Welcome to Sarasota!

Welcome to the Distributor Dealer Committee Meeting!

EGSA Distributor Dealer Committee Leadership
First Timers to DD...

- Your name?
- Company you represent?
- City, State?
- What inspired you to join us today?

Tribal Ground Rules

- Rule #1 We agree to leave our egos at the door!
- We agree to create value for Generator Dealers and Distributors to grow EGSA products and services
- We do not use this platform to sell anything but EGSA value and services
- We committed to follow our agenda and park your ideas and suggestions to better serve our tribe with excellence

EGSA Mission

Under the leadership of its Board of Directors and operating through its various committees and staff, EGSA strives to educate, provide networking opportunities and share relevant knowledge and trends with industry professionals including manufacturers, distributor/dealers, engineers, manufacturer representatives, contractor/integrators and others who serve the Industry.
EGSA Vision

To provide an environment where On-Site Power Generation Industry experts unite and share knowledge to drive the Industry to higher levels of service and performance.

EGSA Goals

- **Provide** the On-Site Power Generation community with education and industry enrichment
- **Maintain** financial viability to ensure a strong EGSA future
- **Develop** programs that promote long-term membership value.

Parking Lot

- **How it works...** We want to capture what we heard you say for all to "hear"
- **Assign the Scribe... Volunteer?**
- **What we want to capture**
  - Each Presentation
  - Topics Suggestions
  - Your Ideas and Suggestions
  - Meeting Improvements
Agenda

- One Page Plan
- Tech of the Year Award update
- DD Feedback to Green Committee
- DD Working Group Update
- Technician Apprenticeship
- DD Revenue Opportunity Presentations
- Diesel Fuel Maintenance
- Remote Monitoring
- New Business – Parking Lot
- Seattle Topics – Fall 2013
- Round Robin

The Plan

Green Committee Request for DD Feedback

EGSA Green Energy Endorsement Program

Jim McDonald

Rypac, Inc.
Green Committee Chair
EGSA Instructor
GEE Premise:
To Create a Program (think "Energy Star") within EGSA that the promotes and rewards the Environmental friendly aspects of what we do.
The intent is to benefit the DD's members by increasing customer contact and portraying a green image for both your organization and EGSA.

History
May 2010 - Concept reviewed by Board and Approved. Initial Point System created.
Sept 2010 - GEE introduced to DD for input and approval (T. Lewit)
2011/2012 - Point System refined, and extensive research into tangible benefits to end-users/operators.
Fall 2012 - Survey in Milwaukee

Point System as it stands today
Next Steps

Go/No Go on continuing the program
Gain Feedback from the DD's regarding enhancements and constructive criticism
Finalize program and take it to appropriate groups to find tangible value (tax breaks...)

Tangible Value

• In Every case the program has to be clearly defined before any response.
• Existing Utility Rebate Program
• State Incentive Programs
• Department of Energy Meeting - Federal Subsidy Program

Other Ideas...

• EGSA Education/Green Portal
• NSPS (Tier IV) Class/Summit/Roundtable
  - Practical advice with real world experience
  - AS part of School or...
  - Day after Fall/Spring Meeting
• Panel of First Responders to an “Ask EGSA” portal.
Your Turn...
Questions for Jim?

Parking Lot
Scribe...Capture the questions

What are we going to talk about, today?

1. Current Diesel Fuel Facts
2. Top 3 Reasons for a Complete Fuel Management Plan
3. Industry filtering options
What are we going to talk about, today?

4. Methods and Theories
5. What’s in it for you
6. Q & A

Current Diesel Fuel Facts

1. What is Diesel Fuel?
2. Bio-diesels are more common
3. Diesel Fuel is Fragile

What is Diesel Fuel?

"Complex mixture of distillate hydrocarbons, with carbon numbers in C10 to C28 range... Performance enhancing additives "MAY BE ADDED""

The density, viscosity, burning characteristics, lubricity, flash point, coercivity, water content, ash formation, rate of oxidation, and several other chemical and physical properties are precisely specified.

These are essential to ensure good engine operation. Any deviation can cause excess emissions, lack of power and poor starting.
According to BP, Diesel is...

