

# **Non-Technical Summary**

## **Introduction**

National Grid has a statutory obligation to develop and maintain a safe, efficient, co-ordinated and economical pipeline system for conveying natural gas. The Brecon to Tirley pipeline and associated works are part of the Milford Haven Gas Connection Projects. These involve the construction of new gas transmission pipelines from two new Liquid Natural Gas terminals at Milford Haven in South Wales to Tirley near Tewkesbury at which point they connect with the National Transmission System (NTS) at Treadow near Peterstow in Herefordshire and at Corse near Tirley in the Forest of Dean.

Murphy Pipelines Ltd has been appointed by National Grid to design and build a section of the proposed pipeline from Brecon to Treadow to Tirley and its associated works.

This Environmental Statement is focussed upon the proposed Treadow Pressure Reduction Installation (PRI) that would form one of the connections from the new Brecon to Tirley pipeline to the existing NTS. The function of the Treadow PRI is to filter, meter and regulate the pressure of in-coming gas before relaying it into the existing NTS.

The proposed Treadow PRI site is located in an agricultural field in the County of Herefordshire, approximately 500m east of the settlement of Treadow and approximately 4km to the west of Ross-on-Wye. The existing Peterstow Compressor Station lies directly to the south of the proposed site. The site would be approximately 1.9 hectares in size and would be ringed by a security fence. It is anticipated that the site preparation for the development would begin in late summer/autumn 2006, subject to planning permission.

## **Site Selection**

A connection to the existing NTS pipeline is required at Peterstow as this is the nearest practical point to the existing NTS pipeline network east of the Brecon Beacons National Park. A connection at this point is also required to provide greater security of supply in the event that the section of new or existing pipeline between Peterstow and Tirley needs to be closed for maintenance purposes.

Within the general vicinity of the existing Compressor Station at Peterstow, a number of locations were reviewed during design feasibility study having regard for environmental and engineering design considerations to identify the preferred site. Environmental considerations included avoidance of known environmental features and protected areas, possible visual impact, proximity to sensitive receptors, plus the ability to screen and landscape the site.

## **Archaeology and Cultural Heritage**

An archaeological desk based assessment was undertaken to identify heritage features and the potential for archaeological finds within the locality of the proposed PRI.

The assessment identified the need to ensure that the setting of two listed buildings, Great Treaddow Farmhouse and Great Treaddow Farm, is not impacted by the proposed development.

The development site borders the Hentland and Harewood/Peterstow parish boundary on its south eastern perimeter which is of possible archaeological interest.

Mitigation strategies to avoid impacts to these archaeological features include the following main elements:

- design of the PRIs is being undertaken in conjunction with Landscape and Visual assessment work to ensure the design is in keeping with setting to avoid detrimental impact to the listed buildings;
- scale and colour of the installation would be carefully considered to avoid detrimental impacts;
- a geophysical survey of the whole site has been undertaken ahead of construction.
- an archaeology watching brief would be undertaken during construction to deal with any un-anticipated archaeological remains.
- where services must cross the parish boundary a cross section would be recorded and sampled.

## **Ecology**

An ecological assessment was undertaken during January, February and April 2006. The report assessed the ecological value of the study area, with consideration for the possible presence of any rare or protected species or sensitive habitats.

No statutory protected sites are located within the study area although a Special Wildlife Site (designated by Herefordshire Wildlife Trust), Wilson Farm Ponds, is located approximately 1km east of the site. This is unlikely to be impacted by the works however.

The development would principally impact arable farmland and habitats of minimal ecological value. Construction of the access track would necessitate loss of a number of poorly conditioned crack willows and an isolated section of hedgerow.

Biodiversity is anticipated to be improved through landscaping and planting with native species typical of the local area, including berry bearing species that may benefit wintering birds as a food source, and through the construction of a reed bed habitat.

Surveys have been carried out to confirm the presence / likely absence of Great Crested Newts in ponds within 500m of the development site. Newts have been found in a pond to the west of PRI site, and a standard capture and exclusion programme will be implemented to minimise impacts to this species. These works will be completed under a licence issued by Defra. Mitigation will include the provision of suitable terrestrial and breeding habitat for this species

No habitats suitable for commuting, foraging or roosting bats are likely to be impacted by the scheme. However, a bat survey would be carried out prior to construction works to make an assessment of activity on site. The landscaping and planting proposals include provision for reinforcing existing hedgerows which should serve to improve their potential value as commuting routes.

Bird surveys have been undertaken to identify species likely to be breeding on site. Additional surveys will be undertaken to check for possible presence of ground nesting birds ahead of construction. Deterrent measures (e.g. use of bird scaring tape) will be implemented to deter ground nesting birds, notably sky lark.

Water discharges would be subject to Environment Agency (EA) control to ensure no detrimental impact to water quality in Luke Brook and other watercourses, including the Wilson Farm Ponds Special Wildlife Site.

The landscaping planting would include native species which would offer increased food and shelter for local species. It is considered likely that biodiversity would increase and overall the project is anticipated to result in a net slightly beneficial impact to ecology and biodiversity.

## **Water Resources**

The proposed Treadow PRI is located within the catchment of the River Wye, which runs approximately 3km to the southeast. Luke Brook, a tributary of the River Wye runs past the east of the site in a south easterly direction. The site is underlain by a minor aquifer, as classified by the EA.

A series of best practice construction measures would be implemented by Murphy Pipelines Ltd to protect surface water runoff and prevent secondary impacts on adjacent water bodies and groundwater. These would include provisions to control storage and handling of fuel oils and chemicals, and measures to control erosion and wash out of silty waters and any effluents, for example. These are standard Murphy Pipeline Ltd environmental management procedures and will be implemented under the supervision of the Murphy Pipeline Ltd management team which includes a dedicated project Environmental Advisor.



