



Corporate **Renaissance** Group

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# TRANSFORMING UTOPIA

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*A TALE OF STRATEGIC ACHIEVEMENT  
IN THE UTILITY INDUSTRY*



## PREFACE

As utilities transform from single-commodity, price-regulated monopolies into multiple-product, market-priced, market-driven conglomerates, internal financial accountability and management information infrastructures must also change. The new business model will demand that Finance departments provide more and better strategic management information to enable value-based decision analysis. In other words, FERC-based regulated accounting is not enough to effectively manage the new utility business model.

During and after the transformation of the utility business model, the finance department must streamline transaction processing and regulated reporting in order to focus on strategic cost and profitability analysis; that is, which assets, products, delivery channels and customer segments provide the most value for the corporation? It's time to get the old regulated cost-of-service models out of the closet and develop new cost/profitability models that can serve the regulated as well as the unregulated sectors of the company.

I spent twenty-five years performing a variety of accounting functions in the utility industry, all the while listening to engineers and business managers complain that they didn't have the financial management information they needed to manage their businesses. Then, in 1995, I discovered Activity-Based Management (ABM), and became convinced of its value in the service industries, especially utilities. Since that time, I have read about ABM, preached it, implemented it, lived it, watched it succeed, and watched it fail. I truly believe that ABM is the best management information solution to hit the utility industry since the Code of Federal Regulation (CFR) was written, a long time ago.

In this booklet, I recreate a year (one financial planning cycle) in the life of Dave Caluchi, CFO of the fictional Utopia Electric Company (UEC). As you will see, Caluchi has figured it out. He deals successfully with the changing UEC business model and the resulting demands for strategic financial information. He succeeds because he is able to enhance the management information and accountability model to support the needs of the CEO and business-unit leaders. In fact, Caluchi's new cost-of-service/profitability ABM model "blows away" the old accounting-focused, organizational budget-versus-actual, FERC account management information infrastructure. His ABM solution satisfies strategic requirements and supports the new business model. As a result, Dave Caluchi becomes part of the solution. And he does it within one planning cycle.

Is ABM right for you? If you think that you can be successful in an emerging, competitive business environment with the management information that you currently get from accounting/finance, then you probably don't need ABM. However, if you are an engineer or business leader who has ever lacked the kind of cost information you need to run your business effectively, then you'll want to read on. If you are a utility industry accountant who has to support the aforementioned engineers or business leaders, then you'll not only want to read on—you'll want to pursue an ABM solution in your company. We'll show you how.

*Transforming Utopia* draws on my knowledge and 25+ years of utility experience, to present a comprehensive study of implementing strategic ABM in the utility industry. My objective for the booklet is to demonstrate that ABM is the best management information infrastructure for the service industries, especially the utility industry. I hope you'll find it a "good read", as well!

Ron Bradley  
Executive Director, CRG USA



## TRANSFORMING UTOPIA

Dave Caluchi, vice president and chief financial officer of Utopia Electric Company (UEC) glanced at his watch, and swallowed nervously. It was almost 10:00 am, and the November board meeting had been going for a full two hours. In a few short minutes, it would be Dave's turn to present, and it would be a very different presentation than he had ever delivered before.

The November board meeting was an important event in the UEC calendar. The final meeting of the year, this was the meeting at which UEC management traditionally presented the board of directors with corporate and business unit strategic plans for the coming one to three years. As usual, this year's business plan included the detailed funding plan (budget) for the coming year, which was also presented to the board for approval.

This year's November meeting marked a time of considerable change for UEC. The company would have to tackle several key issues in the coming year, if UEC was to continue creating value for its shareholders at anticipated levels. The electric utility industry was being completely restructured. The operations of electric utilities were being unbundled, there were new entrants to the industry and increased competition from non-traditional players. UEC had several initiatives in the pipeline aimed at improving business performance, but as the company prepared for the future, the UEC board had asked for a comprehensive review of the company's strategies for moving forward.

Dave looked up as UEC's chief executive officer and chairman of the board, Frank Headman, summarized the first two hours of the meeting.

"As UEC prepares for future operations, we face business unbundling, deregulation of

parts of our business, increased competition—all issues we must tackle successfully to ensure the company's future.

"Even though UEC management will look at expanding product lines and markets to create annual improvements in shareholder value, we will continue to be vigilant in the area of cost management." The chairman looked pointedly at Dave, then continued his summation. "This focus is driven by regulatory and rates issues, but it is also aimed at ensuring our ability to survive by reducing the ability of potential competitors to 'surgically unbundle' parts of our business, and mount competitive assaults on our core business."

During the first two hours of the meeting, the CEO and the business unit leaders highlighted the plans for each of their areas of responsibility. Now it was Dave's turn. Having received preliminary copies of the business units' strategic plans a week ago, Dave knew that supporting UEC's strategic priorities would challenge the finance team. The new performance measures would result in a need for much more financial information than the finance group had ever presented, and now it was time to talk honestly about how they would meet these information demands.

For years, Dave and his staff had been providing the same information to the board, and they had it down to a science:

- ◆ Consolidated Earnings Per Share
- ◆ Consolidated Return on Equity
- ◆ Consolidated Payout Ratio
- ◆ Actual Expenditures versus Budget (Business Unit O&M and Capital)
- ◆ Effects of weather on consolidated earnings
- ◆ Other explanations for consolidated earnings variances



Today was different. Today, Dave would present the initiatives the finance group was proposing in order to support the plans of the business unit leaders. He started out by raising three critical success factors for consideration:

1. First, how did the strategic achievement indicators (performance measures) for the business units line up with the corporate indicators, and what adjustment was needed, if any?
2. How would the strategic financial achievement indicators support the overall financial accountability framework that Dave had been presenting to the business unit leaders?

3. How could the incentive compensation plan be changed to match the proposed strategic achievement indicators?

During the discussion that ensued, the business-unit leaders indulged in some mental backslapping. They all felt good about what they had accomplished concerning their business plans and achievement indicators. The business unit indicators lined up very well with the corporate indicators, and they all supported the overall vision.

Dave summarized the proposed performance measures or strategic achievement indicators established in the plans of each business unit:

Corporate	Generation	Delivery	Customer Care	Retail Services	Shared Services
<b>Financial</b>					
<ul style="list-style-type: none"> <li>• Shareholder Value-Add</li> <li>• Total Shareholder Return</li> </ul>	<ul style="list-style-type: none"> <li>• Shareholder Value-Add</li> <li>• Capacity contract margins</li> <li>• Spot sales margins</li> <li>• Cost/kWh generated</li> <li>• Maintenance cost/kWh</li> <li>• Fuel cost / kWh</li> </ul>	<ul style="list-style-type: none"> <li>• Shareholder Value-Add</li> <li>• Transmission cost / mile</li> <li>• Distribution cost / connection</li> <li>• Unbundled process cost / unit (D3-Map)</li> </ul>	<ul style="list-style-type: none"> <li>• Cost / unit of services</li> <li>• Amount of outstanding collections</li> </ul>	<ul style="list-style-type: none"> <li>• Shareholder Value-Add</li> <li>• Product margins</li> <li>• Marketing/sales cost/unit</li> <li>• Customer segment profit</li> </ul>	<ul style="list-style-type: none"> <li>• Cost / unit of services</li> <li>• Inventory balances</li> </ul>
<b>Products / Markets</b>					
<ul style="list-style-type: none"> <li>• New products developed</li> <li>• Market Share</li> <li>• Customer Count</li> <li>• Sales</li> <li>• Customer satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>• \$ of capacity contracted</li> <li>• Spot market sales</li> <li>• Capability increases</li> </ul>	<ul style="list-style-type: none"> <li>• Customers connected</li> <li>• kWh throughput</li> <li>• New capacity completed</li> <li>• Customer satisfaction</li> </ul>	<ul style="list-style-type: none"> <li>• Market expansion study</li> <li>• Customer satisfaction</li> <li>• Customer loyalty</li> </ul>	<ul style="list-style-type: none"> <li>• Market share</li> <li>• Product sales</li> <li>• Revenue growth</li> <li>• Customer retention/growth</li> <li>• Customer loyalty</li> <li>• Products developed</li> </ul>	<ul style="list-style-type: none"> <li>• Internal client satisfaction</li> </ul>
<b>Internal Processes</b>					
<ul style="list-style-type: none"> <li>• Process Redesign</li> <li>• Savings</li> <li>• Reliability indices</li> <li>• Safety indices</li> <li>• Capacity utilization</li> </ul>	<ul style="list-style-type: none"> <li>• Capacity utilization</li> <li>• Unscheduled down time</li> <li>• Safety related lost work</li> </ul>	<ul style="list-style-type: none"> <li>• Reliability (SAIFI, CAIDI, etc.)</li> <li>• Vehicle incidents</li> <li>• Safety related injuries</li> <li>• Time to connect meter</li> <li>• Time to run service</li> <li>• \$ projects completed on time &amp; within authorized</li> </ul>	<ul style="list-style-type: none"> <li>• Collection process time</li> <li>• One-call solutions</li> <li>• Meters read on time</li> <li>• Reduce # of calls</li> <li>• Avg. phone wait time</li> <li>• Accuracy of bill</li> <li>• "Auto-pay" customers</li> </ul>	<ul style="list-style-type: none"> <li>• Product development time</li> <li>• Order fill cycle time</li> <li>• Problem resolution time</li> <li>• Ad development time</li> </ul>	<ul style="list-style-type: none"> <li>• Major process cycle time</li> <li>• Service output delivered</li> <li>• Unutilized capacity</li> <li>• \$ of work outsourced</li> <li>• Inventory stockouts</li> </ul>
<b>Employee / Technology</b>					
<ul style="list-style-type: none"> <li>• Hours of education</li> <li>• Professional certifications</li> <li>• Technical certifications</li> <li>• E-commerce advances</li> </ul>	<ul style="list-style-type: none"> <li>• Education hours</li> <li>• Certifications</li> <li>• EMS technical upgrades</li> <li>• WMS implementation</li> <li>• MMS implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Education hours</li> <li>• Certifications</li> <li>• WMS implementation</li> <li>• MMS implementation</li> <li>• Customer access project</li> </ul>	<ul style="list-style-type: none"> <li>• Education hours</li> <li>• E-commerce technology project (CIS)</li> </ul>	<ul style="list-style-type: none"> <li>• Sales education hours</li> <li>• Sales force experience</li> <li>• E-commerce project status</li> <li>• Market intelligence project</li> </ul>	<ul style="list-style-type: none"> <li>• Professional certifications</li> <li>• Business education for managers</li> <li>• Avg. age of technology</li> <li>• Electronic communication with suppliers</li> </ul>



As Dave presented the detailed achievement indicators, reality began to set in. The leaders realized that, in most cases, they had never tracked this type of information before. Where were they going to get the data? Who would update the indicators every quarter? Would they have to hire someone just to gather the data? Where was the old “department-budget-versus-actual” information? Would it be more difficult to get bonuses from now on? How were achievement targets going to be set? And, a question that had weighed heavily on Dave’s mind, where would all of the financial information come from?

Dave was ready for the financial question. He believed he had a good idea about how to get the answers they needed, but wanted the business leaders to arrive at the same conclusion on their own.