- Boiling Point: 180 - 380 °C Test Method: ASTM D 86
- Vapor Pressure: <0.1 kPa Test Method: ASTM D 323
- Physical State: Liquid
- Color: Colorless – Brown
- Density: 830 - 855 kg/m³ @ 15 °C Test Method: ASTM D1298
- Flash Point: >61.5 °C (PMC) Test Method: ASTM D 93
- Flammable Limits LEL 0.7%
- Flammable Limits UEL 5.0%
- Kinematic Viscosity: 2.0 - 4.5 mm²/s @ 40 °C Test Method: ASTM D 445

Other Information Grades:
- Automotive Diesel Fuel
- Bio-Diesel blends

Produced from vegetable oils and animal fats (lipids). Designated by % of bio product blended with diesel

B5 = 5% bio and 95% diesel
B20 = 20% bio and 95% diesel
B100 = 100% bio

Bio-diesels are more common in marketplace

1. Unstable - Phase Separation
2. Cleaning Agent
3. Hydroscopic

Many areas in USA are already using B5 - B20 blends
Bio-diesels act as a cleaning agent in the fuel tank.

Diesel Fuel is Fragile and Difficult to keep within specifications

1. Storage Life
2. Fuel Killers
3. Bio-diesels are more common

Storage Life

-Diesel is inherently unstable!! meaning that while it may go unnoticed when used in cars and heavy machinery where the fuel is turned over/used relatively quickly, stored diesel soon starts to display problems.
What the experts say:

• BP Quote: Careline [Careline@bp.com] Sent: Tue 21/06/2005
  • “As a guide, we would suggest that if held for any longer than a period of 6 months, the product could be expected to deteriorate in quality.”

What the experts say:

• Exxon Mobil / Esso
  • “If you keep it clean, cool and dry, diesel fuel can be stored 6 months to 1 year without significant quality degradation.
  • Of course we do have to consider temperature variations and other atmospheric conditions (humidity etc) in these estimates, hence 6 months being a fairly standard duration.”

Fuel Killers

• Water
• Long Term Storage
• Gum from Aging
• Bacteria, yeast and fungus (which all grow in water and feed on the fuel)
  • Infections create more water – which means more contamination can grow
  • This cycle, left unattended, can contaminate the entire tank.
Accelerated Aging Factors

- Contact with zinc, copper or metal alloys containing them. These metals will quickly react with diesel fuel to form unstable compounds.
- The presence of water. Water allows the growth of fungus and bacteria, these produce natural by-products such as organic acids which make the fuel unstable.
- Exposure to high temperatures.
- Exposure to dust and dirt which contain trace elements that can destabilize the fuel, such as copper and zinc.
- Fuel composition. Some components in diesel fuel naturally age quickly.

What is “Algae”?

- It’s the stuff that grows in your Aquarium
- Not the stuff in your Fuel Tank
- Algae requires light !!!
- Microbial growth (organic compounds) are 90% of the contaminants found in fuel.

So what is Sludge?

- In-organic debris
- Dirt, sand, rust etc
- Re-polymerization of fuel
- Tar, asphaltene, mud like-
  - can never be reunited with fuel
  - extremely acidic-will harm engines
Snow Globe Effect

Every time you add new Diesel into a tank it churns the existing stored fuel, mixing water and dirt with Fuel.

Water is the main enemy of Diesel Fuel

- No Water
- No Microbial Growth
- Control the failure point

Top 3 Reasons for a Complete Fuel Management Plan

1. Engine requirements
2. Reduce downtime
3. Long term Storage of Fuel

So, Get the Water out of Fuel
Engines are requiring cleaner, dryer fuel

- Ultra high pressure common-rail fuel systems (Tier 3, 4, & 5 engines)
- Injector pressures 20,000 psi vs 300 psi
- Water and effects of water in fuel is big issue today, and will be bigger in the future

Common Rail Fuel System

What needs to be taken out of the fuel

- Suspended Water-emulsified
- Free Water (Bottom of Tank)
- Suspended Particulate Matter
- Fungal Contamination
Reduced probability of generator shutdown

- Move the failure point to a controlled environment.
- What will happen in an emergency?
- Prevent problem & ensure reliability

Maintain the Diesel

- Fuel cleaning works by regularly circulating and filtering the fuel.

