Avoidable Cost Rate 2012 Triennial Review Update

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PJM Interconnection

What is the ACR?

- A generator's maximum allowable offer into RPM is based on it's Avoidable Cost Rate (ACR) less projected revenues from other PJM markets
- Generators can:
  - Provide unit specific ACR data to the Market Monitor
  - Choose to use a Default Unit ACR value
    - The default ACR values for various technology categories are specified in the Tariff
    - Handy Whitman is used to escalate for future years

- The tariff requires that PJM review default ACR values after three years of escalation to:
  - Determine whether any changes other than those produced by the escalation method are warranted
  - Report its conclusions to the members
  - File resulting changes with FERC, if any, to the default ACR values

- PJM surveyed Market Participants about their units' 2011 costs
  - 23 companies responded to the survey
  - Sample size of 337 units
- PJM also reviewed pertinent studies on the topic for additional guidance and benchmarking
  - *Updated Capital Cost Estimates for Electricity Generation Plants* (EIA, November 2010)
  - *Cost of New Entry Estimates for Combustion Turbine and Combined Cycle Plants in PJM* (Brattle Report)

Recommendations

1. Consolidation of Default Avoidable Cost Rate Categories

2. Adjust for Actual Handy-Whitman Index Values When Escalating Future ACR values.

3. Update Default ACR Values to Reflect Updated Information

Recommendation #1
Consolidation of Default ACR Categories

Current Default Category	Proposed Default Category
CC - NUG Cogeneration Frame B or E Technology	Combined Cycle (CC)
CC - Three on One Frame E/Siemens Technology	
CC - Three or More on One or More Frame F Technology	
CC - Two on One Frame F Technology	
CT - First & Second Generation Aero (P&W FT 4)	Combustion Turbine (CT) Aero Derivative
CT - Third Generation Aero (P&W FT-8 TwinPak)	
CT - Third Generation Aero (GE LM 6000)	
CT - First & Second Generation Frame B	Combustion Turbine (CT) Industrial Frame
CT - Second Generation Frame E	
CT - Third Generation Frame F	
Sub-Critical Coal	Coal Fired
Waste Coal - Large	
Waste Coal - Small	
Super Critical Coal	
Diesel	Diesel
Hydro	Hydro
Oil and Gas Steam	Oil and Gas Steam
Pumped Storage	Pumped Storage

Recommendation #1
Consolidation of Default ACR Categories

PJM is proposing larger technology categories to be more inclusive and remove any undue administrative burden on any unspecified unit type. The proposed new categories are:

- Coal Fired
- Combined Cycle
- Combustion Turbine Industrial Frame
- Combustion Turbine Aero Derivative

Recommendation #2
Adjust for Actual Handy-Whitman Index

- Currently ACR values are only escalated using the 10 year Handy Whitman Index Average.

- ACR values should be corrected for inflation once the actual Handy-Whitman Index is updated to prevent any upward or downward bias in the long-term trend of default ACR values then escalated by the 10 year average.

Recommendation #3
Combined Cycle

Current Default Category	Current 2011/2012 Mothball ACR Value	Proposed Default Category	Proposed 2011/2012 Mothball ACR Value
CC - NUG Cogeneration Frame B or E Technology	$120.16	Combined Cycle (CC)	$29.58
CC - Three on One Frame E/Siemens Technology	$35.89		
CC - Three or More on One or More Frame F Technology	$27.98		
CC - Two on One Frame F Technology	$32.33		

Recommendation #3
Combustion Turbine Aero Derivative

Current Default Category	Current 2011/2012 Mothball ACR Value	Proposed Default Category	Proposed 2011/2012 Mothball ACR Value
CT - First & Second Generation Aero (P&W FT 4)	$25.69	Combustion Turbine (CT) Aero Derivative	$26.13
CT - Third Generation Aero (GE LM 6000)	$58.42		
CT - Third Generation Aero (P&W FT-8 TwinPak)	$30.64		

Recommendation #3
Combustion Turbine Industrial Frame

Current Default Category	Current 2011/2012 Mothball ACR Value	Proposed Default Category	Proposed 2011/2012 Mothball ACR Value
CT - First & Second Generation Frame B	$25.38	Combustion Turbine (CT) Industrial Frame	$24.13
CT - Second Generation Frame E	$24.13		
CT - Third Generation Frame F	$24.77		

Recommendation #3
Coal Fired

Current Default Category	Current 2011/2012 Mothball ACR Value	Proposed Default Category	Proposed 2011/2012 Mothball ACR Value
Sub-Critical Coal	$178.24	Coal Fired	$136.91
Waste Coal - Large	$86.94		
Waste Coal - Small	$235.06		
Super Critical Coal	$184.15		

Recommendation #3
Diesel, Hydro, Oil and Gas Steam, Pumped Storage

Current Default Category	Current 2011/2012 Mothball ACR Value	Proposed Default Category	Proposed 2011/2012 Mothball ACR Value
Diesel	$27.49	Diesel	$25.46
Hydro	$74.24	Hydro	$68.78
Oil and Gas Steam	$68.18	Oil and Gas Steam	$63.16
Pumped Storage	$21.72	Pumped Storage	$20.12

