Desert Southwest Region

Parker-Davis Project

FY 2009 Status &

Preliminary FY 2010

Annual Operating Plans

May 7, 2009

Western
AREA POWER
ADMINISTRATION

Agenda

- Introduction
- Hydrology Update
- Status of FY 2009 Operating Plan
- U.S.B.R. Projections for PDP Generation
- Preliminary FY 2010 Operating Plan
- Recommended FY 2010 Operating Strategies
- FY 2010 Purchase Power
- Term Purchase Strategy
- Open Discussion
- Next Steps

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FY2009 Hydrology Update

- FY09 EOY Lake Powell Inflow Projected To Be About 10.4 maf or 86% of Normal (Normal=12.1 maf/yr)
- FY09 EOY Lake Mead Inflow Projected To Be About 0.8 maf or 62% of Normal (Normal=1.3 maf/yr)
- Lake Powell Storage Expected To Be About 15.7 maf or 65% of Capacity By End Of FY2009 (Capacity=24.3 maf)
- Lake Mead Storage Expected To Be About 10.8 maf or 42% of Capacity By End Of FY2009 (Capacity=25.9 maf)

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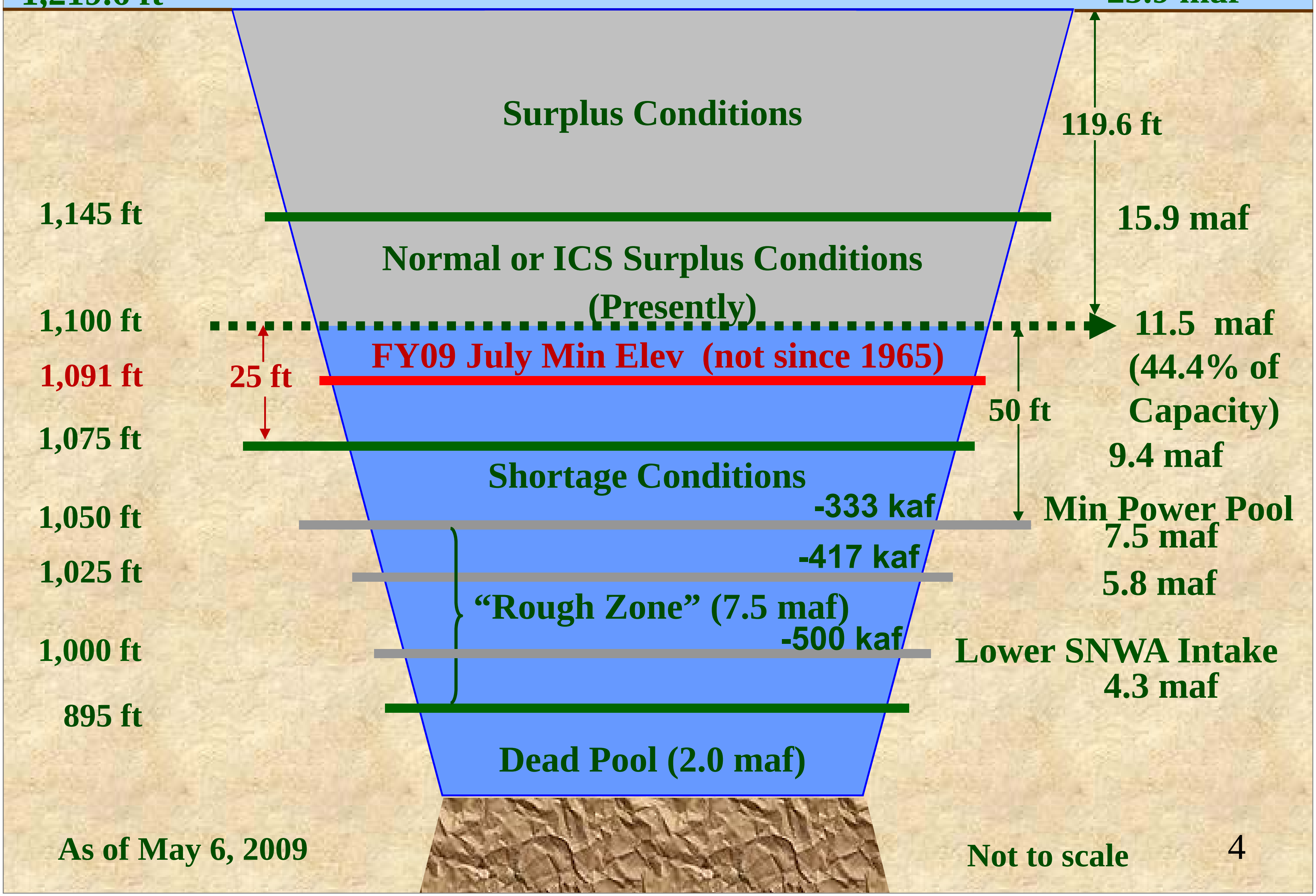
Why Is Lake Mead In Its Present Condition?

