DO 211 II=1,NYEAR
14340      IYEAR=IPBYR+1900+II-1
14350      R21=CRATE(1,ICF)*.001
14352      R22=CRATE(2,ICF)*.001
14353      R23=CRATE(3,ICF)*.001
14360      RINTA1=1.0+R1+R21*(1.0+R1)
14362      RINTA2=1.0+R1+R22*(1.0+R1)
14364      RINTA3=1.0+R1+R23*(1.0+R1)
14390      RINTB=1.0+R1
14400      CCWC(II)=CCWC(II)+ALYEAR(II)
14410      LIMIT=II
14420      IF (INX.LT.II) LIMIT=INX
14430      IF (II.EQ.1) GO TO 217
14440      IN=II-1
14450      IN1=II-LIMIT+1
14460      IF (II.GT.LIMIT) IN1=II-LIMIT
14470      DO 216 IM=IN1,IN
14480      CWIP(IM)=CWIP(IM)+ALYEAR(II)
14490 216    CONTINUE
14500 217    CONTINUE
14510      DO 213 KK=1,LIMIT
14520      LL=II-KK+1
14530      LNX=INX-KK+1
14540      LLL=1900+IPBYR+LL-1
14542      IF (LLL.GE.1985) GO TO 242
14544      AM11=AN6+(II-KK)+1.0
14546      DCAPTL=CCOEF*((RINTA1/RINTB)**AM11)*FACTOR
14548      GO TO 246
14550 242    IF (LLL.GE.1990) GO TO 244
14552      AM11=AN6+(84-IPBYR)+1.0
14554      AM12=II-KK-(84-IPBYR)
14556      DCAPTL=CCOEF*((RINTA1/RINTB)**AM11)*((RINTA2/RINTB)**AM12)
14557      *FACTOR
14558      GO TO 246
14560 244    AM11=AN6+(84-IPBYR)+1.0

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14562      AM12=5.0
14564      AM13=II-KK*(89-IPBYR)
14566      DCAPTL=CCOEF*((RINTA1/RINTB)**AM11)*((RINTA2/RINTB)**AM12)
14567      *((RINTA3/RINTB)**AM13)*FACTOR
14568 246    CONTINUE
14569      CDEXP(LL)=CDEXP(LL)+((ALYEAR(II)*(PACE(LNX))*DCAPTL))
14570      AM2=AN6+(II-INX)+1.
14590      M3=INX-KK+1
14600      SUM=0.0
14610      DO 214 M4=1,M3
14612      AM5=AM2+M4
14614      M6=IPBYR+II-INX+M4
14616      IF(M6.GE.COBASE(ICF))GO TO 252
14618      SUM=SUM+PACE(M4)
14620      GO TO 214
14622 252    IF(M6.GE.85)GO TO 254
14624      SUM=SUM+(PACE(M4))*(RINTA1**AM5)
14626      GO TO 214
14628 254    IF(M6.GE.90)GO TO 256
14630      AM51=84.0-COBASE(ICF)
14632      SUM=SUM+((PACE(M4))*(RINTA1**AM51)*(RINTA2**((AM5-AM51))))
14634      GO TO 214
14636 256    AM51=84.0-COBASE(ICF)
14638      AM52=5.0
14640      SUM=SUM+((PACE(M4))*(RINTA1**AM51)*(RINTA2**AM52)
14641      *((RINTA3**((AM5-AM51-AM52))))
14642 214    CONTINUE
14644      ACAPTL=(S*CCOEF*SUM*FACTOR)/((RINTB)**(AM2+M3))
14650      CIEXP(LL)=CIEXP(LL)+(ALYEAR(II)*ACAPTL)
14660      CEXP(LL)=CDEXP(LL)+CIEXP(LL)
14670 213    CONTINUE
14680 211    CONTINUE
14690 200    CONTINUE
14700 100    CONTINUE
14710      CALL PRINT(IA,NMODE,IRG,NREG)
14720      RETURN
14730      END
14740      C*****
14750      C
14760      C SUBROUTINE NAME: PRINT
14770      C DATE: 2/5/79
14780      C PROGRAMMER: JULIAN GAMMON III/LMI
14790      C FUNCTION: PRINT REPORTS
14800      C
14810      C*****
14820      SUBROUTINE PRINT(IA,NMODE,IRG,NREG)
14830      COMMON /CCR/ITRYR,IPBYR,IUBYR,RATE,IROPT,ITYPE,JOPT,R1,ISCEN
14840      COMMON /PMAST/PTYPE(2,150),PTDES(8,150),UDCODE(150)
14850      1,IDCODE(150),IPTR2,IAV
14860      COMMON /PCKSLN/NAME(3,1500),ACTIVY(3,1500),MDPTR(1500)
14870      1,IP
14880      COMMON /POUT/CCWC(75),CDEXP(75),CIEXP(75),CEXP(75),CWIP(75)

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14890      DOUBLE PRECISION CCWC,CDEXP,CIEXP,CEXP,CWIP
14900      DOUBLE PRECISION A1,A2,A3,A4,AOUT1,AOUT2
14910      DIMENSION IA(150),IRG(50,2)
14920      INTEGER PTDES
14930      DOUBLE PRECISION A1,A2,A3,A4,AOUT1,AOUT2,TA,TB
14940      INTEGER*2 PTYPE,UDCODE,IDCODE,IRG,Y,N
14950      INTEGER*2 NAME,IAN5
14960      DATA Y/1HY/,N/1HN/
14970      NYR=1900+ITRYR
14980      NUMYR=ITRYR-IPBYR+1
14990      IF(IROPT.EQ.1.OR.IROPT.EQ.3)WRITE(6,1001)NYR
15000 1001  FORMAT(/
15010      1/17X,'***CREMOD CAPITAL REQUIREMENTS REPORT ***',
15020      2/8X,'TOTAL PIES CAPITAL REQUIREMENTS THROUGH ',I4,1X,
15030      3'SUMMED OVER',/
15040      420X,'INDICATED PLANT TYPES AND REGIONS'//)
15050      IF(IROPT.EQ.2)WRITE(6,1010)NYR
15060      IF(IROPT.EQ.2)GO TO 300
15070      WRITE(6,1008)
15080 1008  FORMAT(/16X,'CUMULATIVE',24X,'CUMULATIVE'/
15090      19X,'CWIP',2X,'CW COMPLETED',2X,'CAPITAL EXPENDED',
15100      22X,'CAPITAL EXPENDED'/
15110      31X,'YEAR',5X,'(GW)',6X,'(GW)',10X,'($ MIL.)',
15120      410X,'($ MIL.)'/
15130      51X,'----',5X,'----',2X,'-----',2X,
15140      6'-----',2X,'-----')
15150      A2=0.0
15160      A4=0.0
15170      DO 201 I=1,NUMYR
15180      A1=CWIP(I)
15190      A1=A1*.001
15200      A2=A2+CCWC(I)
15210      AOUT1=A2*.001
15220      A3=CEXP(I)
15230      A3=A3*.001
15240      A4=A4+CEXP(I)
15250      AOUT2=A4*.001
15260      IYEAR=1900+IPBYR+I-1
15270      WRITE(6,1009)IYEAR,A1,AOUT1,A3,AOUT2
15280 201  CONTINUE
15290 1009  FORMAT(1X,I4,1X,F8.2,4X,F8.2,6X,F11.2,8X,F11.2)
15300      IF(IROPT.NE.3)RETURN
15310  C
15320  C      OUTPUT FORMAT # 2 IDC/CAPITAL
15330  C
15340 300  CONTINUE
15350      WRITE(6,1010)NYR
15360 1010  FORMAT(/
15370      2/8X,'TOTAL PIES CAPITAL REQUIREMENTS THROUGH ',I4,1X,
15380      3'SUMMED OVER',/
15390      420X,'INDICATED PLANT TYPES AND REGIONS'///)

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15400      WRITE(6,1011)
15410 1011  FORMAT(/16X,'ANNUAL CAPITAL',18X,'CUMULATIVE CAPITAL',/
15420      112X,'EXPENDITURE. ($ MIL.)',14X,'EXPENDITURES ($ MIL.)',/
15430      21X,'YEAR',4X,'DIRECT',4X,'INTEREST',4X,'TOTAL',
15440      37X,'DIRECT',4X,'INTEREST',4X,'TOTAL',/
15450      41X,'----',4X,'-----',4X,'-----',4X,'-----',
15460      57X,'-----',4X,'-----',4X,'-----')
15470 1012  FORMAT(1X,I4,6(1X,F10.2))
15480      A3=0.0
15490      A4=0.0
15500      DO 301 I=1,NUMYR
15510      A1=CDEXP(I)
15520      A3=A3+A1
15530      AOUT1=A3*.001
15540      A1=A1*.001
15550      A2=CIEXP(I)
15560      A4=A4+A2
15570      AOUT2=A4*.001
15580      A2=A2*.001
15590      TA=A1+A2
15600      TB=AOUT1+AOUT2
15610      IYEAR=1900+IPBYR+I-1
15620      WRITE(6,1012) IYEAR,A1,A2,TA,AOUT1,AOUT2,TB
15630 301   CONTINUE
15640      RETURN
15650      END
15660 C*****
15670 C
15680 C SUBROUTINE NAME: BLDKEY
15690 C PROGRAMMER: JULIAN GAMMON III / LOGISTICS MGMT. INSTITUTE
15700 C FUNCTION: SORT THE PIES SOLUTION FILES BY REGIONS. THERE ARE
15710 C ARE CURRENTLY 10 DOE REGIONS. CREMOD ONLY HAS TO SEARCH ONE
15720 C OF TEN EQUIVALENCE CLASSES IN A LOOKUP.
15730 C*****
15740      SUBROUTINE BLDKEY
15750      COMMON /FLSTAT/ IFSTAT(10)
15760      COMMON /PCKSLN/ NAME(3,1500),ACTIVY(3,1500),MDPTR(1500),IP
15770      COMMON/SRTKEY/IPNT(15,2),JLIST(1500),ICHAR(16),KNUM
15780      LOGICAL IFSTAT
15790      INTEGER*2 NAME,ITEMP,ICHAR
15800      IF(IFSTAT(6))RETURN
15810      DO 100 I=1,IP
15820      JLIST(I)=I
15830 100   CONTINUE
15840      N=IP
15850      DO 101 I=1,IP
15860      N=N-1
15870      DO 102 J=1,N
15880      K1=JLIST(J)
15890      K2=JLIST(J+1)
15900      IF(NAME(1,K1).LE.NAME(1,K2))GO TO 102

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15910      JLIST(J+1)=K1
15920      JLIST(J)=K2
15930  102  CONTINUE
15940  101  CONTINUE
15950      IFROM=1
15960      KNUM=1
15970      ITEMP=NAME(1,JLIST(1))
15980      DO 200 I=1,IP
15990          IF(NAME(1,JLIST(I)).EQ.ITEMP)GO TO 201
16000      IPNT(KNUM,1)=IFROM
16010      IPNT(KNUM,2)=I-1
16020      ICHAR(KNUM)=ITEMP
16030      IFROM=I
16040      KNUM=KNUM+1
16050  201  ITEMP=NAME(1,JLIST(I))
16060  200  CONTINUE
16070      IPNT(KNUM,1)=IFROM
16080      IPNT(KNUM,2)=IP
16090      ICHAR(KNUM)=ITEMP
16100      IFSTAT(6)=.TRUE.
16110      RETURN
16120      END
16130  C*****
16140  C
16150  C SUBROUTINE NAME: LOOKUP
16160  C DATE: 2/14/79
16170  C PROGRAMMER: JULIAN GAMMON III/LMI
16180  C FUNCTION: LOCATE RECORD IN SOLUTION FILE FOR REGION/MODE
16190  C
16200  C*****
16210      SUBROUTINE LOOKUP(JCHAR,MODE,K,IFLAG)
16220      COMMON /PCKSLN/NAME(3,1500),ACTIVY(3,1500),MDPTR(1500),IP
16230      COMMON /SRTKEY/ IPNT(15,2),JLIST(1500),ICHAR(16),KNUM
16240      INTEGER*2 NAME,ITEMP,ICHAR,JCHAR,MODE(2)
16250      IFLAG=0
16260      DO 100 I=1,KNUM
16270          IF(JCHAR.EQ.ICHAR(I))GO TO 101
16280  100  CONTINUE
16290      IFLAG=99
16300      RETURN
16310  101  L1=IPNT(I,1)
16320      L2=IPNT(I,2)
16330      DO 200 I=L1,L2
16340          K=JLIST(I)
16350          IF(NAME(2,K).EQ.MODE(1).AND.NAME(3,K).EQ.MODE(2))RETURN
16360  200  CONTINUE
16370      IFLAG=99
16380      RETURN
16390      END
16400  C*****
16410  C
16420  C SUBROUTINE NAME: TRANDT

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16430 C FUNCTION: COMPUTE TRANSMISSION AND DISTRIBUTION
16440 C DATE: MARCH 20, 1979
16450 C PROGRAMMER: JULIAN GAMMON III
16460 C
16470 C*****
16480 SUBROUTINE TRANDT(FACTOR,REGION,IR,MODE,N1,N2,N3)
16490 COMMON /POUT/ CCWC(75),CDEXP(75),CIEXP(75),CEXP(75),CWIP(75)
16500 COMMON /CCR/ITRYR,IPBYR,IUBYR,RATE,IROPT,ITYPE,JOPT,R1,ISCEN
16510 COMMON /PCKSLN/NAME(3,1500),ACTIVY(3,1500),MDPTR(1500),IP
16520 DIMENSION TR(75),DCF(3)
16530 DIMENSION FIX85(10),FIX90(10),FIX95(10),VAR85(10)
16540 DIMENSION VAR90(10),VAR95(10)
16550 DIMENSION MC85(10),MC90(10),MC95(10)
16560 DIMENSION DN85(10),DN90(10),DN95(10)
16570 DOUBLE PRECISION CCWC,CDEXP,CIEXP,CEXP,CWIP,TR
16580 REAL MC85,MC90,MC95
16590 INTEGER*2 NAME,REGION,AMODE(2),V,F,N,M,MODE(2)
16600 DATA V/1HV/,F/1HF/,N/1HN/,M/1HM/
16610 DATA MC85/125.4,248.6,242.0,374.0,451.0,233.2,114.4,66.0,
16620 1270.6,74.8/
16630 DATA MC90/318.6,631.6,618.0,970.8,1151.4,602.4,290.4,
16640 1169.5,701.8,195.6/
16650 DATA MC95/610.9,1200.6,1181.8,1884.3,2195.4,1171.4,
16660 1551.4,326.1,1364.7,383.5/
16670 DATA DN85/1951.7,4232.0,4089.9,5524.9,4766.0,
16680 13396.8,1295.3,784.1,2325.6,639.0/
16690 DATA DN90/3444.9,7336.4,7133.8,9719.8,8284.6,
16700 15926.2,2244.8,1373.8,3986.7,1095.4/
16710 DATA DN95/4911.7,10499.2,10266.1,13969.2,11701.5,
16720 18337.3,3155.4,1955.2,5329.5,1472.2/
16730 DATA FIX85/129.0,227.0,157.0,15.0,968.0,363.0,485.0,525.0,
16740 11636.0,635.0/
16750 DATA FIX90/222.0,389.0,269.0,25.0,1659.0,622.0,832.0,900.0,
16760 12805.0,1089.0/
16770 DATA FIX95/314.0,552.0,381.0,36.0,2350.0,881.0,1178.0,
16780 11274.0,3973.0,1542.0/
16790 DATA VAR85/59.,63.,68.,74.,68.,77.,74.,67.,67.,67.0/
16800 DATA VAR90/59.,63.,68.,74.,68.,77.,74.,67.,67.,67.0/
16810 DATA VAR95/59.,63.,68.,74.,68.,77.,74.,67.,67.,67.0/
16820 DATA DCF/.064,.066,.069/
16830 DATA AMODE/1HE,1HN/
16840 IF(MODE(2).EQ.V)GO TO 100
16850 IF(MODE(2).EQ.F)GO TO 200
16860 IF(MODE(2).EQ.N)GO TO 300
16870 IF(MODE(2).EQ.M)GO TO 400
16880 C VARIABLE COMPONENT
16890 100 CONTINUE
16900 IFLAG=0
16910 CALL LOOKUP(REGION,AMODE,K,IFLAG)
16920 IF(IFLAG.NE.0)RETURN
16930 EN1=((ACTIVY(1,K) )/(85.0-IPBYR)
16940 EN2=((ACTIVY(2,K)-ACTIVY(1,K)) )/5.0
16950 EN3=((ACTIVY(3,K)-ACTIVY(2,K)) )/5.0
16960 EN1=EN1/1000.0

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16970      EN2=EN2/1000.0
16980      EN3=EN3/1000.0
16990      DO 101 I=1,N3
17000        IF(I.LE.N1.AND.I.NE.1)
17010        .TR(I-1)=TR(I-1)+((VAR85(IR)*EN1)*.25)
17020        IF(I.LE.N1)TR(I)=TR(I)+
17030        .((VAR85(IR)*EN1)*.75)
17040        IF(I.GT.N1.AND.I.LE.N2)TR(I-1)=TR(I-1)+
17050        .((VAR90(IR)*EN2)*.25)
17060        IF(I.GT.N1.AND.I.LE.N2)TR(I)=TR(I)+
17070        .((VAR90(IR)*EN2)*.75)
17080        IF(I.GT.N2)TR(I-1)=TR(I-1)+
17090        .((VAR95(IR)*EN3)*.25)
17100        IF(I.GT.N2)TR(I)=TR(I)+
17110        .((VAR95(IR)*EN3)*.75)
17120  101    CONTINUE
17130        GO TO 500
17140  C      FIXED COMPONENT
17150  200    CONTINUE
17160        DO 201 I=1,N3
17170        IF(I.LE.N1.AND.I.NE.1)TR(I-1)=TR(I-1)+
17180        .((FIX85(IR)/(85.0-IPBYR))* .25)
17190        IF(I.LE.N1)TR(I)=TR(I)+
17200        .((FIX85(IR)/(85.0-IPBYR))* .75)
17210        IF(I.GT.N1.AND.I.LE.N2)TR(I)=TR(I)+
17220        .(((FIX90(IR)-FIX85(IR))/5.0)*.75)
17230        IF(I.GT.N1.AND.I.LE.N2)TR(I-1)=TR(I-1)+
17240        .(((FIX90(IR)-FIX85(IR))/5.0)*.25)
17250        IF(I.GT.N2)TR(I-1)=TR(I-1)+
17260        .(((FIX95(IR)-FIX90(IR))/5.0)*.25)
17270        IF(I.GT.N2)TR(I)=TR(I)+
17280        .(((FIX95(IR)-FIX90(IR))/5.0)*.75)
17290  201    CONTINUE
17300        GO TO 500
17310  C      NEW DISTRIBUTION
17320  300    CONTINUE
17330        DO 301 I=1,N3
17340        IF(I.LE.N1.AND.I.NE.1)TR(I-1)=TR(I-1)+
17350        .((DN85(IR)/(85.0-IPBYR))* .25)
17360        IF(I.LE.N1)TR(I)=TR(I)+
17370        .((DN85(IR)/(85.0-IPBYR))* .75)
17380        IF(I.GT.N1.AND.I.LE.N2)TR(I-1)=TR(I-1)+
17390        .(((DN90(IR)-DN85(IR))/5.0)*.25)
17400        IF(I.GT.N1.AND.I.LE.N2)TR(I)=TR(I)+
17410        .(((DN90(IR)-DN85(IR))/5.0)*.75)
17420        IF(I.GT.N2)TR(I-1)=TR(I-1)+
17430        .(((DN95(IR)-DN90(IR))/5.0)*.25)
17440        IF(I.GT.N2)TR(I)=TR(I)+
17450        .(((DN95(IR)-DN90(IR))/5.0)*.75)
17460  301    CONTINUE
17470        GO TO 500
17480  C      METERING COSTS

