"ESCUs" (Energy Service Commodity Units)

A New Approach to Energy Service Financing

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Acronyms used in this article:
ESCU—Energy Service Commodity Units
RESCO—Retail Energy Services Company
IPP—Independent Power Projects
ISO—Independent System Operator
OASE-OASIS—Real Time Infrastructure System on Transmission Systems Availability
AMR—Automatic Meter Reading

How can financial factors assist your choice among energy alternatives? In other words, can you structure better deals?

Deregulation has unleashed on the partially liberated consumer community a series of providers of economic alternatives. "Power marketing" presently is the perceived leader; followed by energy service companies; and consultants on cost reduction.

A definite role still also exists for developers of inside-the-fence facilities with excess usage marketing capability. Companies in these businesses have always known about their overlaps, and now are beginning to form new strategic alliances to better compete for end user business.

For end users, this has created a new generation of timing of service purchase and financial structuring analysis questions. Those questions traditionally faced were of course:

- make or buy
- operate or outsource
- own separately or joint venture

The essence of the new generation of questions is: if you have determined to buy, outsource, or joint venture, does financing make one or another option or combination of new economic alternative options more attractive?
To answer the question, it is useful to

(1) Identify the characteristics of the economic options from a financing perspective.

(2) Consider the financing structuring alternatives, and

(3) Develop a methodology for the comparison of these different energy alternatives.

CHARACTERISTICS OF ENERGY SERVICES FROM A FINANCING STANDPOINT

From a finance point of view it is useful to classify alternative services in terms of (a) intensity of asset use, (b) regulatory requirements and (c) type of contractual support. "Power marketing," has, of course, come to embrace a variety of activities. Most basic are arrangements for alternative supply at attractive prices; development of future risk management products to soften the impact of deregulation; development of multi-fuel alternate purchasing programs; and arrangements for outlets for customer-base excess generation or undesired supply. Its roots are in the fuel supply and energy trading business. Power marketing is not traditionally viewed as asset intensive, although it presents financing possibilities. Power marketing has also become a tool in the kit of many utility services companies.

The retail energy services company (RESCO) model has its genesis not in the trading environment, but in the energy management/equipment supplier/conservation environment. Inevitably it has had to branch into communications and information related activities such as AMR and interactive communication, capital improvements, facility

management and what has variously been called "chauffage" and "bundled energy services." It has more of a traditional asset value base.

Third, within the new context of these developments, new interest has been generated in the development of self service facilities, by traditional IPP developers (now frequently aligned with power marketers); and by firms or consortia engaged in provision of multiple alternative energy supplies to facilities, or using such capacity for firming purposes.

A final related (but conceptually separate) activity is to focus on institutional arrangements to provide energy savings for industrial companies. Overlapping with the other two activities, it focuses on cost reduction as a result of aggregation of customers and through cooperative arrangements with utilities and possibly even power marketers. Firms not necessarily equipped to engage in their own provision of supply options may be effective intermediaries in either of these regards. The asset base for financing purposes is minimal.

Impact of Regulation on Energy Services

The energy alternatives also are distinguished by regulation. The shift in regulation over the past several years has begun to favor energy marketing activities over conventional demand side management, imposed by state regulatory commissions on utilities. However, even with the promulgation of FERC Order No. 888, significant barriers to realization of optimal savings from power and energy marketers still remain. The most important include the following:

- Retail wheeling is still confined to several particular states. The meaning of FERC's extension of its jurisdiction to "retail interstate commerce" remains to be established. More states are committing themselves to the retail wheeling objective, but frequently are tying it to the disaggregation of existing utility companies, which is resulting in delays in its implementation reflecting stranded cost recovery policy.

- The impact of consumer backlash on retail wheeling and the assignment by state commissions of non-bypassable stranded investment charges has yet to be experienced.

- Order No. 888's stranded investment formulation of imposition of

utility lost revenues costs on withdrawing firms seems likely to be a deterrent to modification of existing contracts and conversions to power marketer transactions.

- Order No. 888's narrowing of the option of customer conversion from retail to wholesale status (sometimes known as municipalization) should make it much harder to exploit. Utility opponents of municipalization have had some local successes, although more arrangements for wheeling through existing wholesale purchasers have gone through.

