

Review of Counter-Scheduling Transactions

John Powers
McCullough Research

Presentation to the California Senate Select Committee to
Investigate Price Manipulation of the Wholesale Energy Market

January 21, 2003

Death Star Basics:

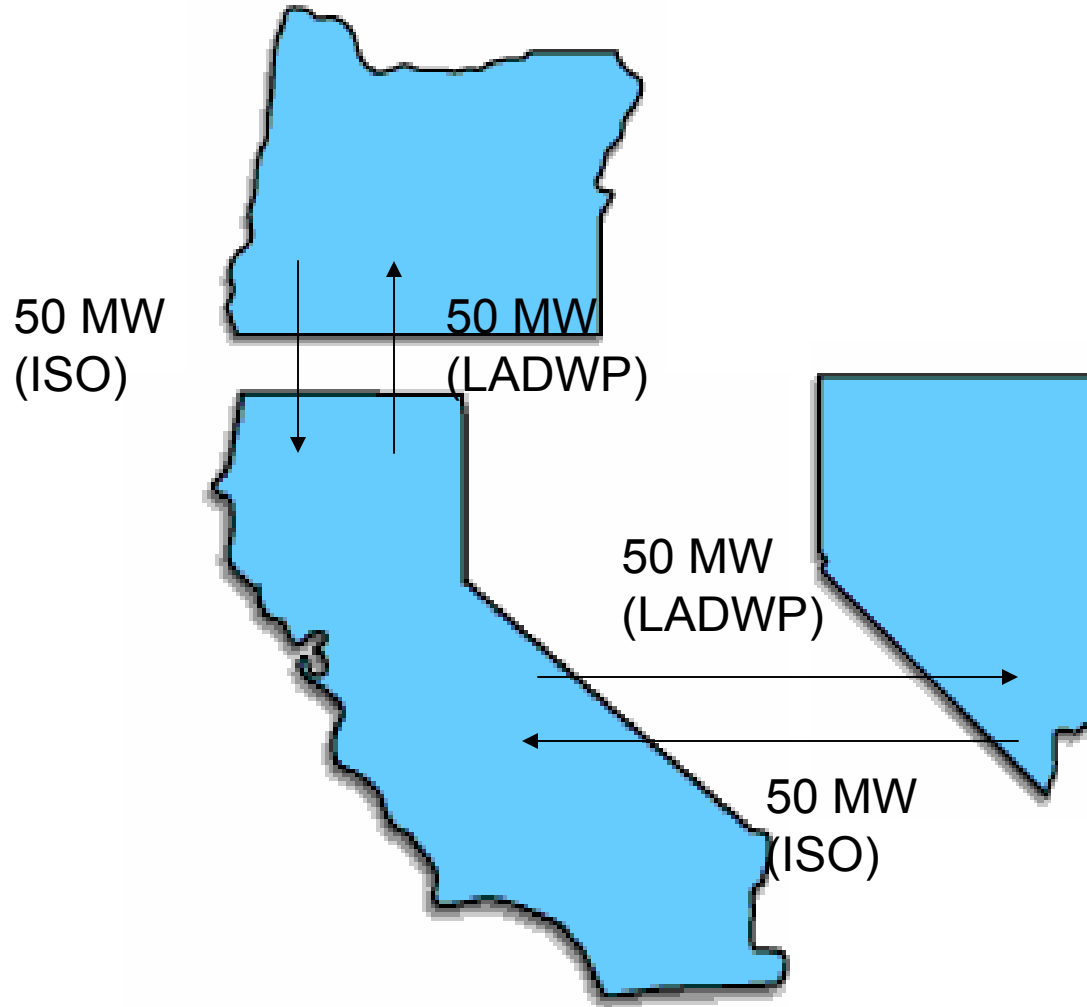
Full Death Star

- File Schedules for a Given Date and Hour, Such That Scheduling Coordinator:
 - Imports XX MW at Tie Point One on ISO System
 - Exports XX MW at Tie Point One on LADWP System
 - Exports XX MW at Tie Point Two on ISO System
 - Imports XX MW at Tie Point Two on LADWP System

