



Fueling Foward. Building Excellence.

Together with Miami-Dade County we will build a cleaner, greener, economically secure future.

Miami-Dade Transit Request for Proposals (RFP) No. 00096 for Compressed Natural Gas Program

Miami-Dade Transit's CNG Program Objectives

- Address volatile diesel prices and provide costeffective, stable services to County residents.
- Finance MDT's Next Generation fleet
- Realize a reasonable return on investment
- Generate revenues from fuel royalties





Clean Energy®

PROGRAM APPROACH

Clean Energy's Program Approach

- Program shall be incremental yet sustainable beyond the base term of the Master Developer Agreement
- Program shall minimize the demand on MDT's existing resources- financial, personnel, real estate and facilities
- Program shall provide a reliable and redundant CNG infrastructure, and safe and code-compliant garage facilities
- Program shall create a transparent and replicable model for remaining MDT sites



Program Approach: Experience and Qualifications

- Trusted fueling partner of 44 major transit agencies, major solid waste companies, 41 major airports, and 900 public and private fleets with 41,000 vehicles each day
- 7,300 transit buses daily
- 150+ field service technicians nationally, 6 based in Florida.

Qualification	Clean Energy
Implementation of large scale CNG conversion plans	
comparable to the County's CNG Program Objectives	32
Experience - year founded	1996
Number of Total Gallons Dispensed (2014)	265,000,000 GGE
Number of stations built and in operation (Florida)	15
Total number of stations built and in operation	556
Number of stations built and in operation for transit sector	44
Number of gallons dispensed to transit agencies (2014)	103,000,000 GGE
Number of stations built and in operation for solid waste	
sector	50
Number of gallons dispensed to solid waste sector (2014)	76,000,000 GGE



Florida parts warehouse

Program Approach: Safety and Disaster Example

Atlantic City Jitney Association

Serving Atlantic City Since 1915



A Hurricane Update

The Atlantic City Jitney Association has served as Atlantic City's primary form of public transportation since 1915. In addition to providing transportation services for its tourists and residents, the Jitneys are also charged with the important responsibility of being the city's emergency response vehicles.

Recently the Jitneys made the transformation from traditional gasoline powered vehicles to vehicles powered by an alternative energy source, CNG. The Atlantic City Jitney Association converted its entire 190 vehicle fleet to compressed natural gas and, partnering with Clean Energy, built a state of the art CNG fueling station that is open to the public. Unbeknownst at the time was the pivotal role this station would play in the successful evacuation and recovery from the effects of hurricane Sandy.

With power lost to a majority of the residents of New Jersey's barrier islands and surrounding municipalities, finding reliable sources for gasoline was at a premium. Days later, when power was finally restored gasoline shortages ensued due to the inability to deliver fuel to the hardest hit areas. This necessitated rationing which was problematic for a wide array of reasons.

During the entire evacuation and recovery process the Jitneys were able to rely on its station to provide a continuous source of fuel for its fleet. With the help of the Clean Energy team, on call 24/7, not once did our station experience any down time.

Equally important was our ability to provide fuel for South Jersey Gas vehicles and local refuse operators. With debris from the storm scattered everywhere, in addition to regular collections, the importance of keeping refuse operators in operation cannot be under estimated. Any doubts about the reliability of an up and running CNG fueling station were proven to be unfounded.

Also noteworthy is the fact that the NY/NJ Port Authority reached out to the Jitneys for help in North Jersey and New York City. With New Jersey Transit out of service and the lingering affect of gasoline shortages and mass transportation at a standstill, an inquiry was made by the NY/NJ Port Authority as to the viability of Jitneys providing emergency transportation services for the area. Although gasoline was in a stage of crisis, both the Newark and New York Airports have Clean Energy fueling stations that were not negatively impacted by the gasoline emergency.

The partnership between Clean Energy and the Atlantic City Jitney Association further supports the fact that not only is CNG an economical fuel that is domestically produced and in abundance, it is also reliable.

1616 Pacific Ave. Atlantic City, NJ 08401 609.344.8642 Fax 609.345.5069 ACJitney1@verizon.net 51 stations were impacted by Super storm Sandy

 Our storm preparedness plan limited station damage and downtime

All stations that could be safely returned to service were within 48 hours

Station network was critical during the evacuation and recovery efforts- utilities and transportation providers

Program Approach: Local Experience and Qualifications





- Operating stations in Florida since 2009- Broward County
- 15 natural gas fueling stations in FL, including transit agencies HART and JTA (under construction)
 Qualify for local preference
- Our partners include County-trusted MCM & CEI
- MCM has served Miami Dade County for over 25 years on multiple high profile projects
- CEI, a DBE-subcontractor, has served Miami Dade County's maintenance and fueling facilities for over 10 years