- We are in the tenth (10th) year of an unprecedented drought. 2000-2008 was the driest 9-year period in the 100-year historical record.
- **Inflow ≠ Outflow:**
  - Inflow (release from Powell + side inflows) = 9.0 maf
  - Outflow (LB and Mexico apportionments + Downstream regulation, gains and losses) = (9.5 maf)
  - Mead evaporation loss = (0.8 maf)

  Balance = **(1.3 maf)**

Lake Mead



As of May 6, 2009

Not to scale

FY10 Lower Basin Hydrology

For FY2010, Either Normal or Intentionally Created Surplus (ICS) Condition to Govern Releases (Based on Mead elevation currently forecasted to be above 1075 ft. on Jan 1, 2010)

	Powell	Mead	Mohave	Havasu
Inflow (maf)	11.1	1.0	-	-
Releases (maf)	10.5	9.4	9.1	6.7
EOY Storage (maf)	15.4	11.9	1.6	0.6
Max Elev (ft)	3639.5 (jul)	1105.9 (aug)	643.05 (mar)	448.7 (apr)
Min Elev (ft)	3622.8 (apr)	1093.3 (oct)	633.0 (oct)	446.3 (oct)

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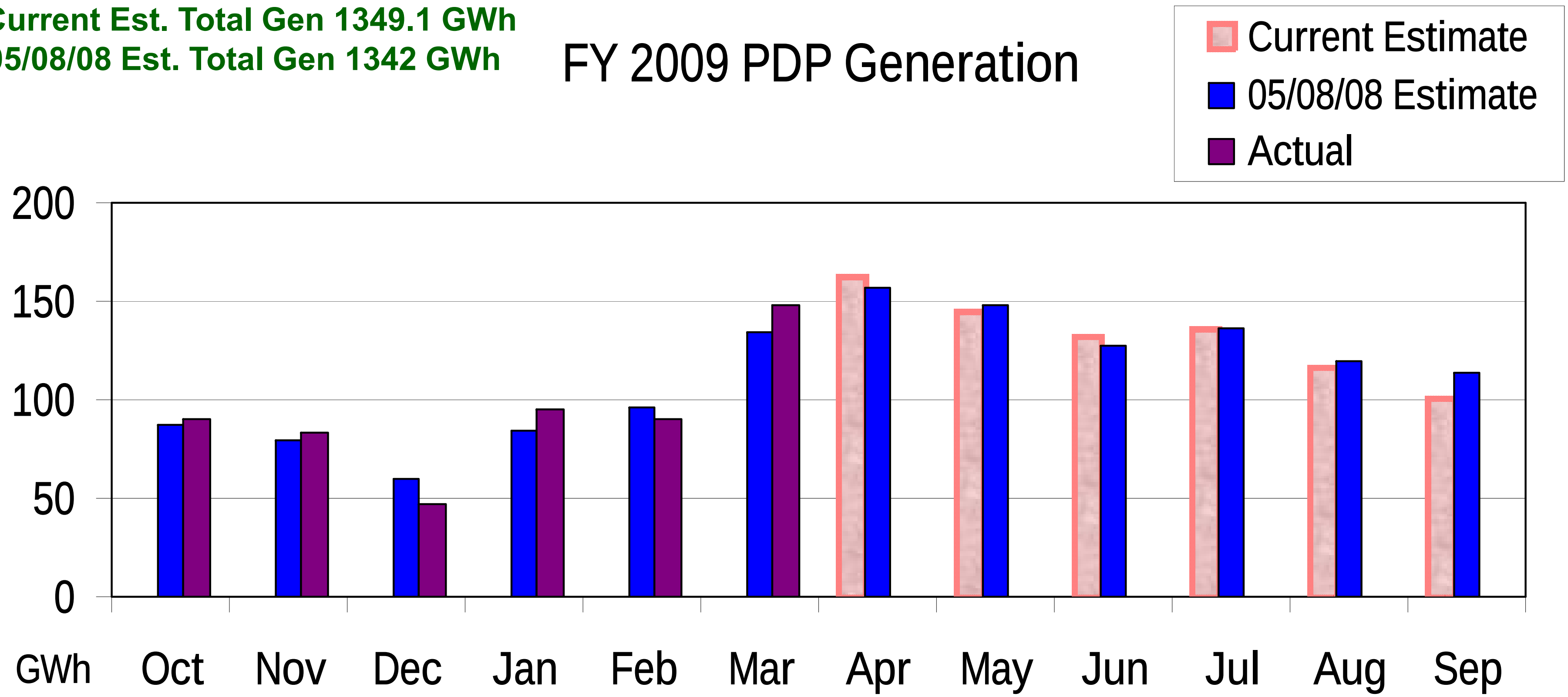
Current Status FY2009 AOP

