

What Energy Suppliers and Brokers do not want you to know (Electric)

Part 2



About Us

- E-Quantum Consulting Founded in 2011
- Provide the Energy Buyer Information
- (Independent) Consultants
- Higher Education Partners

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Summary of Part 1



- Different energy purchasing channels and Brokers conflict of interest
- How to ID a Broker
- Brokers and Retail Suppliers behind the scenes relationships

- Avoid Brokers
 - No Competition
 - No Transparency
 - O Higher Cost
 - Unknowingly participating in a Monopoly







Things to Consider



- Retail Energy Suppliers are not Utility Companies
- Energy is the 3rd Largest expense in running an organization

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When you purchase yours, does it feel like the deck is stacked against you?



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Agenda for Part 2



- How a properly structured Electric Contract should be set up
- How the Supplier/Broker would like to structure it to maximize their profits
- Purchasing Best Practices & Next Steps



The Electric Grid



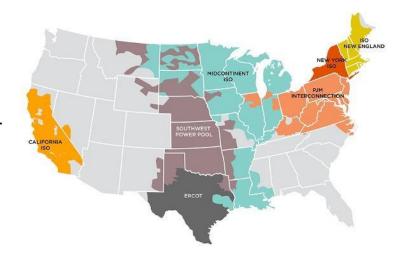
Generator	Border Point	Substation	Meter
A Gen-Set	The Border Point • Energy	Between the Border and Substation is the Transmission Grid (MISO or PJM)	Between the Substation and Meter is the Distribution Grid (ComEd or Ameren) • Delivery Charges
	This is where the Retail Supplier starts to get involved.	Retail Supplier Involvement Stops	Transparent and overseen by the ICC



The Transmission Grid



- Regional Transmission Organizations (MISO & PJM)
- Tariffs are approved by the FERC
- Tariff the says how they can charge the **Suppliers** for
 - Capacity
 - Transmission
 - Ancillary
 - Loss's





Things to keep in mind:



The Retail Electric Supplier:

- Is under no obligation to pass through to you, in the manner they are charged, the
 Transmission Components
- Has no oversight into how they structure their Retail Contract
- Their job is to maximize the margin for their stakeholders. This comes at your expense
- Is NOT a Utility Company, this is why you have a <u>Retail Contract</u>

IMPORTANT NOTE:

- Before discussing Price, with any Retail Supplier, you must understand the contract that goes with what they are offering.
- This Contract determines how you are billed and what risks you are assuming. This is where the rubber meets the road



How should a Retail Electric Contract be set up



Cost Component	Unit			ENERGY is the commodity traded on the open market and is the only item Suppliers should be allowed to add a competitive margin to
Energy	kWh			
Capacity	kW			CAP & TRANS need to be accurately derived from the Regional Transmission Operators Tariff Rates and PLC's and billed to you using the Tariff Formula
Transmission	kW			
Losses	kWh	•		LOSSES need to be correctly tied back to the RTO & Local Utility ratebook
Ancillary	kWh			
ARR/ML Credits	kWh	1		ANCILLARIES and CREDITS differ slightly by Supplier but needs to be examined for accuracy
RECS	kWh		<u> </u>	
			\	RENEWABLE ENERGY CERTIFICATES (REC's) can be optionally bid and purchased through a Supplier



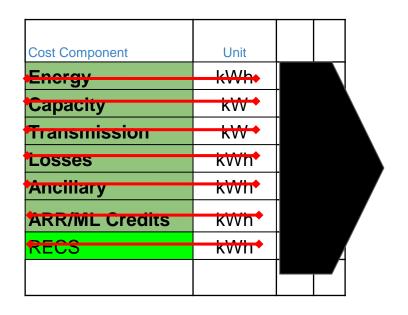
Bundled Rates

a.k.a. "all inclusive" rate



Bundled Rate Explained





Bundled All-Inclusive "Fixed" \$/kWh





- **Deviates from Tariff**
- Unfair risk exposure
- All Cost are now unknown
- "Fixed" is a Lie

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Example 1



RMR Costs are also included in the contract prices. Except in the case of Transmission Costs, all other costs listed above as "Fixed" may be subject to change if there is a change in law, as described in Section 5 of the General Terms and Conditions below. Notwithstanding any notation of Capacity Costs as "Fixed" or "Pass Through" herein, Capacity Performance Costs (defined below) shall be passed through to you to the extent applicable during the term of this Agreement.



