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January 14, 2003

The Honorable Magalie Roman Salas  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, N.E.  
Washington, D.C. 20426

**Re: *California Independent System Operator Corporation***  
**Docket No. EC03-27-000**

Dear Secretary Salas:

Enclosed please find an original and 14 copies of the Motion of the California Independent System Operator Corporation for Leave to File Answer and Answer to Comments and Protests and to Request for Hearing in the above-captioned docket. Two additional copies of this filing are enclosed to be stamped with the date and time of filing and returned to our messenger. If there are any questions concerning this filing, please contact the undersigned.

Respectfully submitted,



Julia Moore

Counsel for the California Independent System  
Operator Corporation

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

California Independent System            )     Docket No. EC03-27-000  
Operator Corporation                    )

**MOTION FOR LEAVE TO FILE ANSWER AND  
ANSWER OF THE CALIFORNIA INDEPENDENT  
SYSTEM OPERATOR CORPORATION TO COMMENTS AND  
PROTESTS AND TO REQUEST FOR HEARING**

Pursuant to Rule 213 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.213 (2002), the California Independent System Operator Corporation ("ISO") submits its Motion for Leave to File Answer and Answer to the Comments and Protests submitted in the above-captioned docket.<sup>1</sup>

**I. BACKGROUND**

On November 25, 2002, the ISO filed, in Docket No. ER03-219-000, an amended Transmission Control Agreement ("TCA"),<sup>2</sup> executed by Pacific Gas and Electric Company ("PG&E"), San Diego Gas & Electric Company ("SDG&E"), Southern

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<sup>1</sup> Notwithstanding Rule 213(a)(2), 18 C.F.R. § 385.213(a)(2), the Commission has accepted answers to protests that assist the Commission's understanding and resolution of the issues raised in a protest, *Long Island Lighting Co.*, 82 FERC ¶ 61,129 (1998); clarify matters under consideration, *Arizona Public Service Co.*, 82 FERC ¶ 61,132 (1998), *Tennessee Gas Pipeline Co.*, 82 FERC ¶ 61,045 (1998); or materially aid the Commission's disposition of a matter, *El Paso Natural Gas Co.*, 82 FERC ¶ 61,052 (1998). The ISO's Answer will clarify matters under consideration, aid the Commission's understanding and resolution of the issues and help the Commission to achieve a more accurate and complete record, on which all parties are afforded the opportunity to respond to one another's concerns. *Northern Border Pipeline Co.*, 81 FERC ¶ 61,402 (1997); *Hopkinton LNG Corp.*, 81 FERC ¶ 61,291 (1997). The Commission accordingly should accept this Answer.

<sup>2</sup> The TCA is the agreement among the ISO and Participating Transmission Owners ("Participating TOs") that establishes the terms and conditions under which Transmission Owners place certain transmission facilities and Entitlements under the ISO's Operational Control, thereby becoming Participating TOs. The TCA describes how the ISO and each Participating TO will discharge its respective duties and responsibilities with respect to the operation of those facilities and Entitlements. Capitalized terms not otherwise defined herein are used in the sense given in the Master Definitions Supplement, Appendix A to the ISO Tariff.

California Edison Company ("SCE"), and the City of Vernon, California ("Vernon") (the existing ISO Participating TOs), and the Cities of Anaheim, Azusa, Banning, and Riverside, California (together, "Southern Cities"). The purpose of the amended TCA was: (1) to clarify, amend, and supplement various provisions of the current TCA in response to issues raised by the Southern Cities, (2) to identify the transmission interests that Southern Cities would be turning over to the ISO's Operational Control, and (3) to make certain other changes to the TCA proposed by the ISO and the current Participating TOs.

In connection with the amended TCA, the ISO also filed on November 25, 2002, in Docket No. ER03-218-000, Amendment No. 47 to the ISO Tariff, which proposes to modify the Tariff to be consistent with the provisions of the TCA that are being amended to accommodate the Southern Cities becoming Participating TOs. The process of becoming a Participating TO involves signing the TCA and turning over Operational Control of transmission facilities and Entitlements to the ISO. The Southern Cities requested several changes to the TCA prior to signing it, which necessitated minor changes to the ISO Tariff. Amendment 47 reflects the necessary Tariff revisions.

In addition to the amended TCA and Amendment 47, the ISO filed, on December 2, 2002, in Docket No. EC03-27-000, an application to assume Operational Control of the facilities and Entitlements being turned over by the Southern Cities. The Commission issued an order on December 23, 2002 authorizing the transfer. *California Independent System Operator Corp.*, 101 FERC ¶ 62,191 ("December 23 Order").

Several parties filed Comments or Protests in these dockets. The ISO filed an Answer to the Comments and Protests filed in the ER03-218 and ER03-219 dockets on

December 31, 2002, but did not file an answer to the pleadings in this docket because the Commission already had issued the December 23 Order approving the transfer.

On December 30, 2002, CDWR filed a Request for Rehearing of the December 23 Order, based on the allegation that the Commission did not take CDWR's December 20 Protest into account in approving the ISO's 203 filing.