Current Est. Total Gen 1349.1 GWh
05/08/08 Est. Total Gen 1342 GWh



Current Status FY2009 AOP

Parker Davis Project

Actuals GWh **Estimates GWh**

	Prior Year Balance	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Resources														
Parker Generation		31.2	26.2	15.3	25.9	25.9	49.2	51.4	46.0	44.4	48.3	40.8	36.1	440.7
MWD's Parker Share		-15.6	-14.9	-9.9	-11.2	-14.6	-22.3	-25.7	-22.9	-22.2	-24.2	-20.4	-18.0	-221.9
Davis Generation		74.9	71.8	42.1	80.8	79.3	121.2	137.3	122.4	110.1	111.8	95.9	82.8	1130.4
Net Generation		**90.5**	**83.1**	**47.5**	**95.5**	**90.6**	**148.1**	**163.0**	**145.4**	**132.3**	**136.0**	**116.3**	**100.9**	**1349.1**
Purchases for PDP		0.0	0.0	18.3	0.0	0.0	10.4	0.0	0.0	4.2	0.0	0.0	0.0	32.9
Total Resources:		**90.5**	**83.1**	**65.8**	**95.5**	**90.6**	**158.5**	**163.0**	**145.4**	**136.5**	**136.0**	**116.3**	**100.9**	**1381.9**
Loads														
Total PDP Firm Load		82.1	78.2	79.3	78.7	72.8	145.5	144.9	149.0	146.0	151.2	149.8	144.0	1421.6
Excess		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Surplus Sales		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PDP / BA Deviation	49.6	2.5	-5.8	-14.8	-9.7	6.6	-3.9	-5.9	-3.6	2.7	-1.6	-3.5	-4.6	7.8
Hoover Bank	-2.2	5.9	10.8	1.3	26.5	11.3	16.9	24.0	0.0	-12.3	-13.7	-30.0	-38.5	0.0
Total Loads:		**90.5**	**83.1**	**65.8**	**95.5**	**90.6**	**158.5**	**163.0**	**145.4**	**136.5**	**136.0**	**116.3**	**100.9**	**1381.9**

Current Generation Energy Bank Balances

- Southwest Operating Group (SWOG) as of 03/31/09: $3,189,195.87
- Operating Energy Account (OEA) as of 03/31/09: $339,935.50
- Total = $3,529,131.37