To start them down the path, Dave presented an analysis his staff had prepared, showing the sources of the financial data required for the strategic achievement indicators.

**Financial Information Required**                      **Source of Data**

- |  |                         |
|--|-------------------------|
| 1. SVA (Corp, Generation, Delivery, Retail)        | <i>* General Ledger</i> |
| 2. Total Shareholder Return (Corporate)            | <i>General Ledger</i>   |
| 3. Capacity contract margins (Generation)          |                         |
| 4. Spot sales margins (Generation)                 |                         |
| 5. Cost / kWh generated (Generation)               |                         |
| 6. Maintenance cost / kWh (Generation)             |                         |
| 7. Fuel process cost / kWh (Generation)            |                         |
| 8. Transmission cost / mile (Delivery)             |                         |
| 9. Distribution cost / connection (Delivery)       |                         |
| 10. Unbundled process cost / unit (Delivery)       |                         |
| 11. Cost / unit of Customer Care Services          |                         |
| 12. Amount of outstanding collections (Cust. Care) | <i>** Receivables</i>   |
| 13. Product margins (Retail)                       |                         |
| 14. Marketing/sales cost / unit (Retail)           |                         |

- 15. Customer segment profit (Retail)
  - 16. Cost / unit of Shared Services
  - 17. Inventory Balances *General Ledger*
- \* Business unit SVA could be derived from the current General Ledger, but modifications to existing overhead allocations would have to be made and transfer price transactions would have to be introduced.*

*\*\* The amount of outstanding collections, in total, can be derived from the Receivable (CIS) system. However, Retail Services had asked that outstanding collections be reported by customer segment, and that information was not available.*

When Dave first saw the results of this analysis, he was very surprised and concerned. He had already been analyzing new financial systems, and the price estimates he had received from a few of the leading software vendors ranged from five to twenty million dollars. According to the new data source analysis, it looked like he would be spending a lot of money for replacement systems that would not fulfill the financial requirements of the company in the future. Furthermore, all available accounting resources were already working overtime preparing monthly financial statements and responding to regulatory information requests. Dave had no one to support these new requirements for financial information. Now, as he presented the analysis to the business unit leaders at the board meeting, it was clear that it presented each of them with specific business challenges, as well.

“How can we be held accountable for profits (SVA), if you can’t provide us with the information we need to affect it?” asked Jason Watt, vice president of Generation.

“And how will we be able to make decisions concerning cost control if we can’t get good unit-cost information?” added Gerald Lines, vice president of Energy Delivery. “We’re being told by the PUC that they’ll be implementing performance-based rate-making on January 1, and they’re going to require ongoing delivery process unit-cost information.”



Abandoning his traditional presentation of actual versus budget, earnings per share, return on equity and payout ratio results for the past quarter, Dave encouraged the continuation of this open, frank discussion of the new financial requirements. Mentally crossing his fingers, he hoped the process would lead them to be open to his new, different approach to the problem, and not result in even greater resistance to change.

"Our business unit is in a different situation", said Jennifer Billings, vice president of Customer Care. "We think we can sell our services to other companies, but we need good unit-cost information to determine if we can be competitive. This analysis is part of our business plan, and a portion of our incentive pay depends on completing the study."

"We in Retail Services probably have the biggest need", suggested vice president Dylan Selthings, crossing the room to refill his coffee cup. "The future of the Company rests squarely on our ability to generate profitable sales. We'll be severely handicapped in our product development and market expansion decisions if we can't readily access information on product and customer segment profitability."

Ashley Chargebac, vice president of Shared Services, did not stay silent. "We're criticized daily by all of you for our high administrative costs. The only way to motivate my managers to lower costs is to provide them with the unit-cost information they need to compare themselves with external providers, and to reward them for being competitive. We've got to have that cost information, and soon!"

To an outside observer, it might have seemed that Dave Caluchi was being attacked from all angles. But Dave was a seasoned, experienced finance executive, and the questions that he was getting were exactly what he had wanted CEO Frank Headman to hear. The stage was now set for Dave to present his new solution.

"These are exactly the right questions," Dave said, "and I think I may have an idea of how we can get the information we need." He went on to describe a strategic cost management conference that he had attended two weeks before the board meeting.

"I spent two days attending presentations on activity-based management (ABM), and I'm convinced it offers us a solution to this problem. I heard from and talked with attendees from a number of different industries, some of them quite advanced in their use of ABM. I heard stories of strategic financial achievement, rising stock prices and annual increases in shareholder value. I spoke with ABM software vendors that could provide us with the functionality we need to support all of our financial information requirements for a very reasonable price."

As he filled them in on the details, the business-unit leaders enthusiastically endorsed the idea, becoming the driving force behind the new ABM initiative. Dave was delighted. He had been convinced that this would be the solution but he did not want it to appear that Finance was forcing ABM on the operating units. Because of his collaborative approach, Dave and his staff were now in a support role; a role that Dave believed would enable ABM to succeed at UEC.

As the meeting neared its close, Dave summarized the steps that he would go through to develop financial information using ABM. With the help of expert consulting resources, Dave had decided on a four-stage implementation timeline, divided into three-month increments:

#### **Financial Information Deliverables**

- |         |  |
|---------|--|
| Stage 1 | Strategic cost model for process, product, channel, and customer cost; transfer price methodology; reporting capability; education |
|---------|--|



- Stage 2 Transfer price implementation; SBU, product and customer segment profitability
- Stage 3 Formalize shared services charge-backs; begin decision analysis with ABM results; implement the solution
- Stage 4 Activity-Based Budgeting/Target setting; incentive compensation changes; complete Strategic Achievement Indicator results reporting

There were a few questions from the executives, but the timeline seemed to satisfy everyone, and Dave assured the attendees that he would continue to get their “buy-in” before proceeding with each successive stage of the project. To Dave’s relief, Frank Headman endorsed the effort and the timeline. He stressed that during the next twelve months the company would need to fully develop the financial information required to ensure ongoing success in an increasingly competitive marketplace.

For Dave Caluchi, the ABM journey was about to begin.

## THE FOUR-STAGE ABM SOLUTION

The “Four-Stage ABM Solution” is an implementation methodology that enables a company of any size to fully implement a strategic activity-based management (ABM) solution; in other words, an advanced financial management solution using an activity-based approach. The outcome of this approach is an ABM solution that is sustainable and utilized; a solution that can be expanded to include more activities, products, channels and customer segments with minimum effort. The key is to begin by satisfying an ongoing strategic financial requirement, then to realign important management processes (such as budgeting or deploying incentive payment plans) so that these processes use the ABM information.

Keep in mind that, even though we use the term financial management in relation to ABM, the solution is about *managerial economics*. The ABM solution is not meant to replace SEC-mandated financial statement reporting or regulated product pricing calculations. It is meant for management decision analysis. It is an enabler of financial performance.

With this in mind, we begin the Four-Stage ABM Solution. Each stage can constitute a stand-alone solution. That is, a company can stop the journey after any of the stages, depending on their specific objectives. However, the completion of all four stages offers the best chance of ABM being a long-term, sustainable solution.





## STAGE 1: FOCUS ON COST

Stage 1 includes the design and development of a strategic ABM cost model that will give operational managers a snapshot of:

- ◆ Fully assigned cost at a department level
- ◆ Shared services unit cost
- ◆ Operational process/activity unit cost
- ◆ Cost of unused capacity
- ◆ Cost information for benchmarking or outsourcing studies
- ◆ Business unit cost information
- ◆ Product cost
- ◆ Delivery channel cost
- ◆ Customer segment cost

The work detailed below takes place during Stage 1, in order to produce the deliverables listed above. Although the work is described in steps, flexibility can be built into the work plan based on size and complexity of the company, resource availability and strategic priorities.

**Mobilization of ABM design team** - Since the goal is to build a strategic model that includes all business units, the design team should include key resources from all business units. (We recommend no more than two participants from each business unit). This is not a fulltime assignment; these people are involved only in the design phase. Thus, it should require around 25-30% of their time for the first month. The design team should also include an IT resource and an accounting resource. These people need to be experienced in data extraction and accounting systems. The design team leader can come from any business unit, but normally represents the corporate "champion" for ABM. It is also very beneficial to involve an external consultant with ABM expertise in designing the solution. In addition to knowledge of ABM, the consult-

ant offers the facilitation skills necessary to meet tight timelines.

**Vision and requirements definition** - One of the most critical tasks of the first month is to make sure that everyone on the design team fully understands what to expect from ABM. It is not a solution for all management information needs! A well documented, well understood vision for the outcome of the ABM solution will keep the effort focused on meeting specified information requirements.

**ABM software selection** - One may think that all ABM software is about the same, regardless of vendor. This is not so! Your consultant should be a valuable resource to direct you in the selection of software. We strongly suggest that the design team request demonstrations from the leading ABM vendors, focusing on (a) the functionality needed to achieve strategic requirements; and (b) after-sale support from the vendor.

**Definition of products, channels and customer segments** - The real value of strategic ABM is the ability to calculate and understand the cost structure associated with *products*, the distribution *channels* for those products, and the different segments of *customers* that consume the products.

**Products:** Historically, utility companies have been mainly concerned with two products: the energy product (kWh and mcf), and production capacity. Over the past few years, many utility companies have attempted product diversification, which not only failed to add any shareholder value, but actually destroyed value in most cases. As more and more diversification efforts appear in strategic business plans, it becomes even more critical that companies understand the real cost of developing, marketing and selling new product lines, as well as the true cost of existing products. In the first month of a strategic ABM initiative, a list of the





products that will be included in the cost model must be developed.

**Channels:** Every product or product line has a delivery process for getting the product to the customer. Of course, the obvious delivery channels for the utility industry are the transmission assets and the distribution assets. Not so obvious are the distribution channels for all other products being offered to your customers. It could very well turn out that the cost of delivering a certain product to a certain customer eliminates any perceived profit from the product. Early discovery of this situation will eliminate value-destroying decisions. Once the project team has developed the list of products that will be included in the ABM model, they will need to determine and document the appropriate product delivery channel.

**Customer Segments:** Most utility companies partition their energy customer base into large segments (residential, commercial, industrial, wholesale, other). A few utilities have done the analysis necessary to further sub-divide these into smaller segments. A strategic ABM model is most useful if detailed customer segmentation has been completed. However, if this effort has not already been undertaken, the ABM project team should not do so, using instead whatever segmentation is available at the time of project initiation.

**Activity dictionary-** Next, the design team will concentrate its efforts on developing an “activity dictionary” which establishes the level of activity detail. Keep in mind that this is a strategic ABM solution. Therefore, the level of detail in the activity dictionary should be just enough to satisfy the strategic requirements established in the business plans, and to support the products, channels and customer segments identified in the previous

step. The activity dictionary should include:

1. A short description of the activity, to be used in the ABM software
2. A complete description of the activity: what it is; what work it includes; the volume output of the work; what larger process it belongs to; what business unit manages it; what products it supports; what channels it supports; what customer segments it supports

**Define ABM cost elements** - Cost information will come from the company’s General Ledger or budget system. The ABM solution needs only high-level costs; it does not need information by FERC account or sub-account. A typical set of direct cost elements that would be readily available for each department would include:

1. Base payroll
2. Overtime payroll
3. Employee expense
4. Outside services (contracts)
5. Vehicle usage
6. Materials
7. Rents
8. Other

We label these as “direct” costs, because they represent dollars spent by each functional department in the normal course of their work.

