

The Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market 2012-2022

https://marketpublishers.com/r/CC61D2731D6EN.html

Date: September 2012 Pages: 111 Price: US\$ 2,633.00 (Single User License) ID: CC61D2731D6EN

Abstracts

As oil production is maturing in many parts of the world and oil supply tightening, enhanced oil recovery is seeing growing interest to monetise the remaining oil reserves of many domestic markets. Carbon dioxide enhanced oil recovery is very efficient as a tertiary recovery technique, especially in fields that have been waterflooded. It also sequesters the undesirable gas in contained hydrocarbon formations, assisting in mitigating an increase in carbon emissions. While historically, naturally occurring carbon dioxide drove growth in EOR projects, the advent of carbon capture technology and its combination with EOR projects is seeing tremendous development. Visiongain has determined that the value of the global carbon dioxide enhanced oil recovery market in 2012 will reach \$4.2bn.

What makes this report unique?

Visiongain consulted widely with industry experts and a full transcript of one of these exclusive interviews is included in the report. As such, our reports have a unique blend of primary and secondary sources providing informed opinion. The report provides insight into key drivers and restraints behind project developments, as well as identifying leading companies. The report also provides a unique blend of qualitative analysis combined with extensive quantitative data including global and national market forecasts from 2012-2022 - all highlighting key business opportunities.

Why you should buy The Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market 2012-2022

110 pages of comprehensive analysis



An exclusive visiongain interview with the President of Enhance Energy

61 tables, charts, and graphs

Global carbon dioxide enhanced oil recovery market forecasts between 2012-2022

5 leading national carbon dioxide enhanced oil recovery market forecasts between 2012-2022, as well as for Europe and the rest of the world Brazil

China

Canada

United Arab Emirates

United States

Europe

Rest of the World (ROW)

8 detailed tables of significant carbon dioxide to EOR projects

A SWOT analysis

21 leading companies identified and profiled -Anadarko Petroleum Corporation

Apache Corporation

Cenovus Energy Inc.

Chaparral Energy Inc.

Chevron Corporation



China National Petroleum Corporation (CNPC)

ConocoPhillips Company

Core Energy

Denbury Resources

Devon Energy Corporation

Energen Resources Corporation

ExxonMobil Corporation

Fasken Oil and Ranch Ltd.

Hess Corporation

Kinder Morgan

Masdar

Merit Energy Company

Occidental Petroleum Corporation

Petroleo Brasileiro S.A. (Petrobras)

Sinopec Group

Whiting Petroleum Corporation

You can order this report today

Gain an understanding of how to tap into the potential of this market by ordering The Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market 2012-2022



Contents

1. EXECUTIVE SUMMARY

1.1 An Overview of the Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market

- 1.2 The Scope of this Report
- 1.3 Highlights of this Report
- 1.4 Methodology
- 1.5 The Global Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market

1.6 National and Regional Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Markets

2. INTRODUCTION TO THE CARBON DIOXIDE (CO2) ENHANCED OIL RECOVERY (EOR) MARKET

- 2.1 Major Costs Involved in CO2 EOR Operations
- 2.2 Miscible and Immiscible CO2 EOR Methods
- 2.3 Where is Carbon Dioxide Sourced?
- 2.4 Advantages and Disadvantages of Using CO2 for EOR

3. THE GLOBAL CARBON DIOXIDE (CO2) ENHANCED OIL RECOVERY (EOR) MARKET

3.1 The Global Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market Forecast 2012-2022

3.2 Current and Planned CO2 EOR Projects

4. LEADING NATIONAL CARBON DIOXIDE (CO2) ENHANCED OIL RECOVERY (EOR) MARKETS

4.1 The US Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market Forecast 2012-2022

- 4.1.1 Current US Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects
- 4.1.2 New US Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects
- 4.1.3 Analysis of the US Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market

4.2 The Chinese Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market Forecast 2012-2022

4.2.1 Current Chinese Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects 4.2.2 New Chinese Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects



4.2.3 Analysis of the Chinese Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market

4.3 The Canadian Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market Forecast 2012-2022

4.3.1 Current Canadian Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects

4.3.2 New Canadian Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects

4.3.3 Analysis of the Canadian Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market

4.4 The UAE Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market Forecast 2012-2022

4.4.1 New UAE Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects 4.4.2 Analysis of the UAE Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR)

Market

4.5 The Brazilian Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market Forecast 2012-2022

4.5.1 Current Brazilian Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects

4.5.2 New Brazilian Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects

4.5.3 Analysis of the Brazilian Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market

4.6 The European Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market Forecast 2012-2022

4.6.1 Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects in the United Kingdom

4.6.2 Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects in the Netherlands

4.6.3 Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects in the Rest of Europe

4.6.4 Analysis of the European Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market

4.7 The Rest of the World Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market Forecast 2012-2022

4.7.1 Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Projects in the Rest of the World

4.7.2 Analysis of the Rest of the World Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market

4.8 A Comparison of National Market Growth Rates 2012-2022

5. SWOT ANALYSIS OF THE CARBON DIOXIDE (CO2) ENHANCED OIL RECOVERY (EOR) MARKET



5.1 Strengths

- 5.1.1 Vast Geological Storage Potential in Oil Fields
- 5.1.2 Extensive Industry Experience with CO2 EOR
- 5.1.3 Billions of Barrels of Added Oil Yield
- 5.1.4 Many Fields Approaching Limit of Waterflood Recovery Potential
- 5.1.5 High Cost of Decommissioning Oil and Gas Infrastructure

5.2 Weaknesses

- 5.2.1 Limited CO2 Availability
- 5.2.2 High Cost of Carbon Capture
- 5.2.3 Limited Financial Incentives to Invest
- 5.2.4 Tight Financing
- 5.2.5 Longer Return on Investment Period
- 5.3 Opportunities
 - 5.3.1 Anthropogenic CO2 Supply
 - 5.3.2 Residual Oil Zones (ROZ)
 - 5.3.3 Offshore CO2 EOR Application
 - 5.3.4 Carbon Trading and Cost Reductions
- 5.4 Threats
 - 5.4.1 Fall in Oil Price to under \$80/bbl
 - 5.4.2 Carbon Dioxide Leakage and Environmental Issues
 - 5.4.3 Limited or No Government Funding
 - 5.4.4 Offshore Decommissioning and Well Abandonment
 - 5.4.5 Poorly Conducted Onshore Decommissioning

6. EXPERT OPINION

- 6.1 Enhance Energy
 - 6.1.1 The Rationale Behind the Alberta Carbon Trunk Line Project
 - 6.1.2 High Oil Prices Remain Critical
 - 6.1.3 The Effect of a Carbon Price on CO2 EOR Operations
 - 6.1.4 Influence of Government Funding
 - 6.1.5 The Rise of Anthropogenic CO2
 - 6.1.6 The ACTL Project Timeline
 - 6.1.7 Reducing the Environmental Impact of Oil Sands Projects
 - 6.1.8 Incentives for Carbon Capture in Canada
 - 6.1.9 Demand for CO2 in Southern Alberta
 - 6.1.10 Prospects for the CO2 EOR Market



7. LEADING COMPANIES IN THE CARBON DIOXIDE (CO2) ENHANCED OIL RECOVERY (EOR) MARKET

- 7.1 Anadarko Petroleum Corporation
- 7.2 Apache Corporation
- 7.3 Cenovus Energy Inc.
- 7.4 Chaparral Energy Inc.
- 7.5 Chevron Corporation
- 7.6 China National Petroleum Corporation (CNPC)
- 7.7 ConocoPhillips Company
- 7.8 Core Energy
- 7.9 Denbury Resources
- 7.10 Devon Energy Corporation
- 7.11 Energen Resources Corporation
- 7.12 ExxonMobil Corporation
- 7.13 Fasken Oil and Ranch Ltd.
- 7.14 Hess Corporation
- 7.15 Kinder Morgan
- 7.16 Masdar
- 7.17 Merit Energy Company
- 7.18 Occidental Petroleum Corporation
- 7.19 Petroleo Brasileiro S.A. (Petrobras)
- 7.20 Sinopec Group
- 7.21 Whiting Petroleum Corporation