In light of the confusion that has arisen about the status of the December 23 Order,<sup>3</sup> the ISO files this Motion for Leave to File Answer and Answer to the Protests filed by the California Department of Water Resources ("CDWR") and SCE in this docket, as well as to the Request for Hearing of CDWR.<sup>4</sup>

## **II. MOTION FOR LEAVE TO FILE ANSWER**

As noted above, the ISO did not previously file an Answer to the Protests and Request for Hearing filed in this docket because the Commission had issued the December 23 Order accepting the transfer of the Southern Cities' Entitlements to ISO Operational Control. Some time after the December 23 Order was issued, and after the time to prepare a timely Answer to Protests in the absence of the Order had passed, there was some indication that the Commission intended to rescind the Order due to some procedural irregularities. To the ISO's knowledge, the December 23 Order has not been rescinded as of the date of this pleading.

Nonetheless, out of a desire to clarify matters under consideration, aid the Commission's understanding and resolution of the issues and help the Commission to

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<sup>3</sup> See the January 10, 2003 "Protest and Request for Hearing [ ] of the California Department of Water Resources State Water Project" in Docket No. ER03-310-000 at 7-8 and Exhibit 2.

<sup>4</sup> CDWR appended its December 20 Protest to its December 30 Request for Rehearing.

achieve a more accurate and complete record, the ISO requests leave to file this Answer to the Protests and Request for Hearing filed in this docket.

Moreover, due to the confusion surrounding the December 23 Order, the ISO requests that the time period for submitting this Answer be tolled from the date of CDWR's Request for Rehearing (*i.e.*, December 30), rather than that of the original Protests.

### **III. ANSWER TO PROTESTS AND TO REQUEST FOR HEARING**

#### **A. The Entitlements Being Turned Over to ISO Operational Control Are Available for Use by Other Market Participants**

SCE and CDWR express concern that the new transmission Entitlements that the Southern Cities are proposing to turn over to ISO Operational Control will not be made available by the ISO for use by Market Participants. SCE at 2-4; CDWR at 11-14. The ISO acknowledges that delays occurred in its implementation of systems changes necessary to make all of the transmission Entitlements of Vernon, the first new utility to become a New Participating TO, available for use by Market Participants. The ISO has engaged in an intensive effort, however, to reconfigure its systems and add new branch groups to make all new Entitlements of the Southern Cities and Vernon available for Market Participant use as of January 1, 2003, the date that the ISO has requested the revised TCA be made effective.

On December 16, 2002, the ISO issued a Market Notice<sup>5</sup> to all ISO Market Participants announcing the availability of scheduling rights on the new Entitlements of the Southern Cities as of January 1, 2003 and the modifications that have been made to

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<sup>5</sup> See <http://www.caiso.com/docs/09003a6080/1c/fa/09003a60801cfa7b.pdf>.

the ISO system network model to create five new branch groups, tie points, and Congestion Zones for Market Participant use in that scheduling.<sup>6</sup> The ISO subsequently held a “market simulation” for scheduling at the new Scheduling Points on December 26 and 27, 2002. All systems issues have been resolved sufficiently to permit Market Participant use of the Southern Cities’ Entitlements as of January 1, 2003, and all Scheduling Coordinators have had those new paths available to them since that time. On that basis, the ISO urges the Commission to reject the objections of SCE and CDWR in this regard.

**B. The New Entitlements Are Not “Gen Ties”**

CDWR provides an extensive discussion of the characteristics of “generation tie lines” (“gen ties”) and suggests that some of the new Entitlements proposed to be turned over to ISO Operational Control by the Southern Cities are gen ties that should be rejected by the ISO. CDWR argues certain Southern Cities facilities have “hallmarks” of gen tie facilities and that any such facilities that are (1) identified as gen tie facilities and thus not appropriate for inclusion in the ISO’s transmission Access Charge rates and (2) are not comparably usable by ISO transmission customers, should not be transferred to the ISO’s Operational Control. CDWR at 2-8. CDWR maintains that Commission policy defines network facilities as those that are “at or beyond the point where the customer or generator connects to the grid,” and thus properly are

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<sup>6</sup> SCE notes in its Protest that if the ISO were to “implement this new model and makes the other necessary arrangements, it should eliminate [SCE’s] concern about [the new] entitlements being usable by other market participants.” SCE at 3-4. The ISO submits that it has taken the actions necessary to eliminate SCE’s concerns, and the ISO understands from recent contacts with SCE that SCE’s concerns have been eliminated.

excluded from ISO Operational Control. CDWR at 3.<sup>7</sup> According to CDWR, subsidization of gen ties “raises serious policy issues concerning,” among other things, “undue cost shifts” and “unfair competitive advantage to certain favored generators.” CDWR at 3.