Other costs that need to be included in the ABM model, but are not normally associated with department spending, include:

1. Depreciation/amortization
2. Fuel
3. Purchased power
4. Property taxes
5. Other taxes



6. Company-paid benefits
7. Debt and equity cost
8. Stranded cost amortization

**Develop education/communication plans** - Many ABM initiatives fail or become underutilized because decision-makers with the greatest need for ABM information either don't know the ABM capabilities, don't receive the resulting information, or don't understand how to use the results for decision analysis.

Well-documented, well-executed education and communication plans are critical to the success and longevity of the ABM effort. The ABM effort is most effective when the project team begins executing the education and communication plans immediately. Don't wait to communicate!

In summary, the project team has now accomplished the following:

- ◆ Documented the vision and the requirements for ABM
- ◆ Selected the ABM software
- ◆ Defined and documented the products, channels and customer segments
- ◆ Defined and documented the activity dictionary
- ◆ Defined and documented the ABM cost elements
- ◆ Developed and documented the education/communication plans

Note: The above tasks will take from two weeks to two months, depending on the complexity of the organization, products, channels, customer segments and activities.

Now the ABM project team should concentrate on constructing the initial version of the cost model, based on the foregoing vision and design work.

The following steps describe how to build the first ABM model.

**Add resources to the model** - No matter what the vision for ABM, all cost models begin with the resources (human and capital) that incur costs. Normally, the resources of a company are grouped into hierarchical organizations (commonly referred to as cost centers). These organizational hierarchies exist in budgets and probably in general ledger systems, and can be loaded directly into the ABM software using existing organizational identifiers

Name	Code	Description	Memo
Production Executive Staff	D-100 E	Production Executives	includes Production Admin Support staff
Production Engineers	D-120 P	Production Engineers	
Fuel Contract Specialists	D-140 FCS	Fuel Contract Specialists	
Energy Management Dispatchers	D-159 EMS	Energy Management Dispatchers	

(codes) and descriptions. We recommend using the same level of organization as that

Period	Cost Center	Account	Type	Resource Driver	Cost
Quarter 1	Production Executive Staff	Base Pay	Normal	# of FTEs	220,000.00
Quarter 1	Production Executive Staff	Cost of Capital - Debt	Normal	# of FTEs	461.00
Quarter 1	Production Executive Staff	Cost of Capital - Equity	Normal	# of FTEs	1,728.00
Quarter 1	Production Executive Staff	Depreciation Expense	Normal	# of FTEs	6,000.00
Quarter 1	Production Executive Staff	Employee Expense	Normal	# of FTEs	50,000.00
Quarter 1	Production Executive Staff	Other Taxes	Normal	# of FTEs	400.00
Quarter 1	Production Executive Staff	Supplies Material	Normal	# of FTEs	2,000.00
Quarter 1	Production Executive Staff	Vehicle	Normal	# of FTEs	10,000.00
<b>Total Cost</b>					<b>290,669.00</b>



used for annual budgeting and cost transactions. The figure below shows how the software houses the cost centers.

Our term “resources” includes cost elements as well as cost centers. The cost element section of the ABM software is shown below.

**Add activities to the model** - The activities previously documented in the activity dictionary are now loaded into the ABM model. The activities can be added to the model using a “macro-process-sub-process-activity” hierarchy and/or a “business unit-activity” hierarchy. Furthermore, activities are grouped into: (1) activities that support products, channels and customers; (2) activities whose output is consumed by all company resources (commonly known as shared services or reassigned activities); and (3) activities that are performed solely to sustain the business, and primarily benefit the owners. Since activities are the hub of all ABM costing efforts, it is very important that the activities in the model are those that will enable achievement of the vision. The figure (top right) shows the activities that have been entered into the ABM model.

**Determine resource-to-activity relationships** - Since activities consume resources, a relationship exists between the resources consumed and the activities that consume them. This relationship, commonly referred to as a *resource driver*, can sometimes be found by analyzing labor and other accounting transactions over the course of a year, or by interviewing the people who do the work within the resource organizations. The interview process results in a percentage of time/effort spent or some other measure of work performed in supporting activities. The figure (right) is an example from the model.

Name	Code	Description	Memo
Deliver Product			
Build Transmission Lines			
Operate and Maintain Transmission Lines			
Build Distribution System			
Operate and Maintain Distribution System			
Vegetation Control			
Line Patrol			
Right-of-Way Procurement			
Install Meter Surge Protectors			
Maintain Meter Surge Protectors			
Ship and Deliver Forklifts			
Maintain Forklifts			
Fill Orders			
Serve Customers			
Market and Sell Products			
Shared Services Processes			
Supply Chain			
Information Technology			
Administration			
Financial Management			
Human Resource Management			
Corporate Sustaining Processes			
Manage the Business			
Create and Maintain Strategy			
Plan Forecast and Budget			

Activity	Value	% Split	
Maintain Facility A	2.25	45.00	
Operate Facility A	1.75	35.00	
Maintain Facility B	0.50	10.00	
Operate Facility B	0.50	10.00	



Some companies would rather have employees charge time to activities using their daily, weekly, bi-weekly, or monthly time reporting system. This information can be used to build the activity cost model; however, this approach assumes a level of timesheet accuracy that should be verified periodically through an interview process.

In order to facilitate financial accounting, some companies develop a list of activities that have some relation to the FERC system of accounts. (The FERC system of operating accounts is activity-based, but the administrative accounts system is not). Although this may produce an acceptable outcome, this practice may limit the flexibility needed to produce useful management information. The ABM model might therefore be perceived as "just another accounting system", and the organization would not realize its real value for management decision analysis.

Once the resource driver information is identified and gathered, it is added to the ABM cost model, and is used to assign resource costs to the activities that they support. The result is that 100 percent of the dollars spent by organizations are reflected in the modeled activities. These are referred to as *direct costs*.

At this point in the discussion of costs, we need to define and clarify the strategic costing principles of ABM.

- ◆ As stated above, dollars spent by resource organizations are costs. In addition, the consumption of fixed assets results in a cost (depreciation and amortization). Finally, the utilization of external capital (debt and equity) causes a cost of capital.
- ◆ It is important to include 100 percent of all costs incurred within the time period being modeled in ABM. This complete cost model facilitates reconciliation of activity costs back to accounting records.

- ◆ Although capital versus O&M is a very important accounting concept, it has no bearing on cost. Cost is incurred by organizations doing work. The work can consist of construction and removal type activities or operating/maintenance activities. Therefore, the activity dictionary should differentiate between these types of activities.

- ◆ Invoke the "80/20" rule. Remember that this is a strategic management information effort. It is better to be approximately correct than precisely incorrect.

- ◆ One of the most frequently asked questions is, "Can the ABM model tell me which costs are fixed and which are variable?" The cost modeler can put a label on each cost element entered into the software. This will produce a detailed list of variable or fixed costs associated, at a specific point in time or over the course of time, with a particular activity (or product, channel, or customer). Armed with this detailed cost list, the decision-maker must ultimately determine whether each cost is fixed or variable, based on the facts and circumstances of the decision analysis. Furthermore, different types of analysis could change this determination.

For example, if a decision is made to outsource the vendor payment process, then it becomes critical to determine which costs go away and which do not. If the outsourcer will still use the utility company's floor space, work stations and payment system, then the costs of floor space, work stations and payment system are fixed; they do not go away. On the other hand, the utility company may contract with an outsourcer that provides its own floor space, workstations and payment system. If, as a result, the utility company can eliminate the floor space, work station and payment system costs consumed by its existing vendor payment resource, then these costs would be variable.



In summary, the fixed versus variable nature of each cost element will change depending on the decision being analyzed. The ABM software is not the decision-maker; the manager of the cost is.

- ◆ Finally, remember that this is a strategic management costing process and *is not meant* to function as or replace a work (task) management system.

***Build shared services reassignment relationships*** - For this discussion, shared services are those service offerings whose volume is consumed by internal “buyers” of the service. Organizations that commonly offer shared services include:

- ◆ Accounting and Finance
- ◆ Human Resources and Benefits
- ◆ Information Technology and Telecommunications
- ◆ Building, Fleet and Other Facilities Management
- ◆ Supply Chain
- ◆ Internal Consulting
- ◆ Legal Services

Each of these organizations typically perform four to five major activities, and the output volume of these activities is consumed by all organizations, including the shared services organizations themselves. For example:

- ◆ Transaction Processing - number of transactions
- ◆ Medical Benefit Processing - number of claims
- ◆ Email/Internet Service - number of users
- ◆ Office Building Management - number of Square Feet
- ◆ Procurement Services - number of purchase requisitions
- ◆ Process Improvement Consulting - number of billable hours

Dave Caluchi received an urgent voice mail message from Dylan Selthings, VP of Retail Sales.

“I just received my monthly accounting reports and I am being charged overheads that total 65% of my cost!” Dylan’s voice reflected his frustration. “There is no way that any of our new non-commodity product lines can be profitable if I have to recover all of these overheads! Not only that, I don’t even know or understand what any of this cost is! Call me back immediately!”

Dave conferenced with the ABM project team. This was not the first time at UEC that Dave had received this type of message. But after discussing the situation with the team, Dave felt for the first time that he had a solid response. He called Dylan.

“Dylan, I got your message and understand your concern. The good news is, I just spoke with the ABM team, and if you’ll just be a little patient with us, we have a solution on the way.

“The team is just beginning to design the assignment of shared services overhead in the ABM model, so it’ll be a month or so before this is completed, but we’re designing the assignments to be volume-based. That is, we’ll determine your actual consumption of company administrative services, and charge you only for the volume that you consume, times a set price. This way, you’ll know exactly what services you’re consuming and the price per unit.”

Now these were terms that Dylan understood. “Okay, Dave, I get what you’re saying and look forward to seeing the results. But let me ask you this: Will I be able to chose my own shared services providers if I think the price per unit is too high?”

“Whoa, slow down a second,” Dave replied. “First things first. Let us get the information, and then, as a management team, we’ll determine how we should handle a situation where the internal price is higher than market.”

Dylan agreed.



- ◆ Legal services - number of billable hours
- In the strategic ABM model, the cost of major shared services activities is re-assigned to the consumers of the activity output, based on the volume of output consumed in the time

Compared to the total, the amount of cost included in these activities should be relatively small, and should have no bearing on management decisions at the activity, product, channel or customer level. If the company chooses, these activity costs can be re-assigned in the model. In this case, the cost modelers would determine the most appropriate method of reassigning the cost.

