TRINITY

OIL, FUEL, AND WATER SOLUTIONS

Trinity Refining and Safety Systems

Responsible Fossil Fuel Use

Fossil Fuels

By 2050 fossil fuels will continue to supply 70% of global energy needs*

Natural gas consumption will rise on average by 50% by 2050*

Global energy demand will increase by 1.8% per year.

* United States Energy Information Association (USEIA)

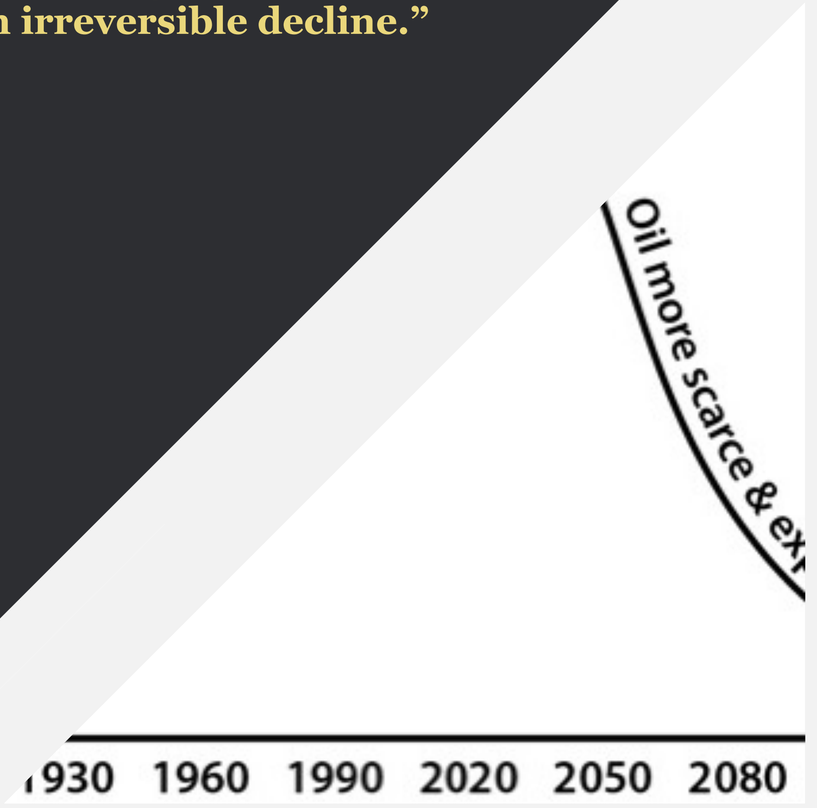
Fossil Fuel Challenges

Peak Oil

“Peak oil is a hypothetical point when global oil production maximizes and enters an irreversible decline.”

What’s pushing it?

- Global energy demand will increase by 47% by 2050*
- Demand outpaces reserves
- Prohibitive drilling and production costs
- Geopolitical (energy policy, war, trade, instability)
- An aggressive push for alternative energy sources
- Environmental (CO2, pollutants, permits, etc.)
- Oil prices



* United States Energy Information Association (USEIA)

Solutions

- Investments (technology and infrastructure)
- Innovations (hydrogen, carbon nanotubes, tidal)
- More efficient and reliable alternative energy solutions
- Pragmatic energy policies
- Natural gas transition
- Responsible fossil fuel use

Responsible Fossil Fuel Use

Decrease consumption through

efficient use of oil and fuel.

Save millions of gallons of oil per year

Reduce oil consumption

Lower oil disposal

Fuel efficiencies

Solutions

Refined Oil Filtering

Bypass method
Oil-based depth-media filter
1-micron filtering
Highly efficient

Fuel Conditioning

Better combustion efficiency
Fewer particulates in the oil
Increase hours and mileage

Trinity RSS

“A hydrocarbon bridge to alternative energy solutions”

Trinity RSS Capabilities Statement

Trinity Refining & Safety Systems is a second-generation patented oil & fuel filtering and conditioning technology. The unique line of products dramatically extends the life of oil and equipment while improving combustion efficiency and reducing customer costs across all oil & fuel-related industries, creating an improved greener solution.

