

## **Albury Gas Storage Project**

### **Preliminary submission of proposals by Star Energy Gas Storage Services Limited for a Storage Authorisation Order under the Gas Act 1965**

### **Response to Public Consultation**

**October 2007**

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## I Introduction

In July 2007, Star Energy Gas Storage Services Limited ('Star Energy') submitted its preliminary submission of proposals by for a Storage Authorisation Order (SAO) for the Albury Gas Storage Project, Surrey under The Gas Act 1965. The storage project concerned is known as Albury I and involves an identified natural gas reservoir. Star Energy has also indicated that, subject to further appraisal drilling, it may at some point in the future seek separate permission to store gas in lower and as yet substantially unexplored strata. This prospect has been made known to the local liaison committee and it has been stressed that the two stages are entirely independent. The current application relates only to Albury I.

The Gas Act 1965 sets out a two-stage process. It involves firstly a preliminary submission of the developer's proposals and secondly, if agreed by the Secretary of State, a formal application for a Storage Authorisation Order.

The preliminary submission stage provides an opportunity to identify any overriding objections to a proposal such that it would not be appropriate for it to proceed and be considered fully at the formal application stage. The Secretary of State also considers that it provides an opportunity for consultees and interested parties to make representations on any further information they would like to see covered in more detail in the application and/or any Environmental Statement.

The preliminary submission of proposals for the Albury Gas Storage Project was subject to public notification and consultation in accordance with the statutory requirements as set out in the Gas Act 1965. In addition to comments from statutory consultees, a total of 170 responses were received from members of the public, parish councils and residents groups.

This document is an initial response to the key common issues raised by the consultation. The issues raised will be addressed in detail in the Formal Submission for a SAO should the Secretary of State give Star Energy approval to proceed with such an application.

This document addresses the following key issues:

- scope of consultation;
- national need for the project;
- safety and security;
- greenbelt and AONB policy;
- alternative development sites;
- incremental damage and harmful precedent;
- environmental impact; and
- procedural issues.

## 2 Scope of Consultation

The timescale for the consultation is set by statute in the Gas Act 1965. Star Energy has complied with its requirements. In recognition of the natural local interest in the project, the preliminary submission was publicised well beyond the statutory requirements. For example the application was provided in full to all the Parish Councils in the Storage Area, and the documents were also made available for download from a specially established project website:

[www.alburygasstorage.info](http://www.alburygasstorage.info)

The proposals have been discussed at length with a local liaison committee over more than two years and have been the subject of two public exhibitions, community newsletters and extensive media coverage.

It should also be appreciated that if approval is given to progress to a Formal Application, it would then be subject to a further round of notification and consultation thus, providing local people with another opportunity to comment on the proposals.

## 3 National Need for the Project

There is a clear and demonstrable need for additional gas storage to support:

- The security of gas supply; and
- The efficiency of the gas market.

There is strong support for the provision of additional gas storage infrastructure within UK Energy Policy and, due to geological and economic limitations, there are very limited locations that are suitable for storage.

The national need for additional storage requires that all potentially available gas storage sites be developed. As such, they are not alternatives.

The formal application would be supported by a detailed need case and supported by an independent assessment by the Energy Contract Company of the gas supply and demand situation within the UK.

## 4 Safety and Security

The storage of natural gas within depleted oil and gas fields is proven technology with a good safety record, as is recognised by the Health and Safety Executive (HSE) <sup>1</sup>:

***“Incidents involving the release of dangerous substances in normal operation are rare”***

***“The integrity of the storage reservoir, having formed naturally, is of low concern, as it is not pressurised above its historical pressure so as not to compromise the reservoir cap.”***

Star Energy has commissioned detailed, independent assessments of the safety of the following elements of the Project:

- gas store;
- wells;
- wellsite;
- pipelines;
- gas processing facility; and
- tie-in to grid (Above Ground Installation).

These studies would be reported in support of the Formal Application.