Activity	Cost Center	Resource Driver	Departments
Shared Services Processes	Departmental View	# of FTEs	Production
Supply Chain	Shared Services	# of Purchase Requisitions	Production Executive Staff
Information Technology	Shared Service Executive Staff	# of material items issued/returned	Production Engineers
Administration	Human Resources	# of Invoices	Fuel Contract Specialists
Financial Management	HR Executive Staff	# of CRUs	Energy Management Dispatchers
Human Resource Management	Benefit Plan Administrators	# of PCs	Facility A
Procure Employee Benefits	Global Procession Staff	# of Internet Users	Facility A Management
Process General Claims	Regional Rollup View	# of Phones	Facility A Operators
Process Employee Pay		HO # of Square Feet	Facility A Maintenance Crews
Corporate Sustaining Processes		SC # of Square Feet	Facility A Warehouse
		Rural Office # of Square Feet	Facility A Control System Anal
		# of Work Stations	Facility A Administration
		# of Office Machines	Facility B
		# of Accounting Transactions	Facility B Management
		Dollar Value of Capital Employed	Facility B Operators
		# of Claims	Facility B Maintenance Crews
		# of Paychecks	Facility B Warehouse
		Billable Hours	Facility B Control System Anal
			Facility B Administration
			Energy Delivery
			Energy Delivery Executive Staff
			North Region
			North Region Distribution Engi
			North Region Schedulers
			North Region T&D Crews
			South Region
			South Region Distribution Engi
			South Region Schedulers
			South Region T&D Crews
			Substation Operators
			Energy Delivery Dispatchers
			Transmission Engineers
			Drafters
			Compatible Unit Specialists
			Construction Project Managers
			Customer Service
			Customer Service Executive Sta
			Phone Centers
			Meter Readers
			Rural Area Office Staff
			CIS Analysts
			Retail Services
			Shared Services
			Shared Service Executive Staff
			General Phasn

**Determine assets by activity** - In a utility business model, the value of assets constructed in order to get energy to the end customer is significant. The utilization of these assets creates a large percentage of the unit cost of the energy product itself, the cost of energy delivery, and the cost of supporting customers. These costs mainly include depreciation/amortization, cost of capital and property taxes. We refer to this as "capital cost". If you already assign depreciation/amortization to cost centers based on the assets that they consume,

period defined within the model. The ABM software takes care of all circular cost reassignments (organizations consuming their own activity volume). This cost reassignment goes from shared services activities to all resource organizations, and then on to the activities performed by the resource organizations, so that all activities end up with their portion of the shared services cost. The screenshot below is from the ABM model that illustrates how the reassignment volumes reside in the software.

then you will be able to use the same basis for cost of capital and property taxes. If not, you will need to take additional steps in order to assign capital cost appropriately.

Some organizations within the utility company perform strategic, corporate-level activities, such as "strategy development" or "financial planning/forecasting"—in other words, "business sustaining" activities—that do not have a specific output volume that is consumed by all organizations. These activities still need to be included in the ABM model, but the costs of these activities do not have to be reassigned to all other organizations.

First, determine which cost centers or activities consume the capital. Cost can be assigned either at the cost-center level or the activity level, whichever produces the most accurate results. In most cases, the utility company's historic asset records (sometimes called a "continuing property record") will have enough detail to separate assets into large groups, such as generation, transmission, distribution, etc. However, asset identification at a cost-center or activity level may not be as readily available. Our recommendation is to remember the "80-20" rule, and do the best job that you can.

One especially difficult area in the assignment of assets is the general plant. The optimal result is to be able to identify the portion of





general plant assets consumed by each cost center. This would include floor space, office furniture, office machines, personal computers, etc. The use of standard office configurations and floor space estimates may be the best method of assigning general plant assets.

Another problem area is capitalized software. The annual amortization of capitalized software must be assigned to the cost center that uses the software in its daily work. For example, the processing of invoices for payment

business units, depending on how the activity hierarchy was built in the model. Unit cost for each activity (total cost divided by activity output volumes) is now for reporting to decision makers. This is solid management information, but this is not the final strategic ABM deployment.

**Build activity-to-cost-object relationships**

The next step in building a complete strategic ABM model is to assign activity costs to the products, channels and customers that consume them. This cost assignment requires the determination of the cause-and-effect relationships between activities and cost objects, commonly referred to as *activity drivers*. In other words, what causes an activity to support one product versus another, or support one customer segment versus another? Some examples of this are:

Period	Cost Center	Activity	Account	Cost
Quarter 1	Production Executive Staff	Maintain Facility A	Base Pay	\$79,200.00
Quarter 1	Production Executive Staff	Operate Facility A	Base Pay	\$44,000.00
Quarter 1	Production Executive Staff	Maintain Facility B	Base Pay	\$44,000.00
Quarter 1	Production Executive Staff	Dispatch Product from Facility A	Develop Solutions	\$23,975.15
Quarter 1	Production Executive Staff	Operate Facility B	Base Pay	\$22,000.00
Quarter 1	Production Executive Staff	Maintain Facility A	Employee Expense	\$18,000.00
Quarter 1	Production Executive Staff	Dispatch Product from Facility A	Base Pay	\$17,600.00
Quarter 1	Production Executive Staff	Operate Facility A	Develop Solutions	\$13,264.53
Quarter 1	Production Executive Staff	Maintain Facility B	Develop Solutions	\$13,264.53
Quarter 1	Production Executive Staff	Operate Facility A	Employee Expense	\$10,000.00
Quarter 1	Production Executive Staff	Maintain Facility A	Provide HO Office Space	\$9,977.15
Quarter 1	Production Executive Staff	Dispatch Product from Facility B	Base Pay	\$8,000.00
Quarter 1	Production Executive Staff	Operate Facility B	Develop Solutions	\$6,632.26
Quarter 1	Production Executive Staff	Maintain Facility A	Create and Maintain Strategy	\$5,768.53
Quarter 1	Production Executive Staff	Maintain Facility A	Run Distributed Applications	\$5,561.82
Quarter 1	Production Executive Staff	Operate Facility A	Provide HO Office Space	\$5,542.86
Quarter 1	Production Executive Staff	Maintain Facility B	Provide HO Office Space	\$5,542.86
Quarter 1	Production Executive Staff	Maintain Facility A	Procure Employee Benefits	\$5,427.91
Quarter 1	Production Executive Staff	Dispatch Product from Facility A	Develop Solutions	\$5,395.91
<b>Total Cost</b>				<b>\$473,431.92</b>

- ◆ Selling activities - number of product units sold
- ◆ Marketing activities - percent of advertising dollars per product
- ◆ Transmission activities - number of miles of transmission lines
- ◆ Distribution activities - number of customers connected
- ◆ Call Center activities - number of calls by customer segment

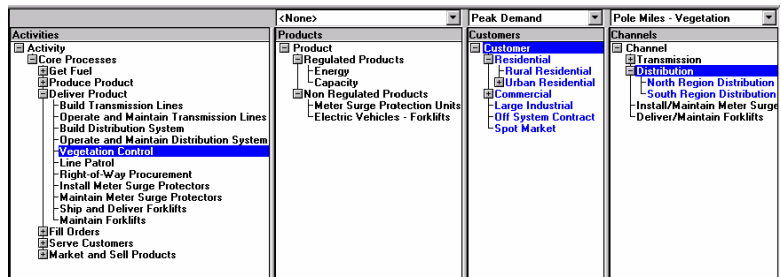
utilizes accounts payable software, supply chain uses material management systems, distribution cost centers use work management systems, etc.

Be as accurate as possible, keeping in mind that assets are a very large driver of costs.

Upon completing this step in building the model, the utility company will have a strategic cost model that includes a detailed, fully-assigned cost for each activity (see below).

These costs can be rolled up to macro processes and/or strategic

The figure below illustrates how an ABM modeler would build the relationships between activities and cost objects.







This process generally results in an interesting discussion that is critical to the success of the costing effort. We recommend including as many business-unit experts in this discussion as possible: Marketing and Sales to determine product activity drivers; Energy Delivery to discuss channel activity drivers; and Customer Care to get a good understanding of customer segment activity drivers.

Having fully assigned costs to the cost objects documented as part of the design work, the following information is now available from the ABM model:

- ◆ Fully assigned cost of products
- ◆ Fully assigned cost of delivery channels
- ◆ Fully assigned cost of after sales customer care
- ◆ Unit cost of products, channels and customers (fully assigned cost divided by number of units).

This is very useful management information, but the crucial piece of information is still missing. The next step is to determine the total cost of providing the products to the customer.

**Build product- and channel-to-customer-segment relationships** - In order to determine the total cost of the product delivered to the customer (including after-sale service), product and channel costs must be assigned to customer segments. This assignment is accomplished by determining the product demand for each customer segment (sales volume) and by determining how the product is delivered to the customer (e.g., through a connected meter). The unit volumes that represent the best cause-and-effect relationship between products, channels and customers are

commonly referred to as *object drivers*. The appropriate object drivers must be entered into the ABM model.

For another example, let's say that a certain customer group demands (buys) 10,000 units of product. We already know the unit cost of the product, so 10,000 units times unit cost equals the product cost for that customer segment. The customer group includes 100 residential energy customers, and the customers get their product through a connection to the energy delivery system. The cost of delivery therefore includes the annual cost of owning the connection. This would include the fully-assigned annual cost of transmission and distribution per customer connection times the number of connections in this segment (100).

Utility companies understand the product demand characteristics of customers (kWh and capacity), commonly referred to as "load shapes" or "load profiles". The accumulated load profiles of the utility company's customer base generally determine the required capacity of generation, transmission and distribution assets that need to be in place to provide the demanded energy. While this information is known at macro levels, it may not be readily available for the specific customer segments that the utility uses to de-

Period	Product	Customer	Channel	Activity Driver	Unit
Quarter 1	<All>	<All>	South Region Distribution	Pole Miles - Vegetation	200.00
Quarter 1	<All>	<All>	North Region Distribution	Pole Miles - Vegetation	250.00
Quarter 1	<All>	Small Commercial	Large Volume Transmission	Peak Demand	50,000.00
Quarter 1	<All>	Small Commercial	Medium Volume Transmission	Peak Demand	50,000.00
Quarter 1	<All>	Small Commercial	North Region Distribution	Peak Demand	50,000.00
Quarter 1	<All>	Large Commercial	Large Volume Transmission	Peak Demand	400,000.00
Quarter 1	<All>	Large Commercial	Medium Volume Transmission	Peak Demand	400,000.00
Quarter 1	<All>	Large Commercial	North Region Distribution	Peak Demand	400,000.00
Quarter 1	<All>	Large Industrial	Large Volume Transmission	Peak Demand	2,000,000.00
Quarter 1	<All>	Large Industrial	Medium Volume Transmission	Peak Demand	5,000,000.00
Quarter 1	<All>	Rural Residential	Medium Volume Transmission	Peak Demand	6,000,000.00
Quarter 1	<All>	Rural Residential	North Region Distribution	Peak Demand	6,000,000.00
Quarter 1	<All>	Low Income/Low Usage	Large Volume Transmission	Peak Demand	23,275,000.00
Quarter 1	<All>	Low Income/Low Usage	North Region Distribution	Peak Demand	23,275,000.00
Quarter 1	<All>	High Income/High Usage	Large Volume Transmission	Peak Demand	24,000,000.00
Quarter 1	<All>	High Income/High Usage	North Region Distribution	Peak Demand	24,000,000.00
Quarter 1	<All>	Low Income/Low Usage	South Region Distribution	Peak Demand	31,850,000.00
Quarter 1	<All>	High Income/High Usage	South Region Distribution	Peak Demand	33,600,000.00
Quarter 1	<All>	Low Income/Low Usage	Medium Volume Transmission	Peak Demand	55,125,000.00
Quarter 1	<All>	High Income/High Usage	Medium Volume Transmission	Peak Demand	57,600,000.00
Total Units					294,075,450.00
Total Volume					294,075,450.00



velop profit-based marketing strategies. The goal is to obtain the best information possible.