MagFuel Technology™

MagMicron Technology™

MAKING GREEN GREENER TRINITY™

TRINITY

OIL, FUEL, AND WATER SOLUTIONS

Products and Applications

Three Product Lines

Oil, Fuel, & Water

Two Applications

Oil & Fuel Filtering
Fuel & Water Conditioning

Multiple Combinations

Conditioning
Filtering
Conditioning plus Filtering

Industries

Oil & Gas
Heavy Machinery
Marine
Aviation
Mining Trucking
Renewable Energy

Performance

Reduces oil consumption
Extends oil life
Improves combustion efficiency

Cost

Payout in months
ROI within a year
Increase operational efficiencies
Reduce maintenance
Decrease downtime
Increase equipment life

Green

Reduce oil use
Cut down on oil disposal
Improve combustion efficiency
Lessen emissions

Diverse Value

“A hydrocarbon bridge to alternative energy solutions.”

GLOBAL LUBRICANTS MARKET

The Global Lubricants Market was Valued at USD 131.48 billion in 2021 and is Expected to Reach USD 176.26 billion by the End of 2030 with a Compound Annual Growth Rate (CAGR) of 3.38% during the Forecast Period (2022–2030).

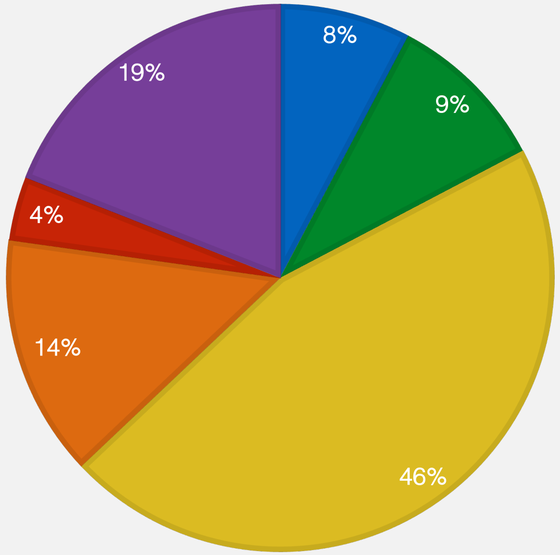
CAGR 2022-2030
3.38%

2021 USD
131.48 BILLION

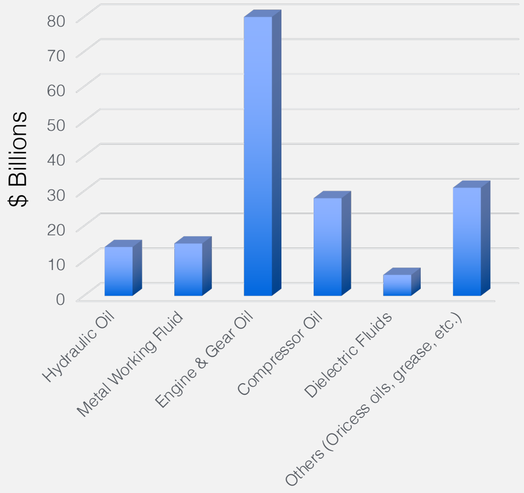
2030 USD
176.26 BILLION

MARKET SHARE

Less than 2% of the Lubrication market uses bypass filters



2030 Projection



MARKET SHARE, BY REGION 2021

NORTH AMERICA	EUROPE	ASIA-PACIFIC
28.06%	22.17%	37.50%

LATIN AMERICA	MIDDLE EAST & AFRICA
4.68%	7.59%

DRIVERS

- Expansion in the refinery capacities
- Increasing demand for high-speed engines fuelling the lubricants demand

OPPORTUNITY

- Growth in re-refining of lubricants

KEY PLAYERS

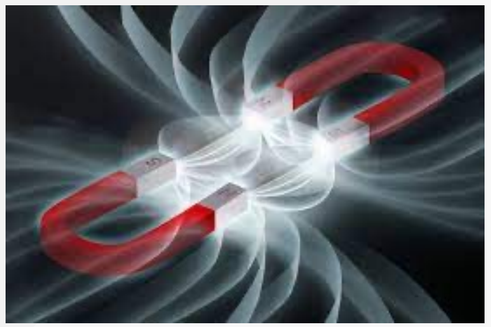
idemitsu · Shell · FUCHS · Chevron · Valvoline

Why Trinity?

