

**Technical Seminar for**

**a)Cathodic Protection**  
**On Gas Transmission Pipelines**

**&**

**b)Lightning Protection**

# PROGRAMME

Tuesday, 8<sup>th</sup> October 2013

## 1<sup>st</sup> SESSION

1. Introduction to theoretical principles of Pipelines Corrosion.
2. General principles and theory for Cathodic Protection. Control of corrosion.

## 2<sup>nd</sup> SESSION

3. Measurements of Cathodic Protection Circuits (Potential , Resistance, Current)
4. Cathodic Protection Criteria

## 3<sup>rd</sup> SESSION

5. Coating selection criteria
6. Cathodic Protection Design Criteria

## Wednesday 9th October 2013

### **1<sup>st</sup> SESSION**

- 7. Cathodic Protection Modelling in Different Soil Environments**
- 8. Cathodic Protection of Complex Structures**

### **2<sup>nd</sup> SESSION**

- 9. Cathodic Protection in ac/dc interference conditions. Proximity effects studies and interference distances**

### **3<sup>rd</sup> SESSION**

- 10. Impressed Current Cathodic Protection Stations**
- 11. Alternative sources of power supply (e.g. solar panels, wind generators) and criteria for selection**

## Thursday, 10th October 2013

**Site Visit**

## Friday 11th October 2013

### **1<sup>st</sup> SESSION**

12. Standards and specifications for the design. Equipment and materials specifications and standards.
13. Precommissioning and Commissioning procedures
14. Monitoring, Inspection and Maintenance

### **2<sup>nd</sup> SESSION**

15. Lightning Protection - Introduction.
16. General Description of Standard IEC EN 62305.
17. Surge Protective Devices (SPDs), Isolating Spark Gaps (ISGs) and DC-decoupling devices.

### **3<sup>rd</sup> SESSION**

Focus on items chosen by the participants.  
Examples and Practical Problem Solving.  
General Discussion