

**Eastern Star Gas Limited** **ESG**  
**Emerging CSG producer in NSW**  
**Recommendation: Speculative BUY**

**Monday 22 December 2008**

**Investment Rationale**

ESG is an emerging coal seam gas (CSG) explorer and producer with interests in a number of permits covering a total of 70,600 km<sup>2</sup> in the Gunnedah, Bowen and Surat Basins in NSW and the Arkaringa Basin in SA. ESG's main focus is the evaluation of the CSG production potential of PEL 238 in the Gunnedah basin. In 2000, Nederland, Sewell & Associates, estimated the gas in place within this permit alone at 17 TCF in the extensive Hoskissons and Bohena coal seams. ESG has drilled a large number of core holes to test the extent and thickness of the coal and has established two production pilot projects at Bohena and Bibblewindi. Gas produced from the pilot projects will shortly be utilised in the Wilga Park power station.

**Overview**

ESG is predominantly a CSG explorer and emerging producer with interests in 3 permits in the Gunnedah Basin of NSW, where it is the operator and 65% interest holder. The remaining 35% is held by US based E&P company Gastar. ESG is also earning interests in a further 3 permits in the northern Gunnedah, Bowen and Surat Basins and 3 permits in the Arkaringa Basin of SA.

The main focus of ESG's exploration and appraisal activities is in permit PEL 238 where it is pursuing 3 complementary activities – conventional gas production, electricity generation and CSG. Through the Narrabri Coal Seam Gas Joint Venture ("NJV"). ESG owns the Wilga Park power station and the associated Coonarah conventional gas field. Wilga Park has a generating capacity of 4 MW, with approval to increase this to 40 MW. While the size of the power station is small at present, it is of vital strategic importance as it provides ESG with a ready market for gas produced from its CSG pilot projects rather than flaring the gas, as is the case now.

In 2000, Nederland, Sewell & Associates ("NSA") certified gas-in-place within PEL 238 alone at 17 TCF. While the estimate has no bearing on the value of ESG, its importance is in confirming the presence of massive gas bearing coal measures within the permit and providing ESG with the incentive to commence a detailed exploration and appraisal program designed to convert the gas-in-place to reserves and resources. As of September 2008, gas reserves as certified by NSA were reported as 21 PJ (1P), 336 PJ (2P) and 1,300 PJ (3P) and ESG has a stated objective of achieving certified 2P reserves of at least 1,300 PJ by the end of 2009. To this end, in 2008, ESG commenced a 20 core hole drilling program, which has already yielded positive results.

Production testing is currently underway at the 3 well Bohena pilot project and the 9 well Bibblewindie pilot project. At present gas is being flared. However, on 8 December, NJV received approval from the NSW Government to install a 32 km flow line to pipe gas from the pilot projects to Wilga Park. As gas production increases, ESG will increase the capacity of Wilga Park in 3 MW increments. The first of the new 3 MW generators has been ordered and should be operational by May 2009.

To date all production wells are vertical and have been fractured as has been the practice in the Surat Basin in QLD. However, detailed examination of natural fractures in the coal has revealed that instead of a cleat fracture system, the Bohena Seam coals have a vertical fracture pattern. In order to increase productivity of each well, ESG has commenced the drilling of 4 multilateral wells at Bibblewindie. The practice involves the drilling of 2 horizontal wells from the one vertical hole to intersect 3 vertical production wells. While the cost of the multilateral wells is higher, ESG anticipates that the additional cost will be more than covered by the 5 to 10 fold increase in gas production.

ESG has signed 2 MOUs for the delivery of gas for the generation of electricity. The first is for up to 500 PJ with Macquarie Generators, a NSW Government entity that operates the Bayswater power station near Musswelbrook and the second with Babcock & Brown for up to 40 PJ per annum for a proposed power station near Tamworth. ESG has also signed a HoA with APA, the owner of the Moonie to Sydney gas pipeline to investigate options for the delivery of CSG to the Sydney market.

Adding weight to ESG's ambitions to become a significant producer of CSG in NSW is the team that it has assembled to pursue its objective. David Casey, as MD has spent his entire professional career in the CSG industry in Australia. Peter Lansom (operations), Ashley Edgar (exploration) and Linda Hedger (drilling) have all had significant CSG experience in their respective fields with Origin and/or Santos. As well, ESG has attracted a number of highly skilled technical staff with CSG experience in Origin and Santos.

**Snapshot**

Last Price	\$0.45
Market Cap.	\$331 million
52 Week High	\$0.93
52 Week Low	\$0.19
Sector	Energy

**Investment Fundamentals**

Cash on hand (Oct 08)	\$35.6 million
Shares on issue	736.2 million
Options on issue	62.2 million (unlisted)

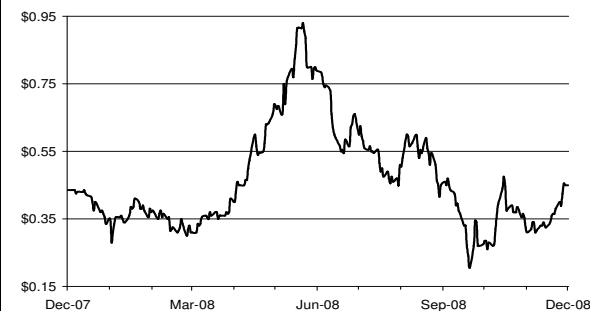
**Directors**

The Hon. John Anderson	Chairman
David Casey	Managing Director
Dr. David King	Non-executive
David Archer	Non-executive
Alexander Sundich	Non-executive
Peter Lansom	Executive Director

**Major shareholders**

Hillgrove Resources Ltd	20.9%
TRU Energy	5.2%

**Price Chart**



**Valuation target**

ESG is well placed to continue with its exploration and appraisal program having cash reserves of \$35 million following two share issues in September and December 2007.

Based on recent CSG transactions in QLD and NSW, the value of ESG can be extrapolated at \$0.50 to \$0.62 on 2P reserves or \$0.85 to \$1.18 on 3P reserves. However, ESG's reserves were first certified in September 2007 and in the next 12 months 2P reserves increased from 38 PJ to 218 PJ and 30 reserves increased from zero to 1,300 PJ. As additional results from core hole drilling and the multilateral wells is received, it is anticipated that certified reserves will increase rapidly, as was the experience with CSG companies in the Surat Basin.

Analyst: Nicholas Wirubov

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