AGL Energy Limited
ABN: 74 115 061 375

Level 22, 101 Miller Street
North Sydney NSW 2060

Locked Bag 1837
St Leonards NSW 2065

T: 02 9921 2999
F: 02 9921 2552
www.agl.com.au

A few words.

25 January 2013

Mr Paul Freeman
Senior Planner, Mining Projects,
Department of Planning & Infrastructure
GPO Box 39 SYDNEY 2001
By email: paul.freeman@planning.nsw.gov.au

Dear Mr Freeman

SSD Application No. 4966
Stratford Extension Project
Submission by AGL Upstream Infrastructure Investments Pty Ltd

Background

AGL Upstream Infrastructure Investments Pty Ltd (**AGL**) holds petroleum exploration licence no. 285 (**PEL 285**) and a Part 3A Project Approval for the approved Stage 1 Gloucester Gas Project.

Both PEL 285 and the approved Stage 1 Gloucester Gas Project overlay the area covered by the proposed Stratford Extension Project.

The Part 3A project approval granted by the NSW Planning and Assessment Commission for the Stage 1 Gloucester Gas Project authorises the construction and operation of:

- 110 gas wells and associated infrastructure including gas and water gathering lines within the Stage 1 Gas Field Development Area;
- a central processing facility at one of two alternative locations (one of which is adjacent to the Stratford rail loop, the other being located on AGL's "Tiedmans" property);
- an approximately 95-100 kilometre length gas pipeline; and
- associated ancillary infrastructure.

Attached is Figure 5.2 of the Environmental Assessment Report for the Gloucester Gas Project, which shows the approved indicative well site locations, gas and water gathering lines and main spine line within the area of the existing Stratford mine and the proposed Stratford Extension Project (referred to in this submission as the Stratford Project Area).

The approved Stage 1 Gloucester Gas Project will help ensure the security of gas supplies to meet NSW's growing energy needs.

In addition, the AGL group also owns the following land located in the vicinity of the Stratford Mine (**AGL Land**):

AGL Energy Limited	Lot 49,50, 51 DP 979859	155 Wenham Cox Road Stratford NSW 2422
AGL Energy Limited	Lot 21 DP1164626	3270 Bucketts Way South Gloucester NSW 2422
AGL Energy Limited	Lot 11 DP101534	508 Fairbairns Road Forbesdale NSW 2422
AGL Upstream Investments Pty Ltd	Lot 83, 84, 85 DP979859	100 Tiedmans Lane Forbesdale NSW 2422

Reportable Political Donations

Please find attached a political donations disclosure statement prepared by AGL.

AGL's Submission

Key Message

AGL remains committed to working with Yancoal and Stratford Coal Pty Ltd (hereafter collectively referred to as **Yancoal**) to negotiate a cooperation agreement which provides a framework for successful co-existence of the Stratford Coal Mine, including the Stratford Extension Project, and the Gloucester Gas Project, including the approved Stage 1 Gloucester Gas Project.

AGL is concerned to ensure that:

- the assessment and determination of the Stratford Extension Project gives proper consideration to the impacts on the approved Stage 1 Gloucester Gas Project; and

- appropriate conditions are imposed on the proposed Stratford Extension Project so as to ensure that both the proposed Stratford Extension Project and the approved Stage 1 Gloucester Gas Project are able to be developed cooperatively.

AGL is confident that the Department of Planning and Infrastructure will share this view given that:

- the objects of the *Environmental Planning and Assessment Act 1979 (NSW)* (**EP&A Act**) include encouraging:

    - the promotion of the proper management and development of natural resources; and

    - promoting and coordinating the orderly and economic use and development of land; and

- the aims of *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* include:
    - to provide for the proper management and development of mineral, petroleum and extractive material resources for the purpose of promoting the social and economic welfare of the State, and
    - to facilitate the orderly and economic use and development of land containing mineral, petroleum and extractive material resources.

In addition, AGL is also concerned to ensure that the impacts of the Stratford Extension Project on the AGL Land are appropriately assessed and considered.

In this submission AGL makes a number of comments on the aspects of the Stratford Extension Project Environmental Impact Statement (**EIS**) which have the potential to impact on:

- the approved Stage 1 of the Gloucester Gas Project; and
- the AGL Land.

AGL does not object to the Stratford Extension Project providing that the issues raised in this submission are appropriately addressed during the assessment and determination of the Stratford Extension Project.

Assessment of Project Interaction with the Approved Stage 1 Gloucester Gas Project

The DGRs issued for the Stratford Extension Project require that the EIS include a "detailed description of the development, including … likely interactions between the development and existing, approved and proposed mining operations in the vicinity of the site."