- The prospects for utility disaggregation have increased, but the likelihood is that it will take place over a period of time, linked to recapture of stranded costs. Disaggregated utilities should broaden market opportunities, but also increase competition for end user customers.

These regulatory developments must be considered along with asset intensity in evaluating financeability of energy service options.

The most clear cut implication of the current status quo is that while power marketing arrangements already can be structured today, it is not prudent for them to rely on retail wheeling (unless arrangements are made for the necessary retail distribution, and the payment of related charges). Contracts which promise future retail wheeling are, in effect, valuable acquisition options.

- Over time, it is likely there will be opportunities for better power sales deals and increased shared savings from energy arrangements than currently are available.

- For RESCOs, more may be required. Many power marketing supporters as well as the proponents of the retail energy services company model feel that further regulatory reform is necessary to achieve broad market acceptance of their product. Among the additional criteria which RESCO supporters have suggested are necessary are the following:

- Development of an independently managed, open bidding process to select providers of optional bundled retail energy services pack-

ages for customers which are not interested in choosing energy services suppliers for themselves.

- Use of a similar process for any acquisition of increased energy efficiency measures, renewable energy sources or emission reductions.

- Allowance of bilateral electricity trading of energy among end user customers, with reporting only of physical transactions to the system operator.

- Collection of distribution access fees from all users to fund bidding programs for acquisition of increased energy efficiency measures, renewable energy sources and emission reduction and low-income programs.

From a financing perspective this shift in focus to end users—as opposed to intermediaries between them and sources of supply and conservation—means that more radical regulatory reform may be required to put transactions in place.

Contract Security

Alternative energy supply mechanisms also can be by the amount of contract security for financing which they provide:

- Power marketing generally offers short term purchase contract arrangements, perhaps linked to operating contract arrangements as well (although there have been some longer term arrangements entered into and that certainly could be a trend.) The power contracts can represent a type of security—a recognition only now being developed.

- RESCO activity is based upon contract obligations, but frequently looks to savings generated from operations as the source of financing security. Satisfactory performance warranties may thus be a critical element of the overall financing package. In the new market-based energy environment, it may be that price protective arrangements are necessary as well to support financing.

- IPP projects historically provided such firm contracts, accompanied by strong performance warranties but now may require price market support as well. They bring apparent strong asset protection, although the asset value of such protection in a competitive market may be diminished.

- Institutionally structured arrangements may result in a potential stream of savings, but its value as collateral for a financing may have to be backed by the credit of the energy recipient.

To date, from a financing standpoint, most of what we have seen are variations on the traditional IPP theme and on the traditional shared-savings theme. It is important to recognize that the former has principally—though not always—been backed by utility—not industrial—offtake arrangements. The latter has usually been confined to the financing of discrete capital improvement packages, where equipment supplier support for shared savings achievement—not provision of industrial credit—has been the primary arrangement.

Asset backing, regulatory vulnerability, contract backing—in the new power market environment, the challenge is to mesh, for these financing security characteristics of the energy service in question—with the types of financing transactions which are available for energy service deals.

FINANCING ALTERNATIVES: COMMONALITIES

Essentially these financial transactions fall into one of the following types: direct operating leases; capital leases and vendor financing programs; security; and project finance. Each type has some suitability to the industrial alternative energy acquisition alternatives. Superficially these alternatives sound very different:

- A direct lease entails payment for equipment usage, not ownership, in a manner with direct income statement impact.

- A capital lease essentially is asset acquisition through the pledge as security to an industrial project lender of purchase price plus financed cost "lease" payments over time

- Security involves equipment supplier financing for funds advanced (probably using a trust mechanism) in consideration for the pledge of one or more revenue streams arising from industrials' purchase contracts as collateral.

- Project finance entails third party energy or conservation supplier borrowing—typically through a special purpose entity from a capital source secured by project assets and the contracts on which revenue stream payment will be made (whether power purchase or realization of net savings).

Similarities Between Transactions

They sound so different. It is useful to focus on the fundamental similarities among these arrangements, which are qualified more by accounting than economic differences:

- In each case, the end user customer—not an intervening utility purchaser or distributor—is the underlying credit.

- In each instance, there is also a credit risk associated with the supplier's performance—whether it is (as it has been traditionally) performance by the power purchaser; proper calculation and acquisition at specified prices from suppliers; actual realization of savings, as a result of both efficient equipment operation and actualization of projected power prices, as specified in agreements; realization of revenues from sales of energy or energy management services.