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17490 400 CONTINUE
17500 DO 401 I=1,N3
17510 IF(I.LE.N1)TR(I)=MC85(IR)/(85.0-IPBYR)
17520 IF(I.GT.N1.AND.I.LE.N2)TR(I)=(MC90(IR)-MC85(IR))/5.0
17530 IF(I.GT.N2)TR(I)=(MC95(IR)-MC90(IR))/5.0
17540 401 CONTINUE
17550 C T&D SUBROUTINE WRAPUP
17560 500 CONTINUE
17570 DO 501 I=1,N3
17580 TR(I)=TR(I)*FACTOR
17590 CDEXP(I)=(TR(I)*1000.0)+CDEXP(I)
17600 CEXP(I)=(TR(I)*1000.0)+CEXP(I)
17610 TR(I)=0.0
17620 501 CONTINUE
17630 RETURN
17640 END
17650 C*****
17660 C
17670 C SUBROUTINE NAME: RDBLIM
17680 C DATE: MARCH 21, 1979
17690 C PROGRAMMER: JULIAN GAMMON III
17700 C FUNCTION: READ BUILD LIMITS INTO TABLE
17710 C FORMAT OF FILE:
17720 C 1. PLANT TYPE (FIRST CHARACTER)
17730 C 2. PLANT TYPE (SECOND CHARACTER)
17740 C 3. YEAR OF BUILD LIMIT (YY)
17750 C 4. UP TO 10 REGION/MWE GROUPS FOR THAT PLANT TYPE
17760 C
17770 C*****
17780 SUBROUTINE RDBLIM
17790 COMMON /CCR/ITRYR,IPBYR,IUBYR,RATE,IROPT,ITYPE,JOPT,R1,ISCEN
17800 COMMON /FLSTAT/ IFSTAT(10)
17810 COMMON /BUILD/ BKEY(3,750),BLIM(20,750),BPOINT
17820 INTEGER*2 BKEY,M1,M2,U(10),R(10),BLANK
17830 LOGICAL IFSTAT
17840 INTEGER BPOINT,BLIM,IA(10)
17850 DATA BLANK /1H /
17860 IF(IFSTAT(9))RETURN
17870 IF(IFSTAT(7))GO TO 105
17880 106 WRITE(6,1004)
17890 1004 FORMAT(1X,'ENTER PIES BASE YEAR (YY)')
17900 READ(5,1003)IPBYR
17910 1003 FORMAT(I2)
17920 IF(IPBYR.LT.75.OR.IPBYR.GT.85)GO TO 106
17930 IFSTAT(7)=.TRUE.
17940 105 CONTINUE
17950 BPOINT=1
17960 100 CONTINUE
17970 READ(14,10,END=999)
17980 M1,M2,IYEAR,((U(I),R(I),IA(I)),I=1,10)
17990 IF(IYEAR.LT.IPBYR)GO TO 100
18000 KYEAR=IYEAR-IPBYR+1
18010 DO 101 J=1,10
18020 IF(R(J).EQ.BLANK)GO TO 100

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18030      DO 102 I=1,BPOINT
18040      IF(BKEY(1,I).EQ.M1.AND.BKEY(2,I).EQ.M2.AND.BKEY(3,I)
18050      .EQ.R(J))GO TO 103
18060 102   CONTINUE
18070 C     ADD PLANT TYPE/REGION COMBINATION TO THE PUSH DOWN LIST
18080      BKEY(1,I)=M1
18090      BKEY(2,I)=M2
18100      BKEY(3,I)=R(J)
18110 C     UPDATE THE POINTER TO THE NEXT FREE SPACE IN THE STACK
18120      BPOINT=BPOINT+1
18130 103   BLIM(KYEAR,I)=IA(J)
18140 101   CONTINUE
18150      GO TO 100
18160 999   BPOINT=BPOINT-1
18170      IFSTAT(9)=.TRUE.
18180      RETURN
18190 10     FORMAT(A1,A1,I2,I0(2A1,I4))
18200      END
18210 C*****
18220 C
18230 C SUBROUTINE NAME: DYBLIM
18240 C DATE: MARCH 23, 1979
18250 C PROGRAMMER: JULIAN GAMMON III
18260 C FUNCTION: DISPLAY/REVISE BUILD LIMITS
18270 C
18280 C*****
18290      SUBROUTINE DYBLIM
18300      COMMON /BUILD/ BKEY(3,750),BLIM(20,750),BPOINT
18310      COMMON /CCR/ITRYR,IPBYR,IUBYR,RATE,IROPT,ITYPE,JOPT,R1,ISCEN
18320      INTEGER BPOINT,ULINE,BLIM,BLIM,OUT(20,10)
18330      INTEGER T85(10),T90(10),T95(10)
18340      INTEGER*2 BKEY,M1,M2,IAN,S,E,D,R,U(10),CLASS(3),STACK(75)
18350      INTEGER*2 ONE,BLANK,TWO
18360      DATA E/1HE/,D/1HD/,U/1H1,1H2,1H3,1H4,1H5,1H6,1H7,1H8,1H9,1HA/
18370      DATA CLASS/1HY,1HZ,1HO/,ULINE/4H---/
18380      DATA BLANK/1H /,ONE/1H1/,TWO/1H2/
18390      WRITE(6,1001)
18400 1001.  FORMAT(23X,'*** BUILD LIMIT MODULE ***')
18410      CALL RDBLIM
18420 100   WRITE(6,1002)
18430 1002  FORMAT(/1X,'DISPLAY FORMAT (1),(2), OR END (E) ?')
18440      READ(5,1010)IAN
18450 1010  FORMAT(A1)
18460      IF(IAN.EQ.E)RETURN
18470      IF(IAN.EQ.ONE)GO TO 200
18480      IF(IAN.EQ.TWO)GO TO 300
18490      GO TO 100
18500 C     DISPLAY BUILD LIMIT FILE
18510 200   CONTINUE
18520      WRITE(6,1003)
18530 1003  FORMAT(/1X,'ENTER PLANT TYPE')
18540      READ(5,1004)M1,M2

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18550 1004 FORMAT(2A1)
18560 C PUT BUILD LIMITS FOR MODE IN OUTPUT MATRIX
18570 DO 201 J=1,10
18580 DO 202 I=1,8POINT
18590 IF(BKEY(1,I).EQ.M1.AND.BKEY(2,I).EQ.M2.AND.BKEY(3,I)
18600 .EQ.U(J))GO TO 203
18610 202 CONTINUE
18620 GO TO 201
18630 203 CONTINUE
18640 DO 204 K=1,20
18650 OUT(K,J)=BLIM(K,I)
18660 204 CONTINUE
18670 201 CONTINUE
18680 C WRITE HEADER
18690 WRITE(6,1005)M1,M2
18700 1005 FORMAT(/25X,'BUILD LIMIT DATA (MWE)'/
18710 .29X,'PLANT TYPE: ',2A1)
18720 WRITE(6,1006)
18730 1006 FORMAT(1X,'YEAR',6X,'U1',4X,'U2',4X,'U3',4X,'U4',
18740 .4X,'U5',4X,'U6',4X,'U7',4X,'U8',4X,'U9',4X,'UA'/
18750 .1X,'---',5X,10('---',2X))
18760 1007 FORMAT(1X,I4,5X,10(I4,2X))
18770 DO 205 I=1,20
18780 ITOT=OUT(I,1)+OUT(I,2)+OUT(I,3)+OUT(I,4)+OUT(I,5)
18790 .+OUT(I,6)+OUT(I,7)+OUT(I,8)+OUT(I,9)+OUT(I,10)
18800 IF(ITOT.EQ.0)GO TO 205
18810 KYEAR=1900+IPBYR+I-1
18820 WRITE(6,1007)KYEAR,(OUT(I,J),J=1,10)
18830 IF(KYEAR.GE.1985)GO TO 206
18840 T85(1)=T85(1)+OUT(I,1)
18850 T85(2)=T85(2)+OUT(I,2)
18860 T85(3)=T85(3)+OUT(I,3)
18870 T85(4)=T85(4)+OUT(I,4)
18880 T85(5)=T85(5)+OUT(I,5)
18890 T85(6)=T85(6)+OUT(I,6)
18900 T85(7)=T85(7)+OUT(I,7)
18910 T85(8)=T85(8)+OUT(I,8)
18920 T85(9)=T85(9)+OUT(I,9)
18930 T85(10)=T85(10)+OUT(I,10)
18940 206 IF(KYEAR.GE.1990)GO TO 207
18950 T90(1)=T90(1)+OUT(I,1)
18960 T90(2)=T90(2)+OUT(I,2)
18970 T90(3)=T90(3)+OUT(I,3)
18980 T90(4)=T90(4)+OUT(I,4)
18990 T90(5)=T90(5)+OUT(I,5)
19000 T90(6)=T90(6)+OUT(I,6)
19010 T90(7)=T90(7)+OUT(I,7)
19020 T90(8)=T90(8)+OUT(I,8)
19030 T90(9)=T90(9)+OUT(I,9)
19040 T90(10)=T90(10)+OUT(I,10)
19050 207 IF(KYEAR.GE.1995)GO TO 208

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19060      T95(1)=T95(1)+OUT(I,1)
19070      T95(2)=T95(2)+OUT(I,2)
19080      T95(3)=T95(3)+OUT(I,3)
19090      T95(4)=T95(4)+OUT(I,4)
19100      T95(5)=T95(5)+OUT(I,5)
19110      T95(6)=T95(6)+OUT(I,6)
19120      T95(7)=T95(7)+OUT(I,7)
19130      T95(8)=T95(8)+OUT(I,8)
19140      T95(9)=T95(9)+OUT(I,9)
19150      T95(10)=T95(10)+OUT(I,10)
19160  208   CONTINUE
19170      OUT(I,1)=0
19180      OUT(I,2)=0
19190      OUT(I,3)=0
19200      OUT(I,4)=0
19210      OUT(I,5)=0
19220      OUT(I,6)=0
19230      OUT(I,7)=0
19240      OUT(I,8)=0
19250      OUT(I,9)=0
19260      OUT(I,10)=0
19270  205   CONTINUE
19280      IY=84
19290      WRITE(6,1008)IY,(T85(I),I=1,10)
19300      IY=89
19310      WRITE(6,1008)IY,(T90(I),I=1,10)
19320      IY=94
19330      WRITE(6,1008)IY,(T95(I),I=1,10)
19340  1008   FORMAT(1X,'THRU ',I2,' ',10(I5,1X))
19350      DO 209 I=1,10
19360      T85(I)=0
19370      T90(I)=0
19380      T95(I)=0
19390  209   CONTINUE
19400      GO TO 100
19410  300   CONTINUE
19420      WRITE(6,1009)
19430  1009   FORMAT(1X,'COM(1),DEF(2) OR NEW(3) ?')
19440      READ(5,1011)IX
19450  1011   FORMAT(I1)
19460      IF(IX.LT.1.OR.IX.GT.3)GO TO 300
19470  301   WRITE(6,1012)
19480  1012   FORMAT(1X,'TARGET YEAR (85,90,95) ?')
19490      READ(5,1013)ITAR
19500  1013   FORMAT(I2)
19510      IF(ITAR.NE.85.AND.ITAR.NE.90.AND.ITAR.NE.95)GO TO 301
19520  C      BUILD PUSH DOWN LIST FOR PLANTS TO BE OUTPUT
19530      KPOINT=1
19540  C      PAGING (# COLUMNS PER PAGE)
19550      IPAGE=9
19560      DO 302 IN=1,BPOINT

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19570      IF(BKEY(2,IN).NE.CLASS(IX))GO TO 302
19580      DO 303 KN=1,KPOINT
19590      IF(BKEY(1,IN).EQ.STACK(KN))GO TO 304
19600 303    CONTINUE
19610      STACK(KN)=BKEY(1,IN)
19620      KPOINT=KPOINT+1
19630 304    CONTINUE
19640 302    CONTINUE
19650      KPOINT=KPOINT+1
19660      IYEAR=ITAR=IPBYR
19670      IF(KPOINT.EQ.0)GO TO 100
19680      KLOOP=((KPOINT-1)/IPAGE)+1
19690      WRITE(6,1018)
19700 1018   FORMAT(/5X,'BUILD LIMIT SUMMARY (MWE)'/5X,25('='))
19710      DO 305 I=1,KLOOP
19720      K1=((I-1)*IPAGE)+1
19730      K2=(K1+IPAGE)-1
19740      IF(K2.GT.KPOINT)K2=KPOINT
19750      WRITE(6,1016)((STACK(J),CLASS(IX)),J=K1,K2)
19760 1016   FORMAT(/10X,9(2A1,5X))
19770      WRITE(6,1015)((ULINE),J=K1,K2)
19780 1015   FORMAT(9X,9(A4,3X))
19790      LIM=(K2-K1)+1
19800      DO 306 J=1,LIM
19810      JX=K1+J-1
19820      DO 307 JJ=1,BPOINT
19830      IF(STACK(JX).EQ.BKEY(1,JJ))GO TO 308
19840      GO TO 307
19850 308    CONTINUE
19860      IF(BKEY(2,JJ).NE.CLASS(IX))GO TO 307
19870      DO 309 IR=1,10
19880      IF(BKEY(3,JJ).EQ.U(IR))GO TO 310
19890 309    CONTINUE
19900 310    CONTINUE
19910      DO 311 IY=1,IYEAR
19920      OUT(IR,J)=OUT(IR,J)+BLIM(IY,JJ)
19930 311    CONTINUE
19940 307    CONTINUE
19950 306    CONTINUE
19960      DO 312 IROW=1,10
19970      WRITE(6,1014)U(IROW),(OUT(IROW,ICOL),ICOL=1,LIM)
19980      DO 313 ICOL=1,LIM
19990      OUT(11,ICOL)=OUT(11,ICOL)+OUT(IROW,ICOL)
20000      OUT(IROW,ICOL)=0
20010 313    CONTINUE
20020 312    CONTINUE
20030      WRITE(6,1017)(OUT(11,ICOL),ICOL=1,LIM)
20040 1017   FORMAT(1X,'TOTAL',1X,9(I6,1X))
20050 1014   FORMAT(1X,'U',A1,4X,9(I6,1X))
20060      DO 315 IZ=1,LIM
20070 315    OUT(11,IZ)=0
20080 305    CONTINUE
20090      DO 314 I=1,KPOINT

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20100      STACK(I)=BLANK
20110 314   CONTINUE
20120      GO TO 100
20130      END

20140 C*****
20150 C
20160 C SUBROUTINE: CMBLIM
20170 C PROGRAMMER: JULIAN GAMMON III /LMI
20180 C DATE: MARCH 26, 1979
20190 C FUNCTION: CMBLIM PLACES BUILD LIMITS FOR A GIVEN PLANT TYPE
20200 C             REGION INTO A YEARLY MWE ACTIVITY BUFFER (ALYEAR).
20210 C             THIS DATA IS THEN USED BY THE SUBROUTINE ACTIME
20220 C             AND SPREAD BACKWARDS IN TIME ACCORDING TO THE
20230 C             PROFILE FOR THAT PLANT TYPE. THUS DATA FROM THE
20240 C             BUILD LIMIT FILE IS SUBSTITUTED FOR DATA FROM
20250 C             THE PIES SOLUTION FILES FOR PROCESSING BY THE
20260 C             CREMOD SUBROUTINE ACTIME. THE DATA IN THE BUILD
20270 C             LIMIT FILES IS BELIEVED TO REFLECT MORE ACCURATELY
20280 C             THE TIMING OF PLANTS COMING ON STREAM.
20290 C
20300 C*****
20310      SUBROUTINE CMBLIM
20320      .(ALYEAR,MODE,REGION,N1,N2,N3,ACT1,ACT2,ACT3)
20330      COMMON /BUILD/BKEY(3,750),BLIM(20,750),BPOINT
20340      COMMON /CCR/ITRYR,IPBYR,IUBYR,RATE,IROPT,ITYPE,JOPT,R1,ISCEN
20350      INTEGER BLIM,BPOINT
20360      INTEGER*2 BKEY,Z,0,REGION,MODE(2)
20370      DATA Z/1HZ/,0/1HO/
20380      REAL ALYEAR(75),DIST(75)
20390      DO 101 JLOC=1,BPOINT
20400      IF(BKEY(1,JLOC).EQ.MODE(1).AND.BKEY(2,JLOC).EQ.MODE(2).AND.
20410      1BKEY(3,JLOC).EQ.REGION)GO TO 102
20420 101   CONTINUE
20430 C     NO BUILD LIMIT DATA IN FILE FOR THIS PLANT TYPE/REGION
20440      RETURN
20450 102   CONTINUE
20460      AL1=ACT1
20470      AL2=ACT2
20480      AL3=ACT3
20490      IF(MODE(2).EQ.Z.OR.MODE(2).EQ.0)GO TO 104
20500      DO 103 J=1,N3
20510      ALYEAR(J)=BLIM(J,JLOC)
20520 103   CONTINUE
20530      RETURN
20540 C     DEFERABLE PLANTS
20550 104   CONTINUE
20560      ATOT=0.0
20570      DO 105 I=1,N1
20580      DIST(I)=BLIM(I,JLOC)
20590      ATOT=ATOT+DIST(I)
20600 105   CONTINUE
20610      BL1=ATOT
20620      IF(ATOT.LE.ACT1)GO TO 107
20630      DO 106 I=1,N1
20640      DIST(I)=ACT1*(DIST(I)/ATOT)