The function of the Southern Cities’ Entitlements is providing network transmission rights, as is evidenced in the Attachments, rather than serving as gen ties. As established in the ISO’s systems, the five new branch groups over which scheduling with the ISO is now permitted through use of the Southern Cities’ Entitlements are linked to other elements of the western interconnected transmission system and not just to a particular generator. Attachment A to this Answer provides a general map of the Southern Cities’ Entitlements. Attachment B is a map of the Western Electricity Coordinating Council transmission facilities. As can be seen from the maps, the Southern Cities’ Entitlements provide transmission paths to the east of the existing ISO Control Area. These new paths will provide Scheduling Coordinators with opportunities for purchases and sales in the Rocky Mountain region. The Northern Transmission System (“NTS”) links Nevada and Utah together and the Southern Transmission System (“STS”) links the NTS to California through a DC line. The Southern Cities’ transmission rights to the STS total 534 MW, whereas their entitlement to power from the Intermountain Power Project is 350 MW. Thus the transmission capacity is greater than the generation entitlement provided the unit is at 100% capacity factor. As can be seen from the attached maps, those additional transmission rights are network rights, as the branch group that includes the transmission rights between the Intermountain Power

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<sup>7</sup> *Citing Standardization of Generator Interconnection Agreements and Procedures*, Notice of Proposed Rulemaking, FERC Stats & Regs ¶ 32,560, at 34,175 (Apr. 24, 2002).

Project and the ISO Control Area includes additional transmission scheduling rights to both the Mona and Gonder Substations, which are integrated with the western interconnected transmission system. The segment of the 230 kV transmission line to Gonder interconnects with the Sierra Pacific Power Company and serves central Nevada. The segment of the 345 kV transmission line to Mona interconnects with PacifiCorp serving both north to the Salt Lake City area of Utah and south to central Utah. Each of these interconnecting facilities interconnects further to provide the foundation for the WECC principal transmission systems. In addition, the Southern Cities have Entitlements that result in additional transmission capacity through the Mead-Phoenix and Mead-Adelanto projects from central Arizona and Southern Nevada.

**C. CDWR's Analysis of the Costs and Benefits of the ISO Assuming Operational Control of the Southern Cities' Entitlements is Incorrect and Inapposite**

1. Benefits

CDWR argues that “[n]o tangible benefit has been identified to support the transfer of facilities proposed in the ISO’s Application,” and that the costs of rolling in Entitlements and facilities that are not usable to ISO customers outweigh the hypothetical benefits. CDWR at 8-13. As already shown, CDWR builds its argument on a faulty premise. The Entitlements and facilities have been available to all Scheduling Coordinators since Operational Control was turned over to the ISO on January 1, 2003 and these new facilities allow access to a number of Control Areas in Nevada, Utah and Arizona. In addition, while the Southern Cities were given Firm Transmission Rights (“FTRs”) commensurate with their transmission Entitlements as allowed in Section 9.4.3 of the ISO Tariff, these facilities are available for use by any Scheduling Coordinator



when they are not scheduled by one of the Southern Cities in the Day-Ahead Market, and hence such other Market Participants will receive the benefit of the opportunity to use such facilities.

## 2. Costs

As a threshold matter, CDWR's objections regarding the costs of these Entitlements coming under ISO Operational Control impact the question of whether or not it is appropriate to include the Transmission Revenue Requirements associated with specific Southern Cities' facilities in the transmission Access Charge rate charged by the ISO, and not whether the ISO assuming Operational Control over the facilities is appropriate. The Southern Cities' TRRs are more appropriately addressed in the settlement proceedings the Commission recently has established in the consolidated dockets for that specific purpose. *City of Azusa, et al.*, 101 FERC ¶ 61,352 (December 23, 2002). It would be needlessly duplicative to evaluate the TRRs in both proceedings. Nonetheless, in response to CDWR's arguments, the ISO provides the following brief discussion.

According to CDWR, customers of existing Participating TOs would be "subjected to significant increased Transmission Access Charge rates associated with any use of the ISO Grid following the transfer of these facilities to ISO control since these facilities would apparently remain unusable by others than the Southern Cities." CDWR at 9. Again, CDWR is incorrect. The facilities have been available to all Scheduling Coordinators since January 1, 2003, as discussed above. Moreover, while the Transmission Revenue Requirement associated with the facilities may be more expensive on a \$/MWH basis, this increase was contemplated when the ISO filed the

Access Charge methodology as ISO Tariff Amendment No. 27 in March 2000, and provided a gradual transition over a ten-year period to dampen the impact of combining varying transmission rates into a single rate, as discussed in more detail below.

CDWR asserts that the incorporation of the Southern Cities' Entitlements into the ISO Controlled Grid will be costly to transmission customers. CDWR at 9-11. Setting aside the benefits gained for Market Participants by the ISO assuming Operational Control of the Entitlements, Section 4.1.3 of the TCA does not give the ISO the ability to refuse to incorporate transmission facilities and Entitlements into the ISO Controlled Grid based on cost considerations. Allowing such cost-based refusal, in fact, could preclude Transmission Owners with more costly facilities and Entitlements from ever integrating their facilities into the ISO Controlled Grid, regardless of the benefits to overall system coordination and reliability. Moreover, the ISO designed the ten-year transition process for the ISO's High Voltage Access Charge incorporated into ISO Tariff Appendix F, Schedule 3 in part to alleviate potential cost impacts of the incorporation of more costly transmission facilities and Entitlements into the ISO's transmission Access Charge.<sup>8</sup>

In addition, CDWR fails to acknowledge that the Southern Cities, while incorporating their Transmission Revenue Requirements into the ISO's transmission Access Charge, will also have to pay a larger share of the Access Charge than they paid prior to becoming Participating TOs, as their share will now be assessed based on their Gross Load. Prior to becoming Participating TOs, the Southern Cities only paid the Access Charge based on their "new firm use" of the ISO Controlled Grid.

