

VOLUME 2 APPENDICES FEBRUARY 2009

AGL Leafs Gully Power Project Environmental Assessment

MP 08_0077

Appendix C

Statutory Authority Correspondence

URS



Switched on Business.



Tel: 02 9921 2092
Fax: 02 9921 2474

The Australian Gas Light Company
ABN 95 052 167 405

St Leonards
72 Christie Street
St Leonards NSW 2065

Locked Bag 1837
ST LEONARDS NSW 2065
www.agl.com.au

Mr Malcolm Hughes
Principal Environmental Planner
Sydney Catchment Authority
PO Box 323
Penrith NSW 2751

28 July 2006
Re: Proposed AGL Leafs Gully Power Project

Dear Malcolm

I refer to the letter from the Sydney Catchment Authority dated 6 June 2006 (your ref D2006/04372) and our subsequent meeting on 6 July 2006. As discussed, AGL has considered the issues raised by the Authority and provide the following responses.

Issue	Response
Affect quality and quantity of water	There will be no direct drainage from the power plant site to the canal. Natural drainage of the plant area is to Leafs Gully which flows under the canal. The area of AGL's property which drains to canal lands will be left as cleared grazing land or revegetated with species indigenous to the area. All construction works will be undertaken in a manner to minimise the potential for soil erosion and sedimentation.
No additional pollutants. No increase in the rate or volume of water entering the system	As above – no direct drainage from plant site to canal lands. The plant will be designed to maintain zero wastewater discharge from the site except for natural surface flows following rain events to Leafs Gully.
Air pollution during construction and operation	Any emissions of particulates (dust) during construction would be specifically controlled through the implementation of dust control measures, which would be incorporated into an environment management plan (EMP) for the works. Operation of the plant is not predicted to result in carbon monoxide, nitrogen dioxide, particulate (PM10) nor sulfur dioxide ground-level concentrations in excess of relevant ambient air quality guidelines. Stack emission concentrations are predicted to be below relevant emission criteria.

Issue	Response
Approval for works relating to infrastructure	Approval to be followed should the connection be made at this location. The water source is still yet to be determined as discussions are being held to connect to the water main on site.
Construction activities and associated earthworks, movements of heavy vehicles which are likely to cause ground vibration or displacement.	In terms of vibration sources identified during the construction stage, likely plant would include rollers, dozers and like. All rotating plant items of the power station will be required to be correctly aligned and balanced. For intermittent vibration on heritage structures, the German Standard DIN4150 Part 3 1999 provides a lowest possible criterion of 3mm/s at low frequencies up to 10Hz. A roller at 30m would be around 1 to 1.5mm/s. Levels to be experienced on this structure are likely to lead to a negligible risk of any damage.
Details of access proposed across the Upper Canal to Lot 103.	No access is required to this part of the property for the purpose of operating the gas power plant. Access is only required for the general maintenance of property condition similar to the existing situation.

The above measures are been incorporated into the Environmental Assessment being prepared for the proposed gas peaking power station at Leaf's Gully. Should the above measures be considered inadequate by the Sydney Catchment Authority I would appreciate a response by 11 August 2006 so that we may be able to include any comments in the Environmental Assessment.

Kind regards,



Justin Flood
Project Manager



17 July 2006

Mr Neil Benning
Principal, Floodplain management
URS Australia Pty Ltd

Dear Mr Benning

Lot 101 DP 716209 557-559 Appin Road Gilead

I refer to your emails of 12 & 13 July 2006 requesting 20, 50 and 100 year Average Recurrence Interval (ARI) flood levels from Nepean River at the above location.

I advise as follows:

1. Council does not have the requested flood information for the above site.

As such you would need to undertake a flood study for the site in accordance with the requirements set out in Councils Engineering Design Guide for Development.

2. The available flood information for the Nepean River in the vicinity of Menangle Railway Bridge is given below as requested.

Location	Peak Water Surface Elevation (m AHD)	
	20 ARI	100 ARI
Menangle Railway Bridge	76.40	77.80

3. Please note that any development in this area need to be referred to the Mines Subsidence Board for their advice as this area is a declared mines subsidence area. The impact of subsidence on flood levels must be taken into account.

Council trusts the above information is of assistance. Should you have any further queries, please contact Cathy Kinsey on (02) 4645 4635.

Yours sincerely

A handwritten signature in dark ink, appearing to read "Dick Webb", with a stylized flourish at the end.