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20650 106 CONTINUE
20660 107 ATOT=0.0
20670 NA=N1+1
20680 DO 108 I=NA,N2
20690 DIST(I)=BLIM(I,JLOC)
20700 ATOT=ATOT+DIST(I)
20710 108 CONTINUE
20720 BL2=ATOT
20730 IF(ATOT.LE.ACT2)GO TO 110
20740 DO 109 I=NA,N2
20750 DIST(I)=ACT2*(DIST(I)/ATOT)
20760 109 CONTINUE
20770 110 ATOT=0.0
20780 NA=N2+1
20790 DO 111 I=NA,N3
20800 DIST(I)=BLIM(I,JLOC)
20810 ATOT=ATOT+DIST(I)
20820 111 CONTINUE
20830 BL3=ATOT
20840 IF(ATOT.LE.ACT3)GO TO 113
20850 DO 112 I=NA,N3
20860 DIST(I)=ACT3*(DIST(I)/ATOT)
20870 112 CONTINUE
20880 113 CONTINUE
20890 C SPREAD BACK INTO YEARLY A.L. BUFFER
20900 DO 114 I=1,N3
20910 ALYEAR(I)=DIST(I)
20920 IF(I.LE.N1)AL1=AL1-DIST(I)
20930 IF(I.LE.N1)BL1=BL1-DIST(I)
20940 IF(I.GT.N1.AND.I.LE.N2)AL2=AL2-DIST(I)
20950 IF(I.GT.N1.AND.I.LE.N2)BL2=BL2-DIST(I)
20960 IF(I.GT.N2)BL3=BL3-DIST(I)
20970 IF(I.GT.N2)AL3=AL3-DIST(I)
20980 114 CONTINUE
20990 IF(BL1.GT.AL2)BL1=AL2
21000 BF=BL1/(N2-N1)
21010 NA=N1+1
21020 DO 115 I=NA,N2
21030 ALYEAR(I)=ALYEAR(I)+BF
21040 115 CONTINUE
21050 IF(BL2.GT.AL3)BL2=AL3
21060 BF=BL2/(N3-N2)
21070 NA=N2+1
21080 DO 116 I=NA,N3
21090 ALYEAR(I)=ALYEAR(I)+BF
21100 116 CONTINUE
21110 500 RETURN
21120 END

```

LISTING FOR DIRECT.CLIST

LIST DIRECT.CLIST

DIRECT.CLIST

00010 WRITE PROGRAM TO SET UP DIRECT ACCESS FILES FOR CREMOD

00020 WRITENR INPUT FILE NAME ?

00030 READ &BUMP

00040 ALLOC F(FT08F001) DA('CN6121.6J3.&BUMP..PS')

00050 ATTRIB A DSORG(DA) BLKSIZE(12000) LRECL(80) RECFM(F)

00060 DELETE &BUMP..DATA

00070 ALLOC F(FT09F001) DA(&BUMP..DATA) SPACE(150,10) BLOCK(80) USING(A)

00080 ALLOC F(FT06F001) DA(◆)

00090 FORT DIRECT.FORT

00100 LOADGO DIRECT FORTLIB

00110 FREEALL

READY

LISTING FOR DIRECT.FORT

LIST DIRECT.FORT

DIRECT.FORT

```
00010 C *****
00020 C PROGRAM NAME: DIRECT
00030 C SYSTEM: CAPITAL REQUIREMENTS ESTIMATING MODEL (CREMOD)
00040 C PROGRAMMER: JULIAN GAMMON III / LOGISTICS MANAGEMENT INST.
00050 C FUNCTION: THIS PROGRAM READS A CHARACTER FORMAT
00060 C FILE WITH FILENAME
00070 C EXTENSION .PS AND WRITES A DIRECT ACCESS VERSION WITH
00080 C FILENAME EXTENSION .DATA. THE DIRECT ACCESS VERSION OF THE
00090 C FILE IS THE ONE THAT IS ACTUALLY READ BY CREMOD.
00100 C APPLICABLE TO:
00110 C 1. PLANT TYPE MASTER FILE (FMAST*.PS)
00120 C 2. CAPITAL EXPENDITURE PROFILE FILE (FCEP*.PS)
00130 C 3. CAPITAL COEFFICIENT FILE (FCOEF*.PS)
00140 C
00150 C *****JJ*J*****
**J
00160 DIMENSION A(72)
00170 C PROCESSES UP TO 150 RECORDS
00180 DEFINE FILE 9(150,80,E,N8)
00190 DO 101 I=1,150
00200 NN=I
00210 READ(8,1000,END=999) A
00220 101 WRITE (9,I,1000) A
00230 1000 FORMAT(72A1,8X)
00240 999 WRITE(6,1002) I
00250 1002 FORMAT(/1X, ' *** END OF DIRECT PROGRAM ***',1X, 'RECORDS=',I4
,/)
00260 CALL EXIT
00270 END
READY
```

CREMOD SYSTEM CATALOG LISTING

LISTCAT
IN CATALOG:SYSCTLG.VFER046
CN6121.GJ3.BUILDS.DATA
CN6121.GJ3.CREMOD.CLIST
CN6121.GJ3.CREMOD.FORT
CN6121.GJ3.CREMOD.LOAD
CN6121.GJ3.CREMOD.OBJ
CN6121.GJ3.DIRECT.CLIST
CN6121.GJ3.DIRECT.FORT
CN6121.GJ3.DIRECT.OBJ
CN6121.GJ3.FBLDH.DATA
CN6121.GJ3.FBLDL.DATA
CN6121.GJ3.FBLDM.DATA
CN6121.GJ3.FBLDM.PS
CN6121.GJ3.FCEPH.DATA
CN6121.GJ3.FCEPH.PS
CN6121.GJ3.FCEPL.DATA
CN6121.GJ3.FCEPL.PS
CN6121.GJ3.FCEPM.DATA
CN6121.GJ3.FCEPM.PS
CN6121.GJ3.FCOEFH.DATA
CN6121.GJ3.FCOEFH.PS
CN6121.GJ3.FCOEFL.DATA
CN6121.GJ3.FCOEFL.PS
CN6121.GJ3.FCOEFM.DATA
CN6121.GJ3.FCOEFM.PS
CN6121.GJ3.FCOLD.PS
CN6121.GJ3.FMAST.PS
CN6121.GJ3.FMASTH.DATA
CN6121.GJ3.FMASTH.PS
CN6121.GJ3.FMASTL.DATA
CN6121.GJ3.FMASTL.PS
CN6121.GJ3.FMASTM.DATA
CN6121.GJ3.FMASTM.PS
CN6121.GJ3.LINKER.CLIST
CN6121.GJ3.SN85H5
CN6121.GJ3.SN85L5
CN6121.GJ3.SN85M5
CN6121.GJ3.SN90H5
CN6121.GJ3.SN90L5
CN6121.GJ3.SN90M5
CN6121.GJ3.SN95H5
CN6121.GJ3.SN95L5
CN6121.GJ3.SN95M5
READY

COMPILATION AND LINKAGE EXAMPLE FOR CREMOD