Program Approach: Operating Natural Gas Fueling Stations

Clean Energy - Florida



Program Approach: Key Personnel – Miami Dade Transit

Clean Energy's Project Team has more than 200 Years of Combined Experience







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TECHNICAL APPROACH

Clean Energy's Technical Approach

This Isn't Our First Rodeo:

- LAMTA Currently fueling over 2200 buses daily at 10 stations
- DART Currently fueling over 700 buses at 4 stations
- Las Vegas RTC Currently fueling over 400 buses at 2 stations
- HART Fueling 50 Transit and paratransit vehicles, as well as had both garages modified, and intend to replace 100% of their current bus fleet with CNG



Technical Approach: MDT Station Equipment and Technology

Transit Station Rendering Back up Generators Storage Vessels **Natural Gas Dryer** One 2 mW and one 2.25 mW Three storage vessels with Dual tower, manual regenerative dryer back up generators with a manual 34,500 SCF total capacity (PSB model NG-SR-42-6-DDP) transfer switch (7,200 A; 48 v) **Fast-Fill Dispenser Private Dispensers** CNG Compressors Four high flow, fast-fill transit 890 SCFM each: 9,790 SCFM total Two light-duty dispensers with card dispensers (4 hoses) 64 DGEs/min readers for public fleets (4 hoses) Clean Energy 🕜 Clean En **Priority Panel** One matrix priority panel will control fueling to the transit and public dispensers



Clean Energy's Technical Approach

- The objective is a safe, code-compliant facility for MDT
- The Central Garage facilities will be 100% upgraded to achieve proper detection, dilution, and extraction of CNG
- Clean Energy's Facilities Modifications Group has successfully designed and implemented dozens of facilities upgrades for transit and refuse customers throughout the US.



Technical Approach: Choosing the Right Bus

Picking the Right Bus Manufacturer will Make or Break this Project

- Trusted suppliers- Gillig and New Flyer make up over 80% of transit buses in the Country. You can trust they will be able to satisfy all the Buy America requirements without an issue.
- Both New Flyer and Gillig proposed are qualified players able to meet your bus specifications Both have worked with MDT in the past and are able to provide buses TODAY.
- NoPetro/Karsan has never manufactured any buses in the US.









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FINANCIAL PLAN

Clean Energy's Financial Plan

Clean Energy's responsible approach avoids gimmicks and tricks. Ensures the County's CNG Transition will succeed in any economic environment.

Assumptions

- Vehicle and Infrastructure Financing- 10 year term
- 100% based upon MDC credit
- Fully Amortized, per RFP
- Interest Rate of 4.5% used to test feasibility and prove ROI
- CNG and Diesel Buses get same MPG
- Conservative long range price assumptions for diesel and CNG

Current Outlook:

- Work with county to obtain best available, lowest cost, municipal financing in market for MDC
- Market rates should be 2.5%-3.5%
- Model is transparent and can be used for other Transit locations
- This approach should reduce strain on existing County resources
- Program can financially stand own its own, and should generate over
 \$60mm in savings



Financial Plan: Generating Long-Term Fuel Savings

MDT Fuel Price Build Up					
Cost Component	Estimated Average Cost (per Therm)	Estimated Average Cost (per DGE)			
Gas Commodity	\$0.679	\$0.944			
Gas Delivery (LDC)	\$0.133	\$0.185			
Electricity	\$0.102	\$0.142			
Full Service Maintanence Cost	\$0.250	\$0.348			
Total Cost per Unit	\$1.164 Per Therm	\$1.619 Per DGE			

Information from pages 66-67 of Clean Energy Proposal Dated October 2, 2015



Potential Third-Party Revenue

Clean Energy is committed to working with National commercial fleets and local fleets to generate revenue at MDT's Public Access Station

- Clean Energy has identified more than 150 fleets and 50,000 vehicles in the Miami-Dade Area
- Clean Energy is a proven market developer with more than 75 sales people nationwide.
- We fuel 900+ fleet customers, 41 airport stations and more than 41,000 vehicles per day. Including many large national customers with South Florida base operations including: AT&T
 - Waste Pro
 - UPS
 - Ryder

- Proctor & Gamble
- **Republic Services**
- Frito-Lay
- Saddle Creek Logistics
- During initial 10 year period, third party sales estimated to generate \$1.4mm for Miami Dade County – **NONE** is used to cover CNG Transition Costs.
- Royalty per DGE of \$0.654, the highest of all the proposers





Clean Energy®

Why Clean Energy Fuels?

