



Independent Pricing and Regulatory Tribunal

Landholder benchmark compensation rates

Gas exploration and production in NSW

Energy — Draft Report
September 2015



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Invitation for submissions

IPART invites written comment on this document and encourages all interested parties to provide submissions addressing the matters discussed.

Submissions are due by 30 October 2015.

We would prefer to receive them electronically via our online submission form <www.ipart.nsw.gov.au/Home/Consumer_Information/Lodge_a_submission>.

You can also send comments by mail to:

Landholder compensation review
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Late submissions may not be accepted at the discretion of the Tribunal. Our normal practice is to make submissions publicly available on our website <www.ipart.nsw.gov.au> as soon as possible after the closing date for submissions. If you wish to view copies of submissions but do not have access to the website, you can make alternative arrangements by telephoning one of the staff members listed on the previous page.

We may choose not to publish a submission—for example, if it contains confidential or commercially sensitive information. If your submission contains information that you do not wish to be publicly disclosed, please indicate this clearly at the time of making the submission. IPART will then make every effort to protect that information, but it could be disclosed under the *Government Information (Public Access) Act 2009* (NSW) or the *Independent Pricing and Regulatory Tribunal Act 1992* (NSW), or where otherwise required by law.

If you would like further information on making a submission, IPART's submission policy is available on our website.

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1 Executive summary

The Independent Pricing and Regulatory Tribunal of NSW (IPART) is currently investigating benchmark compensation arrangements for landholders hosting coal seam gas (CSG) exploration and production activities on their land. We have been asked to develop a framework for setting benchmark compensation rates that will serve as a guide to NSW landholders negotiating access agreements with gas companies.

In April 2015, we released an Issues Paper that outlined the key issues and our proposed approach for this review, and sought submissions from interested parties. We also held discussions with a range of Queensland organisations and landholders with experience in negotiating land access agreements and compensation, and conducted research on other countries' experience. We have now made our draft recommendations after considering the information we received from our consultations and further research.

The purpose of this report is to discuss the main themes that emerged from our consultations, explain our draft recommendations, and seek stakeholder comments on these recommendations.

1.1 Main themes from our consultations

We received a lot of constructive and useful information and comments from our consultations, and would like to thank every individual, group and organisation who made a submission or participated in discussions with us. While perspectives varied, a number of common themes emerged from these consultations.

In terms of shaping our draft recommendations, the most important of these were that a 'one-size-fits-all' approach to landholder compensation will not work, and that landholders negotiating land access agreements are likely to need professional advice. Another strong theme was that the 'conduct' arrangements in a land access agreement are as important as compensation.

1.1.1 One-size-fits all approach to compensation won't work

In our Issues Paper, we indicated we may try to estimate quantitative (dollar) ranges for benchmark compensation rates as part of our review. In submissions, stakeholders advised us that quantitative benchmarks would not provide useful guidance for landholders. This is because the appropriate level of compensation depends on the individual circumstances of the landholder and the proposed activities of the gas company – both of which are highly variable and site-specific. In discussions, the Queensland Department of Natural Resources and Mines advised us that attempts to develop formulaic approaches to compensation in Queensland had not been successful. Similarly, the Gasfields Commission Queensland noted that such approaches are not practical due to the wide variation and diversity of the rural businesses negotiating compensation agreements.

1.1.2 Landholders are likely to need professional advice

Negotiating land access and compensation arrangements can be complex, and stakeholders advised us that it is important for landholders to get advice that takes account of their individual circumstances. Independent valuation advice is particularly relevant to compensation negotiations. Other professional advice may also be relevant, including legal and accounting advice, surveys and farming advice. The recent review of the land access arbitration framework in NSW undertaken by Bret Walker SC also recognised the need for landholders to have access to professional advice.

1.1.3 Conduct arrangements are as important as compensation

A number of stakeholders, including landholders who already have CSG infrastructure on their land, advised us that compensation is not the only issue that determines whether land access agreements result in good outcomes for landholders. The conduct arrangements in these agreements are equally important.

Conduct arrangements include the agreed location for gas infrastructure and access roads, the defined notice periods and times of access, plans for the prevention of weeds, pests and diseases, and rehabilitation and insurance arrangements. These arrangements are unique to each landholder and will depend on the nature of landholder's property and farming operations and the needs of the gas company. Because conduct affects compensation, the conduct arrangements usually need to be established first. We were advised that if conduct is done well, often it is easier to reach agreement on compensation.

1.2 Overview of our draft recommendations

After considering the information and advice we received through our consultations, we agree with stakeholders that compensation benchmarks must be site-specific for them to be useful and that landholders should obtain expert advice that takes account of their specific circumstances. We have developed:

- ▼ a spreadsheet model that landholders can use to estimate compensation benchmarks using information that is specific to their circumstances, and
- ▼ draft recommendations on additional measures to support landholders in negotiating appropriate land access and compensation agreements.

We have also made draft recommendations that:

- ▼ gas companies should fund benefit or incentive payments to landholders as part of their compensation arrangements, and
- ▼ gas companies pay compensation to neighbours in the event that impacts on them (eg, noise levels or hours of operation) exceed reasonable levels set out in licences or approvals. Written agreements should be in place in these instances, and minimum compensation should be paid equivalent to an allowance to relocate neighbours for the period that impacts exceed reasonable levels.

1.2.1 Model to estimate benchmark compensation

The model we have developed estimates compensation payments based on information specific to each landholder. It also includes payments from production bonuses and incentive schemes. The model includes options to present results as either annual payments or a lump-sum payment.

How does the model work?

The model requires that landholders input information about how the proposed gas infrastructure impacts their property, eg, area of land affected and land valuation estimates. While landholders will likely have a view on some of these inputs, in other cases we recommend professional advice be obtained.

The model estimates compensation for the four 'heads of compensation' outlined in our Issues Paper. These capture a wide range of impacts on landholders – for example, rental payments for use of land and for impacts on residual land,¹ costs of landholder time and professional fees.

¹ Residual land means the total area of a landholder's property less the area directly used for gas activities.

When should the model be used?

While gas companies approach and structure their compensation in different ways, we consider that the benchmark compensation estimated by the model will allow landholders to assess the reasonableness of an offer. It can also be used by a landholder for sensitivity analysis when key variables are changed.

We do not intend that the model replace the negotiation between a landholder and a gas company. Landholders are in the best position to determine what compensation is appropriate for them.

1.2.2 Draft recommendations on additional measures to support landholders

We consider that a number of additional measures are needed to support NSW landholders in negotiating land access and compensation agreements with gas companies. These include:

- ▼ amendments to legislation to ensure it supports NSW landholders receiving compensation at least as good as elsewhere in Australia
- ▼ workshops to provide landholders with independent practical advice on approaching and negotiating land access agreements and compensation, and
- ▼ a voluntary public register of compensation payments to improve the transparency of compensation payments made by the gas industry.

Amendments to legislation

In our view, the legislative provisions for compensation in NSW do not address all the relevant impacts of gas exploration and production on landholders. They are also narrower than provisions in other jurisdictions in Australia.

We are recommending the provisions for compensation in the *Petroleum (Onshore) Act 1991* (NSW) (the Act) be amended to reflect those in the Queensland *Petroleum and Gas (Production and Safety) Act 2004*. These amendments will ensure legislation supports fair compensation for landholders and meets the NSW Government's intent that landholders in NSW receive compensation that is at least as good as in other parts of Australia. The NSW Government is already in the process of amending legislation to ensure landholders receive compensation for their time and legal and professional fees.

Workshops to provide information and negotiation skills

We are recommending that workshops be conducted to provide landholders with independent information and skills to negotiate a land access and compensation agreement. We found that workshops of this nature run by AgForce in Queensland are well-regarded by landholders, government, and industry.

In our view, the most appropriate organisation to run workshops is the NSW Farmers Association. NSW Farmers is the equivalent organisation to AgForce in this state, and has conducted workshops in the past. We are also recommending that funding for the workshops be provided by the NSW Government and the gas industry.² The workshops would be run on an as-needs basis in relevant locations.

A voluntary public register of compensation

At present there is very little information available on how much compensation landholders are receiving, and a number of stakeholders commented that there is a lack of transparency around compensation payments.

We are recommending that a voluntary public register of compensation payments be developed that allows landholders to anonymously provide information about their compensation. The register would include other relevant information including the landholder's general location and the size and type of their property (eg, dairy farm, cotton farm, broadacre cropping, lifestyle block etc).

We found an example of a similar register administered by the Farmers' Advocacy Office in Canada. It provides a facility on its website for landholders to voluntarily submit information about their compensation arrangements. Given our recommendation that the NSW Farmers Association run workshops for landholders, we consider it should also host and encourage landholders to use the public register. Over time, as more landholders use the register, we expect it will become a valuable source of information for landholders.

1.2.3 Draft decisions on benefit payments

In our Issues Paper, we proposed to recommend a 'benefit payment' to landholders to reflect the requirement in our terms of reference that landholders in NSW share the benefits of gas exploration and production. We outlined one option for a benefit payment that was funded half from the NSW Government's royalty revenue and the other half from the gas company.

² The NSW Government has already committed funding for NSW Farmers' Mining and CSG Communications Project.

We recommend that gas companies should include benefit or incentive payments to landholders as part of their compensation. However, we are not recommending that the incentive payment be funded from royalties, but rather gas companies continue to fund these payments. Landholders in NSW already have access to production bonuses and incentive funds where gas companies are voluntarily sharing the benefits of gas development. Since our Issues Paper, the NSW Government released its Community Benefit Fund discussion paper.³ We note that royalty arrangements would be affected under this proposed Fund. Gas explorers and producers will be able to elect to contribute to the Fund and the Government will reduce \$1 from a company's gas royalty liability for every \$2 paid into the Fund, capped at 10% of the royalty take for each gas project in each production year.⁴ Rather than recommending that Government contribute to compensation for individual landholders (they will be contributing to the Community Benefit Fund) we recommend that the gas company continue to fund benefit payments.