Innovation

Combining the magnetic conditioning effects of fuel and oil filtering

Magnetics



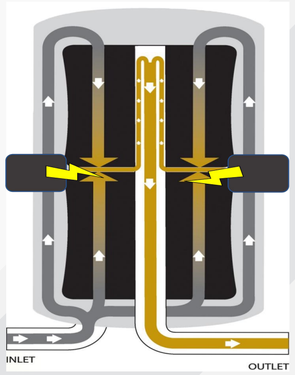
+

Conditioning

Magnetic fuel conditioner restructures hydrocarbon molecules for improved combustion.

&

Fine Filtering



Magnetics improves 1-Micron depth-media filter capacity by 15-30%

=

Technology

A magnetically charged polarity source (CPS) fuel conditioner combined with a state-of-the-art CPS-integrated 1-micron filtering element.

Advantage

Superior Method:

Continuous oil cleaning (24/7/365)
Non-interference application
Low maintenance

Superior Performance*

Cleans and maintains oil better than new.

Increases combustion efficiency

Extends oil life 3X to 4X

Extends equipment life up to 7X

Reduces operational costs by up to 55%

Reduced oil disposal by 83%

* Based on case studies

Case Studies

Marine Case Study

Yachts

Change oil, on average, every 100 hours or 1000 nautical miles

Trinity System Results

5000 nautical miles without an oil change

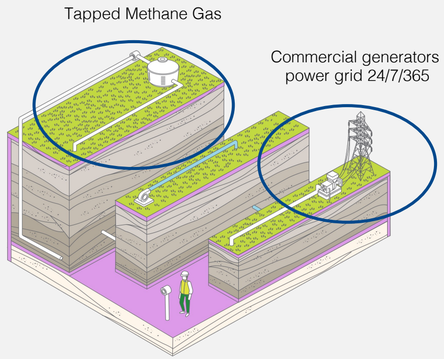
“Engine looked like new”

Maintenance crew after an overhaul

Landfill Gas to Energy (LFGTE) Case Study

(Five landfill sites and eight Caterpillar 3516/3520 Power Generation Engines)

Landfill-to-Gas Energy



The Problem

High siloxanes, chlorides, and sulfides aggressively contaminate the oil

Generator engines use full-flow filters capturing contaminants down to 10-20 microns in size