In order to determine the total cost to the customer, we must now add the cost of after-sales service activities (customer care) to the product and channel costs. This is based on which of the customer segments consume the volume of customer care activities (meter reading, billing, call center operations, credit and collections, cash processing). The strategic ABM model performs all of these calculations, as long as you structure the model correctly and have entered the appropriate cause-and-effect drivers (relationships).

Although the ABM model is not necessarily a marginal cost model, it does contain enough detailed cost information to be able to determine the marginal or incremental cost of providing "one more unit" of product to the customer. This determination is the responsibility of knowledgeable users of the information. If desired, ABM could be used to build a "marginal cost only" model.

**Determine data gathering / use-of-technology plan** -The success of the strategic ABM model revolves around cause-and-effect volume data. That is, the amount of work output, the shared services consumed, the products produced/sold, the product delivery distances/connections and the number of customers per segment, to name a few. The challenge is to determine how best to gather and update this critical data. At this stage of the project, data sources are documented, and a plan is drawn up for the frequency of model updates.

A strategic model such as this is designed to provide an understanding of product, channel and customer unit costs, and to help in attaining the ultimate goal of generating higher profits. The focus of the model is on unit cost, therefore, updating the strategic model quarterly with the latest 12-month cost and vol-

ume data is the preferred method.

That said, updating the cost drivers in the model with the latest data is a large effort. The job will be considerably easier if existing technology is leveraged to get volume data from the source directly into the ABM model. At this point in the project timeline, the use of technology to extract and load volume data should be documented and turned over to the appropriate technical resources for automation design and implementation. The design and implementation will take some time, so expect full automation of data sources to be an evolutionary effort. The availability of technical resources to complete the task will determine the timeline.

Depending on the complexity of the model, the ABM project team has now accomplished one third of the workplan.

Up to this point, the work has been focused on designing the model and using the software to implement the design. Now the cost information is loaded into the model, and the project team will begin to see some of the results of their work. Below are the major tasks that must now be accomplished.

**Load costs into the ABM model** - It is now time to load costs into the strategic ABM model. As noted in our earlier discussion about resources, costs are loaded into the model at the cost-center level. Begin by downloading the relevant period costs, by cost center and by major cost element, into an appropriate electronic data format. Microsoft® Excel and Access are the two most widely used, but others will also work. The key is to get the data into an electronic format that satisfies the file structure requirements of the ABM software. The data should come from the best source, be it the general ledger, the budgeting system or a data storage area. Regardless of the source, be sure to load 100 percent of costs for the period into the model. Once the cost information has



been loaded, the originating data source and the ABM model should be reconciled to ensure integrity.

For ongoing updates and maintenance of the ABM solution, you will want to formalize the downloading of this data. For this first model, the download method can be somewhat manual, but going forward, automation is recommended to speed up the process.

***Load driver volume data into the model*** -

The model cannot be calculated until all driver volume data is appropriately placed. This driver data determines the cost relationships between resources, activities and cost objects. Any data that has not already been entered should be added now.

As for cost data, gathering the driver data in an electronic format that satisfies ABM file structure requirements will facilitate the loading process. If this is not possible, then gather and add the remaining data to the model manually. As with the cost information, it is best to develop ongoing, automated processes for gathering and loading driver data.

Some driver data changes significantly from period to period, but some changes very little. For example, if the floor space consumed by a cost center does not change very often, then it is not necessary to update the model each quarter with new floor space data. In this example, annual changes to floor space data may be sufficient. Since most cost assignments in the ABM model are accomplished using volume data, the gathering and loading of this data is a large effort. Remember the "80-20" rule when dealing with volume data.

***Calculate the model*** - This is the first real test of the model. It will not calculate if it finds errors in establishing valid assignment relationships. There will be errors the first time; even the experts discover errors during the first model calculation. For this reason, diagnostics are built into the software to identify and describe the problems, and the

fixes are generally simple. Once you have addressed the problems encountered on the first attempt, you may attempt the calculation again.

***Run diagnostic reports and make model modifications*** -

Be sure that the project team has a solid understanding of the calculation results before reviewing the results with cost center managers. The best way to achieve this understanding is to run a series of reports that should include cost information for resources (cost centers), activities, and all cost objects. For this purpose, use system-supplied reports, or download the information to spreadsheets or other databases that will allow "ad hoc" reporting of the results.

Use these reports to gain a thorough understanding of the cost calculation methods of the ABM model. This understanding will be needed to answer managers' questions about the results—and there will be questions. Based on their consumption of resources, managers will be seeing costs assigned to them that they have never seen before. Others will insist that the unit cost of their work output could never be that high. Be prepared to show cost detail and explain how the results were obtained. Occasionally, these discussions may actually uncover some problems with the data. Be open to changing the model if you find that the data is wrong. In fact, using cost-center managers to help verify the results of the first model is a good practice, giving managers an important sense of participation and helping them become more comfortable with the final results.

***Design the "transfer pricing" methodology*** -

Cost is important; profit is more important. The next step is to begin to assign revenues to products, channels and customer groups. Don't assume that this information is readily available; revenue accounting historically is done at a very high level, with very little detail. In addition, since the utility bill is a "bundled" bill, it does not enable the identification of revenue from the commodity prod-



uct(s) versus the delivery... versus customer care... versus sales and marketing. Therefore, a critical step in beginning to calculate profits—other than for legal entities—is the assignment of revenues, or “transfer pricing”.

Some basic transfer pricing principles must be discussed and documented before any assignment of revenues. The first principle focuses on the strategic financial intent of each line of business or business unit. In other words, is the financial expectation of the business unit to (a) add shareholder value through profit margins (revenue minus cost), or (b) add shareholder value through cost management/reductions? Obviously, revenues are assigned only to those business units determined to be profit centers.

Is the shared services business unit, then, a “profit center” or a “cost center”? Strategically, what is the financial expectation of shared services? Is it (a) to add profit to the corporation, or (b) to provide high quality, cost-effective services to internal consumers? If the shared services business unit is to add profit margin, then shared services must be allowed to offer their services to customers external to the corporation, and must be willing to charge a market price for their services. It is important to keep in mind that *real profit cannot be generated from internal shared services consumption; it must come from external sources*. Even if the shared services business unit has an expectation of profit, the expected amount of profit must be limited to that which can be generated from external sources.

Perhaps you’re not selling shared services externally, but still want to hold shared services managers accountable for providing their services at a cost that is equal to or lower than market price. The shared services business unit is still not a profit center. They do not add any profit to the corporation. If they can manage their costs to a level that is equal to or less than market price, then they have

added shareholder value through cost management.

The use of market-based pricing for internal service is a good method for setting performance targets to entice shared services managers to keep costs at a level competitive with external service providers. The market price becomes the target. However, keep in mind that regulatory problems could arise when using market-based pricing. (The Edison Electric Institute has done quite a lot of work on this issue and published a book on the subject.) So, if the decision is to stay with cost-based pricing of shared services due to regulatory constraints, then go ahead and charge for internally-consumed shared services

Another transfer pricing principle focuses on the pricing of each business unit’s products. For purposes of this discussion, let’s say that *products*, not businesses, are regulated, and it is the *price* of the product which is regulated. For example, assume that the electricity commodity product is now unregulated, and its price is determined by the competitive market. Distribution of electricity (a separate product/service) is still regulated, and its price is determined by cost-of-service calculations approved by regulators. Transfer pricing (revenue assignments) must follow these same pricing principles. For example:

- ◆ Revenue assigned to the electricity commodity product should be based on volume sold times a market price.
- ◆ Revenue assigned to delivery (transmission and distribution) should be assigned based on cost-of-service calculations (annual cost-to-serve plus an allowed return on capital).
- ◆ Assignment of revenue to customer care services will depend on the answers to the following questions: Are customer care services regulated or not? Is pricing for these services cost-based or market-based? Is there a market? Use the an-



swers to these questions to determine the revenue assignment.

- ◆ Whatever revenue is left should be assigned to sales and marketing (or retail services). That is, total revenue minus revenue assigned to all other products/services.

Fundamentally, there are two methods for assigning revenue. The first is to assume that “sales and marketing” receives all revenue from the sale of all products. Then they have to pay the generator/producer for the product, pay the delivery unit for delivery of the product, and pay customer care for the after-sales service. Sales and marketing keeps any remaining revenue to pay for their own costs. All of these business units, in turn, pay for their own consumption of internal shared services.

The second method is to have generation/production sell the products to the delivery unit; the delivery unit then adds their cost to the product cost, and sells the products to sales and marketing. Sales and marketing then resells the products, with all costs added, to the ultimate consumer. Under this scenario, the ownership of the product changes hands from generation/production to delivery to sales and marketing. Customer care never owns the product, they just charge sales and marketing for their services.

With either scenario, it is wise to separate transmission delivery from distribution. These two business units will be regulated differently, and have different pricing alternatives. One carries bulk (wholesale) product, while the other delivers retail product, and each has different cost drivers.

At this point in the strategic ABM project timeline, the project team will have a well-documented design for revenue assignment and can proceed to focus on profitability.



Dave Caluchi walked to the front of the room to address the executive meeting on the progress of the ABM project. Dave was very pleased with the ABM team, and excited about their progress. In three short months, the ABM team had delivered the cost information required by the strategic achievement framework ratified at last November's executive meeting. Dave now proudly reported that his group had developed cost management information that the business unit leaders had never seen before, such as:

- ◆ Total assigned cost at a cost center level
- ◆ Total assigned cost for strategic "key activities"
- ◆ Unit cost of some "key" shared services
- ◆ Unit cost of products, including kWh generated
- ◆ Unit cost of generation maintenance and fuel
- ◆ Marketing and sales cost per unit of product
- ◆ Unit cost of delivery (per mile, per unit of throughput, per connect)
- ◆ Total unit cost to provide products to the customer—unbundled to illustrate what portion is product cost, what portion is delivery cost, and what portion is customer care
- ◆ Cost per kWh for each major energy delivery process (D3-Map)
- ◆ Annual cost to have a customer connected to the distribution system

Standing before the assembled executives, Dave was glad that he had taken the time to meet individually with several of the attendees beforehand. He knew that this first look at costs had produced some controversial results. Showing this information to everyone at once could have done more harm than good, putting the affected attendees immediately on the defensive. Dave's one-on-one discussions with those executives before the meeting had given him the chance to win their confidence and continued support.

Having completed the first three months of the ABM project, Dave's goal now was to sell the merits of an ongoing ABM solution. To this end, Dave focused his presentation on using the ABM information to support the strategic vision for cost reduction.

