



Making Buildings Better for 60 Years



# Energy Deregulation Roadmap

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### Introduction

This e-book is designed for commercial and industrial property owners, property managers, facilities engineers, CFO's and anyone responsible for managing energy related costs. The purpose of this e-book is to explain how an average commercial and/or industrial energy user can identify ways to reduce its costs by managing electricity and natural gas supply rates. We will explain how costs incurred by electricity and natural gas utilities are reflected in the rates paid. We will also explore:

1. What deregulation and competitive energy markets mean to the end-user by examining how energy deregulation impacts rate structure.
2. How you can take advantage of competitive energy markets to reduce energy costs and hedge against price fluctuations.

Our goal is to help you understand utility rate structures and the impact of competitive markets so that you can make informed energy purchasing decisions that will maximize bottom line performance for your enterprise.

### Energy Deregulation in the U.S.

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-  Deregulated (Electricity and Natural Gas)
-  Deregulated (Natural Gas)
-  Regulated

### Utility Rate Structures

Typical utility rates are divided into three categories reflected on your electricity or natural gas bill: customer charges, demand charges, and supply charges. Each charge is designed to cover specific costs incurred by a regulated utility. The bill also includes provision taxes that vary depending on your utility and local government.



#### Customer Charge

The first category is customer charges. These charges vary with the number of customers, but not the amount used by any particular customer. Customer charges recover costs associated with making service available to the customer, such as installing and maintaining meters, utility poles, power lines and equipment as well as meter reading and customer service costs. Most utilities charge a flat fee customer charge and it does not vary according to usage.

#### Demand Charge

The second utility rate category is called demand costs. Electric and natural gas utilities must be able to meet peak demand. Peak demand is the period of time when the greatest number of users is simultaneously using service. Overall system requirements for energy transmission and delivery drive demand related costs. Costs associated with the demand charge include: capital and operating costs for production, transmission, equipment (transformers) and storage costs that vary with demand requirements.

#### Supplier Charge

The third component of an electricity or natural gas bill is the energy/commodity costs or supply charges. The supply charge consists of the costs associated with capital and operating costs to produce the energy, such

as fuel costs and production supplies. These costs change only with the consumption of energy and they are not affected by the number of customers or overall system demand. Later in this e-book we discuss various methods and strategies for lower rates associated with supply charges.

### How Utilities Calculate Charges

The rates you pay are calculated differently for each charge category. The rates are typically based on total consumption or peak demand. The formulas for rate calculations are as follows:

**Customer charge** = fixed monthly charge

**Demand charge** = dollars x demand

**Supply charge** = dollars x energy use  
Energy/fuel cost adjustment = dollars x energy use

**Tax/surcharge** = one or more of items 1-3 above  
By tax %, dollars x energy use, or dollars x demand

## What Does Energy Deregulation Mean?

The high level concept of deregulation is defined as when government reduces its role and allows industry greater freedom in how it operates. Similar to deregulation in other industries like telecommunication and transportation, energy deregulation involves the purchase of electricity and natural gas through a competitive market. In a regulated market, commercial, industrial and residential users of electricity and natural gas are forced to buy energy through the utility without competition.



The lack of competition in the market increases the cost to the end user because the utility can charge any rate it can justify to the regulatory authorities and the suppliers are not forced to compete for the business. Deregulated markets promote competition between suppliers because it permits customers to choose the lowest cost supplier with the most advantageous contract terms. Many would argue that deregulation lowers costs for the end user and has stimulated suppliers to create advantageous product offerings for consumers.

### How It Works

Electricity and natural gas bills contain charges and rates for demand and supply. The demand or distribution charge is paid to the entity, typically the local regulated utility, who owns the lines and/or pipes that distribute the electricity or natural gas to customers. The demand charge is regulated by a Public Utility Commission and the delivery is guaranteed by law. A common question from first time procurement customers is “Could I lose access to electricity and natural gas by switching to a competitive supply contract?” The resounding answer to this question is: “NO”. You do not risk losing access to electricity and natural gas because you choose to take advantage of deregulation. The transmission and delivery is guaranteed by the PUC and the local utility that owns the transmission lines and/or pipes.