Dick Webb
Manager Technical Services

GH/



PO Box 323 Penrith NSW 2751
Level 2, 311 High Street
Penrith NSW 2750
Tel 1300 722 468 Fax 02 4732 3666
Email info@sca.nsw.gov.au
Website www.sca.nsw.gov.au

Ref: D2006/09854
Your Ref: 9042110

Mr Scott Jeffries
Manager - Critical Infrastructure and Special Projects
Major Project Assessments
Department of Planning
GPO Box 39
Sydney NSW 2001

Dear Mr Jeffries

**Proposed Leafs Gully Power Project, Appin Road, Gilead
Assessment under Part 3A of the EP&Act.**

Thank you for giving the Sydney Catchment Authority (SCA) the opportunity to comment on the Environmental Assessment report for the above project. The SCA requests the Department to consider the following comments in its assessment of the proposal.

The SCA has an interest in this proposal as the turbines and associated infrastructure are located near to the Upper Canal. The Upper Canal is a critical part of the Sydney drinking water supply system. It is used by the SCA to transfer raw drinking water from the Upper Nepean dams to the Prospect Water Treatment Plant. The Upper Canal transfers up to 30 per cent of the raw water supplied to this treatment plant.

For the most part of its length, the Upper Canal is an open channel. Stormwater is prevented from entering the canal lands from adjacent areas is controlled by a series of drains, culverts, pipes and flumes designed to prevent stormwater entering the canal. This stormwater is directed to adjacent downslope land.

The Upper Canal is generally located within a strip of land approximately 50 to 100 metres wide classified as *controlled land* as defined in the *Sydney Water Catchment Management Act 1998*. The Sydney Water Catchment Management (General Regulation) 2000 contains provisions which restrict persons entering these lands and which restrict pollution of waters.

The Upper Canal has significant heritage value and is listed on the State Heritage Register.

The SCA is satisfied that the issues of potential concern with regards to the structural integrity of the Upper Canal and protection of water quality in the canal have been adequately addressed in the assessment.

It is noted that the proposal may require a connection to be made to the Upper Canal for the purposes of supplying raw water for the project. The proponent would need to

obtain separate approval from the SCA for the necessary works and extraction of the water (which may include detailed environmental and risk assessment). The following in particular should be considered by the Department in its assessment of the proposal:

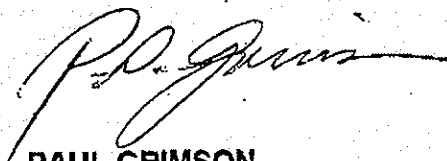
- The SCA requires the proponent to demonstrate that they have exhausted all other avenues for obtaining an alternative water supply before it will consider supplying water from the Upper Canal.
- The Upper Canal is subject to frequent and irregular outages for operations and maintenance and therefore continuity of supply and quality of water cannot be guaranteed.
- The SCA is required to establish terms and conditions of supply for its customers in accordance with clause 8.2 of its Operating Licence regarding the terms and conditions of supply.
- As the Upper Canal is a listed State heritage item, separate approval may be required pursuant to the *Heritage Act 1977* for any works required to obtain access to the water within the Upper Canal.

The SCA would appreciate being provided with copies of Construction and Operational Environmental Management Plans.

The SCA would also appreciate being involved in any further assessment of the application and being provided with the opportunity to comment on proposed conditions.

If you wish to discuss any matter raised in this letter please contact Malcolm Hughes on 47252139 or malcolm.hughes@sca.nsw.gov.au.

Yours sincerely



PAUL GRIMSON
Manager Statutory Planning

4/12/06



Justin Flood
<JFlood@agl.com.au>
12/05/2006 04:42 PM

To: Nicole_Brewer@URSCorp.com
cc
bcc
Subject: Re: AGL Leafs Gully Power Project

Nicole,

Sydney Water Correspondence attached as requested. I've written to SCA today about water supply and also for formal response for the EA.

Regards,
Justin

----- Forwarded by Justin Flood/AU1/AGL on 12/05/2006 04:41 PM -----

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|                                     |
|                                     | "TIM DAY" |
|                                     | <TIM.DAY@sydneywa |
|                                     | ter.com.au> |
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| To:      "Justin Flood" <JFlood@agl.com.au>
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| cc:
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| Subject:  Re: AGL Leafs Gully Power Project
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Hello Justin
Sorry for the delay in responding

The 1200mm water main is a privately owned main supplying the Campbelltown and Camden LGAs, and so is a critical water main. Permission to connect to this main would not be granted by Sydney Water or the owner. The main was constructed using a thin walled pipe and has a special corrosion protection coating, and as a result additional connections will impact on the integrity of the pipe.

However, it may be possible to draw water from the Upper Canal which is located adjacent to the property. Permission to draw water from the Canal will need to be obtained from the Sydney Catchment Authority tel: 1300 300 722 468, Fax: (02) 4732 3666. I don't have a contact name for you at this stage but could have one by Wednesday.