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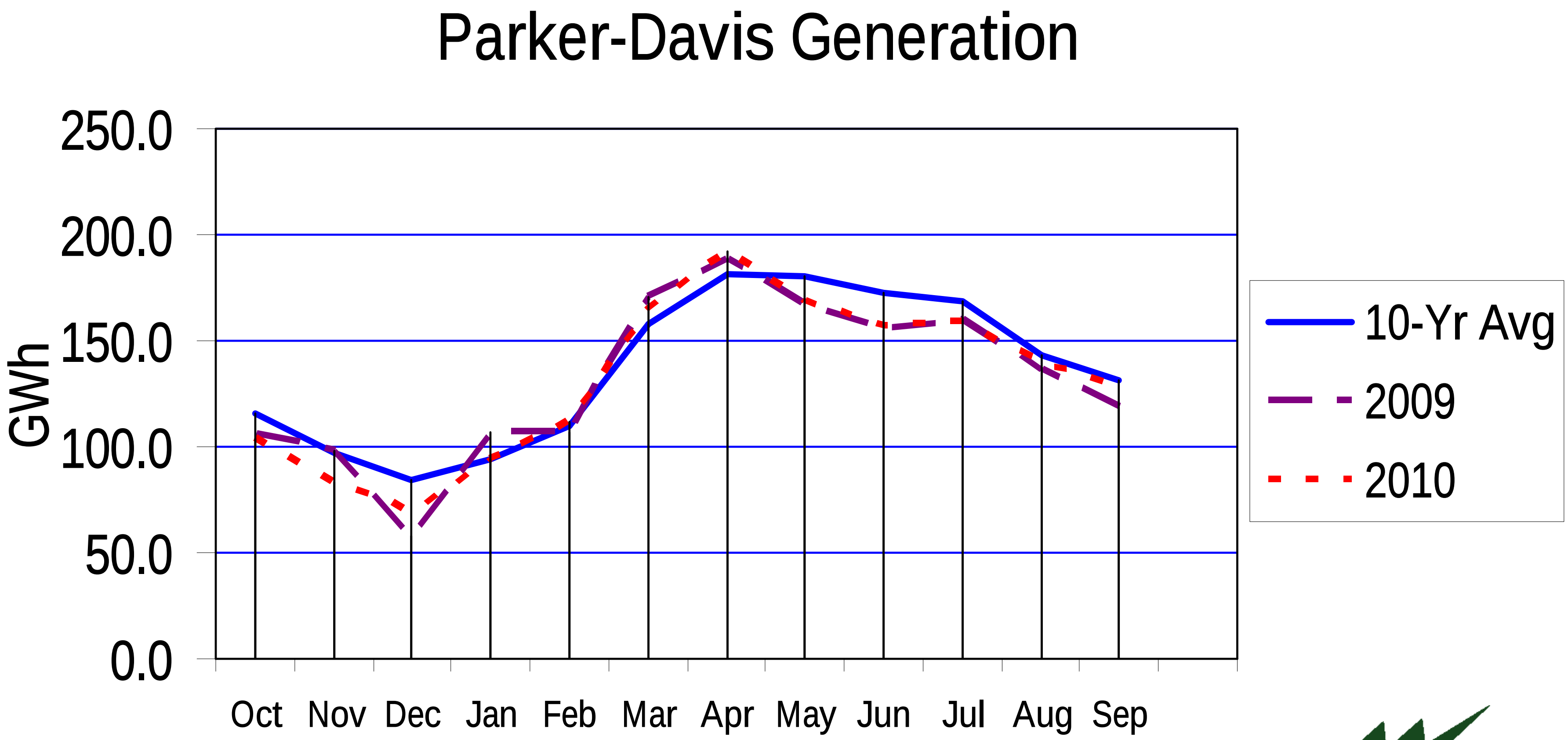
USBR Generation Projections



