

# I D C   E X E C U T I V E   B R I E F

## Enhancing ICT Value in the Energy Sector

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### **Executive Summary**

How information and communications technology (ICT) contributes to productivity and business expansion is a vital conversation taking place in energy companies today. Energy industry executives are demanding more from their investments in ICT, and are getting solid returns. The approach to ICT investments, from an individual project to an entire organization's strategy can vary, but a focus on productivity, business expansion, and safety are common themes for energy organizations.

Energy companies are dependent on their ICT operations. The impact of a loss of communications or IT systems can significantly impact operations. As one industry executive put it, "If we lose our systems, many operations must be shut down because they can not be done safely without them."

When asked, "what does 'business value' mean in the context of integrated communications solutions?", the answer from energy executives almost universally involves productivity, and frequently involves supply chain management.

- "Value must be something of benefit to stakeholders, including shareholders, employees, business partners, suppliers, and the communities where we operate."
- "Helping to produce more or doing it more efficiently. Also more effective integration with suppliers."
- "More than profit, our major focus is on productivity and safety for both our employees and suppliers."

Energy organizations are focused on projects that support business operations. They have constructed flexible infrastructure that enables the implementation of advanced technologies to support their productivity, supply chain management, and safety goals. The majority of the projects they assessed involved infrastructure,

security, and disaster recovery. While the projects that energy sector executives assessed may not have been glamorous, they were executed with a high affinity for best practices. The approach to ICT deployed by energy companies can provide insight to other organizations that want to achieve positive results by building a strong base of technology and growing it incrementally to the point of excellence.

IDC's research into the business value of integrated communications (BVIC) solutions reveals that:

- Projects assessed by energy organizations tended to be driven by internal users and suppliers more frequently than in other industries. The projects are frequently initiated by the ICT organization and aligned with business needs.
- Energy companies support their suppliers with communications technology more commonly than other industries (87% of the time compared to 66% for other industries), and use advanced communications applications to support suppliers more frequently (78% compared to 53% for other industries). Across all industries, energy companies rank at the top in both measures regarding supplier support.
- Finally and most importantly, there is a strong relationship between best practices and business value. Energy organizations that execute projects with a high affinity for best practices are more likely to exceed business value expectations (60% of the time). Energy projects executed with a low affinity for best practices exceed business value expectations only 13% of the time.

## **Introduction**

This executive brief is focused on exploring the business value of ICT in the energy industry, using BVIC. BVIC is a model designed to assist organizations in assessing how well they are maximizing the potential business value of integrated communications solutions. We believe that the approach to ICT projects used by energy companies provides useful information for ICT organizations within the energy services sector and in other industries. The use of best practices, emphasis on sound infrastructure, and business/ICT alignment displayed by the companies we analyzed here can serve as a guide to success.

## ***What are Best Practices and what is Business Value?***

The term "best practice" is used widely in the context of ICT management principles and is a procedure or technique that, through research and experience, has shown to lead to a desired outcome. The attention to best practices is driven by one basic premise – that successful technology deployments do not happen by chance. The best practices explored in our study were specifically identified as

influencing higher business value, i.e., showing a causative relationship between processes and business value.

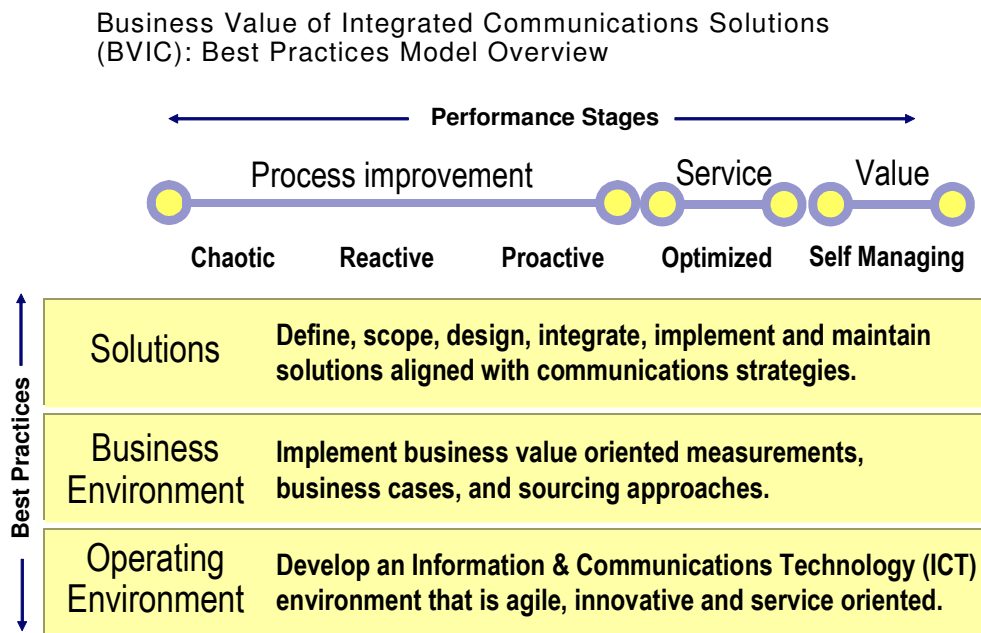
Dozens of examples of business value exist, but most often business value is generated through beneficial service, a deliverable to customers – whether they are external or internal, citizens or employees, or in the case of energy companies – suppliers.

