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## *To Own or To Buy? That is the Question.*

Businesses are routinely confronted with a fairly fundamental question, whether to enter into a contract for a good or service or to own it and provide it themselves. Load serving electric utilities are no exception. They struggle to decide, should they buy the power they need at wholesale from a third party or should they pursue an ownership interest in a power plant and provide power themselves? What specific risks does each option have? What are the benefits and drawbacks of contracts versus ownership? What factors must be considered when making such a decision?

### **Risk Specific to Contracts**

Contracts are legal agreements that assign obligations, risks, and benefits between two or more parties. Contracts for bulk electric power come in many shapes and sizes, ranging from contracts for discrete blocks or strips of power to partial or full requirements contracts, which follow load and typically include a bundle of capacity, energy, transmission, and ancillary services. Contracts can be short-term or long-term in nature lasting anywhere from a few weeks to several years.

When entering into a contract with a power supplier, the buyer is exposed to a number of risks, risks that are specific to contracts. For example, there is market price risk any time an agreement is made to buy power. Market prices for power are driven by a number of factors including basic supply and demand, the cost of fuel, transmission congestion, and market dynamics such as market power, irrational behavior, and loss of liquidity. With respect to the market price risk, a contract may be in or out of the money with respect to the market price of electricity at any given time during the term of the contract.

Legal risks are inherent to any contract. As most of us have seen, much of the language in any contract is a direct result of these legal risks. The contract must anticipate and allow remedies for a multitude of events, causing many contracts to be very verbose. Language that address issues such as force majeure, indemnification, events of default and remedies for such events of default are just a few examples of terms and conditions that are required in contracts. Fundamentally, any time a party enters into a contract with another party, they are relinquishing some control and exposing themselves to claims made under the contract that could be damaging to their organization. This is one of those intangible considerations that often make buyers reluctant to enter into wholesale contracts.

The risk of supplier default is becoming more and more prominent

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given recent events and the current environment of the energy industry. Failure to meet terms of supply, creditworthiness concerns, bankruptcy, sale of entity, and supplier loss of license are all risks that a buyer faces when entering into a power supply contract. Many of these risks could cause the buyer to access the market in a relatively short timeframe possibly resulting in above-normal prices.

The length of a contract also carries risk. Shorter-term contracts result in accessing the market more often, which may be good or bad depending on the market conditions at the time. Longer-term contracts reduce the risk associated with more volatile short-term markets, but carry with them the risk that the contract could be higher than the market at some point during its term. Typically we find that suppliers add more margin into their pricing for longer-term contracts to account for this additional risk.

### **Drawbacks and Benefits of Contracts**

When contemplating a contract, there are many drawbacks an entity must consider. As mentioned above, the financial characteristics of the supplier must be taken into account. Not only must one consider the creditworthiness of the supplier, but also whether the supplier will actually be in business for the duration of the contract. Due to their shorter-term nature, contracts also typically require the buyer to access the market more often, possibly resulting in more expensive power over the long term. In addition, the contract price will vary dependent upon many factors, one of which may be the buyer's creditworthiness. Another drawback is that contracts are never final until they are signed. Pricing, terms, and conditions are always indicative until the contract is signed and executed.

While there are risks inherent to contracting for power, there are also possible benefits to this approach. Contracts are typically more flexible in terms of size, type, and term length. If a buyer wants it, there is typically a supplier that will provide it...for a price. With this flexibility comes the opportunity to diversify a buyer's power supply portfolio, thereby reducing their risk.

Portfolio diversification is a well known method of reducing risk in the financial services industry; investors buy stocks or securities from numerous types of companies in various industries to diversify their risk. The same concept can be applied to load serving electric utilities. By having a power supply portfolio with diversity in term length, fuel, and with suppliers, a load serving entity can capture the benefits

of diversification and minimize risks of supplying power to its customers. This ability to diversify so broadly is an advantage uniquely distinctive to entering into contracts.

There is also a wide selection of suppliers to choose from, though numbers have decreased recently due to credit quality concerns of some former suppliers. In addition, contracting involves a potentially short process from initial solicitation to contract signing. With contracts, the buyer also has the opportunity to allocate risks between themselves and the supplier. In fact, many contract risks are managed this way, but usually with an increase in price.

### **Risks Specific to Ownership**

Ownership of a plant can be viewed as a long-term contract, typically lasting twenty (20) years or more. Utilities obtain ownership of power plants in two ways: (1) they buy into a plant that is already built or one that is under development; or (2) they build a new plant themselves or with a partner.

Either way, ownership carries its own set of risks. These risks include: market price, fuel supply and price, construction, operational, regulatory, governance, environmental, technological, and financing. The market price risk with ownership is very similar to that of contracts; ownership costs may be in or out of the money with respect to the market price of electricity at any given time during the life of the plant.

There is also the risk of fuel supply and price when dealing with ownership. In addition to fuel source adequacy, fuel supply risk includes fuel transportation issues such as reliability and firmness of fuel delivery. As with the market price of electricity, the price of fuel is driven by many factors: demand and supply of fuel, industry production and storage capabilities, market dynamics, etc. These factors contribute to the volatility of fuel prices, thereby increasing the risk associated with purchasing fuel for the ownership option.