Clean Energy Financial Strength

- Publicly Traded on Nasdaq CLNE
- 129 Institutional Investor and 75,000 Retail Investors
- Consistent Growth in Volume, Revenue and Gross Margin
- \$1 Billion Investment in Natural Gas Infrastructure
- 550+ Natural Gas Stations
- Strong Balance Sheet with more than \$1 Billion in Unencumbered Assets
- Financial Flexibility to repay debt with new equity



Clean Energy vs. The Competition

Comparison Analysis	Clean Energy	Trillium	No Petro
Experience - year founded	1996	1999	2007
Annual Public Transit Agency Gallons Dispensed	103 million GGEs	35 million GGEs	0 GGEs
Financial Strength - Equity Valuation (as of 7/31/15)	\$522.1mm	??*	??
Number of Natural Gas stations built and in operation (Florida)	15	4	1
Number of CNG stations built and in operation for public transit agencies	44	32	0
Number of CNG stations built and in operation for refuse agencies	50	10	0
Total number of CNG stations built and in operation	551	75	1
Number of Company Employed Service Techs (Florida)	6	2	1
Parts Warehouse in Florida (Y/N)	Y	N	N

*Trillium's parent company, Integrys, was sold to Wisconsin Energy as of June 30, 2015.



Why Clean Energy is the Right Choice:

 We tailored our proposal to match the criteria laid out in your RFP and believe that our experience, strong local team, technical approach and our financial plan are superior.

• We think it is obvious that Clean Energy is the best partner for Miami-Dade County Transit.







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APPENDIX

Appendix

- A. Clean Energy Florida Station List
- **B.** Clean Energy Transit Station List
- C. Clean Energy Refuse Station List
- D. Clean Energy Airport Station List
- E. Clean Energy Miami Dade Transit Financial Term Sheet
- F. Clean Energy Large Transit Deal Summaries
- G. Munilla Construction Local Project List
- H. Cherokee Engineering Local Project List





F	lorida Station List	
Customer/Station Name	Station Type	Year Built
Waste Pro - Pompano Beach	Private Station	2009
Republic Services - Lakeland	Private Station	2010
Clean Energy <i>ANGH</i> – Jacksonville	Public LNG Station	2012
Republic Services – Volusia County	Private Station	2012
Tampa International Airport	Public CNG Station	2012
Waste Pro – Ft. Pierce	Private Station	2012
Waste Management – Walton Beach	Private Station	2013
Waste Management – Tampa	Private Station	2014
Waste Management – Boynton Beach	Private Station	2014
HART	Private Station	2014
Republic Services – Ft. Lauderdale	Private Station	2014
MCO – Orlando Airport	Public CNG Station	2014
Saddle Creek – Lakeland	Private Station	2015
Clean Energy <i>ANGH</i> – Midway (Quincy) Flying J#623	Public LNG Station	2015

Progressive Hillsborough	Private Station	2015
Jacksonville Transit Authority	Public/Private Station	Expected 12/2015
Waste Management – Pompano Beach	Private Station	In Development/Upgrade
Clean Energy <i>ANGH</i> – Ocala, FL – Pilot #092	Public LNG Station	In Development
Waste Management – Cocoa Beach	Private Station	In Development
Waste Pro - Sanford	Private Station	In Development

Clean Energy Transit Properties						
Customer	Contract Start	SCFM	Est. Annual Volume (GGE)	Est. Bus Count	Project Scope	Region
Foothill Transit – Pomona, CA	2002	5,600	2,690,000	170	DBOM	West
Valley Metro RPTA – Phoenix, AZ	2004	4,500	2,160,000	203	0&M	West
ABQ Ride – Albuquerque, NM	2004	1,500	400,000	34	0&M	Central
Foothill Transit – Arcadia, CA	2005	3,600	2,050,000	130	DBOM	West
Santa Clarita Transit, CA	2005	1,600	760,000	45	DBOM	West
Southland Transit – Baldwin Park, CA	2006	900	560,000	40	DBOM	West
NICE – Mitchell Field, NY	2007	6,000	3,560,000	200	0&M	East
NICE – Rockville Center, NY	2007	2,400	1,680,000	100	0&M	East
Akron METRO, OH	2008	1,000	350,000	86	0&M	Central
Orange County Transportation Authority – Irvine, CA	2008	2,800	750,000	126	DBOM	West
RTC of Southern Nevada – IBMF	2008	3,300	1,460,000	135	DBOM	West
RTC of Southern Nevada – Sunset	2008	1,800	250,000	Combined	0&M	West
Santa Fe Trails, NM	2008	300	220,000	31	0&M	Central
Montgomery County Transit, MD	2009	4,200	1,920,000	95	0&M	East
LACMTA Division 2	2009	6,600	3,250,000	205	0&M	West
LACMTA Division 8	2009	8,100	3,290,000	196	0&M	West
LACMTA Division 9	2009	6,600	4,420,000	261	0&M	West
LACMTA Division 15	2009	7,200	4,860,000	268	0&M	West
TransLink – Vancouver, BC	2009	3,000	1,000,000	95	DBOM	Canada
LACMTA Division 10	2010	6,000	4,380,000	217	DBOM	West
LACMTA Division 18	2010	6,000	4,990,000	278	DBOM	West
City of Elk Grove Transit – Elk Grove, CA	2011	900	300,000	58	DBOM	West
City of Commerce – Commerce City, CA	2011	1,000	200,000	14	0&M	West
City of Laredo Transit, TX	2011	490	400,000	30	DBOM	Central
LACMTA Division 1	2011	6,000	4,000,000	223	0&M	West
LACMTA Division 3	2011	6,000	3,500,000	200	0&M	West
LACMTA Division 5	2011	6,000	3,360,000	205	0&M	West
LACMTA Division 7	2011	6,000	4,400,000	234	0&M	West