A quantitative assessment has shown that the risks associated with the surface facilities and associated pipelines are within the risk acceptability criteria adopted by the HSE. Although the Gas Storage Facility would not be a regulated installation under the Control of Major Accident Hazards (COMAH) Regulations, Star Energy has volunteered a safety document which follows the principles of COMAH. The HSE will be asked to review this document.

Safety and security concerns have been raised relating to the operation of Star Energy’s existing Wellsite within Albury Park. These have been addressed by Star Energy with the HSE. A copy of the report issued to the HSE is included at **Appendix A**. The HSE has subsequently inspected the Wellsite and has confirmed that it has no concerns about the existing operation.

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<sup>1</sup> HSE (28 June 2006) The Health and Safety Risks and Regulatory Strategy related to Energy Developments, An expert report by the Health and Safety Executive to the Government’s Energy Review.

## 5 Green Belt and AONB Planning Policy

There is a demonstrable national need for additional natural gas storage. Mineral Planning Statement I recognises that there are limited locations available for gas storage:

***“...suitable onshore locations for gas storage will be very limited in number, due to the lack of suitable geographical features for underground gas storage, so that alternative possibilities may not be available”.***

For the UK to increase its gas storage to a desirable level, all of the gas storage projects that the Government has identified to date will be required to meet demand. Consequently, other storage projects which may be outside of either the Green Belt or an Area of Outstanding Natural Beauty (AONB) are not alternatives to Albury.

The Formal Application will include a detailed consideration of the alternatives available for the provision of gas storage within the UK.

The national need obviously has to be balanced against the local benefit and this has been recognised by the Government:

***“New energy infrastructure projects may not always appear to convey any particular local benefit, but they provide crucial national benefits, which all localities share.”<sup>2</sup>***

## 6 Alternative Development Sites

Star Energy has commissioned a detailed, independent site selection study. This has been issued to interested parties and is also available on the project website ([www.alburygasstorage.info](http://www.alburygasstorage.info)). The study will also be formally submitted with the Environmental Statement in due course.

This has included a methodical evaluation of alternatives for:

- Wellsite;
- Pipeline routes;
- Gas Process Facility;
- Above Ground Installation.

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<sup>2</sup> Ministerial Written Statement, Secretary of State for Trade and Industry, 16th May 2006, Energy Statement of Need for Additional Gas Supply Infrastructure.

The study included the consideration of 14 alternative Wellsites both outside and within the Surrey Hills AONB.

## 7 Incremental Damage & Harmful Precedent

As indicated in our introduction above, the current Albury 1 and potential Albury 2 projects are independent. Development of Albury 1 does not dictate that Albury 2 would also go ahead. Equally, Albury 1 is commercial in its own right and could proceed without Albury 2.

The Albury 2 project would be subject to separate development consent decisions in the future.

Albury 1 has taken account of the possible infrastructure requirements of Albury 2 in order to minimise the amount of future incremental land take, namely:

- The Wellsite and GPF have sufficient space within the footprints to accommodate the anticipated additional equipment that may be required for Albury 2; and
- The pipeline between the Wellsite and the GPF would have sufficient capacity to accommodate anticipated gas flows for Albury 2. This would avoid the need for an additional parallel pipeline with its associated environmental impact.

## 8 Environmental Impact

An independent and comprehensive Environmental Impact Assessment (EIA) of the whole project is being undertaken by ERM. In May 2007, a wide range of statutory and non-statutory consultees were invited to comment on the scope of the EIA. The Scoping Report was made available for download on the project website. In addition, a formal Scoping Opinion was requested from Surrey County Council (with the agreement of DBERR).

Amongst other issues, the EIA will cover:

- landscape and visual;
- ecology and nature conservation;
- archaeology and cultural heritage;
- soils and agriculture;
- noise and vibration;
- air quality;
- traffic and transport;
- contaminated land and waste management;
- water resources and flood risk;
- tourism and recreation; and

- socio-economics.

The Environmental Statement will be submitted with the formal applications.