### **A Primer on the BVIC Model**

The BVIC model rates any ICT project on a maturity scale ranging from "chaos" to "self managing". The rating is based on 30 best practices attributes that are related to business value. Each project is scored on a scale of 0 (chaos) to 100 (self managing).

Figure 1 depicts the two dimensions of the BVIC model: the performance stages, sometimes referred to as level of maturity, and best practices areas.

**Figure 1**



Source: IDC Canada, 2006

### **Benefits**

Energy companies achieve business value from ICT projects by driving productivity and supporting their supply chains. The types of projects assessed in the energy sector included: security, business continuity and disaster recovery solutions; infrastructure management solutions; voice over IP and traditional voice networks; collaboration solutions, and several other technologies.

Communications technology is a key component of their operations, and business productivity is dependent on communications capabilities. Consider the following real world examples:

- A mid-sized service and supply company implemented a broad communications solution to support paperless tickets, worker (employee and supplier) safety monitoring, vehicle positioning, and speed monitoring.
- A large exploration and production company implemented a supply chain monitoring system using wireless monitoring devices to ensure that materials were delivered just in time to optimize output. They used a common communications infrastructure model to support multiple separate systems/solutions. The use of a common infrastructure model enhanced productivity, security, and disaster recovery capabilities.
- An electric utility implemented a safety system to manage compliance, drive down lost days and enhance productivity. The system supports employees, suppliers, and contractors.

The common thread is apparent: using technology to drive productivity, and a focus on infrastructure excellence and supply chain management.

### ***Energy: Basic Blocking and Tackling Drives Operational Efficiency***

Energy organizations assessed projects that were of moderate strategic value, and generally demonstrated a solid level of best practices affinity. They use communications extensively to reach their employees, customers, suppliers, and business partners.

- **Best practices affinity** was measured in three major areas:
  - The **solutions** best practices area is especially relevant when considering the strategic needs of an enterprise that involve technology, and how to improve the practical application of technology.
  - The **business environment** best practices area is of most relevance to companies that are grappling with how to make better procurement decisions that positively impact the extended enterprise – not just one department.
  - The **operating environment** is an area of best practices that links to an organization's guiding principles. The best practices in this area speak to issues around management culture and style, how infrastructure and applications are typically developed, and an organization's emphasis on innovation.
- The **strategic nature** of the project is a measure developed from the project definition to describe the tactical (low score) vs. strategic (high score) nature of the project. It includes the type of