Get the Water out of Diesel

- Fuel Additives, Filters, Cleaning Systems
- Why De-emulsify vs emulsify
- Primary Filter performance
Industry Filtering Options

- Fuel Additives
- Inline Staged filtration
- Fuel Polishing Systems

Fuel Additives

- Do your homework, some additives cause more harm than good
- Emulsify vs. De-emulsify
- Stabilizers

Inline Staged Filtration

- Pre-filter - usually 30 micron
- Primary filter - usually 10 to 30 micron
- Secondary filter - usually 2 to 10 micron
- Duplexing filters - instant back up, no need to shut down engine to service
Fuel Filter

Typical Fuel System

Fuel Polishing Systems

- Consists basically of a pump, filter, and control box
- Portable systems
- Permanent mount systems, or fixed installations
Portable unit

- Can be used to service multiple tanks
- Can be used to dispense clean fuel

Fixed Installation

- Usually dedicated to 1 tank, though can be installed to service several
- Can run on a scheduled run cycle
- Moves failure point

Typical Installation
Sizing a System

- Tank size
- Distance from system to tank
- Distance to lowest level of fuel in the tank
- Voltage
- Flow rate necessary
- Controls needed (Touchscreen, BMS ready, etc.)
- Enclosure or stands necessary
- Size of piping
- New specification or addition to current tank/system
- Day tanks or pump sets involved

Methods and Theories

- Just using Fuel Additive
- Combining Fuel Additive & Staged Filtration
- Combining Fuel Additive, Staged Filtration, and Fuel Polishing

What’s in it for you

- Opportunities
- Equipment Requirements
- How to Charge for Services
- ROI example
Opportunities

- Ensure Reliability
- Most often cause of failure is bad fuel – Plan ahead
- It always starts, but will it keep running.

Opportunities

- Increase Revenue with existing customer base
- Equipment sales / installation
- On-going service contract
- Continuing revenue of consumables – (fuel additive, filter elements)

Equipment Requirements

- Additives - $75 - $3,000
- Fuel Filters - $30 - $5,000
- Portable Systems - $3,000 - $6,000
- Fixed Systems - $1,000 - $25,000
- Replacement filters - $15 - $250
How to Charge for Services

- **Charge by the hour**
  Many systems available in 1 to 100 Gallon per minute flow rate, so you can polishing 60 to 6,000 gallons per hour

- **Determine a Run Cycle**
  \[ \text{Run cycle} = \frac{3 \times \text{volume of the tank}}{\text{Flow Rate per hour}} \]
  Then for a 600 gallon tank, using a 600 gallon per hour system, a run cycle would be 3 hours

How to Charge for Services

- **Charge by the gallon**
  Many systems are available with flow meters, or totalizers

- **Sell / Install Fixed Systems**
  Add it’s maintenance to an existing or new service contract

ROI example

- **Portable system – Add fuel cleaning as a service**
  There are portable systems available for around $3,000

  If you charge a $100 hourly rate, then the investment pays back after roughly 30 hours of use

  If you charge a $3 a gallon, then the investment pays back after roughly 1,000 gallons
Q & A

Any Questions

Thank you

www.reversopumps.com
contact@reversopumps.com
954-522-0882

DD Revenue Opportunity Presentation
Remote Generator Monitoring
How to make REAL money with remote monitoring!

Andy Briggs
OmniMetrix
WHAT IS REMOTE MONITORING?
Remotely communicating with the emergency power system
Monitoring the condition and status 24/7

REMOTE MONITORING CAPABILITIES
- 24/7 diagnostics of status and condition
- Instant alarm notifications via email/text
- Internet based user interface to access current and historical data
- Time/date stamped events log
- Automated and custom reports

[Diagram showing remote monitoring setup]
THE OWNER VALUE

What would happen if the generator did not work?

What value does the owner receive?

Improved reliability and peace of mind - Know with confidence the system will work when needed

Confidence in their equipment, the brand and YOU!

Instant alarm notifications via email and/or text

Fast proactive service response to problems - Minimized down time

Access to Data - Reporting with time & date stamped event history

Weekly and/or monthly automated status and activity reports

THE DEALER VALUE

What value does the servicing dealer receive?

- Offer the highest level of service with leading edge technology
  - 31,536,000 inspections/year vs. 2-4 inspections/year

- Differentiate your company (Service & Product Sales)

- Know with confidence that the generator system will work

- Retain your customers for life building confidence and loyalty in your company

- Provide proactive FAST service response

- "Know Before You Go" - Know what is wrong before you dispatch

- Automatically provide weekly communications to your customers

- Easy Plug and Play Installation for most applications

Make More Profit!

WHAT IS SMART SERVICE™

Offering better & faster service

Doing it more efficiently

Significantly increasing profitability
SMART SERVICE™ DRIVES PROFIT
Increase service revenue
Improve service efficiency and productivity
  • Proactive service response improves routing and scheduling
  • Know before you go – Fix it the first time
Loyal customers say YES to recommended services and repairs
Reduce unbillable service trips
Improved efficiency increases your average labor billing rate
Better routing and scheduling improves vehicle recovery/expense
Consider changing the traditional service paradigm

CURRENT CHALLENGES
Are you offering the absolute best service your customers can get?
Do you want more service customers/business?
Do you need more (good) technicians?
Are you getting the labor efficiency & productivity you expect?
Would you like to improve your average effective labor billing rate?

