Illinois Competitive Energy Association

IPA Workshop on Full Requirements

June 5, 2014

Fixed Price Full Requirements (FPFR) Product Definition

- Energy, capacity, ancillary services, and firm transmission
- Via physical delivery (not financial)
- Excludes NITS and other non-market-based RTO charges (which would be passed through to customers through utility charges)

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FPFR Product Definition - Exclusions

Non-market-based Charges:

- PJM Network Integrated Transmission Service (NITS) fees -- PJM invoice Id. No. 1100
- PJM Transmission Enhancement charges (TEC) --PJM invoice Id. No. 1108
- PJM Load Reconciliation For Transmission Owners Scheduling --PJM invoice Id. No. 1450.
- Reactive Supply and Voltage Control -- PJM invoice Id. No. 1330.
- Transmission Owner Scheduling, System Control, and Dispatch Service --PJ invoice Id. No. 1320
- Firm Point-to-Point Transmission Services --PJM invoice Id. No. 2130.
- Non-Firm Point-to-Point Transmission Services --PJM invoice Id. No. 2140.
- PJM Generation Deactivation Fee -PJM invoice Id. No. 1930
- PJM Generation Deactivation Refund – PJM invoice Id. No. 1932

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FPFR Product Approach – Parameters

- Regulators in most restructured jurisdictions have chosen to rely predominantly on FPFR products for their utility supply for mass market customers.

Key Features of FPFR Product Approach

- Guaranteed, predetermined, load-following, $/MWh supply prices for customers, regardless of unexpected load and market price outcomes
- Bundles energy, capacity, ancillary services, and often RECs
- Third-party suppliers bid on percentages of the supply requirement, and assume volume, price, and regulatory risks during the contract period
- Contracts are typically "laddered" to provide rate stability
- Procurement process, products, timing, cost recovery, etc., are pre-approved
- Products do not require utility to post collateral
- Usually no significant deferred cost recoveries
- Relatively easy to implement
- Sellers require compensation for the costs and risks that they bear

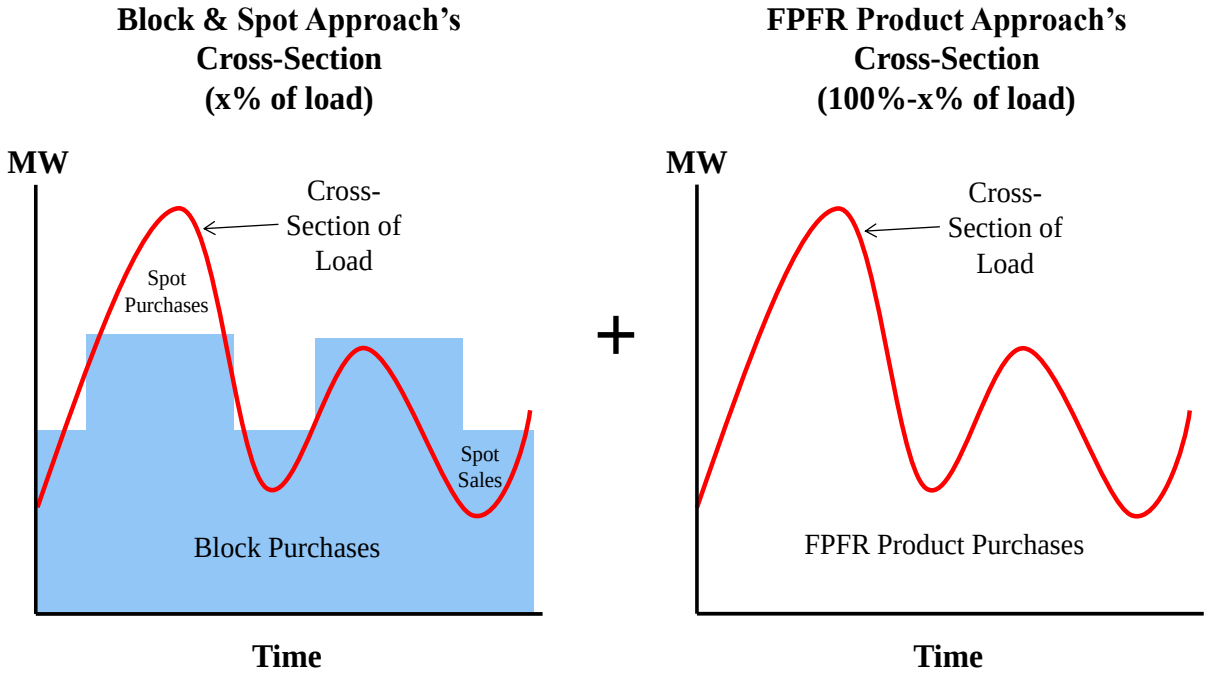
Adoption of the FPFR Product Approach*	
State	Utility
CT	CLP, UI
DC	Pepco
DE	Delmarva
ME	BHE, CMP, MPS
MD	AP, BGE, Delmarva, Pepco
MA	FG&E, NG, NSTAR, WMECO
NJ	ACE, JCPL, PSEG, RECO
OH	AEP, DPL, Duke, FE
PA	FE, PECO, PPL, WPP
RI	Narragansett

* Some full requirements products may have volume risk mechanisms, but they still are largely fixed-price.