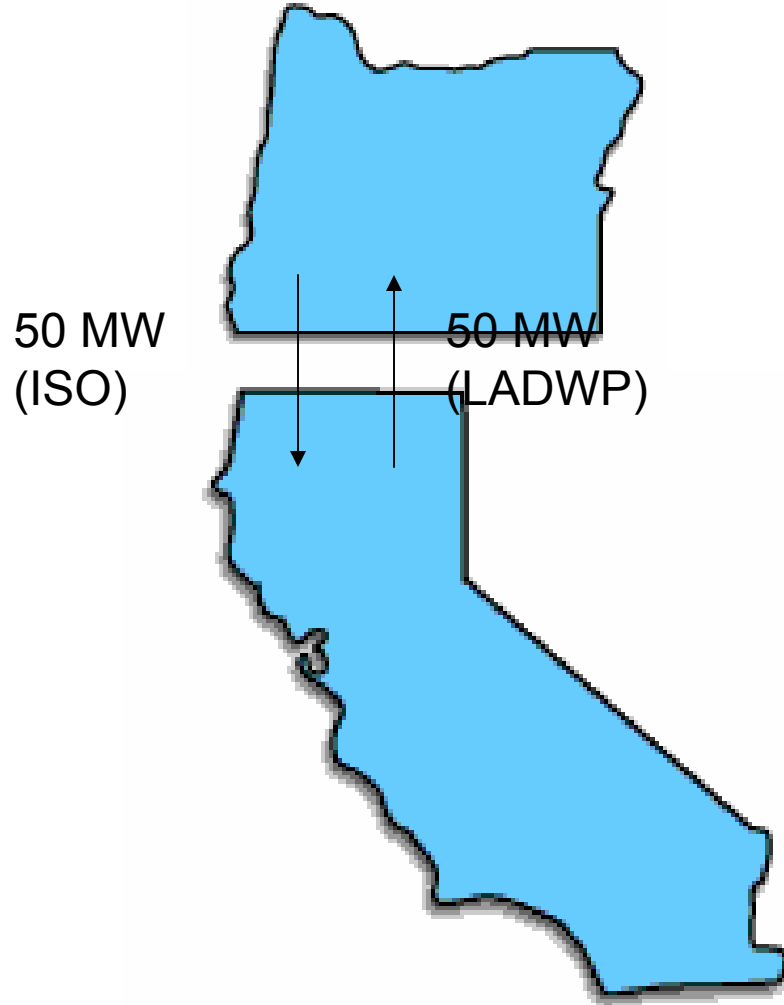
Death Star Basics: Getting Paid

- If Intertie is Congested in Import Direction, ISO Makes Congestion Payments to any Party Filing a “Counterschedule” (for Relieving Congestion)
- “Hide” Import Inside ETC
- “Show” Export to ISO
- Collect (Large) Fee for Relieving Congestion, Pay (Small) Fee to ETC Holder
- Repeat

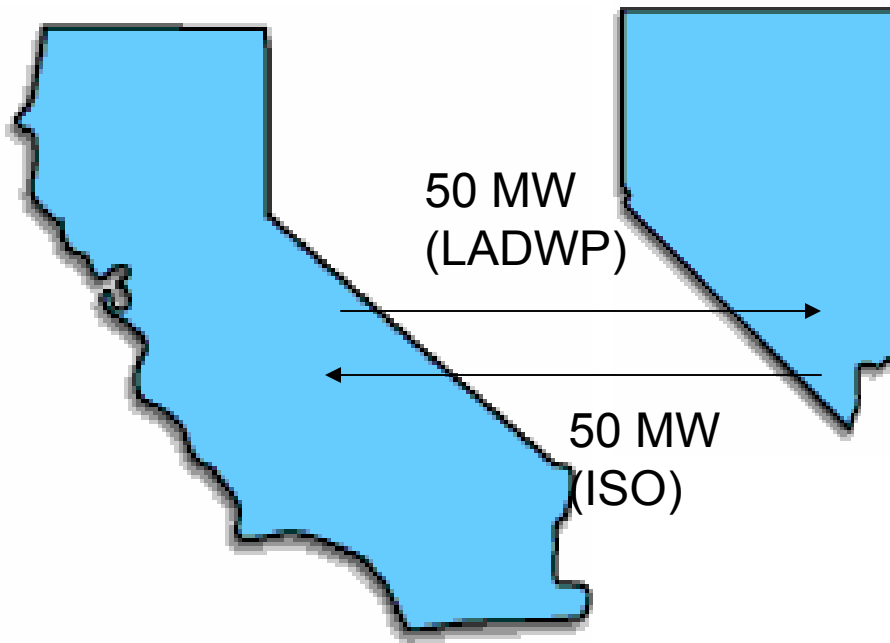
Full Death Star



Northwest Half Death Star



Southwest Half Death Star



Death Star Detection Engine

- Match Up ISO System Schedules with ETC Schedules (e.g., LADWP)
- Match by Scheduling Coordinator (or Groups of SCs), Tie-Point, Energy Type, Date, Time, MW amount...
- Matches Indicate ***Beginning*** of Due Diligence

Death Star Detection Engine

- Many Enron “Full” Death Stars
- A Few Additional Participants May Have Done “Full” Death Stars
 - Due Diligence on Legitimate Business Purposes in Progress
- Many Participants Did Many, Many “Half” Death Stars
 - Due Diligence on Legitimate Business Purposes Beginning