Veolia Transportation – Los Angeles, CA	2011	900	600,000	40	DBOM	West
Tulsa Transit, OK	2011	800	640,000	60	DBOM	Central
Montebello Bus Lines – Montebello, CA	2011	1,000	70,000	7	DBOM	West
Stark Area Rapid Transit – Canton, OH	2012	1,100	180,000	32	DBOM	Central
DART (Dallas Area Rapid Transit) – Northwest	2012	3,940	2,960,000	222	DBOM	Central
DART – South Oak Cliff	2012	3,460	2,350,000	176	DBOM	Central
DART – East	2012	3,160	2,670,000	200	DBOM	Central
DART – Senate Street	2012	1,700	1,110,000	168	DBOM	Central
Long Beach Transit, CA	2012	2,500	800,000	64	0&M	West
HART, Tampa, FL	2013	2,800	200,000	47	DBOM	East
Central Ohio Transit Authority (COTA), OH	2014	3,200	750,000	60	RM	Central
BC Transit – Nanaimo, BC	2014	1,900	400,000	25	DBOM	Canada
Kansas City Transit, MO	2014	2,000	2,500,000	44	DBOM	Central
City of Medicine Hat - AB	2014	900	225,000	25*	DBOM	Canada
City of El Paso Transit	2014	3,475	4,500,000	180	ОМ	Central
BC Transit – Kamloops, BC	2015	1300	400,000	25	DBOM	Canada

DBOM - Clean Energy designed, built and currently operates and maintains the station ٠

DB – Clean Energy designed and built the station •

O&M – Clean Energy currently operates and maintains the station **RM** – Clean Energy currently repairs and maintains the station *This is a combined Transit/Refuse Other Vehicles Station •

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Refuse Partnerships

In 1997, Clean Energy began building and operating CNG stations for solid waste operators, and has since become the premier station service provider for both public and private refuse fleets across the country. We operate and/or maintain over 100 CNG fueling stations for refuse fleets throughout the country and fuel more than 6,900 refuse trucks daily.

Provided below is a representative listing of some of our solid waste CNG stations Clean Energy has constructed, and currently operates and/or maintains. The below list does not include several of our national accounts such as Clean Energy's repair and maintenance service over 50 Waste Management stations.

Clean Energy Refuse Properties						
Customer	State	Contract Start	SCFM	Est. Annual Volume	Truck Count	Project Scope
Burrtec Palm Desert	СА	1997	600	540,000	80	DBOM
Waste Management – Moreno Valley	CA	1999	800	1,000,000	110	DBOM
Waste Management – Irvine	CA	2000	800	590,000	80	DBOM
Amador Valley Industries	СА	2006	420	150,000	18	DBOM
Town of Smithtown	NY	2007	2,000	240,000	25	DBOM
Town of Brookhaven	NY	2008	2,000	630,000	70	DBOM
City of San Antonio	ΤX	2008	660	300,000	30	DBOM
Town of Huntington	NY	2009	1,000	400,000	40	DBOM
CalMet Services	СА	2009	300	190,000	30	DBOM
City of Burbank – South	СА	2009	150	140,000	28	DBOM
Nationwide Environmental	СА	2009	900	300,000	32	DBOM
Waste Connections - San Luis Obispo	СА	2009	900	100,000	16	DBOM
Progressive	FL	2009	250	160,000	15	DBOM