Our compensation model includes payments from incentive funds and production bonus schemes that are currently offered in the market. In addition, landholders may receive benefits in-kind through upgrades to roads and fences, dams and water supply.

1.2.4 Draft decisions on compensation for neighbours

In our Issues Paper, we indicated that our recommendations on benchmark compensation could also be relevant to neighbours who are directly affected by noise, light and dust from gas development. Some stakeholders agreed with this view, and considered that compensation should also be expanded to the broader community. Others took the view that impacts on neighbours are already managed to reasonable levels (eg, through noise limits or restricted operating hours), through environmental and planning approval processes, and that neighbours do not receive compensation in other industries.

After considering stakeholder comments, our draft recommendation is that compensation should be paid to neighbours only when impacts on them exceed reasonable levels. As indicated above, impacts on neighbours are already managed to reasonable levels through environmental and planning approval processes. However, these arrangements may also provide for impacts to exceed reasonable levels if the gas company enters into a written agreement with affected landholders.

³ <http://www.resourcesandenergy.nsw.gov.au/landholders-and-community/coal-seam-gas/community/community-benefits-fund> accessed 14 September 2015.

⁴ NSW Trade & Investment, Division of Resources and Energy, *Establishing a Gas Community Benefits Fund – Discussion paper*, May 2015.

We consider that best practice involves identifying neighbours who may be directly affected by a CSG project and working to find ways to minimise any impacts on them. In the event that gas companies negotiate agreements with neighbours for impacts that exceed reasonable levels, we consider that minimum compensation should be paid equivalent to an allowance to relocate neighbours for the period that impacts exceed reasonable levels.

The NSW Government is also introducing a Community Benefit Fund which is designed to provide benefits to communities in which the gas industry operates.⁵

1.3 Matters outside the scope of our review

Some stakeholders made comments on matters that are outside the scope of our review. For example, some stakeholders have commented that:

- ▼ they do not want gas development in NSW, or consider that it is not needed
- ▼ compensation cannot adequately address the risks posed by the gas industry (including risks to air and water supply, human health, impacts on flora and fauna, and land contamination)
- ▼ it is too early to discuss compensation until the appropriate regulatory and legislative frameworks are in place, and the NSW Government has yet to fully implement the NSW Chief Scientist's recommendations regarding coal seam gas
- ▼ the scope of our review is too narrow, and that we should be considering compensation for sub-surface impacts and compensation for 'when things go wrong' (for example compensation for environmental incidents).

Our review is one component of the NSW Government's policy framework for the gas industry set out in the NSW Gas Plan. There are a range of environmental protections in place, including that all CSG activities are subject to Environment Protection Licences issued by the Environment Protection Authority (EPA). There are also new measures being developed as part of the NSW Gas Plan. In the event that there is an environmental incident, there are legal processes and frameworks in place to manage compensation for loss suffered by affected landholders. The loss suffered will depend on the individual circumstances of the case. It is outside the scope of our review to estimate compensation for such occurrences.

⁵ Ibid.

1.4 How can you have your say on this draft report?

We plan to hold two public forums to discuss our draft report and draft recommendations. These are scheduled to be held in:

- ▼ Narrabri on 13 October 2015, and
- ▼ Gloucester on 20 October 2015.

You can register to attend the public forums on our website, www.ipart.nsw.gov.au.

We are also inviting written submissions in response to our draft report and draft recommendations by 30 October 2015. Page iii at the front of this report provides information on how to make a submission. Late submissions may not be accepted.

We will consider all the issues raised in these consultations, and provide our final report and recommendations to the Minister for Industry, Resources and Energy by 30 November 2015.

1.5 Our draft recommendations

Our draft recommendations are outlined in the following chapters. For convenience, they are also listed below. Please feel free to comment on any or all of these draft recommendations, our compensation model or any other matter relevant to our review.

Draft recommendations

- 1 When negotiating land access agreements with gas companies, landholders use IPART's spreadsheet model to estimate compensation benchmarks that take into account their individual circumstances. 25
- 2 That gas companies fund benefit or incentive payments to landholders as part of their compensation arrangements. 27
- 3 That gas companies pay compensation to neighbours in the event that impacts on them (eg, noise levels or hours of operation) exceed reasonable levels set out in licences or approvals. Written agreements should be in place in these instances, and minimum compensation should be paid equivalent to an allowance to relocate neighbours for the period that impacts exceed reasonable levels. 38
- 4 That the provisions for landholder compensation in the *Petroleum (Onshore) Act 1991* be amended prospectively to align with the Queensland *Petroleum and Gas (Production and Safety) Act 2004* and recognise special value of land. 42

- | | | |
|---|--|----|
| 5 | That, in amending the <i>Petroleum (Onshore) Act 1991</i> to require gas explorers to pay for landholders' time spent negotiating and arbitrating an access agreement and for legal and other professional fees, the NSW Government provide for landholders' reasonable costs to be paid rather than set caps for these costs. | 42 |
| 6 | That the NSW Farmers Association provide independent workshops funded by the NSW Government and the gas industry that assist landholders in understanding land access for coal seam gas and negotiating land access and compensation agreements. | 44 |
| 7 | That the NSW Farmers Association develop and maintain a voluntary and non-identifying public register of CSG compensation payments. | 46 |

1.6 What does the rest of this report cover?

The rest of this report explains our review and draft recommendations and decisions in more detail. It is structured as follows:

- ▼ Chapter 2 provides some context for our review, including the legislation and policy that relate to land access for CSG development in NSW and the terms of reference for this review.
- ▼ Chapter 3 discusses the key themes that have emerged from our consultations to date.
- ▼ Chapter 4 explains the approach that our model uses to estimate compensation benchmarks.
- ▼ Chapter 5 describes the model itself.
- ▼ Chapter 6 discusses our draft decision on compensation for neighbours and recommendations on additional measures to support stakeholders.
- ▼ Appendices A to H provide the terms of reference and supporting information.

2 Context for our review

As our Issues Paper discussed, CSG is a naturally occurring gas found in coal seams hundreds of metres below the earth's surface. To develop this resource, gas companies need access to the surface of the land.

In NSW, a number of legislative provisions are in place to regulate land access and establish landholders' right to receive compensation for loss that arises from a gas company's activities on their land. The NSW Gas Plan also provides the Government's strategic framework for regulating the CSG exploration and production industry. Our terms of reference for this review require us to have regard to these legislative and policy provisions.

The sections below outline the provisions and explain our terms of reference.

2.1 Legislative provisions for land access for CSG development in NSW

In NSW, CSG is owned by the Crown. Section 6(1) of the *Petroleum (Onshore) Act 1991* (NSW) (the Act) states that:

All petroleum, helium and carbon dioxide existing in a natural state on or below the surface of any land in the State is the property of the Crown, and is taken to have been so always.

Gas companies can extract CSG from beneath the ground in return for contributing royalties to the people of NSW. However, to do this, the Act requires them to:

- ▼ hold a petroleum title (such as a Petroleum Exploration Licence (PEL)), and
- ▼ gain access to the surface of the ground by entering into a written access arrangement with the landholder(s).⁶

⁶ <http://www.resourcesandenergy.nsw.gov.au/landholders-and-community/coal-seam-gas/the-facts/land-access> accessed 24 August 2015.

2.1.1 Petroleum titles

Gas companies are required to hold different petroleum titles (or licences) at different stages of the CSG exploration and production process. Under the Act, these licences are approved and administered by the NSW Department of Industry, Resources and Energy.⁷

In the initial stages of a project, the company must hold a PEL which gives the holder the exclusive right to explore for petroleum within the exploration licence area during the term of licence. There is currently a freeze on new PELs. The NSW Government has not issued any of these licences since April 2011.⁸

In addition, as part of the NSW Gas Plan, the NSW Government is buying back these licenses. As at 20 August 2015, the NSW Government has bought back 15 PELs.⁹ These include the licences for AGL's recently cancelled Camden Northern Expansion Project (PEL 2) and Hunter Gas Project assets (PEL 4 and PEL 267).¹⁰

The main CSG projects in NSW at present include:

- ▼ Santos' Narrabri Gas Project
- ▼ AGL's Camden Gas Project, and
- ▼ AGL's Gloucester Gas Project.

Appendix D provides more information on the titles relevant to CSG exploration and production and a map showing petroleum titles as at August 2015.

2.1.2 Land access agreements

As gas companies normally do not need large areas of land for CSG exploration and production, they do not usually purchase land outright. Instead, they enter into access agreements to occupy part of a landholder's land. These agreements cover matters such as:

- ▼ the periods during which access to the land may be permitted
- ▼ the parts of the land on which prospecting may be undertaken
- ▼ the kinds of prospecting that may be undertaken, and

⁷ <http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/applications-and-approvals/mining-and-exploration-in-nsw/about-petroleum-titles> accessed 17 September 2015.

⁸ NSW Gas Plan, p 4, <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan>.

⁹ Buy-back Scheme, <http://www.resourcesandenergy.nsw.gov.au/landholders-and-community/coal-seam-gas/community/information-on-petroleum-titles/buy-back-scheme>, accessed 20 August 2015.

¹⁰ AGL, *ASX & Media Release – Upstream Gas Review results in asset impairments of circa \$435 million after tax FY15 Underlying Profit guidance unchanged*, 6 July 2016.

- ▼ the compensation to be paid to the landholder.