Customers can save by taking advantage of deregulation because it allows supply firms to compete for your

business and aggregate usage with other customers creating economies of scale and lower pricing. The typical supply charge savings ranges from 5-20% on average compared to purchasing supply through the utility (owner of the lines/pipes). Many factors can impact the savings including the contract length, natural gas, oil and other commodity pricing fluctuations, the float provided for in your supply contract, and various outside influences that can negatively or positively affect commodities markets.



### Deregulation Advantages

#### Find the “Right” Product

Purchasing energy through the utility is only offered as an indexed product. The utility either generates or purchases the supply and charges a fee and the price fluctuates with the market. For instance, natural gas demand is much higher in the winter in the Northeast and prices typically rise with demand. Purchasing energy from a competitive supplier allows the end-user to manage rate fluctuation exposure and choose a product that fits savings goals and risk tolerance. We discuss product options later in this e-book.

#### Lower Energy Costs

Many professionals are able to lower overall energy costs for their facilities by finding the right product and purchasing competitive supply. In some cases, the savings are significant and can make a direct positive bottom-line impact for the customer. Typical supply side savings are in the 10-20% range (based on utility rates at the time end-user enters into a competitive supply contract).

#### Price Certainty

Fixed price products decrease rate volatility and hedge against future pricing increases. The supply rate charged by the utility is a variable rate and can fluctuate based on

many factors that affect the supply cost. Customers electing a fixed price product will eliminate rate fluctuations during the contract term.

#### Flexibility

Deregulation has created products of all shapes and sizes depending on the unique needs for a particular facility. Unlike purchasing supply from the utility in a one size fits all product, competitive purchasing allows the end-user to create a forward thinking energy purchasing strategy.

#### Reliability

The reliability of your electricity does not change because you take advantage of deregulation. The infrastructure that transmits and distributes the energy is still handled and guaranteed by the regulated utility regardless of where you purchase the supply. You still contact the utility if the power goes out in a storm or if you have questions about your bill.

#### Products and Contract Terms

Prior to deregulation, utilities charged a monthly rate and the customer paid whatever the utility charges (usually determined by costs plus a fee). Deregulation has delivered a wide range of products and terms for the customer to choose from. The influx of new products also creates risk for the end-user because you could



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potentially choose a product that costs rather than saves money depending on unique energy needs. Many end-users enlist a broker to find the best product, term and pricing. Such options include:

### Fixed Pricing

The rate is fixed for the duration of the contract. The options for fixed pricing include “all-in” or “energy only” contracts. Fixed pricing requires forward-looking intelligence to determine where the energy market is today and where it is expected to go throughout the term of the contract.

### Index Pricing

An index pricing structure is essentially how the utility charges customers for supply. The pricing is an index price plus a supplier adder. Customers can typically purchase an index product through competitive markets at a rate lower than the rate charged by the utility.

### Discount

A discount rate floats with the utility, but is discounted a certain percentage.

Other pricing mechanisms that are advantageous to particular customers based on usage profile: “block and index”, “caps” and “collars”.

### Terms

The contract term is a key component for any deregulated supply contract. Customers should carefully analyze forward-looking energy pricing estimates before locking into a long-term contract. All supplier quotes should provide pricing for multiple terms: 6 months, 12 months, 24 months, 36 months etc. Pricing for multiple term lengths will also provide insight into how the utilities view future energy pricing forecasts.

### Options

An option contract gives customers the ability to lock into a fixed price per KWH contract to reflect current pricing at any time during a variable price contract.

## Taking Advantage of Energy Deregulation

First, you need to verify that your state is deregulated for the energy source you wish to purchase in a competitive market (see our deregulation map on page 13). Next you must determine whether you have the capability and expertise in-house to find the right supplier and products for your organization. Purchasing energy supply through a competitive supplier is risky if the purchaser is uninformed or unfamiliar with how energy markets work. Brokers and aggregators negotiate power purchase agreements on a daily basis and have a good real time feel for the market and where it's heading. Oftentimes a broker and or aggregator can procure energy at much lower rates than an end-user could get on its own. Make sure to follow our energy deregulation checklist before determining the best way to purchase energy.

### Energy Aggregators

Aggregation is the grouping of utility customers to purchase as a group. Pooling purchasing power could result in more favorable pricing compared to the individual members purchasing based solely on their unique usage. Developing the right energy purchasing strategy is a complex challenge for busy facilities managers or business owners wearing many different “hats” within an organization. A reputable and qualified energy aggregator or broker acting as an independent

energy advisor can help guide the person responsible for energy costs. Outsourcing procurement often results in significantly higher savings for the end user while mitigating downside risk. Choosing the right partner is crucial to maximizing the advantages created through deregulated energy markets.