```

LIST LINKER.CLIST
  LINKER.CLIST
00010 PROC 1 NAME
00020 FREEALL
00030 DELETE &NAME..LOAD
00040 ALLOC F(SYSLIB) SHR DA('SYS1.FORTLIB', 'SYS2.SYSLIB')
00050 ALLOC DA(4) F(SYSPRINT)
00060 ALLOC F(SYSLMOD) DA(&NAME..LOAD(&NAME.)) NEW SPACE(200,50) BLOCK(1
024) DIR(20)
00070 ALLOC F(SYSLIN) DA(&NAME..OBJ)
00080 CALL 'SYS1.LINKLIB(IEWL)' 'NOLIST'
00090 FREE F(SYSPRINT, SYSLMOD, SYSLIN)
00100 FREE F(SYSLIB)
00110 END
READY

```

EORT
 ENTER INPUT DATA SET NAME -
CREMOD
 G1 COMPILER ENTERED
 SOURCE ANALYZED
 PROGRAM NAME = MAIN
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = RDSOLN
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = DYSOLN
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = RDMAST
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = TMATCH
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = PARSE
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = RVMAST
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = RDCDEF
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = RVCDEF
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = GTINFO
 ♦ NO DIAGNOSTICS GENERATED

SOURCE ANALYZED
 PROGRAM NAME = SETUP
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = RDPROF
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = RVPROF
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = ACTIME
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = PRINT
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = BLDKEY
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = LOOKUP
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = TRANDT
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = RDBLIM
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = DYBLIM
 ♦ NO DIAGNOSTICS GENERATED
 SOURCE ANALYZED
 PROGRAM NAME = CMBLIM
 ♦ NO DIAGNOSTICS GENERATED
 ♦STATISTICS♦ NO DIAGNOSTICS THIS STEP
 READY

EXEC LINKER

ENTER POSITIONAL PARAMETER NAME -

CREMOD

ENTRY (A) CN6121.GJ3.CREMOD.LOAD DELETED

F64-LEVEL LINKAGE EDITOR OPTIONS SPECIFIED NOLIST

DEFAULT OPTION(3) USED - SIZE=(196608,65536)

♦♦♦♦CREMOD DOES NOT EXIST BUT HAS BEEN ADDED TO DATA SET
AUTHORIZATION CODE IS 0.

READY

APPENDIX B. LISTINGS OF INPUT DATA FILES
COMPILED FOR ESTIMATING
1978 AAR CAPITAL REQUIREMENTS
(SCENARIOS B, C, D)

PLANT TYPE MASTER FILES (FMAST*)
(SCENARIOS B, C, D IDENTICAL)

Scenarios B, C, D

PIES CODE	PIES DESCRIPTOR	UNIT DATA CODE	IDC CODE
1Y	OIL FIRED STEAM	0	0
2Y	BIT/HI SUL/SCR	0	0
3Y	BIT/MED SUL/SCR	0	0
4Y	BIT/LOW SUL/SCR	0	0
5Y	GAS FIRED TURBINE	0	0
6Y	DISTILLATE TURBINE	0	0
AY	COMBINED CYCLE GAS	0	0
7Y	COMBINED CYCLE DIST	0	0
8Y	GAS FIRED STEAM	0	0
JY	BIT/HIGH SUL/N SCR	0	0
QY	BIT/MED SUL/N SCR	0	0
XY	BIT/LOW SUL/N SCR	0	0
PY	SUB-BIT/MED SUL/SCR	0	0
EY	SUB-BIT/LOW SUL/SCR	0	0
MY	SUB-BIT/MED SUL/N SCR	0	0
OY	SUB-BIT/LOW SUL/N SCR	0	0
VY	LIG/MED SUL/SCR	0	0
ZY	LIG/LOW SUL/SCR	0	0
TY	LIG/MED SUL/N SCR	0	0
YY	LIG/LOW SUL/N SCR	0	0
9Y	HYDRO PONDAGE	0	0
KY	HYDRO PUMP STORAGE	0	0
NY	NUCLEAR	0	0
1Z	OIL FIRED STEAM	0	0

PIES CODE	PIES DESCRIPTOR	UNIT DATA CODE	IDC CODE
2Z	BIT/HI SUL/SCR	0	0
3Z	BIT/MED SUL/SCR	0	0
4Z	BIT/LOW SUL/SCR	0	0
5Z	GAS FIRED TURBINE	0	0
6Z	DISTILLATE TURBINE	0	0
AZ	COMBINED CYCLE/GAS	0	0
7Z	COMBINED CYCLE/DIST	0	0
8Z	GAS FIRED STEAM	0	0
JZ	BIT/HIGH SUL/N SCR	0	0
QZ	BIT/MED SUL/N SCR	0	0
XZ	BIT/LOW SUL/N SCR	0	0
PZ	SUB-BIT/MED SUL/SCR	0	0
EZ	SUB-BIT/LOW SUL/SCR	0	0
MZ	SUB-BIT/MED SUL/N SCR	0	0
OZ	SUB-BIT/LOW SUL/N SCR	0	0
VZ	LIG/MED SUL/SCR	0	0
ZZ	LIG/LOW SUL/SCR	0	0
TZ	LIG/MED SUL/N SCR	0	0
YZ	LIG/LOW SUL/N SCR	0	0
9Z	HYDRO PONDAGE	0	0
KZ	HYDRO PUMP STORAGE	0	0
NZ	NUCLEAR	0	0
10	OIL FIRED STEAM	0	0
20	BIT/HI SUL/SCR	0	0
30	BIT/MED SUL/SCR	0	0

Scenarios B, C, D

PIES CODE	PIES DESCRIPTOR	UNIT DATA CODE	IDC CODE
40	BIT/LOW SUL/SCR	0	0
50	GAS FIRED TURBINE	0	0
60	DISTILLATE TURBINE	0	0
A0	COMBINED CYCLE/GAS	0	0
70	COMBINED CYCLE/DIST	0	0
80	GAS FIRED STEAM	0	0
J0	BIT/HIGH SUL/N SCR	0	0
Q0	BIT/MED SUL/N SCR	0	0
X0	BIT/LOW SUL/N SCR	0	0
P0	SUB-BIT/MED SUL/SCR	0	0
E0	SUB-BIT/LOW SUL/SCR	0	0
M0	SUB-BIT/MED SUL/N SCR	0	0
O0	SUB-BIT/LOW SUL/N SCR	0	0
V0	LIG/MED SUL/SCR	0	0
Z0	LIG/LOW SUL/SCR	0	0
T0	LIG/MED SUL/N SCR	0	0
Y0	LIG/LOW SUL/N SCR	0	0
90	HYDRO PONDAGE	0	0
K0	HYDRO PUMP STORAGE	0	0
N0	NUCLEAR	0	0
CF	CONVERT OIL TO BIT/HI SUL/N SCR	0	0
CG	CONVERT OIL TO BIT/MD SUL/N SCR	0	0
CH	CONVERT OIL TO BIT/LO SUL/N SCR	0	0
CI	CONVERT OIL TO BIT/HI SUL/SCR	0	0
CJ	CONVERT OIL TO BIT/MED SUL/SCR	0	0

PIES CODE	PIES DESCRIPTOR	UNIT DATA CODE	IDC CODE
CK	CONVERT OIL TO BIT/LO SUL/SCR	0	0
CL	CONVERT GAS TO BIT/HI SUL/N SCR	0	0
CM	CONVERT GAS TO BIT/MD SUL/N SCR	0	0
DN	CONVERT GAS TO BIT/MD SUL/N SCR	0	0
CO	CONVERT GAS TO BIT/HI SUL/SCR	0	0
CP	CONVERT GAS TO BIT/HI SUL/SCR	0	0
CQ	CONVERT GAS TO BIT/LO SUL/SCR	0	0
DF	CHANGE N/BIT/LO S TO HI S/W SCR	0	0
DG	CHANGE N BIT/LO S TO MD S/W SCR	0	0
DH	CHANGE N BIT/MD S TO HI S/W SCR	0	0
DI	CHANGE N SUB-B/L S TO M S/W SCR	0	0
DJ	CHANGE N LIG/LO S TO MD S/W SCR	0	0
CV	CONVERT BIT/LO S TO HI S/W SCR	0	0
CW	CONVERT BIT/LO S TO MED S/W SCR	0	0
CX	CONVERT BIT/MED S TO HI S/W SCR	0	0
CY	CONVERT SUB-B/LO S TO M S/W SCR	0	0
CZ	CONVERT LIG/LO S TO MED S/W SCR	0	0
CR	CONVERT OIL TO GAS STEAM	0	0
CS	CONVERT NEW OIL TO GAS STEAM	0	0
CT	CONVERT GAS TO OIL STEAM	0	0
CU	CONVERT DISTILLATE TO GAS TURB.	0	0
DK	CONVERT GAS TO DISTILLATE TURB.	0	0
DL	CONVERT N DIST TO GAS COMB CYCL	0	0
DM	CONVERT E DIST TO GAS COMB CYCL	0	0
GE	WIND (BUILD)	0	0

Scenarios B, C, D

PIES CODE	PIES DESCRIPTOR	UNIT DATA CODE	IDC CODE
GK	PHOTOVOLTAICS (BUILD)	0	0
GG	SOLAR THERMAL (BUILD)	0	0
GP	BIDMASS-ELECTRIC (BUILD)	0	0
GN	OCEAN THERMAL (BUILD)	0	0
G1	HYDROTHERMAL I (BUILD)	0	0
G2	HYDROTHERMAL II (BUILD)	0	0
G3	HYDROTHERMAL III (BUILD)	0	0
LE	BUILD CENTRAL ELECTRIC: AFB	0	0
LC	BUILD LOW-MED BTU GAS COMB CYCL	0	0
TD	TRANSMIT ELEC NEW	0	0
L9	BUILD MED BTU COAL GAS COM TEC	0	0
LA	BUILD MED BTU COAL GAS ADV TEC	0	0
L6	BUILD METHANOL TO GAS	0	0
LV	BUILD METHANOL TO DISTILLATE	0	0
MH	RDF UTILITY SOLID WASTE BUILD	0	0
TV	TRANSMISSION (VARIABLE)	0	0
TF	TRANSMISSION (FIXED)	0	0
TN	NEW DISTRIBUTION	0	0
TM	METERING COSTS	0	0

CAPITAL COEFFICIENT FILES (FCOEF*)
SCENARIOS B, C, D)

Scenario B

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 1Y	455	500	455	415	455	405	445	425	455	415
75 2Y	685	755	685	625	685	610	670	0	0	625
75 3Y	650	715	650	590	650	580	635	600	645	590
75 4Y	690	760	690	630	690	615	675	640	690	630
75 5Y	175	175	175	175	175	175	175	175	175	175
75 6Y	175	175	175	175	175	175	175	175	175	175
75 7Y	320	350	320	290	320	285	315	300	320	290
75 7Y	320	350	320	290	320	285	315	300	320	290
75 8Y	335	370	335	305	335	300	330	310	335	305
75 JY	530	585	530	480	530	470	520	545	585	480
75 QY	530	585	530	480	530	470	520	545	585	480
75 XY	530	585	530	480	530	470	520	545	585	480
75 PY	675	740	675	615	675	600	660	620	670	615
75 EY	720	790	720	655	720	640	705	670	720	655
75 MY	555	610	555	505	555	495	545	570	610	505
75 OY	555	610	555	505	555	495	545	570	610	505
75 VY	695	765	695	630	695	620	680	645	690	630
75 ZY	745	820	745	680	745	665	730	695	745	680
75 TY	585	645	585	530	585	520	575	585	635	530
75 YY	585	645	585	530	585	520	575	585	635	530
75 9Y	765	765	704	717	765	765	765	719	704	316
75 KY	230	230	230	230	230	230	230	230	230	230
75 NY	720	795	765	525	620	550	835	1075	745	795
75 1Z	455	500	455	415	455	405	445	425	455	415

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 2Z	685	755	685	625	685	610	670	0	0	625
75 3Z	650	715	650	590	650	580	635	600	645	590
75 4Z	690	760	690	630	690	615	675	640	690	630
75 5Z	175	175	175	175	175	175	175	175	175	175
75 6Z	175	175	175	175	175	175	175	175	175	175
75 7Z	320	350	320	290	320	285	315	300	320	290
75 7Z	320	350	320	290	320	285	315	300	320	290
75 8Z	335	370	335	305	335	300	330	310	335	305
75 JZ	530	585	530	480	530	470	520	545	585	480
75 QZ	530	585	530	480	530	470	520	545	585	480
75 XZ	530	585	530	480	530	470	520	545	585	480
75 PZ	675	740	675	615	675	600	660	620	670	615
75 EZ	720	790	720	655	720	640	705	670	720	655
75 MZ	555	610	555	505	555	495	545	570	610	505
75 OZ	555	610	555	505	555	495	545	570	610	505
75 VZ	695	765	695	630	695	620	680	645	690	630
75 ZZ	745	820	745	680	745	665	730	695	745	680
75 TZ	585	645	585	530	585	520	575	585	635	530
75 YZ	585	645	585	530	585	520	575	585	635	530
75 9Z	765	765	704	717	765	765	765	719	704	316
75 KZ	230	230	230	230	230	230	230	230	230	230
75 NZ	820	0	680	730	955	575	1000	0	775	820
75 10	455	500	455	415	455	405	445	425	455	415
75 20	710	780	710	645	710	630	695	0	0	645
75 30	695	765	695	630	695	620	680	645	695	630

Scenario B

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 40	690	760	690	630	690	615	675	640	690	630
75 50	175	175	175	175	175	175	175	175	175	175
75 60	175	175	175	175	175	175	175	175	175	175
75 A0	320	350	320	290	320	285	315	300	320	290
75 70	320	350	320	290	320	285	315	300	320	290
75 80	335	370	335	305	335	300	330	310	335	305
75 J0	530	585	530	480	530	470	520	545	585	480
75 Q0	530	585	530	480	530	470	520	545	585	480
75 X0	530	585	530	480	530	470	520	545	585	480
75 P0	730	805	730	665	730	650	715	680	730	665
75 E0	720	779	720	655	720	640	705	670	720	655
75 M0	555	610	555	505	555	495	545	570	610	505
75 00	555	610	555	505	555	495	545	570	610	505
75 V0	755	830	755	685	755	670	740	700	755	685
75 Z0	745	820	745	680	745	665	730	695	745	680
75 T0	585	645	585	530	585	520	575	585	635	530
75 Y0	585	645	585	530	585	520	575	585	635	530
75 90	765	765	704	717	765	765	765	719	704	316
75 K0	230	230	230	230	230	230	230	230	230	230
75 N0	990	1055	0	800	935	860	0	0	855	1050
75 CF	150	150	150	150	150	150	150	150	150	150
75 CG	150	150	150	150	150	150	150	150	150	150
75 CH	150	150	150	150	150	150	150	150	150	150
75 CI	150	150	150	150	150	150	150	150	150	150
75 CJ	150	150	150	150	150	150	150	150	150	150

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 CK	150	150	150	150	150	150	150	150	150	150
75 CL	150	150	150	150	150	150	150	150	150	150
75 CM	150	150	150	150	150	150	150	150	150	150
75 DN	150	150	150	150	150	150	150	150	150	150
75 CO	150	150	150	150	150	150	150	150	150	150
75 CP	150	150	150	150	150	150	150	150	150	150
75 CQ	150	150	150	150	150	150	150	150	150	150
75 DF	113	113	113	113	113	113	113	113	113	113
75 DG	108	108	108	108	108	108	108	108	108	108
75 DH	113	113	113	113	113	113	113	113	113	113
75 DI	108	108	108	108	108	108	108	108	108	108
75 DJ	108	108	108	108	108	108	108	108	108	108
75 CV	113	113	113	113	113	113	113	113	113	113
75 CW	91	91	91	91	91	91	91	91	91	91
75 CX	63	63	63	63	63	63	63	63	63	63
75 CY	91	91	91	91	91	91	91	91	91	91
75 CZ	91	91	91	91	91	91	91	91	91	91
75 CR	0	0	0	0	0	0	0	0	0	0
75 CS	0	0	0	0	0	0	0	0	0	0
75 CT	0	0	0	0	0	0	0	0	0	0
75 CU	0	0	0	0	0	0	0	0	0	0
75 DK	0	0	0	0	0	0	0	0	0	0
75 DL	0	0	0	0	0	0	0	0	0	0
75 DM	0	0	0	0	0	0	0	0	0	0
75 GE	1086	1086	1086	1086	1086	1086	1086	1086	1086	1086

Scenario B

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 GK	3087	3087	3087	3087	3087	3087	3087	3087	3087	3087
75 GG	1504	1504	1504	1504	1504	1504	1504	1504	1504	1504
75 GP	836	1003	836	762	836	742	821	776	836	762
75 GN	5009	5009	5009	5009	5009	5009	5009	5009	5009	5009
75 G1	0	0	0	0	0	423	0	434	524	682
75 G2	0	0	0	0	0	479	0	637	529	631
75 G3	0	0	0	0	0	575	0	637	639	657
75 LE	755	830	755	685	755	670	740	700	755	685
75 LC	760	835	760	690	760	675	745	705	760	690
75 TD	0	0	0	0	0	0	0	0	0	0
75 L9	0	0	0	0	0	0	0	0	0	0
75 LA	0	0	0	0	0	0	0	0	0	0
75 LG	0	0	0	0	0	0	0	0	0	0
75 LV	0	0	0	0	0	0	0	0	0	0
75 TV	0	0	0	0	0	0	0	0	0	0
75 TF	0	0	0	0	0	0	0	0	0	0
75 TN	0	0	0	0	0	0	0	0	0	0
75 TM	0	0	0	0	0	0	0	0	0	0

Scenario B

PIES CODE	(-84/YR) E1	ESCALATION RATES			INT. DUR. RATE/YR IDC # 1	CONST. % TOTAL IDC # 2
		(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4		
1Y	0.020	0.0	0.0	0.178	0.0807	0.321
2Y	0.020	0.0	0.0	0.178	0.0807	0.323
3Y	0.020	0.0	0.0	0.178	0.0807	0.323
4Y	0.020	0.0	0.0	0.178	0.0807	0.323
5Y	0.020	0.0	0.0	0.178	0.0807	0.092
6Y	0.020	0.0	0.0	0.178	0.0807	0.092
AY	0.020	0.0	0.0	0.178	0.0807	0.217
7Y	0.020	0.0	0.0	0.178	0.0807	0.254
8Y	0.020	0.0	0.0	0.178	0.0807	0.321
JY	0.020	0.0	0.0	0.178	0.0807	0.321
QY	0.020	0.0	0.0	0.178	0.0807	0.321
XY	0.020	0.0	0.0	0.178	0.0807	0.321
PY	0.020	0.0	0.0	0.178	0.0807	0.323
EY	0.020	0.0	0.0	0.178	0.0807	0.323
MY	0.020	0.0	0.0	0.178	0.0807	0.321
OY	0.020	0.0	0.0	0.178	0.0807	0.321
VY	0.020	0.0	0.0	0.178	0.0807	0.323
ZY	0.020	0.0	0.0	0.178	0.0807	0.323
TY	0.020	0.0	0.0	0.178	0.0807	0.321
YY	0.020	0.0	0.0	0.178	0.0807	0.321
9Y	0.020	0.0	0.0	0.178	0.0807	0.231
KY	0.020	0.0	0.0	0.178	0.0807	0.231
NY	0.0	0.0	0.0	0.0	0.0807	0.366
1Z	0.020	0.0	0.0	0.178	0.0807	0.321

PIES CODE	(-84/YR) E1	ESCALATION RATES			INT. DUR. RATE/YR IDC # 1	CONST. % TOTAL IDC # 2
		(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4		
2Z	0.020	0.0	0.0	0.178	0.0807	0.323
3Z	0.020	0.0	0.0	0.178	0.0807	0.323
4Z	0.020	0.0	0.0	0.178	0.0807	0.323
5Z	0.020	0.0	0.0	0.178	0.0807	0.092
6Z	0.020	0.0	0.0	0.178	0.0807	0.092
AZ	0.020	0.0	0.0	0.178	0.0807	0.217
7Z	0.020	0.0	0.0	0.178	0.0807	0.254
8Z	0.020	0.0	0.0	0.178	0.0807	0.321
JZ	0.020	0.0	0.0	0.178	0.0807	0.321
OZ	0.020	0.0	0.0	0.178	0.0807	0.321
XZ	0.020	0.0	0.0	0.178	0.0807	0.321
PZ	0.020	0.0	0.0	0.178	0.0807	0.323
EZ	0.020	0.0	0.0	0.178	0.0807	0.323
MZ	0.020	0.0	0.0	0.178	0.0807	0.321
DZ	0.020	0.0	0.0	0.178	0.0807	0.321
VZ	0.020	0.0	0.0	0.178	0.0807	0.323
ZZ	0.020	0.0	0.0	0.178	0.0807	0.323
TZ	0.020	0.0	0.0	0.178	0.0807	0.321
YZ	0.020	0.0	0.0	0.178	0.0807	0.321
9Z	0.020	0.0	0.0	0.178	0.0807	0.231
KZ	0.020	0.0	0.0	0.178	0.0807	0.231
NZ	0.020	0.0	0.0	0.178	0.0807	0.366
10	0.020	0.0	0.0	0.178	0.0807	0.321
20	0.020	0.0	0.0	0.178	0.0807	0.323
30	0.020	0.0	0.0	0.178	0.0807	0.323

Scenario B

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
40	0.020	0.0	0.0	0.178	0.0807	0.323
50	0.020	0.0	0.0	0.178	0.0807	0.092
60	0.020	0.0	0.0	0.178	0.0807	0.092
A0	0.020	0.0	0.0	0.178	0.0807	0.217
70	0.020	0.0	0.0	0.178	0.0807	0.254
80	0.020	0.0	0.0	0.178	0.0807	0.321
J0	0.020	0.0	0.0	0.178	0.0807	0.321
Q0	0.020	0.0	0.0	0.178	0.0807	0.321
X0	0.020	0.0	0.0	0.178	0.0807	0.321
P0	0.020	0.0	0.0	0.178	0.0807	0.323
E0	0.020	0.0	0.0	0.178	0.0807	0.323
M0	0.020	0.0	0.0	0.178	0.0807	0.321
