

Interactive Training Session

Session Goal

To conduct an interactive, training and input session with the stakeholders regarding the methodologies and criteria that the Transmission Providers utilize in conducting transmission planning analyses.

Session Purpose

To facilitate the stakeholder's ability to replicate transmission planning study results of the Transmission Providers.

Session Topics

Methodology and criteria pertaining to:

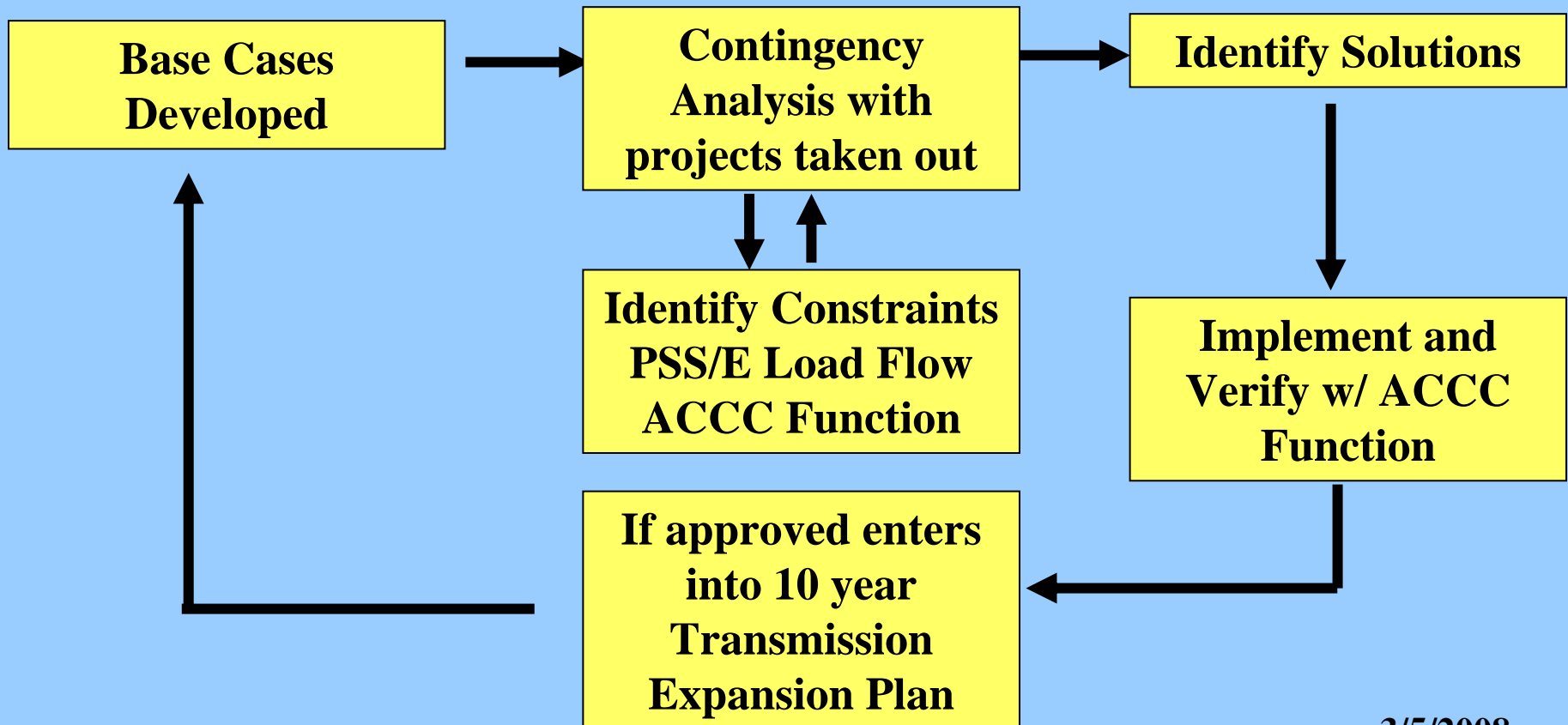
- ❖ **Thermal/Voltage Analysis performing**
 - ❖ **Load Serving Planning (10 year period)**
 - ❖ **Evaluating New Resources**

Methodology and criteria pertaining to :

- ❖ **Interface Analysis**

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Load Serving Planning Analysis Cycle



Load Serving Planning Analysis

Software used: PTI PSS/E Power Flow

Function utilized: ACCC

Identifies potential problems:

- ❖ System normal (n-0)
- ❖ Single contingency (n-1)
- ❖ Line out/Unit out (n-2)

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Generation Sensitivities...."Unit Outs"

- ❖ **Selected generators taken out of service**
- ❖ **Typically the larger units utilized**
- ❖ **East ... Bowen4, Branch4, Vogtle1, etc.**
- ❖ **West... Smith3, Miller1, Watson5, etc.**

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Creating “Unit Out” Cases

- ❖ **Take selected generator out of service (Type 4)**
- ❖ **To Balance Swing**
 - ❖ **Scale Down Load**
 - ❖ **Scale Up Generation**
 - ❖ **Scale Up All SCA Generation (not exceeding Pmax)**
 - ❖ **Scale Up Owners Generation (not exceeding Pmax)**
 - ❖ **Turn On Uncommitted Generation**
 - ❖ **Turn On Uncommitted NL SCA Generation**
 - ❖ **Turn On Uncommitted Owners NL Generation**
 - ❖ **SCA Swing pick up MW (Approximate Results)**
 - ❖ **May require moving swing out of local area**

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All cases are created....What is next?

**Setup to run ACCC analysis within PSS/E
Load Flow to include:**

- **.sub, .mon, .con files**
- **Set criteria limits to identify constraints**
- **Perform analysis**

Interactive Training Session

Example .SUB File

```
*** Top of File ***  
COM  
COM SUBSYSTEM description file entry created by PSS/E Config File Builder  
COM  
SUBSYSTEM 'SOCO'  
  JOIN 'GROUP1'  
    AREA 1  
    AREA 7  
    AREA 8  
  END  
END  
END  
*** End of File ***
```

Interactive Training Session

Example .MON File

```
* * * Top of File * * *  
COM  
COM MONITORED element file entry created by PSS/E Config File Builder  
COM  
MONITOR VOLTAGE RANGE SUBSYSTEM 'EXAMPLE' 0.950 1.050  
MONITOR BRANCHES IN SUBSYSTEM 'EXAMPLE'  
MONITOR TIES FROM SUBSYSTEM 'EXAMPLE'  
END  
* * * End of File * * *
```

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Example .CON File

```
*** Top of File ***  
COM  
COM CONTINGENCY description file entry created by PSS/E Config File Builder  
COM  
SINGLE BRANCH IN SUBSYSTEM 'SOCO'  
SINGLE TIE FROM SUBSYSTEM 'SOCO'  
END  
*** End of File ***
```

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Criteria/Parameters Utilized

Compliant with NERC Standards and SERC Supplements

- TPL-001 through TPL-004

Load levels at 100% of Forecast Peak

- Loss of any one (1) transmission element and any one (1) critical generating unit.
- Loss of any two (2) generating units.

Load levels at 93% of Forecast Peak (Shoulder-Hydro Off or Motoring)

- Loss of any one (1) transmission element
- Consideration may be given to the loss of a generating unit in combination with the above contingencies.

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Criteria/Parameters Utilized

Special Studies

- At **105 %** of Peak Load Level (Reduced dispatch of hydro generation) loss of any one (1) generating unit or one (1) transmission element.
- At load levels below **93%** of Peak Load Level, not more than one (1) transmission element and/or one generating unit outage in conjunction with various transmission and generation maintenance outage scenarios.
- Generation dispatch scenarios

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Criteria/Parameters Utilized

Transmission Lines

- Line loading should not exceed levels that violate design specifications for the conductor, substation infrastructure or the terminal connections. The limiting element of each transmission line shall be the circuit element with the lowest ampere (thermal) rating.
- The thermal rating of the transmission lines are based on the methodology of accepted industry standards and practices with seasonal variations.