7.22 Other Companies Involved in the Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market

8. CONCLUSIONS

- 8.1 The Global Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market
- 8.2 The National Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Markets

8.3 Concluding Analysis of the Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market

9. GLOSSARY

LIST OF TABLES

Table 2.1 Advantages and Disadvantages of Using CO2 for EOR



Table 3.1 Global Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m, AGR %)

Table 3.2 Global Carbon Dioxide Enhanced Oil Recovery Market Forecast CAGR (%) 2012-2022, 2012-2017, and 2017-2022

Table 4.1 Leading National Carbon Dioxide Enhanced Oil Recovery Markets Forecast 2012-2022 (\$m, AGR %)

Table 4.2 Leading National Carbon Dioxide Enhanced Oil Recovery Markets Forecast CAGR (%) 2012-2022, 2012-2017, & 2017-2022

Table 4.3 US Carbon Dioxide Enhanced Oil Recovery Market Forecast Summary 2012, 2017 and 2022 (\$m, Rank, % Share, CAGR %, Cumulative)

Table 4.4 US Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m, AGR %)

Table 4.5 US Carbon Dioxide Enhanced Oil Recovery Market Forecast CAGR (%) 2012-2022, 2012-2017, and 2017-2022

Table 4.6 Current Anthropogenic Carbon Dioxide Sources in the US (Location, Companies, Start Date and Size)

Table 4.7 Anthropogenic Carbon Dioxide Sources Under Construction in the US(Location, Companies, Status and Size)

Table 4.8 Proposed Anthropogenic Carbon Dioxide Sources in the US (Location, Companies, Potential Start Up and Size)

Table 4.9 Chinese Carbon Dioxide Enhanced Oil Recovery Market Forecast Summary 2012, 2017 and 2022 (\$m, Rank, % Share, CAGR %, Cumulative)

Table 4.10 Chinese Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m, AGR %)

Table 4.11 Chinese Carbon Dioxide Enhanced Oil Recovery Market Forecast CAGR (%) 2012-2022, 2012-2017, and 2017-2022

Table 4.12 Chinese Carbon Dioxide Capture Projects Linked to Enhanced Oil Recovery (Location, Companies, Potential Start Up and Size)

Table 4.13 Canadian Carbon Dioxide Enhanced Oil Recovery Market Forecast Summary 2012, 2017 and 2022 (\$m, Rank, % Share, CAGR %, Cumulative)

Table 4.14 Canadian Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m, AGR %)

Table 4.15 Canadian Carbon Dioxide Enhanced Oil Recovery Market Forecast CAGR (%) 2012-2022, 2012-2017, and 2017-2022

Table 4.16 Current Canadian Carbon Dioxide Enhanced Oil Recovery Projects(Location, Companies, Start Date)

Table 4.17 Canadian Carbon Dioxide Capture Projects Linked to Enhanced OilRecovery (Location, Companies, Status, and Size)

Table 4.18 Planned Canadian Carbon Dioxide Capture Projects Linked to Enhanced Oil



Recovery Projects (Location, Companies, Potential Start Up, Size)

 Table 4.19 UAE Carbon Dioxide Enhanced Oil Recovery Market Forecast Summary

2012, 2017 and 2022 (\$m, Rank, % Share, CAGR %, Cumulative)

Table 4.20 UAE Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m, AGR %)

Table 4.21 UAE Carbon Dioxide Enhanced Oil Recovery Market Forecast CAGR (%) 2012-2022, 2012-2017, and 2017-2022

Table 4.22 Planned Carbon Dioxide Capture Projects Linked to Enhanced Oil Recovery in the UAE (Location, Companies, Potential Start Up, Size)

Table 4.23 Brazilian Carbon Dioxide Enhanced Oil Recovery Market Forecast Summary 2012, 2017 and 2022 (\$m, Rank, % Share, CAGR %, Cumulative)

Table 4.24 Brazilian Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m, AGR %)

Table 4.25 Brazilian Carbon Dioxide Enhanced Oil Recovery Market Forecast CAGR (%) 2012-2022, 2012-2017, and 2017-2022