New projects carry construction risk. As with any construction project, there is always the risk of cost overruns that increase the project's capital cost. There is also the risk of a project's schedule being delayed or extended. In most cases, a delayed schedule results in an increase of interest-during-construction ("IDC"), further increasing the capital costs. In addition, if the schedule is delayed too long and the commercial operational date ("COD") is missed, the owner may have to go to the market to purchase electricity, usually at higher prices. There may also be unforeseen environmental risks during the developmental and construction phase of a new project.

Operational risks are also inherent to the ownership of power plants. The owner must contend with unscheduled outages, the risk of day-to-day operations, unforeseen capital expenditures and possible accidents that increase the owner's liability. There is also the risk of technological obsolescence from ownership resulting in lost opportunity for cheaper alternatives.

As an owner of a power plant, one must deal with the regulatory risk associated with ownership. Retail deregulation, re-regulation (e.g., FERC's Standard Market Design), and stranded investment are all examples of regulatory risks that could negatively impact an owner. Ownership also brings with it ongoing environmental risks. New environmental regulations may impose requirements that increase capital and operating expenditures.

With ownership of a project comes the risk associated with financing the project. The buyer must be able to obtain financing in a timely manner. Based upon the buyer's financial condition, the lender may have certain debt covenants and/or require certain security (e.g., equity requirements, third-party guarantees, etc.) in order to finance the project. There is also the risk that interest rates will increase from the time the feasibility study was completed to the actual financing of the project.

### Drawbacks and Benefits of Ownership

As with contracts, there are drawbacks associated with ownership. The owner must first be able to obtain the financing, both the amount and in the proper timeframe. The upfront cost of ownership is also typically higher than that of contracts due to the amount of development costs needed for ownership options. In addition, fewer acquisition and Greenfield opportunities are available compared to the ready availability of power supply contracts. There is also less opportunity to diversify in terms of size, type, fuel,

and term length with ownership. With ownership, hedging certain risks (e.g., construction, operational, etc.) requires arrangements with multiple third parties; whereas with a contract, the buyer has only one counterparty.

Though there are drawbacks to ownership, there are benefits as well. One such benefit is that with ownership, the owner has actual ownership of a tangible asset, not a paper contract. There is also an intrinsic value placed upon owning an asset. Many entities prefer bricks-and-mortar to paper contracts. Not only does ownership of an asset boost a balance sheet, it may also be used as security for future financings. In addition, the owner also has control of the resource and does not have to rely on a contract to ensure their rights to such a resource.

For many cooperatives and municipalities with electric systems, the greatest benefit of ownership stems from the economics of ownership. First of all, these entities have access to low-cost debt (i.e., Rural Utilities Service ("RUS") or municipal tax-exempt financing) which can be accessed at much lower interest rates than their investor-owned utility ("IOU") counterparts. This low-cost of debt contributes to cooperatives and municipalities having a distinct cost of capital advantage. Other factors contributing to cost of capital advantages include lower-cost of equity and no federal or state income tax component.

**Table 1** demonstrates that under the given assumptions, a cooperative's pre-tax cost of capital is seven percent (7%) lower than that of a for-profit entity. This cost of capital advantage for cooperatives and municipalities enables the capital costs over a plant's life cycle to be much lower than those incurred by an IOU. For example, **Table 1** also indicates that a 7% lower pre-tax cost of capital results in a capital cost difference of \$2.70/kW-mo or 7.40 mills/kWh for a combined-cycle power plant that has a 50% capacity factor and is financed over 25 years.

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**Table 1: Typical Cost of Capital Example**

	For-Profit Entity		Cooperative/Municipal		Difference
<b>Cost of Equity</b>					
After-Tax Cost of Equity		13.00%		5.00%	
Income Tax Rate		35.00%		0%	
Pre-Tax Cost of Equity		20.00%		5.00%	15.00%
<b>Cost of Capital</b>					
Equity	40%	20.00%	20%	5.00%	
Debt	60%	8.00%	80%	6.00%	
Pre-Tax Cost of Capital		12.80%		5.80%	7.00%
<b>Combined Cycle (\$550/kW) - Cost of Capital</b>					
\$/kW-mo.		\$6.20		\$3.50	\$2.70
M/kWh (50% Cap. Factor)		17.00		9.60	7.40

## Lots of Factors to Consider

When deciding whether to enter into a contract or obtain ownership in a plant, there are many factors to consider. First, a needs assessment must be completed to determine the size, type (i.e., base, intermediate, or peaking), fuel type, and effects a contract or asset may have on the owner's existing power supply portfolio. The economics of the project must then be established by conducting financial analyses, and in the case of ownership, determining the availability and timing of financing. In conjunction with the economic analysis, a risk assessment must be conducted to identify, analyze, and allocate the risks associated with either option. For entities entering into minority ownership positions, great care must also be taken to ensure governance provisions are incorporated into the purchase-and-sale agreement that protect the minority owner under certain circumstances.