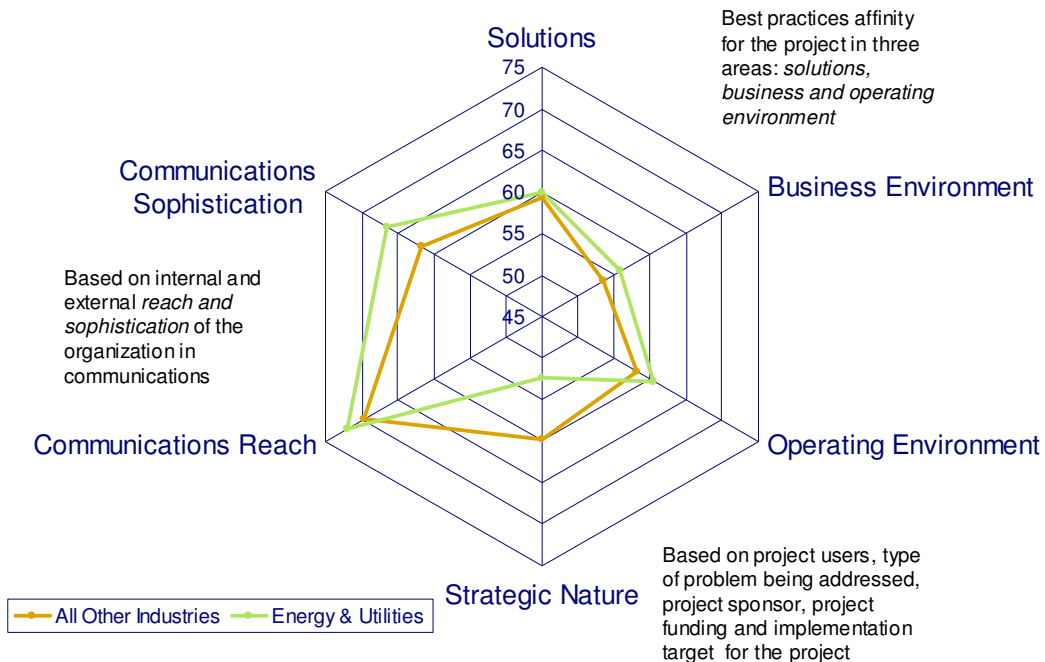
business problem being addressed by the project, the project's "customers", who initiated, funded, and staffed the project, and whether the project addressed infrastructure, transactional, information, or strategic needs.

- The organization's **experience** in using communications was measured in two areas:
  - The **reach** measurement is based on the organization's use of communications technology to serve employees, business partners, suppliers, and customers.
  - The **sophistication** measurement is based on the organization's use of advanced communications productivity tools, including collaboration, video conferencing applications, and call centre solutions.

Energy companies demonstrate high levels of communications reach and sophistication. They assessed projects that were operationally oriented and executed projects with a high level of best practices affinity. They exceed other industries in best practices affinity in their business and operating environments. (See Figure 2.)

**Figure 2**

Energy: Basic Blocking and Tackling Drives Operational Efficiency



Source: IDC Canada, 2006

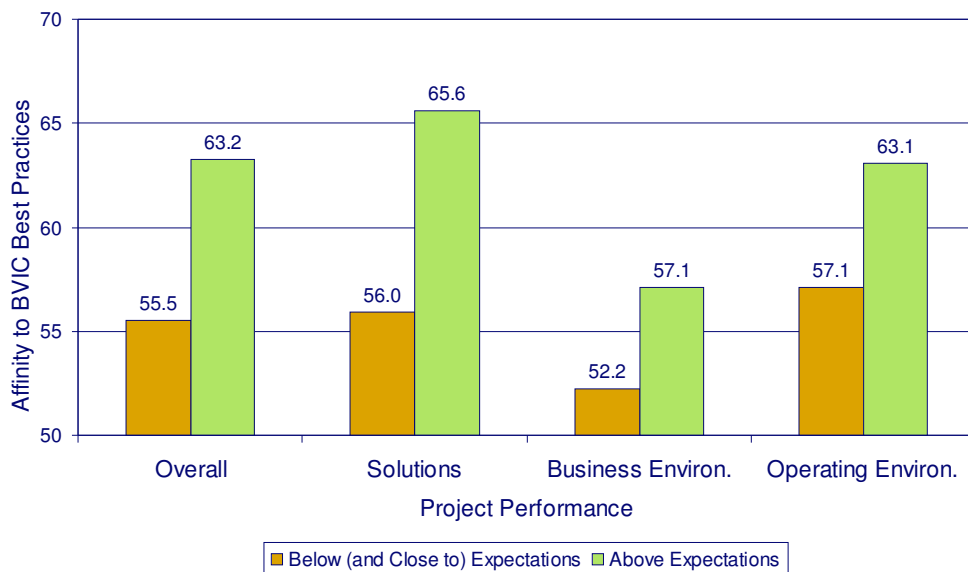
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## Business Value Expectations

A comparison of those organizations that reported high business value relative to expectations reveals a very strong difference in affinity to the BVIC best practices (see Figure 3). Energy companies that deployed projects that exceeded business value expectations consistently had a higher affinity for best practices, across all three areas: Solutions, Business Environment, and Operating Environment.