TRADITIONAL SERVICE MODEL
Actual Dealer Analysis
Current Traditional Quarterly Service Plan
  One Major Service + 3 Minor Services
What if we changed the model!
  Provide 24/7 remote monitoring
  Provide One Major Service + 1 Minor Service
  All for the Same Price to the customer
  Redeploy the Techs on Repairs Jobs
### Traditional Service Model

<table>
<thead>
<tr>
<th>Dealer Input</th>
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<tbody>
<tr>
<td>Quarterly Service Customers (Units)</td>
<td>500</td>
</tr>
<tr>
<td>Average Price for Major Service</td>
<td>$400</td>
</tr>
<tr>
<td>Average Price for Minor Service</td>
<td>$200</td>
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<tr>
<td>Average On-Site Labor Hours for Minor Service</td>
<td>2</td>
</tr>
<tr>
<td>Average Round Trip Travel Time (Hours) for Minor</td>
<td>1</td>
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<tr>
<td>Average Round Trip Mileage for Minor Service</td>
<td>40</td>
</tr>
<tr>
<td>Number of Technicians</td>
<td>15</td>
</tr>
<tr>
<td>Average Effective Labor Billing Rate</td>
<td>$75.00</td>
</tr>
<tr>
<td>Vehicle Cost per Mile</td>
<td>$0.90</td>
</tr>
<tr>
<td>Average Mile/Year/Truck</td>
<td>35,000</td>
</tr>
<tr>
<td>Parts/Labor Ratio (Parts Revenue/Labor Revenue)</td>
<td>30%</td>
</tr>
<tr>
<td>Gross Profit Margin on Parts Sales</td>
<td>25%</td>
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### Smart Service Model Summary

**Smart Service Summary**

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<table>
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<tbody>
<tr>
<td>Number of Quarterly PM Customers for Analysis</td>
<td>500</td>
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<tr>
<td>Eliminate Minor Services - Redeploy Technicians (Gain)</td>
<td>$364,625</td>
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<tr>
<td>Recovery of Unbillable Service Trips (Net Gain)</td>
<td>$14,000</td>
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<tr>
<td>Total Net Gain from Smart Service Implementation</td>
<td>$382,625</td>
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<tr>
<td>Net Annual Gain from Smart Service (Every Year)</td>
<td>$112,715</td>
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**Other Potential Gain**

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<tbody>
<tr>
<td>Gain from improving Effective Billing Rate by $5.00/hr</td>
<td>$144,000</td>
</tr>
<tr>
<td>Gain from improving certain recovery costs by $50</td>
<td>$23,000</td>
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<tr>
<td>Total Potential Gain (Every Year)</td>
<td>$187,000</td>
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**Initial Investment**

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<tbody>
<tr>
<td>Installation of Unit (1 Hour of Loaded Labor Rate)</td>
<td>$17,500</td>
</tr>
<tr>
<td>Activation and Service Set Up at $40/unit</td>
<td>$10,000</td>
</tr>
<tr>
<td>Shipping &amp; Handling at $20/unit</td>
<td>$20,000</td>
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<tr>
<td>Total Initial Investment</td>
<td>$47,500</td>
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### Other Profit Drivers

- Increase in recommended services & repairs
- Keep customer for full life cycle of maintenance
- Know what is wrong before you go
- Proactive (not reactive) response to equipment problems
- Weekly communication with customer
- Dramatically improved system reliability
- Increase revenue per technician rate
WHY IMPLEMENT REMOTE MONITORING

It’s the way of the future & it’s happening now
Improve your level of service and keep your customers loyal to you for life
Drive profitability through smarter service
Today’s monitoring solutions are cost effective
Be the leader in your market

Your Turn...
Questions for Andy?
Parking Lot
Scribe...Capture the Questions

Parking Lot Review
Topics for Seattle - Fall 2013
- Best Practices - Panel?
- Threats or Trends?
- Pending Challenges?
- Revenue Opportunities - Presentations?
Presenter Appreciation
• Dan Bigelow
• Andy Briggs
• David Walch

Thank You!

Round Robin
• Liked?
• Disliked?
• One suggestion for improvement?

In Closing...
• LinkedIn... Who is signed up?
• Seattle... Be there!