Transmission Transformers

- Transformer loading should rely on the nameplate data or the Bulk Power Transformer Loading Guide evaluation as a source of information to establish the rating.

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Criteria/Parameters Utilized

Normal Operation:

Generation Bus

- High-side transmission bus voltage to be maintained at scheduled levels and should not exceed +/- 5%. 500 kV bus voltage should remain between 98 – 107.5 % of the nominal voltage.

Load Bus

- Bus voltage to be maintained within +/- 5% of nominal.

Switching Station Bus

- Bus voltage to be maintained within +/- 5% of nominal. 500 kV bus voltage should remain between 98 – 107.5 % of the nominal voltage.

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Criteria/Parameters Utilized

Contingency in Effect:

Generation Bus

- High-side transmission bus voltage to be maintained at scheduled levels and should not exceed +/- 5%. 500 kV bus voltage should remain between 98 – 107.5 % of the nominal voltage.

Load Bus

- Bus voltage should remain between 90 – 105% of the nominal voltage. In addition, bus voltage should not exceed +/- 5% deviation from pre-contingency voltage levels for non-regulated buses and +/- 8% for regulated buses.

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Criteria/Parameters Utilized

Contingency in Effect (Cont'd):

Switching Station Bus

- Bus voltage should remain between 90 – 105% of the nominal voltage. 500 kV bus voltage should remain between 97 – 107.5% of the nominal voltage.

Expansion Item ITS-15

Homeland 230/115 kV Project

Scenario

- Outage of the Kingsland – Scrubby Bluff 115 kV line overloads the SE Waycross Junction – Saint George Junction 115 kV line
- Additional voltage support needed in the Kingsland area during Georgia or Florida line maintenance outages

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ACCC Output Report

Loadings with project stripped out

ACCC OVERLOAD REPORT: MONITORED BRANCHES AND INTERFACES LOADED ABOVE 100.0 % OF RATING SET B
INCLUDES VOLTAGE REPORT

<-----	MONITORED BRANCH	----->	CONTINGENCY	RATING	FLOW	%
1072*SEWAYCRJ	115.00 2148 HOMELAND	115.00 1	SINGLE 24	47.0	50.3	105.6
1072*SEWAYCRJ	115.00 2148 HOMELAND	115.00 1	SINGLE 26	47.0	54.0	113.7
212 GLNMOREJ	115.00 1072*SEWAYCRJ	115.00 1	SINGLE 122	96.0	96.6	101.9
212*GLNMOREJ	115.00 1085 KETTLEPR	115.00 1	SINGLE 122	96.0	101.3	106.2
1072*SEWAYCRJ	115.00 2148 HOMELAND	115.00 1	SINGLE 122	47.0	79.6	171.6
1072*SEWAYCRJ	115.00 2148 HOMELAND	115.00 1	SINGLE 204	47.0	72.9	156.3
1072*SEWAYCRJ	115.00 2148 HOMELAND	115.00 1	SINGLE 398	47.0	60.5	128.1

MONITORED VOLTAGE REPORT:

SYSTEM	CONTINGENCY	<----- B U S ----->	V-CONT	V-INIT	V-MAX	V-MIN	
'SAMPLE_216 '	RANGE SINGLE 122	1079 FOLKSTON	115.00	0.89410	1.00474	1.05000	0.95000
'SAMPLE_216 '	RANGE SINGLE 122	2148 HOMELAND	115.00	0.89382	1.00301	1.05000	0.95000
'SAMPLE_216 '	RANGE SINGLE 122	2149 STGEORGE	115.00	0.86924	0.98625	1.05000	0.95000
'SAMPLE_216 '	RANGE SINGLE 122	2155 MACEDONA	115.00	0.85856	0.97702	1.05000	0.95000
'SAMPLE_216 '	RANGE SINGLE 204	1079 FOLKSTON	115.00	0.91474	1.00474	1.05000	0.95000
'SAMPLE_216 '	RANGE SINGLE 204	2148 HOMELAND	115.00	0.91409	1.00301	1.05000	0.95000
'SAMPLE_216 '	RANGE SINGLE 204	2149 STGEORGE	115.00	0.89109	0.98625	1.05000	0.95000
'SAMPLE_216 '	RANGE SINGLE 204	2155 MACEDONA	115.00	0.88070	0.97702	1.05000	0.95000
'SAMPLE_216 '	RANGE SINGLE 398	2149 STGEORGE	115.00	0.93849	0.98625	1.05000	0.95000
'SAMPLE_216 '	RANGE SINGLE 398	2155 MACEDONA	115.00	0.92870	0.97702	1.05000	0.95000

*** End of File ***

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Solution

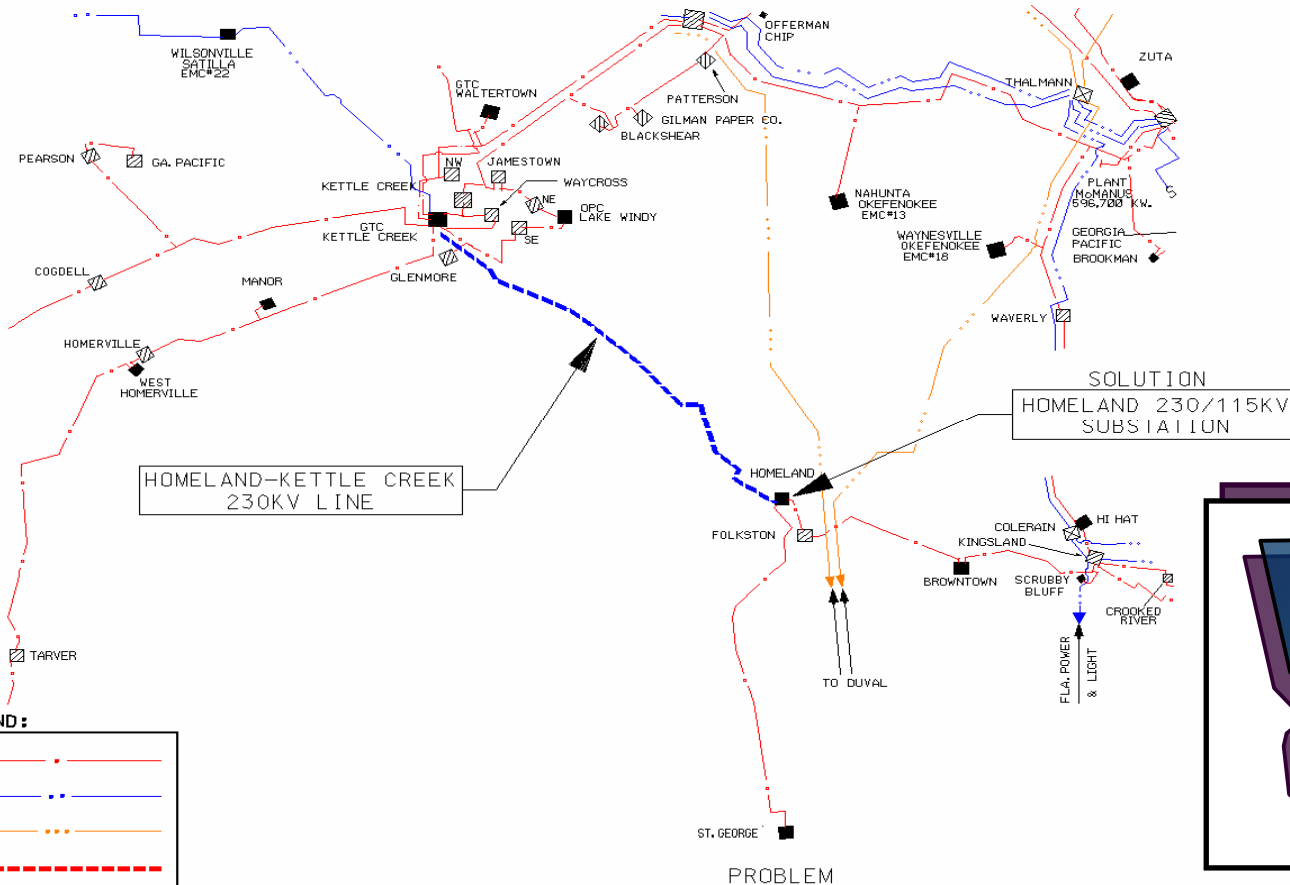
- Homeland 230/115 kV substation
- Homeland-Kettle Creek 230 kV line
- Remove the 115 kV line section between SE Waycross Jct and Saint George Jct.

