

Sustainability and Energy Production

Presented by
Signal Hill Petroleum



What is Sustainability?

City Definition

“...striking a balance between economic growth, social responsibility and environmental well-being...”



What is Sustainability?

SHP Definition

“Sustainability is meeting today’s needs without compromising the ability of future generations to meet their needs.”



What is Sustainable Energy Production?

The process of Energy Production needs to be *stable, viable* and create *shared value* to be sustainable.



What is Sustainable Energy Production?

“Stability” occurs when the process is both *socially* and *environmentally responsible*.



What is Sustainable Energy Production?

“Viability” occurs when the process achieves *stability* and is *economically feasible*.



What is Sustainable Energy Production?

“Shared Value” is when there is *viability* and a balance between private and public economic benefits is achieved.



Sustainable Energy Production Strategic Goals

- Water recycling and reuse
- Clean burn technology for combustion equipment
- Energy efficiency
- Pipeline and Tank Preventive Maintenance Programs
- Successful Integration of Energy Production and Community Development



Water Recycle & Reuse

- Large quantities of water required to re-pressure reservoir
 - Enhances oil and gas recovery
 - Maintains production over a longer period
- Major facilities and pipelines constructed to gather, treat and re-inject water
 - Approximately 4 million gallons of water per day recycled





Sustainable Energy Production Strategic Goals

Clean burn technology for combustion equipment



On-site Electricity Generation



On-site Electricity Generation

- More efficient and cost effective electrical power
- “Cleanest” electricity available
 - 5X cleaner than utility natural gas generating plants



Clean Burn Diesel Engines

- EPA Tier 4 standard
- New technology – significant emissions reduction
- *SHP first in the world* to use Tier 4 engines on oilfield equipment



Sustainable Energy Production Strategic Goals

Energy efficiency



Smart Well Drilling Program

- Produce less water - save resources
- Smaller motors = less electricity
- Saves time, resources and money



Pump-Off Controllers



Pump-Off Controllers

- Increase production efficiency
- Saves electricity
- Reduces mechanical wear on equipment



Sustainable Energy Production Strategic Goals

Pipeline and Tank
Preventive Maintenance Programs



Facility Preventative Maintenance

- On-going major investment in pipeline and tank integrity testing and replacement
 - Integrity testing program exceeds regulatory standards
- Environmental safeguard – zero discharge policy





Sustainable Energy Production Strategic Goals

Successful Integration of Energy Production
and Community Development







Sustainability and Energy Production