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<sup>8</sup> The cost of transmission from utilities in the ISO Control Area on a \$/MWH basis varies from approximately \$0.5/MWH to \$12/MWH.

As required by the ISO Tariff, the ISO filed the revised Access Charge to be effective January 1, 2003 to incorporate the New Participating TOs and the revised Transmission Revenue Balancing Account for each of the existing Participating TOs. In addition, January 1, 2003 also triggered the next step in the transition of the ISO's Access Charge to a single rate. In accordance with the transition schedule set forth in Section 5.8 of Schedule 3 of Appendix F of the ISO Tariff, the Access Charge is now split 70% TAC Area and 30% ISO Grid-wide. The filed Access Charge rates incorporating all of these changes are: North \$1.5848/MWH, East/Central \$2.3887/MWH and South \$2.2693/MWH. If the ISO had not incorporated the Southern Cities' transmission Entitlements, but had continued the transition as allowed in the ISO Tariff and incorporated the revised TRBAs, the Access Charge rates would have been: North \$1.5275/MWH, East/Central \$2.0513/MWH and South \$2.2120/MWH. The "significant increase" cited by CDWR is a very small \$0.0573/MWH for the North and South, and just \$0.3374/MWH for the East/Central.

CDWR warns that wholesale customers' costs will increase due to the ISO's administrative costs associated with the addition of the Entitlements. CDWR at 9. Among such increased administrative costs, according to CDWR, are costs for Reliability Support and the Grid Management Charge ("GMC"). *Id.* at 9-11.

As CDWR is aware, the GMC is a completely separate charge from the transmission Access Charge, and issues related to what ought to be included in the GMC are more appropriately considered in specific GMC proceedings before the Commission. Nonetheless, the GMC is likely to decrease as a result of the transfer of these Entitlements, because the Southern Cities' Existing Contracts have now been

converted and are operating in accordance with the ISO Tariff, decreasing the number of manual workarounds the ISO must perform.

CDWR's concern regarding costs for "Reliability Support" also is misplaced. "Reliability Support" as implemented by the ISO is a requirement of the ISO Control Area. All of the transmission facilities over which the Southern Cities have newly turned over Operational Control to the ISO are outside the ISO Control Area; thus the "Reliability Support" requirement of the ISO has not changed. The rights provided to the ISO allow the ISO scheduling rights on transmission facilities in other Control Areas.

**D. Firm Transmission Rights**

CDWR criticizes the ISO for failing to explain how FTRs will be allocated to the Southern Cities once their Entitlements have been transferred to the ISO's Operational Control. CDWR at 14-15. In accordance with the ISO Tariff, FTRs for New Participating TOs are allocated in accordance with Section 9.4.3, commensurate with the transmission rights the New Participating TO is turning over to ISO Operational Control. Attachment C provides a list of the FTRs given to the Southern Cities for each of their transmission Entitlements.

**E. A Hearing is Not Necessary on This Matter**

CDWR requests that the Commission set the proposal to transfer Operational Control of the Southern Cities' Entitlements to the ISO for hearing. As support for this request, CDWR provides a list of material issues it claims are in dispute in this matter. CDWR at 16.

A hearing is not required to resolve any issues identified by CDWR, as the ISO has provided sufficient information to demonstrate that its assumption of Operational Control over the Entitlements in question is appropriate. CDWR's claim of inability to use the Southern Cities' Entitlements is without merit. All Scheduling Coordinators, including CDWR, have had the ability to schedule on these paths since January 1, 2003. The assertions that the Southern Cities' Entitlements are generation ties are also without merit. As demonstrated in Attachments A and B, the facilities are integral parts of the western grid. Additionally, as demonstrated above, the Southern Cities' transmission rights to the STS are greater than their generation ownership in the Intermountain Power Project and provide access to the integrated transmission network.

The issue of costs, on which CDWR rests so much of its argument, is not relevant to the question of whether Operational Control of the Entitlements should be transferred to the ISO, as described above. The ISO must make decisions of this nature based on the reliability and coordination of the system. Whether such costs and other elements of the Southern Cities' TRRs are reasonable are issues to be dealt with in the consolidated proceeding in EL03-14, *et al.*, and an additional hearing in this docket is neither necessary nor appropriate.

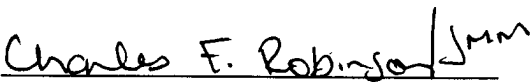
The criticisms that CDWR asserts regarding FTR allocation are also without merit. The allocation requirements are outlined in Section 9.4.3 of the ISO Tariff, and the ISO has included in Attachment C specifically what FTRs have been provided to each of the Southern Cities on each of the branch groups on which they have Entitlements. The 203 filing of December 2 is voluminous and comprehensive, and it

amply demonstrates the desirability of turning over the Entitlements to the ISO's Operational Control.