Table 4.26 European Carbon Dioxide Enhanced Oil Recovery Market Forecast Summary 2012, 2017 and 2022 (\$m, Rank, % Share, CAGR %, Cumulative)

Table 4.27 European Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m, AGR %)

Table 4.28 European Carbon Dioxide Enhanced Oil Recovery Market Forecast CAGR (%) 2012-2022, 2012-2017, and 2017-2022

Table 4.29 Rest of the World Carbon Dioxide Enhanced Oil Recovery Market Forecast Summary 2012, 2017 and 2022 (\$m, % Share, CAGR %, Cumulative)

Table 4.30 Rest of the World Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m, AGR %)

Table 4.31 Rest of the World Carbon Dioxide Enhanced Oil Recovery Market Forecast CAGR (%) 2012-2022, 2012-2017, and 2017-2022

Table 5.1 SWOT Analysis of the Carbon Dioxide Enhanced Oil Recovery Market2012-2022



List Of Figures

LIST OF FIGURES

Figure 2.1 Regional Carbon Dioxide Emissions 2000-2010 (Million Tonnes)

Figure 2.2 Long-Term Carbon Capture Goals by OECD Region, 2030 and 2050 (Billion Tonnes)

Figure 3.1 Global Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m)

Figure 3.2 Number of Active Carbon Dioxide Enhanced Oil Recovery Projects by Country

Figure 3.3 Number of New Carbon Dioxide Enhance Oil Recovery Projects Linked to Anthropogenic Sources by Country

Figure 4.1 Leading National Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m)

Figure 4.2 US Carbon Dioxide Enhanced Oil Recovery Market Share Forecast 2012, 2017 and 2022 (% Share)

Figure 4.3 US Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m)

Figure 4.4 Carbon Dioxide Enhanced Oil Recovery Projects by State 2012

Figure 4.5 Location of US Carbon Dioxide Enhanced Oil Recovery Projects, Carbon Dioxide Sources and Carbon Dioxide Pipelines

Figure 4.6 Naturally Occurring Carbon Dioxide Sources in the US (Million cubic feet per day)

Figure 4.7 Chinese Carbon Dioxide Enhanced Oil Recovery Market Share Forecast 2012, 2017 and 2022 (% Share)

Figure 4.8 Chinese Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m)

Figure 4.9 Canadian Carbon Dioxide Enhanced Oil Recovery Market Share Forecast 2012, 2017 and 2022 (% Share)

Figure 4.10 Canadian Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m)

Figure 4.11 UAE Carbon Dioxide Enhanced Oil Recovery Market Share Forecast 2012, 2017 and 2022 (% Share)

Figure 4.12 UAE Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m)

Figure 4.13 Brazilian Carbon Dioxide Enhanced Oil Recovery Market Share Forecast 2012, 2017 and 2022 (% Share)

Figure 4.14 Brazilian Carbon Dioxide Enhanced Oil Recovery Market Forecast



2012-2022 (\$m)

Figure 4.15 European Carbon Dioxide Enhanced Oil Recovery Market Share Forecast 2012, 2017 and 2022 (% Share)

Figure 4.16 European Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m)

Figure 4.17 Rest of the World Carbon Dioxide Enhanced Oil Recovery Market Share Forecast 2012, 2017 and 2022 (% Share)

Figure 4.18 Rest of the World Carbon Dioxide Enhanced Oil Recovery Market Forecast 2012-2022 (\$m)

Figure 4.19 2012-2022 CAGR Comparison of the Major Carbon Dioxide Enhanced Oil Recovery Markets (%)

Figure 4.20 2012-2017 and 2017-2022 CAGR Comparison of the Major Carbon Dioxide Enhanced Oil Recovery Markets (%)

Figure 8.1 US Carbon Dioxide Availability by Source 2000, 2012 and 2015 Forecast (million tonnes per year)