In general terms, the Act does not provide landholders with a broad right to refuse land access (see Box 2.1). However, it provides that if an access arrangement cannot be agreed within 28 days, an arbitrator will be appointed to make a determination.¹¹ If either party is not satisfied with the arbitrator's determination, it can apply to the Land and Environment Court which will issue an order.¹² Such an order will be binding on all parties to the dispute, but there is a right of appeal.¹³

Box 2.1 Clarification in relation to the right of refusal

In our Issues Paper we stated that landholders do not have a legal right to deny a petroleum title holder access to their land for the purpose of mineral exploration and extraction in NSW.^a

In a submission in response to that paper, Ms Marylou Potts pointed out that this statement is inaccurate. She noted that under the Act, if an access agreement is not agreed, the title holder will generally seek an arbitrator to determine the access agreement. The arbitrator has the power to decide 'whether or not' to grant access to the land. In addition, section 72 of the Act also refers to 'no go' zones, where the written consent of the landholder is needed to carry out prospecting within 200 metres of the landholder's principal residence or within 50 metres of their garden, vineyard or orchard, or on any improvement. In addition, as noted in our Issues Paper, the NSW Government has introduced CSG exclusion zones within 2 kilometres of residential areas and within critical industry clusters.^b

We note that there may be some circumstances in which access may not be granted to a property, and that access cannot be granted to limited parts of a property without the consent of the landholder. However, it remains the case that, in general terms, a right to refuse access to land is subject to a determination of an arbitrator to permit access under sections 69L(1)(a) and 69N(2)(a) of the Act.

^a IPART, *Landholder benchmark compensation rates – Gas exploration and production in NSW – Issues Paper*, April 2015, p 10.

^b Submission from M. Potts, June 2015, pp 1-2.

AGL and Santos have publicly stated that they will not enter a landholder's property to conduct drilling operations where that landholder has clearly expressed the view that operations on their property would be unwelcome (Box 2.2).¹⁴

¹¹ Section 69F of the *Petroleum (Onshore) Act 1991* (NSW).

¹² Section 69R of the *Petroleum (Onshore) Act 1991* (NSW).

¹³ Section 112 states that an appeal may be brought against an assessment made by the Land and Environment Court under this Act.

¹⁴ <http://www.resourcesandenergy.nsw.gov.au/landholders-and-community/coal-seam-gas/the-facts/land-access> accessed 17 September 2015.

The NSW Government recently released a Petroleum Land Access Guideline which seeks to assist landholders and explorers with petroleum exploration land access negotiations. The Guideline was prepared in consultation with the Land and Water Commissioner and agricultural and petroleum industry stakeholders. It has been developed on the premise that all parties will act in a spirit of co-operation and good faith when negotiating access arrangement. It sets out provisions which gas explorers and landholders should consider including in all land access arrangements. It is intended that the Guideline will eventually be reissued as a Land Access Code having legal effect.¹⁵

Box 2.2 Agreed principles of land access

In March 2014, the 'Agreed Principles of Land Access' was signed by gas companies, Santos and AGL, and landholder representatives NSW Farmers, Cotton Australia and the NSW Irrigators Council.

All parties have agreed to the following principles:

- ▼ Any landholder must be allowed to freely express their views on the type of drilling operations that should or should not take place on their land without criticism, pressure, harassment or intimidation. Any landholder is at liberty to say "yes" or "no" to the conduct of operations on their land.
- ▼ Gas companies confirm that they will respect the landholder's wishes and not enter onto a landholder's property to conduct drilling operations where that landholder has clearly expressed the view that operations on their property would be unwelcome.
- ▼ The parties will uphold the landholder's decision to allow access for drilling operations and do not support attempts by third party groups to interfere with any agreed operations. The parties condemn bullying, harassment and intimidation in relation to agreed drilling operations.

Recently the Country Women's Association (NSW) and dairy industry group Dairy Connect also became signatories to the Agreed Principles of Land Access.

¹⁵ The Petroleum Land Access Guideline is available on the NSW Resources & Energy website, <http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/codes-and-guidelines/guidelines/petroleum-land-access>, accessed 4 September 2015.

2.2 Legislative provisions for landholder compensation

Landholders in NSW are entitled to compensation for loss suffered or likely to be suffered as a result of the exploration activities on their land. Landholders' right to compensation is protected under section 107 (1) of the Act, which states:

The holder of a petroleum title, or a person to whom an easement or right of way has been granted under this Act, is liable to compensate every person having any estate or interest in any land injuriously affected, or likely to be so affected, by reason of any operations conducted or other action taken in pursuance of this Act or the regulations or the title, easement or right of way concerned.

Compensation is negotiated between the landholder and the gas company. Section 109 of the Act provides a list of factors that the Land and Environment Court will take into account when assessing the value of loss suffered or likely to be suffered by a landholder (see Chapter 6 for more information). These factors may guide negotiations between landholders and gas companies. However, they only apply prescriptively if agreement on compensation cannot be reached and the Land and Environment Court is called on to make a decision.

2.3 The NSW Gas Plan

The NSW Gas Plan sets out the Government's strategic framework for regulating the onshore gas industry in NSW.¹⁶ It outlines 17 Action Items, which include:

- ▼ accepting recommendations of the Chief Scientist and Engineer's independent review of CSG
- ▼ introducing a Strategic Release Framework to release areas for gas exploration
- ▼ establishing a buy-back of Petroleum Exploration Licences, and
- ▼ appointing the Environment Protection Agency as the lead regulator for CSG.

The Government has also committed to ensuring that landholders and communities share in the financial benefits of gas exploration and development. Towards this end, it has asked IPART to conduct this review to provide landholders with independent expert advice on benchmark compensation rates for hosting gas exploration and production. It has also taken steps to establish a Gas Community Benefits Fund (Fund) to support local projects where gas exploration and production occurs.

¹⁶ <http://www.resourcesandenergy.nsw.gov.au/energy-supply-industry/legislation-and-policy/nsw-gas-plan> accessed 14 September 2015.

In May 2015, the NSW Government released a discussion paper on the design of this Fund.¹⁷ The discussion paper noted that communities can be affected by gas activities, and there can be social and economic impacts. The Fund will be supported by industry and government to ensure that communities in which the gas industry operates benefit from those activities through the funding of local projects in those communities.

Gas explorers and producers will be able to elect to contribute to the Fund and the Government will reduce \$1 from a company's gas royalty liability for every \$2 paid into the Fund, capped at 10 per cent of the royalty take for each gas project in each production year. Gas companies can still make contributions to the Fund in the exploration phase (ie, before royalties are made). They can claim credit for the contributions when it begins to pay royalties during the production phase. If the project does not proceed to production, contributions to the Fund cannot be claimed back.

2.4 Our terms of reference

Our terms of reference for this review ask us to recommend compensation benchmarks to support landholders in negotiating appropriate compensation with gas companies for hosting gas exploration and production. In particular, we have been asked to develop an analytical framework for setting compensation benchmarks that can be updated annually.

The terms of reference indicate that the NSW Government intends for NSW landholders to receive compensation that is at least as good as that received by other landholders in Australia who host gas development. It also indicates that in conducting our review, we should have regard to:

- ▼ the economic benefits over the lifecycle stages of a project, considering the associated risks and probabilities of a project progressing
- ▼ the structure of compensation arrangements (eg, fixed, rental or other methodologies) taking into account the different phases of a project, the varying value of production systems in agricultural enterprises, and the implications for encouraging exploration
- ▼ the landholder compensation arrangements currently applied by industry in NSW, other Australian states and territories and internationally, including identifying industry best practice
- ▼ similar arrangements in other industries (eg, wind farms) across other Australian and international jurisdictions
- ▼ relevant legislation on gas/petroleum exploration and production, as well as measures announced as part of the NSW Gas Plan, and
- ▼ any other matters we consider relevant.

The terms of reference is provided in Appendix A.

¹⁷ <http://www.resourcesandenergy.nsw.gov.au/landholders-and-community/coal-seam-gas/community/community-benefits-fund> accessed 14 September 2015.

3 Themes from our consultations

As part of our consultation process, we released an Issues Paper outlining how we proposed to approach this review and our preliminary thinking on some of the issues we will need to consider. We received 28 submissions in response to this paper from a diverse range of stakeholders. These include landholders with experience in negotiating land access and compensation agreements, farming industry bodies, gas companies, the NSW Government, and groups who oppose CSG development. These submissions are all available on our website.

We also consulted directly with a range of agencies and industry bodies including Namoi Water, the Gasfields Commission Queensland, AgForce Queensland, and the Queensland Department of Natural Resources and Mines. In addition, we held discussions with various landholders in Narrabri and Queensland. A full list of the parties we consulted is provided in Appendix C.

While perspectives varied, a number of themes emerged from these consultations, including that:

- ▼ a ‘one-size-fits-all’ approach to compensation will not work
- ▼ landholders are likely to need professional advice
- ▼ the conduct arrangements in a land access agreement are as important as compensation, and
- ▼ concerns about CSG and the need to consider compensation for a broader range of impacts.

The sections below discuss each of these themes and outline our response.

3.1 A one-size-fits-all approach to compensation won’t work

As Chapter 1 discussed, in our Issues Paper we indicated that we would estimate quantitative (dollar) benchmarks for landholder compensation, and outlined some preliminary views on the inputs we could use for this estimation. In submissions in response to this paper, stakeholders advised us that providing quantitative benchmarks or formulas would not provide useful guidance for landholders. This is because each landholder has different circumstances that are relevant for determining the appropriate level of compensation.

For example, Cotton Australia submitted that it “would want clear reassurance that guidelines developed as part of the review process clearly cater for individual landholder circumstances”. It suggested that “landholders might be more comfortable with a framework which outlines in general terms what is compensable or not, but does not seek to set a rate on compensation”.¹⁸

The Australian Petroleum and Exploration Association (APPEA) submitted that:

...the extent and nature of activities by both landholders and gas companies are highly variable and site specific. Therefore seeking to provide ex ante quantitative advice or to specify a formulaic approach in these areas is unlikely to provide useful guidance to landholders.¹⁹

Similarly, AGL submitted that:

Each agreement made with a landholder is unique, reflecting the characteristics of the particular property and the proposed CSG activities and infrastructure to be hosted. ... [There] are different types of landholders, including private landholders, governments and mining companies, which have different requirements, and compensation agreements are negotiated accordingly. There is certainly no “one size fits all”.²⁰

In discussions, the Queensland Department of Natural Resources and Mines advised us that attempts to develop formulaic approaches to compensation in Queensland had not been successful. Similarly, the Gasfields Commission Queensland noted that such approaches are not practical due to the wide variation and diversity of the rural businesses negotiating compensation agreements.