Allied Waste – Boise	ID	2009	520	290,000	50	DBOM
Central Jersey Waste	NJ	2009	250	110,000	14	DBOM
CleanScapes	WA	2009	520	330,000	41	DBOM
City of Glendale	СА	2010	900	500,000	23	DBOM
Livermore Sanitation	СА	2010	160	230,000	32	DBOM
Mission Trail	СА	2010	160	200,000	22	DBOM
Waste Management - Santa Ana	CA	2010	1,200	410,000	45	BM
Republic Services – Lakeland	FL	2010	1,200	510,000	41	DBOM
Atlantic County Utilities Authority	NЈ	2010	1,000	540,000	25	DBOM
Town of Smithtown – Kings Park	NY	2010	800	360,000	35	DBOM
Allied Waste – Bellevue	WA	2010	900	240,000	37	DBOM
Allied Waste – Chula Vista	СА	2011	900	260,000	20	DBOM
Allied Waste – Gardena	СА	2011	1,350	240,000	27	DBOM
Allied Waste – Salinas	СА	2011	260	110,000	9	DBOM
Allied Waste – Sun Valley	СА	2011	1,000	380,000	48	DBOM
Blue Diamond Disposal	NJ	2011	1,000	250,000	25	DBOM
Republic Services – Pacheco	СА	2011	1,000	490,000	54	DBOM
Ware Disposal	СА	2011	445	288,000	37	DBOM
Alpine Waste	CO	2011	250	120,000	10	DBOM
Allied Waste – Nampa	ID	2011	1,000	145,000	16	DBOM
Waste Management – Camden	NJ	2011	1,500	645,000	71	DBOM
Allied Waste – Kent	WA	2011	900	390,000	33	DBOM
City of Richmond	VA	2012	500	250,000	25	ОM
USA Hauling	СТ	2012	1,300	250,000	25	DBOM

Tidewater Fibre	VA	2012	1,000	200,000	20	DBOM
Burgmeier Hauling	PA	2012	500	220,000	22	DBOM
Ecology Services	MD	2012	500	380,000	38	DBOM
Emterra – Winnipeg	MA	2012	870	525,000	58	DBOM
Republic Services – 6 new and 6 upgrades	Nationwide	2012	_	_	_	DBOM
Republic Services – 10 new and 1 upgrade	Nationwide	2013	_	_	_	DBOM
Progressive Waste –1 new and 3 upgrades	Nationwide	2013	_	_	_	DB
Atlas Disposal	СА	2013	810	250,000	20	DBR&M
Covanta Energy	NJ	2013		160,000 expected	20	DB
ABC Disposal	MA	2013	900	300,000	36	DBOM
Waste Connections	WA	2013	-	-	-	DB
Waste Management	TN	2013	-	-	_	DB
South San Francisco Scavengers	СА	2014	550	312,000	40	DBOM
All American Waste	СТ	2014	1,200	400,000	40	DBOM
BFI – Laval	Canada	2015	1,500	1,000,000	120	DBOM
Lancaster County Solid Waste Management	PA	2014	1,000	202,400	14	DBOM
Garden City Sanitation	СА	2014	500	450,000	47	DBOM
Alameda County Industries	СА	2014	300	332,800	32	DBOM
Progressive Waste, McKinney	ТХ	2014	839	552,500	75	DBOM
Emterra – Chilliwack	Canada	2014	560	90,000	10	DBOM
Republic Services – 7 new and 8 upgrades	Nationwide	2014	_	-	-	DBOM

City of Medicine Hat – Alberta	Canada	2015	890	80,000	12	IDBOM
Progressive Waste, Hillsborough	FL	2015	1304	60	510,000	DBOM

- DBOM Clean Energy designed, built and currently operates and maintains the station
- O&M Clean Energy currently operates and maintains the station

Airport Locations - Current





TERM SHEET SUMMARY

Miami-Dade Transit Natural Gas Vehicle and Infrastructure Financing \$169,755,704

The intent of this document is to describe, for illustrative purposes only, certain key terms of our proposed financing structure for the deployment of natural gas vehicles by Miami-Dade County.

	SUMMARY OF TERMS				
Issuer:	A public private partnership between Miami-Dade County and Clean Energy and our subsidiary, Clean Energy Finance LLC.				
Use of Proceeds:	The proceeds will be used to fund the estimated purchase price of 279 natural gas buses, the construction of CNG fueling infrastructure and the modification of maintenance facilities at the Miami-Dade Central Garage.				
Amount:	Approximately \$169,755,704 including \$16,830,174 for construction of fueling infrastructure and maintenance facilities, and \$152,925,530 for vehicle replacement.				
Date:	January 2015, or when necessary				
Interest Rate:	4.5%				
Term:	10 years				
Repayment Terms:	Equal payments sufficient to pay principal and interest, or any schedule agreed upon by the County.				
Pro Forma Deployment Model	Assumptions				
Fueling Infrastructure:	Clean Energy will build infrastructure for fueling and maintenance of the Central Garage bus fleet. We have included cost estimates for a project consistent with the criteria outlined in the RFP.				
Bus Count and Price:	279 buses acquired at estimated price of \$548,120 per bus, as described more fully in our response.				