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Homeland 230/115 kV Project



SOLUTION
HOMELAND 230/115KV
SUBSTATION

HOMELAND-KETTLE CREEK
230KV LINE

PROBLEM

OUTAGE OF THE KINGSLAND-SCRUBBY BLUFF 115KV LINE OVERLOADS
THE SE WAYCROSS JUNCTION-SAINT GEORGE JUNCTION 115KV LINE

LEGEND:

- 115 KV ———
- 230 KV ———
- 500 KV ———
- NEW 115 KV - - - - -
- NEW 230 KV - - - - -
- NEW 500 KV - - - - -



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Benefits

- Alleviates overload of SE Waycross Junction – Saint George Junction 115 kV line
- Provides additional voltage support in area and alleviates voltage concern during line maintenance conditions
- Provides an additional source into the Folkston/Kingsland area

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ACCC Output Report

Loadings with project in

ACCC OVERLOAD REPORT: MONITORED BRANCHES AND INTERFACES LOADED ABOVE 100.0 % OF RATING SET B
INCLUDES VOLTAGE REPORT

|
<----- MONITORED BRANCH -----> CONTINGENCY RATING FLOW %

MONITORED VOLTAGE REPORT:
SYSTEM CONTINGENCY <----- B U S -----> V-CONT V-INIT V-MAX V-MIN

Evaluating New Resources

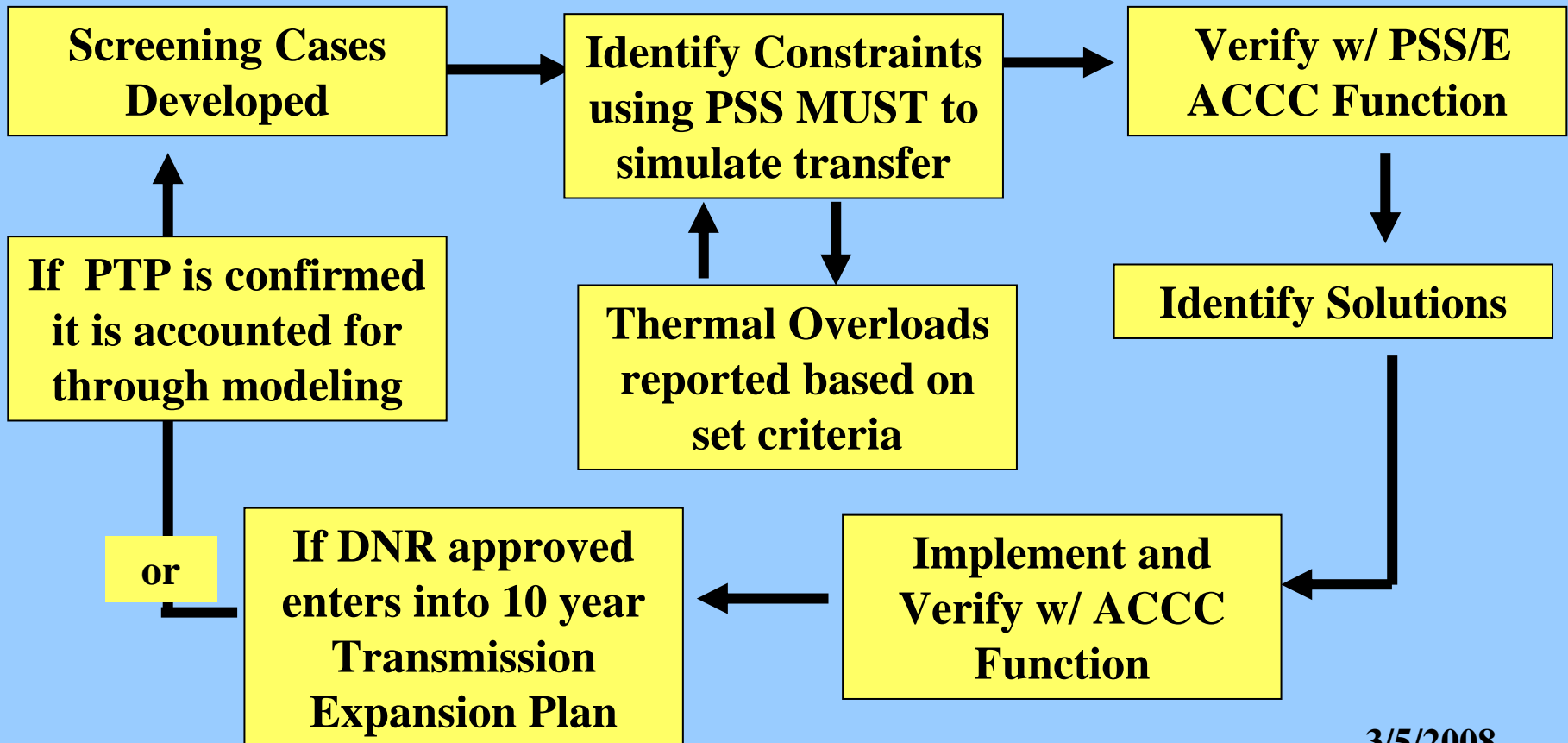
Examples:

- **Point to Point Requests**
- **New Native Load Resources**

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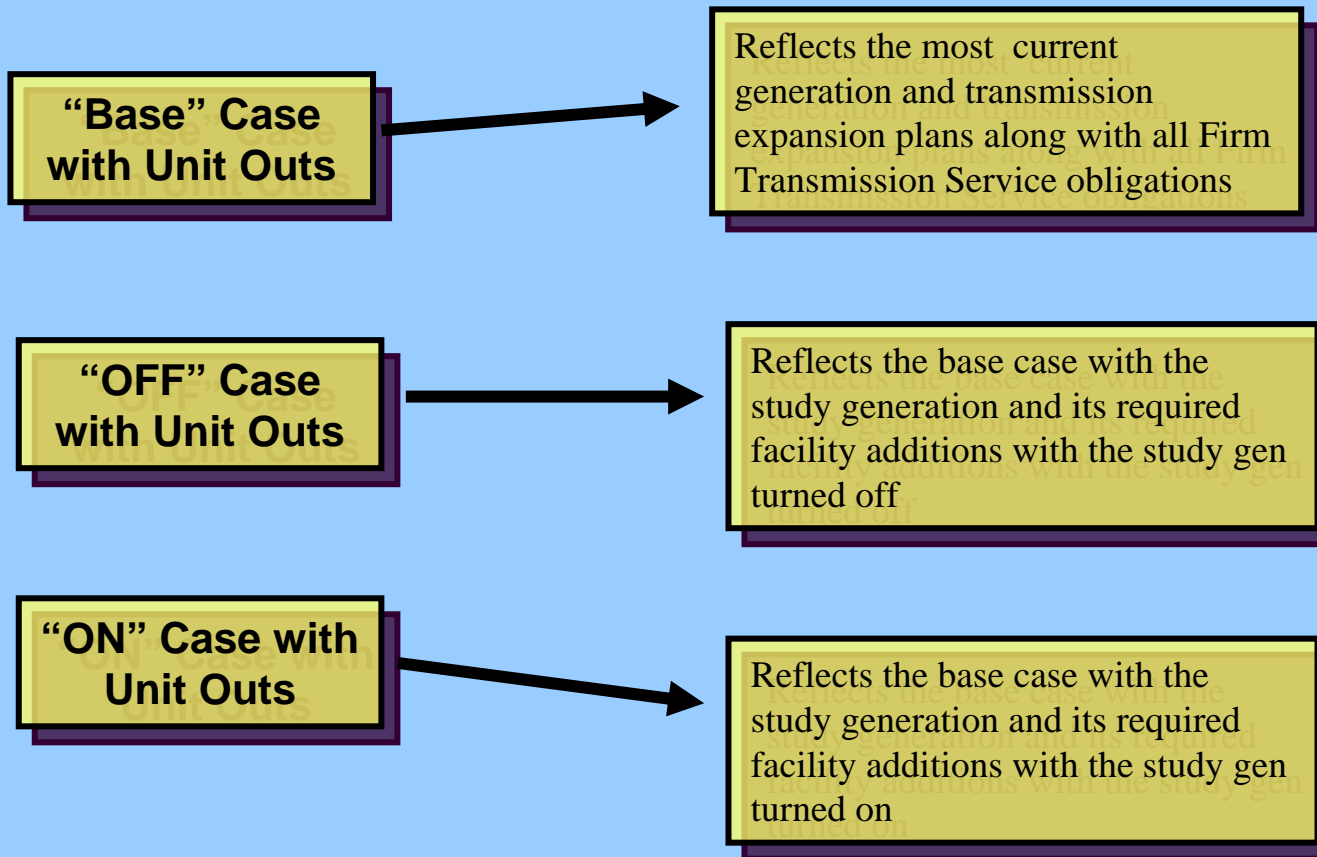
New Resource Evaluation