After considering stakeholder comments, we agree that estimating dollar ranges for compensation benchmarks would not provide useful guidance for landholders. The range would need to be very wide to capture the variations in the factors relevant to compensation, such as:

- ▼ the market value of the land used by the gas company
- ▼ the impact that the gas infrastructure and operations have on landholders (eg, any loss of agricultural production, loss of productivity, nuisance from noise, dust, light etc), and
- ▼ the complexity, time and cost of professional advice needed to negotiate land access.

¹⁸ Cotton Australia submission, June 2015, p 2.

¹⁹ APPEA submission, June 2015, p 2.

²⁰ AGL submission, May 2015, p 2.

Therefore, we decided that the most useful guidance we can provide is a spreadsheet model that landholders can use to estimate their own compensation benchmarks. For example, they can use the model to get an indication of the appropriate level of compensation in the early stages of a negotiation, or to assess a compensation offer they receive from a gas company in the later stages. While the model contains formulas to calculate benchmark compensation payments, it requires inputs that are specific to the landholder. In some cases, the landholder may require specialist advice to determine these inputs. The compensation model is discussed further in Chapters 4 and 5.

3.2 Landholders should get professional advice

Negotiating land access and compensation can be complex and stakeholders pointed out that it is important that landholders get advice. This includes professional advice, and advice from other landholders who have been or are going through similar negotiations.

The type of professional advice needed will depend on the landholder's individual circumstances. It may include land valuation, legal, accounting and tax, surveys and other farm business advisers. Independent valuation advice is particularly relevant to compensation. During our consultation with Queensland stakeholders we found it is commonplace for landholders and gas companies to obtain independent valuation advice to inform compensation.

The need for landholders to have access to professional advice was recognised in a recent report on the land access arbitration framework undertaken by Bret Walker, SC. This report included a recommendation that the NSW Government amend the *Petroleum (Onshore) Act 1991* to provide for a landholder to have the following costs paid by the (gas) explorer:

- ▼ their time spent negotiating and arbitrating the access arrangement up to a capped amount
- ▼ their legal costs up to a capped amount, and
- ▼ costs of any experts that landholders engage as part of the negotiation and arbitration process up to a capped amount.²¹

The NSW Government has responded to this report and is in the process of implementing the recommendations. This is discussed further in Chapter 6.

²¹ Walker, B, *Examination of the Land Access Arbitration Framework Mining Act 1992 and Petroleum (Onshore) Act 1991*, 20 June 2014, p 29.

3.3 Conduct is as important as compensation

The focus of our review is recommending benchmark compensation to support fair outcomes for landholders. A number of stakeholders, including landholders who already have gas infrastructure on their land, advised us that achieving a good outcome is about more than just compensation. In particular, the ‘conduct’ arrangements in a land access agreement are as important as compensation.

Conduct arrangements in a land access agreement include matters like determining the location for gas infrastructure and access roads, defining notice periods and times of access, plans to prevent weeds, pests and diseases, rehabilitation and insurance. These arrangements are unique to each landholder and will depend on the nature of landholder’s property, any farming operations and the needs of the gas company.

We were advised that if conduct arrangements in land access agreements are done well, then it is often easier to reach agreement on compensation. To do this, the landholder and gas company need to take time to understand each other’s business and lifestyle requirements, now and into the future. It is often possible to locate gas infrastructure and conduct gas activities to minimise the impacts on a landholder. Landholders who have achieved good outcomes from their land access agreement also looked for opportunities that gas development could provide to them. We spoke to landholders who had benefited from ‘win-win’ situations over and above their compensation, including through ongoing water supply and the use of dams, access roads and new fences. For example, one landholder we met explained the benefits that a consistent supply of treated CSG water provided under pressure through an irrigation pipeline had provided to his farming business.²² In Box 3.1, we also summarise an article about a Queensland farmer who shares his insights and tips on how to approach land access negotiations.

The conduct of the gas company is also important. A successful negotiation and ongoing relationship between a landholder and gas company is based on transparency and open communication. Some landholders told us about their negative experiences dealing with gas companies. This included instances where gas companies turned up unannounced and asked for access agreements to be signed with minimal compensation. This sort of behaviour caused landholders considerable emotional stress and grief. Gas companies that we spoke to acknowledged that this behaviour had damaged the industry and that the key to the success of the industry is through long-term partnerships with landholders.

There are various resources available for landholders to make sure they consider relevant conduct issues in their land access agreement (see Appendix H for a list of these resources).

²² For more information see the article available in the Spirit of Regional Australia Summer 2014/15, <http://spirit.flipme.com.au/edition22/index.html#122>, accessed 18 September 2015.

Box 3.1 Yuleba grazier shares insights on gas negotiation

Brett and Di Griffin run cattle on their 16,000 acre forest grazing block in the Yuleba district, north-west of Miles in Queensland's Surat Basin. Over the past few years they have negotiated with a gas company for 128 wells, 150 kilometres of gathering lines and 3 kilometres of major pipeline.

In a recent article for the Gasfields Commission Queensland, Mr Griffin said it takes a lot of homework, hard negotiating and the right attitude to develop a beneficial and workable relationship with the onshore gas industry. His top tips for negotiating a conduct and compensation agreement are outlined below.

- ▼ Do your homework - go inspect gas fields and talk to other landholders.
- ▼ Work with a neighbour - one you get along with and can support each other.
- ▼ Be firm but reasonable in your negotiations - don't ever state your price first.
- ▼ Be careful choosing your own professional advisory team.
- ▼ Get to know who's who in the gas company – identify the right decision makers.
- ▼ A good working relationship can create additional opportunities.
- ▼ If have a dispute - make sure you have proper evidence to back your claims.

The complete article is available on the Gasfields Commission Queensland website, <http://www.gasfieldscommissionqld.org.au/news-and-media/yuleba-grazier-shares-insights-on-gas-negotiation.html>.

3.4 Concerns about CSG and the need to consider compensation for a broader range of impacts

Some stakeholders do not want CSG in NSW. They consider that the industry is not needed and that compensation cannot address the risks that CSG poses. These stakeholders submitted that these risks include depletion or contamination of aquifers, impacts on agriculture and food supply, air pollution, impacts on human health, impacts on flora and fauna, and land contamination. They considered that these risks may be long-term and may affect many landholders, not just those who have gas infrastructure on their land.²³

²³ For example see submissions from Lock the Gate Alliance, May 2015, p 1; S Ciesiolka, May 2015, p 1; J Robertson, May 2015, p 1; D Cush, April 2015, p 1; B McQueen, May 2015, p 1.

Some submissions commented that the scope of our review is too narrow and that we should be considering compensation for:

- ▼ broader communities affected by gas development²⁴
- ▼ sub-surface impacts²⁵
- ▼ impacts on tourism,²⁶ and
- ▼ ‘when things go wrong’ or ‘black swan’ events.²⁷

Some stakeholders also submitted that the appropriate regulatory and legislative frameworks are not yet in place, and the NSW Government has yet to implement the NSW Chief Scientist’s recommendations regarding CSG. These stakeholders consider it is too early to talk about compensation until the appropriate regulatory frameworks are in place. There are also concerns that the issue of compensation for CSG divides communities.²⁸

While we note these stakeholders’ concerns, IPART’s role is set out in our terms of reference provided by the NSW Government. These terms of reference are focused on compensation for land access. They do not ask us to consider:

- ▼ whether or not CSG activities should take place in a particular area
- ▼ what environmental and other controls should be in place to manage the risks of CSG, or
- ▼ what compensation is appropriate for any impacts on the environment, human health or tourism.

The NSW Government has a range of environmental protections in place to manage the risks of CSG activities, including risks to the environment and human health. More information on environmental protections is provided in Appendix E. The NSW Government has responded to the NSW Chief Scientist and Engineer’s report on managing the risks of CSG and has supported its recommendations.

²⁴ For example see submissions from G McCalden, June 2015, p 2; Bellata Gurley Action Group Against Gas, June 2015, p 3.

²⁵ For example see submissions from Mullaley Gas and Pipeline Accord, May 2015, p 1; Bellata Gurley Action Group Against Gas, June 2015, p 3.

²⁶ G. Smith submission, June 2015, p 3.

²⁷ For example, see submissions from Bellata Gurley Action Group Against Gas, June 2015, p 4.

²⁸ For example, see submissions from Lock the Gate Alliance, May 2015, pp 1-2; S Ciesiolka, May 2015, p 2; Bellata Gurley Action Group Against Gas, June 2015, p 2; Mullaley Gas and Pipeline Accord, May 2015, p 2; and A Donaldson, May 2015, p 2.

Local communities have the opportunity to provide input into CSG projects. For example, prior to granting a PEL for CSG, local communities have the opportunity to comment on applications through a public comment process. It is also a condition of title that exploration licence holders meet strict consultation requirements to involve communities in making decisions that affect them. For large CSG projects there is a comprehensive environmental impact assessment process which also involves extensive community consultation.

In the event there is an environmental incident, there are other processes and frameworks in place to manage compensation for loss suffered by landholders. For example, landholders have a common law right to claim for loss or damage arising from a gas company's CSG activities. In these instances, it would be a court that would decide a landholder's loss, not IPART's benchmarks.

The NSW Gas Plan recognises that gas development can affect broader communities. In response to this, the NSW Government is consulting on the design of the Community Benefits Fund.²⁹ As Chapter 2 noted, the Fund aims to ensure that communities in which the gas industry operates benefit from those activities through the funding of local projects in those communities.

²⁹ <http://www.resourcesandenergy.nsw.gov.au/landholders-and-community/coal-seam-gas/community/community-benefits-fund> accessed 14 September 2015.

