

HOW TO BUY ELECTRICITY

A PRIMER FOR POLITICAL
SUBDIVISIONS IN THE
DEREGULATED TEXAS
ELECTRIC MARKET

A PUBLIC-SERVICE HOW-TO GUIDE
FROM NON-PROFIT, PEER-LED TCAP



Texas Coalition
for Affordable Power



Retail Electric Providers. TDSPs. Brokers. Aggregators. Purchasing Co-Ops. RFPs. For-profits. Not-for-profits. \$/kWh. And much more.*

*** For the sake of transparency:** this How-To Guide is a brief yet comprehensive overview of the challenges you will face when purchasing electricity in Texas' deregulated market. There are some instances (for example, on the topic of aggregation) where we cannot provide a clear, useful example or comparison without briefly sharing how TCAP differs from your other options.

Retail Electric Providers (REPs).

In certain areas of the state of Texas where the sale of electricity is open to retail competition, REPs sell electricity to end-users. The REP buys electricity delivery and related services wholesale—then sells to you at retail price.

Transmission & Delivery Service Providers (TDSPs).

These state-regulated entities own the power lines over which electricity is transmitted, maintain the lines, correct power outages, and read your meter to determine how many kWh you are to be billed—that information forwarded to the REPs

Energy Brokers.

Brokerage Services (commonly called brokers) offer advice and procurement services acting on behalf of a retail customer



regarding the selection of a REP, sometimes including assistance with writing RFPs.

Aggregators vs. Purchasing Co-Ops.

Many purchasing co-ops call themselves “aggregators” yet, in reality, your load is never aggregated with any other’s. Purchasing Co-Ops pre-negotiate contracts with a handful of top REPs, then require you to choose from their list of “approved” brokers. These middlemen are only negotiating contract language that at best amounts to a small percentage discount. You are still just getting the going rate—something you can get without their help. In TCAP’s case, we buy direct in the wholesale market without middlemen. This enables us to attain the high-level of purchasing power not afforded to any one political subdivision on its own.

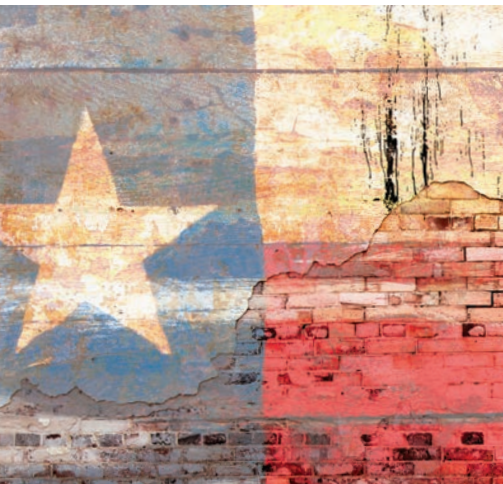
Broker Fees vs. Aggregation Fees.

Brokers tend to hide their fees in the energy prices they present to you, then point to an aggregator’s fees (like TCAP’s) to distract from the fact that their Broker fees can be 5-10 times higher than our aggregation fees.

For-Profits vs. Not-For-Profits.

At the risk of sounding self-serving, the truth is that the vast majority of organizations in this industry are in it for the money. No surprise there. This is America. We have no problem with that. What we do have a problem with, and wish to make you aware of, is this: as with any major purchase, it’s always best to shop, and compare—critically—to be sure you understand not just the price, but all of the fine print in a proposed contract.





RFP Required? (Texas says NO!)

Texas state purchasing law does not require political subdivisions to go out to bid for electricity. Yet some brokers offer to assist the buyer with the RFP process for a fee. The caveat here is that while they promise to obtain the lowest bid, some, as we say in Texas, “*have a dog in the hunt*.” In some cases, they even get a flat annual fee for the entire term of the contract simply for having written the RFP. You could be paying an annual fee for 7- 10 years for one RFP.

Why The Per-kWh Price Isn't Always The Final Price.

Many are not aware just how complex buying electricity can be. Maybe that almost-too-hard-to-believe per-kWh price being promised, is. Not all bid prices cover the same costs. It's critical, therefore, to understand everything included in the pricing model and contract provisions when comparing bids. Most often, these contain industry jargon that can be misunderstood and many hide potential gotchas in the fine print. The price presented may not be the same price you see on your first bill.

