

INTEGRATION

Microsoft Dynamics™ AX

Integrated Financial Management for the Energy Industry

WHITE PAPER

Energy Financial Management for Microsoft Dynamics AX

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Table of Contents

- Introduction..... 3**
 - Purpose of This Document.....3
- Challenges in the Energy Industry 3**
- Energy Financial Management for Microsoft Dynamics AX: Overview 3**
 - World-Class Accounting System4
 - Comprehensive Business Management Solution Platform4
 - Crucial Integration Platform4
- Solution Advantages..... 5**
 - Flexible.....6
 - Tailored to Industry-Specific Requirements.....6
 - Scalable.....7
 - International7
- Features and Functionality..... 8**
 - Cost Center Controls9
 - Authorization for Expenditure (AFE).....9
 - Division of Interest (DOI).....10
 - Joint-Venture Billing (JVB)11
- Technical Overview 11**
- Conclusion..... 12**

Introduction

Oil and gas and mining businesses face myriad challenges every day, from the ordinary demands of seeking profitability, to gaining competitive advantage by developing and innovating, to satisfying government reporting requirements. Those that operate internationally sometimes have to meet different regulations in different countries or locales. Microsoft Dynamics AX, a business management solution, delivers fast, reliable, comprehensive accounting, financial reporting, and analysis capabilities to businesses worldwide, and it provides a platform for integrated financial management solutions.

Purpose of This Document

This white paper describes some of the business challenges faced by companies in the energy industry, and it provides details about a significant integrated financial management solution designed specifically for oil and gas and mining companies—Energy Financial Management for Microsoft Dynamics AX. This white paper details how Energy Financial Management for Microsoft Dynamics AX weaves together resource planning, accounting, and system integration into a worldwide financial management system specially customized to meet the specific needs of energy companies worldwide.

Challenges in the Energy Industry

Energy drives daily life all around the globe, and every year the demand for energy increases. Energy companies—oil and gas and mining companies in particular—are among some of the world's largest enterprises, and they are in high demand. They must respond to the changing needs of the marketplace, work to stay competitive globally, and comply with changing industry and governmental standards.

Increasing corporate governance and regulatory requirements necessitate that these businesses have systems in place to support compliance while easing the burden of reporting. Oil and gas and mining companies face complex challenges from the effects of global economic fluctuations, critical swings in supply and demand, political changes, natural disasters, and frequent mergers and acquisitions. Having a firm foundation of strong financial management that supports regulatory compliance as well as global business requirements is crucial to success in this industry.

Energy companies need to be able to respond quickly to changes, and they need strong resource planning, operational efficiency, and international financial management to enable them to stay viable and maintain competitive advantage. They need an integrated financial management solution that addresses the complexity of their dynamic industry.

Energy Financial Management for Microsoft Dynamics AX: Overview

Powered by Microsoft Dynamics AX, the Energy Financial Management solution is specially designed for oil and gas and mining companies and provides integrated financial management, support for joint-venture and international business, and a standard solution for worldwide financial management and reporting.

Energy Financial Management for Microsoft Dynamics AX delivers functionality needed for success in the energy industry by providing:

- A world-class accounting system.
- A comprehensive business management solution platform.

- A crucial integration platform.

World-Class Accounting System

Energy Financial Management for Microsoft Dynamics AX combines accounting requirements specific to the energy industry with robust, state-of-the-art technology, resulting in a flexible solution that meets or exceeds international financial and accounting standards. Companies can manage financial information using multiple dimensions, and they can choose “full cost” or “successful efforts” accounting by project. And because the Energy Financial Management solution is built on Microsoft Dynamics AX, the solution is familiar and easy to use.

Comprehensive Business Management Solution Platform

Energy Financial Management for Microsoft Dynamics AX provides much more than financial management and reporting—it also provides the foundation for a business management system. With a comprehensive business management system, companies get a single accurate view of their financial information along with built-in controls to help monitor expenditures, enforce billing rules, and meet reporting requirements in the international market.