- Consequently, in each case there is a risk allocation between project development sponsor, project credit (notably, but not exclusively the lender), and the host.

In the deregulated environment, with power prices susceptible of fluctuation, the importance of this risk allocation is greater because the pricing and sustainability of contract arrangements serving as credit represents a greater uncertainty than in the past.

Accounting Issues

There are certain differences, from the user's side, from an ac-

counting and related financial point of view. Boiled down to basics, they relate to answers to the following questions, which, in turn, are driven by the fact situation:

- Will the nature of the obligation of the end user (which essentially is a contract) be treated as a deductible expense or a capital cost? Specifically, will the obligation of the end user to make payments be treated as a capitalized debt obligation, a footnoted contractual obligation, or only an off balance contractual obligation in the ordinary course?

- If there are physical assets, fixtures, or contracts associated with the project, are they deemed to be assets belonging to the end user (with possible attendant depreciation and cash flow benefit). What are the respective remedies of lender and industrial host with respect to them in the event of non-performance?

- If a special purpose entity is used by the project sponsor (which might even be the host industrial) as a conduit for financing of the supply or service savings, will its obligations be reflected on the books of its parent, e.g. in the event the nature of its contractual undertakings are too long or if its parent's contingent credit obligations are too strong.

The answers to each of these questions tends to be in some degree of flux, and vary from energy service to energy service, reflecting: asset intensity, role of contract security, contract terms and the uncertain impacts of regulation.

ESCUs (Energy Service Commodity Units): A STANDARDIZED, SIMPLIFIED FINANCE CONCEPT

Given the diversity of energy options and possible financing techniques—which is at the root of the financial complexity of today's decision-making—it would be highly desirable if a single framework for analysis of transactions could be developed which took into account the regulatory and accounting aspects of alternative transactions. Energy is becoming an end-user choice game, although the regulatory

road is full of unpredictable bumps. Finance in the energy field historically has been about leveraging end-user credit to pay for the user's purchases. It is getting harder to do that. Users are fine-tuning the scope of their financial exposure. It is useful to come up with a unifying approach focused on that exposure—and its financial implications, so that more transactions can get done.

As a starting point, it is possible to hypothesize the standardized finance of Energy Service Commodity Units ("ESCUs"). The products of power marketers and RESCOs are, after all, not so different in energy substance, in the requisites for what it takes to finance them—and need not be that different in the way in which regulators and accounting authorities choose to perceive them. Since power marketing and RESCO services are coming together in actuality this is useful perception which leads us to the development of a definition of an ESCU and its application.

An ESCU is the cost of a risk-adjusted physical unit of energy production or savings, which may be actually available to serve a site-specific user function at the time designated by the user. The cost is "all in" including financing, hedging and asset purchase. It also includes overall shift in cost of capital to a company as a consequence of the characterization of a transaction. Actual availability refers to probable life cycle requirements (and "all in" cost must be adjusted if probable life cycle necessitates replacements). Risk relates not only to pricing shifts, but also to the danger that there will be a recharacterization of balance sheet treatment of contractual or debt obligating. Perhaps it ought to include a flexibility—lost benefits—component as well.

In sum, development of the ESCU concept requires consideration of:

(a) The characteristics of different types of energy service, the perspective of the energy user on its reliability, and from a financing standpoint, the impact of the still bumpy regulatory road ahead

(b) The alternative approaches to financing of the different types of energy service

(c) Where the commonalities are in financing these types of energy services, and where the uncertainties affect the risk in doing so

Thinking in terms of ESCUs focuses on those commonalities. It provides a context for sellers to highlight the attractiveness of their approach and buyers to evaluate critically what they are receiving.

Difficulties in ESCU Calculation

This will be more difficult than it would appear for the following reasons:

- ESCUs represent fungible energy value to end-users, but, depending on the contractual arrangement under which the particular service under which they are being delivered, the nature of commitment to purchase may vary.

- ESCU supplier obligations are subject to market variance, and different suppliers may have different obligations or capacity to make up "differences." A methodology for taking this into account on a consistent basis, acceptable to lenders, needs to be established.