Good luck with the project.
Tim

>>> Justin Flood <JFlood@agl.com.au> 7/04/06 11:28 >>>

Mark,

As discussed yesterday, AGL is developing a 600 MW open cycle gas fired power station at Leaf's Gully Farm, near Appin. It is located at the reference J7 on the attached map 407. A Major Project Application has been submitted with the Department of Planning.

AGL has secured access to lot 102 of DP716209 that has on it 330 kV transmission, two gas pipelines and a Sydney Water main which I believe is 1200mm in diameter.

AGL is seeking connection to the water main. Before seeking the services of a Water Service Coordinator I am hoping you could shed some light on the feasibility of AGL connecting to this water main or the location of later water mains in the area.

As the power station is a peaking power plant, water consumption would be intermittent (say 2 to 3% operating time) and would total approximately 8 ML per year. Maximum consumption would be in the order of 20,000 L per hour.

Regards,

Justin

(See attached file: Sydway scanned map - Leaf's Gully Farm.pdf)

Justin Flood
Project Manager
Merchant Power
AGL
72 Christie Street
St Leonards NSW 2065

P: 02 9921 2092
F: 02 9921 2474
M: 0439 214 009
E: jfflood@agl.com.au

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Level 3 water restrictions apply in Sydney, Illawarra and the Blue Mountains. Hand-held hosing of lawns and gardens and drip irrigation is now allowed only on Wednesdays and Sundays before 10 am and after 4 pm. No other watering systems or sprinklers are to be used at anytime. Fines apply. For more information visit www.sydneywater.com.au

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Tel: 02 9921 2446
Fax: 02 9921 2474

AGL Energy Limited
ABN 74 115 061 375

Level 22 101 Miller Street
St Leonards NSW 20650

Locked Bag 1837
ST LEONARDS NSW 2065
www.agl.com.au

Mr Paul Wearne
Senior Regional Programs Officer
Metropolitan – Illawarra / EPRD
Department of Environment and Climate Change
PO Box 513
Wollongong NSW 2520

16 October 2008
Re: Leafs Gully Power Project

Dear Mr Wearne,

As you are aware, AGL has been pursuing a peaking power station project at the Leafs Gully site since 2005. In early 2007 AGL withdrew our original project application to re-complete a site selection study against all selection criteria. AGL have now resubmitted a new application for the Leafs Gully site.

The new application is for a plant half the size (now nominally 300MW) than that originally proposed and AGL is also now proposing to permanently protect approximately 170ha of the 280ha site, we are currently investigating DECC's new BioBanking initiative as a potential mechanism for that protection.

A copy of the Preliminary Assessment for the new application is attached.

We note ongoing discussions with DECC regarding the new project application and assure you that all issues raised to date are being addressed in the Environmental Assessment.

If you have any questions or comments regarding the proposal at Leafs Gully please don't hesitate to contact me.

Kind regards,

A handwritten signature in blue ink, appearing to read 'Steve Jackson', with a stylized flourish extending to the right.

Steve Jackson
Manager Power Development



Tel: 02 9921 2446
Fax: 02 9921 2474

AGL Energy Limited
ABN 74 115 061 375

North Sydney
Level 22 101 Miller Street
North Sydney NSW 2060

Locked Bag 1837
St Leonards NSW 2065
www.agl.com.au

Andrew Mattes
Manager Air Technical Advisory Services
Policy and Science Division
Department of Environment and Climate Change
PO Box A290
Sydney South NSW 1232

16 September 2008

Re: Leafs Gully Power Station Proposal

Dear Mr Mattes

As you are aware, AGL has been pursuing a peaking power station project at the Leafs Gully site since 2005. In early 2007 AGL withdrew our original project application to re-complete a site selection study against all selection criteria.

We note ongoing discussions with DECC regarding the new project application and assure you that all issues raised to date are being addressed in the Environmental Assessment.

One of the requirements for the assessment is to describe "measures proposed to manage and monitor the efficiency and performance of the air pollution control techniques which have been developed in consultation with DECC".

Gas turbine plant stack emissions are considered to be highly predictable and consistently perform well below guaranteed levels.