### Advantages:

- You can reduce internal administrative expenses and maintain focus on your core business. The energy market is complicated and it may make sense for you and your business to outsource procurement services to a company specializes in energy procurement to save you money and time.
- You can share fees with other entities in an aggregation group. This is an advantage for any entity because you can likely spread the aggregation/broker fees out with the other entities in the aggregation group. Lower fees combined with more purchasing power will result in further cost reductions.
- Suppliers are more interested and pay more attention (more competition) with a larger purchasing block. Economies of scale come into play for aggregators. The more KWH combined in an aggregation pool lowers the fixed cost/KWH and results in lower rates for the users involved in the aggregation group.



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- Lower rates result from combining dissimilar user profiles. Some businesses use more energy in the winter months and others in the summer. Irregular usage may result in higher rates from competitive markets because the suppliers can't forecast usage throughout the year. Joining an aggregation comprised of end-users with dissimilar usage profiles may result in lower rates.

### Factors to consider before joining an aggregation:

- **Size of load-** The amount of energy your building or business consumes during a period of time (Kwh or Btu).
- **Load profile-** Your profile refers to how or when you use energy. Some businesses use approximately the same amount each month. Other businesses, for instance seasonal businesses, use more energy in some months and significantly less during other months. The inconsistent usage may increase pricing available to a particular customer.
- **Risk tolerance-** Different products present different levels of risk. You should evaluate the appropriate level of risk for your firm before determining the best product.
- **Contract length flexibility-** You should verify that the contract length for the aggregation group fits your particular risk profile and needs.



## Four Easy Steps to Start Saving Money With Energy Deregulation

1. Scan/email/fax your utility bills to your broker.

The broker will provide this information to qualified suppliers who need historical usage information to price the various competitive supply contracts they will offer you. Most information is obtained from your most recent bills. The suppliers may also request a signed LOA (letter of authorization) granting them permission to pull historical usage data directly from the utility. Either way, providing this information simply allows the suppliers to price the products and never locks you into any product.

2. Review pricing proposals, terms and contract length.

You should receive quotes from different suppliers for different products. Pay close attention to the pricing and the term of the contract. Also, make sure you understand the difference between fixed and variable priced products. The lowest current rate may not always be the best product for your specific situation. You must determine your risk tolerance and then evaluate the proper product to meet your needs. A qualified broker can help you

navigate this process by explaining the different products and negotiating with the suppliers on your behalf.

3. Choose the supplier with the best price and product to suit your specific needs.

After fully evaluating the different options, choose the right product for your situation. You will be presented with a supplier agreement. Read the agreement carefully and make sure it is consistent with the terms and conditions you have agreed to.

4. Monitor your utility bills to evaluate year-over-year savings and returns.

This optional fourth step will help you close the loop to ensure that your firm is actually receiving the benefits and savings from your deregulated energy supplier. Monitoring can be as simple as using an Internet browser to view your energy bills. You will be able to view energy consumption data in aggregate and by fuel type for a single building or for all of the buildings in your portfolio.