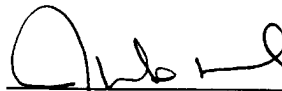
#### IV. CONCLUSION

For the reasons described above, the ISO requests that the Commission accept this Motion to File Answer, approve the ISO's December 2 203 filing and allow the Entitlements to come under ISO Operational Control effective January 1, 2003.

Respectfully submitted,



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Dated: January 14, 2003

## CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, DC, this 14<sup>th</sup> day of January, 2003.

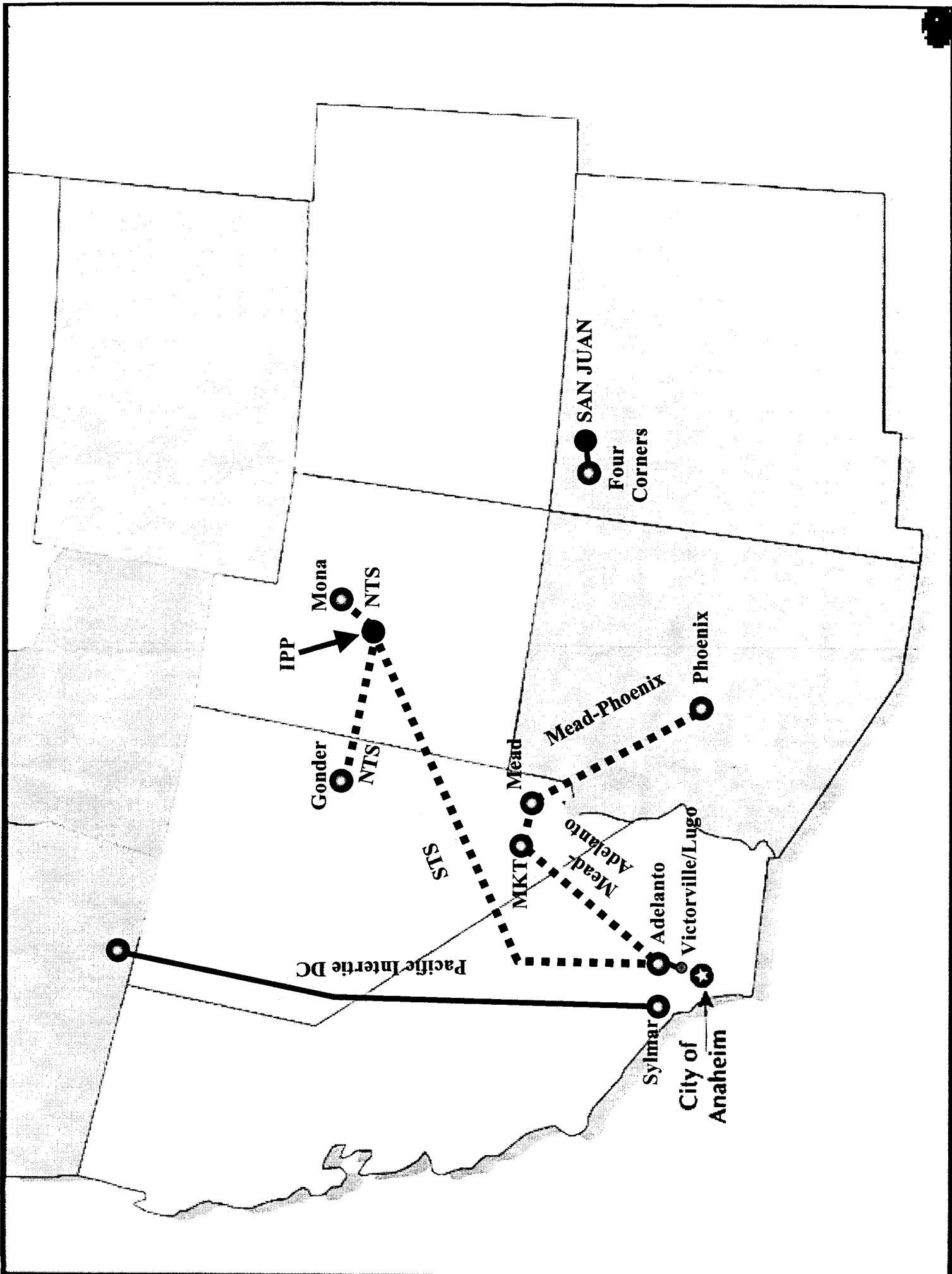


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Julia Moore

## ATTACHMENT A





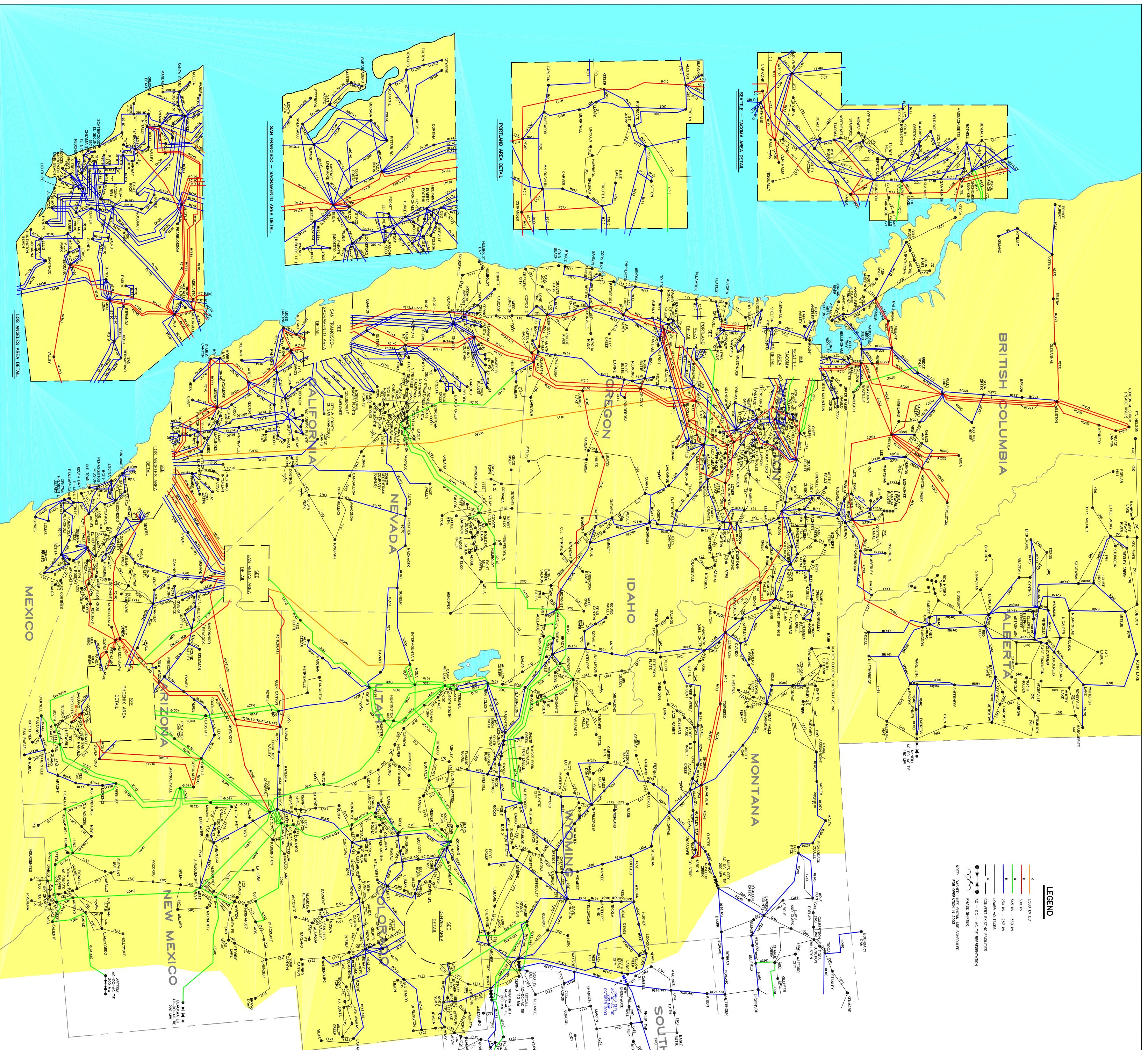
## ATTACHMENT B

## ATTACHMENT C

Branch Group	City	FTR assigned quantity	FROM_ZONE	TO_ZONE	TIE POINT
<b>IPP-Lugo</b>					
LUGOIPPDC_BG	Anaheim	222	LA5	SP15	LUGO_5_IPPDC
LUGOIPPDC_BG	Riverside	128	LA5	SP15	LUGO_5_IPPDC
Total		350			
<b>Lugo-IPP</b>					
LUGOIPPDC_BG	Anaheim	0	SP15	LA5	LUGO_5_IPPDC
LUGOIPPDC_BG	Riverside	0	SP15	LA5	LUGO_5_IPPDC
Total		0			
<b>Gonder-Lugo</b>					