"Cost reduction doesn't have to be a witch hunt," he assured his audience. "My goal is not to blindsides any business unit leader with these results. My goal is to demonstrate how we can use this cost information to make good strategic decisions about how to add shareholder value. I need your feedback on this project. I need to understand your requirements for this kind of management information, so that the Finance group can develop an appropriate plan for ongoing information access."

The executives were extremely impressed with Dave's presentation. They could not believe how rapidly the information had been developed. Not only did they endorse the continuation of the ABM effort, they asked if the next stage could be accelerated! Dave could not and would not promise any reduction in the timeline, but he promised that the team would not slow down.

Shortly after the meeting ended, Dave called the ABM project team into his office. He told them that the executives wholeheartedly supported the project, and reiterated that the strategic cost model was just the beginning. Encouraged by the executives' response, the team began to review the work steps for the next stage, the focus on profitability.





## STAGE 2: FOCUS ON PROFITS

In the second stage of the strategic ABM project, revenues are added to the model to enable the development of:

- ◆ Business unit profit/loss reports
- ◆ Product profit/loss reports
- ◆ Customer segment profit/loss reports
- ◆ Performance-based rate-making information
- ◆ Unbundled energy customer billings

This stage requires implementation of the transfer price methodology designed in Stage 1. Also, as each calendar quarter passes, the model should be updated with cost and volume information for the latest 12-month period.

Stage 2 of the strategic ABM project focuses on profits: revenues minus costs. Since the energy business is an investment-intensive industry, for purposes of the profit equation, it is very important to be able to distinguish between costs incurred for ongoing business operations and those incurred for capital investment. Therefore, this distinction of “capital” versus “expense” costs must be made somewhere in the ABM model; preferably at the activity level. In this case, the model contains construction/investment activities separate from ongoing operating/maintaining activities. Under this scenario, the annual cost accumulated in construction/investment activities is not assigned directly to product, channel and customer-segment cost objects. It is used mainly for high-level construction cost management.

A word of caution here! This separation of capital versus expense has already been done for generally accepted and regulatory accounting purposes. The cost charged to capital projects for accounting purposes normally uses very high-level “overhead allocations”

compared to the more detailed, shared-services cost assignments in the ABM model. This difference in costing methodologies may cause the ABM model to split capital versus expense costs differently than does accounting. This means that profit and loss calculations that are done for decision-making purposes at the business unit, product, and customer-segment levels will use different ongoing operating cost amounts than those used for legal entity financial statements.

The project team must determine how to deal with this potential difference. A profitability analysis based on ABM results is an internal guide for making management decisions, not producing public information. Still, company management may feel uncomfortable with a strategic profit/loss model that differs from the company’s SEC-filed income statement. In this case, the ABM model must use the established accounting split between capital and expense. Neither approach negates the value of the ABM results, but an informed decision concerning how to proceed must be made before communicating the profitability results.

One more note about profitability before we move on. The ABM project team should determine whether the working definition of profit will be gross margin, contribution margin, or net profit, as described below:

- ◆ *Gross margin* - Profit prior to shared services, income tax and other administrative costs
- ◆ *Contribution margin* - Profit after shared services and other administrative costs, but before income tax
- ◆ *Net Profit* - Profit after shared services, income tax and other administrative costs

Regarding assignment of income taxes in the ABM model: It is best to calculate income tax on the profit/loss report itself, once you have the profit-before-income-tax result. An effective rate (which is





calculated by the Corporate Tax group) can be used for management purposes.

Other profit/loss terms may be used, but must be defined and understood by all leaders. It comes down to accountability, an issue addressed further on in this paper.

## NEXT STEPS

**Implement/calculate transfer price by business unit; develop business unit profit/loss reports** - Business unit profit/loss cannot be reported directly from the ABM model, but the model can greatly facilitate the calculation. The model can be divided hierarchically by business unit at any level: resource, activity, product, channel and/or customer.

Business unit revenues are best assigned outside of the ABM model, based on the documented transfer pricing methodology. This allows more flexibility in the revenue assignment. Thus the ABM model provides a great deal of input to a business unit profit/loss report, while the actual reports or results are maintained in some other electronic format.

The assumption here is that business units are not normally legal entities and have no requirements for external reporting. Therefore, business unit profit/loss results, which should be widely communicated internally, do not have to comply with the same format requirements as external income statements.

The cost detail for the business unit profit/loss report resides in the ABM model, and can be used to generate reports in many different ways.

**Develop revenues by product and customer segment** - During Stage 2, the project team analyzes revenues from the period to determine which product(s) generated revenue, and which customer segment(s) provided revenue from their consumption of the product(s). Knowledgeable representatives from

the sales and marketing group can provide valuable aid in gathering this revenue-by-product and consumption-by-customer-segment data, so that it can be added to the ABM model.

**Determine need for regional profitability** - If the decision to develop regional profit/loss information was not addressed in the design phase of the ABM project, then it should be determined now. Regions normally result from organizational design, defined by geography or associated with specific large assets (such as generating stations). These regions are independently managed, but provide the same activities, products and/or channels to similar customer segments. Decide now whether or not to calculate and report profit/loss at this regional level.

Usually, it's good to encourage a little friendly internal competition to see which region can be the most profitable. The decision to report regional profit/loss and make the regional leader accountable for the outcome dictates the implementation of a good accountability framework, complete with decision-making guidelines. This is necessary to avoid encouraging regional leaders to make decisions that might enhance the profitability of their region to the detriment of another or to the corporation as a whole.

In our opinion, there is no reason to report regional profit/loss if the regional leaders will not be held accountable for the profit/loss results.

**Enter revenues into the model and re-calculate** - We have gathered product revenues and consumption patterns by customer segment. The level of profit/loss accountability and reporting has been determined. Now it is time to enter the revenue and consumption data into the ABM model and re-calculate the results.



### **Design full set of profitability (P&L) reports**

- All costs and revenues have been entered into the ABM model and the results have been successfully calculated. Now it's time to design and develop the reporting that will be most useful to business leaders at all levels. Conduct short, simple interviews with key business leaders to get input concerning their information needs. It may help to break down reporting requirements according to the major sections of the ABM model:

- ◆ Resources
- ◆ Activities
- ◆ Products
- ◆ Channels
- ◆ Customers
- ◆ Business Units
- ◆ Regions

Then, for each of these sections, determine how detailed the cost or profit reporting must be in order to satisfy user requirements.

Since the ABM model results will be used mainly for decision analysis, and will be updated only at the end of each quarter, there is no need to dwell on creating numerous monthly reports. Instead, results from the ABM model should indicate cost and/or profitability trends. For example, over the course of a few calendar quarters, what is happening to the unit cost of key activities or cost objects? Or, based on a decision made in the first quarter of the year, what has been the impact on the cost or the profitability of a specific product or product line? If shared services costs are being measured against market prices, what is the result?

Effective ABM software includes a complete range of reporting options. In addition, the results of the ABM model are very easily linked to other reporting mechanisms, so don't be afraid to experiment. Graphing is a great way to show trends, and is easily accomplished using reporting tools already in

place, such as Microsoft Excel. In any case, it is very important that the information from the model be useful and used, so creating focused and meaningful reports could make or break the success of the ABM effort.

The term "reports" in this discussion does not necessarily mean paper output. Technology has created many alternatives to paper reports, as we will discuss later.

**Reconcile model to income statements** - In order to demonstrate that the ABM model is a true representation of costs, reconcile the costs and revenues in the model with reported income statements. Although you have "sliced and diced" costs and revenues differently for management reporting purposes than for producing a legal entity income statement, the cost center and/or cost element is common to both legal entity reporting and ABM. Therefore, use this level of information for accurate reconciliation.

Another caution: If you assigned cost to construction differently in the ABM model than for project accounting records, total ABM profitability will not match the published income statement. However, it is possible to determine the difference, if necessary. Consider the following scenario:

*The ABM project team develops a report from the ABM model that calculates the net income of every customer segment consuming every product offering. Therefore, they have included 100 percent of costs and 100 percent of revenue in the ABM calculation. Now, they total the net incomes of all customer segments from the ABM model, and compare it to the total "Net Income" amount on the company's consolidated income statement. It is probably not an exact match; in fact, it would be a complete coincidence if it were. There are too many differences in the way the two results are calculated. If the same costs and revenues are used, the results should be similar, but it is perfectly acceptable that the two amounts differ, because*



*the information from each source is used for very different purposes. Consolidated income statements are filed with the SEC each quarter, and are used to report financial earnings results to external parties. On the other hand, information from the ABM model is used for making internal business decisions.*

This is a very important issue, and one that merits discussion and resolution among the company's business leaders. Any misunderstanding on this point could severely limit the success of the ABM effort.

***Develop education programs and communication processes*** - Once the executives and business leaders have seen the strategic results of the ABM model, develop a comprehensive work plan to communicate with and educate everyone in the corporation.

We recommend that, at the very least, all business leaders with resource management and budgeting responsibilities should attend ABM education programs. The education should be tailored for each level of leadership, addressing the differences in the decisions made at each level, and highlighting the different types of information needed by each group of decision makers. This tailored education should focus on:

- ◆ Understanding the cost/revenue assignments
- ◆ Understanding the results
- ◆ Using the results for decision analysis
- ◆ Making decisions to affect changes in the results
- ◆ Using the information to develop performance targets

Everyone in the company should be informed about the performance targets for their respective work groups, and understand how they can affect cost/profit results. This can be done through offering ABM education to all employees, or through targeted communica-

tions and presentations.

Never underestimate the need for communication. There may exist a misconception that ABM is a program for head-count reductions. This is not true, especially when constructing the ABM model at the strategic level, as we are doing here. It is critical to the success of the ABM effort to focus ongoing communication on the value of ABM as a support mechanism to increase profits, explaining how each employee can influence profit results. Company-wide e-mail messages, face-to-face discussions and presentations, and project newsletters are all tools that can be used to communicate the ABM story.

Get executives involved. Executive endorsement of the project carries more weight than general communication from the project team.

Once you have developed the education and communication plan, assign education/communication action items to team members, or enlist the expertise of existing education and/or communication departments to implement the plan over the remaining months of the project. The importance of successful planning and execution at this point can not be over-emphasized. Be ready to commit the necessary resources to ensure success.

***Update the model with the latest cost, revenue, and volume data*** - It may be time to update the ABM model with the latest quarterly information: costs, revenues and driver volume data. At this point, it is also a good idea to begin focusing on the model update process; specifically, what is required to gather the necessary data, load it into the model, calculate and communicate the updated results. Documentation of this process provides information to help determine the resources needed to maintain the ABM model on an ongoing basis, and to establish technology requirements for further automating the update process.

**Develop electronic communication of ABM results**

- At this point, let's look at the opportunities to enhance the communication of ABM results through the use of technology.

A good starting point is to identify the method most commonly used for communicating with business leaders and other employees in your company. Hopefully the answer is *not* "paper sent via inter-company mail." Those companies with internal electronic communications or "Intranets" can easily distribute ABM information via internal e-mail. The information can be loaded into pre-formatted messages or through inserts/attachments, then sent to pre-defined distribution lists. There are other electronic methods for communicating information; however, we have experienced the greatest success in using the internal communication channels that are already the most widely used by the most people. Other options include sending ABM information via phone mail, or putting it on screen savers. The key is to make it easy to get the information, using technology to your benefit.