4 Our approach to the review

In our Issues Paper, we proposed a four-step approach for this review. The aim of this approach was to estimate benchmark compensation rates by identifying the relevant impacts on landholders from CSG exploration and production and estimating a payment to compensate for these impacts. Our approach also included a step to estimate a benefit payment to landholders.

Based on discussions with stakeholders and submissions to our Issues Paper, we now consider that following this four-step approach may not produce compensation benchmarks that are useful for landholders. Given the wide variation in landholders' individual circumstances, it would likely produce a very wide payment range, and it would be difficult for landholders to identify where they might fall within this range. Therefore, we have developed a spreadsheet model that landholders can use to estimate their own compensation benchmarks.

The sections below discuss our draft decisions on:

- ▼ what impacts landholders hosting CSG exploration and production should be compensated for (ie, the heads of compensation)
- ▼ how the benchmark compensation model should value those heads of compensation, and
- ▼ how benefits payments to landholders should be included in the model.

Chapter 5 provides a more detailed explanation of the model itself, and provides an example to illustrate how it works. Appendix B discusses stakeholders' comments on the four-step approach we initially proposed in our Issues Paper.

4.1 What heads of compensation should be included in the model

Our draft decision is that the relevant heads of compensation for landholders hosting CSG exploration and production include:

- ▼ **the value of the land occupied** by CSG activities and infrastructure
- ▼ **loss due to severance**, which is the reduction in the value of the landholder's residual land caused by its division or reduction in area due to the CSG activities and infrastructure

- ▼ **loss due to injurious affection**, which includes all other impacts on the landholder's residual land value, such as nuisance from noise and dust, or the loss of visual amenity due to CSG infrastructure and activities, and
- ▼ **loss due to disturbance**, including for example, the landholder's time in engaging with the gas company on the access agreement, any legal and professional fees incurred in negotiating the agreement, and any physical damage to landholder's property caused by CSG activities.

As our Issues Paper discussed, these heads of compensation are recognised in relation to a compulsory partial acquisition of land (eg, if the State compulsorily acquires part of a landholder's property for a public purpose). In these instances, compensation is assessed in accordance with the NSW *Land Acquisition (Just Terms Compensation) Act 1991* with the aim that landholders are justly compensated for the acquisition.

A compulsory partial acquisition is similar to a CSG project on a landholder's property. The main differences are that a CSG project has a limited period and the impacts on a landholder can vary over this period. In our view, these differences can be managed (discussed further below). Therefore, we consider these heads of compensation are relevant to our review.

In responses to our Issues Paper, most stakeholders agreed that these heads of compensation covered the relevant impacts of hosting CSG activities. See Appendix B for more information.

4.2 How the heads of compensation should be valued

In our Issues Paper, we discussed several methods that could be used to value the heads of compensation – for example, gross margins and non-market valuation methods. Most stakeholders did not support these methods. Common reasons include that these methods are inappropriate for determining compensation, would produce estimates that vary considerably, and may not produce estimates that reflect individual circumstances.³⁰

The submission from Mr M Fibbens noted that there is already a well-established valuation theory for partial acquisitions of land, including for roads, sewers and water and electricity infrastructure. He advised us that qualified valuers usually carry out valuations for compensation purposes and that two valuation methods are suited for partial acquisitions:

- ▼ the 'before and after' method, which involves a judgement of the value of a property before and after the acquisition, and
- ▼ the 'piecemeal' method, which involves adding up each element of compensation payable under the heads of compensation.

³⁰ See Appendix B for further discussion.

He noted that these methods can be adapted to compensation for hosting CSG activities by converting capital land values into a rent value using a percentage return applicable to the particular property.³¹

After considering stakeholder submissions, and investigating the above valuation methods, we made a draft decision that the piecemeal valuation method is the most appropriate basis for our model. In our view, this method provides a useful framework for estimating benchmark compensation, particularly as it allows flexibility to reflect different landholder circumstances. Table 4.1 provides an overview of this method.

Table 4.1 Overview of the piecemeal valuation method

Step	Description	Notes
1	Valuation of land occupied	Evidence of land values from sales data
2	Find loss in value of 'balance land' (due to severance and injurious affection)	Evidence of diminution from sales data
3	Calculate loss for the balance land	
4	Disturbance costs (professional fees etc)	Allow at cost
5	Value of land occupied is added to loss in value to balance land	
6	For CSG projects, calculate a rental value from the capital value using a percentage return for the property	

Source: Based on submission from M. Fibbens, May 2015, section 1.7.

As Mr Fibbens indicated, the piecemeal valuation method would normally be applied by a qualified valuer. A valuer would consider the view of a hypothetical purchaser as to the change in the market value of land due to CSG operations, including where relevant, loss from severance and injurious affection. A valuer would take into account many factors specific to the landholder (see Box 4.1 for examples) and have regard to evidence from market sales data. During our consultations, we found it was common in Queensland to have a valuer provide advice to landholders and gas companies on compensation for the relevant heads of compensation in the Queensland legislation.

The compensation model explained in the following chapter includes the four heads of compensation discussed above, and is based on the piecemeal valuation method.

Draft recommendation

- 1 When negotiating land access agreements with gas companies, landholders use IPART's spreadsheet model to estimate compensation benchmarks that take into account their individual circumstances.

³¹ M. Fibbens submission, May 2015, Section 1.7.

Box 4.1 Examples of factors considered in valuation surveys

Property and location

- ▼ Property size
- ▼ Location/distance to closest town
- ▼ Type of farming on the property (cattle grazing, sheep grazing, cropping etc)
- ▼ Carrying capacity
- ▼ Rainfall/water supply

CSG impacts on the landholder

- ▼ Number of wells proposed and area occupied by wells
 - ▼ Length of pipelines, access roads and other infrastructure on the property
 - ▼ Proximity of infrastructure to house
 - ▼ Time taken to install infrastructure and nuisance/disturbance during construction
 - ▼ Estimated reduction to production capacity/grazing capacity
 - ▼ Production loss due to dust
 - ▼ Restrictions on operating farming machinery / requirements to provide access to wells
 - ▼ Severance impacts (if any)
 - ▼ Impact on farm certification schemes
 - ▼ Water salinity concerns
-

4.3 How benefit payments should be included in the model

In our Issues Paper we proposed to recommend benefit payments to landholders that apply during the production phase of a CSG project. We put the view that such payments were consistent with the requirement in our terms of reference that landholders in NSW share the benefits of gas exploration and production. We outlined one option for a benefit payment that was funded half from the NSW Government's royalty revenue and the other half from the gas company.

Our view was that in the short term, this benefit payment option would result in less royalty revenue to the NSW Government as a portion is diverted to landholders. However, over the longer term, it could be expected to provide an incentive for more land access agreements to be signed, more gas developed in NSW and additional royalty revenue and broader economic benefits for the NSW economy.

However, our draft decision is that gas companies should include benefit payments to landholders as part of their compensation. We are not recommending that the benefit payments be funded from royalties but rather gas companies continue to fund them. In reaching this decision, we took account of the fact gas companies are already voluntarily sharing the benefits of gas development with NSW landholders, by giving them access to production bonuses and incentive funds. For example:

- ▼ Santos' Narrabri Gas Project includes a Landholder Incentive Fund. The Fund is equivalent to 5% of Santos' annual statutory royalty payment and is made instead of land-based payments. Landholders will receive a share of the Fund proportionate to the amount of their land being utilised by Santos in the production phase of a project.
- ▼ AGL provides landholders with an annual production bonus. For wells which exceed production targets, AGL contributes \$10,000 per well to its Production Bonus Fund. The Fund is then equally shared by eligible landholders within the well field.

We also took account of AGL's view that there are more important barriers to gas development in NSW – including public perceptions of CSG – and the benefit payments we proposed would not address these barriers.³² Our compensation model includes payments from incentive funds and production bonus schemes that are currently offered in the market. In addition, landholders may receive benefits in-kind through upgrades to roads and fences, dams and water supply. During our consultation with landholders we saw examples of where these in-kind benefits were substantial. Landholders should look for these opportunities when negotiating a land access and compensation agreement.

Draft recommendation

- 2 That gas companies fund benefit or incentive payments to landholders as part of their compensation arrangements.

³² See Appendix B for more discussion on stakeholder comments on benefit payments.

5 Benchmark compensation model

As previous chapters have discussed, we have developed a spreadsheet model that landholders can use to estimate benchmark compensation that takes account of their individual circumstances. This model includes the four heads of compensation and is based on the piecemeal valuation method discussed in Chapter 4. It also includes the incentive payments or production bonuses from gas companies discussed in Chapter 4.

While gas companies approach and structure their compensation offers in different ways, we consider the benchmark compensation estimated by the model will provide landholders with a 'sense check' for an offer. Landholders can also use the model to see how the benchmark compensation changes under different scenarios (for example, under different assumptions on the value of land or different amounts of land being used by the gas company).

To use the model, landholders will need to enter information about their property and the proposed land access agreement. We expect in most cases they will need professional advice on how a CSG project may affect the market value of their property.

Landholders and gas companies may have separate access agreements for the exploration and production phases of a CSG project. In addition, there may be substantial changes to the scale or scope of a project that require an amendment to an agreement. In these situations, landholders can enter updated information into the model to see how the benchmark compensation changes in response to the changed circumstances.

We do not intend that the benchmark compensation model replace the negotiation between a landholder and a gas company. Landholders are in the best position to determine what compensation is appropriate for them. The model only provides a benchmark of an appropriate level of compensation for their circumstances.

The sections below outline the key features of the model, provide an example to illustrate how the model works, and identify the impacts that are not included in the model.