Section 2.5.1 of the EIS contains what is expressed to be a description of potential interactions between the proposed Stratford Extension Project and the approved Stage 1 Gloucester Gas Project and AGL's ongoing exploration activities under PEL 285.

The EIS correctly notes that "infrastructure associated with Stage 1 of the Gloucester Gas Project overlays and is adjacent to the existing mining and exploration tenements at the Stratford Mining Complex." However, the EIS goes on to state that:

> *As the current PEL does not apply to the surface lands subject to Yancoal mining leases, a Petroleum Production Lease (PPL) can only be issued under the Petroleum (Onshore) Act 1991 (NSW) where the holder of mining lease agrees. Accordingly, only proposed infrastructure located outside of existing mining tenements at the Stratford Mining Complex and Project MLAs have been considered for the purpose of this EIS.*

The above statement is overly simplistic and AGL does not agree that its PEL does not apply to any of the surface lands subject to Yancoal mining leases.

AGL notes that:

- Yancoal's predecessor, Gloucester Coal, made a submission on AGL's application for Part 3A project approval for the Stage 1 Gloucester Gas Project, which stated: "Gloucester Coal welcomes other complementary activities being established provided restrictions or adverse impacts are not brought about to Gloucester Coal's operation. Gloucester Coal requests the Department of Planning give full consideration to Gloucester Coals currently consented mining and exploration activities in this regard." AGL's environmental assessment took into account Gloucester Coal's existing consented mining and exploration activities. AGL's response to this submission stated: "AGL would continue to consult with Gloucester Coal regarding operations in the Gloucester Basin. AGL will work with Gloucester Coal to develop a cooperation agreement for areas with overlapping tenure as required by [DTIRIS]."

- PEL 285 currently overlaps with Yancoal's existing Mining Leases and the proposed new mining lease areas (identified as MLA1, MLA2 & MLA3);

- AGL and Yancoal are parties to an agreement which records the agreement of Yancoal to permit the excision of certain areas from within the mining leases granted for the Bowens Road North Project in order to permit the granting of petroleum production leases (**PPLs**) under the *Petroleum (Onshore) Act 1991 (NSW)* and facilitate the production of gas;

- as noted several times in the EIS, the AGL and Yancoal are in the process of negotiating a cooperation agreement with respect to the areas of overlap to enable both projects to proceed on a cooperative basis;

- AGL has applied for a PPL for the Stage 1 Gloucester Gas Project and AGL's PPL application covers both Yancoal's existing MLs and the MLAs the subject of the Stratford Extension Project; and

- section 75V of the EP&A Act operates so that AGL's PPL "cannot be refused … and is to be substantially consistent with" an approval granted under Part 3A.

Given the above, the fact that the EIS has only considered the approved Stage 1 Gloucester Gas Project infrastructure where *"located outside of existing mining tenements at the Stratford Mining Complex and Project MLAs"* is extremely concerning to AGL. AGL asks that this defect be rectified and that a supplementary report be prepared which properly:

- addresses the DGRs and assesses and considers the potential interactions between the proposed Stratford Extension Project and the approved Stage 1 Gloucester Gas Project; and

- sets out the measures which are proposed by Stratford Coal Pty Ltd (**SCPL**) to ensure that:

- the proposed Stratford Extension Project and the approved Stage 1 Gloucester Gas Project can coexist; and

- any unavoidable adverse impacts on the approved Stage 1 Gloucester Gas Project are minimised and appropriately mitigated.

Cooperation

AGL's PEL 285 is subject to a condition requiring the licence holder to "make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping coal titles."

As far as AGL is aware, there is, at present, no reciprocal cooperation obligation imposed on Yancoal under any of its existing mining leases and exploration licences within the Stratford Project Area.

The EIS notes at 6-7 that "AGL and SCPL are in the process of negotiating a co-operation agreement with respect to the areas where the two operations are expected to interact, and this agreement is expected to be presented to the Minister for Resources and Energy in 2012/2013." As outlined above, this is correct and AGL remains committed to negotiating a cooperation agreement with Yancoal. However, as yet, AGL and Yancoal have not been able to finalise and enter into a cooperation agreement. Given this, the fact that the EIS appears to proceed on the mistaken assumption that the activities of the approved Stage 1 Gloucester Gas Project will not overlap with Yancoal's MLs or MLAs is of significant concern to AGL.

In order to facilitate ongoing cooperation between the parties and ensure that the proposed Stratford Extension Project and the approved Stage 1 Gloucester Gas Project can coexist, AGL submits that any development consent and subsequent mining leases granted in relation to the proposed Stratford Extension Project should include a condition requiring SCPL to "make every reasonable attempt, and be able to demonstrate their attempts, to enter into a cooperation agreement with the holder(s) of any overlapping petroleum titles" prior to carrying out the new mining activities authorised under the development consent."