Volume:	Buses will use approximately 13,200 DGEs of diesel or natural gas each year.	
Fuel Price Assumptions:	Over the last 5 years, diesel has a <i>compound annual growth rate</i> of nearly 10.8% and natural gas has <i>decreased</i> by 11.5%. The forces that cause this price divergence remain potent; we felt it was prudent to use more conservative assumptions for this demonstrative model.	
Price of Natural Gas:	The estimated price of delivered natural gas is \$1.62 per Diesel Gallon Equivalent. We assume that the delivered price of CNG (including the commodity, delivery, transportation and compression costs) will increase by approximately 1% each year.	
Price of Diesel:	The current retail price of diesel is \$3.51, per the RFP documents. We assume that the retail price of diesel will increase by 5 % each year.	

Hillsborough Area Regional Transit (HART)

Sector: Transit Station: CNG Services: Design, Build, Operate, Maintain Reference: Lynda Crescentini, Project Manager III Phone: (813) 384-6592 Email: crescentinil@gohart.org

Ithough Clean Energy was the most responsive bidder, based on HART's RFP requirements, the project was initially over budget. Clean Energy worked with HART's Procurement Department, Project Management Team and the Maintenance Staff to design a "Value Engineered" solution to reduce the project cost without impacting quality or performance.

In April of 2013, Clean Energy was awarded a multi-year contract to design, build, operate and maintain a transit CNG station located at HART's maintenance yard and bus garage. We designed the station to fuel HART's total fleet of 250 buses. HART is currently fueling 28 CNG vans and will receive 22 CNG transit buses early next year.

In addition to the fueling station, Clean Energy's facility modifications team performed all of the facility upgrades to the heavy maintenance building as well as the preventative maintenance building, making it possible for HART staff to service its CNG vehicles.

FTA grant funding was awarded for this project and all FTA construction requirements were followed including, prevailing wage, DBE participation goals and project reporting. The estimate cost of the station is \$5 million.



HART's CNG station is designed to fuel 250 buses.



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Dallas Area Rapid Transit (DART)

Sector: Transit

Station: CNG

Services: Design, Build, Operate, Maintain

Reference: Mike Hubbell,

Vice President, Maintenance

Phone: (214) 828-6780

Email: mhubbell@dart.org

n 2011, Dallas Area Rapid Transit (DART) awarded Clean Energy a \$40 million contract to design and build four CNG stations, and modify four maintenance facilities. DART dedicated three stations to fueling transit buses with each station providing fuel for 175-225 buses each day. The fourth station provides fuel for approximately 170 paratransit vehicles.

Like all large scale projects, DART had its share of challenges. Underground obstructions, easement issues and contaminated soils were just some of the challenges encountered during the project. We were able to mitigate all delays, keep the project on schedule and find no-cost solutions for every issue we encountered.

For the four-station project, we installed 22 IMW compressors with a total output of approximately 13,400 SCFM. We completed the stations within 18 months.

Due to Clean Energy's reliable service during the initial warranty period, we were awarded a four-year O&M contract in December 2013 on DART's four stations.





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Los Angeles MTA

Sector: Transit Station: CNG Services: Design, Build, Operate, Maintain Reference: Brady Branstetter, Director, Facilities Maintenance Phone: (213) 922-6767 Email: branstetterb@metro.net

he LA MTA's number one priority concerning fueling is reliability. They are a massive operation, serving 28 million passengers per month. To serve these communities LA MTA fuels over 2,000 buses every night from 10 separate CNG facilities and reliability is paramount. The CNG systems that ensure rollout everyday must be properly designed, equipment properly maintained, personnel properly trained, operating procedures reviewed and problems sourced back to the root cause.

LA MTA was having problems with compression equipment at one of the divisions in 2012. Two of the motors were experiencing "harmonic distortion" and this was affecting the performance of the compressors. We developed a plan to isolate each of the variables (electrical & mechanical) to find the root cause of the problem. The first variable was the power feeding the compressors from the Motor Control Panel (MCC). Using thermo graphic imaging, we discovered the insulation of one of the feeder lines going into compressor one was not properly insulated.

We corrected the root cause of the problem and the station is currently operating as designed; providing the management of LA MTA with a reliable station to meet rollout. The combined stations dispense approximately 15 million GGEs per year.





Clean Energy maintains all 10 LAMTA CNG stations.