Preliminary FY 2010 AOP

- No PDP Excess Energy or Surplus Sales Expected
- A total of 6,539 MWh's of FES exchange requests will be accommodated through the Resource Integration Exchange Program (Stage 1)
- A total of 2,485 MWh's of exchanges feasible between BCP & PDP contractors (Stage 2)

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Preliminary FY 2010 AOP

Parker Davis Project

Estimates GWh

	Prior Year Balance	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL
Resources														
Parker Generation		29.6	24	18.8	22.5	29.6	47.3	54.2	46.9	44.6	48.3	40.8	35.4	442.0
MWD's Parker Share		-14.8	-12	-9.4	-11.25	-14.8	-23.65	-27.1	-23.45	-22.3	-24.2	-20.4	-17.7	-221.0
Davis Generation		74	59.3	51.2	71.4	81.7	118.7	137.8	121.7	112.5	111	98	93	1130.3
Net Generation		**88.8**	**71.3**	**60.6**	**82.7**	**96.5**	**142.4**	**164.9**	**145.2**	**134.8**	**135.2**	**118.4**	**110.7**	**1351.3**
Purchases for PDP		0.0	6.4	21.2	0.0	0.0	4.0	0.0	3.6	10.9	0.0	0.0	15.0	60.9
Total Resources:		**88.8**	**77.7**	**81.8**	**82.7**	**96.5**	**146.3**	**164.9**	**148.8**	**145.7**	**135.2**	**118.4**	**125.7**	**1412.2**
Loads														
Total PDP Firm Load		82.3	78.6	79.9	79.4	73.4	146.6	144.9	149.0	146.0	151.2	149.8	144.0	1425.0
Excess		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Surplus Sales		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PDP / BA Deviation	7.8	-0.3	-0.9	1.9	-0.2	-5.2	-0.3	-0.3	-0.3	-0.3	-5.3	-2.8	1.1	-5.1
Hoover Bank	0.0	6.8	0.0	0.0	3.5	28.3	0.0	20.3	0.0	0.0	-10.8	-28.7	-19.4	0.0
Total Loads:		**88.8**	**77.7**	**81.8**	**82.7**	**96.5**	**146.3**	**164.9**	**148.8**	**145.7**	**135.2**	**118.4**	**125.7**	**1412.2**

Recommended FY 2010 Operating Strategies

- Resource Integration Exchange Program has a net zero impact on energy obligation for PDP
- Minimize Hoover Banking through utilization of PDP/ BA Deviation
- Continue dialogue with customers for purchase power requirements

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FY 2010 Purchase Power

- **Projected Purchases**:
  - Current Projections Indicate The Need For Purchases Of 60.9 GWhs in FY2010
  - Cost Of Purchased Power Is Estimated At $3.2M
  - A Combination of Term & Spot Market Purchases Will Be Utilized To Meet These Needs

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Term Purchase Strategy

- Minimize risk of volatile spot market
- Provide a layer of price stability
- Increase chances of buying in market valleys and avoid market peaks
- Use Price and Time Trigger Methodology

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Term Purchase Strategy

- Monitor rolling average of forward markets as indicators of pricing trends
  - 60 & 130 day rolling averages
- Price Triggers
  - Driven by the latest forward price dipping below either the 60 or 130 day rolling average
  - Percentage of Term Purchase may increase as rolling average dips below 60 and then 130 day threshold
    - Applicable percentage of Term activity is decided in advance