**Link ABM information to energy pricing solutions for unbundled billing**

- An emerging requirement in the utility industry is the ability to supply the customer or regulator with an "unbundled" monthly bill for energy. The unbundled bill separates the pricing that is detailed on the monthly bill, for example, by a) the commodity, b) the delivery, c) customer care and/or d) retail services.

The ABM model can be used to help develop these unbundled prices. The ABM solution is not a replacement for economic systems specifically constructed for rate design. Still, the cost structure information contained within the ABM model can provide valuable input into pricing systems. With this in mind, it is valuable to do some analysis to determine whether linking ABM cost information to pricing solutions offers any advantages.

Furthermore, while the market for new non-energy (non-regulated) products dictates the ultimate price, the results of the ABM model might offer an indication of a starting price or a minimum price. Do some exploring; there are many uses of ABM information that utility companies never discover.



On Wednesday, May 10<sup>th</sup>, Dave Caluchi received the following e-mail message from Frank Headman:

Dave,

I've scheduled an executive meeting for next Tuesday. Please plan to attend and be prepared to give the executive team another progress report on the ABM project. – Frank

The project team had been working for almost six months and was still making great progress. Dave began to develop the presentation for the executive meeting, sticking with the approach of illustrating how ABM results support strategic plans. Dave reviewed the strategic achievement framework and the deliverables promised for the second stage of the project. He developed the presentation to illustrate the results of:

- ◆ Business unit shareholder value (SVA)
- ◆ Product margins for the retail services unit
- ◆ Customer segment margins for the retail services unit

On Friday, Dave got a distress call from one of UEC's national account managers.

"We have a situation here, Dave, that I'm hoping you can help us with," the manager explained. "One of our largest commercial customers is demanding that we knock 25% off their energy price. They're threatening to get bids from other providers if we can't satisfy their requirement for a price reduction. I know your ABM project team has done some work calculating customer segment margins. I need to know if we'd still make a profit on this customer if we grant the price reduction. Can you help?"

Dave immediately called the ABM team together. "All right, everyone," he told them, "we've been given the perfect opportunity to demonstrate the value of ABM." He proceeded to describe the customer's price reduction demand, then challenged the team to develop margins for this particular customer, and have the results ready for the account manager by Monday.

The team needed load shapes and sales information on this customer for the previous twelve months, as well as the revenues received from this customer. To derive this information, they simply considered this one customer as a segment in the ABM model. Using the cost drivers already contained in the model and the demand/sales information from retail services, they readily calculated the margins associated with the customer.

Dave called the account manager late Monday afternoon. "I've got that customer margin data for you," he said. "It turns out that a 25% reduction in the price of energy for this customer would cover the cost of the energy commodity, but only 75% of the cost of delivering the commodity, and none of our corporate business-sustaining costs. I guess it's up to you guys in retail services now."

The account manager was delighted to have solid information to work from, and surprised to have it so quickly. "Thanks, Dave. This is exactly what we needed to weigh our alternatives and decide on the best course of action. It looks like there really is something to this ABM stuff," he admitted.

Dave was pleased that the project had been tested and passed with flying colors. The ABM model had enabled immediate analysis and response. He incorporated the story into his ABM progress presentation for the executive team, along with other information that the executives had never seen before, such as product and customer segment profitability for each business unit.

The presentation generated a high level of enthusiasm for continuing the ABM project. The executives began discussing other strategic actions that they were contemplating. They wanted to know if the ABM information could assist their decision-making processes. Dave smiled.

"Ladies and gentlemen," he responded, "the type of information you're asking for just happens to be the project team's next area of focus."



## STAGE 3: FOCUS ON ADVANCED DECISION ANALYSIS

It is now time for the strategic ABM model to prove its value by providing information to assist management in the transformation of the utility business. Let's recap the strategic information available:

- ◆ Customer segment revenue and cost detail
- ◆ Delivery channel cost detail
- ◆ Product revenue and cost detail
- ◆ Shared services unit costs and volumes consumed
- ◆ Process, sub-process, and activity cost detail in a business-unit hierarchy
- ◆ Business-unit profits (includes some calculations external to the model)
- ◆ Fully consumed resource costs for organizations
- ◆ Cost and resource-driver volume data to enable strategic achievement reporting

Let's look at some of the management decisions required during the transformation of the utility industry. Keep in mind that the ABM model does not make decisions; it merely provides a baseline of information to assist knowledgeable business leaders in the decision-making process.

**Shared services as a profit center** - As we said in our discussion of financial accountability, a profit center is defined by the existence of external revenue. So, is the shared-services business unit expected to be a profit center or a cost center? Even as a cost center, the ability to "bill" shared-services consumption to internal consumers may be valuable. Each internal consumer can be billed on the quantity of service consumed, times the price. The price can be cost-based (as calculated by the ABM model), market-based (as compared to

an external provider), or some hybrid (as agreed by both the supplier and the internal consumer). Be aware of regulatory issues when developing shared-services pricing. Whatever pricing methodology is chosen, the ABM model houses the consumption volumes needed. It is an excellent "front end" to a shared-services billing solution.

The next steps will complete the design and implement the shared-service billing infrastructure. First, identify:

- ◆ **Products/Services** - Shared services activities are already represented in the ABM model at a strategic level. As there is really no reason to use a different product for billing than that used for costing, these activities can represent the billable shared services products. The volumes of consumption and the unit costs are already known. In the future, expanding the number of shared services activities also expands the number of billable products.
- ◆ **Price** - As discussed briefly in a previous section, be sure not to confuse *price* with *cost* (although price can be the same as cost, if that is the management decision). The price is the amount charged to internal consumers for each unit of shared services product that they consume. Cost represents the resources that are consumed to provide the shared services product to the consumer. Simply stated, price minus cost equals margin. In a market-based environment, it is common to charge different consumers different prices for the same product. It may be a good idea to have this capability in the shared services billing infrastructure. A main contributor to price differences is product quality. In other words, one internal consumer might require a higher quality product than another, thereby dictating a different





price. As stated above, be aware of regulatory implications when establishing a pricing methodology. *In any case, do not use shared services product prices that will result in customers of regulated products subsidizing customers of non-regulated products.*

- ◆ **Internal Consumer** - Who is the internal consumer of shared services products? Is it each employee, each department (cost center), each business unit, each project? This must be answered in order to design the most effective billing solution. Take into account that consumption volume data must be gathered for each consumer. Since consumption volume is already being gathered at the department (cost center) level for the ABM model, then an appropriate choice would be to establish each department as a consumer.

What about projects? For project accounting purposes, administrative overheads consisting of (for example) freight, storage and handling, payroll taxes and benefits, injuries and damages, administration, and supervision and engineering, are currently allocated to projects. Could a shared services billing solution replace these overhead allocations? Yes, if information is available on shared services product consumption by project. Then the consumer is defined as the combination of a department and a project. If such information is not available, the current overhead allocation to projects would remain as-is for project accounting within a business unit. Each consuming department within a business unit would be billed for shared services products at "price times volume". This billing would add to the overhead accounts, and the allocation to projects would reduce the overhead accounts, for each business unit.

In any case, if the decision is made to formalize the reassignment of shared services consumption through a billing mechanism, the ABM model can facilitate the design and implementation of the solution.

**Acquiring / discontinuing product lines** - The traditional, fully-integrated utility company is rapidly moving to focused product lines. To generate or not to generate is a major decision. Companies are looking closely at telecom and cable television, and even at bundling Internet service with electric service, to add shareholder value. Whatever the business looks like in the future, shareholder value will be a major driver of change. A strategic ABM model provides clues into the profitability of established product lines. Furthermore, with some creativity and the right information, the model can be configured to provide a look at future profits. This doesn't mean that strategic ABM will replace an effective financial forecasting model, but it could provide some value information for such a forecasting model.

**Acquiring / selling customer base** - In states that have not implemented retail competition, a utility company may have an obligation to serve all customer segments. However, in states that do have retail competition, the utility company may decide not to serve a certain customer segment—if not in the distribution business, at least for the retail services unit. In a competitive retail energy market, utilities can't maximize shareholder value if they continue to serve those customers that provide a low or zero margin. The margin information for different customer groups contained in the strategic ABM model is invaluable for developing competitive marketing plans.

**Acquiring / divesting assets and/or business units** - Many utility companies today are taking a close look at what business they really want to be in, or stay in. Some acquire generating assets, based on a strategy to be the largest generator. Others have decided to concentrate on energy delivery. Many are taking a hard look at customer care for services to the home. No matter what business options a company considers, the strategic ABM model helps ensure good decisions. The model con-





tains business unit cost structures that are useful in developing competitive strategies. For example, the information can identify excess capacity that could be used to increase customer base without significantly increasing costs.

***Effects of retail energy competition*** - The ABM model can indicate the financial effects of retail energy competition over a specific time period, past or future. For example, what would happen to profitability if the company were to lose a percentage of its customer base in a given segment? Would the cost structure change, or need to be changed? What would happen to the cost structure of the delivery business if distributed generation for residential use became possible and popular? The baseline of information contained in the strategic ABM model, including costs and driver information, is very useful in this type of analysis.

***Reactions to large industrial / commercial customers demanding lower prices*** - What if one of your largest customers demanded a price reduction? What if others followed suit? How much energy product profit could you afford to lose, and still satisfy shareholders?

The strategic ABM model contains the information required to do high-level analysis of this situation. Unique profitability models can be developed to determine the outcome of reduced product demand and evaluate the potential under-utilization of assets that could result.

***Profitability impacts of large capital additions*** - What would be the profitability impact of spending \$20 million on a new accounting system? Of course, it would increase the unit cost of the shared accounting services. This is because the amortization of the capitalized amount would increase the total cost of accounting, with no increase in the number of transactions or billable accounting hours. If pricing for accounting services is based on unit cost, the profitability of internal consumers is negatively affected. If market-based pricing is used, internal customers are not affected; however, the increase in cost negatively affects corporate profitability. Of course, if the new software enables the reduction of other costs greater to or equal to the annual amortization of the new software, then the impact on profitability, if any, is positive. The ABM model can help determine profitability impacts for these types of investments.



## STAGE 4: FOCUS ON OPERATIONALIZING ABM

The ABM model has been implemented; it is being updated with new data each quarter, reports are being prepared and distributed, results are being used to support strategy, and maintenance of the model is now an ongoing job. The only thing that may require further work is automating the integration of data sources.

While the project as such may have been a huge success, the ABM solution itself must be

integrated into the strategic management processes of the company in order to be equally successful. At this point in a strategic ABM project, those with some exposure to the results of the ABM model generally agree on its value as a management tool. The challenge now is to transform the ABM project into an operational tool. Some refer to this stage as “implementation”, but we prefer to call it “operationalizing”, ensuring that the ABM solution continues to be useful and used for business management. Let’s take a look at some key management processes that will be supported in the future by ABM information.