Wear particles are 4-10 microns

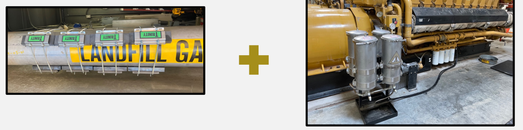
Significant filtering gap

Shortens oil change intervals

Reduces equipment life

Increases operational costs

The Solution



Improved oil change interval from 300 to over 2000 hours*

Reduced oil contamination 99%*

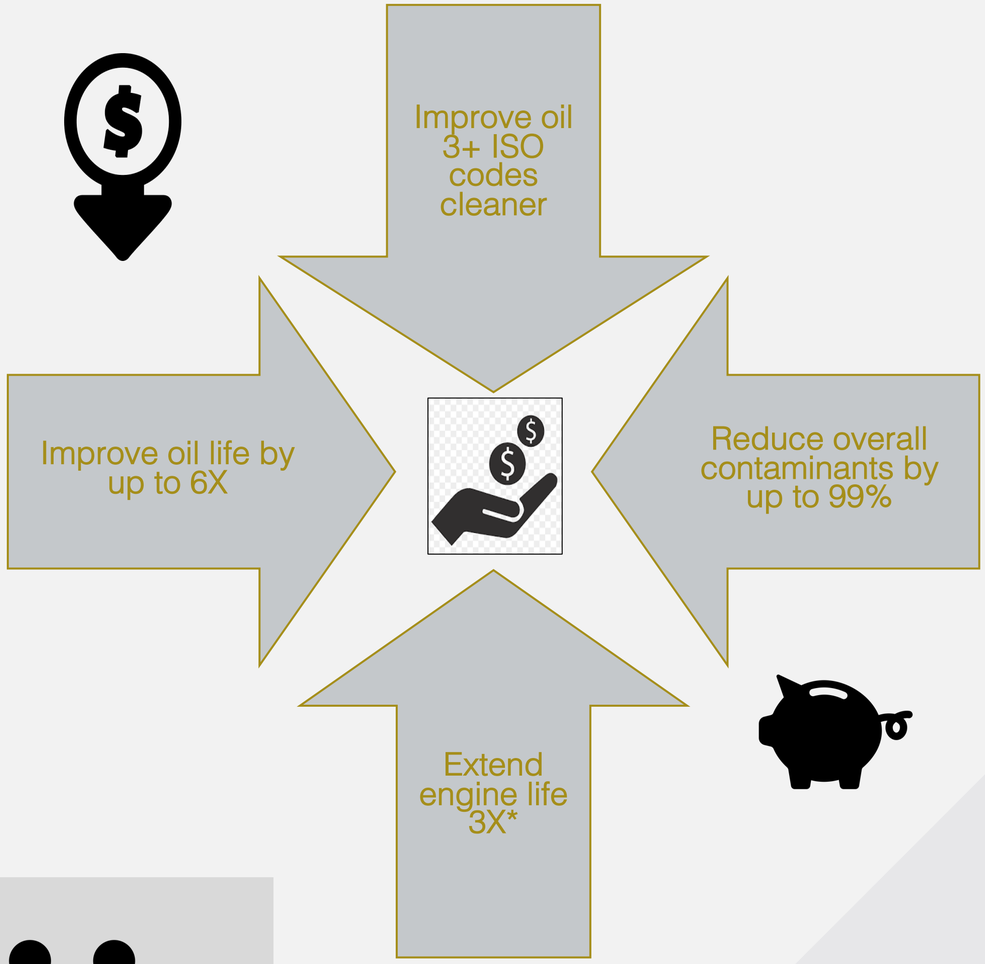
Extended oil life up to 700%*

Reduced oil disposal by 83%*

Projected extended engine life 7X**