Consequently, the most difficult issues in establishing ESCU comparability may arise out of differences on these issues reflected in contract clauses. Users crave their own flexibility; suppliers seek firmness of asset-like credit collateral. For ESCU evaluation purposes, it is necessary to consider the impact of an ESCU service contract on, e.g. control; profit sharing; upside rights.

Remember we are dealing with clauses in different types of energy services contracts. Clauses affecting ESCU calculation which energy customers may seek include the following, which may in turn have financing ramifications:

(a) Preservation of existing rights, e.g., backup power, in the event of change, modification, and if need be, through equitable adjustments within the terms of the contract.

(b) Flexibility clauses, such as
   - Market reopeners—e.g. "most favored nation clause"

   - Market out—right to either renegotiate or leave the system in the event of shifts in regulatory development

- Indexing of prices to certain changes in overall prices in a market territory
- Relief from special charges arising from the introduction of new regulatory systems, e.g. retail wheeling, and/or new charges for old services.
- Rights either to put generating assets or securities derivative from such assets to the utility in the event of regulatory change adverse to self-generation
- Rights to call on less expensive power potentially available—or made available to third parties—as a result of regulatory change favorable to market fluidity
- Right to restructure the extent of obligations in contracts in the event of retail wheeling introduction, e.g. right to compare prices with those offered by power marketers aggregators and switch if appropriate, or to walk from first refusal situations
- Swap-type arrangements with power suppliers triggered by the occurrence of regulatory events, i.e. contingent risk sharing arrangements.

(c) Institutional Change Clauses

- Negative covenants obtained from utilities to preclude their interference with regulatory flexibility which otherwise might be available as a result of regulatory evolution, e.g. right to aggregate; right to use municipalization; right to engage in power sales to third parties; as well as not themselves to modify their obligations as a result of change.
- Affirmative covenants by utilities to enter certain types of regulatory arrangements beneficial to end users as they become available, e.g., regional power exchanges run by "Independent System Operators" (ISOs) which meet stated fairness standards; OASES—OASIS (the real time infrastructure system on transmission systems availability, utilities are required to provide by Order No. 888 [referred to as RINS in NOPR]).

- Consent to renegotiate existing power sales special pricing arrangements in the event of regulatory evolution—or at least to require consumer consent to modifications of such arrangements as a result of regulatory chance.

- Provide automatic rights to contract participants to participate in any new RTGs, ISOs or other institutional arrangements which may be established by the utility, or in which it may participate.

Program for ESCU Clarification

Regulators and financial arbitrators must decide how to treat such contract provisions from asset and financing characterization standpoints. Address of these issues is worth pursuing by the industrial community because it will facilitate financing, and also facilitate ESCU analysis by end-users of the choice of different energy service options or combinations of them.

Most aspects of ESCU financial value are governed, as we have seen, not only by utility regulatory pronouncements, but by their characterizations for financing and accounting purposes. The terms of specific energy agreements will reflect the commercial realities which regulation imposes.

The regulatory and accounting communities would be doing energy users a great service if they treated comparable ESCU energy situations, the blend of energy and asset collateral risk, in a comparable manner for financing purposes. Steps they might take include the following:

- First, establish criteria when any ESCU contracts are deemed to represent "assets" which may be leased or financed, or represent merely operating service contracts.

- Second, establish the criteria for security interest by lenders in ESCU contracts and what performance will be required to honor that security.

- Third, highlight what effect end user risk may have on contract and financial characterization.

This is the type of project where an organization like The Power Marketing Association could make an important input to clarifying the decisions which energy managers face.

SUMMARY

- From a financing standpoint, energy intermediaries are offering different products.

- From a financing standpoint, there are a series of coherent questions which integrate the character of these products.

- From an end user standpoint, it is desirable that such translation into ESCUs, or comparable equivalents are possible, so that they can compare them from a cost, payback and/or ROI standpoint.

- From a legal standpoint, it is important to have these multiple perspectives on arrangements with energy suppliers. It is not just words we are dealing with. As power marketing, energy service management, inside-the-fence merchant energy options and energy cost containment merge, it will be important for this type of analysis to occur. The sooner it does, the sooner traditional arbiters of the energy transactional environment—regulators; commodity exchanges; equipment suppliers—will change their mode of thinking to be user friendly to the new energy/customer service environment.

ABOUT THE AUTHOR

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