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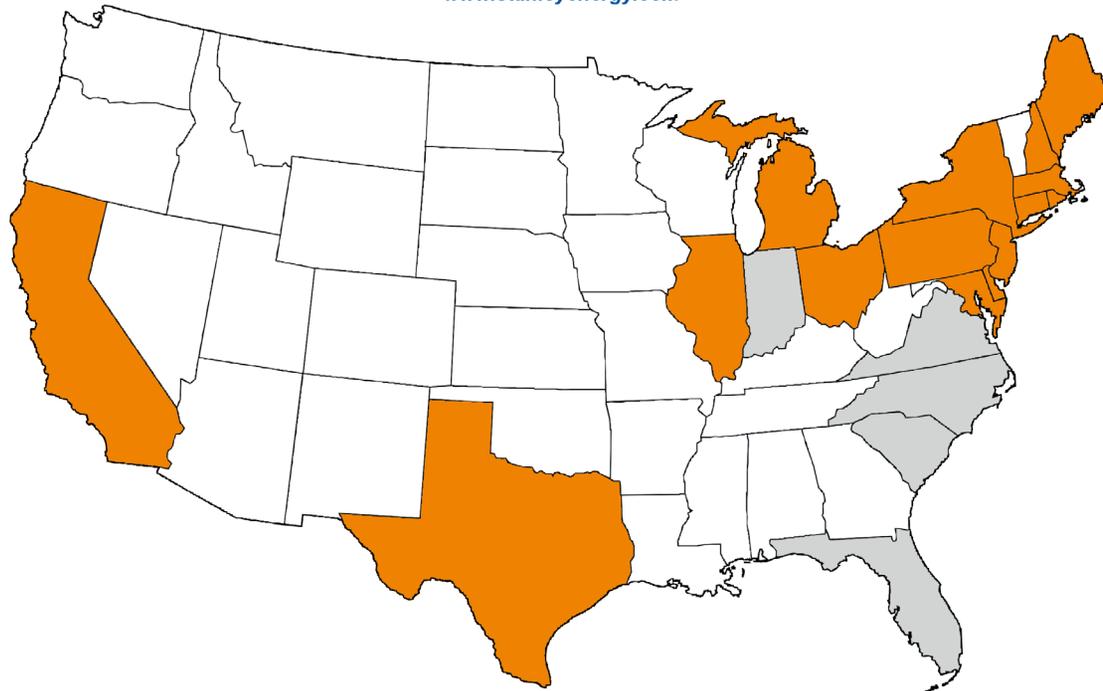
## List of Deregulated States

| Electricity          | Natural Gas          |
|----------------------|----------------------|
| California           | California           |
| Connecticut          | Connecticut          |
| Delaware             | Delaware             |
| District of Columbia | District of Columbia |
| Illinois             | Florida              |
| Maine                | Illinois             |
| Maryland             | Indiana              |
| Massachusetts        | Maine                |
| Michigan             | Maryland             |
| New Hampshire        | Massachusetts        |
| New Jersey           | Michigan             |
| New York             | New Hampshire        |
| Ohio                 | New Jersey           |
| Pennsylvania         | New York             |
| Rhode Island         | North Carolina       |
| Texas                | Ohio                 |
|                      | Pennsylvania         |
|                      | Rhode Island         |
|                      | South Carolina       |
|                      | Texas                |
|                      | Virginia             |

## Map of Deregulated States

# Energy Deregulation in the U.S.

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-  Deregulated (Electricity and Natural Gas)
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## Energy Procurement Checklist

When comparing contract offers, consider the following points:

| Deregulated Supply Products, Pricing and Coverage   | Broker 1 | Broker 2 | Broker 3 |
|---|----------|----------|----------|
| What is your <u>current charge</u> per kilowatt-hour for energy supply?   |          |          |          |
| What is the <u>proposed charge</u> per kilowatt-hour for energy supply?   |          |          |          |
| How long is the pricing proposal valid? Deregulated Supply Contracts are priced & expire on a daily basis.  |          |          |          |
| Is this a fixed charge or does it vary depending on: market price, time-of-day or use?  |          |          |          |
| Is the pricing in all the offers in the same format? (kWhours or MWhours) (therms vs. decatherms. vs. mmbtu's)  |          |          |          |
| Are the pricing time periods the same on each of the offers?  |          |          |          |
| Is the Electricity Commission Levy or Gas Industry Levy a separate charge or included in the pricing schedule?  |          |          |          |
| Can the retailer supply all of your sites nationwide?   |          |          |          |
| Can the retailer supply electricity and gas to your site, so that you only deal with one retailer?  |          |          |          |
| Are network and other charges detailed separately or included in the pricing schedule?  |          |          |          |
| Is there 'Service Provider exposure' or is the offer a 'fully fixed energy price for the term of the contract'?   |          |          |          |
| Can the pricing change in the event of a 'crisis' period?   |          |          |          |
| When shopping, ask the Service Provider for information on how their rates compare to other electric Service Providers. Also ask to see their rate schedule.  |          |          |          |
| Has the Service Provider[1] provided you with a cost per kilowatt hour (kWh) for electricity, and has the Service Provider given you information on how its rate ranks with other Service Provider's? |          |          |          |
| Will the Service Provider provide you with information on how much your last year's bills would have been if you had been with them?  |          |          |          |
| Compare plans and avoid variable rate plans   |          |          |          |