Improved combustion efficiency by 3%*

* Single-site case study
** Noria Corp™ Engine Life Extension Table



Improve*

Equipment life 2-3X
Oil life 3X

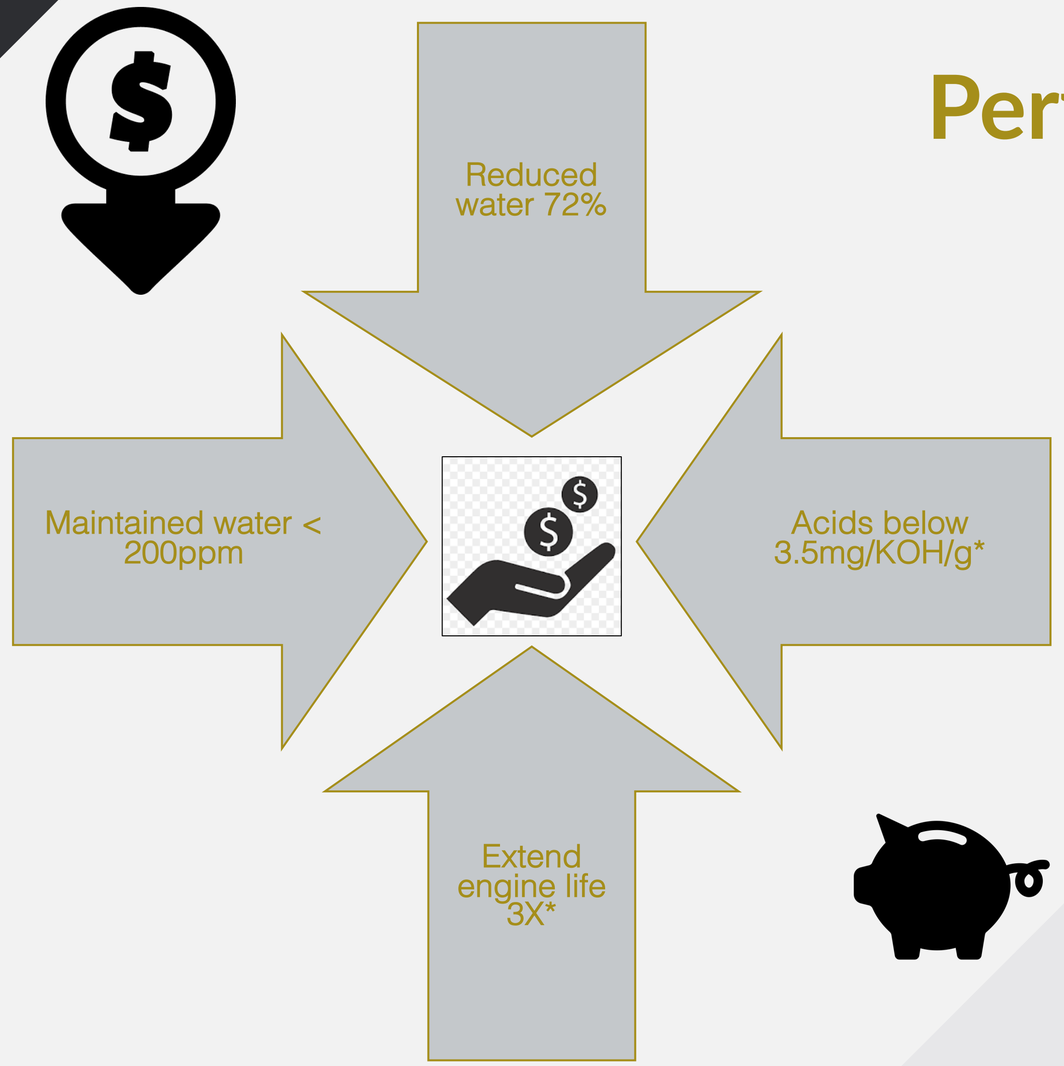
Maintenance

Decrease downtime
Reduce repairs and overhauls

Performance Value

*Based on five landfill sites and eight Caterpillar 3520 and 3516 generator engines
Noria Corp™ Engine Life Extension Table