Questions or Comments

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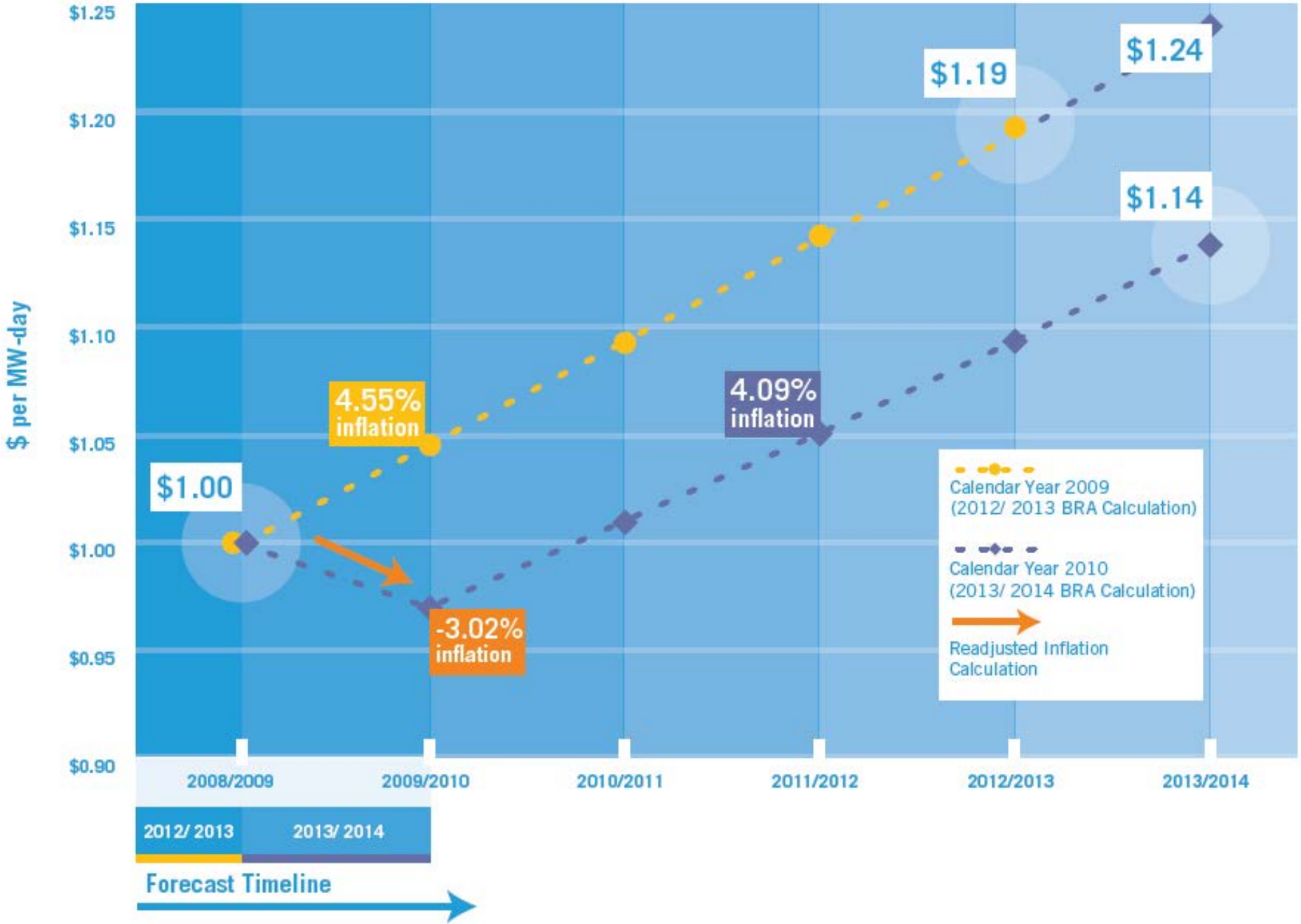
Inflation on $1 in 2008



SOM: Q2 2012 16.1% Unit Specific ACR

Table 4-11 ACR statistics: 2015/2016 RPM Auctions (See the 2011 SOM, Table 4-14)

	2015/2016 Base Residual Auction	
Offer Cap/Mitigation Type	Number of Generation Resources	Percent of Generation Resources Offered
Default ACR	449	38.4%
ACR data input (APIR)	171	14.6%
ACR data input (non-APIR)	17	1.5%
Opportunity cost input	4	0.3%
Default ACR and opportunity cost	4	0.3%
Offer cap of 1.1 times BRA clearing price elected	NA	NA
Uncapped planned uprate and default ACR	25	2.1%
Uncapped planned uprate and opportunity cost	0	0.0%
Uncapped planned uprate and price taker	7	0.6%
Uncapped planned uprate and 1.1 times BRA clearing price elected	NA	NA
Uncapped planned generation resources	32	2.7%
Price takers	459	39.3%
Total Generation Capacity Resources offered	1,168	100.0%