- In fact, the FPFR product approach has become by far the most prevalent and favored form of utility supply procurement for mass market customers in restructured jurisdictions.

Integration into the IPA Plan

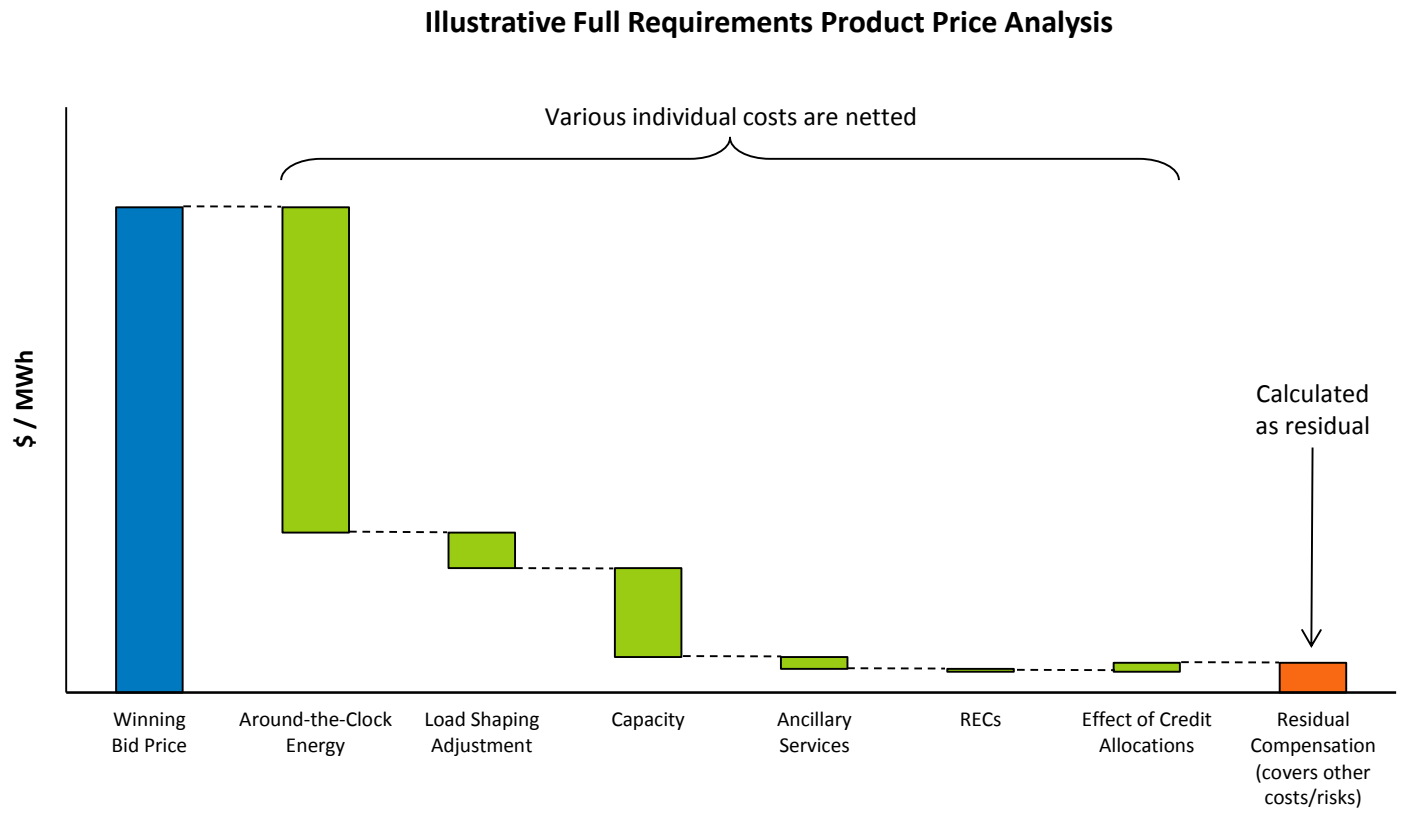
- In integrating FPFR products into the IPA plan, a (pro-rata) cross-section of the entire actual load requirement could be reserved for FPFR products, with the remaining cross-section supplied through the block-and-spot approach.
- This approach effectively separates the load into two portions: one that is entirely supplied by the block-and-spot approach and one that is entirely supplied by FPFR products.



