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With the world becoming more concerned about climate change, carbon dioxide emissions, and air quality, the focus on natural gas for electricity generation has increased as natural gas emits the least carbon dioxide per unit of energy produced.

Natural gas also finds gas across residential, commercial, industrial and transportation sectors, in varying amounts.

The success in large-scale adoption of natural gas as an environment friendly energy source largely depends on efficient transportation of natural gas from its processing centers to its end consumers

The project:

Dabhol-Bangalore Gas Pipeline

The Dabhol-Bangalore Gas Pipeline, being constructed by the Gas Authority of India Limited (GAIL) is a 1,400-km pipeline project for supplying natural gas to the Indian state of Karnataka from Ratnagiri Gas and Power Pvt Ltd in the Indian

state of Maharashtra.

In the part A of the first phase 402 km of pipeline will be laid from Dabhol to Gokak and it is expected to be completed by 2011-12. In part B of the phase 1,570-km pipeline will be laid from Gokak to Bangalore and would be completed by 2012-13.

In the second phase, 417 km of feeder lines will be laid to Ratnagiri, Kolhapur, Sangli in Maharashtra and Bija pur, Dharwad, Davangere, Harihar and Tumkur; and would be completed by 2013-14.

The pipeline would have an installed capacity to supply about 30 million metric standard cubic metre of gas daily. On completion, this pipeline would be India's longest crosscountry natural gas transportation and distribution system.

The challenge

In order to manage the natural gas that enters the pipeline, and to

ensure that all customers receive timely delivery of their portion of this gas, sophisticated control systems are required to monitor the gas as it travels through all sections of the pipeline network.

To accomplish this task of monitoring and controlling the natural gas that is traveling through the pipeline, centralized gas control stations collect, assimilate, and manage data received from monitoring and compressor stations all along the pipe.

Most of the data that is received by a control station is provided by Supervisory Control and Data Acquisition (SCADA) systems. These systems are essentially sophisticated communications systems that take measurements and collect data along the pipeline (usually in a metering or compressor stations and valves) and transmit it to the centralized control station.

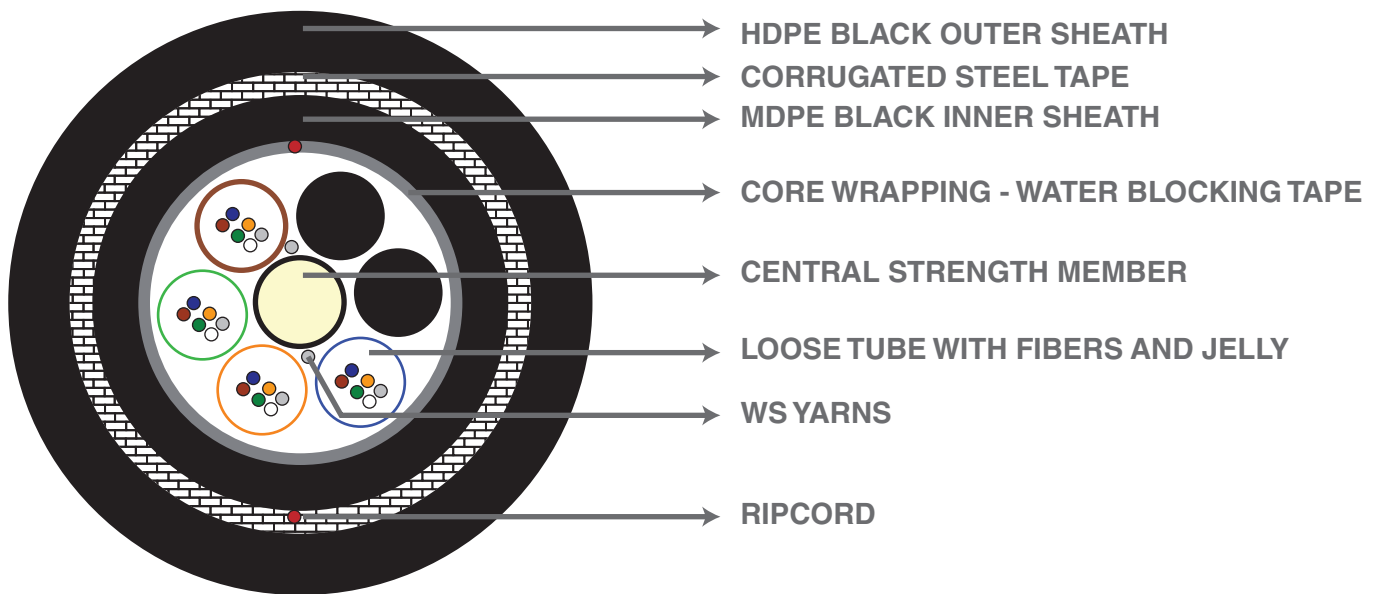
Flow rate through the pipeline, operational status, pressure, and temperature readings may all be used to assess the status of the pipeline at any one time. These systems also work in real time, meaning that there is little lag time between the measurements taken along the pipeline and their transmission to the control station.

The requirement

The key requirement for such sophisticated communication systems is that the data needs to be relayed to a centralized control station, allowing pipeline engineers to know exactly what is happening along the pipeline at all times.

Fiber optic cables form the backbone for the SCADA systems and enables quick reactions to





Double Sheath Armored Fiber Optic Cable

equipment malfunctions, leaks, or any other unusual activity along the pipeline.

Features

- Rodent protected cable,
- High tensile strength, crush and impact resistance,
- Longitudinal water penetration resistance,
- UV Protected outer most jacket,
- Ripcord for easy removal of sheath,
- Multi-tube design for ease of mid spanning,
- Reverse oscillation lay for strain relieved fiber.

Conclusion

Once completed, the pipeline would supply gas to fertilizer and power plants that are planned for construction in the Indian states of Karnataka and Goa. The Dabhol-Bangalore Gas Pipeline would also form the main backbone for gas distribution systems, for supply of compressed natural gas (CNG) to automobiles and piped gas to

households.

The Sterlite Advantage

Global experience

Sterlite has a significant experience in implementation of projects for Government incumbents, utilities and enterprises.

End-to-end project

implementation

Sterlite ensures complete control over the value chain and delivers end-to-end project management services.

Qualified and experience talent pool

Sterlite has a qualified talent pool, experienced in network design, project management, network implementation and network maintenance.

Credible partners

Sterlite has partnered with reputed project management companies and Original Equipment Manufacturers (OEMs), to ensure that the delivery of the project is streamlined.

Solution development for newer applications

Sterlite continues to enhance its portfolio taking into account the bandwidth needs evolving from client applications.

Local Support

With offices in 10 countries, Sterlite always has a relationship manager who is a mere phone call away, to understand your growth aspirations and to explore areas where it add value to your business.

About Sterlite Technologies

Sterlite Technologies is a leading global provider of transmission solutions for the power and telecom industries. Equipped with a product portfolio that includes power conductors, optical fibers, telecommunication cables and a comprehensive telecom systems / solutions portfolio, Sterlite's vision is to 'Connect every home on the planet'. Sterlite is also executing multi-million dollar power transmission system projects, pan-India.