## Conclusion

When making the decision on whether to contract or to own, the process is neither art nor science. There is no such thing as a "cookie-cutter" approach when deciding upon which option to choose. Each situation and opportunity must be thoroughly analyzed and all factors must be weighed and considered before a decision is made. The decision is not an easy one; it requires a lot of time and deliberation. The availability and amount of low-cost funds from RUS and tax-exempt debt often makes owning generation attractive for cooperatives and municipalities. However, contracts allow for greater flexibility and risk allocation. Regardless of which option is chosen, entities must consider the diversification effects that each option has on their power supply portfolio. Having a diversified portfolio consisting of long- and short-term power supplies, various power suppliers, and different types of fuels will ultimately reduce the amount of risk an entity is exposed to.

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## ERCOT Market Games

When the ERCOT market participants originally designed the Protocols, they gave ERCOT the ability to designate a generator as a reliability must-run (RMR) unit. RMR units provide the ISO with capacity to balance the system and respond to system integrity events. Aware of possible abuses by the California ISO of so-called RMR units, severe restrictions were placed on this ability. Many market participants believed few units would ever be required for RMR service status. The downturn in the market and the glut of generation in ERCOT proved them wrong.

Because of low market prices in ERCOT, a proxy pricing structure for RMR status based on the cost of a combustion turbine suddenly looked attractive to some generators. More money could be made from RMR service than could be made selling the power in the ERCOT market. Two large investor-owned utilities announced that they planned to shut down and mothball a number of their older natural gas-fired units unless those units were granted RMR status. A new market entrant also applied for RMR service for a new combined cycle plant that is strategically located in an area with little transmission. ERCOT has estimated the cost for these RMR units at over \$75 million for the first quarter of 2003, and contracts for the last quarter of 2002 were around \$20 million. These costs are uplifted to all ERCOT load-serving entities on a load ratio share basis.

An ERCOT task force was hastily formed, and proposals to resolve the issue have ranged from requiring the owners of the RMR generation to sell the units, to forbidding reentry into the ERCOT market after RMR service. The task force continues its work and hopes to present a resolution to take to the ERCOT Board of Directors in February. For those of you working on the FERC Standard Market Design, keep our trials and tribulations in mind.

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## CORRECTION!

Please note that in our last issue of **TransActions** we had a typographical error in **Table 1: Summary of Rating Symbols and Definitions** in the article “*We’re being bombarded with credit rating downgrades!*” Distinctly Speculative-Low Creditworthiness should have begun at Low grade, speculative, instead of Lower medium grade. Below is the correct Table.

**Table 1: Summary of Rating Symbols and Definitions**

Description	Moody’s	S&P	Fitch
<b>Investment Grade - High Creditworthiness</b>			
Gilt edge, prime, max. safety	Aaa	AAA	AAA
Very high grade, high quality	Aa1	AA+	AA+
	Aa2	AA	AA
	Aa3	AA-	AA-
Upper medium grade	A1	A+	A+
	A2	A	A
	A3	A-	A-
Lower medium grade	Baa1	BBB+	BBB+
	Baa2	BBB	BBB
	Baa3	BBB-	BBB-
<b>Distinctly Speculative - Low Creditworthiness</b>			
Low grade, speculative	Ba1	BB+	BB+
	Ba2	BB	BB
	Ba3	BB-	BB-
Highly speculative	B1	B+	B+
	B2	B	B
	B3	B-	B-
<b>Predominantly Speculative - Substantial Risk or in Default</b>			
Substantial risk, in poor standing	Caa	CCC+ CCC CCC-	CCC
May be in default, extremely speculative	Ca	CC	CC
	C	C	C
Default		R	DDD DD D



## IDEAS WANTED!

We want to hear your ideas, feedback, and suggestions for this newsletter.

Email us at:

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## UPDATE:

### *Spill Prevention Control and Countermeasures (SPCC) Plans*

The Environmental Protection Agency (EPA) is extending for a period of 60 days the dates given in 40 CFR Part 112(a) and (b) for a facility to amend its Spill Prevention, Control, and Countermeasures (SPCC) Plan and implement the amended Plan. This interim rule should avoid the anticipated flood of extension requests to the EPA. During this interim rule, the EPA will be taking industry comments on a proposal to extend the development date for the SPCC Plan by one year, to February 17, 2004, and to extend the implementation date to August 18, 2004. Instructions on submitting comments may be found on the EPA oil website at: <http://www.epa.gov/oilspill>.

Electric utilities should begin their preparations for revising and implementing their SPCC Plans. One of the primary issues for this implementation will be the issue of secondary containment of oil storage at all regulated facilities. Oil storage is required to have secondary containment, unless it is impractical. The determination of practicability does not pertain to economic justification, but to engineering applicability. If secondary containment is not present and must be installed, then adequate time for engineering evaluation of alternatives and potential construction will be needed.

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## *We Hope You Like Our New Look!*

For 2003, we decided to give **TRANSActions** a facelift.

*It’s the same newsletter, from the same folks, just a little different look, feel, and format...*

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