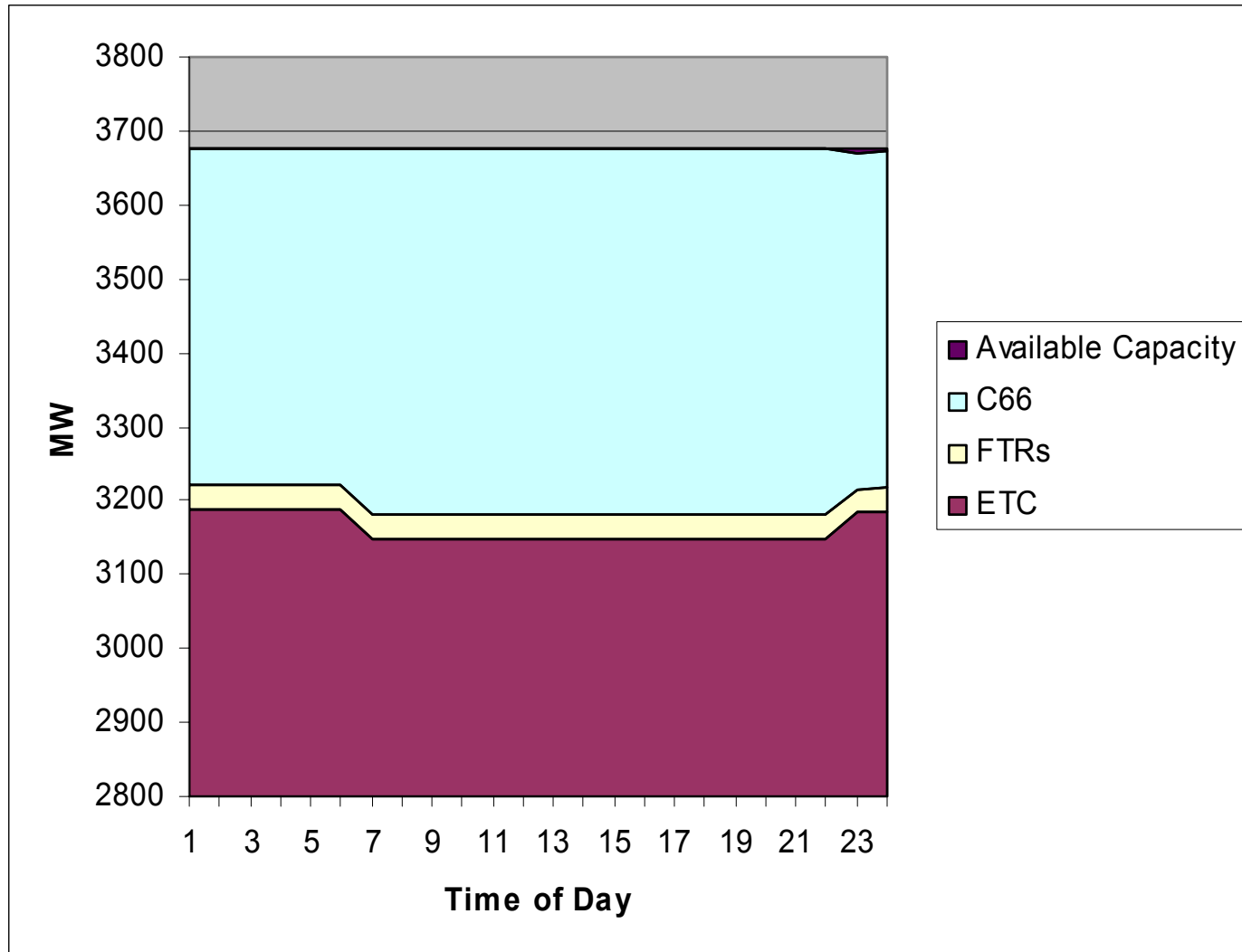
Sample Enron Death Star Transactions

Date	Time	MW	CAISO		LADWP	
			From	To	From	To
6/6/2000	14-15	40	COB	Mead	Mead	COB
6/13/2000	17-20	45	COB	Mead	Mead	COB
7/14/2000	15-19	35	COB	Palo Verde	Palo Verde	COB
7/15/2000	16-17	35	COB	Palo Verde	Palo Verde	COB
7/17/2000	16-21	45	COB	Palo Verde	Palo Verde	COB
8/2/2000	11,13-20	25	NOB	Mead	Mead	NOB
8/11/2000	12-17	45	COB	Mead	Mead	COB
8/14/2000	13-19	45	COB	Mead	Mead	COB
8/15/2000	12-15	45	COB	Mead	Mead	COB
8/17/2000	11-18	45	COB	Mead	Mead	COB
8/18/2000	11-18	45	COB	Mead	Mead	COB
8/19/2000	14	45	COB	Mead	Mead	COB
8/21/2000	12-19	45	COB	Mead	Mead	COB
8/22/2000	13-19	45	COB	Mead	Mead	COB
9/7/2000	17-20	45	COB	Mead	Mead	COB

Comments on Capacity Benefit Margin (CBM)

- Unusual Use of Industry Tool
- Potential for Unanticipated Effects
- Can Contribute to Market Separation
- Can Contribute to Price Swings
- Can Reduce Market Transparency
- Can Discourage Participation in Markets

C66: Closing the Scheduled Export Market on COI



Wholesale Electricity Prices: COB & Palo Verde