Miami-Dade County Request For Proposals (RFP) No. 00096 for Compressed Natural Gas Program for Miami-Dade Transit



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BC Transit

Sector: Transit

Station: CNG

Services: Design, Build, Operate, Maintain

Reference: Rory Kulmala,

Manager, Fixed Asset Construction Phone: (250) 995-5610

Email: rory_kulmala@bctransit.com

n October 2013, BC Transit entered into a contract with Clean Energy to design, build and provide operations and maintenance services for a CNG station in Nanaimo, BC. The station was designed to fill 25 transit buses initially with expansion to service 50 buses over the coming few years. BC Transit signed a "bumper to bumper" *Sentinel* operations and maintenance services agreement for an initial term of 13 years with a contractual provision for an additional seven years.

In addition, BC Transit engaged Clean Energy to review the existing service facility in Nanaimo to determine what facilities modifications were required to make it CNG compatible. This report was reviewed and accepted. BC Transit then elected to engage Clean Energy to do the necessary modification concurrent to the CNG station construction. Clean Energy completed this additional work on time and on budget.

Building on this relationship, BC Transit has further awarded Clean Energy a subsequent contract to construct a second facility in Kamloops. With similar design parameters, the project is due for completion by April 2015. The estimated cost for each station is \$1.7 million and each contract is approximately \$4 million. Currently, both stations are private but we are in discussions at possibly adding a public access element to these stations.



"Throughout the process, Clean **Energy provided** excellent service and was able to adapt quickly and effectively to site conditions and changes with operating parameters to ensure that the project was completed on time and within budget. Their staff was extremely capable and dedicated throughout all steps of the project. They were able to deal with a serious issue related to gas supply while working diligently with BC Hydro to have power available when required and liaising with a myriad of authorities having jurisdiction.."

- Rory Kulmala, Manager, Fixed Asset Construction



Miami-Dade County Request For Proposals (RFP) No. 00096 for Compressed Natural Gas Program for Miami-Dade Transit



Munilla Construction Management Local Project List

Project Name	Miami-Dade County Government Agency	Contract Value	Completion Date
Miami International Airport 756AD North Terminal	Miami Dade Aviation Department	\$ 155,695,736	2012-October
MIA MCC-8-10 Miscellaneous Construction Contracts	Miami Dade Aviation Department	\$ 80,125,000	2017-September
Miami International Airport Package #22	Miami Dade Aviation Department	\$ 67,213,687	2011-March
Miami-Dade South District Wastewater Treatment Plant	Miami Dade Water & Sewer Dept.	\$ 62,407,344	2013-March
Miami-Dade Metrorail Extension - Transitway	Miami Dade Transit Authority	\$ 31,607,522	2001-October
Miami-Dade Fire Rescue Training Center	Miami Dade Fire Rescue Department	\$ 25,299,169	2010-July
Lehman Center Test Track	Miami Dade Transit Authority	\$ 25,147,257	2015-October
Miami International Airport Central Collection Plaza	Miami Dade Aviation Department	\$ 21,796,039	2003-December
Miami International Airport Package #20	Miami Dade Aviation Department	\$ 18,478,640	2011-October
Miami-Dade ISD West Lot Parking Garage	Miami Dade County Internal Services Department	\$ 15,427,053	2012-September
Miami-Dade ISD Trade Shop Facility	Miami Dade County Internal Services Department	\$ 13,155,586	2010-May
Miami International Airport Package #19	Miami Dade Aviation Department	\$ 12,043,009	2011-October
Miami-Dade Metrorail Extension - Palmetto Station	Miami Dade Transit Authority	\$ 7,926,770	2002-February
Port Miami Cruise Terminal D Expansion	Miami Dade County Port of Miami	\$ 7,860,791	2012-October
Miami International Airport 746 B/C Infill Third & Fourth Level Tenant Improvements	Miami Dade Aviation Department	\$ 7,646,101	2012-November
Perrine Gardens Restoration	Miami Dade County Housing Department HUD	\$ 6,380,180	1993-July
Miami International Airport Maintenance Facility	Miami Dade Aviation Department	\$ 5,200,000	1998-February
Gwen Cherry Reconstruction	Miami Dade County Housing Department HUD	\$ 4,995,000	1995-March
Northside Fire Station	Miami Dade Aviation Department	\$ 4,000,000	2001-October
Perrine Rainbow Reconstruction	Miami Dade County Housing Department HUD	\$ 3,130,000	1994-June
Annie Coleman Gardens Phase II	Miami Dade County Housing Department HUD	\$ 2,650,000	1995-July
Liberty Square Rehabilitation	Miami Dade County Housing Department HUD	\$ 2,642,012	1993-March
Miami International Airport Concourse "F"	Miami Dade Aviation Department	\$ 2,600,000	1999-August
Concourse "E" - People Mover	Miami Dade Aviation Department	\$ 2,100,000	2000-July
Liberty Square Rehabilitation	Miami Dade County Housing Department HUD	\$ 1,880,140	1992-February
Modello Rental Comprehensive Apartment Modernization	Miami Dade County Housing Department HUD	\$ 1,200,000	1991-March
Smathers Plaza	Miami Dade County Housing Department HUD	\$ 940,000	1995-August
Everglades Labor Camp Day Care Center	Miami Dade County Housing Department HUD	\$ 476,370	1990-July
Federal Bureau of Investigations, Miami Airport off-site	Miami Dade Aviation Department	\$ 288,850	2013-July
North Shore Branch Public Library	Miami-Dade County GSA	\$ 219,000	1989-November