As Dave Caluchi looked over progress reports from the ABM project team, he glanced up at the calendar. August 15th. In just nine short months, the project has progressed from ground zero—virtually no strategic information—to:

- ◆ Ongoing cost and profitability reporting to measure strategic achievement
- ◆ Profitability information at the business unit, product and customer segment levels
- ◆ The infrastructure to enable internal “billing” of shared services
- ◆ The ability to provide profitability information for strategic business decision analysis

Dave considered the progress report he was scheduled to present at the quarterly executive meeting at end of the week. He would talk about the nine-month progress and the accomplishments of the ABM team. He would demonstrate that the project so far had been a huge success—but it was still in the project stage. As he began to prepare his presentation, Dave was concerned about whether ABM would have a future as an integral part of the company’s business. He wondered how to get the business leaders to embrace the long-term use of the ABM model as a strategic management tool.

At the executive meeting, Dave was delighted at the business unit reports and the discussion that took place. The business unit leaders, completely focused on achieving their established performance targets, used the latest cost and profit information from the ABM project to demonstrate their progress. Excitedly, they exchanged anecdotes about the business decisions they had been making with the ABM information. It was a refreshing change from the unenlightening reports they were used to, and they were obviously encouraged.

Inspired by this transformation, Dave decided not to present the slides that he had prepared. He rose to address the group.

“I don’t have a presentation for you today,” he announced. “Just a question: Now that we have developed the strategic ABM model and demonstrated its potential, what can we do to integrate ABM into the ongoing management process at UEC?”



**Strategic achievement program** - Managers should now begin using ABM information to evaluate performance against the strategic achievement indicators established for each business unit. These strategic indicators measure shareholder value-based performance for each business unit, and must be supported by ABM information in order to tie cost and profit results directly to corporate strategy on an ongoing basis.

Not all utilities have set up strategic achievement programs in this way. Some have established performance measurements that use department cost budgets along with corporate earnings per share (EPS) as their primary measures. Furthermore, they typically set annual performance targets by multiplying previous year "actuals" by a percentage increase (or decrease). A performance measurement program based on this approach will not be able to take advantage of the strategic insight ABM can provide.

**Incentive pay program** - Most utility companies have some form of incentive pay (bonus) program. Bonuses are distributed annually (or even quarterly, for the more progressive companies) based on the achievement of established performance measurements. Normally, these consist of a combination of corporate, business-unit, departmental, and/or personal achievement measurements. The most common corporate financial measure is EPS. At the business-unit level, it's "actual costs versus budgeted costs" for expense and capital. Some utilities have progressed to a business-unit profit center concept, and have established profit-based measures. Department-level financial goals are usually based on actual direct cost compared to budgeted direct cost for operations and maintenance. Personal goals are mostly non-financial. Does this describe your incentive pay program?

Whatever they are, the measures used for incentive pay should be the same as those used to measure overall business performance, and both should link to strategic goals,

in order to create shareholder value.

If strategic achievement indicators—measures of corporate strategy execution and added value—differ from the measures in the incentive pay program, the strategic achievement program will suffer. Business leaders will make decisions based on incentive pay results, and employees will focus their efforts based on achievement of bonus pay. Therefore, it is very important to align the measurement system to support strategic achievement, and align the incentive pay program to match. In this way, the ABM solution that is used to measure strategic achievement can also be used to determine performance results for incentive pay. In addition, business unit managers and staff can use ABM information to determine progress toward incentive pay. If operationalized in this way, ABM will definitely be useful and used.

It should be noted that where utility companies attempt to implement ABM, but do not change their performance/incentive pay program, ABM usually fails because the information is not used to manage the business.

**Activity-based planning** - Activity-based budgeting is an overused term. In reality, the concept is activity-based planning. What's the difference? If you define planning as "determining what the business requires to improve shareholder value", then budgeting becomes the "estimation of the revenues and costs associated with the plan".

The use of the strategic ABM model as the key financial tool in developing the budget/plan is what we call "activity-based planning". It is much more involved than applying a factor to the direct cost of activities for the previous year. So, how is the planning process enhanced by the use of ABM?

The natural and technical progression of ABM cost modeling is to assign resource costs to activities; assign activity costs to products, channels and customer segments; then assign



product and channel costs to customer segments. This calculates the total cost to provide products to customers, including after-sale service. The planning aspect of ABM utilizes a “reverse engineering” concept; that is, starting with customer segments and working back towards resources. Here is a high-level example of how it works, dealing with a single product to keep it simple.

1. Look at customer segments to determine planning period information, such as (a) number of customers, (b) product demand and (c) use of after-sales service.
2. Analyze product channel cost drivers to determine changes for the planning period and opportunities for cost reductions.
3. Review and change the amount of product that will be required to support customer demand.
4. Change activity driver volume information, based on the analysis of customers, channels and product.
5. Determine the resources that will be required to support the projected product demand, cost changes in the channels, and customers’ use of after-sales service. Change the resource driver information.
6. Recalculate the model by performing “what if” calculations to determine the resources needed to support planned changes.

The budget, therefore, is the result of changes in customer base, product demand and other cost driver volumes, not just last year’s actual costs times a factor. The above example describes the development of a cost budget. Planned revenues will be based on new product demand times a planned price.

The shared services budget works the same way. Determine shared services product demand for the planning period, and then determine the resources that will be required to meet the demand. During this process, shared

services providers and consumers should work together to determine the demand and ongoing quality of the service. This agreement between provider and consumer can be informal, or can be formally documented in a “Service Level Agreement” that establishes targets for demand, price and quality. This document should also establish some governance (rules) around demand, price and quality. For example, what happens if the price is fixed and the consumer decides to decrease their demand for the service in the middle of the period? Who is responsible for the rise in unit cost, compared to the price? The use of formal Service Level Agreements is becoming a popular instrument. We endorse the concept, but caution that it could become an administrative burden to shared services providers. Before deciding to develop formal documents, we recommend analyzing the benefits versus the cost.

***Ongoing education and communication*** - It’s time to implement the communication and education plan previously developed by the ABM project team. All levels of business leadership need to have a thorough understanding of ABM and have ready access to the results. In addition, other employees should have a basic understanding of the ABM solution, and have access to those ABM results that they can influence.

The key is to ensure the ability of everyone in the corporation, from CEO to contributor, to make value-based decisions, enabled by ABM information. Of course, CEOs are more concerned about lines of business, products, etc., while contributors are more concerned with eliminating rework and non value-adding efforts. Everyone in the corporation can do their part in improving shareholder value, given the appropriate education and information. This is the single most important part of a successful ABM solution.



#### GENERATION - AS REPORTED BY JASON WATT

We are the lowest-cost producer in the area, and have leveraged our low cost to maximize utilization of our existing assets through spot-market sales. This has resulted in a 17% return for the year. We are targeting an 18% to 19% return for next year due to a few of our long-term, lower-margin contracts being renegotiated or terminated in favor of spot-market sales.

We have reduced our fuel and maintenance cost-per-unit-of-output by 5% as a result of renegotiating fuel contracts and reducing hours of unscheduled down time, enabled by the implementation of a maintenance management system. We are targeting another 5% reduction for next year.

#### ENERGY DELIVERY - AS REPORTED BY GERALD LINES

The process redesign assessment performed this year has given us the information necessary to be able to reduce our average cost per customer connection by 25%. We have already begun the actions required to accomplish the reduction.

Low capacity utilization of our transmission lines has caused the cost per unit of throughput to increase over the last few quarters. We are looking at various alternatives for selling transmission capacity.

#### CUSTOMER CARE - AS REPORTED BY JENNIFER BILLINGS

We have developed the "unbundled" customer bill, which is ready to go out starting in January.

Through interviews, we have discovered that we are creating very valuable customer loyalty. This, along with our low cost of providing customer care services, has prompted us to begin developing plans for expanding our services.

We have determined the appropriate actions to eliminate 10 calendar days from the meter reading-to-collection process. This will get cash in the door faster, as well as reduce process cost and bad debt expense.

We have trained our Customer Care Reps and have achieved a one-call rate of 75% for the current year.

#### RETAIL SERVICES - AS REPORTED BY DYLAN SELTHINGS

Through the combined efforts of all of the business units, we have been able to reduce the energy prices charged to our largest industrial customers and still achieve favorable margins.

Through our marketing efforts, 75% of new homes constructed in our franchised area are all electric homes. This is up from the 50% we achieved last year.

Product margins for our Meter Surge Protectors are below target, with very little hope of any turnaround. We have identified three potential buyers of this product line.

Through our marketing efforts, we have increased the demand and usage of electricity by our most profitable customer segments. Furthermore, we have been able to implement special rate plans for our lower income customers, without reducing overall profitability.

We have been analyzing customer characteristics of surrounding municipal electric systems to see if we could enhance profitability by serving those customers. This is in anticipation of an open retail market.

#### SHARED SERVICES - AS REPORTED BY ASHLEY CHARGEBAC

The first indications are that 80% of our shared-services unit costs are higher than the market price, however, our quality is also higher. We will be addressing this with our internal consumers during the Service Level Agreement process that we have initiated.

Our managers have developed their own unit cost targets that will result in only 40% of our service offerings being above market prices. We are expecting 100% of our services to be at or below market price within two years.

We have developed and implemented a shared services billing process and, beginning January we will bill our consumers monthly at a cost-based price for the volume of services consumed.



UEC business unit leaders had given these types of reports before. It had always been, "We spent this much last year and we want to do some new things, so we need 10% more this year." Then the Board would respond by approving a smaller percentage increase, and everyone would go back and adjust their cost center budgets.

This year, the business unit leaders were aware of profitability potential, alert to unprofitable product lines, informed about unit

costs compared to market, and empowered with ways to affect cost and profit margins. They were able to develop plans for creating shareholder value, and set their own targets with confidence, knowing that their incentive compensation would be based on these targets. What at difference a year had made. And the difference was directly related to developing and implementing a strategic ABM solution.

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**In the U.S.A.**

**Ron Bradley**  
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Ron has extensive experience in implementing in performance management, financial accountability, process redesign, business system design and strategic cost and profitability models. Mr. Bradley was Director of Activity-based Costing and Performance Management for a large utility prior to his consulting career. He has hands-on knowledge of process redesign methodologies. Ron has a B.A. in business administration and economics with an MBA, and holds a CPA designation.

**Outside the U.S.A.**

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Vijay consults extensively to many organizations and assists them in improving financial and operational performance. He has been active in both costing and shared services area for last fifteen years. He is a frequent speaker at many executive development seminars on enterprise performance improvement. Vijay is a Chemical engineer with an MBA and Ph.D. in management.

## ABOUT CRG

Established in 1989, CRG is a global provider of innovative solutions and services that drive better business management and performance. With expertise in shared services, corporate finance, business intelligence and value-based management, CRG has established itself as a leading provider of solutions that transform financial performance and operational effectiveness.

CRG is headquartered in Ottawa, Canada, with offices in the United States, South Africa and India. It is strategically aligned with technology partners Microsoft and Cognos. Products include a suite of Financial Systems (ERP), Shared Services, Activity-Based Costing, Performance Measurement, Business Management and Personnel Performance applications which are sold directly and are also available through a global network of more than 600 partners and resellers.

For additional information on CRG and our solutions, visit [www.crgroup.com](http://www.crgroup.com).

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