In addition, by incorporating modules such as customer relationship management (CRM), human resource management (HRM), and trade modules for materials management in the field, companies can build a comprehensive business management system with Energy Financial Management for Microsoft Dynamics AX at the foundation.

Crucial Integration Platform

Energy companies commonly rely on many different mission-critical applications, each including some financial elements, for day-to-day operations. Tracking and managing disparate information sources can be difficult and prone to error. To help ensure accurate and complete financial reporting, companies need to be able to integrate data from multiple applications into a primary financial system.

The solution’s modular architecture simplifies the process of integrating mission-critical applications with a company’s existing financial system. By integrating financial elements of operations into a single view, Energy Financial Management for Microsoft Dynamics AX streamlines disparate systems such as exploration and drilling management tools. Linking processes between disciplines and capitalizing on business data helps companies enhance operational performance, improve reporting accuracy, increase overall effectiveness, and gain important insight from their financial data, insight that supports well-informed and confident business decision-making.

Deep integration with Microsoft® SQL Server™ and Oracle corporate databases enables companies to use a single source for all their financial information. One information source gives companies the advantage of accurate, up-to-date financial information and increased security and control.

Energy Financial Management for Microsoft Dynamics AX is designed as a tightly integrated sub-ledger to Microsoft Dynamics AX, and it integrates with other energy industry modules such as Land, Well Life Cycle, and Production Revenue Accounting. It also integrates with modules developed in-house, simplifying development and maintenance.

Figure 1 outlines the integration model, with Energy Financial Management for Microsoft Dynamics AX at the center. Notice how the solution incorporates data from many diverse sources, streamlining financial processes and integrating disparate sources of data into one primary financial system. By linking processes

between disciplines and integrating business data across the infrastructure, companies gain operational advantage and benefit from insight they can develop from the integrated data.