Q0	0.020	0.0	0.0	0.178	0.0807	0.321
V0	0.020	0.0	0.0	0.178	0.0807	0.323
Z0	0.020	0.0	0.0	0.178	0.0807	0.323
T0	0.020	0.0	0.0	0.178	0.0807	0.321
Y0	0.020	0.0	0.0	0.178	0.0807	0.321
90	0.020	0.0	0.0	0.178	0.0807	0.231
K0	0.020	0.0	0.0	0.178	0.0807	0.231
N0	0.020	0.0	0.0	0.178	0.0807	0.366
CF	0.0	0.0	0.0	0.0	0.0	0.0
CG	0.0	0.0	0.0	0.0	0.0	0.0
CH	0.0	0.0	0.0	0.0	0.0	0.0
CI	0.0	0.0	0.0	0.0	0.0	0.0
CJ	0.0	0.0	0.0	0.0	0.0	0.0

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
CK	0.0	0.0	0.0	0.0	0.0	0.0
CL	0.0	0.0	0.0	0.0	0.0	0.0
CM	0.0	0.0	0.0	0.0	0.0	0.0
DN	0.0	0.0	0.0	0.0	0.0	0.0
CO	0.0	0.0	0.0	0.0	0.0	0.0
CP	0.0	0.0	0.0	0.0	0.0	0.0
CQ	0.0	0.0	0.0	0.0	0.0	0.0
DF	0.0	0.0	0.0	0.0	0.0	0.0
DG	0.0	0.0	0.0	0.0	0.0	0.0
DH	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	0.0	0.0	0.0
DJ	0.0	0.0	0.0	0.0	0.0	0.0
CV	0.0	0.0	0.0	0.0	0.0	0.0
CW	0.0	0.0	0.0	0.0	0.0	0.0
CX	0.0	0.0	0.0	0.0	0.0	0.0
CY	0.0	0.0	0.0	0.0	0.0	0.0
CZ	0.0	0.0	0.0	0.0	0.0	0.0
CR	0.0	0.0	0.0	0.0	0.0	0.0
CS	0.0	0.0	0.0	0.0	0.0	0.0
CT	0.0	0.0	0.0	0.0	0.0	0.0
CU	0.0	0.0	0.0	0.0	0.0	0.0
DK	0.0	0.0	0.0	0.0	0.0	0.0
DL	0.0	0.0	0.0	0.0	0.0	0.0
DM	0.0	0.0	0.0	0.0	0.0	0.0
GE	0.0	-.050	-.060	0.0	0.0	0.0

Scenario B

PIES CODE	(-84/YR) E1	ESCALATION RATES			INT. DUR. CONST.	
		(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
GK	0.0	-.120	-.110	0.0	0.0	0.0
GG	0.0	-.050	-.010	0.0	0.0	0.0
GP	0.0	-.020	-.020	0.0	0.0	0.0
GN	0.0	-.170	-.050	0.0	0.0	0.0
G1	0.0	0.0	0.0	0.0	0.0	0.0
G2	0.0	0.0	0.0	0.0	0.0	0.0
G3	0.0	0.0	0.0	0.0	0.0	0.0
LE	0.0	0.0	0.0	0.0	0.0	0.0
LC	0.0	0.0	0.0	0.0	0.0	0.0
TD	0.0	0.0	0.0	0.0	0.0	0.0
L9	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0
LG	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.0	0.0	0.0	0.0	0.0	0.0
TV	0.0	0.0	0.0	0.0	0.0	0.0
TF	0.0	0.0	0.0	0.0	0.0	0.0
TN	0.0	0.0	0.0	0.0	0.0	0.0
TM	0.0	0.0	0.0	0.0	0.0	0.0

Scenario C

Y PIES R CODE.	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 1Y	365	400	365	330	365	325	360	340	365	330
75 2Y	555	610	555	505	555	495	545	0	0	505
75 3Y	530	585	530	480	530	470	520	510	550	480
75 4Y	500	550	500	455	500	445	490	465	500	455
75 5Y	145	145	145	145	145	145	145	145	145	145
75 6Y	145	145	145	145	145	145	145	145	145	145
75 7Y	265	290	265	240	265	235	260	245	265	240
75 8Y	265	290	265	240	265	235	260	245	265	240
75 8Y	270	295	270	245	270	240	265	250	270	245
75 JY	430	475	430	390	430	385	420	465	500	390
75 QY	430	475	430	390	430	385	420	465	500	390
75 XY	430	475	430	390	430	385	420	465	500	390
75 PY	550	605	550	500	550	490	540	530	570	500
75 EY	520	570	520	475	520	465	510	485	520	475
75 MY	450	495	450	410	450	400	440	485	520	410
75 OY	450	495	450	410	450	400	440	485	520	410
75 WY	565	620	565	515	565	505	555	550	590	515
75 ZY	540	595	540	490	540	480	530	500	540	490
75 TY	475	520	475	530	475	425	465	500	540	430
75 YY	475	520	475	530	475	425	465	500	540	430
75 9Y	729	729	670	683	729	729	729	685	670	301
75 KY	190	190	190	190	190	190	190	190	190	190
75 NY	720	795	765	525	620	550	835	1075	745	795
75 1Z	365	400	365	330	365	325	360	340	365	330

Y	PIES									
R	CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9
75	2Z	555	610	555	505	555	495	545	0	0
75	3Z	530	585	530	480	530	470	520	510	550
75	4Z	500	550	500	455	500	445	490	465	500
75	5Z	145	145	145	145	145	145	145	145	145
75	6Z	145	145	145	145	145	145	145	145	145
75	AZ	265	290	265	240	265	235	260	245	265
75	7Z	265	290	265	240	265	235	260	245	265
75	8Z	270	295	270	245	270	240	265	250	270
75	JZ	430	475	430	390	430	385	420	465	500
75	QZ	430	475	430	390	430	385	420	465	500
75	XZ	430	475	430	390	430	385	420	465	500
75	PZ	550	605	550	500	550	490	540	530	570
75	EZ	520	570	520	475	520	465	510	485	520
75	MZ	450	495	450	410	450	400	440	485	520
75	OZ	450	495	450	410	450	400	440	485	520
75	VZ	565	620	565	515	565	505	555	550	590
75	ZZ	540	595	540	490	540	480	530	500	540
75	TZ	475	520	475	530	475	425	465	500	540
75	YZ	475	520	475	530	475	425	465	500	540
75	9Z	729	729	670	683	729	729	729	685	670
75	KZ	190	190	190	190	190	190	190	190	190
75	NZ	705	0	590	635	830	495	845	0	665
75	10	365	400	365	330	365	325	360	340	365
75	20	560	615	560	510	560	500	550	0	0
75	30	550	605	550	500	550	490	540	510	550

Scenario C

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 40	500	550	500	455	500	445	490	465	500	455
75 50	145	145	145	145	145	145	145	145	145	145
75 60	145	145	145	145	145	145	145	145	145	145
75 A0	265	290	265	240	265	235	260	245	265	240
75 70	265	290	265	240	265	235	260	245	265	240
75 80	270	295	270	245	270	240	265	250	270	245
75 J0	430	475	430	390	430	385	420	465	500	390
75 Q0	430	475	430	390	430	385	420	465	500	390
75 X0	430	475	430	390	430	385	420	465	500	390
75 P0	570	625	570	520	570	505	560	530	570	520
75 E0	520	570	520	475	520	465	510	485	520	475
75 M0	450	495	450	410	450	400	440	485	520	410
75 DU	450	495	450	410	450	400	440	485	520	410
75 V0	590	650	590	535	590	525	580	550	590	535
75 Z0	540	595	540	490	540	480	530	500	540	490
75 T0	475	520	475	530	475	425	465	500	540	430
75 Y0	475	520	475	530	475	425	465	500	540	430
75 90	729	729	670	683	729	729	729	685	670	301
75 K0	190	190	190	190	190	190	190	190	190	190
75 N0	815	875	880	710	790	755	910	0	740	885
75 CF	150	150	150	150	150	150	150	150	150	150
75 CG	150	150	150	150	150	150	150	150	150	150
75 CH	150	150	150	150	150	150	150	150	150	150
75 CI	150	150	150	150	150	150	150	150	150	150
75 CJ	150	150	150	150	150	150	150	150	150	150

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 CK	150	150	150	150	150	150	150	150	150	150
75 CL	150	150	150	150	150	150	150	150	150	150
75 CM	150	150	150	150	150	150	150	150	150	150
75 DN	150	150	150	150	150	150	150	150	150	150
75 CO	150	150	150	150	150	150	150	150	150	150
75 CP	150	150	150	150	150	150	150	150	150	150
75 CQ	150	150	150	150	150	150	150	150	150	150
75 DF	118	118	118	118	118	118	118	118	118	118
75 DG	108	108	108	108	108	108	108	108	108	108
75 DH	118	118	118	118	118	118	118	118	118	118
75 DI	108	108	108	108	108	108	108	108	108	108
75 DJ	108	108	108	108	108	108	108	108	108	108
75 CV	113	113	113	113	113	113	113	113	113	113
75 CW	91	91	91	91	91	91	91	91	91	91
75 CX	63	63	63	63	63	63	63	63	63	63
75 CY	91	91	91	91	91	91	91	91	91	91
75 CZ	91	91	91	91	91	91	91	91	91	91
75 CR	0	0	0	0	0	0	0	0	0	0
75 CS	0	0	0	0	0	0	0	0	0	0
75 CT	0	0	0	0	0	0	0	0	0	0
75 CU	0	0	0	0	0	0	0	0	0	0
75 DK	0	0	0	0	0	0	0	0	0	0
75 DL	0	0	0	0	0	0	0	0	0	0
75 DM	0	0	0	0	0	0	0	0	0	0
75 GE	929	929	929	929	929	929	929	929	929	929

Scenario C

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 GK	2639	2639	2639	2639	2639	2639	2639	2639	2639	2639
75 GG	1286	1286	1286	1286	1286	1286	1286	1286	1286	1286
75 GP	714	786	714	651	714	634	702	664	714	651
75 GN	4282	4282	4282	4282	4282	4282	4282	4282	4282	4282
75 G1	0	0	0	0	0	423	0	434	524	682
75 G2	0	0	0	0	0	479	0	637	529	631
75 G3	0	0	0	0	0	575	0	637	639	657
75 LE	635	700	635	580	635	565	620	590	635	580
75 LC	635	700	635	580	635	565	620	590	635	580
75 TD	0	0	0	0	0	0	0	0	0	0
75 L9	0	0	0	0	0	0	0	0	0	0
75 LA	0	0	0	0	0	0	0	0	0	0
75 LG	0	0	0	0	0	0	0	0	0	0
75 LV	0	0	0	0	0	0	0	0	0	0
75 TV	0	0	0	0	0	0	0	0	0	0
75 TF	0	0	0	0	0	0	0	0	0	0
75 TN	0	0	0	0	0	0	0	0	0	0
75 TM	0	0	0	0	0	0	0	0	0	0

Scenario C

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
1Y	0.0	0.0	0.0	0.0	0.0747	0.238
2Y	0.0	0.0	0.0	0.0	0.0747	0.252
3Y	0.0	0.0	0.0	0.0	0.0747	0.252
4Y	0.0	0.0	0.0	0.0	0.0747	0.252
5Y	0.0	0.0	0.0	0.0	0.0747	0.086
6Y	0.0	0.0	0.0	0.0	0.0747	0.086
AY	0.0	0.0	0.0	0.0	0.0747	0.203
7Y	0.0	0.0	0.0	0.0	0.0747	0.194
8Y	0.0	0.0	0.0	0.0	0.0747	0.238
JY	0.0	0.0	0.0	0.0	0.0747	0.238
QY	0.0	0.0	0.0	0.0	0.0747	0.238
XY	0.0	0.0	0.0	0.0	0.0747	0.238
RY	0.0	0.0	0.0	0.0	0.0747	0.252
EY	0.0	0.0	0.0	0.0	0.0747	0.252
MY	0.0	0.0	0.0	0.0	0.0747	0.238
NY	0.0	0.0	0.0	0.0	0.0747	0.238
VY	0.0	0.0	0.0	0.0	0.0747	0.252
ZY	0.0	0.0	0.0	0.0	0.0747	0.252
TY	0.0	0.0	0.0	0.0	0.0747	0.238
YY	0.0	0.0	0.0	0.0	0.0747	0.238
9Y	0.0	0.0	0.0	0.0	0.0747	0.216
KY	0.0	0.0	0.0	0.0	0.0747	0.216
NY	0.0	0.0	0.0	0.0	0.0747	0.273
1Z	0.0	0.0	0.0	0.0	0.0747	0.238

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
2Z	0.0	0.0	0.0	0.0	0.0747	0.252
3Z	0.0	0.0	0.0	0.0	0.0747	0.252
4Z	0.0	0.0	0.0	0.0	0.0747	0.252
5Z	0.0	0.0	0.0	0.0	0.0747	0.086
6Z	0.0	0.0	0.0	0.0	0.0747	0.086
AZ	0.0	0.0	0.0	0.0	0.0747	0.203
7Z	0.0	0.0	0.0	0.0	0.0747	0.194
8Z	0.0	0.0	0.0	0.0	0.0747	0.238
JZ	0.0	0.0	0.0	0.0	0.0747	0.238
QZ	0.0	0.0	0.0	0.0	0.0747	0.238
XZ	0.0	0.0	0.0	0.0	0.0747	0.238
PZ	0.0	0.0	0.0	0.0	0.0747	0.252
EZ	0.0	0.0	0.0	0.0	0.0747	0.252
MZ	0.0	0.0	0.0	0.0	0.0747	0.238
OZ	0.0	0.0	0.0	0.0	0.0747	0.238
VZ	0.0	0.0	0.0	0.0	0.0747	0.252
ZZ	0.0	0.0	0.0	0.0	0.0747	0.252
TZ	0.0	0.0	0.0	0.0	0.0747	0.238
YZ	0.0	0.0	0.0	0.0	0.0747	0.238
9Z	0.0	0.0	0.0	0.0	0.0747	0.216
KZ	0.0	0.0	0.0	0.0	0.0747	0.216
NZ	0.0	0.0	0.0	0.0	0.0747	0.273
10	0.0	0.0	0.0	0.0	0.0747	0.238
20	0.0	0.0	0.0	0.0	0.0747	0.252
30	0.0	0.0	0.0	0.0	0.0747	0.252

Scenario C

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
40	0.0	0.0	0.0	0.0	0.0747	0.252
50	0.0	0.0	0.0	0.0	0.0747	0.086
60	0.0	0.0	0.0	0.0	0.0747	0.086
A0	0.0	0.0	0.0	0.0	0.0747	0.203
70	0.0	0.0	0.0	0.0	0.0747	0.194
80	0.0	0.0	0.0	0.0	0.0747	0.238
J0	0.0	0.0	0.0	0.0	0.0747	0.238
Q0	0.0	0.0	0.0	0.0	0.0747	0.238
X0	0.0	0.0	0.0	0.0	0.0747	0.238
P0	0.0	0.0	0.0	0.0	0.0747	0.252
E0	0.0	0.0	0.0	0.0	0.0747	0.252
M0	0.0	0.0	0.0	0.0	0.0747	0.238
Q0	0.0	0.0	0.0	0.0	0.0747	0.238
V0	0.0	0.0	0.0	0.0	0.0747	0.252
Z0	0.0	0.0	0.0	0.0	0.0747	0.252
T0	0.0	0.0	0.0	0.0	0.0747	0.238
Y0	0.0	0.0	0.0	0.0	0.0747	0.238
90	0.0	0.0	0.0	0.0	0.0747	0.216
K0	0.0	0.0	0.0	0.0	0.0747	0.216
N0	0.0	0.0	0.0	0.0	0.0747	0.273
CF	0.0	0.0	0.0	0.0	0.0	0.0
CG	0.0	0.0	0.0	0.0	0.0	0.0
CH	0.0	0.0	0.0	0.0	0.0	0.0
CI	0.0	0.0	0.0	0.0	0.0	0.0
CJ	0.0	0.0	0.0	0.0	0.0	0.0

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
CK	0.0	0.0	0.0	0.0	0.0	0.0
CL	0.0	0.0	0.0	0.0	0.0	0.0
CM	0.0	0.0	0.0	0.0	0.0	0.0
DN	0.0	0.0	0.0	0.0	0.0	0.0
CO	0.0	0.0	0.0	0.0	0.0	0.0
CP	0.0	0.0	0.0	0.0	0.0	0.0
CQ	0.0	0.0	0.0	0.0	0.0	0.0
DF	0.0	0.0	0.0	0.0	0.0	0.0
DG	0.0	0.0	0.0	0.0	0.0	0.0
DH	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	0.0	0.0	0.0
DJ	0.0	0.0	0.0	0.0	0.0	0.0
CV	0.0	0.0	0.0	0.0	0.0	0.0
CW	0.0	0.0	0.0	0.0	0.0	0.0
CX	0.0	0.0	0.0	0.0	0.0	0.0
CY	0.0	0.0	0.0	0.0	0.0	0.0
CZ	0.0	0.0	0.0	0.0	0.0	0.0
CR	0.0	0.0	0.0	0.0	0.0	0.0
CS	0.0	0.0	0.0	0.0	0.0	0.0
CT	0.0	0.0	0.0	0.0	0.0	0.0
CU	0.0	0.0	0.0	0.0	0.0	0.0
DK	0.0	0.0	0.0	0.0	0.0	0.0
DL	0.0	0.0	0.0	0.0	0.0	0.0
DM	0.0	0.0	0.0	0.0	0.0	0.0
GE	0.0	-0.050	-0.060	0.0	0.0	0.0

Scenario C

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
GK	0.0	-.120	-.110	0.0	0.0	0.0
GG	0.0	-.050	-.020	0.0	0.0	0.0
GP	0.0	-.020	-.020	0.0	0.0	0.0
GN	0.0	-.180	-.020	0.0	0.0	0.0
G1	0.0	0.0	0.0	0.0	0.0	0.0
G2	0.0	0.0	0.0	0.0	0.0	0.0
G3	0.0	0.0	0.0	0.0	0.0	0.0
LE	0.0	0.0	0.0	0.0	0.0	0.0
LC	0.0	0.0	0.0	0.0	0.0	0.0
TD	0.0	0.0	0.0	0.0	0.0	0.0
L9	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0
LG	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.0	0.0	0.0	0.0	0.0	0.0
TV	0.0	0.0	0.0	0.0	0.0	0.0
TF	0.0	0.0	0.0	0.0	0.0	0.0
TN	0.0	0.0	0.0	0.0	0.0	0.0
TM	0.0	0.0	0.0	0.0	0.0	0.0

Scenario D

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 1Y	345	380	345	315	345	305	340	320	345	315
75 2Y	515	565	515	470	515	460	505	0	0	470
75 3Y	495	545	495	450	495	440	485	475	510	450
75 4Y	465	510	465	425	465	415	455	430	465	425
75 5Y	140	140	140	140	140	140	140	140	140	140
75 6Y	140	140	140	140	140	140	140	140	140	140
75 7Y	250	275	250	225	250	220	245	230	250	225
75 8Y	250	275	250	225	250	220	245	230	250	225
75 8Y	255	280	255	230	255	225	250	235	255	230
75 JY	405	445	405	377	405	360	395	430	465	370
75 QY	405	445	405	377	405	360	395	430	465	370
75 XY	405	445	405	377	405	360	395	430	465	370
75 PY	510	560	510	465	510	455	500	495	530	465
75 EY	485	535	485	440	485	430	475	450	485	440
75 MY	425	470	425	385	425	380	415	450	485	385
75 OY	425	470	425	385	425	380	415	450	485	385
75 VY	525	580	525	480	525	465	515	505	545	480
75 ZY	505	555	505	460	505	450	495	470	505	460
75 TY	445	490	445	405	445	395	435	470	505	405
75 YY	445	490	445	405	445	395	435	470	505	405
75 9Y	693	693	636	649	693	693	693	651	636	286
75 KY	180	180	180	180	180	180	180	180	180	180
75 NY	720	795	765	525	620	550	835	1075	745	795
75 1Z	345	380	345	315	345	305	340	320	345	315

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 2Z	515	565	515	470	515	460	505	0	0	470
75 3Z	495	545	495	450	495	440	485	475	510	450
75 4Z	465	510	465	425	465	415	455	430	465	425
75 5Z	140	140	140	140	140	140	140	140	140	140
75 6Z	140	140	140	140	140	140	140	140	140	140
75 7Z	250	275	250	225	250	220	245	230	250	225
75 7Z	250	275	250	225	250	220	245	230	250	225
75 8Z	255	280	255	230	255	225	250	235	255	230
75 JZ	405	445	405	377	405	360	395	430	465	370
75 QZ	405	445	405	377	405	360	395	430	465	370
75 XZ	405	445	405	377	405	360	395	430	465	370
75 PZ	510	560	510	465	510	455	500	495	530	465
75 EZ	485	535	485	440	485	430	475	450	485	440
75 MZ	425	470	425	385	425	380	415	450	485	385
75 OZ	425	470	425	385	425	380	415	450	485	385
75 VZ	525	580	525	480	525	465	515	505	545	480
75 ZZ	505	555	505	460	505	450	495	470	505	460
75 TZ	445	490	445	405	445	395	435	470	505	405
75 YZ	445	490	445	405	445	395	435	470	505	405
75 9Z	693	693	636	649	693	693	693	651	636	286
75 KZ	180	180	180	180	180	180	180	180	180	180
75 NZ	615	0	510	545	715	425	735	0	575	610
75 10	345	380	345	315	345	305	340	320	345	315
75 20	520	570	520	475	520	465	510	0	0	475
75 30	510	560	510	465	510	455	500	475	510	465

Scenario D

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 40	465	510	465	425	465	415	455	430	465	425
75 50	140	140	140	140	140	140	140	140	140	140
75 60	140	140	140	140	140	140	140	140	140	140
75 A0	250	275	250	225	250	220	245	230	250	225
75 70	250	275	250	225	250	220	245	230	250	225
75 80	255	280	255	230	255	225	250	235	255	230
75 J0	405	445	405	377	405	360	395	430	465	370
75 Q0	405	445	405	377	405	360	395	430	465	370
75 X0	405	445	405	377	405	360	395	430	465	370
75 P0	530	585	530	480	530	470	520	495	530	480
75 E0	485	535	485	440	485	430	475	450	485	440
75 M0	425	470	425	385	425	380	415	450	485	385
75 O0	425	470	425	385	425	380	415	450	485	385
75 V0	545	600	545	495	545	485	535	505	545	495