Bandwidth Charges.

Bandwidth refers to the total average kWh of electricity usage contracted for plus or minus a fixed percentage. Usage outside of those contracted bandwidth limits may permit the provider to switch from the contracted price to a higher, current market price. Bandwidths vary by contract, and the higher the contract percentage over/under, the higher the price is. As an aggregation group, our bandwidth is negotiated for the entire group and not one individual member, reducing our members' exposure.

Congestion Costs.

These are charges meant to relieve congestion on the ERCOT transmission grid (think of ERCOT as a sort of air-traffic control for electricity). Congestion costs vary by ERCOT zone and cannot be predicted with certainty. “Fixing” these costs in an energy



contract is like buying “price” insurance. It can end up costing you more than the actual congestion charge itself.

Changes In The Law (e.g. Texas’ 2021 Freeze Event).

A Change in Law provision (aka Material Change) allows the electricity seller, unilaterally, to override the contract price or some other contract provision due to developments outside of its control that affect their cost such as unexpectedly high congestion or ancillary services overages. These can result from changes in demand, legislation, action by ERCOT or the Public Utility Commission, or from other unanticipated events such as once-in-a-century weather or disaster, etc.

Going It Alone (DIY Contracting).

Your ability to negotiate a great contract is directly proportional to the size of your political subdivisions electric load and your knowledge of the intricacies and pitfalls of contracting in the electric market here in Texas. If you chose to write an RFP for electricity, make sure that you include all costs and that the pricing from every bidder is for the same day to ensure an apples to apples comparison. Also, ask for copies of standard contracts and review the language to determine if there is any language that could cause the contract price to change or increase during the term. Knowing how and when you use electricity is also important for this process.

Finally... if it sounds too good to be true, insist on getting it in writing. If they can’t or won’t, think twice!





What motivates the for-profits to go after you so aggressively?

The motivation of the for-profits is easy to understand. They would love to have you on board, more so than many other potential clients, because political subdivisions don't go out of business. That's why they'll do almost anything to get you locked into as long a contract term as possible.

At the risk of sounding like we're selling—TCAP is an organization composed of and led by your peers. And that is why we urge you to consider this:

The deregulated Texas electricity market is dynamic, with fluctuations that can turn on a dime and prices that often go lower rather than higher.

Locking into a long term contract out of fear that prices will go nowhere but up also locks you in when new technology (ie fracking, battery storage) comes on line and prices take a nose dive. Long term contracts, therefore, could end up costing you more than shorter term contracts.

Let The Buyer Beware.

None of us would blame the for-profits for seeking to compete in a free market system. After all, they're in business to make money and, therefore, have to cover their organizations' sizable overheads. That's how they cover their advertising and marketing costs, sales commissions, lobbyists, and attorneys' fees.

But it's that deliberately opaque contract language that we wish to caution you about.



While legal, we leave it to you to decide whether or not you feel it is ethical to craft contracts with per-kWh prices that seem like the deal-of-the-century, when they are certainly not. Not if you read the fine print and understand the nuances and ambiguity of industry jargon.

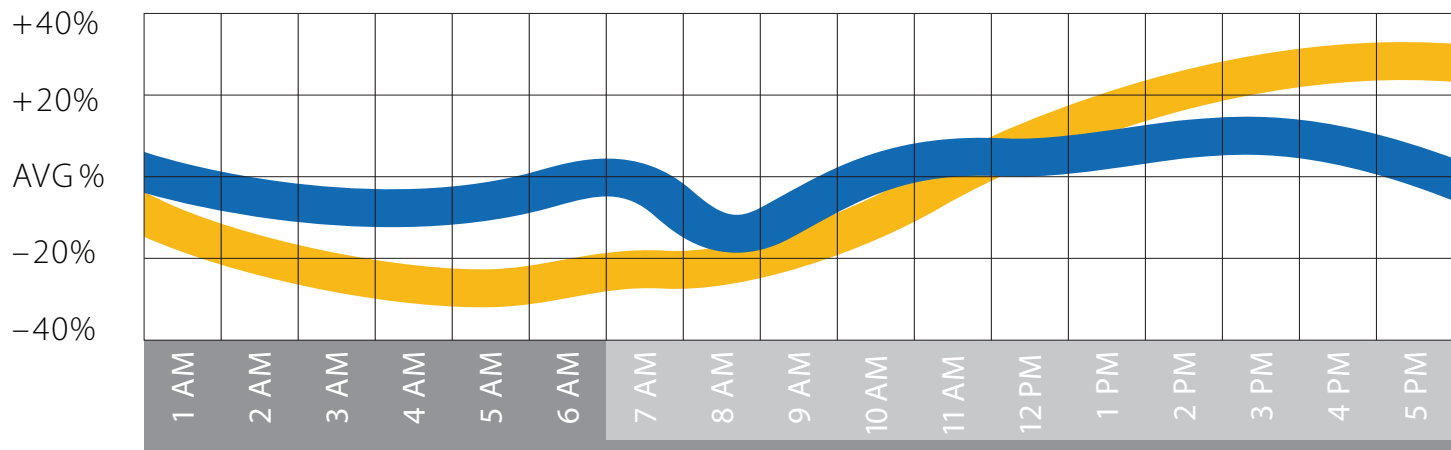
Full Disclosure: TCAP Charges An Aggregation Fee.