Project Name	Scope of Work	Contract Amt.
Miami International Airport New Hydrant System Pump Stations	New hydrant pump station system construction job at both the North and South facilities of the Miami International Airport (MIA) Jet-A Fuel Storage Facility. The newly installed components include new pump station houses, filter/separator system, transfer stations, 1,200 gpm pumps, Double Block and Bleed (DBB) valves, underground and aboveground fuel lines ranges from 6" to 30" in diameter, Motor Control Centers (MCCs), fire suppression and cathodic protection systems. This portion of the work consisted of six components- Civil Work; Environmental Remediation; System Decommissioning; Dewatering; Pollutant System Storage Contractor/Mechanical; Electrical Duct Bank; and, Cathodic Protection System. This uniquely designed and constructed fuel facility is the first tank farm in the nation that has a redundant fuel distribution system and latest technology in fueling operation.	\$5.29M
Miami International Airport – Concourse BC Apron Aircraft Fueling	Installation of new double-walled jet fuel line associated hydrant pits and valves at the Miami International Airport (MIA) Jet-A Fuel Storage Facility. The installation work was part of the MIA fuel hydrant system modification and upgrade. The newly installed components include new piping, Double Block and Bleed (DBB) valves, underground and aboveground fuel lines, and hydrant pits. extensive soil and groundwater remediation work was conducted at the same site. CEI work effortlessly to remediate the site contaminated by the former underground jet fuel lines by excavating and removing over 25,000 tons of contaminated soils and 50,000 gallons of free floating product.	\$5.26M
Miami International Airport (MIA), Concourse E at Gates E6 and E8 modification of existing Jet-A Fuel Distribution System	Modify the existing Jet-A Fuel Distribution System at the Miami International Airport (MIA), Concourse E at Gates E6 and E8. Provide the necessary labor, materials, and equipment required to perform the work in accordance with the plans and specification provided by TY LIN International (TYLIN).	\$2.475M
Miami-Dade County GSA Fleet Management Design/Build Bulk Fueling Facilities	Design/Build of three separate bulk fuel storage facilities strategically located throughout Miami-Dade County. The three bulk fueling sites are: North Dade Landfill, Homestead, and Shop 3. We designed, engineered, and permitted three 12,000 gallon unleaded fuel AST's and two 20,000 gallon diesel fuel AST's pouring of slabs for tanks, truck loading, site electrical, piping for AST's, bulk loading and off loading of tanks 300 gpm and site drainage.	\$2.1M
Miami-Dade Transit Coral Way Bus Wash Facility	Demolition of old bus wash facility, re-routing of underground utilities, construction of new bus wash building and installation of bus wash equipment. CEI conducted the environmental closure assessment activities during the cleaning, removal and	\$1.8M

	disposal of one 7,500- gallon underground oil/water separator (OWS) tank, one 10,000 gallon underground holding tank, and associated ungrounded structures. Additionally, CEI excavated trenches to install new utilities (electric, telecommunications, and water), provided and arranged steel plates for the utility trench as necessary to maintain traffic lanes outside of the fenced demolition area, installed conduit and obtained approval of all inspections required by the Building Department permits, and made connections and placed new utilities in service.	
Miami-Dade County	Removal of three existing Underground Storage Tanks (USTs)	\$500k
GSA Fleet Management	and replaced with new double-wall USTs to comply with FDEP	
Shop 3A Underground	Chapter 62-461 2009 deadlines.	
Fuel Tank Design and		
Construction	The scope of work involved the design, purchase, delivery and	
	installation of three 15,000 gallon double-walled fiberglass steel	
	fuel storage tanks, canopy, site work, and other required fuel	
	island equipment, including the removal and disposal of three	
	existing underground storage tanks and the preparation of tank	
	closure assessment reports (TCAR).	