Performance Value



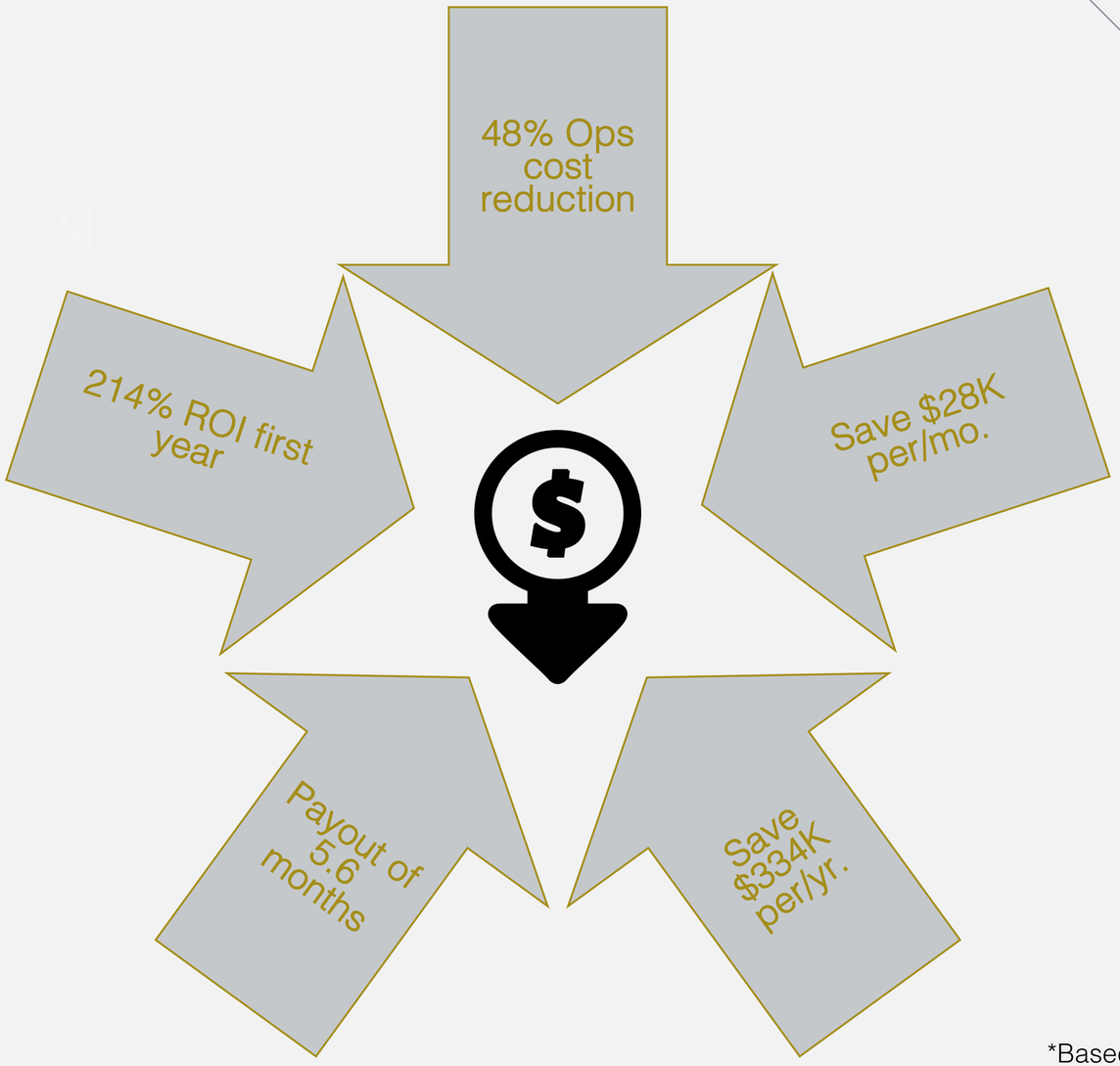
Improve

Reduce water by 72%

Maintain acids below 3.5 mg/KOH/g

Based on five landfill sites and eight Caterpillar 3520 and 3516 generator engines
*Noria Corp™ Engine Life Extension Table

Cost Value



*Based on five landfill sites and eight Caterpillar 3520 and 3516 generator engines