Because even a peer-led, not-for-profit like TCAP can't operate without some modest overhead. It operates with a minimal administrative staff, a 15-member all-volunteer board, and a handful of expert consultants who advise the organization as needed.

The bulk, in fact, of TCAP's administrative fees go toward negotiating lower prices and delivering an enviable level of customer service unmatched by most in the industry.

TCAP also provides ongoing services like state reporting, budget reports, conservation consulting and many other energy-related services at no additional cost over our low per- kWh aggregation fee.





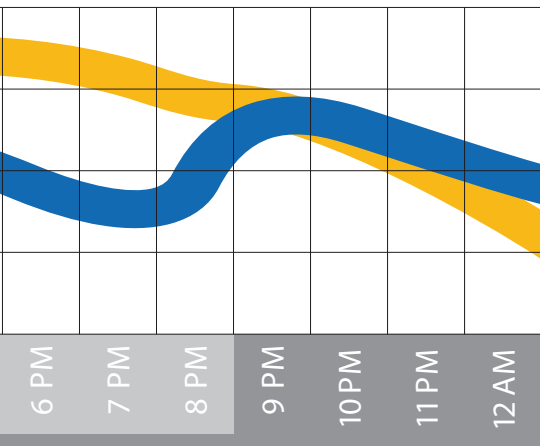
Usage Patterns And Effects: ERCOT vs. Political Subdivisions*

* Is this a sales pitch? No. Just wanting to share the facts behind the unique dynamics that allow us, not-for-profit TCAP, to compete with the for-profit big-boys.

Notice the difference in the chart above between ERCOT's and most political subdivisions' average peak-usage profiles during August in Texas (typically the hottest summer month with highest peak load).

Lower Prices. While ERCOT's overall annual load factor is around 50%, political subdivisions' annual loads run between 60%–70%. This is due to higher off-peak usage that is fairly consistent throughout the year.

We know this scenario well. For example, TCAP members use more energy in the overnight period when overall



AVERAGE DAILY LOAD (IN AUGUST)

HOURLY DEMAND AS A PERCENTAGE OF AVERAGE DAILY DEMAND

ERCOT POL. SUBDIVISIONS*

* Data source shown provided by TCAP



demand is lower and prices are also lower. This is due, in large part, to street lighting and water pumping usage. As an aggregator, TCAP is able to blend its members' combined load to deliver an overall lower price

Unique Market Dynamic Opportunities.

In TCAP's case, this unique dynamic enables TCAP—uniquely allowed to purchase direct in the wholesale market—to compete on a level playing field, thereby obtaining lower prices for its members.

It is TCAP's aggregate load, political subdivision-centric constituency, and unique contract provisions that enable it to offer its members pricing typically unavailable to political subdivisions like yours.



Reference: Frequently Used Terminology

AGGREGATOR An entity that aggregates the load of individual metered site customers to improve market offerings and obtain better prices and services. There are very few aggregators in the market, but many brokers call themselves “aggregators”.

AMR METER Automated meter – used for accounts to measure daily and inter-day usage and provide remote transfer of meter data on a real-time basis.

ANCILLARY SERVICES Services required to ensure that the interconnected electric system is operated in a reliable manner that provides a satisfactory level of service with acceptable levels of voltage and frequency.