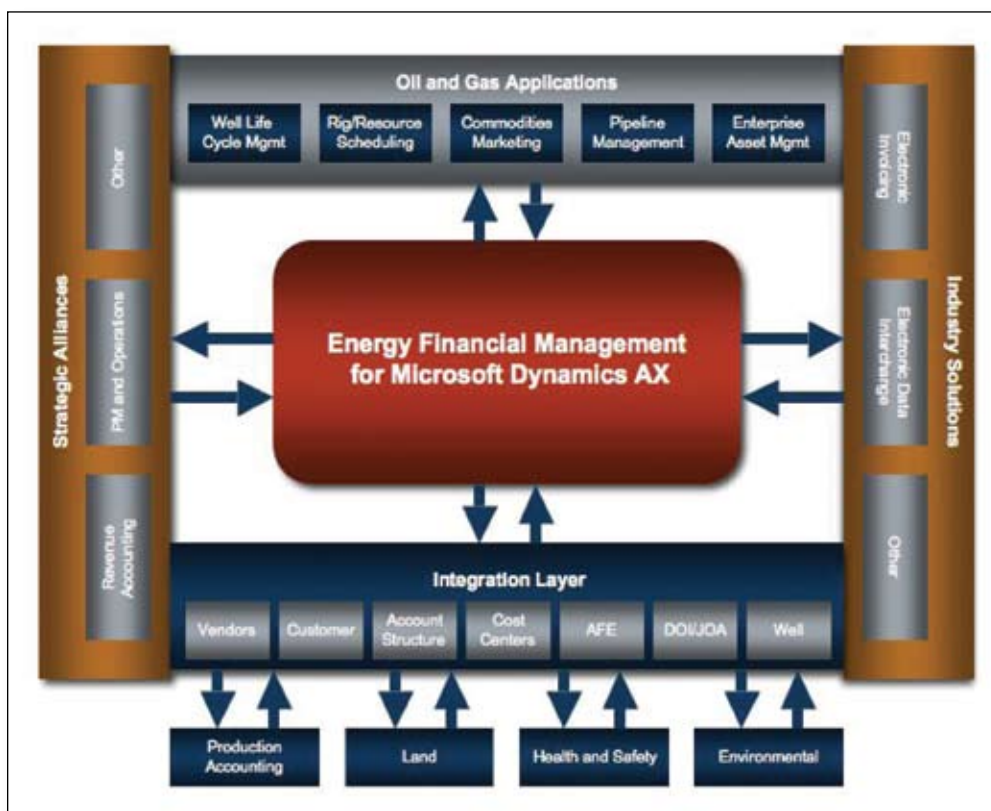


Figure 1: Energy Financial Management for Microsoft Dynamics AX provides a robust platform that integrates multiple financial systems into a single, comprehensive system.

Solution Advantages

The dynamic nature and rigorous operating demands of the oil and gas and mining industries emphasize the need for custom financial management solutions. Traditional financial management solutions, built for general business requirements, simply can't meet the needs of oil and gas and mining companies. Customizing a traditional, generic solution (when it is even possible) can be extremely expensive, time-consuming, and complex. With Energy Financial Management for Microsoft Dynamics AX, the special customization that oil and gas and mining companies require is already done.

Companies do not want to retool their business processes to adapt to a solution. They want a financial management solution that can be configured to support their existing business processes and be able to adapt to changes in the company.

To be effective, a financial management solution must integrate with other industry-specific applications and must be scalable to help companies quickly respond to the changes brought about by growth, mergers, and acquisitions. And the solution must support international business requirements. Energy Financial Management for Microsoft Dynamics AX provides advantages on all of these dimensions.

Delivering an integrated, robust, comprehensive financial management solution for oil and gas and mining companies, Energy Financial Management for Microsoft Dynamics AX is:

- Flexible and configurable.
- Tailored to industry-specific requirements.
- Scalable.
- International.

Flexible

Companies can avoid costly customization by taking advantage of the solution's flexibility. Traditional accounting systems typically have little ability to adapt to even minor modifications or user preferences, while most enterprise resource planning (ERP) solutions require extensive customization to be effective. The modular nature of Energy Financial Management for Microsoft Dynamics AX means that it can be deployed out of the box, or it can be adapted to support industry best practices, specific business processes, or company preferences. Either way, because the solution adapts to the business need rather than the business having to adapt to the solution, companies benefit from increased efficiency and lower cost.

Tailored to Industry-Specific Requirements

Traditional accounting systems are not designed to meet the industry-specific requirements of energy companies. With its open and modular design, Energy Financial Management for Microsoft Dynamics AX is tailored to the unique financial requirements of oil and gas and mining companies to manage joint ventures and expenditures.

Figure 2 illustrates the differences between Energy Financial Management for Microsoft Dynamics AX and traditional accounting systems and ERP solutions. Notice that with a traditional accounting system, customer-specific adjustments are not available. The business components are preset and generic. Companies must adjust to the system, not the other way around. Any customization is expensive and time-consuming. Although traditional ERP systems are customizable, they are extremely costly.

Because Energy Financial Management for Microsoft Dynamics AX is designed specifically for the oil and gas and mining industries, it delivers a functional advantage with industry-specific features. Customization is not needed, and any necessary customer-specific adjustments are easily made by using the standard Microsoft Dynamics AX development environment.

Similarly, conventional ERP systems are not designed to meet the industry-specific needs of oil and gas and mining companies and require extensive and expensive customization to be effective. Energy Financial Management for Microsoft Dynamics AX is designed to remain flexible for the unique requirements or preferences of oil and gas and mining enterprises.