5.1 Key features of the model

The key features of the compensation model are that it:

- ▼ Incorporates the four heads of compensation and is based on the ‘piecemeal’ valuation method discussed in Chapter 4.
- ▼ Includes compensation in the form of a rent payment for land occupied, severance and injurious affection, payments for landholder time, estimated costs of professional advice, and incentive payments/production bonuses.
- ▼ Is based on the commencement of an access agreement but could be used at other stages. For example, it could be used to estimate how the benchmark compensation changes to reflect changes in a CSG project over time, including changes from exploration to production phases of a project.
- ▼ Allows for additional compensation in the **first year** of an access agreement. This is because impacts on landholders are typically greater in this year, when wells, pipelines, access roads, hardstand and other infrastructure are being constructed. In addition, often more land is required early when wells are being drilled relative to when the well is operating and the surrounding land has been rehabilitated, and
- ▼ Can calculate compensation as a single upfront amount or ongoing annual payments, depending on the preference of the landholder.

The benchmark compensation model is available on our website (in Microsoft Excel format).³³ Detailed instructions for using the model are provided in the ‘Instruction’ worksheet of the model.

5.2 An example of how the model works

The best way to explain how the model works is through an example. We have developed a hypothetical example based on a landholder with the following characteristics:

- ▼ The landholder has a mixed farming business on a property of 200 hectares.
- ▼ They have been offered an access agreement with an estimated duration of 20 years. The offer includes an incentive fund when the project reaches the production phase (for simplicity, we assume there is only one access agreement that covers exploration and production phases).
- ▼ The gas company will need 10 hectares for well pads, hardstand and other infrastructure in the first year of the project, and 5.25 hectares from the second year onwards. (The model includes a tool to convert other land measures into hectares).
- ▼ The estimated value of the land is \$15,000 per hectare, and the estimated rental is 8% of the land value.

³³ <http://www.ipart.nsw.gov.au>.

- ▼ CSG infrastructure is located around the edges of the property and does not physically interfere with the rest of the landholder's business (ie, the CSG infrastructure is not located so that it splits paddocks or that some of the balance land cannot be used by the landholder).
- ▼ A valuer has estimated that for the period that the CSG infrastructure is located on the property, impacts including loss of visual amenity, noise, dust and light would affect the value of the balance land by 20% in the first year and 10% in the second year onwards.
- ▼ The landholder estimates they will spend 150 hours during the negotiation of the access agreement, and around 50 hours a year on an ongoing basis on work related to the access agreement. They estimate the value of their time at \$50 per hour.
- ▼ The landholder estimates that legal and professional fees will cost \$40,000 to establish the access agreement.
- ▼ The gas company expects to progress to the production stage in the fourth year since signing the access agreement. During the production stage, the company has agreed to contribute 5% of its annual royalty payment to its "incentive fund". The fund will be shared by landholders in proportion to the area of land used. The company's estimated annual royalty payment is \$1,500,000 in the first year of the production. The total land area utilised by the gas company during the production stage is 22 hectares.
- ▼ The landholder has a preference to receive compensation in a series of periodic payments, and plans to deposit them in a savings account earning 3.5% annual interest.
- ▼ The inflation rate is forecast to be 2.5% per annum.

The above characteristics are fictitious and are intended only to illustrate the model. We have provided another example of the model in Appendix G.

5.2.1 The INPUT worksheet

The landholder's individual circumstances are captured in the INPUT worksheet (Figure 5.1).

Figure 5.1 Compensation model INPUT worksheet**INPUTS****PART A. Inputs for Compensation Payment**

	RESET
1. Land access agreement details	
How long is your access agreement for?	20 years
2. Landholding details	
What is the total area of your land in hectares? If you have land area in a different unit, use the "CONVERSION" worksheet to convert into hectares.	200 hectares
What is the estimated value of your land per hectare? If you have land value in a different unit, use the "CONVERSION" worksheet to convert into \$/hectare.	\$15,000 per hectare
What is the rental value of land as a percentage of land value?	8% percent
3. Estimated impact on land and landholder	
(a) Directly impacted land	
In the first year of land access agreement	
What is the total area of land used by gas company?	10 hectare
From the second year of land access agreement	
What is the total area of land used by gas company?	5.25 hectare
(b) Residual land (your total land area excluding directly impacted land)	
In the first year of land access agreement	
What is an estimated reduction in the value of residual land due to severance?	0% percent
What is an estimated reduction in the value of residual land due to injurious affection?	20% percent
From the second year of land access agreement	
What is an estimated reduction in the value of residual land due to severance?	0% percent
What is an estimated reduction in the value of residual land due to injurious affection?	10% percent
4. Cost of landholder time and expert advice	
How many hours did you spend negotiating your access agreement?	150 hours in total
How many hours do you expect to spend each year on matters related to you access agreement?	50 hours per annum
Enter an estimate of the value of your time	\$50 per hour
How much did you spend on fees for professional advice (eg, legal, valuation, taxation and other fees) including GST?	\$40,000 per agreement
5. Other assumptions	
What rate of return would you expect to earn on financial investments per year? (You need this input only if you wish to calculate a lump-sum upfront payment)	3.5% percent per annum
Inflation rate	2.5% percent per annum

PART B. Inputs for Incentive Payment

What is your incentive payment based on?	Statutory annual royalty payment
In which year is the gas project expected to enter the production stage?	4 years
Gas company's statutory annual royalty payment	\$1,500,000 \$ per annum
% of royalty gas company contributes to incentive fund	5% percent
Total licence area for production	22 hectares

Data source: IPART.

5.2.2 The RESULTS worksheet

The RESULTS worksheet for the landholder in our example is shown in Figure 5.2. The worksheet consists of three parts.

- ▼ **PART A** shows the landholder's compensation payment. In our example, the landholder would receive compensation in a series of annual payments over 20 years (ie, the access agreement period) as this was their preference. If they chose to receive an upfront payment, the total compensation would have been calculated as the present value of the annual payments made at the beginning of each year.

- ▼ **PART B** shows the landholder's incentive payments. The landholder would receive the first incentive payment after four years since signing the access agreement, since this is the year the gas company expects to start producing commercial quantity of gas and making royalty payments to the Government. The incentive payments are calculated assuming the gas company's royalty payment would remain constant at \$1,500,000 per annum, and are adjusted for annual inflation.
- ▼ **PART C** shows graphically a schedule of the landholder's expected compensation and incentive payments over 20 years since signing the access agreement.

5.2.3 The CALC worksheet

The CALC worksheet provides detailed calculations of compensation and incentive payments.

Compensation payments

Compensation payments in our model include the rent for land occupied, compensation for severance and injurious affection, and the costs of landholder's time and professional advice, which are calculated as follows:

- ▼ Rent for land occupied = Value of land (\$/ha) × Area of land used (ha) × Rental rate (%).
- ▼ Compensation for severance = Value of land (\$/ha) × Area of residual land (ha) × Estimated reduction in land value due to severance (%) × Rental rate (%).
- ▼ Compensation for injurious affection = Value of land (\$/ha) × Area of residual land (ha) × Estimated reduction in land value due to injurious affections (%) × Rental rate (%).
- ▼ Landholder time and expert advice = Total number of hours spent negotiating access agreement × Landholder's value of time (\$/hour) + Total cost of professional advice (\$).

As shown in our example, the model allows different land areas and reductions in land value due to severance and injurious affections in the first year and from the second year onwards. This takes into account that impacts on landholders are often greater in the first year of an access agreement.

Incentive payments

The model includes incentive payments to share the benefits of gas development. It assumes that a gas company creates an “incentive fund” where it contributes certain amounts each year. The total incentive fund is then shared by all affected landholders within the licence area. The model includes three different calculation methods for incentive payments. In all cases, the incentive payment is funded by the gas company:

- ▼ If incentive payments are based on royalty payments:
 - Total incentive fund = Annual royalty payment × % of royalty a gas company contributes to the incentive fund.
 - Incentive payment to a landholder = Total incentive fund × (Landholder’s land area utilised by gas company ÷ Total licensed land area for production).
- ▼ If incentive payments are based on meeting a production target:
 - Total incentive fund = Total number of producing wells in licence area that exceed production targets × Amount of money per well a gas company contributes to the incentive fund when a well production exceeds its target level.
 - Incentive payment to a landholder = Total incentive fund ÷ Total number of eligible landholders in licensed area.

If a landholder is provided with an estimate of annual incentive payments or does not have sufficient information to use the previous two options, annual incentive payments can be calculated based on an estimate of annual incentive payments the landholder would reasonably expect to receive in the first year of production.

Figure 5.2 Compensation model SUMMARY worksheet

RESULTS

PART A. Compensation Payment

Payment Structure: Lump-sum Upfront Annual Payments

About Payment Structure: Please select an option to get an estimate of your compensation. Select "Lump-sum Upfront Payment" to get a single upfront payment. Select "Annual Payments" for a series of annual payments.

Beginning of Year	Annual Payment
1	\$105,100
2	\$32,974
3	\$33,799
4	\$34,644
5	\$35,510
6	\$36,397
7	\$37,307
8	\$38,240
9	\$39,196
10	\$40,176
11	\$41,180
12	\$42,210
13	\$43,265
14	\$44,347
15	\$45,455
16	\$46,592
17	\$47,757
18	\$48,950
19	\$50,174
20	\$51,429

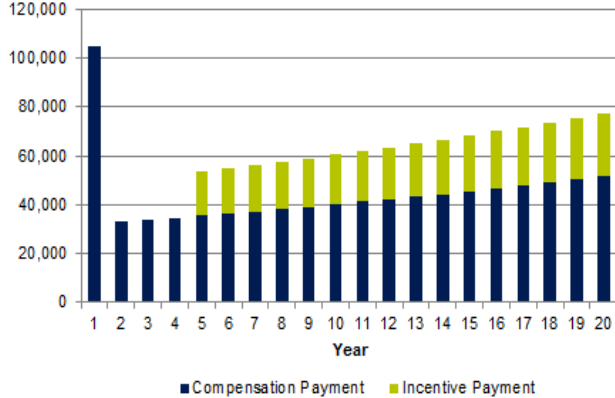
PART B. Incentive Payment

A schedule of your incentive payments is provided below.