Change in Law

5. Changes in law. We may pass through or allocate, as the case may be, to you any increase or decrease in our costs related to the electricity and related products and services sold to you that results from the implementation of new, or changes (including changes to formula rate calculations) to existing, Laws, or other requirements or changes in administration or interpretation of Laws or other requirements. "Law" means any law, rule, regulation, ordinance, statute, judicial decision, administrative order, ISO business practices or protocol, UDC or ISO tariff, rule of any commission or agency with jurisdiction in the state in which the Accounts are located. Such additional amounts will be included in subsequent invoices to you. The changes described in this Section may change any or all of the charges described in this Agreement, whether described as "fixed," "variable," "pass-through" or otherwise. Your first bill reflecting increased costs will include a bill insert describing the increase in costs in reasonable detail.





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Example 2



Also, if Buyer has a change in usage of 25% or more for its Facilities, may pass through the resulting cost increases to Buyer. If elects to pass through such cost increases, will calculate the amount of such costs in a commercially reasonable manner and submit an invoice to Buyer, which invoice will be due and payable pursuant to the payment terms of this Agreement.



Example 3



SECTION 5a: Variations

5a.1 Changes in Law. If a Change in Law occurs, Supplier may pass through any associated costs or credits to the Customer without markup.

5a.2 Material Change. Supplier reserves the right to pass through any additional costs incurred by Supplier as a result of Material Change to the Customer without markup.



Example 1



February 2, 2017 to March 2, 2017

Fixed Price - 1,392,438.4637 kWh Total @ \$0.05996/kWh

Transmission Adjustment - 1,392,438.4637 kWh Total @ \$0.002672/kWh

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\$83,490.61

\$3,720.60



Example 2



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Payments and Adjustments	
NITS Adjustment Debit on 01/30/17 February 2017	\$1,588.02
NITS Rate Adjustment	
Capacity Adjustment Debit on 01/30/17 February	\$3,315.88
2017 Capacity Rate Adjustment	*
NITS Adjustment Debit on 01/30/17 January 2017	\$1,758.17
NITS Rate Adjustment	



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Example 3



г жеа т псе - э, гоч,ооо. гооz күүн тоюн*ю,* фо.оэээо/күүн

Transmission Adjustment - 3,704,080.7002 kWh Total @ \$0.001604/kWh

Current Actual Charges

\$5,941.35

φ133,072.13

\$205,813.54





Should you also see Credits?....Nope....Don't forget the word "May"

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Bundled Rates (All-inclusive) Summary



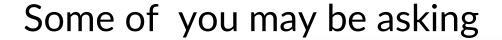
- 1. Are not "Fixed"
- 2. Offer a higher risk to the Buyer while removing risk from the Supplier

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3. Bundled Rates allow the Supplier to collect a higher Margin at your expense.

This is how the Supplier/Broker would like to set up your contract!







Why would the Broker push this kind of contract?

- Easier to build in a large fee into a bigger number
- Looks simpler, and the simpler is looks the less questions are asked
- The less questions that are asked the less the buyer knows.

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Remember: the Brokers work for themselves and the Supplier, **not you.**



Watch for Variations



Cost Component	Unit	
Energy	kWh	
Capacity	kWh	
Transmission	kWh	
Losses	kWh	
Ancillary	kWh	
ARR/ML Credits	kWh	
RECS	kWh	

When you start asking questions, the Supplier/Broker may present something that looks like this.

Notice Cap and Trans are not kW.



Agenda for Part 2



- How to properly structure your Electric Contract
- How Suppliers/Brokers would like to structure it to maximize <u>their</u> profits

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Purchasing Best Practices & Next Steps



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Best Practices



Retail Gas and Electric Suppliers



Utility Companies



Best Practices



- Understand your Contract Structure
- ID Brokers
- Understand your Regional Transmission Tariff



Next Steps



- How to properly structure Natural Gas Contract so the Supplier cannot take advantage.
 Again this is the single most important aspect, even before price.
- The pros an cons of the various ways to shop for a retail contract (online auction, direct request for proposal, etc).
- Electric Demand Response Programs.
- Much more...



