Overview

Energy is Essential

Chevron: Our Company and Our Operations

The Chevron Way: Getting Results the Right Way

What is Operational Excellence?

Operational Excellence Journey

Management System Process

Performance
Energy Is Essential
There are currently 1.3 billion people across the globe without access to electricity.
Affordable and Reliable Energy

Demand Growth 2010-2035
Quadrillion Btu


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We’ll Need All Forms of Energy to Satisfy Demand

It’s an “and” world

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<th>2035 Global Energy Demand</th>
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Oil, natural gas, coal and nuclear

...and alternatives and renewables
Geothermal, solar, wind and biofuels

...and energy efficiency
The easiest, most cost-effective and reliable form of “new” energy available
Building a Common OE Vision

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AIChE / SACHE Faculty Workshop August 18-20, 2017
Over 100 years…
Delivering energy to our customers

1907
Our first service station was built in Seattle, Washington

2014
Approaching 20,000 stations all across the world, representing three brands

Our Family of Brands

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Chevron
The Numbers

61,000 employees

2.6 million BOE daily net production

2.0 million BPD refining capacity

Operate globally in North America, South America, Europe, Eurasia, Middle East, Africa and Asia-Pacific
Chevron
An Integrated Energy Company

Upstream
Oil and natural gas exploration and production

Midstream
Shipping and pipeline

Downstream
Manufacturing, trading and marketing of fuels, lubricants and chemicals
Upstream & Gas

Nearly 40 countries across 6 continents

Main activities

- Exploration
- Development – major capital projects
- Production
- Enhanced oil recovery
- Acquiring new assets
Upstream and Gas
Operating in 40 Countries Across 6 Continents

North America

Europe, Eurasia and Middle East

Africa and Latin America

Asia-Pacific

Areas of Operation
Technical Challenges
We must operate reliably today and grow for tomorrow

Expectations continue to increase

Internal/Company  Communities  Governments  Investors
Downstream & Chemicals

Manufacturing
14 fuel refineries

Lubricants and chemicals
Techron® fuel additive

Supply and marketing
18,000 branded outlets
The Chevron Way

Vision

At the heart of The Chevron Way is our vision—

to be the global energy company most referred to by people, partnerships and performance.

Our vision means:

- Safety provides energy products vital to sustainable economic progress and human development throughout the world.
- People and an organization with superior capabilities and investment.
- The partner of choice.
- The advancement of all stakeholders—customers, employees, government, local communities and our shareholders.
- Ours to achieve but how we achieve them.

Values

Our company’s foundation is built on our values, which distinguish us and guide our actions.

We conduct our business in a socially responsible and ethical manner. We respect the law, support universal human rights, protect the environment and benefit the communities where we work.

Integrity

We are trusted with others’ welfare. We must the highest standards of integrity at all business levels. We do what we say we will do. We are accountable and hold one another accountable to our words and our actions.

Trust

We work, support and trust each other and we strive to earn the trust of our colleagues and partners.

Diversity

We embrace the culture and respect the cultures in which we do business.

Innovate

We seek new opportunities and unique commercial solutions. We see our capacity to fine-produce big and technical ways to solve problems, our experience in innovation enables us for more times and deliver value.

Partnership

We are enthusiastic and committed to being a good partner to the communities in which we do business. We achieve business objectives with our customers, our shareholders, our communities and stakeholders.

Protecting People and the Environment

We place the highest priority on the health, quality of life and safety of our employees and the environment. We are to be admired for our high efficiency of Operational Excellence Management.

High Performance

We are committed to excellence in all and we strive to continuously improve about achieving results that motivate our own and those of others. We do energy and a sense of urgency.

Strategies

Our Strategic Plan sets direction, aligns our organization and differentiates us from the competition. It guides our actions to successfully manage risk and deliver shareholder value.

Enterprise Strategies

People

Invest in people to strengthen organizational capability and develop a talented global workforce that gets results the right way.

Execution

Execute with excellence.

Capitalization

Capitalization of our operational excellence and capital stewardship systems and discipline in cost management.

Growth

Grow profitably by utilizing our competitive advantages to maximize value from existing assets and capture new opportunities.