Beginning of Year	Annual Incentive
1	
2	
3	
4	
5	\$17,898
6	\$18,345
7	\$18,804
8	\$19,274
9	\$19,756
10	\$20,250
11	\$20,756
12	\$21,275
13	\$21,807
14	\$22,352
15	\$22,911
16	\$23,483
17	\$24,070
18	\$24,672
19	\$25,289
20	\$25,921

PART C. Payment Schedule

The graph below shows compensation payment schedule over your access agreement period.



Data source: IPART.

5.3 Some impacts are not included in the model

The model does not include compensation for all possible impacts on landholders that fall within the four heads of compensation. For example, there is no compensation calculated for:

- ▼ any damage that is caused by the gas company to a landholder's crops, property, land and buildings etc
- ▼ the cost of land rehabilitation, and
- ▼ 'making good' on any impact on quality/quantity of water stored on the land.

These impacts fit within the heads of compensation, and our view is that landholders should receive compensation for these impacts or have them rectified to an appropriate standard. However, this is generally provided for in access agreements – for example, by specifying that in the event that there is damage to a landholder property it will be rectified or paid for by the gas company.³⁴

³⁴ AGL's standard access agreement states that AGL will pay for damage to land, gardens, improvements or stock caused by AGL or its subcontractor's activities. It also includes undertakings in relation to rehabilitation of land and make good provisions in relation to water supply. AGL, *Access principles and land access and compensation agreement*, 21 March 2014.

6 Other decisions and recommendations to support landholders

In addition to developing a benchmark compensation model for landholders hosting CSG exploration and production, we considered whether we should make recommendations on compensation for neighbouring landholders affected by gas activities. We also considered whether measures in addition to the model are needed to support NSW landholders, and help ensure they receive compensation that is at least as good as landholders in other states.

We decided not to make specific recommendations on compensation for neighbours, although we consider that compensation should be paid where noise, light or other impacts exceed reasonable levels. In addition, we decided three additional measures are required to support NSW landholders. These include:

- ▼ amendments to NSW legislative provisions for compensation for CSG activities
- ▼ provision of land access and negotiation workshops for landholders, and
- ▼ development and maintenance of a public register of compensation payments.

6.1 Compensation for neighbours

In our Issues Paper, we expressed a preliminary view that our recommendations on compensation would also be relevant to neighbours of landholders hosting CSG who are directly affected by noise, light and dust.

In submissions, some stakeholders agreed that compensation should be paid to neighbours who are directly affected by noise, light and dust. Some also considered that compensation should include reduction in their land value.³⁵ Cotton Australia expressed support for neighbours receiving compensation, but noted that clarity is required around the relevant impact radius, the timing of payments and the relevant impacts.³⁶

³⁵ For example, see submissions from C Robertson, May 2015, p 13.

³⁶ Cotton Australia submission, June 2015, p 6.

Other stakeholders submitted that it is not appropriate to provide compensation to neighbours. The joint submission from the Australian Property Institute (API) and Spatial Industries Business Association Australia (SIBA) noted that property compensation law necessarily limits compensation to parties having an interest in a parcel of land that is impacted by gas exploration and/or production.³⁷

AGL, APPEA and Santos all submitted that impacts on neighbours are already regulated through environmental and planning approval processes. For example, AGL noted that all projects that have been granted planning approval must adhere to the strict conditions that ensure impacts are limited to a reasonable level (including restrictions on noise, dust and operating hours). AGL argued that if projects are operating within these conditions, neighbouring landholders should not be entitled to compensation. It also provided examples of other activities that impact neighbours where no compensation is paid, such as:

- ▼ the cultivation of a paddock causing noise and dust
- ▼ the construction of a house causing noise and dust
- ▼ the hosting of power line infrastructure, and
- ▼ the construction of roadworks.³⁸

Some stakeholders also argued that other mechanisms already address impacts on neighbours and the broader community. For example, in its submission the NSW Government referred to Resources for Regions payments, the Community Benefits Fund, local council rates, local council developer contributions and Voluntary Planning Agreements.³⁹

After considering stakeholder comments, our draft recommendation is that compensation should be paid to neighbours where noise, light or other impacts **exceed** reasonable levels.

As indicated above, impacts on neighbours are already managed to reasonable levels through environmental and planning approval processes. However, these arrangements may also provide for impacts to exceed reasonable levels if the gas company enters into a written agreement with the affected landholder(s).⁴⁰

³⁷ API/SIBA submission, May 2015, p 10.

³⁸ AGL submission, 29 May 2015, p 6.

³⁹ NSW Government submission, 15 June 2015, p 2.

⁴⁰ For example, AGL's Environment Protection Licence for the Gloucester CSG Project (Licence No. 20358) allows for work to be done outside standard construction hours if written agreements are made with relevant parties. The ability to negotiate agreements in relation to 'unacceptable' noise levels are also included in the NSW Environment Protection Authority's NSW Industrial Noise Policy. See, http://www.environment.nsw.gov.au/resources/noise/ind_noise.pdf, accessed 9 September 2015.

We consider that best practice involves gas companies identifying neighbours who may be directly affected by a CSG project and working to find ways to minimise any impacts on them. In the event that gas companies negotiate written agreements with neighbours for impacts that exceed reasonable levels, we consider that minimum compensation should be paid equivalent to an allowance to relocate neighbours for the period that impacts exceed reasonable levels. The Australian Taxation Office publishes allowances for accommodation, meals and incidentals for different parts of Australia including country areas.⁴¹ While we understand it is often not possible for neighbours to relocate, in our view a relocation allowance forms a minimum benchmark for compensation. During our consultations, we were advised of similar arrangements in Queensland where neighbours were compensated for impacts that exceed reasonable levels.

The NSW Government is also introducing a Community Benefit Fund which is designed to provide benefits to communities in which the gas industry operates.⁴²

Draft recommendation

- 3 That gas companies pay compensation to neighbours in the event that impacts on them (eg, noise levels or hours of operation) exceed reasonable levels set out in licences or approvals. Written agreements should be in place in these instances, and minimum compensation should be paid equivalent to an allowance to relocate neighbours for the period that impacts exceed reasonable levels.

6.2 Amendments to NSW legislative provisions for compensation

The legislative provisions for compensation to landholders hosting CSG exploration and production are set out in Section 109(1) of the Act (Box 6.1).

In our Issues Paper, we expressed the view that these provisions do not address all the relevant impacts of gas exploration and production on landholders, and are narrower than provisions in other jurisdictions in Australia. In particular, the NSW legislation:

- ▼ identifies **severance** in section 109(1)(c), but contains no definition of severance
- ▼ mentions **injurious affection** in section 107(1), but does not list this as a compensation item in section 109(1) of the Act. Loss of amenity (including recreation and conservation values) is included in legislation in Victoria and Tasmania

⁴¹ <http://law.ato.gov.au/atolaw/view.htm?docid=TXD/TD201419/NAT/ATO/00001>, accessed 26 August 2015.

⁴² <http://www.resourcesandenergy.nsw.gov.au/landholders-and-community/coal-seam-gas/community/community-benefits-fund> accessed 14 September 2015.

- ▼ does not address **special value**⁴³ of land
- ▼ does not specifically include **disturbance** in section 109(1), but mentions some disturbance items, including damage to stock, crops, buildings and land
- ▼ does not include any **loss in market value of the land** (included in the legislation in Queensland, Victoria and Tasmania), and
- ▼ does not include **loss of opportunity to make planned improvements on the land** (mentioned in the legislation in Queensland, Victoria and Tasmania).⁴⁴

Box 6.1 Compensation under Section 109(1) of the *Petroleum (Onshore) Act 1991 (NSW)*

If compensation is assessed under this Act by the Land and Environment Court, the assessment is to be of the loss caused or likely to be caused:

- a) by damage to the surface of land, and damage to the crops, trees, grasses or other vegetation on land, or damage to buildings and improvements on land, being damage which has been caused by or which may arise from prospecting or petroleum mining operations, and
- b) by deprivation of the possession or of the use of the surface of land, and
- c) by severance of land from other land of the landholder, and
- d) by surface rights of way and easements, and
- e) by destruction or loss of, or injury to, or disturbance of, or interference with, stock on land,
- f) by damage consequential on any matter referred to in paragraphs (a)-(e).

⁴³ Special value of the land is the financial value of any advantage, in addition to market value which is incidental to the person's actual use of the land. The advantage must be specific to the claimant only (otherwise it would be reflected in the market value).

⁴⁴ These observations have previously been made in Fibbens, M., Mak, M., and Williams, A., 2013, *Coal seam gas extraction: Does landholder compensation match the mischief?*, 19th Pacific Rim Real Estate Society Conference, January 2013, Melbourne.

6.2.1 Stakeholder comments on legislative reform

Most stakeholders agreed with our view that the legislative provisions for landholder compensation in NSW need to be broader.⁴⁵ For example:

- ▼ Mr M Fibbens submitted that the right to loss in value to balance land through carrying out CSG activities (ie, injurious affection) and the right to reimbursement for professional fees particularly need to be addressed. He also indicated that compensation provisions in the Queensland *Petroleum and Gas (Production and Safety) Act 2004* include loss in value to balance land (See Box 6.2). In addition, he argued NSW could either adopt similar compensation provisions to Queensland or adopt the compensation provisions in the Just Terms Compensation Act. Under both options, the Act would need to make it clear that compensation may take the form of an upfront and annual rent and further compensation upon variation of the project would need to be incorporated.⁴⁶
- ▼ The Hunter Valley Protection Alliance also submitted that NSW could either adopt similar compensation provisions to Queensland or the compensation provisions in the Just Terms Compensation Act.⁴⁷
- ▼ API/SIBA considered that NSW should adopt the heads of compensation in the Just Terms Compensation Act.⁴⁸
- ▼ APPEA supported alignment between NSW and Queensland on heads of compensation, and considered that changes should be prospective only.⁴⁹

In contrast, Santos submitted that legislative reform is unnecessary and may create uncertainty and decrease investment attractiveness.⁵⁰

⁴⁵ For example, see submissions from Cotton Australia, June 2015, p 5; G. Smith, June 2015, p 3; K. Kelly, May 2015, p 2; C. Robertson, May 2015, p 33.