**Figure 3**

Business Value Expectations and Best Practices: Overall BVIC Affinity and Best Practices Category for Energy Companies



Source: IDC Canada, 2006

n=43

### ***Best Practices with the Greatest Impact***

Overall project results are measured based on meeting budget, schedule, user adoption, functionality, stakeholder satisfaction, meeting business case, and achieving business value.

The best practices that are most closely linked to overall project performance for Energy organizations include:

- **Taking a structured approach to scope definition that focuses on business advantage.**
  - ➔ Energy companies are similar to companies from other sectors in this area. Those Energy companies that excelled in this best practice achieved consistently higher project results

compared to those that did not. Sixty percent of Energy projects that scored high on this best practice achieved outstanding results, 80% of projects that scored low on this best practice achieved poor results.

- **Implementing projects in an environment unconstrained by applications technology and using a state of the art applications approach that leverages emerging end-to-end communications capabilities.**  
→Energy companies were more advanced than companies from other sectors in this area. Energy sector projects that were implemented in a legacy applications environment were not often successful.
- **Using a needs analysis process that is broad and addresses the needs of customers, partners, and suppliers.**  
→Energy companies performed well in this area. They consistently involve their external constituencies in defining projects. In particular their integration with their suppliers positions them as a leader across all sectors.
- **Ensuring that ICT and business executives are aligned and working together as partners, and that the procurement process and project justification are focused on the business results of the project.**  
→Ensuring that key projects deliver business value in business terms is a key success factor for projects in the sector. Projects that demonstrated a high degree of business/ICT alignment were generally successful.
- **Implementing ICT projects using a formal integration approach based on standards.**  
→Energy companies excelled at this best practice. Organizations that used a formal integration approach achieved consistently high project performance.

## Considerations

### *How to Apply this in Your Organization*

IDC believes that how an individual makes use of the BVIC model depends on where the organization's strategic priorities lie: at a macro-level to prioritize overall ICT needs, or at a micro-level to apply to specific projects. Many ICT managers struggle with making the business case to executive management for final technology investment decisions. The model can help overcome that hurdle by helping convince executives of the soundness of proposed projects.

Moreover, not all projects require a high best practices approach. IDC believes for instance, that if you are upgrading a niche application in a single department or installing a handful of routers, your requirement to embrace all the best practices is much lower than if you are building a customized video-based distance learning application to serve 22 locations across the country. A balanced approach then is warranted.

## ***Conclusion***

The key message from our energy sector analysis that can be applied to other companies is that success is not only possible, but can be described by a few key factors.

- Focus on the entire user community including employees, business partners, customers, and suppliers. Seek ways to “extend the enterprise” that will facilitate productivity and operational excellence. Leveraging all available internal and external resources to achieve the best possible results not only makes good business sense, but also is closely linked to success.
- Ensure that system and applications infrastructure is a facilitator rather than an inhibitor of achieving business value. Flexible and responsive infrastructure coupled with an applications architecture that leverages state-of-the-art capabilities allows energy companies to maximize the business value of their ICT investments.
- Effective business/ICT alignment is a critical success factor in achieving business value. Strong alignment is not limited to strategy and direction; it includes joint approaches defining scope, justification, procurement, and on-going metrics. In general, energy companies outclass other industries in these areas and receive a strong payoff in terms of business value.

## **About the Business Value Research Initiative**

Striving to take the technology/business conversation to a higher level, TELUS Business Solutions provided the initial thought leadership on this topic by asking IDC to examine the variables that contribute to the business value of integrated communication solutions. This paper has been published to help organizations leverage this innovative model. Furthermore, we are inviting you to self-evaluate your organization. The aggregated results of this research and details of the model are being shared by the sponsor of this research study, TELUS Business Solutions.

## ***Learn More***

For a more detailed explanation of the BVIC model please refer to the IDC Canada white paper entitled, "Business Value of Integrated Communications Solutions: A Model for Success" (IDC#CC06732), May 2006, sponsored by TELUS Business Solutions.

To review the research findings for all industries please refer to the IDC Canada white paper entitled, "Business Value of Integrated Communications Solutions: Linking Best Practices to Success" (IDC#CC06732B), June 2006, Sponsored by TELUS Business Solutions.

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