AGL considers there are three potential measures to monitor the performance of air pollution control techniques:

1. Stack modelling without monitoring of actual emissions from the power station. This is considered to be a reasonable method of determining the emissions from an open cycle gas turbine power plant. Emissions from such plant are highly predictable and with the very low operating hours of such plant performance degradation is very limited, emissions can be readily calculated using standard emissions factors.
2. Annual stack testing is often used for gas turbine plant, involving power station staff working at height in order to collect emission samples for analysis. AGL considers this to be an activity of high safety risk to staff and of questionable benefit given the highly reliable nature of gas turbine emission control.
3. Use of a Continuous Emission Monitoring System (CEMS), this is considered to be beyond best industry practice, providing real time actual stack emission data. Such systems are often utilised internationally in baseload application but rarely in peaking plant such as that proposed for Leafs Gully.

AGL proposes to install a CEMS system at Leafs Gully with data collected retained and available for review by the EPA on request with data also to be used for calculating any Load Based License or other pollution control scheme fees.

If you have any questions or comments regarding the proposal at Leafs Gully please don't hesitate to contact me.

Kind regards,

A handwritten signature in blue ink, appearing to read 'Steve Jackson', is written over a circular stamp or seal.

Steve Jackson
Manager Power Development



Tel: 02 9921 2002
Fax: 02 9921 2474

AGL Energy Limited
ABN 74 115 061 375

Level 22 101 Miller Street
St Leonards NSW 20650

Locked Bag 1837
ST LEONARDS NSW 2065
www.agl.com.au

Mr Darren Bullock
District Manager
Mine Subsidence Board
PO Box 40
Picton NSW 2571

16 October 2008
Re: Leafs Gully Power Project

Dear Darren,

I refer to previous correspondence between AGL and yourself (eg. Your ref: FN97-00651P0 DB:LE). I note that AGL have previously provided a subsidence parameter report and received confirmation that that subsidence parameters in report MSEC248 RevA April 2006 are appropriate for design of Power Station and associated infrastructure.

We recognise that approval is required from your office for all future building improvements on the Leafs Gully property and should AGL receive development consent for this project it will undertake detailed design of the power station and seek approval of the design from the Mine Subsidence Board at that time. Further, AGL will seek confirmation from Illawarra Coal and our consultants that subsidence parameters remain current prior to commencement of design.

Our consultants have advised us that it is possible to design a turbine generator set to allow for subsidence movements.

It is anticipated that the Environmental Assessment for the Leafs Gully project will be submitted and exhibited later this year.

If you have concerns associated with this project please do not hesitate to contact me.

Kind regards,

A handwritten signature in dark ink, appearing to read 'Steve Jackson', with a stylized flourish extending to the right.

Steve Jackson
Manager Power Development



Tel: 02 9921 2092446
Fax: 02 9921 2474

AGL Energy Limited
ABN 74 115 061 375

Level 22 101 Miller Street
St Leonards NSW 20650

Locked Bag 1837
ST LEONARDS NSW 2065
www.agl.com.au

Mr Malcolm Hughes
Principal Environmental Planner
Sydney Catchment Authority
PO Box 323
Penrith NSW 2751

16 October 2008
Re: Leafs Gully Power Project

Malcolm
Dear Mr Hughes,

I refer to your previous submission to Department of Planning regarding the Leafs Gully power station project (your ref: D2006/09854) and multiple previous correspondence between AGL and SCA (eg your ref D2006/04372, our letter dated 28 July 2006 and others).

As you are aware, AGL has been pursuing a peaking power station project at the Leafs Gully site since 2005, submitting our original application to which your above submission was made in 2006, subsequently withdrawing the application, reviewing all factors and issues raised and then re-submitting a new application with amendments in consideration of all issues raised during the original application.

The new application is for a plant half the size (now nominally 300MW) than that originally proposed and AGL is also now proposing to permanently protect from development approximately 170ha of the 280ha site, including all areas within approximately 200m adjoining the Upper Canal within the Leafs Gully site.

Other factors which may have been considered to impact the structural integrity of the Upper Canal and protection of water quality in the canal are unchanged in this new application and we note your satisfaction that these were adequately addressed in the previous Environmental Assessment and will be in the Assessment for the current application.

AGL are pleased to assure you that Management Plans will be prepared and implemented to ensure ongoing protection of the Upper Canal regarding Construction and Operation of the power station.

AGL is still seeking planning permission for a potential connection to the Upper Canal for the purpose of supplying raw water for the project and we note and accept the requirements of SCA in this regard (and understand the limitations of the Upper Canal water supply). AGL are also seeking planning approval for connection to the Macarthur Water pipeline and have had positive ongoing discussions with Sydney Water and the pipeline owner.

If you have any questions or comments regarding the proposal at Leafs Gully please don't hesitate to contact me.

Kind regards,

A handwritten signature in blue ink, appearing to read 'Steve Jackson', with a long, sweeping horizontal stroke extending to the right.
Steve Jackson
Manager Power Development