COMPANIES LISTED

2Co Energy Ltd Abu Dhabi Company for Onshore Oil Operations (ADCO) Abu Dhabi National Oil Company (ADNOC) Agrium Air Liquide Air Products & Chemicals Alstom Anadarko Petroleum Corporation Apache Canada **Apache Corporation ARC** Resources Arch Coal **Blue Source** Bow City Power Limited BP plc Caribbean Nitrogen Company Ltd (CNC) Cenovus Energy Inc. Chaparral Energy Inc. **Chevron Corporation** China Datang Corporation China National Petroleum Corporation (CNPC)



- ConocoPhillips Company
- Core Energy
- CPS Energy
- **CVR** Energy
- Denbury Resources
- Devon Canada
- Devon Energy Corporation
- **DKRW Energy**
- Dongguan Taiyangzhou Power Corporation
- Elk Petroleum
- Emirates Aluminium (EMAL)
- Emirates Steels Industries (ESI)
- Encana Corporation
- Energen Resources Corporation
- Enhance Energy
- Erora Group
- ExxonMobil
- Fasken Oil and Ranch Ltd.
- Fluor Corporation
- GE Energy
- Gerorge R. Brown Partnership
- Great Western Drilling
- **Hess Corporation**
- Honeywell UOP
- Hua Neng (Tian Jin) IGCC Company Limited
- Husky Energy
- Hydrogen Energy International
- IESA
- Japan Oil, Gas and Metals National Corporation (JOGMEC)
- Japan Vietnam Petroleum Co., Ltd (JVPC)
- JGC Corporation
- KBR
- Kinder Morgan
- Koch Industries
- Koch Nitrogen Company
- Leucadia Energy
- Leucadia National Corporation
- Lianyungang Clean Energy Innovation Industrial Park Ltd.
- Linde



LINN Energy Maersk Oil MAN Ferrostaal Masdar MCNIC Pipeline & Processing Company Merit Energy Company **Mississippi Power** National Grid Carbon Ltd Northwest Upgrading **NOVA Chemicals** NRG Energy Inc. **Occidental Petroleum Corporation** Peabody Energy Pengrowth PennWest Exploration PetroChina Petrofac Petroleo Brasileiro S.A. (Petrobras) Petroleum Company of Trinidad and Tobago Limited (PETROTRIN) PETRONAS Petrovietnam PROMAN **Resolute Natural Resources** Royal Dutch Shell (Shell) Sandridge Energy Saskpower SCS Energy Siemens Sinopec Group Southern Energy Statoil Summit Power Swan Hills Synfuels Talisman Energy Taweelah Asia Power Company (TAPCO) Tenaska Tianjin DaGang Huashi Total Toyota



Turkish Petroleum Corporation (TPAO) Whiting Petroleum Corporation Wolverine Power Cooperative XTO Energy

GOVERNMENT AGENCIES AND OTHER ORGANISATIONS MENTIONED IN THIS REPORT

British Geological Survey Bureau of Land Management (BLM) Edinburgh University Energy Information Administration (EIA) Environmental Protection Agency (EPA) European Union (EU) Heriot-Watt University National Enhanced Oil Recovery Initiative (NEORI) Organisation for Economic Cooperation and Development (OECD) Scottish Enterprise The Centre for North Sea Enhanced Oil Recovery with CO2 (CENSEOR-CO2) US Department of Energy (DOE) World Bank



I would like to order

Product name: The Carbon Dioxide (CO2) Enhanced Oil Recovery (EOR) Market 2012-2022 Product link: <u>https://marketpublishers.com/r/CC61D2731D6EN.html</u>

Price: US\$ 2,633.00 (Single User License / Electronic Delivery) If you want to order Corporate License or Hard Copy, please, contact our Customer Service: <u>info@marketpublishers.com</u>

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <u>https://marketpublishers.com/r/CC61D2731D6EN.html</u>

To pay by Wire Transfer, please, fill in your contact details in the form below:

First name: Last name: Email: Company: Address: City: Zip code: Country: Tel: Fax: Your message:

**All fields are required

Custumer signature _____

Please, note that by ordering from marketpublishers.com you are agreeing to our Terms & Conditions at <u>https://marketpublishers.com/docs/terms.html</u>

To place an order via fax simply print this form, fill in the information below and fax the completed form to +44 20 7900 3970