LUGOGONDR_BG	Anaheim	12	SR4	SP15	LUGO_5_GONDR
LUGOGONDR_BG	Riverside	4	SR4	SP15	LUGO_5_GONDR
Total		16			
<b>Lugo-Gonder</b>					
LUGOGONDR_BG	Anaheim	0	SP15	SR4	LUGO_5_GONDR
LUGOGONDR_BG	Riverside	0	SP15	SR4	LUGO_5_GONDR
Total		0			
<b>Mona-Lugo</b>					
LUGOTMONA_BG	Anaheim	106	PC1	SP15	LUGO_5_MONA
LUGOTMONA_BG	Riverside	60	PC1	SP15	LUGO_5_MONA
Total		166			
<b>Lugo-Mona</b>					
LUGOTMONA_BG	Anaheim	350	SP15	PC1	LUGO_5_MONA
LUGOTMONA_BG	Riverside	193	SP15	PC1	LUGO_5_MONA
Total		543			
<b>Westwing-Lugo</b>					
LUGOWSTWG_BG	Anaheim	47	AZ6	SP15	LUGO_5_WSTWNG
LUGOWSTWG_BG	Azusa	3	AZ6	SP15	LUGO_5_WSTWNG
LUGOWSTWG_BG	Banning	3	AZ6	SP15	LUGO_5_WSTWNG
LUGOWSTWG_BG	Riverside	12	AZ6	SP15	LUGO_5_WSTWNG
LUGOWSTWG_BG	Vernon	28	AZ6	SP15	LUGO_5_WSTWNG
Total		93			
<b>Lugo-Westwing</b>					
LUGOWSTWG_BG	Anaheim	47	SP15	AZ6	LUGO_5_WSTWNG
LUGOWSTWG_BG	Azusa	3	SP15	AZ6	LUGO_5_WSTWNG
LUGOWSTWG_BG	Banning	3	SP15	AZ6	LUGO_5_WSTWNG
LUGOWSTWG_BG	Riverside	12	SP15	AZ6	LUGO_5_WSTWNG
LUGOWSTWG_BG	Vernon	28	SP15	AZ6	LUGO_5_WSTWNG
Total		93			
<b>Market Place-Lugo</b>					