Discharge consents would be agreed by the EA to control discharge of condensate from the proposed low pollution boiler as well as storm drainage. The whole site would be drained via an interceptor to prevent release of substances into surrounding water courses in the unlikely event of a leakage or spill.

This combination of effective mitigation measures would ensure that any impact of the development on surrounding water quality would be of minor significance.

The interception of the drainage system would have no more than a very minor impact on groundwater recharge and basal river flow.

### **Agriculture**

The proposed Treadow PRI is located within an arable field classified as Grade 2 under the national Agricultural Land Classification system. Soil of either Grade 1 or 2 extends all around the proposed site and consequently the loss of this good quality Grade 2 field is unavoidable. Topsoil removed during the construction process would be utilised for landscaping purposes.

The field is currently designated under the Environmental Stewardship scheme and thus the development would result in a small reduction of land within the designated area.

Structural damage and soil compaction from construction activities would be minimised by best practice construction methods in accordance with standard Murphy Pipelines Ltd environmental management procedures. Temporary access routes would be covered with suitable material to protect the soil.

An overall adverse impact of minor significance to the local soils and agriculture is anticipated.

### **Landscape and Visual**

The proposed development is in a rural location, characterised by a rolling landform comprising a series of low ridges and fields. Small hamlets and isolated farmsteads scatter the landscape with the existing Peterstow Compressor Station present to the south of the proposed site. The presence of electricity pylons traversing the study area detracts slightly from the overall character.

The loss of short stretches of existing established hedgerow adjacent to the proposed development site and the loss of an agricultural field would result in a minor loss of landscape features characteristic of the immediate area.

The landscape and visual assessment has regard for various sensitive receptors including surrounding residential properties, public rights of ways and highways. These receptors would be provided with a degree of visual screening from both existing, vegetation and proposed mitigation planting which would improve as it matures over time. Nevertheless elevated structures associated with the PRI (e.g. boiler stack) would

remain evident as new feature in the landscape. Earthworks, mounding and planting would impact on the existing rolling landform.

Mitigation would be provided in the form of low mounding and a robust planting framework, utilising species appropriate to the locality. During construction and in the first years of opening, the impacts are considered to be slight to moderately adverse. By year 10 the impacts are likely to be reduced to neutral to slightly adverse. The boiler house stack, which would rise above the vegetation screen, and associated water vapour plume would remain visible.

### **Noise and Vibration**

Construction noise will be managed through standard best practice construction controls in accordance with the standard Murphy Pipeline Ltd environmental management procedures. These will include the specification of low noise generators, for example.

Controls over construction working hours would be agreed with the Herefordshire Council Environmental Health Officer (EHO). Any necessary out of hours work would be agreed in advance with the EHO.

The EHO would be advised in advance of any unusual noise generating events, for example during commissioning. Residents would also be advised of such events by letter drop and provided with telephone contact details for responsible Murphy Pipelines Ltd staff. Murphy Pipelines Ltd are committed to a transparent working relationship with the EHO and local residents to minimise any potential nuisance.

Noise in the operational phase would be mitigated through design and the specification of noise limits for plant to ensure that noise would not cause nuisance to residents of adjacent dwellings. The assessment is based on night time conditions as these are the most sensitive.

Overall a slight adverse impact can be expected as a result of disturbance from traffic and plant during the construction period and from running of plant during operations.

### **Traffic and Transportation**

The generation of heavy vehicular traffic and movement of staff would have a slight adverse impact upon the local road system during the construction phase of the project. This would be managed through implementation of a Project Traffic Management Plan agreed with local highways authorities and police to control the routing and timing of traffic movements and provide for reinstatement of any road damage.

The operational activities associated with the PRI would generate minimal traffic given the low volumes of personnel attending the normally unmanned facility. The overall impact to traffic and transportation is considered to be neutral.

## **Socio-Economic**

The scheme provides strategic national benefits in terms of improved security of gas supply.

The development of the Treaddow PRI is not predicted to result in any significant change to the local economy in the long term. There would be some benefits to local trade during the construction period.

Tourists visiting the surrounding Peterstow area would not be significantly affected by the proposed development. The existing and proposed sites are well screened in the surrounding landscape.

Overall the residual socio-economic impact to the local area is considered to be neutral.

## **Air Quality**

Best practice construction measures would be implemented to minimise generation of dust and prevent nuisance. These would include measures such as sheeting of bulk transport lorries and stockpile dampening, for example.

Traffic movements would be controlled in accordance with the Project Traffic Management Plan. Residual impacts of traffic on air quality would be localised and of slight adverse significance.

There is unlikely to be any significant impact on local air quality associated with traffic movements during the operation phase of the proposed development.

A low emissions boiler is proposed to ensure no significant effects on air quality during operation.

Natural gas conveyed through the PRI facility is pre-treated upstream and presents no odour concern. Natural gas is lighter than air and any emissions would be quickly dispersed and present no significant public health threat.

It is considered that the overall impact on local air quality is likely to be of neutral significance during operations.

## **Waste Management**

The construction and operation of the Treaddow PRI would generate small quantities of waste. Waste materials would be recycled where possible or disposed of off site using appropriate licensed waste management contractors. Options for eliminating, reducing, recycling and responsibly disposing of the wastes would be subject to regular review by both Murphy Pipelines Ltd and National Grid subject to the requirements of their respective ISO 14001 certified Environmental Management Systems.

The identification, segregation, storage, transfer and disposal of all waste will be tightly controlled and monitored in compliance with standard Murphy Pipelines Ltd waste management procedures. Using practical mitigation measures, waste produced during construction and operation of Treaddow PRI is likely to be minimal resulting in a low adverse impact on the surrounding environment.