For more information:

The Chevron Way

http://www.chevron.com/chevronway

Strategic Plan

http://strategicplan.chevron.com/

Major Business Strategies

Upland

Grow profitably in core areas and build new legacy positions.

Downstream and Chemicals

Deliver competitive returns and grow earnings across the value chain.

Gas and Midstream

Deliver commercial and functional excellence to ensure the success of Upland and Downstream & Chemicals.

Technology

Sustain our performance through technology.

Renewable Energy & New Energy Efficiency

Invest in profitable renewable energy and energy efficient solutions.

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Protecting People and the Environment
A Core Value

Striving for an injury-free workplace

Operating with industry-leading integrity and reliability

Identifying and mitigating environmental and process safety risks

Maintaining the highest standard of environmental stewardship
Operational Excellence Journey
A Culture of Continuous Improvement

- Policy 530
  - Core Value Protecting People and Environment
  - Code of conduct to guide daily decisions
  - System approach for performance assurance
  - Best practices across the enterprise
  - Complete every task the right way every time

- Chevron PP&E Policy
- The Chevron Way
- Tenets of Operation
- Management System
- Standard Processes
- Operational Discipline

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OE Management System (OEMS)

Key Components

OEMS addresses:

- Roles and Responsibilities
- Accountability
- Activities and Tasks
- OE Behaviors
- OE Processes and Standards

Chevron’s Overview of the OEMS Document is publically available at: chevron.com/about/operationalexcellence
Measuring Process Safety Performance
Moving from lagging to leading metrics

Measurement

Tier 1 – Significant LOPC events
Tier 2 – Events of Lesser Consequence
Tier 3 – Challenges to Safety Systems
Tier 4 – Management System Indicators

Tier 1 Events
LOPC Events of Significant Consequence

Tier 2 Events
LOPC Events of Minor Consequence

Tier 3 Events
Challenges to Safety Systems

Tier 4 Events
Operating Discipline & Management System Performance Indicators
Personal Safety
Sustained Improvement

Chevron Days Away From Work Rate

Chevron Total Recordable Injury Rate
Benchmarking Performance & Measuring Improvement

Total Recordable Incident Rate
Incidents per 200,000 work hours

- In 2012, Chevron led our peer group in personal safety, as measured by injuries requiring time away from work.
- Our strong safety culture and our focused efforts in improving process safety will help us progress toward our goal of an incident-free operations.
Process Safety
Striving for Excellence

Recordable Process Fires in Chevron

Tier 1 Loss of Containment Incidents in Chevron

Volume of Oil Spills (>1bbl) to Land and Water

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Managing Risk
Continuing to enhance our capabilities

Technology
Make technology selections that reduce risk

Tools
Improve ability to understand the risk with better data and models

Competency
Develop competency at all levels
Setting Expectations
What is required

Elements
- Security of Personnel & Assets
- Facility Design & Construction
- Safe Operations
- Management of Change
- Reliability & Efficiency
- Third Party Services
- Environmental Stewardship
- Product Stewardship
- Incident Investigation
- Community & Stakeholder Engagement
- Emergency Management
- Compliance Assurance
- Legislative & Regulatory Advocacy

OE Management System
- Leadership Accountability
- Management System Process
- OE Expectations

Corporate-wide requirements:
- Put OE Processes and Standards in place to manage specific risks and/or opportunities
- There are 47 OE Expectations categorized under 13 elements
Operational Excellence Management System
How we manage the elements of Process Safety

Leadership Accountability

Management System Process

2 Facility Design & Construction
- Corporate Standard
- Technical Codes & Standards

3 Sale Operations
- Corporate Risk Management Process

4 Management of Change
- Management of Change Process

5 Reliability & Efficiency
- Corporate Standard Asset Integrity Management

6 Third Party Services
- Contractor HES Management Process

7 Incident Investigation
- Incident Investigation Process

8 Emergency Management
- Emergency Management Process

9 Compliance Assurance
- Corporate Compliance Assurance Process

Operational Readiness & Pre-Start up Procedures
- Corporate Standard Process Safety Information
- Corporate Standard Operating Procedures
- Managing Safe Work Process
- Training for Process Safety Competency