Miramar Landfill Gas Utilization Enabling the First Green Marine Corps Facility
A PARTNERSHIP BETWEEN

THE CITY OF SAN DIEGO

FORTISTAR METHANE GROUP, LLC

MARINE CORPS AIR STATION MIRAMAR (MCAS)

NAVAL FACILITIES ENGINEERING COMMAND SOUTHWEST (NAVFAC)
OUTLINE

- Background
- Situation
- Solution
- Implementation
- Win Wins
BACKGROUND

- City operates Miramar landfill on land leased from DOD
- Over 45 million tons in place of MSW
- Agreements between City and Fortistar for rights to LFG
- Existing projects include LFG fueled power generation of 13 MW
MCAS Miramar

- Hosts 15,000 service members & their families
- ~14 MW Peak Electricity Consumption
- Home of 3rd Marines Aircraft Wing
F35’s
MV 22 Ospreys
CH53 Super Stallions
AV 8 Harrier Fighters
SITUATION

- Excess LFG produced by landfill
- Difficulty achieving emissions regulatory compliance
- MCAS is directed to achieve green energy goals
- Commanding Officer set MCAS goal to become a net zero installation
- Fortistar looking for new on-site customers
SOLUTION

• Utilize existing agreements to expand LFG fueled generation to MCAS

• Enhance Public/Private partnership between City, Fortistar, MCAS and NAVFAC

• Utilize existing cogen and LFG infrastructure where possible

• NAVFAC uses Design/Build process to install power transmission line
IMPLEMENTATION

• Fortistar installs two new LFG fueled CAT 3520’s within existing cogen facility, 3.2 MW total
New CAT 3520’s
New Metering & Switchgear
power line 6.5 miles
NAVFAC Installs Power Line
Powerline Underground and Overhead
Additional LFG collection installed in landfill
43 new extraction wells
WIN WINS

• City makes progress on meeting landfill regulatory compliance objectives
• Fortistar gets “across the fenceline” customer for LFG derived energy
• MCAS Miramar became 50% renewable electricity on the installation with the incorporation of LFG derived power
Further Information

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