- To the extent that FPFR products are included, they will protect customers from the adverse risks of the block-and-spot approach, and information will be gained about their pricing in the context of the Illinois electricity markets.

Metrics - Residual Compensation

- In order to better understand the pricing of a FPFR product, parties sometimes calculate the values of the individual cost components that can be quantified in a fairly simple way, and deduct them from the winning bid price.



- The resulting “metric” is often referred to as “residual compensation,” as it refers to the compensation required by the supplier to cover the other costs and risks that were not individually quantified and netted in the calculation.

Metrics - Residual Compensation Insights

- Confidential residual compensation analysis (or similar types of analysis) is performed by regulator-approved FPFR product solicitation bid monitors in order to help determine whether the resulting bid prices are reasonable.
- It is critical to recognize two important facts when performing such analysis:
    1. Residual compensation does NOT refer to the difference in expected cost between a block-and-spot approach and a FPFR product approach, nor does it represent the FPFR product supplier's profit, as many other costs and risks are borne by the FPFR product supplier to the benefit of customers, such as those associated with customer migration, usage and price uncertainty, unexpected congestion, adverse selection, adverse developments in energy markets during the time a bid is held open, potential changes in laws and regulations, administrative and legal costs, and credit-related costs.
    2. The assessment of any residual compensation value must consider the relevant costs and risks borne by FPFR product suppliers to the benefit of customers.
        - The FPFR product suppliers are providing protection to customers from these costs and risks instead of having them directly be borne by customers.
        - The costs and risks vary by region and customer class, and over time, so the residual compensation (which covers these costs and risks) also can be expected to vary.

Additional Required Considerations

- Price Transparency
- Price Stability
- Cross-subsidization
- Deferral Cost Recovery

Analysis Overview

- The NorthBridge Group has performed a rigorous, quantitative, Monte Carlo simulation analysis, using actual observable market data, to assess the relative merits of the FPFR product approach versus the block-and-spot approach.
- Importantly, the NorthBridge analysis focuses on a service area (PECO Energy) in which both the block-and-spot approach and the FPFR product approach were simultaneously employed to supply portions of the utility's residential load; as such, there is ample, relevant data to perform the analysis.
- The NorthBridge analysis involves the application of different supply approaches to 1,000 different but equally likely market scenarios that reflect complex real-world market dynamics, consistent with the volatilities, correlations, and mean reversion of market price and load changes observed historically. In this context, a "scenario" is a potential state-of-the-world that may unfold.
- In order to develop insights, the supply approaches are assessed against various predetermined "metrics" that characterize aspects of benefits, costs, and risks that are of concern:

Metric	Description
Expected Default Service Supply Rate Level	Average default service supply rate across all scenarios.
Default Service Rate Shock	Distribution of maximum rate change over a given period of time (e.g., looking across a year, what is the largest increase in the rate versus what it was six months earlier).
Default Service Supply Cost Surprise	Distribution of difference between actual (ex-post) and forecasted (ex-ante) supply costs (e.g., how do actual supply costs over a twelve-month period compare to expectations three months before that period began).
Deferred Cost Recovery Balance	Distribution of accumulated under/(over) recoveries due to differences between default service rates and actual supply costs.

Analysis Results

- The NorthBridge analysis indicates that the compensation that FPFR product suppliers require to directly bear costs and risks to the benefit of customers is reasonable:
  - A block-and-spot approach exposes customers to considerably more risk with regard to rate volatility, supply cost uncertainty, and deferred cost recovery balances than a FPFR product approach does.
  - A block-and-spot approach does not involve significantly lower expected default service rates, relative to the risks to which customers are exposed in a block-and-spot approach.

"Block-and-Spot Approach with 106% Target"[1] vs. "FPFR Product Approach"

Default Service Approach	Expected Default Service Supply Rate Level ($/MWH)	Default Service Rate Shock[2] ($/MWH)	Default Service Supply Cost Surprise[2] ($/MWH)	Deferred Cost Recovery Balance[2] ($MM)
FPFR Product Approach	$62.31	$8.26	$2.75	$0
Block-and-Spot Approach with 106% Target	$62.18	$13.37	$7.40	$80
Increase in Risk ($/MWH or $MM)		$5.11 (+62%)	$4.65 (+169%)	$80
Decrease in Expected Rate ($/MWH)	$0.13 (0.2%)			

[1] "106% Target" is closely aligned with the IPA's recent recommendations.
[2] Top decile value.

- While Illinois may involve different supply-related costs and risks than Pennsylvania (e.g., due to municipal aggregation), the basic conclusions about the tradeoff between the block-and-spot approach and the FPFR product approach still stand. If uncertainty about customer switching is higher in Illinois, then the compensation required by Illinois FPFR product suppliers to bear resultant higher costs and risks to the benefit of customers will be higher, but the costs and risks that otherwise would be borne by Illinois customers under the block-and-spot approach also will be higher.