

From: Clanon, Paul
Sent: 10/10/2012 5:05:23 PM
To: Doll, Laura (/O=PG&E/OU=CORPORATE/CN=RECIPIENTS/CN=LRDD)
Cc:
Bcc:
Subject: RE: Science, Technology and Great Customer Service Bundled Together in LNG/CNG

Nothing from Brian. Maybe he's depressed?

On Oct 10, 2012, at 4:47 PM, "Doll, Laura" <LRDD@pge.com> wrote:

Time til Brian sends it 37 seconds??

From: A Message from Nick Stavropoulos
Sent: Wednesday, October 10, 2012 4:30 PM
To: All PG&E Mail Recipients; All PGE Corp Employees
Subject: Science, Technology and Great Customer Service Bundled Together in LNG/CNG

<image001.png>

Team:

So much of our product and PG&E's work are invisible to our 15 million customers. We provide a service that people don't want to worry about. But they do expect that gas and electricity are available for them when they need it, and they expect it to be delivered in a safe, reliable and affordable manner.

That's exactly what we want, too. We don't want the majority of our customers thinking about our electric wires, gas pipelines and automatic shut-off valves. There are exceptions, however. Our use of portable liquefied natural gas (LNG) and compressed natural gas (CNG) is one of them. Not only is it an interesting story from a science and technology perspective, it's what keeps the gas flowing

during scheduled maintenance work, high-demand periods and emergencies in both residential and commercial areas. We want our customers to know about the hard work we do to ensure that they get gas and electric service 24/7.

<image006.jpg>

Natural gas continued to flow to Napa County businesses such as the Redacted thanks to LNG/CNG equipment (pictured in the foreground) and operators.

It's a Gas, It's a Liquid, It's a Gas

So what is LNG exactly? LNG is natural gas chilled to 260 degrees below zero. When cooled, it changes from a gas to a liquid. In liquid form, we can store 600 times more volume than if it were a gas. When we need it, we heat it using special portable gas vaporizers that turn it back into a gas, which we then inject into our pipeline. CNG is a highly compressed form of natural gas. We transport CNG in trailers and other storage equipment to inject for smaller volume needs.

PG&E has owned and operated its own LNG/CNG program for about six years. Others in the gas industry also do this work, but none have the full range of small CNG to very large LNG equipment, nor the sophistication that PG&E has in its program.

Here's a snapshot:

- We have the capacity to serve more than 20,000 customers at a time
- Our operations contain more than 150 pieces of service equipment that meet the most stringent safety standards
- We can maintain and monitor more than 100 LNG/CNG locations with unmanned or automated equipment so our crews can efficiently manage multiple projects

Our LNG/CNG team is led by Redacted supervising engineer. This is what the team does:

- Sets up a temporary job site
- Connects the equipment to an access point on the pipeline
- Monitors the automated equipment remotely or operates the equipment manually
- Refills or replaces the equipment that has been depleted due to customer usage
- Disconnects the equipment for use in the next project somewhere else in the gas system

From a Customer Perspective

Last month we performed our largest LNG injection that provided service to 6,000 customers in Napa County during an integrity management hydrotest. Through the hard work of a team of 14 PG&E employees, we seamlessly supplied local restaurants, resorts, spas and homes with more than 250,000 gallons of liquid natural gas (over 20 million cubic feet) for more than two weeks. Think about the millions of dollars generated by the tourist industry in Napa County and how businesses would've reacted if our hydrotests also impacted them in their pocketbooks.

In Santa Cruz this past July, our second-largest LNG injection kept gas flowing for 12 days to 20,000 customers during hydrostatic testing. A major pipeline was taken out of service for testing as part of ongoing pipeline safety enhancements and we did the work without the slightest interruption in service.

We also provided LNG for an asphalt plant in Brisbane, which is south of San Francisco, in August. They had very little confidence in this work before we started, but 17 days later, they were extremely pleased that we provided them with an uninterrupted supply over three weeks during their busiest time of year.

Our LNG/CNG operations work hits—square on the nose—our safety, reliability and affordability goals. It is just one more example of how, together, we are making a huge difference for our customers.

Thank you,

<image002.png>

Nick

PG&E is committed to protecting our customers' privacy.
To learn more, please visit
<http://www.pge.com/about/company/privacy/customer/>