BILLING DEMAND A measure of demand for an account that is most often used for billing purposes. Billing demand can affect billing based on a demand that is different than actual metered demand.

BLOCK ENERGY An electric purchase structure whereby a buyer/user purchases a wholesale fixed amount of power for a specific time period at a fixed rate to stabilize portions of the electric price. Typically block purchases are used to cover minimum needs over the time period being covered by the block.

BROKER Party that sells or arranges the sale of energy commodity and is directly compensated by an energy supplier. A broker is essentially an agent for one or many REPs.

CAPACITY Peak measure of instantaneous electric usage. Capacity can refer to the amount of electric generation available, the maximum transfer amount of an electric line, or other such meanings.

COMBINED CYCLE The combination of gas turbines and steam turbines in an electric generation plant that employs more than one thermodynamic cycle. Typically the waste heat from gas turbines is used to make steam that drives a steam turbine. This increases energy efficiency of the plant.

CO OP (OR CO-OP) A cooperatively member owned utility that typically serves rural customers. Texas’ electric cooperatives serve 2 million homes and businesses in rural and suburban areas of the state.

CRR Congestion Revenue Rights (CRRs) are financial instruments that result in a charge or a payment to the owner when the ERCOT transmission grid is congested in the Day Ahead Market (DAM) or the Real-Time market.

DAM Day Ahead Market - Matches willing buyers and sellers, subject to network security and other constraints, whereby energy is co-optimized with Ancillary Services and certain CRRs.

DISTRIBUTION COST Local utility charges for delivering electricity through the local distribution system (wires) – represents a portion of the total electric bill regulated by the PUC.

DEMAND The amount of instantaneous electric power in MW being utilized by customer(s) at any specified point or collection of points on a system.

DC TIE Direct Current ties between ERCOT and non-ERCOT electric transmission systems in a non-synchronous manner. DC ties in ERCOT are used to transfer DC power in and out of the ERCOT grid.

ESI ID (“Easy ID”) Electric Service Identifier- the basic identifier assigned to each Service Delivery Point (meter) used in the registration and settlement systems managed by ERCOT.

ERCOT Electric Reliability Council of Texas. A Texas nonprofit corporation that has been certified by the PUCT as the Independent Organization for the ERCOT Region and manages both the power grid and wholesale and retail electric market in the majority of Texas.

ERS Emergency Response Service - An emergency service procured by ERCOT from end users used to reduce system demand during an Energy Emergency Alert (EEA) to assist in maintaining or restoring the ERCOT System. Loads bid into the ERS program and, if chosen, are paid to stand ready to reduce demand for agreed periods of time if requested.

ESCO Energy Service Company - An ESCO provides services to end users that allow them to reduce energy usage and/or save money on their electric bills through facilities retrofits and industry programs.

FERC Federal Energy Regulatory Commission. A US federal agency created to regulate rates, markets and operations of interstate wholesale and retail gas and electricity transactions. ERCOT is exempt from FERC..

FORWARD MARKET Prices of energy today for delivery in the future. Prices available on futures exchanges such as NYMEX.

FULL REQUIREMENTS Contract structure whereby supplier provides all usage requirements for a customer for a specific term at an agreed price.

INDEPENDENT CONSULTANT Energy consultant who is objective and is compensated directly and solely by the end user and not the supplier.

IDR METER Interval Data Recorder - A metering device that is capable of recording energy in discrete usage intervals and storing that data for future usage or transfer.

IOU Investor owned utility. A for-profit utility company that provides sales and/or transportation of electricity to end users.

KILOWATT (KW) A measure of usage demand equal to one thousand watts. A metric for measuring the peak electricity flow to a customer meter over a specified period of time and often used as a component of billing.

KILOWATT HOUR (KWH) The amount of kilowatts used in one hour. If a customer uses 100 kw an hour for two hours the total kilowatt hours for the two-hour period would be 200 kwh. As with kilowatts, kWh is often used as a component of billing.

LOAD PROFILE A representation of the energy usage of a customer or group of customers over time, often showing the demand variation on an hourly or sub-hourly basis. Since the price of energy varies by hour the usage pattern of the customer can be important in determining the cost of power.

LMP Locational Marginal Price. See definition of Nodal Market.

MEGAWATT (MW) A measure of demand equal to 1000 kW.

MEGAWATT HOUR (MWH) A measure of electricity usage equal to 1,000 kWh.