## **9 Procedural Issues**

The formal public consultation requirements are set out in the Gas Act 1965 and have been complied with by Star Energy.

The consent application procedures set out Gas Act 1965 require the public notification of applications and statutory consultation. In this way, the rights of members of the public to object are not compromised by this legislative route.

There has been a previous application under Gas Act 1965, namely for the Caythorpe Gas Storage Project. DBERR has recently published Draft Guidelines on the Act.

## **Appendix A Text of Report issued to the Health and Safety Executive in September 2007**

### **I Introduction**

This statement is in response to a letter submitted by the Albury Parish Council with Farley Green, Brook and Little London on the 30<sup>th</sup> July 2007, accompanied by an anonymous letter and photographs taken on our site at Albury by uninvited intruder(s), knowingly using a camera (a potential source of ignition) forbidden on site without a work permit requiring appropriate safety precautions, jeopardising their own and others safety, and the safety of plant at the location. This action alone is a very reckless action to have taken.

Albury Gasfield is operated under strict operating instructions which clearly outline the equipment inventory on the site, and how it should be operated, under normal circumstances and in emergency situations. The site is regulated by the relevant authorities, including the Health and Safety Executive, and is inspected at intervals by them.

### **2 Summary**

The Albury Gasfield flows gas from a single well Albury-I to two IMW Gas Engine Generators via a separation, pressure letdown and metering skid.

The separation equipment is designed to remove any entrained oil or condensate from the gas, to ensure a dry fuel gas to the engines. Pressure is letdown from the flowing wellhead pressure of approximately 53.0 barg to 2.3 barg in two stages to prevent the formation of hydrates. The combined gas flow to the two engines is metered.

Any liquid knocked-out of the gas stream is transferred to a storage tank, which is emptied as necessary and its contents disposed of offsite to a suitably licensed facility.

The power produced by the Gas Engine Generators on site is exported to the National Grid on demand.

The site is designed to run unmanned with regular attendance by the Operations and Maintenance staff from the Humbly Grove Oilfield. A telemetry link into Weston Common Control Room enables the shift Supervisor at this location to continuously monitor the status of the Albury site operation and to be immediately made aware of an alarm situation.

The Albury Gasfield has up to date Operating Instructions detailing equipment at the location and what to do in an emergency.

The Anonymous accompanying letter has sixteen bullet pointed questions and or statements which we address in turn below.

### 3 Entry by Unauthorised Personnel

The report has been produced by an anonymous person(s) who entered the site without the permission of Star Energy with a camera which is most likely to have been not intrinsically safe. This was blatantly in contravention to the instructions clearly marked on the entrance gate which state that there should be no access by unauthorised personnel and specifically prohibits the use of cameras (among other potential spark ignition equipment).

It is considered that any person with practical experience of operating within the safety regime of oil and gas installations in the UK and having as a result received the necessary safety training would not demonstrate such an unacceptable level of competence as ignoring the safety notices posted. Furthermore, Star's operating and maintenance procedures ensures compliance with "Pressure Systems Safety Regulations 2000", "Dangerous Substances and Explosive Atmosphere Regulations 2002", and "Equipment and Protective Systems for Use in Potentially Explosive Atmospheres Regulations 1996", anyone claiming to be qualified to assess the site would be aware of these and by the very questions the producer of the report has demonstrated an ignorance of key regulations. Whoever has produced the report through his or her actions has demonstrated, contrary to their claim, that they are either not qualified or not competent to evaluate the condition of any hazardous site.

Should anyone have wished to visit our site we would have arranged an accompanied tour with proper safety briefing and permits, as we have for members of Albury Parish Council and members of the Albury liaison panel when they visited our Humbly Grove Gas Store in Hampshire.

### 4 Response to Comments Made

#### 4.1 *“Unmarked and unlocked pedestrian gate, main gate shows different emergency phone numbers but not 999”*

The emergency exit hand gate which is used infrequently was locked when the Operations Technician last visited the site on the 15<sup>th</sup> June 2007.

