



EMK3 Risk Management - Credit Module

Assure credit policy compliance by managing credit exposure real-time

Crude Oil Natural Gas NGL Hedges

In today's volatile corporate environment and unstable oil and gas prices, many E&P companies are putting more focus on credit management. Balancing exposure across multiple counterparties and monitoring credit limits is critical to an oil and gas producer's business.

The **Credit Module** is designed for oil and gas producers to effectively and efficiently monitor vital credit activities. This module allows you to capture all credit terms, maintain accurate account balances, and value all physical and financial (hedge) transactions to give you real-time credit exposure. Exposure can be evaluated 30, 60, 90 or more days into the future and reported by counterparty.

Key Features

- **Capture Counter-Party Credit Parameters:** Capture various credit parameters for each counter-party including Credit Rating, Credit Score, LC, Parental Guarantee and more.
- **Calculate Credit Exposure:** Forecast credit exposure out 30, 60, 90 or more days. Support for multiple volume and price forecasting methodologies.
- **Include Physical and Financial Transactions:** Get a complete credit assessment by combining both physical sales and financial hedges.
- **Accurate Account Balances:** Integrate with your accounting system to include accurate unpaid balances into your credit assessment.
- **Integrate NYMEX Forward Curves:** Forecast sales for future months by integrating forward curve basis differentials from CME NYMEX Clearport.
- **Multiple Exposure Profiles:** Create multiple credit exposure profiles for each counterparty to assess credit exposure from different parameters.
- **Multiple Credit Lines:** Enter multiple credit lines for each counterparty and assess credit exposure by credit line.
- **Graphical Analysis:** With dashboard technology, visually and interactivity monitor all credit exposures at both the summary and detail levels.
- **Supports Crystal Reports:** Supports Crystal Reports as the reporting engine, offering a powerful and flexible reporting solution.
- **Generate Reports:** Credit Detail, Credit Summary, Historic Revenue, and more.

Fig. 1 – Credit Analysis

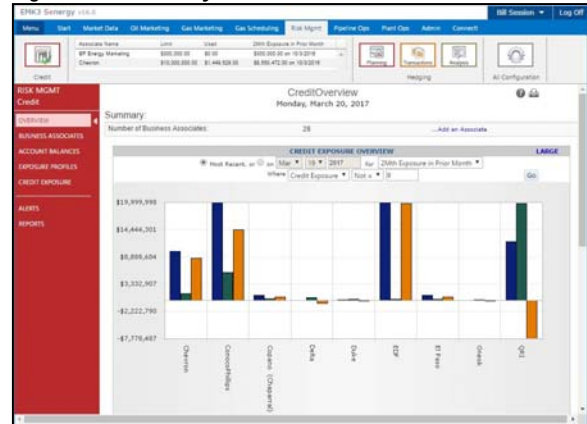


Fig. 2 – Credit Rating and Credit Score

Associate Name	Credit Limit	Credit Rating	Rating Date	Credit Score	Score Date	Next Review
BP Energy Marketing	\$300,000,000	AAA	5/1/2013	AAA	5/1/2013	5/1/2013
BP Fuel	\$25,000,000,000	B+	5/1/2009	89		
Chesapeake	\$25,000,000,000	AAA	5/1/2014	AAA	5/1/2014	5/1/2015
ConocoPhillips	\$25,000,000,000	A++	5/1/2013			
Company A	\$9,250,000,000	A+	5/1/2013			
Company B	\$9,250,000,000	B	5/1/2013			
Company C	\$4,750,000,000	A	5/1/2013			
Company D	\$4,750,000,000	B++	5/1/2013			
Company E	\$2,500,000,000	B+	5/1/2013			
ConocoPhillips	\$25,000,000,000	A++	5/1/2009	Low Risk	4/9/2009	5/1/2013
Exxon (Chevron)	\$1,000,000,000	A	5/1/2013	89	5/1/2013	5/1/2013
Exxon	No Credit					
Duke	\$200,000,000	AAA	5/1/2014	AAA	5/1/2014	5/1/2015

Fig. 3 – Calculated Credit Exposure

Exposure Date	Business Associate	Exposure Profile	Total Exposure	Def. Profile Credit Avail.
12/15/2014	ConocoPhillips	2014 Exposure in Prior Month	\$5,884,753.49	\$14,115,246.51
10/15/2014	BP Energy Marketing	2014 Exposure in Prior Month	\$5.00	\$300,000,000.00
10/15/2014	Chesapeake	2014 Exposure in Prior Month	\$1,448,528.00	\$8,551,472.00
10/15/2014	Chesapeake	2014 Exposure in Prior Month	\$5.00	\$25,000,000.00
10/15/2014	Company B	2014 Exposure in Prior Month	\$5.00	\$9,250,000,000.00
10/15/2014	Company C	2014 Exposure in Prior Month	\$5.00	\$4,750,000,000.00
10/15/2014	Company D	2014 Exposure in Prior Month	\$5.00	\$4,750,000,000.00
10/15/2014	Company E	2014 Exposure in Prior Month	\$5.00	\$2,500,000,000.00
10/15/2014	ConocoPhillips	2014 Exposure in Prior Month	\$3,537,437.00	\$16,462,563.00
10/15/2014	Exxon (Chevron)	2014 Exposure in Prior Month	\$74,488.00	\$425,512.00
10/15/2014	Duke	2014 Exposure in Prior Month	\$257,264.00	\$1,742,736.00
10/15/2014	Duke	2014 Exposure in Prior Month	\$276,845.00	\$18,723,155.00
10/15/2014	BP	2014 Exposure in Prior Month	\$225,649.42	\$19,769,350.58
10/15/2014	BP Fuel	2014 Exposure in Prior Month	\$295,826.40	\$766,173.60
10/15/2014	Exxon	2014 Exposure in Prior Month	\$133,175.15	\$7,000,000.00
10/15/2014	Exxon	2014 Exposure in Prior Month	\$225,759,500.00	\$1,774,240,500.00