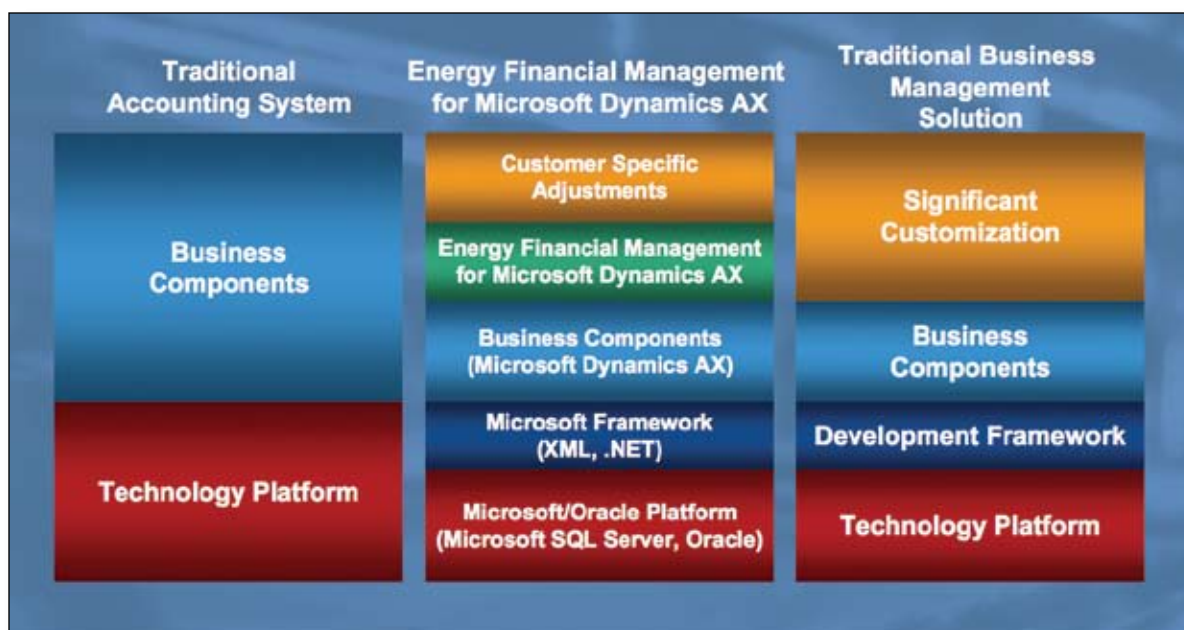


Figure 2: Energy Financial Management for Microsoft Dynamics AX provides a level of customization and flexibility unavailable in traditional accounting and ERP systems.

Scalable

With mergers and acquisitions the norm in the energy industry, new companies are commonly formed by combining two or more organizations together, requiring the new companies to manage growth as well as to blend multiple systems and processes. Solutions for dynamic energy industry companies must be scalable to accommodate these frequent corporate changes. Because the Energy Financial Management solution comes predesigned and integrated with Microsoft Dynamics AX, it delivers superior performance and functionality out of the box and also has the capability to expand and extend as business grows or changes. Designed to scale from a single client desktop to a multiuser, multiserver environment, Energy Financial Management for Microsoft Dynamics AX adapts to the demands of changing infrastructure in oil and gas and mining companies.

International

Most energy companies will operate internationally at some time, so having a solution that includes multilocation, multicurrency, and multilanguage support offers significant advantages. Users of the system can work in screens displaying labels in their language of preference while still updating a single, centralized database. Because it is built on Microsoft Dynamics AX, the Energy Financial Management solution includes international support and enables compliance with local accounting and reporting standards of the international market while at the same time helping companies meet home-country financial reporting requirements.

Features and Functionality

Energy Financial Management for Microsoft Dynamics AX goes beyond simply providing customization for companies in the oil and gas and mining industries; it delivers features and functionality that help companies build competitive advantage with a strong foundation for all their financial management needs. Energy Financial Management for Microsoft Dynamics AX helps companies:

- Manage cost centers and properties effectively.
- Control authorization for expenditures smoothly and track costs with precision.
- Streamline division of interest processes for effective operations.
- Manage joint-venture partner billing and control costs within a single system.

Figure 3 maps the solution overall. At the base, the Microsoft Dynamics AX foundation provides a robust platform that features core functionality such as financial management and business analytics, and comprehensive business management solution functionality such as human resources management, supply chain and materials management, and customer relationship management.