We are not obliged to post 999 numbers but have posted on the site gates signage indicating what can and cannot be brought onto the site for safety reasons. This includes cameras, something which was blatantly ignored by the person(s) who entered our location. The sign also states what type of Personnel Protective Equipment is to be used on site, namely safety helmet, boots, overalls, safety glasses, ear defenders if required. In accordance with our safety procedures, all the relevant numbers required in an emergency are also posted; when the

numbers on the gate are called the control room shift supervisor will contact the emergency services, giving correct site co-ordinates to aid a speedy response. At this time our emergency procedures would be instigated.

#### **4.2 “Poor contamination practice and oil spilt on the ground”**

On further investigation it was found that a small amount of stone discolorisation had occurred during an engine oil change, there was not enough to contaminate the underlying ground. The site is laid on an impermeable membrane and all rainwater falling on the unbunded area flows to a gully which surrounds the site, where it is left to either evaporate or be sucked out by suction tanker for eventual off-site disposal. Rainwater falling on the banded area where the processing equipment is sited, is retained by the bund wall from where it can be removed by suction tanker. The ditch has been colonised by local flora and fauna and has no obvious indication of oil contamination.

#### **4.3 “Hydrocarbons in well cellar and drainage sump”**

Similarly the well cellar is a sealed sump where rainwater and any oil is contained for removal by suction tanker for disposal offsite at a licensed facility. On inspection, the well cellar had a very fine film of oil on top of water in the cellar, this was contained and was of no danger and has subsequently been removed. This water was disposed to suitably licensed facility in accordance with our routine procedure for draining this area.

#### **4.4 “Interceptor ditch overflowing into unprotected ground and no evidence of water removal”**

The water line along the top of the ditch clearly shows that the water in the ditch was produced by some extremely severe weather conditions, the like of which has never been seen in this area, or this country for a very long time when the photographs were taken on 18<sup>th</sup> June 2007. There is no evidence of oil contamination in the ditch and this has also been answered in bullet point two above.

#### **4.5 “Poor Oil Handling practice (Open bottles overflowed & poorly supported, drums left in hot air exhaust)”**

The drums referred to and photographed were put there to catch heat condensate water from the crank case breathers in the engine house. The fluid was clear water and it takes approximately one month to three quarter fill the drums. The holes cut in the container are kept to a minimum to stop ingress from rainwater. We have changed the containers out, but we still will use this system as it works best for us, and prevents potential oil contamination of the ground.

#### **4.6 “Pressure vessels manufactured in 1993 with no evidence of subsequent inspections”**

In compliance with the Pressure Systems Safety Regulations 2000 all our vessels are checked every two years by a competent person (required under Regulation 9) and in accordance with the Written Scheme of Inspection (required under Regulation 8). Furthermore, all the relevant records and certificates are retained in accordance with Regulation 14. The Health and Safety Executive checks compliance with these legal requirements as part of its programme of inspection of Star Energy.

#### **4.7 “External corrosion evident on poorly coated equipment”**

Although there may be some slight discolouration evident on the tank and some pipework, this does not in itself indicate corrosion. The equipment is checked on a regular basis and is regularly inspected as per the routine maintenance and inspection regime. Wall thickness tests are carried out regularly and evidence of this is clearly seen on the equipment. External corrosion is also checked as part of the examinations required under the Pressure Systems Safety Regulations 2000.

#### **4.8 “Unsecured pressure vessels”**

All of the vessels are stable and secure, and have been *in situ* for a good many years and are in a satisfactory condition. The structural integrity of vessels is checked as part of the examinations required under the Pressure Systems Safety Regulations 2000.

#### **4.9 “No gas detection or portable gas testers evident”**

No portable gas detection was visible because detectors are brought to site by our technicians when they are working at the location. Should the author(s) of the report have accessed the site properly and safely they would have had to carry a portable gas detector. Our technicians work under permit and use the detectors as required. Permanent gas detection units are positioned within the housings of the Gas Engine Generators which detect any source of gas leak and will shut down the engines and the isolation valve on the wellhead. This shut down action is relayed back to Weston Common Control Room via a telemetry link where further action is instigated.