| Contract and Terms   | Broker 1 | Broker 2 | Broker 3 |
|--|----------|----------|----------|
| What is the length of the agreement or contract?   |          |          |          |
| Are there contract volume variability ranges for the amount of energy you are committed to? For example: +/- 30% up to +/- 100%  |          |          |          |
| Is there a security deposit, cancellation fee or other fees?   |          |          |          |
| Do you have any incentives for signing up with you?  |          |          |          |
| Does your state have a "right to rescind" clause, and if so, how long do you have to change your mind about an Service Provider?   |          |          |          |
| If the Service Provider has offered you "free" electricity for a certain amount of time, will the Service Provider increase your rate later to compensate for the free period?   |          |          |          |
| Does the Service Provider state that there is a minimum usage clause in the contract, and if so, are you comfortable with this?  |          |          |          |
| What is the length of the agreement, and does the contract stipulate a minimum time period in which you must purchase electricity from them?   |          |          |          |
| If you decide to make changes in your contract, are there any costs?   |          |          |          |
| Does the Service Provider require a termination fee if you decide to change providers?   |          |          |          |
| Is the Service Provider intending to sell your name and address to other industry-related companies?   |          |          |          |
| Do you have the ability to receive a less expensive rate if you aggregate your properties onto one contract?   |          |          |          |
| Will the Service Provider be assessing you a Competitive Transition Charge for switching to their service?   |          |          |          |
| Will your current Service Provider offer you a discounted rate if you agree not to change Service Provider's?  |          |          |          |
| Will there be a reinstallation charge if you return to your current Service Provider after having left them?   |          |          |          |
| Will your negotiated rate with an alternative Service Provider change if one or more of your commercial tenants chooses to aggregate their power needs with other businesses in their chain, leaving your contract with less purchasing power? |          |          |          |



| Billing   | Broker 1 | Broker 2 | Broker 3 |
|---|----------|----------|----------|
| Does your Broker guarantee savings?                       |          |          |          |
| When will I be billed for energy supply                   |          |          |          |
| Will I receive a consolidated bill or two separate bills? |          |          |          |
| What invoicing options are available to you?              |          |          |          |
| How will you be billed, and what are the billing options? |          |          |          |

| Customer Service   | Broker 1 | Broker 2 | Broker 3 |
|--|----------|----------|----------|
| What procedures are in place if I have a question or a complaint with you as my supplier?  |          |          |          |
| What account management and service will you receive?  |          |          |          |
| What other benefits are there?   |          |          |          |
| Has the Service Provider clearly described to you how service requests should be handled, and who you should contact if there is an interruption in service? |          |          |          |
| What procedures are in place if I have a question or a complaint with you as my supplier?  |          |          |          |
| What account management and service will you receive?  |          |          |          |
| What other benefits are there?   |          |          |          |
| Has the Service Provider clearly described to you how service requests should be handled, and who you should contact if there is an interruption in service? |          |          |          |



| Market Considerations  | Broker 1 | Broker 2 | Broker 3 |
|--|----------|----------|----------|
| Is the energy supplier a large publicly traded firm that is financially stable?  |          |          |          |
| Is the Service Provider trying to sell you anything other than electricity, and if so, what?   |          |          |          |
| What power sources does the Service Provider use to produce electricity?   |          |          |          |
| Does the Service Provider offer incentives to help you use energy more efficiently?  |          |          |          |
| Is the Energy Supplier/Broker/Aggregator Provider registered with your state's public utilities commission, or other applicable governmental entity?             |          |          |          |
| Have you asked the Service Provider about the probability of potentially damaging power surges (from "dirty power" and other sources) coming into your property? |          |          |          |



## Conclusion

Most consumers do not have a solid understanding of utility rate structures and how those rates impact their electricity and natural gas costs. Understanding how rates are charged is key for any person tasked with managing energy costs for a company or facility. Energy deregulation also presents an exciting opportunity to decrease costs and increase bottom-line performance. Deregulation has created new products and services, but also increased risk for the uninformed purchaser. The complications and risk presented by deregulation have created a new industry of experts called energy aggregators/ brokers. An energy broker can guide a consumer through the energy purchasing process to find the best possible product and maximize savings for the customer.

We hope that by reading this ebook you have a better understanding of how utility rates impact your energy costs and how you can take a proactive approach to managing those rates and improving the bottom-line for your business.