The Land Subject to the Application and the Extent of the Proposed New Mining Lease Areas

The description of the proposed Stratford Extension Project contained in section 2 of the EIS makes it clear that:

- the proposed new mining lease areas (identified as MLA1, MLA2 & MLA3) will cover reasonably large areas; but

- the actual extent of mining operations proposed within these areas is reasonably modest.

In particular, most of MLA2 and much of MLA1 are proposed to be dedicated as Offset Areas on which no mining operations are proposed to occur. It is unclear (and no explanation is provided in the EIS) as to why such a large area is proposed. This is particularly concerning to AGL in light of the statements contained in the EIS to the effect that PEL 285 has no application to mining lease areas.

In order to minimise the extent of overlapping mining and petroleum titles, AGL submits that any SSD consent (and subsequent new mining leases) granted in relation to the proposed Stratford Extension Project should:

- be limited to the actual land on which mining operations are approved; and
- should not cover any of the Offset Areas or other land on which no mining operations are proposed.

Proposed Offset Areas

The EIS states that:

- 935 ha of land will be provided as Biodiversity Offset Areas (**Offset Areas**); and
- it is proposed to secure the Offset Areas in perpetuity pursuant to a voluntary conservation agreement under section 69B of the *National Parks and Wildlife Act 1974 (NSW)* or a similar arrangement.

AGL acknowledges the importance of offsetting the unavoidable impacts of projects.

However, as outlined above, the Offset Areas cover a portion of AGL's approved Stage 1 Gloucester Gas Project, and a significant portion of AGL's approved concept plan area, and may constrain AGL's ability to carry out the Gloucester Gas Project.

In addition, AGL's approved high pressure gas pipeline passes over two of the identified proposed Offset Areas. The location of AGL's approved high pressure gas pipeline has been in the public domain since 2009, and discussed with Yancoal on numerous occasions.

AGL submits that any Offset Areas (and any subsequent Conservation Agreements) must take into account and allow for the location of gas infrastructure and gas production to occur within the Stage 1 Gloucester Gas Project Approval area and concept plan area.

Blasting Impacts

Appendix Q to the EIS contains a Preliminary Hazard Analysis (**PHA**). The PHA states at pg 14 that:

> *Project impacts on Gloucester Gas Project gas well sites, low pressure and high pressure gas pipeline and Central Processing Facility that may result in off-site impacts have been considered in this PHA (Attachment A). AGL Gloucester LE Pty Ltd (AGL) and SCPL are currently negotiating a co-operation agreement in respect of the coordination and safe implementation of each parties respect operations. Further, pursuant to planning approval for the Gloucester Gas Project, AGL needs to have various plans in respect of infrastructure location approved by DP&I. Given this in this PHA it has been assumed that AGL will locate infrastructure or delay installation of infrastructure where AGL cannot demonstrate to SCPL's satisfaction that compliance with DP&I land use planning individual fatality risk criteria for residential, commercial, active open space and industrial land uses can be achieved in the context of SCPL's open cut mining operations, including blasting.*

While AGL will ensure that its operations are conducted safely and in accordance with all relevant criteria, AGL is of the view that the PHA is one-sided, particularly in view of the cooperation negotiations. AGL submits that a revised PHA should be prepared and submitted which adequately:

- assesses the potential risks arising from the proposed Stratford Extension Project and the approved Stage 1 Gloucester Gas Project; and
- reflects the need for Yancoal to ensure that its proposed Stratford Extension Project will not give rise to unacceptable risks to other approved infrastructure and uses, including the approved Stage 1 Gloucester Gas Project.

Ground Water Issues

The EIS focuses on relatively shallow groundwater flow processes in alluvium/regolith (alluvial groundwater system) and interburden/coal seams (fractured rock groundwater system) in the uppermost 200m, so does not provide a detailed conceptual model for all of the strata and the whole Gloucester Basin. A broader understanding of basin-wide flow systems would have been useful to more fully assess the Stratford Extension Project from AGL's Gloucester Gas Project perspective.

Appendix A to the EIS contains a Groundwater Assessment. The modeling undertaken and reported on in Appendix A included an attempt to model the Stratford Mine open cut mining impacts together with the AGL Gloucester Gas Project CSG production and the proposed Rocky Hill Coal Project open cut mining, to assess the cumulative impacts associated with the project.

AGL makes the following comments in relation to the model variant Scenario C(2):

- The modeling assumes that AGL's Gloucester Gas Project comprises 110 production wells fully operational from the outset of the project and there is no phased development. This is an extremely unlikely scenario. AGL's Environmental Assessment and Project Approval envisage a phased approach to the development of wells.