MIL A unit of measure for electric rates equal to 0.001 of a U.S. dollar or one tenth of a cent.

MOU Municipally Owned Utility - A utility owned, operated, and controlled by a City or similar political subdivision, which is typically governed by a City Council or municipal utility board. In Texas, original jurisdiction over MOU rates resides at the City level but can be appealed to the Texas Public Utility Commission.

NERC National Energy Regulatory Commission - Oversees the Regional Transmission Organizations around the country that engage in interstate commerce. Essentially, this includes every state electric grid except ERCOT, Alaska and Hawaii as well as natural gas pipelines and distribution systems that engage in interstate transmission and/or sales.

NODAL MARKET A nodal market is one that establishes a discrete price of energy (Locational Marginal Price or LMP) at numerous individual nodes of the electric grid based on generator bid prices and modeled flow dynamics of the transmission system.

Nodes can represent generation points, load usage points, or other points as modeled in the software systems used to develop LMP prices.

NOIE Non-Opt-In Entity. In ERCOT a NOIE is a utility that has not opted into the retail competition market and is limited to MOUs, Co-ops and River Authorities.

PEAK DEMAND NCP The peak usage of a metered electric account over a set period of time. NCP (or Non-Coincident Peak) Demand is the actual highest use of the metered account over a period of time, often monthly.

PEAK DEMAND 4CP 4CP (Four Coincident Peak) Demand is an electric account's demand at the point of time of peak usage of the entire electric grid (ERCOT) or TDSP. In ERCOT the 4CP represents the four months of highest system usage of June, July, August and September. The usage for each account is measured during the systemwide peak demand interval for each of these months and averaged to determine a customer's 4CP demand.

POLR Provider of Last Resort - Electric supply supplied by PUC designated REPs at PUC approved rates to end users who do not contract with a supplier in the competitive market or who's provider goes out of business.

PUC (OR PUCT) Public Utility Commission of Texas.

PURA Public Utility Regulatory Act, Title II, Texas Utilities Code.

REP Retail Electric Provider - an Entity that sells electric energy to retail Customers in Texas but does not own or operate generation assets and is not an MOU. REPs were created by the legislation that created retail choice and essentially provide customer service and billing services both for energy and wires services on behalf of TDSPs for retail accounts.

RTO Regional Transmission Organization - An aggregated group of TDSPs that are typically well interconnected and use an RTO structure to ensure reliability by operating the RTO as a single entity that can utilize the assets of the member TDSPs. ERCOT is an RTO.

TAC Technical Advisory Committee - A committee in the ERCOT governance structure reporting to the Board of Directors.

TDSP Transmission and Distribution Service Provider - More commonly known as "the wires and poles company." A TDSP is responsible for transmitting electricity across a network of poles, high voltage lines, and transformers, as well as maintaining these items in order to transmit electricity from generation sources to a home or business.

Avoid These Gotchas | TCAP Case Studies

“A” Hires Broker For RFP-Only Services

Based on historic usage, City “A” will pay approximately \$60,000 per year to the broker that wrote their RFP and presented results. A \$0.008 aggregation fee like TCAP’s would have cost City “A” less than \$12,000 per year, based on a 5–year contract and included a full spectrum of services and access to industry-expert consultants—none of which the broker provides.

“B” Builds New City Hall Right Across The Street

City “B” procures a multi-year contract through a REP. The city soon after builds a new, highly energy-efficient City Hall across the street from the one in use at the time of contract signing. The hidden gotcha they didn’t notice in the contract language requires the City to pay a penalty for deleting the meters at their old City Hall and to pay an “add” charge for service at the new building—not the rate they thought they’d “locked in.” TCAP, on the other hand, has no meter add or delete charges and rates don’t change for new additions.

You Know That Old Adage: “D” Who Hesitates Is... Two political subdivisions, “C” and “D,” from the same ERCOT zone looked into joining TCAP at the same time in 2019. “C” opted for a contract for 2020-2022. “D” signed a contract for 2021-2022. Because “C” was joining TCAP a year earlier, the rate they got was 6% lower than “D’s.” Waiting a year cost “D” more. That’s why TCAP advises political subdivisions to begin working on their next contract up to two years in advance. Waiting until the contract nears expiration or rushing one during the summer months is ill advised. Remember: “D” hesitated.



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