LUGOMKTIPC_BG	Anaheim	63	LC4	SP15	LUGO_5_MKTPLC
LUGOMKTIPC_BG	Azusa	16	LC4	SP15	LUGO_5_MKTPLC
LUGOMKTIPC_BG	Banning	9	LC4	SP15	LUGO_5_MKTPLC
LUGOMKTIPC_BG	Riverside	106	LC4	SP15	LUGO_5_MKTPLC
LUGOMKTIPC_BG	Vernon	53	LC4	SP15	LUGO_5_MKTPLC
Total		247			
<b>Lugo-Market Place</b>					
LUGOMKTIPC_BG	Anaheim	63	SP15	LC4	LUGO_5_MKTPLC
LUGOMKTIPC_BG	Azusa	16	SP15	LC4	LUGO_5_MKTPLC
LUGOMKTIPC_BG	Banning	9	SP15	LC4	LUGO_5_MKTPLC
LUGOMKTIPC_BG	Riverside	106	SP15	LC4	LUGO_5_MKTPLC
LUGOMKTIPC_BG	Vernon	53	SP15	LC4	LUGO_5_MKTPLC
Total		247			
<b>NOB-SP15</b>					
LUGOMKTIPC_BG	Anaheim	24	NW3	SP15	SYLMAR_2_NOB
LUGOMKTIPC_BG	Azusa	3	NW3	SP15	SYLMAR_2_NOB
LUGOMKTIPC_BG	Banning	1	NW3	SP15	SYLMAR_2_NOB
LUGOMKTIPC_BG	Riverside	23	NW3	SP15	SYLMAR_2_NOB
LUGOMKTIPC_BG	Vernon	93	NW3	SP15	SYLMAR_2_NOB
Total		144			
<b>SP15-NOB</b>					
LUGOMKTIPC_BG	Anaheim	21	SP15	NW3	SYLMAR_2_NOB
LUGOMKTIPC_BG	Azusa	3	SP15	NW3	SYLMAR_2_NOB
LUGOMKTIPC_BG	Banning	1	SP15	NW3	SYLMAR_2_NOB
LUGOMKTIPC_BG	Riverside	23	SP15	NW3	SYLMAR_2_NOB
LUGOMKTIPC_BG	Vernon	82	SP15	NW3	SYLMAR_2_NOB
Total		130			