In the next layer, Authorization for Expenditure (AFE), Division of Interest (DOI), and Joint-Venture Billing (JVB) functionality streamlines specific business processes and helps companies manage costs and improve operations. Creating and enforcing rules based on the company's unique policies happens in this layer. Cost Center management spans all of the other areas of the process, whether budgeting for costs on AFEs, managing the percentage splits on DOIs, or billing partners through JVBs.



Figure 3: Map of the Energy Financial Management for Microsoft Dynamics AX solution.

Cost Center Controls

Whether your cost center is a well, battery, or other type of project or facility, understanding and tracking costs at all levels is necessary for business success. Energy Financial Management for Microsoft Dynamics AX simplifies managing cost centers and properties at all stages—from exploration through production—by assigning activities and costs to reporting hierarchies. The automatic calculation of overhead charges to cost centers based on fixed or variable rules enables you to accurately calculate costs that are billable to your joint-venture partners.

Authorization for Expenditure (AFE)

In addition to tracking and understanding costs, sound financial management requires the ability to control capital expenditures and to measure actual against budgeted costs on both a gross and a net basis. Built-in reports and alerting tools will help you gather approvals on an AFE both internally and from your partners. By automating updates and threshold warnings, Energy Financial Management for Microsoft Dynamics AX gives you a high level of control over and confidence in the accuracy of the data. E-mail alerts can be created in the system to inform management of the need to control costs closely or create a supplement to an existing AFE. Cash call functionality at the AFE level enables you to quickly create cash call invoices to your partners to request advance payments on large capital projects.

Figure 4 shows how the intuitive user interface provides details that help managers make confident decisions about expenditures.

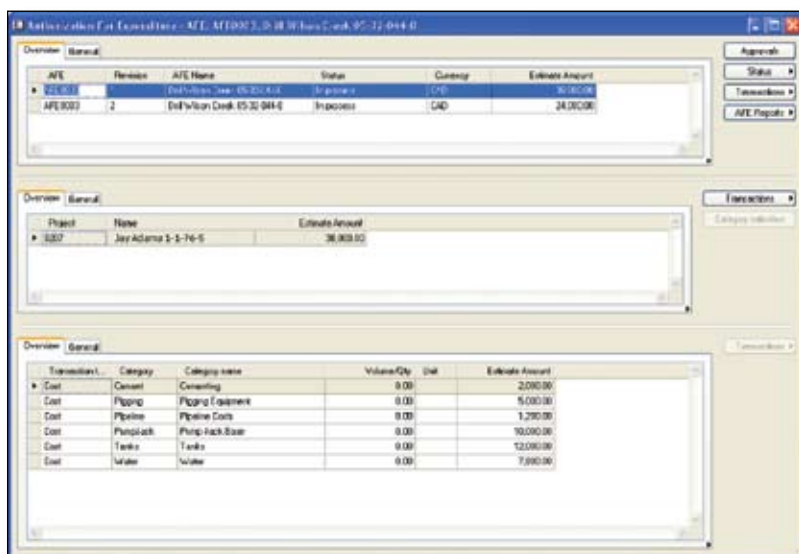


Figure 4: The Authorization for Expenditure screen gives details that help managers make confident decisions about expenditures.

Division of Interest (DOI)

Energy Financial Management for Microsoft Dynamics AX also provides the ability to create all DOI rules as established in your joint interest agreements with partners. Setting flexible date-effective division of interest and account-based exceptions is easily done from a single screen, as shown in Figure 5. A wizard is also available to create a new division of interest or a revision to an existing division of interest. When a DOI revision needs to be terminated because it was set up incorrectly, or if the agreement has changed, users can run a Reverse/Rebook function to correct any costs that had been previously posted. The correct DOI will then be created, and a full audit trail will be maintained when the rebooked costs are split.

