

# Black Start Refurbishment

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BSSTF

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- For existing Black Start resources that are retiring from service and which require PJM to obtain a replacement Black Start Resource through an RFP process (BS-RFP)....

## Conditions For Offering

- Existing resource owner has the *voluntary option* to offer its refurbishment costs as a bid to the BS-RFP...
  - Costs may include overhaul or other capital expenses necessary to operate the unit as a BS resource for the CRF recovery period. (typically 5 years).
- Refurbishment costs included in the BS offer if accepted *are not eligible* as Variable O&M in the energy offer or APIR/ACR in the RPM market.

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## Unit Owner Obligations If Offer Is Accepted

- Existing resource owner would take the steps necessary to refurbish the unit to maintain it in BS service for the commitment period. (based on the CRF term).
- Owner would document actual costs incurred to calculate the CRF rate payable over the CRF term.
- Owner would be subject to BS revenue forfeiture and loss of forward CRF recovery should the unit not remain in BS Service for the commitment period.

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## Unit Owner Obligations If Offer Is Accepted - RPM

- As an ongoing resource the unit owner would be obligated to offer into RPM
  - Capital refurbishment costs covered under the BS - CRF **are not included** in ACR/APIR or used to establish RPM offer caps.
  - If the RPM offer clears the owner accepts the obligations and risks of being a capacity resource.
  - If the RPM offer does not clear the owner would still have an outstanding obligation and cost recovery incentive to provide the BS service.

# Example



## Comparison of Black Start Schedule 6A Payments with RPM Payments

(For Estimation Purposes Only)

### Assumptions

Installed Capacity	20	MW
Hydro	No	
Fuel Source	Oil	
CONE	\$160.76	(for area where Black Start unit is Located)
Refurbishment Cost	\$2,100,000	(Equals \$762,300 per year for 5 years when applying the CRF rates in the BS Tariff)
Unit Age	35	years
RPM Clearing Price	\$110.00	per MW day
EFORd	8.00%	
ACR Rate	\$27.63	per MW day
Offer into RPM	Yes	
RPM Capacity Payment	\$738,760	

	No Blackstart				Proposal B - (Sch 6A + RPM)			
	Cleared RPM		Did Not Clear RPM		Cleared RPM		Did Not Clear RPM	
	w OvH	w/o OvH	w OvH	w/o OvH	w OvH	w/o OvH	w OvH	w/o OvH
<b>Capacity</b>								
RPM Payment	\$738,760	\$738,760	\$0	\$0	\$738,760	\$738,760	\$0	\$0
<b>Black Start Service</b>								
Black Start Rate (Other Than Refurbishment)					\$37,795	\$37,795	\$37,795	\$37,795
Capital Recovery on Refurbishment VIA Black Start					\$762,300	\$0	\$762,300	\$0
Black Start Payment =	\$0	\$0	\$0	\$0	\$800,095	\$37,795	\$800,095	\$37,795
Owner Cost For Refurbishment	(\$762,300)	\$0	(\$762,300)	\$0	(\$762,300)	\$0	(\$762,300)	\$0
Owner Net (RPM + BS - Refurbishment)	(\$23,540)	\$738,760	(\$762,300)	\$0	\$776,555	\$776,555	\$37,795	\$37,795

See Summary Notes On Next Slide >>>>>

# Example Summary



	Proposal B - (Sch 6A + RPM)			
	Black Start			
	Cleared RPM		Did Not Clear RPM	
	w Ovhd	w/o Ovhd	w Ovhd	w/o Ovhd
<b>Capacity</b>				
RPM Payment	\$738,760	\$738,760	\$0	\$0
<b>Black Start Service</b>				
Black Start Rate (Other Than Refurbishment)	\$37,795	\$37,795	\$37,795	\$37,795
Capital Recovery on Refurbishment VIA Black Start	\$762,300	\$0	\$762,300	\$0
Black Start Payment =	\$800,095	\$37,795	\$800,095	\$37,795
Owner Cost For Refurbishment	(\$762,300)	\$0	(\$762,300)	\$0
Owner Net (RPM + BS - Refurbishment)	\$776,555	\$776,555	\$37,795	\$37,795

- The Generation Owner’s economic position is held neutral under the proposal.
  - The Refurbishment costs incurred by the owner to maintain the unit in BS service are paid through the BS service rate. Absent this payment the unit will retire and will not provide BS service. The owner takes on the obligations and risks associated with being a BS resource for the period of the CRF commitment independent of the RPM commitment.
  - RPM revenues to the owner are based on the unit clearing the capacity auctions and requires the unit owner to take on the obligations and risks associated with being a capacity resource independent of the BS Service commitment.

Questions ?