- The gas wellfield development has been simulated as 'stacked blanket drains' with depressurisation of the coal seam layers below 150m depth. This is a fair representation of the development although not all coal seams identified in the conceptualized geology are likely to be depressurised. This representation is an "extreme case" scenario as pointed out in the technical report.

- The development and drawdown assumptions made for this model variant are highly unlikely to coincide because of the phased development of the Gloucester Gas Project over several years. Not all coal seams will be targeted and the amount of depressurisation required to produce gas will vary across the area. As a result, the following conclusions reached in this report are unlikely:

    - CSG water production of between 4.4 and 6.6 ML/d on average over 11 years (see pg A-49); and

    - extensive drawdowns in the water table aquifer in excess of 50m with two areas in excess of 100m between the approved Stage 1 area and the Stratford Mine (see pg A-57).

- In any event, condition 3.11 of the Project Approval limits the rate of groundwater extraction for the Stage 1 Gloucester Gas Project to 2ML/day averaged over a 12 month period.

- Further, the actual cumulative drawdown contours generated for several of the targeted (and non-targeted) coal seams in Appendix AD) are also likely to be overestimated because of the phased development of this project over several years, not all coal seams will be targeted and the amount of depressurisation required to produce gas will vary across the area.

- The physical extent of the stacked 'drainage blankets' used in the model to replicate CSG depressurisation/dewatering is not clear. Coal seams deeper than 1000m are unlikely to be targeted, however these do not appear to be excluded in the cumulative modeling. The consequences are that there is predicted drawdown in some layers (when in fact there will be no depressurisation stresses) so that cumulative impact assessment presented in this report is unlikely to represent the actual drawdown pattern caused by the depressurisation across the approved Stage 1 Gloucester Gas Project. Rather, in AGL's view, the resulting drawdowns may be more slightly more extensive but not as deep.

- Taking into account the above, AGL questions the accuracy of the statement made at pg A-57 to the effect that "CSG activity would cause pronounced drawdown in the watertable between the Project and Stratford" To more accurately define drawdown in this area, it will first be necessary to define:

    - the model conceptualization;
    - the known and probable interaction of the different hydrogeological units in this area;
    - exactly which coal seams are likely to be targeted in this area;
    - the bounds of the 'drainage blankets'; and
    - the permeabilities adopted for the different layers in the model.

- In light of the above, AGL considers that Figure A-58 and the five figures in Appendix AD are inaccurate.

In addition, AGL notes that:

- section 4 of the EIS appears to overlook the fact that indirect flows induced from other water sources constitute a take of water for which water access licences will be required; and
- no assessment appears to be included in the EIS of the impacts of the proposed Stratford Extension Project against the 'minimal impact considerations' contained in the Aquifer Interference Policy (which came into effect in September 2012).

AGL anticipates that the issues outlined above will be discussed and corrected by Yancoal in its Submissions Report.

Noise Issues

The EIS assesses noise impacts on various properties in the vicinity of the Stratford Extension Project. However the noise assessment undertaken does not appear to recognise that a privately occupied residence located on certain AGL Land is a sensitive receiver.

In particular, the EIS:

- identifies property 13(1) which is owned by AGL as a "Resources company owned receiver";
- identified property 13(1) which is located within the "Project Noise Management Zone"; and
- predicts that there will be some daytime operations noise level exceedances for property 13(1); and
- does not appear to propose that any specific noise mitigation measures be implemented for property 13(1).

Whilst it is correct that property 13(1) is owned by AGL, the residence located at property 13(1) is privately occupied by a young family.

AGL requests that the noise assessment be updated to assess the impacts on property 13(1) as a sensitive receiver (including the provision of mitigation measures where noise impacts are predicted to exceed the relevant criteria).

Consultation with AGL

The EIS states at pg 3-8 that:

> *SCPL has regularly consulted with AGL regarding the potential interactions between the Project and regional CSG development (the AGL Gloucester Gas Project). …*

AGL agrees that SCPL has undertaken some consultation with AGL in relation to the proposed Stratford Extension Project. However, this consultation did not extend to attempting to work with AGL to resolve the interactions between the proposed Stratford Extension Project and the approved Stage 1 Gloucester Gas Project, for example the Offset Areas. Accordingly, AGL remains concerned that there are substantive issues that need to be addressed by Yancoal in any Submissions Report and resolved cooperatively between Yancoal and AGL.

AGL thanks the Department of Planning and Infrastructure for the opportunity to provide this submission and hopes that the matters outlined in it will be taken into account in determining the Stratford Extension Project Application.

Yours sincerely,

David Kelly
Head of Land and Approvals – Upstream Gas