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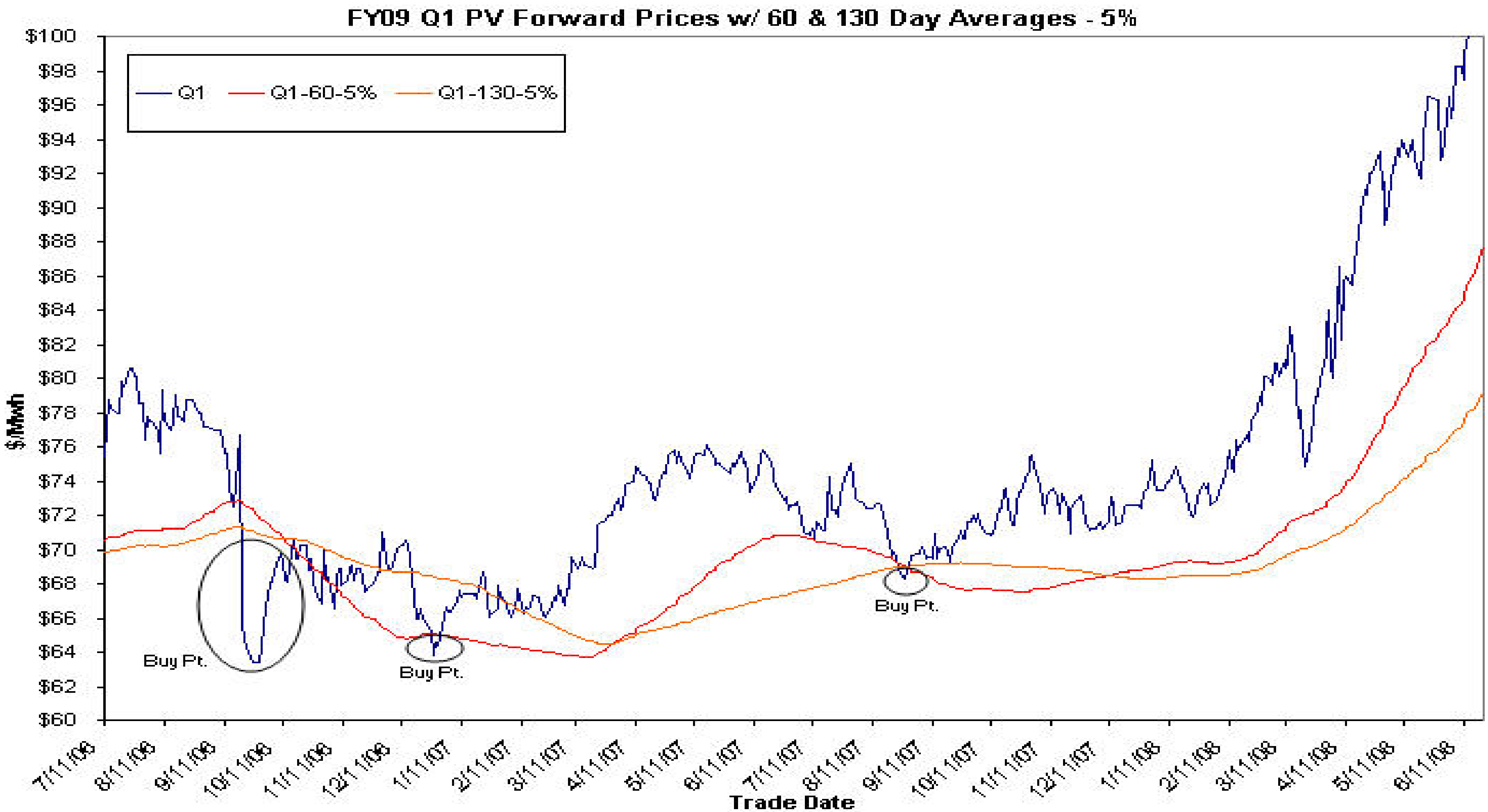
Price Triggers – Identify Times to Buy



Times in which forward prices are below the rolling 60 & 130 day average minus 5% are deemed to be price triggers

Term Purchase Strategy

- Time Trigger
  - A pre-set point in time that regardless of market conditions a portion of demand is purchased
    - Based on pre-determined decision on how much Term power is to be integrated into PDP resource mix
- Term Purchase Strategy Impacts
  - Changing Generation Values
  - Price Volatility

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FY 2010 AOP – Next Steps

- Open Discussion

- Next Meetings:
  – July 16, 2009: PDP Funding Board Meeting

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Western AREA POWER ADMINISTRATION

PARKER - DAVIS PROJECT
FY 2009 Status & Preliminary FY 2010 Annual Operating Plans
May 7, 2009

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