ETCs TO BE CONVERTED TO FTRs						
Segment/Branch Group	City	New FTR CRN No.	FTR assigned quantity	FROM ZONE	TO ZONE	
<b>Gonder - Mona - IPP - Adelanto</b>						
Mead 230 - SP15 (MEAD_BG)	Riverside	MEALC1	30	LC1	SP15	
Mead 230 - SP15 (MEAD_BG)	Azusa	MEALC1	12	LC1	SP15	
Mead 230 - SP15 (MEAD_BG)	Banning	MEALC1	2	LC1	SP15	
SP15 - Mead 230 (MEAD_BG)	Azusa	MEAS15	8	SP15	LC1	
<b>Adelanto - Lugo/Victorville (L / V V)</b>						
Lugo/Victorville - SP15 (VICTVL_BG)	Riverside	VICLA4	0	LA4	SP15	
Lugo/Victorville - SP15 (VICTVL_BG)	Azusa	VICLA4	0	LA4	SP15	
Lugo/Victorville - SP15 (VICTVL_BG)	Banning	VICLA4	0	LA4	SP15	
PV-SP15 (PALOVRDE_BG)	Azusa	PALAZ3	10	AZ3	SP15	
PV-SP15 (PALOVRDE_BG)	Banning	PALAZ3	15	AZ3	SP15	
SP15-PV (PALOVRDE_BG)	Azusa	PALS15	10	SP15	AZ3	
SP15-PV (PALOVRDE_BG)	Banning	PALS15	15	SP15	AZ3	
Devers 500 - Devers 115	Banning	DV5DV1	20			
* L / V V = the midpoint of the Lugo-Victorville line, which is the point of interconnection between the ISO and LADWP control areas. (for NERC tagging purposes, this point is sometimes referred to as either "Lugo" or "Victorville")						
Notes:						
1. Adelanto Switching Station is not a point of interconnection. It is used only to distinguish contract rights.						
2. IPP is not a point of interconnection.						
<b>Pacific Northwest</b>						
Sylmar - SP15 (SYLMAR-AC_BG)	Riverside	SYLLA1	25	LA1	SP15	
Sylmar - SP15 (SYLMAR-AC_BG)	Azusa	SYLLA1	32	LA1	SP15	
Sylmar - SP15 (SYLMAR-AC_BG)	Banning	SYLLA1	15	LA1	SP15	
SP15 - Sylmar (SYLMAR-AC_BG)	Riverside	SYLS15	25	SP15	LA1	
SP15 - Sylmar (SYLMAR-AC_BG)	Azusa	SYLS15	22	SP15	LA1	
SP15 - Sylmar (SYLMAR-AC_BG)	Banning	SYLS15	20	SP15	LA1	
COI - NP15 (COI_BG)	Azusa	COINW1	15	NW1	NP15	
COI - NP15 (COI_BG)	Banning	COINW1	5	NW1	NP15	
NP15 - ZP26 (PATH15_BG)	Azusa	P15N15	15	NP15	ZP26	
NP15 - ZP26 (PATH15_BG)	Banning	P15N15	5	NP15	ZP26	
ZP26 - SP15 (PATH26_BG)	Azusa	P26P26	15	ZP26	SP15	
ZP26 - SP15 (PATH26_BG)	Banning	P26P26	5	ZP26	SP15	





**LEGEND**

- 0 4500 KV DC
  - 1 500 KV
  - 2 345 KV - 500 KV
  - 3 230 KV - 287 KV
  - 4 138 KV - 230 KV
  - 5 60 KV - 138 KV
  - 6 23 KV - 60 KV
  - 7 15 KV - 23 KV
  - 8 4.16 KV - 15 KV
- NOTE: DASHED LINES ARE SCHEDULED
- Panel Symbols
- AC - 60 Hz REGENERATION
  - DC

**WESTERN ELECTRICITY COORDINATING COUNCIL  
MAP OF PRINCIPAL TRANSMISSION LINES  
JANUARY 1, 2003**

1. British Power Administration
2. Alsea Corp.
3. Pacific Northwest of Lighting (Seattle City Light)
4. Portland
5. Portland General Electric Company
6. Public Utility District No. 1 of Clatsop County
7. Public Utility District No. 2 of Clatsop County
8. Public Utility District No. 3 of Clatsop County
9. Puget Sound Electric Power District
10. Public Utility District No. 2 of Garfield County
11. Northwest Public Power District
12. Northwest Electric Power Administration - NWEPA - Astoria, Oregon
13. Western Area Power Administration - WAPA - Sacramento, California
14. Pacific Gas and Electric Company
15. Southern California Edison Company
16. Sierra Pacific Power Company
17. Sacramento Municipal Utility District of Power
18. Southern California Edison Company
19. Southern California Edison Company
20. Modesto Water District/Southern California Edison Company
21. Public Utilities Commission of Oregon
22. Public Utilities Commission of Oregon
23. Public Utilities Commission of Oregon
24. Public Utilities Commission of Oregon
25. Western Area Power Administration - WAPA - Eugene, Oregon
26. Western Area Power Administration - WAPA - Eugene, Oregon
27. Western Area Power Administration - WAPA - Eugene, Oregon
28. Northern California Power Agency - NCPA - Primm, Arizona
29. Northern California Power Agency - NCPA - Primm, Arizona
30. Northern California Power Agency - NCPA - Primm, Arizona
31. San Power Project
32. Western Area Power Administration - WAPA - San Luis City, Utah
33. Western Area Power Administration - WAPA - San Luis City, Utah
34. Western Area Power Administration - WAPA - San Luis City, Utah
35. Western Area Power Administration - WAPA - San Luis City, Utah
36. Colorado Springs Utilities
37. Transmission Agency of Northern California
38. U.S. Department of Interior Bureau of Reclamation
39. U.S. Department of Interior Bureau of Reclamation
40. Public Service Company of New Mexico
41. Public Service Company of New Mexico
42. Public Service Company of New Mexico
43. Southern Power Corporation, Inc.
44. Southern Power Corporation, Inc.
45. Public Power Authority
46. Public Power Authority
47. Denver Electric Power Cooperative
48. Denver Electric Power Cooperative
49. Denver Electric Power Cooperative
50. International Power Agency
51. Canadian Federal and Electrical
52. International Power Agency
53. International Power Agency
54. International Power Agency
55. International Power Agency
56. City of Denver
57. City of Denver
58. City of Denver
59. City of Denver
60. City of Denver