Analysis Cycle



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Study Case Development



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Performing Transfer Analysis

Utilizing “MUST”

- ❖ **Analysis is performed utilizing the “OFF” cases**
- ❖ **Transfer is made from “Source” to “Sink”**
- ❖ **“Source” and “Sink” is defined within the subsystem file; “.SUB”**
- ❖ **Elements to be monitored are defined in the monitor file; “.MON”**
- ❖ **Elements to be taken out of service are defined in the contingency file; “.CON”**

Example Subsystem File

```
* * * Top of File * * *  
com - Subsystem for NEW PLANT EVALUATION  
com - LMP, 1/1/2008
```

```
  subsystem 'NEWPLANT'  
    participate  
      bus 9900 500  
    end  
  end
```

```
  subsystem 'SOCO_ID'  
    area 1  
    scale all load  
  END
```

```
SUBSYSTEM 'GTC'  
  ZONES 201 218  
  SCALE ALL LOAD  
END
```

```
Subsystem 'NEWPLANTSink'  
participate  
  system GTC 500  
end  
end  
END  
* * * End of File * * *
```

Example .MON File

```
*** Top of File ***  
com NEWPLANT MONITOR FILE  
com LMP, 01/01/2008  
com  
monitor branches in area 1  
monitor branches in area 7  
monitor branches in area 8  
monitor ties from area 1  
monitor ties from area 7  
monitor ties from area 8  
monitor branches in area 147 kvrage 161 500  
monitor branches in area 142 kvrage 230 500  
monitor branches in area 143 kvrage 230 500  
monitor branches in area 144 kvrage 230 500  
end  
*** End of File ***
```

Example .CON File

```
*** Top of File ***  
com NEWPLANT CONTINGENCY FILE  
com LMP, 01/01/2008  
com  
single branch in area 1  
single branch in area 7  
single branch in area 8  
single tie from area 1  
single tie from area 7  
single tie from area 8  
end  
*** End of File ***
```

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Executing An Analysis Using MUST

- ❖ **Begin running the MUST software**
- ❖ **Enter the location of the "OFF" Case**
- ❖ **Enter the location of the ".SUB", ".MON", and ".CON" files**

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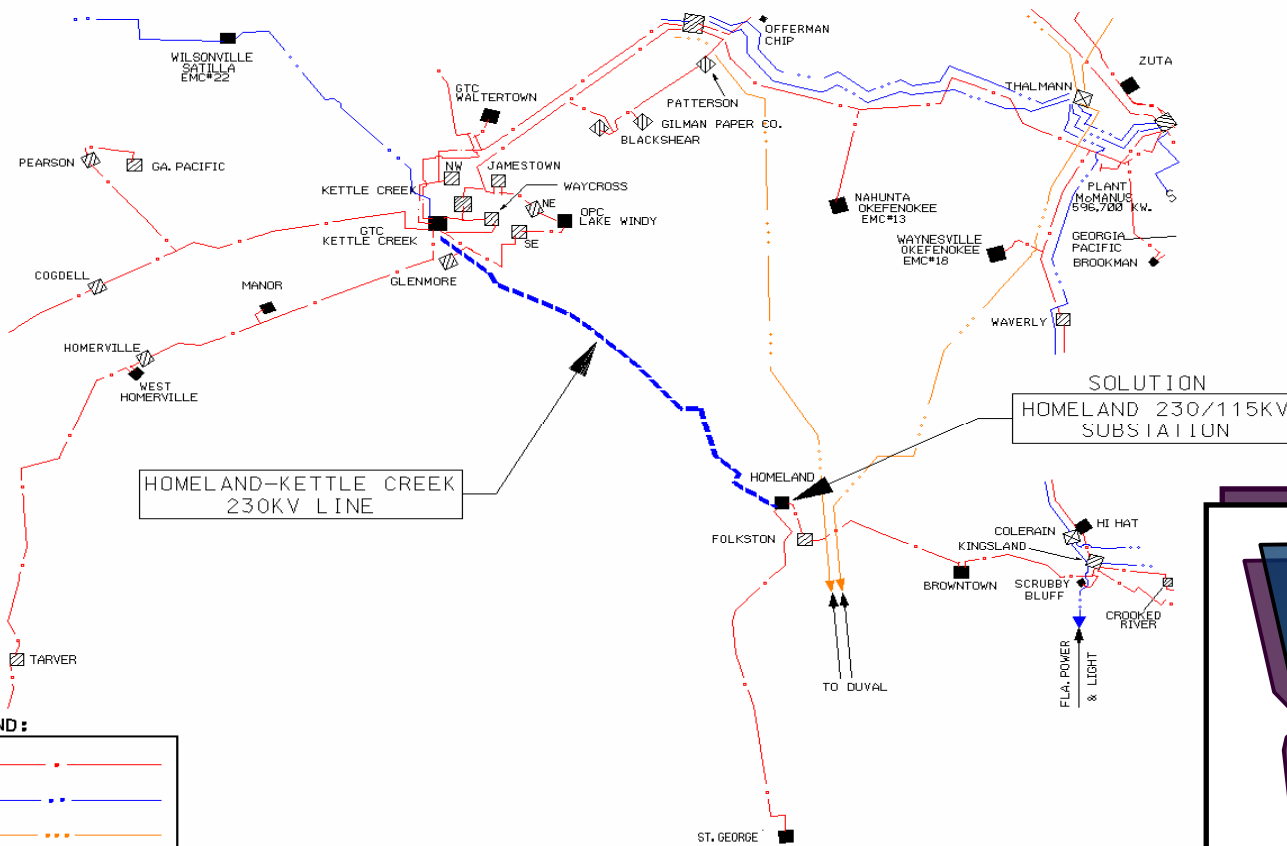
MUST Criteria

- ❖ **Distribution Cutoff -- 0.005%**
- ❖ **Facility Overload Cutoff – 95% of Rate B**

Note: This is an “And” function (e.g. 0.005% and 95% of Rate B).

The 95% of Rate B cutoff is used for MUST screening. Transmission Facilities identified in the MUST screening analysis are then AC verified using PSSE to determine if they exceed 100% of Rate B.