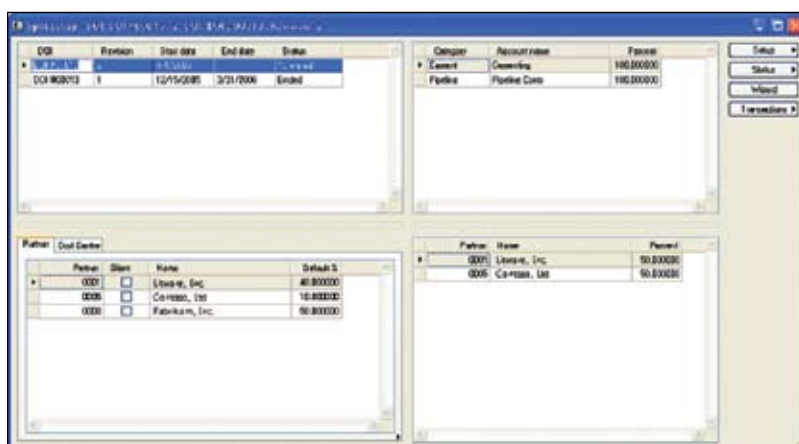


Figure 5: Manage division of interest and account-based exceptions from one screen.

Joint-Venture Billing (JVB)

In an industry that commonly engages in joint ventures, having a flexible and robust JVB system is essential. Automating distribution and billing processes for joint ventures supports creating and enforcing billing rules established by the company's unique billing policies, making it possible to control cost processes within the same system and increase efficiency and accuracy overall. Any outstanding cash calls from a partner will be automatically deducted from a billing with a full audit trail of how these costs have been spent, providing the partners with details on all expenditures. Energy Financial Management for Microsoft Dynamics AX does not restrict the billing process to only occur at the end of the month. The system will enable billings to occur when required, which can help alleviate cash flow challenges and may support specific contractual agreements with partners.

Technical Overview

Energy Financial Management for Microsoft Dynamics AX takes advantage of the modular and scalable three-tier, object-oriented architecture of Microsoft Dynamics AX and is developed using the Microsoft Dynamics AX Integrated Development Environment (IDE).

The three-tier architecture with Application Object Server (AOS) technology of the Microsoft Dynamics AX platform enables remote users to access financial data while it helps keep the data secure. Because the object server is placed between users and the database, users can get accurate, up-to-date information when they need it without directly accessing the database. AOS technology uses a range of security measures to help keep the financial system secure, and when it is configured in conjunction with the standard security system, you can configure the system to support a role-based environment. The role-based environment enables your financial users to view and control the financial inputs and outputs applicable to their departments while the operational team, including engineers and project managers, can view operational information and make informed decisions about future projects.

Companies benefit because development for Microsoft Dynamics AX is streamlined, additional customization is easier, and the overall cost of adapting and tailoring changes to meet customer-specific requirements is reduced. Application layers enable you to store customer-specific adjustments in an isolated layer so the changes are easily identifiable from a development perspective and much easier to upgrade to future versions.

Flexibility, scalability, and integration are built into the solution, and multiple integration methods are available to meet differing customer needs.

Conclusion

Powered by the robust Microsoft Dynamics AX platform, the Energy Financial Management solution provides a world-class accounting system, a strong foundation for a stable, reliable, comprehensive business management system, and an integration platform that streamlines financial management for oil and gas and mining companies.

Energy Financial Management for Microsoft Dynamics AX provides a single, accurate view of all financial information and delivers built-in controls that make it easy to monitor expenditures, enforce billing rules, and satisfy corporate governance and other reporting requirements with increased accuracy and control.

Powerful, flexible, integrated, scalable. Energy Financial Management for Microsoft Dynamics AX delivers exceptional, world-class integrated financial management to oil and gas and mining companies.

About Microsoft Dynamics

Microsoft Dynamics is a line of financial, customer relationship, and supply chain management solutions that help businesses work effectively. Delivered through a network of channel partners that provide specialized services, these integrated, adaptable business management solutions work like and with familiar Microsoft software to streamline processes across an entire business.

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