Green Value

think green

REDUCE
OIL DISPOSAL BY
48%

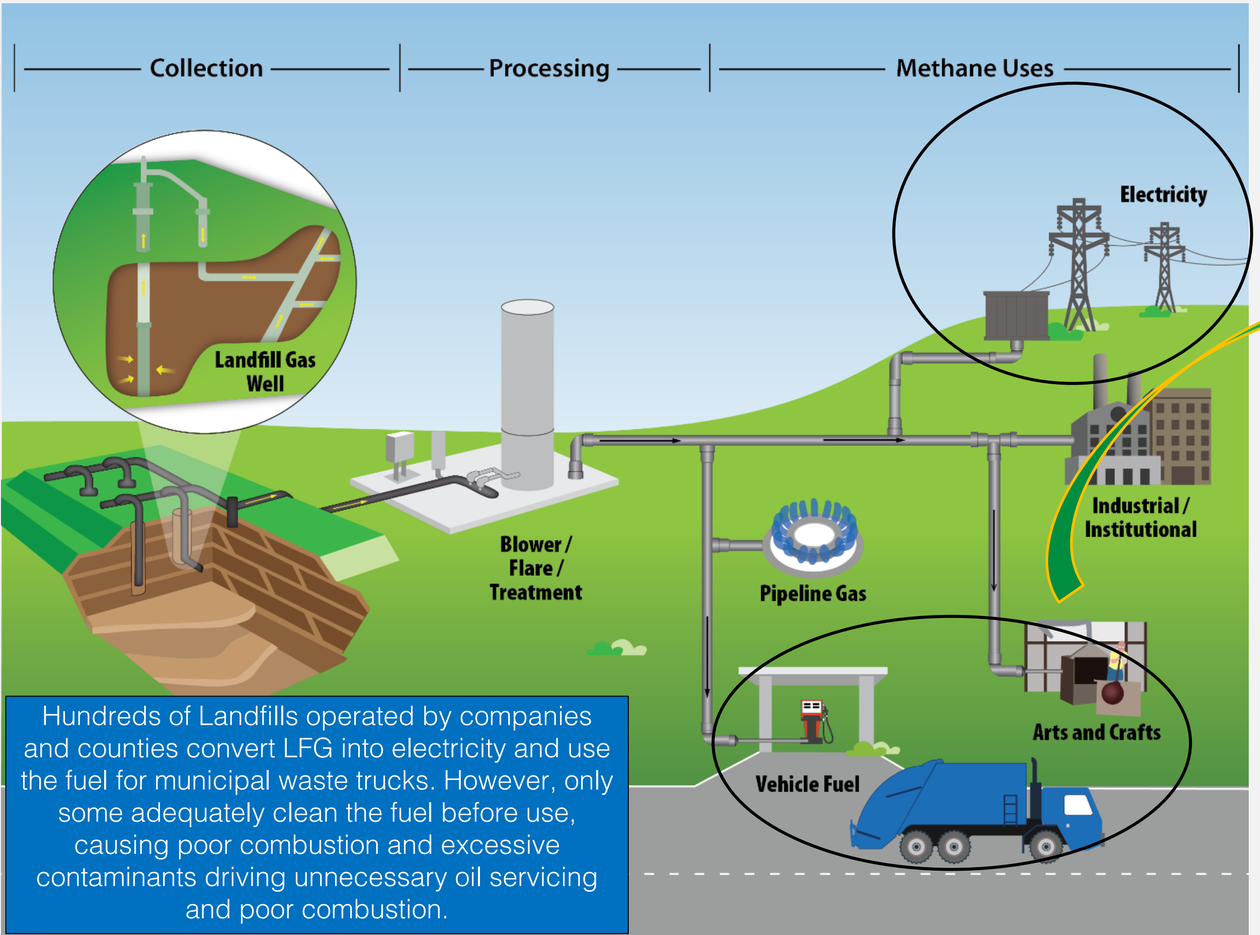
SAVE
8800
GALLONS OF OIL
PER YEAR

INCREASE
COMBUSTION
EFFICIENCY BY UP TO
3%

MAKING GREEN GREENER TRINITY™

*Based on five landfill sites and eight Caterpillar 3520 and 3516 generator engines

Potential Landfill LFGTE Site Impact



Hundreds of Landfills operated by companies and counties convert LFG into electricity and use the fuel for municipal waste trucks. However, only some adequately clean the fuel before use, causing poor combustion and excessive contaminants driving unnecessary oil servicing and poor combustion.

Trucking Fleet

- ✓ 6500 trucks
- ✓ 15 gallons of engine oil per truck
- ✓ 40 gallons of hydraulic oil per truck

Trinity Impact*

- ✓ Extend oil change 3X*
  - ✓ Save 350 gallons per truck per yr.
  - ✓ Save 2.3M gallons or 55K barrels per fleet.
  - ✓ Save $5.8M annually per fleet
- ✓ Extend hydraulic oil 2X*
  - ✓ Save 40 gallons per truck per yr.
  - ✓ Save 260K gallons annually per fleet.
  - ✓ Save $2.3M annually per fleet
- ✓ Reduce harmful emissions by 5-10%**

** Discriminants*
- *250-hour lube oil change*
- *1000-hour hydraulic oil change*
- *$25/g for lube and $9/g for hydraulic oil*
- *Case studies have shown up to 8X hydraulic oil life extension*

*** Based on previous case studies*

Generator Engines

- ✓ 369 generator engines
- ✓ 75 to 150 gallons of oil per engine per oil change (Caterpillar 3516/3520)

Trinity Impact*

- ✓ Save 1100 gallons of oil per generator annually*
- ✓ Save 405,900 gallons or 9664 barrels of oil annually per fleet
- ✓ Save $11.4M annually per fleet**
- ✓ Increase combustion efficiency by up to 3%***

** Average engine oil change at 400 hours.*
*** $28/gallon*
**** Based on landfill case study*

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