Homeland 230/115 kV Project



HOMELAND-KETTLE CREEK
230KV LINE

SOLUTION
HOMELAND 230/115KV
SUBSTATION

HOMELAND

FOLKSTON

ST. GEORGE

TO DUVAL

FLA. POWER
& LIGHT

LEGEND:

115 KV	
230 KV	
500 KV	
NEW 115 KV	
NEW 230 KV	
NEW 500 KV	

OUTAGE OF THE KINGSLAND-SCRUBBY BLUFF 115KV LINE OVERLOADS
THE SE WAYCROSS JUNCTION-SAINT GEORGE JUNCTION 115KV LINE



MUST Transfer Output

FCITC Single Study

PSS(tm)MUST 8.3.1 -- Managing and Utilizing System Transmission -- MON, MAR 03 2008 23:06

2007 SERIES, Contract 2009 VER 03

Source: PROLATEST40.MDB, 9/14/2007 10:28:10 AM

Case.File C:\DATA\RegionalPlanning\1stSERTPMeeting\HOMELANDPLANT\NEWPlant\C09v03L_OFF_NUD.5av

Subsys.File C:\DATA\RegionalPlanning\1stSERTPMeeting\HOMELANDPLANT\NEWPlant\NEWPLANT.sub

Monit.File C:\DATA\RegionalPlanning\1stSERTPMeeting\HOMELANDPLANT\NEWPlant\NEWPLANT.mon

Contin.File C:\DATA\RegionalPlanning\1stSERTPMeeting\HOMELANDPLANT\NEWPlant\NEWPLANT.con

Exclud.File none

Study transfer level - 1000.0 MW. Total violations: 26192

First violation - -5936.9 MW.

Study transfer. From NEWPLANT To NEWPLANTSINK . Transfer level - 1000.0 MW

Violations report ordered by transfer capability. Total 26192 violations

INCR. TRANS CAPAB	LIMITING ELEMENT			PRE- DISTR.	RATING SHIFT	BAS/CNT MW	B/B	CONTINGENCY	DESCRIPTION
	FROM	TO	CKT						
-5936.9	2202 VILLARIC	115	2432 NEW GA	115 1	0.00600	159.6	124.0	189 BIG SHAN	230 1293 MCCONNEL 230 1 495
-5723.1	2202 VILLARIC	115	2432 NEW GA	115 1	0.00595	158.0	124.0	Open 189 BIG SHAN	230 1293 MCCONNEL 230 1 2068
-4794.2	473 BIO	115	1394 MNROAUTO	115 1	0.00556	214.7	188.0	Open 1293 MCCONNEL	230 2456 MCCONNL3 115 1
-3881.4	1327 HARTWELL	115	1394 MNROAUTO	115 1	-0.00542	-209.0	188.0	Open 94 BIO	230 105 VANNA 230 1 215
-3134.0*	2202 VILLARIC	115	2432 NEW GA	115 1	0.00567	141.8	124.0	Open 94 BIO	230 105 VANNA 230 1 215
-2316.2	170 SGRIFFIN	230	746 SGRIFFIN	115 1	0.00740	315.1	298.0	Open 94 BIO	230 105 VANNA 230 1 215
-2303.7	473 BIO	115	1394 MNROAUTO	115 1	0.00508	199.7	188.0	Open 185 VILLA RI	230 187 CEDAR MT 230 1 479
-2296.2*	473 BIO	115	1394 MNROAUTO	115 1	0.00508	199.7	188.0	Open 185 VILLA RI	230 187 CEDAR MT 230 1 479
-1830.1	756 ARKWRT*3	115	1659 BASSRDJC	115 1	0.00541	154.9	145.0	Open 736 OHARA	115 739 BONANZA 115 1 1431
-1289.8	149 S MACON	230	767 SMACON*3	115 2	0.00865	291.2	280.0	Open 87 R_VANNA	230 105 VANNA 230 1 191
-1063.9	149 S MACON	230	767 SMACON*3	115 1	0.00859	289.1	280.0	Open 87 R_VANNA	230 105 VANNA 230 1 190
-288.4	736 OHARA	115	739 BONANZA	115 1	0.00669	270.9	269.0	Open 87 R_VANNA	230 99 NEWHAVEN 230 1 230
-139.6	804 BONAIRE3	115	1691 RAFBCTS	115 1	0.01259	189.8	188.0	Open 767 SMACON*3	115 2305 VINEVILL 115 1 1485
-93.6	803 ANCHOR#A	115	1691 RAFBCTS	115 1	-0.01259	-189.2	188.0	Open 767 SMACON*3	115 2305 VINEVILL 115 1
145.7	1079 FOLKSTON	115	2148 HOMELAND	115 1	-0.99899	31.6	114.0	Open 149 S MACON	230 767 SMACON*3 115 1 375
169.9	1079 FOLKSTON	115	2399 BROWNTWN	115 1	0.99820	-55.6	114.0	Open 149 S MACON	230 767 SMACON*3 115 1
223.6	2399 BROWNTWN	115	2520 SCRUBBYJ	115 1	0.99779	-68.1	155.0	Open 149 S MACON	230 767 SMACON*3 115 2 376
229.6	859 KINGSLND	115	2520 SCRUBBYJ	115 1	-0.99760	74.0	155.0	Open 149 S MACON	230 767 SMACON*3 115 2
264.1	1079 FOLKSTON	115	2148 HOMELAND	115 1	-0.28121	-39.7	114.0	Open 171 OHARA	230 1629 WOOLSEY 230 1 444
288.1*	1079 FOLKSTON	115	2148 HOMELAND	115 1	-0.19235	-58.6	114.0	Open 171 OHARA	230 1629 WOOLSEY 230 1
300.1	128 HOMELAND	230	2148 HOMELAND	115 1	1.00000	-0.1	300.0	Open 804 BONAIRE3	115 1657 RUSPKYJC 115 1 1537
								Open 804 BONAIRE3	115 1657 RUSPKYJC 115 1 1537
								Open 804 BONAIRE3	115 1657 RUSPKYJC 115 1
								Open 225 KETTLEPR	230 9900 NEWTAP1 230 1 600
								Open 225 KETTLEPR	230 9900 NEWTAP1 230 1 600
								Open 225 KETTLEPR	230 9900 NEWTAP1 230 1 600
								Open 225 KETTLEPR	230 9900 NEWTAP1 230 1 600
								Open 225 KETTLEPR	230 9900 NEWTAP1 230 1 600
								Open 225 KETTLEPR	230 9900 NEWTAP1 230 1 600
								Open 163 COLERAIN	230 2591 THALBUS1 230 1 414
								Open 163 COLERAIN	230 2591 THALBUS1 230 1
								Open 225 KETTLEPR	230 9900 NEWTAP1 230 1 600
								Open 225 KETTLEPR	230 9900 NEWTAP1 230 1

Sample ACCC Output

ACCC OVERLOAD REPORT: MONITORED BRANCHES AND INTERFACES LOADED ABOVE 100.0 % OF RATING SET B
INCLUDES VOLTAGE REPORT

	MONITORED BRANCH		CONTINGENCY	RATING	FLOW	%
1079*FOLKSTON	115.00	2148 HOMELAND	115.00 1 1	114.0	127.4	109.3
2202*VILLARIC	115.00	2432 NEW GA	115.00 1 1	124.0	158.9	127.3
473 BIO	115.00	1394*MNROAUTO	115.00 1 3	188.0	210.1	112.8
1275*AQUILLAJ	115.00	2406 TNSJCT2	115.00 1 3	124.0	130.6	106.5
1385 TNSMILLS	115.00	2405*TNSJCT1	115.00 1 3	124.0	140.6	114.5
170*SGRIFFIN	230.00	746 SGRIFFIN	115.00 1 5	298.0	312.7	104.9
744 HAMPTON3	115.00	1220*DALYMLTP	115.00 1 5	124.0	112.7	100.0
1079*FOLKSTON	115.00	2148 HOMELAND	115.00 1 6	114.0	127.4	109.3
1327 HARTWELL	115.00	1394*MNROAUTO	115.00 1 6	188.0	194.6	102.7
1385 TNSMILLS	115.00	2405*TNSJCT1	115.00 1 6	124.0	126.8	102.3
473 BIO	115.00	1394*MNROAUTO	115.00 1 7	188.0	199.1	105.1
1327 HARTWELL	115.00	1394*MNROAUTO	115.00 1 7	188.0	194.6	102.7
1385 TNSMILLS	115.00	2405*TNSJCT1	115.00 1 7	124.0	126.8	102.3
756 ARKWRT*3	115.00	1659*BASSRDJC	115.00 1 8	145.0	157.7	111.1
1079*FOLKSTON	115.00	2148 HOMELAND	115.00 1 8	114.0	127.4	109.3
149*S MACON	230.00	767 SMACON*3	115.00 2 9	280.0	296.1	105.8