#### **4.10 “Poor piping and cable layout”**

All of our piping and cables have been rigorously checked and are fit for purpose and use; ninety percent of the pipework is within a bunded area and all are installed in accordance with the design criteria. Cable trays are in position on the site and cables are either strapped to them or

laid along side. Any cables found to be above ground level have been made secure, this work was carried out on September 3<sup>rd</sup> 2007.

#### ***4.11 “No apparent Shut Down loop or control point away from plant (also disused? Well-head control panel set to manual over-ride)”***

At the wellhead there is a SSD (Surface Shut Down) button which will close the surface valves once activated. This equipment is not in override and can also be operated remotely through telemetry link from the Weston Common Control Room. Once the alarm is received at Weston Common, a roving technician is dispatched to the site to investigate and rectify any fault.

#### ***4.12 “Powder extinguisher too close to plant”***

We have five extinguishers located in and around the site and the positioning of the extinguishers is based upon our own assessment of the most appropriate location for these taking account of the hazards present. These extinguishers are there to be used in minor circumstances, any major issues will be dealt with by the Emergency Services for which they are fully trained. Regular visits from the fire service take place at all our operating sites and we act upon any suggestions they may offer. It is company policy to make attempts to extinguish small fires but, on the advice of the fire service, to leave any major incidents to trained personnel.

#### ***4.13 “Less reliable threaded connections in high pressure gas service (recorded at 53barg with generator running)”***

All fittings are to the correct design standard and rating 6000psi relating to each piece of equipment. Relief valves are fitted and rated to 3000psi and meet the correct design criteria.

#### ***4.14 “Process safety risks (Oil beneath skids, Safety relief valves intermixed with process equipment)”***

The safety systems were installed as per the initial design standards and relief valves are fitted as close to the equipment they are designed to protect as is possible. All outlets from the relief valves are piped to a common manifold and high level vent and this is common practice within the industry. All relief valves are inspected and maintained in accordance with the maintenance schedule which encompasses the Pressure Systems Safety Regulations 2000 requirements.

#### ***4.15 “Plenty of ignition sources (Non IS pumps and power lead, Un-pressurised control room and office, HV switch-gear etc)”***

The site is maintained and inspected in accordance with the requirements of the Dangerous Substances and Explosive Atmosphere Regulations, 2002. This includes definition of “hazardous

areas” and the rating of all equipment to be suitable for the area within which it is located. Compliance is assured and recorded as an integral part of our maintenance routines. Consequently, it is not necessary to have a pressurised control room at an onshore site outside a hazardous area as defined by the regulation.

#### **4.16 “Condensate tank to near external woods (fire risk)”**

The tank classed as a condensate tank near to the woods contains ninety nine percent water, as very little condensate is produced from the well. The tank is checked at each site visit and emptied every six to twelve months. Potential ignition sources within the site are kept to a minimum, by way of equipment certified in accordance with the Equipment and Protective Systems for Use in Potentially Explosive Atmospheres Regulations, 1996.

## **5 Conclusion**

Albury Gasfield site has operated continuously for many years without incident. We maintain the site in accordance with all the applicable requirements of health and safety legislation and monitor continually. The site is also periodically inspected by the Health and Safety Executive.

We believe we have addressed entirely the points made in the anonymous letter submitted.

It is unfortunate that a request to visit our site legitimately was not made. We would have arranged this, had a request been forthcoming. The need to enter the site uninvited with such obvious disregard for safety to both the intruder(s) and the community is, in the view of Star Energy, highly irresponsible.

Albury Gasfield is being run in a competent and legally compliant manner and has been so for many years. Our records are in place and up to date, the maintenance regime is good and we will continue to operate the site in this manner for the foreseeable future.