75 Z0	505	555	505	460	505	450	495	470	505	460
75 T0	445	490	445	405	445	395	435	470	505	405
75 Y0	445	490	445	405	445	395	435	470	505	405
75 90	693	690	636	649	693	693	693	651	636	286
75 K0	180	180	180	180	180	180	180	180	180	180
75 N0	715	735	755	610	670	640	795	0	715	800
75 CF	150	150	150	150	150	150	150	150	150	150
75 CG	150	150	150	150	150	150	150	150	150	150
75 CH	150	150	150	150	150	150	150	150	150	150
75 CI	150	150	150	150	150	150	150	150	150	150
75 CJ	150	150	150	150	150	150	150	150	150	150

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 CK	150	150	150	150	150	150	150	150	150	150
75 CL	150	150	150	150	150	150	150	150	150	150
75 CM	150	150	150	150	150	150	150	150	150	150
75 DN	150	150	150	150	150	150	150	150	150	150
75 CO	150	150	150	150	150	150	150	150	150	150
75 CP	150	150	150	150	150	150	150	150	150	150
75 CQ	150	150	150	150	150	150	150	150	150	150
75 DF	118	118	118	118	118	118	118	118	118	118
75 DG	108	108	108	108	108	108	108	108	108	108
75 DH	118	118	118	118	118	118	118	118	118	118
75 DI	108	108	108	108	108	108	108	108	108	108
75 DJ	108	108	108	108	108	108	108	108	108	108
75 CV	113	113	113	113	113	113	113	113	113	113
75 CW	91	91	91	91	91	91	91	91	91	91
75 CX	63	63	63	63	63	63	63	63	63	63
75 CY	91	91	91	91	91	91	91	91	91	91
75 CZ	91	91	91	91	91	91	91	91	91	91
75 CR	0	0	0	0	0	0	0	0	0	0
75 CS	0	0	0	0	0	0	0	0	0	0
75 CT	0	0	0	0	0	0	0	0	0	0
75 CU	0	0	0	0	0	0	0	0	0	0
75 DK	0	0	0	0	0	0	0	0	0	0
75 DL	0	0	0	0	0	0	0	0	0	0
75 DM	0	0	0	0	0	0	0	0	0	0
75 GE	882	882	882	882	882	882	882	882	882	882

Scenario D

Y PIES R CODE	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
75 GK	2507	2507	2507	2507	2507	2507	2507	2507	2507	2507
75 GG	1222	1222	1222	1222	1222	1222	1222	1222	1222	1222
75 GP	679	746	679	618	679	603	666	631	679	618
75 GN	4067	4067	4067	4067	4067	4067	4067	4067	4067	4067
75 G1	0	0	0	0	0	423	0	434	524	682
75 G2	0	0	0	0	0	479	0	637	529	631
75 G3	0	0	0	0	0	575	0	637	639	657
75 LE	590	650	590	535	590	525	580	550	590	535
75 LC	590	650	590	535	590	525	580	550	590	535
75 TD	0	0	0	0	0	0	0	0	0	0
75 L9	0	0	0	0	0	0	0	0	0	0
75 LA	0	0	0	0	0	0	0	0	0	0
75 LG	0	0	0	0	0	0	0	0	0	0
75 LV	0	0	0	0	0	0	0	0	0	0
75 TV	0	0	0	0	0	0	0	0	0	0
75 TF	0	0	0	0	0	0	0	0	0	0
75 TN	0	0	0	0	0	0	0	0	0	0
75 TM	0	0	0	0	0	0	0	0	0	0

Scenario D

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
1Y	0.0	0.0	0.0	0.0	0.0678	0.228
2Y	0.0	0.0	0.0	0.0	0.0678	0.222
3Y	0.0	0.0	0.0	0.0	0.0678	0.222
4Y	0.0	0.0	0.0	0.0	0.0678	0.222
5Y	0.0	0.0	0.0	0.0	0.0678	0.079
6Y	0.0	0.0	0.0	0.0	0.0678	0.079
7Y	0.0	0.0	0.0	0.0	0.0678	0.186
8Y	0.0	0.0	0.0	0.0	0.0678	0.182
9Y	0.0	0.0	0.0	0.0	0.0678	0.228
JY	0.0	0.0	0.0	0.0	0.0678	0.228
QY	0.0	0.0	0.0	0.0	0.0678	0.228
XY	0.0	0.0	0.0	0.0	0.0678	0.228
PY	0.0	0.0	0.0	0.0	0.0678	0.222
EY	0.0	0.0	0.0	0.0	0.0678	0.222
MY	0.0	0.0	0.0	0.0	0.0678	0.228
OY	0.0	0.0	0.0	0.0	0.0678	0.228
VY	0.0	0.0	0.0	0.0	0.0678	0.222
ZY	0.0	0.0	0.0	0.0	0.0678	0.222
TY	0.0	0.0	0.0	0.0	0.0678	0.228
YY	0.0	0.0	0.0	0.0	0.0678	0.228
9Y	0.0	0.0	0.0	0.0	0.0678	0.199
KY	0.0	0.0	0.0	0.0	0.0678	0.199
NY	0.0	0.0	0.0	0.0	0.0678	0.251
1Z	0.0	0.0	0.0	0.0	0.0678	0.228

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
2Z	0.0	0.0	0.0	0.0	0.0678	0.222
3Z	0.0	0.0	0.0	0.0	0.0678	0.222
4Z	0.0	0.0	0.0	0.0	0.0678	0.222
5Z	0.0	0.0	0.0	0.0	0.0678	0.079
6Z	0.0	0.0	0.0	0.0	0.0678	0.079
7Z	0.0	0.0	0.0	0.0	0.0678	0.186
8Z	0.0	0.0	0.0	0.0	0.0678	0.182
9Z	0.0	0.0	0.0	0.0	0.0678	0.228
JZ	0.0	0.0	0.0	0.0	0.0678	0.228
QZ	0.0	0.0	0.0	0.0	0.0678	0.228
XZ	0.0	0.0	0.0	0.0	0.0678	0.228
PZ	0.0	0.0	0.0	0.0	0.0678	0.222
EZ	0.0	0.0	0.0	0.0	0.0678	0.222
MZ	0.0	0.0	0.0	0.0	0.0678	0.228
OZ	0.0	0.0	0.0	0.0	0.0678	0.228
VZ	0.0	0.0	0.0	0.0	0.0678	0.222
ZZ	0.0	0.0	0.0	0.0	0.0678	0.222
TZ	0.0	0.0	0.0	0.0	0.0678	0.228
YZ	0.0	0.0	0.0	0.0	0.0678	0.228
9Z	0.0	0.0	0.0	0.0	0.0678	0.199
KZ	0.0	0.0	0.0	0.0	0.0678	0.199
NZ	0.0	0.0	0.0	0.0	0.0678	0.251
10	0.0	0.0	0.0	0.0	0.0678	0.228
20	0.0	0.0	0.0	0.0	0.0678	0.222
30	0.0	0.0	0.0	0.0	0.0678	0.222

Scenario D

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
40	0.0	0.0	0.0	0.0	0.0678	0.222
50	0.0	0.0	0.0	0.0	0.0678	0.079
60	0.0	0.0	0.0	0.0	0.0678	0.079
A0	0.0	0.0	0.0	0.0	0.0678	0.136
70	0.0	0.0	0.0	0.0	0.0678	0.132
80	0.0	0.0	0.0	0.0	0.0678	0.228
J0	0.0	0.0	0.0	0.0	0.0678	0.228
Q0	0.0	0.0	0.0	0.0	0.0678	0.228
X0	0.0	0.0	0.0	0.0	0.0678	0.228
P0	0.0	0.0	0.0	0.0	0.0678	0.222
E0	0.0	0.0	0.0	0.0	0.0678	0.222
M0	0.0	0.0	0.0	0.0	0.0678	0.228
00	0.0	0.0	0.0	0.0	0.0678	0.228
V0	0.0	0.0	0.0	0.0	0.0678	0.222
Z0	0.0	0.0	0.0	0.0	0.0678	0.222
T0	0.0	0.0	0.0	0.0	0.0678	0.228
Y0	0.0	0.0	0.0	0.0	0.0678	0.228
90	0.0	0.0	0.0	0.0	0.0678	0.199
K0	0.0	0.0	0.0	0.0	0.0678	0.199
N0	0.0	0.0	0.0	0.0	0.0678	0.251
CF	0.0	0.0	0.0	0.0	0.0	0.0
CG	0.0	0.0	0.0	0.0	0.0	0.0
CH	0.0	0.0	0.0	0.0	0.0	0.0
CI	0.0	0.0	0.0	0.0	0.0	0.0
CJ	0.0	0.0	0.0	0.0	0.0	0.0

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
CK	0.0	0.0	0.0	0.0	0.0	0.0
CL	0.0	0.0	0.0	0.0	0.0	0.0
CM	0.0	0.0	0.0	0.0	0.0	0.0
DN	0.0	0.0	0.0	0.0	0.0	0.0
CO	0.0	0.0	0.0	0.0	0.0	0.0
CP	0.0	0.0	0.0	0.0	0.0	0.0
CQ	0.0	0.0	0.0	0.0	0.0	0.0
DF	0.0	0.0	0.0	0.0	0.0	0.0
DG	0.0	0.0	0.0	0.0	0.0	0.0
DH	0.0	0.0	0.0	0.0	0.0	0.0
DI	0.0	0.0	0.0	0.0	0.0	0.0
DJ	0.0	0.0	0.0	0.0	0.0	0.0
CV	0.0	0.0	0.0	0.0	0.0	0.0
CW	0.0	0.0	0.0	0.0	0.0	0.0
CX	0.0	0.0	0.0	0.0	0.0	0.0
CY	0.0	0.0	0.0	0.0	0.0	0.0
CZ	0.0	0.0	0.0	0.0	0.0	0.0
CR	0.0	0.0	0.0	0.0	0.0	0.0
CS	0.0	0.0	0.0	0.0	0.0	0.0
CT	0.0	0.0	0.0	0.0	0.0	0.0
CU	0.0	0.0	0.0	0.0	0.0	0.0
DK	0.0	0.0	0.0	0.0	0.0	0.0
DL	0.0	0.0	0.0	0.0	0.0	0.0
DM	0.0	0.0	0.0	0.0	0.0	0.0
GE	0.0	-.050	-.060	0.0	0.0	0.0

Scenario D

PIES CODE	ESCALATION RATES				INT. DUR. CONST.	
	(-84/YR) E1	(85-89/YR) E2	(90-94/YR) E3	(84/TOTAL) E4	RATE/YR IDC # 1	% TOTAL IDC # 2
GK	0.0	-.120	-.110	0.0	0.0	0.0
GG	0.0	-.050	-.010	0.0	0.0	0.0
GP	0.0	-.020	-.020	0.0	0.0	0.0
GN	0.0	-.170	-.050	0.0	0.0	0.0
G1	0.0	0.0	0.0	0.0	0.0	0.0
G2	0.0	0.0	0.0	0.0	0.0	0.0
G3	0.0	0.0	0.0	0.0	0.0	0.0
LE	0.0	0.0	0.0	0.0	0.0	0.0
LC	0.0	0.0	0.0	0.0	0.0	0.0
TD	0.0	0.0	0.0	0.0	0.0	0.0
L9	0.0	0.0	0.0	0.0	0.0	0.0
LA	0.0	0.0	0.0	0.0	0.0	0.0
L6	0.0	0.0	0.0	0.0	0.0	0.0
LV	0.0	0.0	0.0	0.0	0.0	0.0
TV	0.0	0.0	0.0	0.0	0.0	0.0
TF	0.0	0.0	0.0	0.0	0.0	0.0
TN	0.0	0.0	0.0	0.0	0.0	0.0
TM	0.0	0.0	0.0	0.0	0.0	0.0

CAPITAL EXPENDITURE PROFILE FILES (FCEP*)
(SCENARIOS B, C, D)

Scenario B

PLANT TYPE LEAD TIME

PROFILE

1Y	8	0.046	.142	.179	.275	.197	.105	.042	.014
2Y	8	0.046	.146	.185	.279	.190	.103	.039	.012
3Y	8	0.046	.146	.185	.279	.190	.103	.039	.012
4Y	8	0.046	.146	.185	.279	.190	.103	.039	.012
5Y	2	0.250	.750						
6Y	2	0.250	.750						
AY	8	0.092	.132	.075	.116	.083	.044	.235	.223
7Y	8	0.092	.132	.075	.116	.083	.044	.235	.223
8Y	8	0.046	.142	.179	.275	.197	.105	.042	.014
JY	8	0.046	.142	.179	.275	.197	.105	.042	.014
QY	8	0.046	.142	.179	.275	.197	.105	.042	.014
XY	8	0.046	.142	.179	.275	.197	.105	.042	.014
PY	8	0.046	.146	.185	.279	.190	.103	.039	.012
EY	8	0.046	.146	.185	.279	.190	.103	.039	.012
MY	8	0.046	.142	.179	.275	.197	.105	.042	.014
OY	8	0.046	.142	.179	.275	.197	.105	.042	.014
VY	8	0.046	.146	.185	.279	.190	.103	.039	.012
ZY	8	0.046	.146	.185	.279	.190	.103	.039	.012
TY	8	0.046	.142	.179	.275	.197	.105	.042	.014
YY	8	0.046	.142	.179	.275	.197	.105	.042	.014
9Y	6	0.030	.090	.300	.400	.180	.0		
KY	6	0.030	.090	.300	.400	.180	.0		
NY	10	0.056	.039	.132	.140	.176	.271	.073	.064 .028 .021
1Z	8	0.046	.142	.179	.275	.197	.105	.042	.014

PLANT TYPE LEAD TIME

PROFILE

2Z	8	0.046	.146	.185	.279	.190	.103	.039	.012
3Z	8	0.046	.146	.185	.279	.190	.103	.039	.012
4Z	8	0.046	.146	.185	.279	.190	.103	.039	.012
5Z	2	0.250	.750						
6Z	2	0.250	.750						
AZ	8	0.092	.132	.075	.116	.083	.044	.235	.223
7Z	8	0.092	.132	.075	.116	.083	.044	.235	.223
8Z	8	0.046	.142	.179	.275	.197	.105	.042	.014
JZ	8	0.046	.142	.179	.275	.197	.105	.042	.014
QZ	8	0.046	.142	.179	.275	.197	.105	.042	.014
XZ	8	0.046	.142	.179	.275	.197	.105	.042	.014
PZ	8	0.046	.146	.185	.279	.190	.103	.039	.012
EZ	8	0.046	.146	.185	.279	.190	.103	.039	.012
MZ	8	0.046	.142	.179	.275	.197	.105	.042	.014
OZ	8	0.046	.142	.179	.275	.197	.105	.042	.014
VZ	8	0.046	.146	.185	.279	.190	.103	.039	.012
ZZ	8	0.046	.146	.185	.279	.190	.103	.039	.012
TZ	8	0.046	.142	.179	.275	.197	.105	.042	.014
YZ	8	0.046	.142	.179	.275	.197	.105	.042	.014
9Z	6	0.030	.090	.300	.400	.180	.0		
KZ	6	0.030	.090	.300	.400	.180	.0		
NZ	10	0.056	.039	.132	.140	.176	.271	.073	.064 .028 .021
10	8	0.046	.142	.179	.275	.197	.105	.042	.014
20	8	0.046	.146	.185	.279	.190	.103	.039	.012
30	8	0.046	.146	.185	.279	.190	.103	.039	.012

Scenario B

PLANT TYPE LEAD TIME

PROFILE

40	8	0.046	.146	.185	.279	.190	.103	.039	.012
50	2	0.250	.750						
60	2	0.250	.750						
A0	8	0.092	.132	.075	.116	.083	.044	.235	.223
70	8	0.092	.132	.075	.116	.083	.044	.235	.223
80	8	0.046	.142	.179	.275	.197	.105	.042	.014
J0	8	0.046	.142	.179	.275	.197	.105	.042	.014
Q0	8	0.046	.142	.179	.275	.197	.105	.042	.014
X0	8	0.046	.142	.179	.275	.197	.105	.042	.014
P0	8	0.046	.146	.185	.279	.190	.103	.039	.012
E0	8	0.046	.146	.185	.279	.190	.103	.039	.012
M0	8	0.046	.142	.179	.275	.197	.105	.042	.014
D0	8	0.046	.142	.179	.275	.197	.105	.042	.014
V0	8	0.046	.146	.185	.279	.190	.103	.039	.012
Z0	8	0.046	.146	.185	.279	.190	.103	.039	.012
T0	8	0.046	.142	.179	.275	.197	.105	.042	.014
Y0	8	0.046	.142	.179	.275	.197	.105	.042	.014
90	6	0.030	.090	.300	.400	.180	.0		
K0	6	0.030	.090	.300	.400	.180	.0		
N0	10	0.056	.039	.132	.140	.176	.271	.073	.064 .028 .021
CF	3	0.333	.333	.334					
CG	3	0.333	.333	.334					
CH	3	0.333	.333	.334					
CI	3	0.333	.333	.334					
CJ	3	0.333	.333	.334					

PLANT TYPE LEAD TIME

PROFILE

CK	3	0.333	.333	.334					
CL	3	0.333	.333	.334					
CM	3	0.333	.333	.334					
DN	3	0.333	.333	.334					
CO	3	0.333	.333	.334					
CP	3	0.333	.333	.334					
CQ	3	0.333	.333	.334					
DF	1	1.000							
DG	1	1.000							
DH	1	1.000							
DI	1	1.000							
DJ	1	1.000							
DV	1	1.000							
DW	1	1.000							
CX	1	1.000							
CY	1	1.000							
CZ	1	1.000							
CR	1	1.000							
CS	1	1.000							
CT	1	1.000							
CU	1	1.000							
DK	1	1.000							
DL	1	1.000							
DM	1	1.000							
GE	2	0.250	.750						

Scenario B

PLANT TYPE	LEAD TIME	PROFILE
-----	-----	-----
GK	3	0.250 .750 .0
GG	3	0.250 .750 .0
GP	4	0.100 .500 .400 .0
GN	6	0.030 .090 .300 .400 .180 .0
G1	6	0.030 .090 .300 .400 .180 .0
G2	6	0.030 .090 .300 .400 .180 .0
G3	6	0.030 .090 .300 .400 .180 .0
LE	5	0.120 .200 .400 .280 .0
LC	5	0.120 .200 .400 .280 .0
MH	8	0.046 .146 .185 .279 .190 .103 .039 .012
TV	1	1.000
TF	1	1.000
TN	1	1.000
TM	1	1.000

Scenario C

PLANT TYPE LEAD TIME			PROFILE					
1Y	6	0.045	.188	.403	.255	.088	.021	
2Y	6	0.106	.224	.378	.209	.071	.012	
3Y	6	0.106	.224	.378	.209	.071	.012	
4Y	6	0.106	.224	.378	.209	.071	.012	
5Y	2	0.250	.750					
6Y	2	0.250	.750					
7Y	6	0.091	.152	.169	.107	.255	.226	
8Y	6	0.091	.152	.169	.107	.255	.226	
9Y	6	0.045	.188	.403	.255	.088	.021	
JY	6	0.045	.188	.403	.255	.088	.021	
QY	6	0.045	.188	.403	.255	.088	.021	
XY	6	0.045	.188	.403	.255	.088	.021	
PY	6	0.106	.224	.378	.209	.071	.012	
EY	6	0.106	.224	.378	.209	.071	.012	
MY	6	0.045	.188	.403	.255	.088	.021	
OY	6	0.045	.188	.403	.255	.088	.021	
VY	6	0.106	.224	.378	.209	.071	.012	
ZY	6	0.106	.224	.378	.209	.071	.012	
TY	6	0.045	.188	.403	.255	.088	.021	
YY	6	0.045	.188	.403	.255	.088	.021	
9Y	6	0.030	.090	.300	.400	.180	.0	
KY	6	0.030	.090	.300	.400	.180	.0	
NY	10	0.013	.011	.016	.034	.129	.284	.261 .162 .058 .033
1Z	6	0.045	.188	.403	.255	.088	.021	

PLANT TYPE LEAD TIME			PROFILE					
2Z	6	0.106	.224	.378	.209	.071	.012	
3Z	6	0.106	.224	.378	.209	.071	.012	
4Z	6	0.106	.224	.378	.209	.071	.012	
5Z	2	0.250	.750					
6Z	2	0.250	.750					
7Z	6	0.091	.152	.169	.107	.255	.226	
8Z	6	0.091	.152	.169	.107	.255	.226	
9Z	6	0.045	.188	.403	.255	.088	.021	
JZ	6	0.045	.188	.403	.255	.088	.021	
QZ	6	0.045	.188	.403	.255	.088	.021	
XZ	6	0.045	.188	.403	.255	.088	.021	
PZ	6	0.106	.224	.378	.209	.071	.012	
EZ	6	0.106	.224	.378	.209	.071	.012	
MZ	6	0.045	.188	.403	.255	.088	.021	
OZ	6	0.045	.188	.403	.255	.088	.021	
VZ	6	0.106	.224	.378	.209	.071	.012	
ZZ	6	0.106	.224	.378	.209	.071	.012	
TZ	6	0.045	.188	.403	.255	.088	.021	
YZ	6	0.045	.188	.403	.255	.088	.021	
9Z	6	0.030	.090	.300	.400	.180	.0	
KZ	6	0.030	.090	.300	.400	.180	.0	
NZ	10	0.013	.011	.016	.034	.129	.284	.261 .162 .058 .033
10	6	0.045	.188	.403	.255	.088	.021	
20	6	0.106	.224	.378	.209	.071	.012	
30	6	0.106	.224	.378	.209	.071	.012	

Scenario C

PLANT TYPE		LEAD TIME		PROFILE					
-----		-----		-----					
40	6	0.106	.224	.378	.209	.071	.0		
50	2	0.250	.750						
60	2	0.250	.750						
A0	6	0.091	.152	.169	.107	.255	.226		
70	6	0.091	.152	.169	.107	.255	.226		
80	6	0.045	.188	.403	.255	.088	.021		
J0	6	0.045	.188	.403	.255	.088	.021		
Q0	6	0.045	.188	.403	.255	.088	.021		
X0	6	0.045	.188	.403	.255	.088	.021		
P0	6	0.106	.224	.378	.209	.071	.012		
E0	6	0.106	.224	.378	.209	.071	.012		
M0	6	0.045	.188	.403	.255	.088	.021		
D0	6	0.045	.188	.403	.255	.088	.021		
V0	6	0.106	.224	.378	.209	.071	.012		
Z0	6	0.106	.224	.378	.209	.071	.012		
T0	6	0.045	.188	.403	.255	.088	.021		
Y0	6	0.045	.188	.403	.255	.088	.021		
90	6	0.030	.090	.300	.400	.180	.0		
K0	6	0.030	.090	.300	.400	.180	.0		
N0	10	0.013	.011	.016	.034	.129	.284	.261	.162 .058 .033
CF	3	0.333	.333	.334					
CG	3	0.333	.333	.334					
CH	3	0.333	.333	.334					
CI	3	0.333	.333	.334					
CJ	3	0.333	.333	.334					

PLANT TYPE		LEAD TIME		PROFILE					
-----		-----		-----					
CK	3	0.333	.333	.334					
CL	3	0.333	.333	.334					
CM	3	0.333	.333	.334					
DN	3	0.333	.333	.334					
CO	3	0.333	.333	.334					
CP	3	0.333	.333	.334					
CQ	3	0.333	.333	.334					
DF	1	1.000							
DG	1	1.000							
DH	1	1.000							
DI	1	1.000							
DJ	1	1.000							
DV	1	1.000							
DW	1	1.000							
CX	1	1.000							
CY	1	1.000							
CZ	1	1.000							
CR	1	1.000							
CS	1	1.000							
CT	1	1.000							
CU	1	1.000							
DK	1	1.000							
DL	1	1.000							
DM	1	1.000							
GE	2	0.250	.750						

Scenario C

PLANT TYPE LEAD TIME			PROFILE				
GK	3	0.250	.750	.0			
GG	3	0.250	.750	.0			
GP	4	0.100	.500	.400	.0		
GN	6	0.030	.090	.300	.400	.180	.0
G1	6	0.030	.090	.300	.400	.180	.0