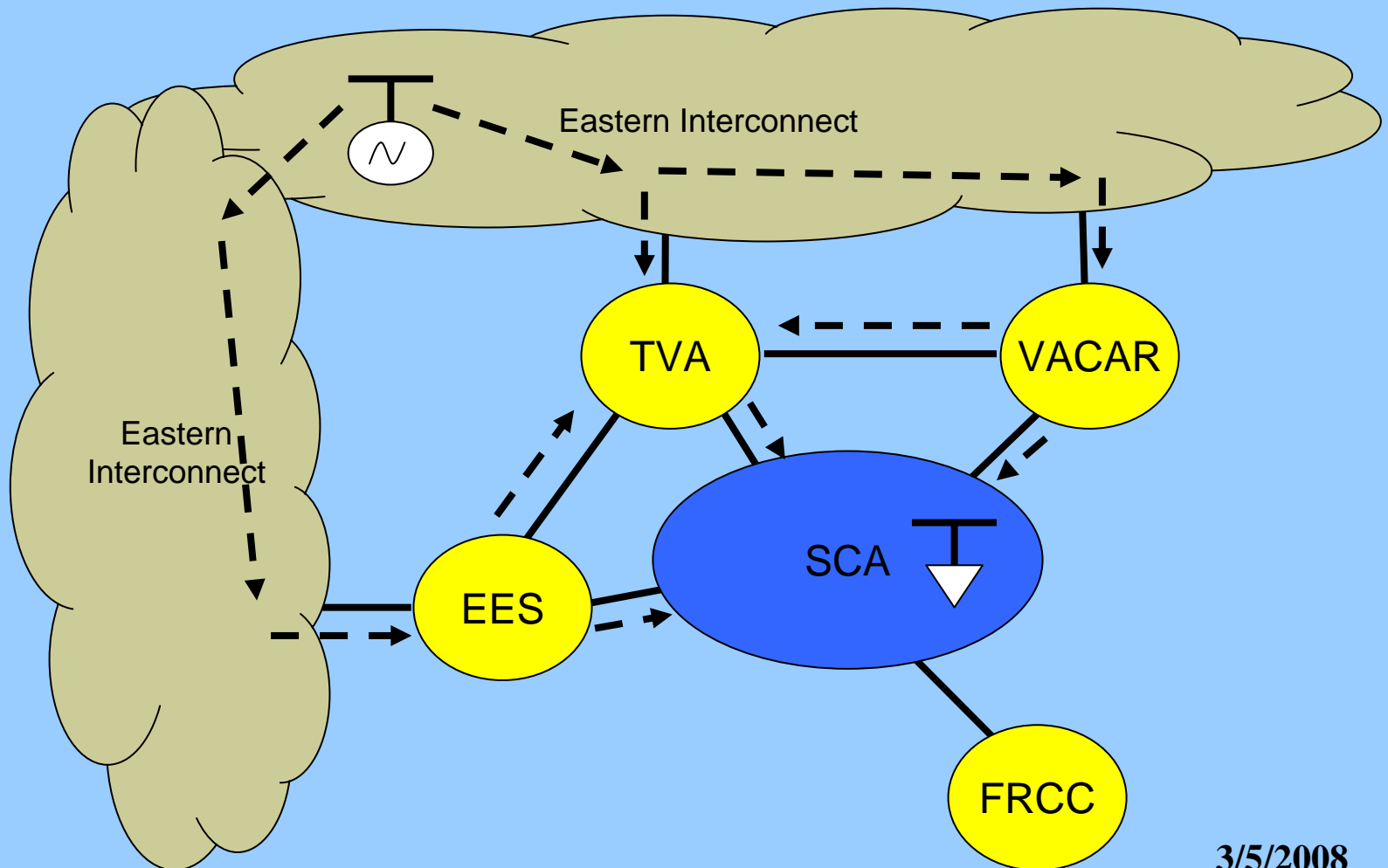
MONITORED VOLTAGE REPORT:

SYSTEM	CONTINGENCY	B U S	V-CONT	V-INIT	V-MAX	V-MIN
AREA 1	RANGE 1	3052 WARTHEN	500.00	1.05586	1.05587	1.05000 0.95000
AREA 1	RANGE 5	745 POMONA 3	115.00	0.94253	1.00556	1.05000 0.95000
AREA 1	RANGE 5	1214 DAILYMIL	115.00	0.90514	0.98645	1.05000 0.95000
AREA 1	RANGE 5	1220 DALYMLTP	115.00	0.90908	0.99005	1.05000 0.95000
AREA 1	RANGE 5	1675 GREENWDP	115.00	0.90803	0.98936	1.05000 0.95000

CONTINGENCY LEGEND:

LABEL	EVENTS
1	: OPEN BRANCH FROM BUS 189 [BIG SHAN 230.00] TO BUS 1293 [MCCONNEL 230.00] CKT 1
2	: OPEN BRANCH FROM BUS 1293 [MCCONNEL 230.00] TO BUS 2456 [MCCONNL3 115.00] CKT 1
3	: OPEN BRANCH FROM BUS 94 [BIO 230.00] TO BUS 105 [VANNA 230.00] CKT 1
4	: OPEN BRANCH FROM BUS 185 [VILLA RI 230.00] TO BUS 187 [CEDAR MT 230.00] CKT 1
5	: OPEN BRANCH FROM BUS 736 [OHARA 115.00] TO BUS 739 [BONANZA 115.00] CKT 1
6	: OPEN BRANCH FROM BUS 87 [R_VANNA 230.00] TO BUS 105 [VANNA 230.00] CKT 1
7	: OPEN BRANCH FROM BUS 87 [R_VANNA 230.00] TO BUS 99 [NEWHAVEN 230.00] CKT 1
8	: OPEN BRANCH FROM BUS 767 [SMACON*3 115.00] TO BUS 2305 [VINEVILL 115.00] CKT 1
9	: OPEN BRANCH FROM BUS 149 [S MACON 230.00] TO BUS 767 [SMACON*3 115.00] CKT 1
10	: OPEN BRANCH FROM BUS 171 [OHARA 230.00] TO BUS 1629 [WOOLSEY 230.00] CKT 1
11	: OPEN BRANCH FROM BUS 804 [BONAIRE3 115.00] TO BUS 1657 [RUSPKYJC 115.00] CKT 1
13	: OPEN BRANCH FROM BUS 225 [KETTLEPR 230.00] TO BUS 1085 [KETTLEPR 115.00] CKT 1
14	: OPEN BRANCH FROM BUS 163 [COLERAIN 230.00] TO BUS 2591 [THALBUS1 230.00] CKT 1

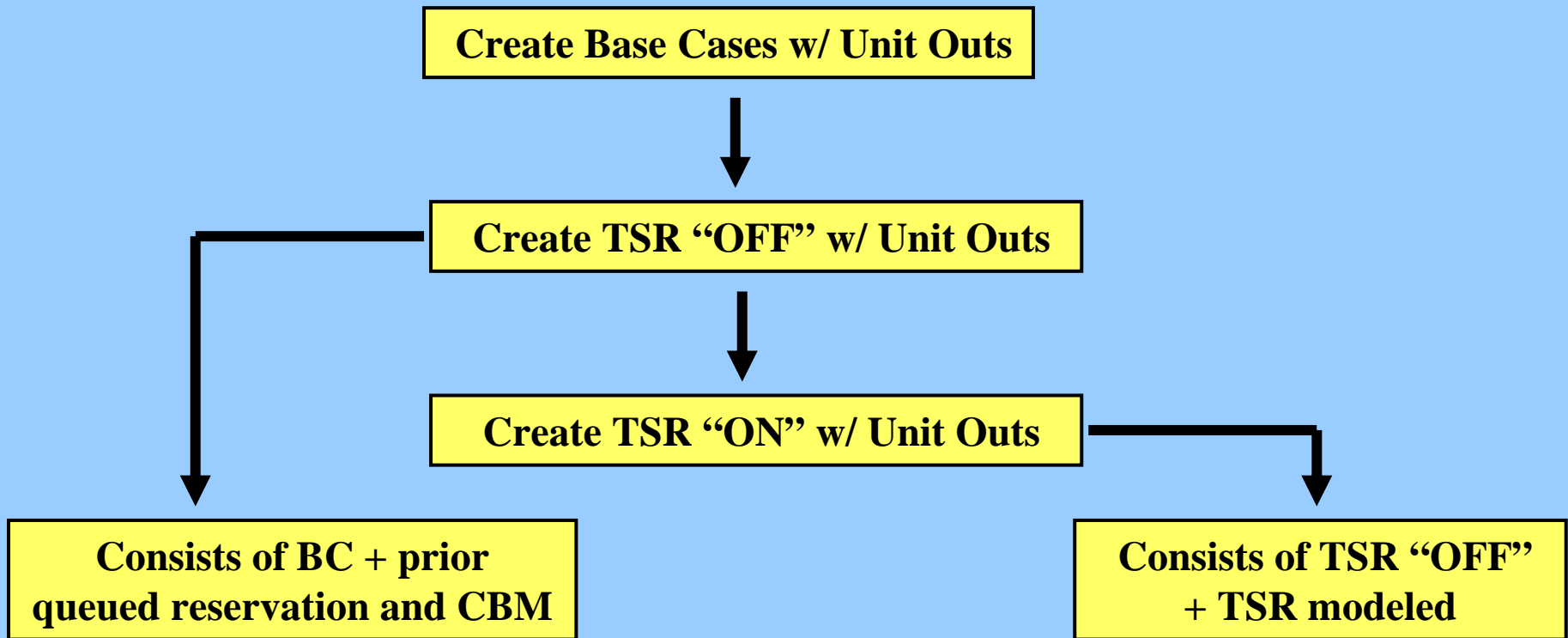
Long-Term Interface Analysis



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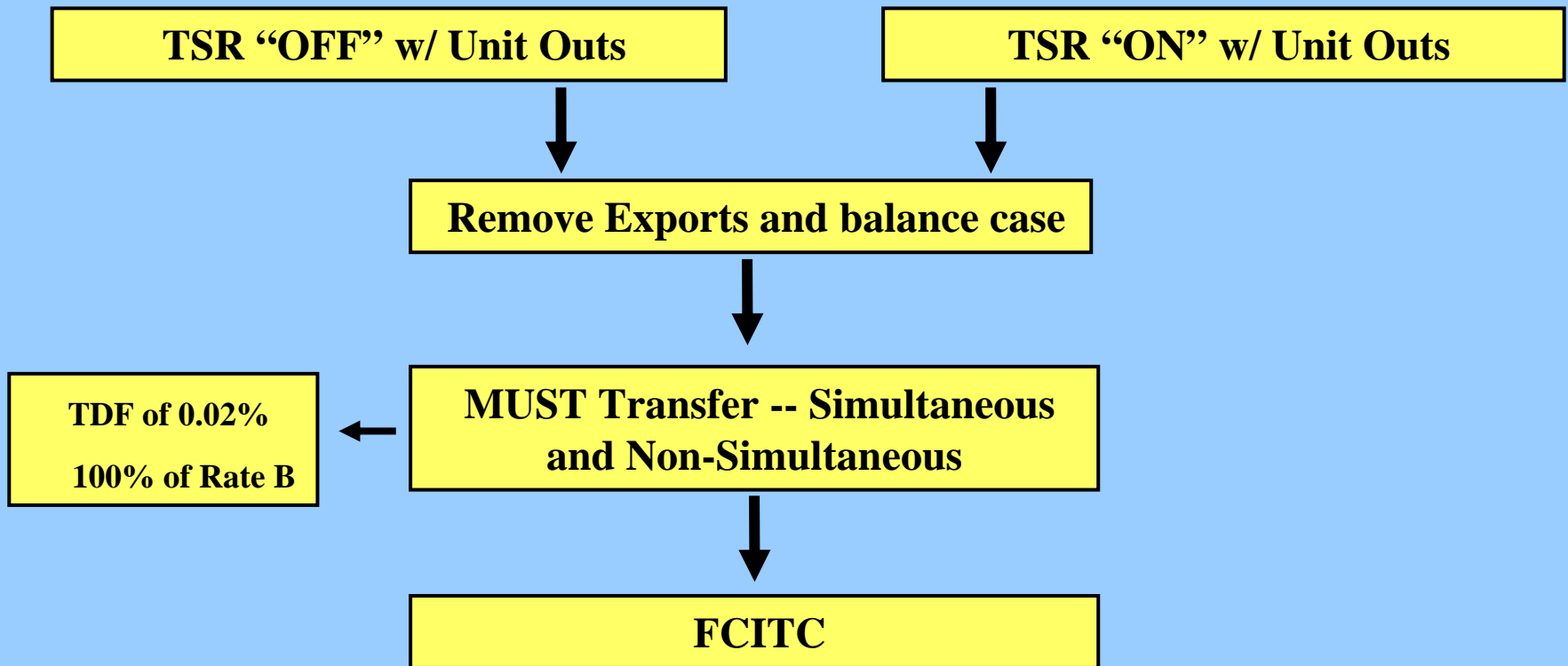
Long-Term Interface Analysis