G2	6	0.030	.090	.300	.400	.180	.0
G3	6	0.030	.090	.300	.400	.180	.0
LE	5	0.120	.200	.400	.280	.0	
LC	5	0.120	.200	.400	.280	.0	
MH	6	0.106	.224	.378	.209	.071	.012
TV	1	1.000					
TF	1	1.000					
TN	1	1.000					
TM	1	1.000					

Scenario D

PLANT TYPE LEAD TIME			PROFILE						
1Y	6	0.043	.240	.429	.222	.059	.007		
2Y	6	0.075	.130	.494	.186	.092	.023		
3Y	6	0.075	.130	.494	.186	.092	.023		
4Y	6	0.075	.130	.494	.186	.092	.023		
5Y	2	0.250	.750						
6Y	2	0.250	.750						
7Y	6	0.091	.173	.180	.093	.242	.221		
8Y	6	0.091	.173	.180	.093	.242	.221		
9Y	6	0.043	.240	.429	.222	.059	.007		
JY	6	0.043	.240	.429	.222	.059	.007		
QY	6	0.043	.240	.429	.222	.059	.007		
XY	6	0.043	.240	.429	.222	.059	.007		
PY	6	0.075	.130	.494	.186	.092	.023		
EY	6	0.075	.130	.494	.186	.092	.023		
MY	6	0.043	.240	.429	.222	.059	.007		
OY	6	0.043	.240	.429	.222	.059	.007		
VY	6	0.075	.130	.494	.186	.092	.023		
ZY	6	0.075	.130	.494	.186	.092	.023		
TY	6	0.043	.240	.429	.222	.059	.007		
YY	6	0.043	.240	.429	.222	.059	.007		
9Y	6	0.030	.090	.300	.400	.180	.0		
KY	6	0.030	.090	.300	.400	.180	.0		
NY	10	0.013	.011	.025	.023	.127	.280	.267	.163 .058 .033
1Z	6	0.043	.240	.429	.222	.059	.007		

PLANT TYPE LEAD TIME			PROFILE						
2Z	6	0.075	.130	.494	.186	.092	.023		
3Z	6	0.075	.130	.494	.186	.092	.023		
4Z	6	0.075	.130	.494	.186	.092	.023		
5Z	2	0.250	.750						
6Z	2	0.250	.750						
0Z	6	0.091	.173	.180	.093	.242	.221		
7Z	6	0.091	.173	.180	.093	.242	.221		
8Z	6	0.043	.240	.429	.222	.059	.007		
JZ	6	0.043	.240	.429	.222	.059	.007		
QZ	6	0.043	.240	.429	.222	.059	.007		
XZ	6	0.043	.240	.429	.222	.059	.007		
PZ	6	0.075	.130	.494	.186	.092	.023		
EZ	6	0.075	.130	.494	.186	.092	.023		
MZ	6	0.043	.240	.429	.222	.059	.007		
OZ	6	0.043	.240	.429	.222	.059	.007		
VZ	6	0.075	.130	.494	.186	.092	.023		
ZZ	6	0.075	.130	.494	.186	.092	.023		
TZ	6	0.043	.240	.429	.222	.059	.007		
YZ	6	0.043	.240	.429	.222	.059	.007		
9Z	6	0.030	.090	.300	.400	.180	.0		
KZ	6	0.030	.090	.300	.400	.180	.0		
NZ	10	0.013	.011	.025	.023	.127	.280	.267	.163 .058 .033
10	6	0.043	.240	.429	.222	.059	.007		
20	6	0.075	.130	.494	.186	.092	.023		
30	6	0.075	.130	.494	.186	.092	.023		

Scenario D

PLANT TYPE		LEAD TIME	PROFILE						
40	6	0.106	.224	.378	.209	.071	.0		
50	2	0.250	.750						
60	2	0.250	.750						
A0	6	0.091	.173	.180	.093	.242	.221		
70	6	0.091	.173	.180	.093	.242	.221		
80	6	0.043	.240	.429	.222	.059	.007		
J0	6	0.043	.240	.429	.222	.059	.007		
Q0	6	0.043	.240	.429	.222	.059	.007		
X0	6	0.043	.240	.429	.222	.059	.007		
P0	6	0.075	.130	.494	.186	.092	.023		
E0	6	0.075	.130	.494	.186	.092	.023		
M0	6	0.043	.240	.429	.222	.059	.007		
D0	6	0.043	.240	.429	.222	.059	.007		
V0	6	0.075	.130	.494	.186	.092	.023		
Z0	6	0.075	.130	.494	.186	.092	.023		
T0	6	0.043	.240	.429	.222	.059	.007		
Y0	6	0.043	.240	.429	.222	.059	.007		
90	6	0.030	.090	.300	.400	.180	.0		
K0	6	0.030	.090	.300	.400	.180	.0		
N0	10	0.013	.011	.025	.023	.127	.280	.267	.163 .058 .033
CF	3	0.333	.333	.334					
CG	3	0.333	.333	.334					
CH	3	0.333	.333	.334					
CI	3	0.333	.333	.334					
CJ	3	0.333	.333	.334					

PLANT TYPE		LEAD TIME	PROFILE						
CK	3	0.333	.333	.334					
CL	3	0.333	.333	.334					
CM	3	0.333	.333	.334					
DN	3	0.333	.333	.334					
CO	3	0.333	.333	.334					
CP	3	0.333	.333	.334					
CQ	3	0.333	.333	.334					
DF	1	1.000							
DG	1	1.000							
DH	1	1.000							
DI	1	1.000							
DJ	1	1.000							
CV	1	1.000							
CW	1	1.000							
CX	1	1.000							
CY	1	1.000							
CZ	1	1.000							
CR	1	1.000							
CS	1	1.000							
CT	1	1.000							
CU	1	1.000							
DK	1	1.000							
DL	1	1.000							
DM	1	1.000							
GE	2	0.250	.750						

Scenario D

PLANT TYPE		LEAD TIME		PROFILE			
GK	3	0.250	.750	.0			
GG	3	0.250	.750	.0			
GP	4	0.100	.500	.400	.0		
GN	6	0.030	.090	.300	.400	.180	.0
G1	6	0.030	.090	.300	.400	.180	.0
G2	6	0.030	.090	.300	.400	.180	.0
G3	6	0.030	.090	.300	.400	.180	.0
LE	5	0.120	.200	.400	.280	.0	
LC	5	0.120	.200	.400	.280	.0	
MH	6	0.075	.130	.494	.186	.092	.023
TV	1	1.000					
TF	1	1.000					
TN	1	1.000					
TM	1	1.000					

ANNUAL BUILD LIMIT FILES (FBLD*)
(SCENARIOS B, C, D)

Scenario B

BUILD LIMIT SUMMARY (MWE)

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	NY	2Y	3Y	4Y	5Y	QY	XY	PY	EY
	----	----	----	----	----	----	----	----	----
U1	2344	0	0	0	0	0	0	0	0
U2	5922	0	0	0	0	0	0	0	0
U3	7622	2077	0	0	0	0	1700	0	0
U4	19668	2650	1340	0	870	720	3112	0	0
U5	17117	1978	0	0	1300	0	3568	500	0
U6	8229	0	0	0	0	0	550	940	0
U7	2300	837	0	0	0	0	0	0	1360
U8	330	0	0	800	0	0	200	1000	1268
U9	6666	0	700	1174	0	0	250	0	0
UA	4879	0	0	0	0	0	0	0	0
TOTAL	75077	7542	2040	1974	2170	720	9380	2440	2628

	QY	VY
	----	----
U1	0	0
U2	0	0
U3	0	0
U4	0	0
U5	1697	0
U6	9183	3195
U7	4754	0
U8	830	1390
U9	0	0
UA	530	0
TOTAL	16994	4585

BUILD LIMIT SUMMARY (MWE)

=====

	NZ	2Z	4Z	JZ	XZ	PZ	QZ	VZ
	----	----	----	----	----	----	----	----
U1	1194	0	0	0	0	0	0	0
U2	0	0	0	0	0	0	0	0
U3	1814	0	0	0	0	0	0	0
U4	12400	0	0	0	5364	0	0	0
U5	1610	1365	0	650	1900	0	2080	0
U6	1143	0	0	0	0	0	5654	1150
U7	1150	0	0	0	0	0	980	0
U8	0	0	0	0	0	1900	380	910
U9	1098	0	347	0	250	330	0	0
UA	1242	0	0	0	0	0	0	0
TOTAL	21651	1365	347	650	7514	2230	9094	2060

BUILD LIMIT SUMMARY (MWE)

=====

	NO

U1	2374
U2	1150
U3	0
U4	10106
U5	8502
U6	3513
U7	0
U8	0
U9	2540
UA	3797
TOTAL	21682

Scenario B

BUILD LIMIT DATA (MWE)

PLANT TYPE: NY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	784	2180	1975	1095	912	0	330	1084	0
1980	0	0	943	2317	810	0	0	0	1106	0
1981	0	854	1050	4455	2201	0	0	0	1140	1103
1982	0	0	1050	2415	3016	2315	0	0	0	0
1983	0	0	76	2064	4811	1459	0	0	2238	0
1984	0	0	0	0	1120	1150	0	0	0	0
1985	0	1067	1258	2350	1789	0	2300	0	0	1267
1986	2344	1080	0	3192	2275	1459	0	0	1098	1267
1987	0	1067	1065	900	0	0	0	0	0	0
1988	0	1070	0	0	0	0	0	0	0	1242
1989	0	0	0	0	0	934	0	0	0	0
THRU 84:	0	1638	5299	13226	13053	5836	0	330	5568	1103
THRU 89:	2344	5922	7622	19668	17117	8229	2300	330	6666	4879
THRU 94:	2344	5922	7622	19668	17117	8229	2300	330	6666	4879

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

2Y

BUILD LIMIT DATA (MWE)

PLANT TYPE: 2Y

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	626	890	978	0	0	0	0	0
1980	0	0	1451	1560	0	0	0	0	0	0
1981	0	0	0	200	1000	0	837	0	0	0
THRU 84:	0	0	2077	2650	1978	0	837	0	0	0
THRU 89:	0	0	2077	2650	1978	0	837	0	0	0
THRU 94:	0	0	2077	2650	1978	0	837	0	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

3Y

BUILD LIMIT DATA (MWE)

PLANT TYPE: 3Y

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	780	0	0	0	0	350	0
1980	0	0	0	280	0	0	0	0	350	0
1981	0	0	0	280	0	0	0	0	0	0
THRU 84:	0	0	0	1340	0	0	0	0	700	0
THRU 89:	0	0	0	1340	0	0	0	0	700	0
THRU 94:	0	0	0	1340	0	0	0	0	700	0

Scenario B

BUILD LIMIT DATA (MWE)

PLANT TYPE: 4Y

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	0	0	400	827	0
1980	0	0	0	0	0	0	0	400	347	0
THRU 84:	0	0	0	0	0	0	0	800	1174	0
THRU 89:	0	0	0	0	0	0	0	800	1174	0
THRU 94:	0	0	0	0	0	0	0	800	1174	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

JY

BUILD LIMIT DATA (MWE)

PLANT TYPE: JY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	870	1300	0	0	0	0	0
THRU 84:	0	0	0	870	1300	0	0	0	0	0
THRU 89:	0	0	0	870	1300	0	0	0	0	0
THRU 94:	0	0	0	870	1300	0	0	0	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

QY

BUILD LIMIT DATA (MWE)

PLANT TYPE: QY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1980	0	0	0	720	0	0	0	0	0	0
THRU 84:	0	0	0	720	0	0	0	0	0	0
THRU 89:	0	0	0	720	0	0	0	0	0	0
THRU 94:	0	0	0	720	0	0	0	0	0	0

BUILD LIMIT DATA (MWE)

PLANT TYPE: XY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	662	1477	550	0	200	0	0
1980	0	0	1700	550	791	0	0	0	0	0
1981	0	0	0	1900	1300	0	0	0	250	0
THRU 84:	0	0	1700	3112	3568	550	0	200	250	0
THRU 89:	0	0	1700	3112	3568	550	0	200	250	0
THRU 94:	0	0	1700	3112	3568	550	0	200	250	0

Scenario B

BUILD LIMIT DATA (MWE)

PLANT TYPE: PY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	468	0	0	0	0
1980	0	0	0	0	500	0	0	1000	0	0
1981	0	0	0	0	0	472	0	0	0	0
THRU 84:	0	0	0	0	500	940	0	1000	0	0
THRU 89:	0	0	0	0	500	940	0	1000	0	0
THRU 94:	0	0	0	0	500	940	0	1000	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

EY

BUILD LIMIT DATA (MWE)

PLANT TYPE: EY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	0	680	1268	0	0
1980	0	0	0	0	0	0	680	0	0	0
THRU 84:	0	0	0	0	0	0	1360	1268	0	0
THRU 89:	0	0	0	0	0	0	1360	1268	0	0
THRU 94:	0	0	0	0	0	0	1360	1268	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

OY

BUILD LIMIT DATA (MWE)

PLANT TYPE: OY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	1117	5043	2401	330	0	0
1980	0	0	0	0	580	3650	931	500	0	530
1981	0	0	0	0	0	490	1422	0	0	0
THRU 84:	0	0	0	0	1697	9183	4754	830	0	530
THRU 89:	0	0	0	0	1697	9183	4754	830	0	530
THRU 94:	0	0	0	0	1697	9183	4754	830	0	530

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

VY

BUILD LIMIT DATA (MWE)

PLANT TYPE: VY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	2250	0	490	0	0
1980	0	0	0	0	0	400	0	490	0	0
1981	0	0	0	0	0	545	0	410	0	0
THRU 84:	0	0	0	0	0	3195	0	1390	0	0
THRU 89:	0	0	0	0	0	3195	0	1390	0	0
THRU 94:	0	0	0	0	0	3195	0	1390	0	0

Scenario B

BUILD LIMIT DATA (MWE)

PLANT TYPE: NZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1987	0	0	907	1250	0	209	0	0	1098	0
1988	1194	0	907	5690	0	0	0	0	0	0
1989	0	0	0	1100	660	0	0	0	0	1242
1990	0	0	0	900	0	0	0	0	0	0
1991	0	0	0	2180	950	0	0	0	0	0
1992	0	0	0	0	0	0	1150	0	0	0
1993	0	0	0	1280	0	934	0	0	0	0
THRU 84:	0	0	0	0	0	0	0	0	0	0
THRU 89:	1194	0	1814	8040	660	209	0	0	1098	1242
THRU 94:	1194	0	1814	12400	1610	1143	1150	0	1098	1242

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

2Z

BUILD LIMIT DATA (MWE)

PLANT TYPE: 2Z

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	1365	0	0	0	0	0
THRU 84:	0	0	0	0	1365	0	0	0	0	0
THRU 89:	0	0	0	0	1365	0	0	0	0	0
THRU 94:	0	0	0	0	1365	0	0	0	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

4Z

BUILD LIMIT DATA (MWE)

PLANT TYPE: 4Z

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1983	0	0	0	0	0	0	0	0	347	0
THRU 84:	0	0	0	0	0	0	0	0	347	0
THRU 89:	0	0	0	0	0	0	0	0	347	0
THRU 94:	0	0	0	0	0	0	0	0	347	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

JZ

BUILD LIMIT DATA (MWE)

PLANT TYPE: JZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	650	0	0	0	0	0
THRU 84:	0	0	0	0	650	0	0	0	0	0
THRU 89:	0	0	0	0	650	0	0	0	0	0
THRU 94:	0	0	0	0	650	0	0	0	0	0

Scenario B

BUILD LIMIT DATA (MWE)

PLANT TYPE: X2

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	2842	1900	0	0	0	0	0
1983	0	0	0	1802	0	0	0	0	0	0
1984	0	0	0	720	0	0	0	0	250	0
THRU 84:	0	0	0	5364	1900	0	0	0	250	0
THRU 89:	0	0	0	5364	1900	0	0	0	250	0
THRU 94:	0	0	0	5364	1900	0	0	0	250	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

P2

BUILD LIMIT DATA (MWE)

PLANT TYPE: P2

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	0	0	0	1200	0	0
1983	0	0	0	0	0	0	0	700	0	0
1984	0	0	0	0	0	0	0	0	330	0
THRU 84:	0	0	0	0	0	0	0	1900	330	0
THRU 89:	0	0	0	0	0	0	0	1900	330	0
THRU 94:	0	0	0	0	0	0	0	1900	330	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

O2

BUILD LIMIT DATA (MWE)

PLANT TYPE: O2

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	880	3206	980	380	0	0
1983	0	0	0	0	1200	1240	0	0	0	0
1984	0	0	0	0	0	1208	0	0	0	0
THRU 84:	0	0	0	0	2080	5654	980	380	0	0
THRU 89:	0	0	0	0	2080	5654	980	380	0	0
THRU 94:	0	0	0	0	2080	5654	980	380	0	0

Scenario B

BUILD LIMIT DATA (MWE)

PLANT TYPE: VZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	0	400	0	455	0	0
1983	0	0	0	0	0	0	0	455	0	0
1984	0	0	0	0	0	750	0	0	0	0
THRU 84:	0	0	0	0	0	1150	0	910	0	0
THRU 89:	0	0	0	0	0	1150	0	910	0	0
THRU 94:	0	0	0	0	0	1150	0	910	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

N0

BUILD LIMIT DATA (MWE)

PLANT TYPE: N0

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1987	0	0	0	0	0	1150	0	0	0	0
1988	0	0	0	0	0	1213	0	0	0	1260
1989	0	0	0	1280	0	1150	0	0	0	0
1990	0	0	0	0	1150	0	0	0	0	0
1991	0	0	0	2533	0	0	0	0	1270	1260
1992	1180	1150	0	3813	2026	0	0	0	0	0
1993	0	0	0	0	2020	0	0	0	1270	1277
1994	1194	0	0	2480	3306	0	0	0	0	0
1995	0	0	2315	3269	1200	3331	1200	0	0	1277
THRU 84:	0	0	0	0	0	0	0	0	0	0
THRU 89:	0	0	0	1280	0	3513	0	0	0	1260
THRU 94:	2374	1150	0	10106	8502	3513	0	0	2540	3797

BUILD LIMIT SUMMARY (MWE)

=====

Scenario C

	NY	2Y	3Y	4Y	JY	QY	XY	PY	EY
	----	----	----	----	----	----	----	----	----
U1	2344	0	0	0	0	0	0	0	0
U2	5922	0	0	0	0	0	0	0	0
U3	7622	2077	0	0	0	0	1700	0	0
U4	19668	2650	1340	0	870	720	3112	0	0
U5	17117	1978	0	0	1300	0	3568	500	0
U6	8229	0	0	0	0	0	550	940	0
U7	2300	837	0	0	0	0	0	0	1360
U8	330	0	0	800	0	0	200	1000	1268
U9	6666	0	700	1174	0	0	250	0	0
UA	4879	0	0	0	0	0	0	0	0
TOTAL	75077	7542	2040	1974	2170	720	9380	2440	2628

	QY	VY
	----	----
U1	0	0
U2	0	0
U3	0	0
U4	0	0
U5	1697	0
U6	9183	3195
U7	4754	0
U8	830	1390
U9	0	0
UA	530	0
TOTAL	16994	4585

BUILD LIMIT SUMMARY (MWE)

=====

	NZ	2Z	4Z	JZ	XZ	PZ	QZ	VZ
	----	----	----	----	----	----	----	----
U1	1194	0	0	0	0	0	0	0
U2	0	0	0	0	0	0	0	0
U3	1814	0	0	0	0	0	0	0
U4	12400	0	0	0	5364	0	0	0
U5	1610	1365	0	650	1900	0	2080	0
U6	1143	0	0	0	0	0	5654	1150
U7	1150	0	0	0	0	0	980	0
U8	0	0	0	0	0	1900	380	910
U9	1098	0	347	0	250	330	0	0
UA	1242	0	0	0	0	0	0	0
TOTAL	21651	1365	347	650	7514	2230	9094	2060

BUILD LIMIT SUMMARY (MWE)

=====

	N0

U1	3568
U2	5940
U3	2677
U4	15725
U5	10002
U6	8094
U7	1738
U8	0
U9	2540
UA	5074
TOTAL	55358

Scenario C

BUILD LIMIT DATA (MWE)

PLANT TYPE: NY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	784	3123	3115	1905	912	0	330	1084	0
1980	0	854	0	2317	2201	0	0	0	1106	0
1981	0	0	1050	5730	1078	1150	0	0	1140	1103
1982	0	0	1050	2064	3058	2415	0	0	1140	0
1983	0	0	76	0	4811	1359	0	0	1098	0
1984	0	437	207	2350	1865	1250	2300	0	0	1267
1985	1194	1710	1065	3192	2199	209	0	0	1098	1267
1986	1150	1067	0	900	0	0	0	0	0	1242
1987	0	1070	1051	0	0	0	0	0	0	0
1988	0	0	0	0	0	934	0	0	0	0
THRU 84:	0	2075	5506	15576	14918	7086	2300	330	5568	2370
THRU 89:	2344	5922	7622	19668	17117	8229	2300	330	6666	4879
THRU 94:	2344	5922	7622	19668	17117	8229	2300	330	6666	4879

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

2Y

BUILD LIMIT DATA (MWE)

PLANT TYPE: 2Y

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	626	890	978	0	0	0	0	0