Evaluating Import Impacts of a TSR



Interactive Training Session

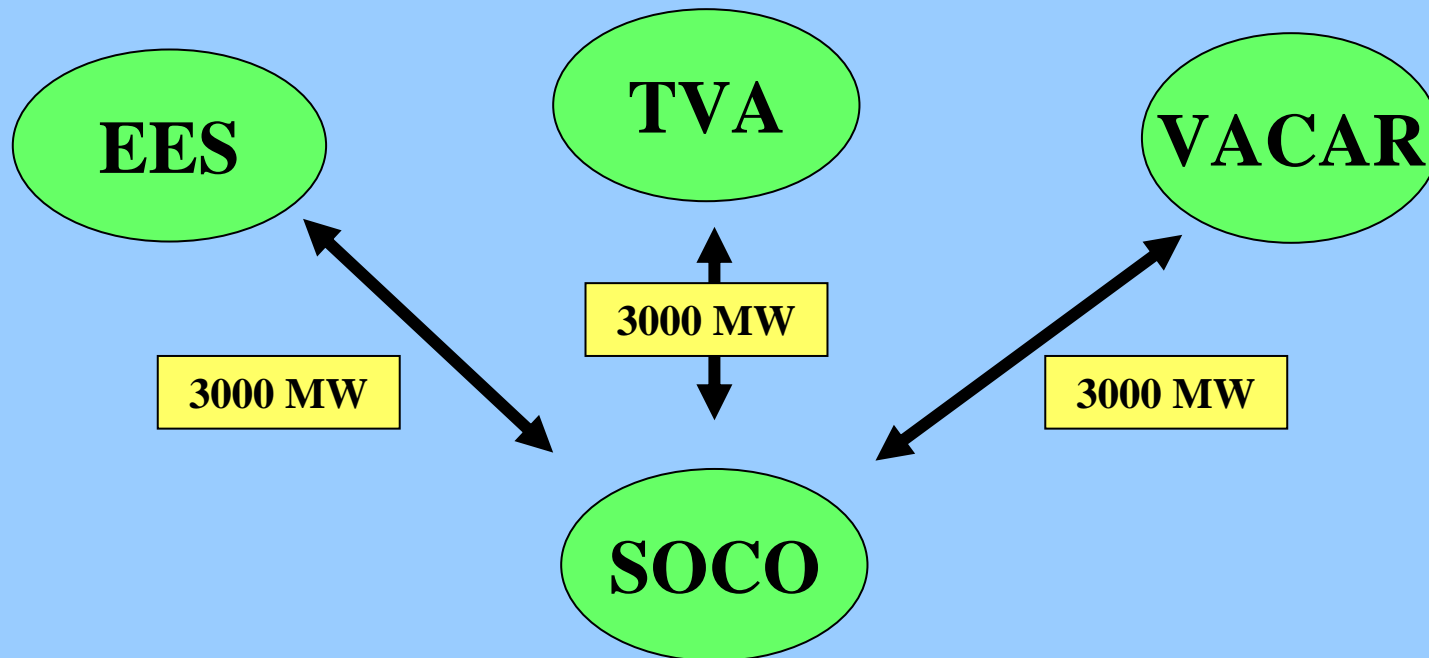
Import Analysis Example



Interactive Training Session

MUST Transfers

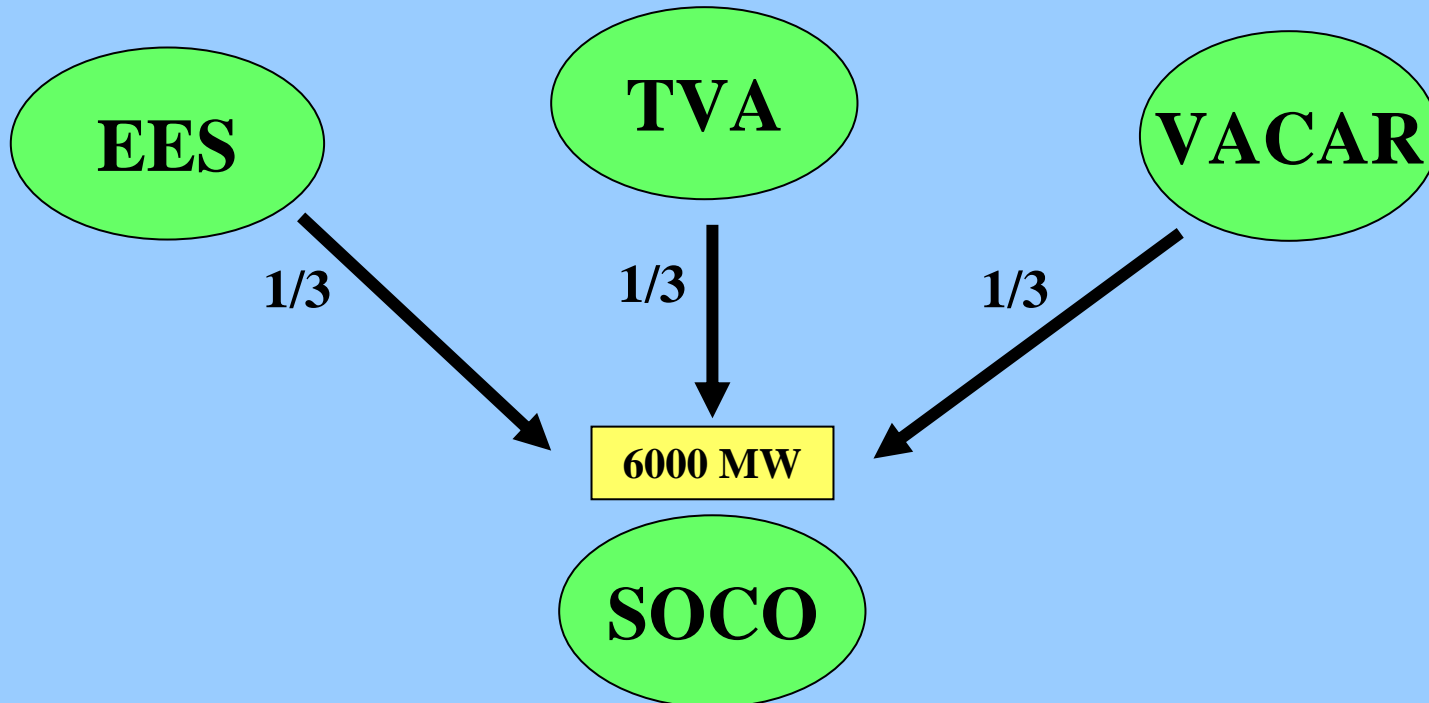
Non-Simultaneous Import/Export



Interactive Training Session

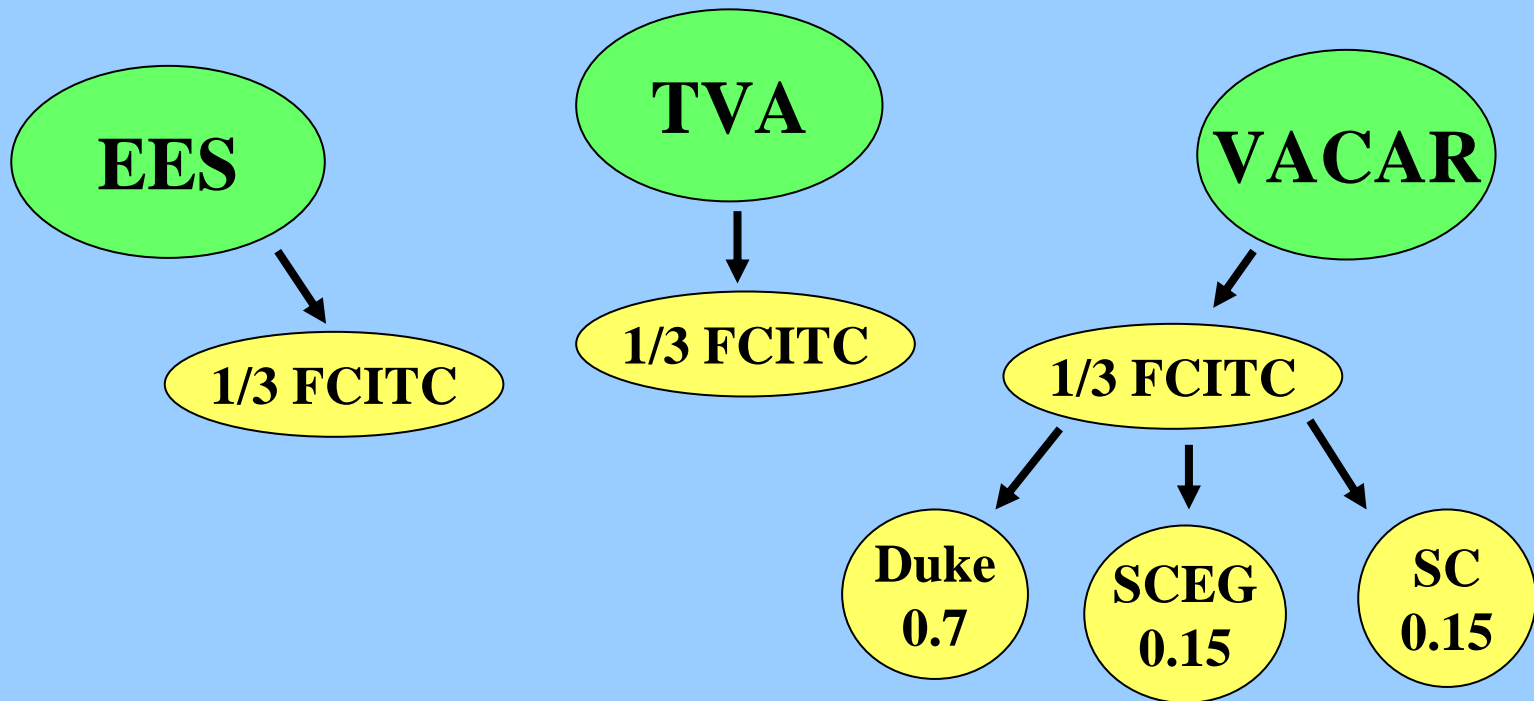
MUST Transfers

Simultaneous Import (Only)



Interactive Training Session

Simultaneous Import (Only)



Allocation of FCITC

Interactive Training Session

Non-Simultaneous Import

EES

TVA

SCEG

DUK

SC

**Non-Simultaneous FCITC is allocated 100% to
importing interface**

Interactive Training Session

MUST Transfers

- ❖ FCITC Calculated via MUST
- ❖ FCITC + Base Transfers (including TSR in “ON” case) = FCTTC
- ❖ FCTTC(IO) allocated based on interface ownership
- ❖ $CBM(IO) + TRM(IO) + ETC(IO) + TSR < FCTTC(IO)$ **service available**