1980	0	0	1451	1560	0	0	0	0	0	0
1981	0	0	0	200	1000	0	837	0	0	0
THRU 84:	0	0	2077	2650	1978	0	837	0	0	0
THRU 89:	0	0	2077	2650	1978	0	837	0	0	0
THRU 94:	0	0	2077	2650	1978	0	837	0	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

3Y

BUILD LIMIT DATA (MWE)

PLANT TYPE: 3Y

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	780	0	0	0	0	350	0
1980	0	0	0	280	0	0	0	0	350	0
1981	0	0	0	280	0	0	0	0	0	0
THRU 84:	0	0	0	1340	0	0	0	0	700	0
THRU 89:	0	0	0	1340	0	0	0	0	700	0
THRU 94:	0	0	0	1340	0	0	0	0	700	0

Scenario C

BUILD LIMIT DATA (MWE)

PLANT TYPE: 4Y

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	0	0	400	827	0
1980	0	0	0	0	0	0	0	400	347	0
THRU 84:	0	0	0	0	0	0	0	800	1174	0
THRU 89:	0	0	0	0	0	0	0	800	1174	0
THRU 94:	0	0	0	0	0	0	0	800	1174	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

JY

BUILD LIMIT DATA (MWE)

PLANT TYPE: JY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	870	1300	0	0	0	0	0
THRU 84:	0	0	0	870	1300	0	0	0	0	0
THRU 89:	0	0	0	870	1300	0	0	0	0	0
THRU 94:	0	0	0	870	1300	0	0	0	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

QY

BUILD LIMIT DATA (MWE)

PLANT TYPE: QY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1980	0	0	0	720	0	0	0	0	0	0
THRU 84:	0	0	0	720	0	0	0	0	0	0
THRU 89:	0	0	0	720	0	0	0	0	0	0
THRU 94:	0	0	0	720	0	0	0	0	0	0

Scenario C

BUILD LIMIT DATA (MWE)

PLANT TYPE: XY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	662	1477	550	0	200	0	0
1980	0	0	1700	550	791	0	0	0	0	0
1981	0	0	0	1900	1300	0	0	0	250	0
THRU 84:	0	0	1700	3112	3568	550	0	200	250	0
THRU 89:	0	0	1700	3112	3568	550	0	200	250	0
THRU 94:	0	0	1700	3112	3568	550	0	200	250	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

PY

BUILD LIMIT DATA (MWE)

PLANT TYPE: PY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	468	0	0	0	0
1980	0	0	0	0	500	0	0	1000	0	0
1981	0	0	0	0	0	472	0	0	0	0
THRU 84:	0	0	0	0	500	940	0	1000	0	0
THRU 89:	0	0	0	0	500	940	0	1000	0	0
THRU 94:	0	0	0	0	500	940	0	1000	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

EY

BUILD LIMIT DATA (MWE)

PLANT TYPE: EY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	0	680	1268	0	0
1980	0	0	0	0	0	0	680	0	0	0
THRU 84:	0	0	0	0	0	0	1360	1268	0	0
THRU 89:	0	0	0	0	0	0	1360	1268	0	0
THRU 94:	0	0	0	0	0	0	1360	1268	0	0

Scenario C

BUILD LIMIT DATA (MWE)

PLANT TYPE: OY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	1117	5043	2401	330	0	0
1980	0	0	0	0	580	3650	931	500	0	530
1981	0	0	0	0	0	490	1422	0	0	0
THRU 84:	0	0	0	0	1697	9183	4754	830	0	530
THRU 89:	0	0	0	0	1697	9183	4754	830	0	530
THRU 94:	0	0	0	0	1697	9183	4754	830	0	530

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

VY

BUILD LIMIT DATA (MWE)

PLANT TYPE: VY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	2250	0	490	0	0
1980	0	0	0	0	0	400	0	490	0	0
1981	0	0	0	0	0	545	0	410	0	0
THRU 84:	0	0	0	0	0	3195	0	1390	0	0
THRU 89:	0	0	0	0	0	3195	0	1390	0	0
THRU 94:	0	0	0	0	0	3195	0	1390	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

NZ

BUILD LIMIT DATA (MWE)

PLANT TYPE: NZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1986	0	0	907	1250	0	0	0	0	0	0
1987	1194	0	907	5690	660	209	0	0	1098	0
1988	0	0	0	1100	0	0	0	0	0	1242
1989	0	0	0	2180	0	0	0	0	0	0
1990	0	0	0	900	950	0	0	0	0	0
1991	0	0	0	0	0	934	1150	0	0	0
1992	0	0	0	1280	0	0	0	0	0	0
THRU 84:	0	0	0	0	0	0	0	0	0	0
THRU 89:	1194	0	1814	10220	660	209	0	0	1098	1242
THRU 94:	1194	0	1814	12400	1610	1143	1150	0	1098	1242

Scenario C

BUILD LIMIT DATA (MWE)

PLANT TYPE: 22

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	1365	0	0	0	0	0
THRU 84:	0	0	0	0	1365	0	0	0	0	0
THRU 89:	0	0	0	0	1365	0	0	0	0	0
THRU 94:	0	0	0	0	1365	0	0	0	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

42

BUILD LIMIT DATA (MWE)

PLANT TYPE: 42

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1983	0	0	0	0	0	0	0	0	347	0
THRU 84:	0	0	0	0	0	0	0	0	347	0
THRU 89:	0	0	0	0	0	0	0	0	347	0
THRU 94:	0	0	0	0	0	0	0	0	347	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

J2

BUILD LIMIT DATA (MWE)

PLANT TYPE: J2

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	650	0	0	0	0	0
THRU 84:	0	0	0	0	650	0	0	0	0	0
THRU 89:	0	0	0	0	650	0	0	0	0	0
THRU 94:	0	0	0	0	650	0	0	0	0	0

Scenario C

BUILD LIMIT DATA (MWE)

PLANT TYPE: XZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	2842	1900	0	0	0	0	0
1983	0	0	0	1802	0	0	0	0	0	0
1984	0	0	0	720	0	0	0	0	250	0
THRU 84:	0	0	0	5364	1900	0	0	0	250	0
THRU 89:	0	0	0	5364	1900	0	0	0	250	0
THRU 94:	0	0	0	5364	1900	0	0	0	250	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

PZ

BUILD LIMIT DATA (MWE)

PLANT TYPE: PZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	0	0	0	1200	0	0
1983	0	0	0	0	0	0	0	700	0	0
1984	0	0	0	0	0	0	0	0	330	0
THRU 84:	0	0	0	0	0	0	0	1900	330	0
THRU 89:	0	0	0	0	0	0	0	1900	330	0
THRU 94:	0	0	0	0	0	0	0	1900	330	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

OZ

BUILD LIMIT DATA (MWE)

PLANT TYPE: OZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	880	3206	980	380	0	0
1983	0	0	0	0	1200	1240	0	0	0	0
1984	0	0	0	0	0	1208	0	0	0	0
THRU 84:	0	0	0	0	2080	5654	980	380	0	0
THRU 89:	0	0	0	0	2080	5654	980	380	0	0
THRU 94:	0	0	0	0	2080	5654	980	380	0	0

Scenario C

BUILD LIMIT DATA (MME)

PLANT TYPE: V2

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	0	400	0	455	0	0
1983	0	0	0	0	0	0	0	455	0	0
1984	0	0	0	0	0	750	0	0	0	0
THRU 84:	0	0	0	0	0	1150	0	910	0	0
THRU 89:	0	0	0	0	0	1150	0	910	0	0
THRU 94:	0	0	0	0	0	1150	0	910	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

N0

BUILD LIMIT DATA (MME)

PLANT TYPE: N0

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1986	0	0	0	0	0	2363	0	0	0	0
1987	0	0	0	0	0	0	0	0	0	1260
1988	0	0	0	1280	1150	1150	0	0	0	0
1989	0	1150	0	0	0	0	0	0	1270	0
1990	0	0	181	2533	1845	0	0	0	0	1260
1991	1180	2420	0	3813	2951	0	1469	0	1270	0
1992	1194	0	1200	1200	931	2413	269	0	0	1277
1993	0	2370	1296	4549	3125	918	0	0	0	0
1994	1194	0	0	2350	0	1250	0	0	0	1277
1995	0	1220	1115	1159	2460	2118	0	0	974	1200
THRU 84:	0	0	0	0	0	0	0	0	0	0
THRU 89:	0	1150	0	1280	1150	3513	0	0	1270	1260
THRU 94:	3568	5940	2677	15725	10002	8094	1738	0	2540	5074

Scenario D

BUILD LIMIT SUMMARY (MWE)

	NY	2Y	3Y	4Y	JY	QY	XY	PY	EY
U1	2344	0	0	0	0	0	0	0	0
U2	5922	0	0	0	0	0	0	0	0
U3	7622	2077	0	0	0	0	1700	0	0
U4	19668	2650	1340	0	870	720	3112	0	0
U5	17117	1978	0	0	1300	0	3568	500	0
U6	8229	0	0	0	0	0	550	940	0
U7	2300	837	0	0	0	0	0	0	1360
U8	330	0	0	800	0	0	200	1000	1268
U9	6666	0	700	1174	0	0	250	0	0
UA	4879	0	0	0	0	0	0	0	0
TOTAL	75077	7542	2040	1974	2170	720	9380	2440	2628

	QY	VY
U1	0	0
U2	0	0
U3	0	0
U4	0	0
U5	1697	0
U6	9183	3195
U7	4754	0
U8	830	1390
U9	0	0
UA	530	0
TOTAL	16994	4585

Scenario D

BUILD LIMIT SUMMARY (MWE)

	NZ	2Z	4Z	JZ	XZ	PZ	QZ	VZ
U1	1194	0	0	0	0	0	0	0
U2	0	0	0	0	0	0	0	0
U3	1814	0	0	0	0	0	0	0
U4	12400	0	0	0	5364	0	0	0
U5	1610	1365	0	650	1900	0	2080	0
U6	1143	0	0	0	0	0	5654	1150
U7	1150	0	0	0	0	0	980	0
U8	0	0	0	0	0	1900	380	910
U9	1098	0	347	0	250	330	0	0
UA	1242	0	0	0	0	0	0	0
TOTAL	21651	1365	347	650	7514	2230	9094	2060

DISPLAY FORMAT (1), (2), OR END (E) ?

2

COM(1), DEF(2) OR NEW(3) ?

3

TARGET YEAR (85, 90, 95) ?

95

BUILD LIMIT SUMMARY (MWE)

	N0
U1	4718
U2	7160
U3	6819
U4	16884
U5	11185
U6	10212
U7	3143
U8	0
U9	5688
UA	6274
TOTAL	72083

Scenario D

BUILD LIMIT DATA (MWE)

PLANT TYPE: NY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	784	3123	3115	1905	912	0	330	1084	0
1980	0	854	0	2317	2201	0	0	0	1106	1103
1981	0	0	1050	5730	3016	2315	0	0	1140	0
1982	0	0	1050	2064	3682	1250	0	0	2238	0
1983	0	0	76	1145	2325	1359	0	0	0	1267
1984	1194	1067	117	2410	1789	1459	2300	0	1098	0
1985	0	1080	1065	2887	2199	0	0	0	0	1267
1986	1150	2137	76	0	0	0	0	0	0	1242
1987	0	0	1065	0	0	934	0	0	0	0
THRU 84:	1194	2705	5416	16781	14918	7295	2300	330	6666	2370
THRU 89:	2344	5922	7622	19668	17117	8229	2300	330	6666	4879
THRU 94:	2344	5922	7622	19668	17117	8229	2300	330	6666	4879

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

2Y

BUILD LIMIT DATA (MWE)

PLANT TYPE: 2Y

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	626	890	978	0	0	0	0	0
1980	0	0	1451	1560	0	0	0	0	0	0
1981	0	0	0	200	1000	0	837	0	0	0
THRU 84:	0	0	2077	2650	1978	0	837	0	0	0
THRU 89:	0	0	2077	2650	1978	0	837	0	0	0
THRU 94:	0	0	2077	2650	1978	0	837	0	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

3Y

BUILD LIMIT DATA (MWE)

PLANT TYPE: 3Y

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	780	0	0	0	0	350	0
1980	0	0	0	280	0	0	0	0	350	0
1981	0	0	0	280	0	0	0	0	0	0
THRU 84:	0	0	0	1340	0	0	0	0	700	0
THRU 89:	0	0	0	1340	0	0	0	0	700	0
THRU 94:	0	0	0	1340	0	0	0	0	700	0

Scenario D

BUILD LIMIT DATA (MWE)

PLANT TYPE: 4Y

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	0	0	400	827	0
1980	0	0	0	0	0	0	0	400	347	0
THRU 84:	0	0	0	0	0	0	0	800	1174	0
THRU 89:	0	0	0	0	0	0	0	800	1174	0
THRU 94:	0	0	0	0	0	0	0	800	1174	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

JY

BUILD LIMIT DATA (MWE)

PLANT TYPE: JY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	870	1300	0	0	0	0	0
THRU 84:	0	0	0	870	1300	0	0	0	0	0
THRU 89:	0	0	0	870	1300	0	0	0	0	0
THRU 94:	0	0	0	870	1300	0	0	0	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

QY

BUILD LIMIT DATA (MWE)

PLANT TYPE: QY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1980	0	0	0	720	0	0	0	0	0	0
THRU 84:	0	0	0	720	0	0	0	0	0	0
THRU 89:	0	0	0	720	0	0	0	0	0	0
THRU 94:	0	0	0	720	0	0	0	0	0	0

Scenario D

BUILD LIMIT DATA (MWE)

PLANT TYPE: XY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	662	1477	550	0	200	0	0
1980	0	0	1700	550	791	0	0	0	0	0
1981	0	0	0	1900	1300	0	0	0	250	0
THRU 84:	0	0	1700	3112	3568	550	0	200	250	0
THRU 89:	0	0	1700	3112	3568	550	0	200	250	0
THRU 94:	0	0	1700	3112	3568	550	0	200	250	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

PY

BUILD LIMIT DATA (MWE)

PLANT TYPE: PY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	468	0	0	0	0
1980	0	0	0	0	500	0	0	1000	0	0
1981	0	0	0	0	0	472	0	0	0	0
THRU 84:	0	0	0	0	500	940	0	1000	0	0
THRU 89:	0	0	0	0	500	940	0	1000	0	0
THRU 94:	0	0	0	0	500	940	0	1000	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

EY

BUILD LIMIT DATA (MWE)

PLANT TYPE: EY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	0	680	1268	0	0
1980	0	0	0	0	0	0	680	0	0	0
THRU 84:	0	0	0	0	0	0	1360	1268	0	0
THRU 89:	0	0	0	0	0	0	1360	1268	0	0
THRU 94:	0	0	0	0	0	0	1360	1268	0	0

Scenario D

BUILD LIMIT DATA (MWE)

PLANT TYPE: QY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	1117	5043	2401	330	0	0
1980	0	0	0	0	580	3650	931	500	0	530
1981	0	0	0	0	0	490	1422	0	0	0
THRU 84:	0	0	0	0	1697	9183	4754	830	0	530
THRU 89:	0	0	0	0	1697	9183	4754	830	0	530
THRU 94:	0	0	0	0	1697	9183	4754	830	0	530

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

WY

BUILD LIMIT DATA (MWE)

PLANT TYPE: WY

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1979	0	0	0	0	0	2250	0	490	0	0
1980	0	0	0	0	0	400	0	490	0	0
1981	0	0	0	0	0	545	0	410	0	0
THRU 84:	0	0	0	0	0	3195	0	1390	0	0
THRU 89:	0	0	0	0	0	3195	0	1390	0	0
THRU 94:	0	0	0	0	0	3195	0	1390	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

NZ

BUILD LIMIT DATA (MWE)

PLANT TYPE: NZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1985	0	0	907	1250	0	0	0	0	0	0
1986	1194	0	907	4590	660	209	0	0	1098	0
1987	0	0	0	1100	0	0	0	0	0	1242
1988	0	0	0	2000	0	0	0	0	0	0
1989	0	0	0	1280	0	934	0	0	0	0
1990	0	0	0	900	950	0	1150	0	0	0
1991	0	0	0	1280	0	0	0	0	0	0
THRU 84:	0	0	0	0	0	0	0	0	0	0
THRU 89:	1194	0	1814	10220	660	1143	0	0	1098	1242
THRU 94:	1194	0	1814	12400	1610	1143	1150	0	1098	1242

Scenario D

BUILD LIMIT DATA (MWE)

PLANT TYPE: 2Z

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	1365	0	0	0	0	0
THRU 84:	0	0	0	0	1365	0	0	0	0	0
THRU 89:	0	0	0	0	1365	0	0	0	0	0
THRU 94:	0	0	0	0	1365	0	0	0	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

4Z

BUILD LIMIT DATA (MWE)

PLANT TYPE: 4Z

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1983	0	0	0	0	0	0	0	0	347	0
THRU 84:	0	0	0	0	0	0	0	0	347	0
THRU 89:	0	0	0	0	0	0	0	0	347	0
THRU 94:	0	0	0	0	0	0	0	0	347	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

JZ

BUILD LIMIT DATA (MWE)

PLANT TYPE: JZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	650	0	0	0	0	0
THRU 84:	0	0	0	0	650	0	0	0	0	0
THRU 89:	0	0	0	0	650	0	0	0	0	0
THRU 94:	0	0	0	0	650	0	0	0	0	0

Scenario D

BUILD LIMIT DATA (MWE)

PLANT TYPE: XZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	2842	1900	0	0	0	0	0
1983	0	0	0	1802	0	0	0	0	0	0
1984	0	0	0	720	0	0	0	0	250	0
THRU 84:	0	0	0	5364	1900	0	0	0	250	0
THRU 89:	0	0	0	5364	1900	0	0	0	250	0
THRU 94:	0	0	0	5364	1900	0	0	0	250	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

PZ

BUILD LIMIT DATA (MWE)

PLANT TYPE: PZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	0	0	0	1200	0	0
1983	0	0	0	0	0	0	0	700	0	0
1984	0	0	0	0	0	0	0	0	330	0
THRU 84:	0	0	0	0	0	0	0	1900	330	0
THRU 89:	0	0	0	0	0	0	0	1900	330	0
THRU 94:	0	0	0	0	0	0	0	1900	330	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

OZ

BUILD LIMIT DATA (MWE)

PLANT TYPE: OZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	880	3206	980	380	0	0
1983	0	0	0	0	1200	1240	0	0	0	0
1984	0	0	0	0	0	1208	0	0	0	0
THRU 84:	0	0	0	0	2080	5654	980	380	0	0
THRU 89:	0	0	0	0	2080	5654	980	380	0	0
THRU 94:	0	0	0	0	2080	5654	980	380	0	0

Scenario D

BUILD LIMIT DATA (MWE)

PLANT TYPE: YZ

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1982	0	0	0	0	0	400	0	455	0	0
1983	0	0	0	0	0	0	0	455	0	0
1984	0	0	0	0	0	750	0	0	0	0
THRU 84:	0	0	0	0	0	1150	0	910	0	0
THRU 89:	0	0	0	0	0	1150	0	910	0	0
THRU 94:	0	0	0	0	0	1150	0	910	0	0

DISPLAY FORMAT (1), (2), OR END (E) ?

1

ENTER PLANT TYPE

NO

BUILD LIMIT DATA (MWE)

PLANT TYPE: NO

YEAR	U1	U2	U3	U4	U5	U6	U7	U8	U9	UA
1985	0	0	0	0	0	1150	0	0	0	0
1986	0	0	0	0	0	1213	0	0	0	0
1987	0	0	0	0	1150	1150	0	0	0	1260
1988	0	1150	0	1280	0	0	0	0	1270	0
1989	0	1270	0	2533	3226	0	0	0	0	0
1990	2374	1150	1200	2533	1839	0	1200	0	1270	1260
1991	0	0	1115	3639	3331	3331	1405	0	2174	1200
1992	1194	2370	1370	3260	637	1250	269	0	974	1277
1993	0	0	1115	3639	1002	2118	269	0	0	0
1994	1150	1220	2019	0	0	0	0	0	0	1277
THRU 84:	0	0	0	0	0	0	0	0	0	0
THRU 89:	0	2420	0	3813	4376	3513	0	0	1270	1260
THRU 94:	4718	7160	6819	16884	11185	10212	3143	0	5688	6274