⁴⁶ M. Fibbens submission, May 2015, section 2.6.

⁴⁷ Hunter Valley Protection Alliance submission, p 7.

⁴⁸ API/SIBA submission, May 2015, p 9.

⁴⁹ APPEA submission, June 2015, pp 4-5.

⁵⁰ Santos submission, June 2015, p 8.

Box 6.2 Compensation under section 532 Queensland *Petroleum and Gas (Production and Safety) Act 2004*

The holder of each petroleum authority is liable to compensate each owner or occupier of private land or public land in the area of, or access land for, the authority (an eligible claimant) for any compensatable effect the eligible claimant suffers that is caused by relevant authorised activities.

- a) Compensatable effect means all or any of the following:
 - i. deprivation of possession of land surface;
 - ii. diminution of land value;
 - iii. diminution of the use made or that may be made of the land or any improvement on it;
 - iv. severance of any part of the land from other parts of the land or from other land that the eligible claimant owns;
 - v. any cost, damage or loss arising from the carrying out of activities under the petroleum authority on the land;
- b) Accounting, legal or valuation costs reasonably incurred by the landholder to negotiate or prepare a Conduct and Compensation Agreement, other than costs involved to resolve disputes via independent alternative dispute resolution (ADR).
- c) Consequential damages the eligible claimant incurs because of a matter mentioned in paragraph a) or b).

6.2.2 Our draft recommendations

We are making a draft recommendation that the provisions for compensation in the *Petroleum (Onshore) Act 1991* (NSW) (the Act) be amended prospectively to align with those in the *Queensland Petroleum and Gas (Production and Safety) Act 2004*. Amendments to the Act should also recognise special value of land.

We consider that such amendments will ensure legislation supports fair compensation for landholders and meets the NSW Government's intent that landholders in NSW receive compensation that is at least as good as in other parts of Australia. In our view, there would be synergies from adopting the same provisions as Queensland, as gas companies will likely operate in both jurisdictions.

The NSW Government is already in the process of amending legislation to ensure landholders in response to a recommendation by Bret Walker, SC as part of his recent review of the land access arbitration framework. Mr Walker recommended that the NSW Government amend the *Petroleum (Onshore) Act 1991* to provide for a landholder to have the following costs paid by the (gas) explorer:

- ▼ their time spent negotiating and arbitrating the access arrangement up to a capped amount
- ▼ their legal costs up to a capped amount, and
- ▼ costs of any experts that landholders engage as part of the negotiation and arbitration process up to a capped amount.⁵¹

In response to this report, the NSW Government committed to establish appropriate cost and time caps. It is intended that the specific categories of reasonable costs payable to landowners by explorers (and the associated cost caps) will be incorporated into legislation during 2015.⁵²

We support the NSW Government's commitment to allow landholders to receive compensation for their time and professional fees, and have incorporated these impacts into our compensation model. However, in our view the legislation should refer to 'reasonable costs' rather than setting caps to provide more flexibility to account for different landholder circumstances.

Draft recommendations

- 4 That the provisions for landholder compensation in the *Petroleum (Onshore) Act 1991* be amended prospectively to align with the Queensland *Petroleum and Gas (Production and Safety) Act 2004* and recognise special value of land.
- 5 That, in amending the *Petroleum (Onshore) Act 1991* to require gas explorers to pay for landholders' time spent negotiating and arbitrating an access agreement and for legal and other professional fees, the NSW Government provide for landholders' reasonable costs to be paid rather than set caps for these costs.

⁵¹ Walker, B, *Examination of the Land Access Arbitration Framework Mining Act 1992 and Petroleum (Onshore) Act 1991*, 20 June 2014, p 29.

⁵² NSW Government, *Government response to the review of the arbitration framework under the Mining Act 1992 and the Petroleum (Onshore) Act 1991*, August 2014, pp 10-11.

6.3 Land access and negotiation workshops

As part of our consultation we met with AgForce Queensland, the peak organisation representing Queensland's rural producers. This organisation runs a CSG Project which gives landholders access to independent information and tools to support them in reaching fair conduct and compensation agreements with gas companies. Financial support for the CSG Project is provided by the Queensland Government, APPEA, Queensland Resources Council and the GasFields Commission Queensland.

In particular, the CSG Project provides free workshops for landholders on land access agreements and negotiating conduct and compensation arrangements. The topics covered in the workshops include, for example:

- ▼ an overview of land access and CSG
- ▼ the respective rights and responsibilities of landholders and gas companies
- ▼ the areas where CSG activities are taking place in the state
- ▼ CSG company updates/future plans
- ▼ access to information on licenses/tenures
- ▼ government/legislative changes and updates
- ▼ groundwater impacts and water management
- ▼ baseline assessments of groundwater, surface water, land and land productivity etc
- ▼ developing property management plans and compliance provisions
- ▼ compensable effects (heads of compensation)
- ▼ make good provisions in relation to water
- ▼ stages of negotiation, what research to do, where to get useful advice
- ▼ compare proposed activities with your farming activities – identify potential impacts and risks (land segregation, weeds etc), and
- ▼ biosecurity/weed management considerations including gas company obligations.⁵³

The CSG project also provides one-on-one assistance to landholders throughout all stages of the process, from negotiation to remediation including managing activities on the property.

⁵³ Based on unpublished AgForce Projects Landholder CSG Project, *Advanced CSG Negotiation Support Workbook*, 2015.

Workshops are popular among landholders and well-regarded by government and industry. We consider that similar workshops would be useful for landholders in NSW to enable them to more confidently negotiate with a gas company. While various land access guidelines and checklists for landholders are publicly available, workshops will enable landholders to discuss their circumstances and get up-to-date independent information and advice.

We are making a draft recommendation that the NSW Farmers Association facilitate these workshops, and invite stakeholder comments. In our view NSW Farmers is the appropriate organisation for landholders to seek independent advice in relation to CSG. NSW Farmers is the equivalent organisation of AgForce in NSW and has previously provided CSG workshops for landholders as part of its Mining and CSG Communications Project. The content of the existing NSW Farmers workshops is similar to those run by AgForce. We consider that the workshops should have a strong emphasis on negotiating positive outcomes for landholders through consideration of both conduct and compensation arrangements.

In addition, we are making a draft recommendation that funding for the workshops be provided by the NSW Government and the gas industry. The Government has already committed funding for the Mining and CSG Communications Project. The workshops would be free for landholders and run on an as-needs basis in relevant areas.

Draft recommendation

- 6 That the NSW Farmers Association provide independent workshops funded by the NSW Government and the gas industry that assist landholders in understanding land access for coal seam gas and negotiating land access and compensation agreements.

6.4 Public register of compensation payments

There is very little information publicly available on what CSG compensation payments are being paid to landholders.⁵⁴ This is because land access and compensation agreements may contain confidentiality clauses, with the landholder often being the party that prefers to keep arrangements confidential.

We received several submissions calling for more transparency around landholder compensation payments. For example:

- ▼ Cotton Australia suggested the use of non-identifying market based reporting mechanism.⁵⁵

⁵⁴ An exception to this is Santos' compensation arrangements for the Narrabri Gas Project.

⁵⁵ Cotton Australia submission, May 2015, p 6.

- ▼ People for the Plains considered that records of land access agreements should be kept by government and made more transparent to reduce division within the community and inequitable outcomes.⁵⁶
- ▼ Groundswell Gloucester Inc. and Mr G Smith both objected to the inclusion of confidentiality clauses in land access agreements and encouraged more openness and publication of compensation arrangements.⁵⁷
- ▼ Ms K Revell submitted that compensation agreements should be fully transparent to reduce division in the community and disallow inequity.⁵⁸
- ▼ Mr M Fibbens supported the establishment of a public record of transactions to provide an important database of information to evaluate fair compensation.⁵⁹

There is a public register of compensation for oil and gas maintained by the Farmer Advocacy Office (FAO) in British Columbia, Canada. The FAO has the primary goal of equipping land owners to deal in their own best interests in the negotiation of surface leases and rights of way associated with the oil and gas industry. The FAO provides an online form for landholders to submit/upload information about their compensation (area of land covered, duration of the lease, amount of initial and annual rental compensation, in-kind extras etc). It is a voluntary system.⁶⁰

We consider that a similar public register of compensation payments in NSW would provide transparency and may assist landholders in negotiating a land access and compensation agreement. The register would include information on compensation payments and other relevant information including the landholder's general location and the size and type of their property (eg, dairy farm, cotton farm, broadacre cropping, lifestyle block etc). It should be voluntary for landholders to include their information in the register, and the information should be presented so it does not identify individual landholders. This would likely mean that a minimum number of entries would be needed before the details were published.

⁵⁶ People for the Plains submission, May 2015, p 6.

⁵⁷ Submissions from G. Smith, May 2015, p 1 and Groundswell Gloucester Inc, May 2015, p 2.

⁵⁸ Ms K Revell submission, May 2015, p 3.

⁵⁹ M. Fibbens submission, May 2015, p 15.

⁶⁰ More information about the FAO and their register of lease values can be found here, http://www.farmersadvocate.ca/leases_sales/surface_leases/, accessed 2 September 2015.

The register would need to be developed, hosted on a website, and promoted to landholders.⁶¹ There would be advantages in having the same organisation provide workshops for landholders and host the register. Therefore we are making a draft recommendation that NSW Farmers be responsible for hosting and supporting the register. Funding for developing and maintaining the register could be provided through the same arrangements as the landholder workshops.

Draft recommendation

- 7 That the NSW Farmers Association develop and maintain a voluntary and non-identifying public register of CSG compensation payments.

⁶¹ The design of the compensation register could be based on the FAO website. See http://www.farmersadvocate.ca/leases_sales/submit_lease_or_review.php, accessed 2 September 2015.



Appendices

A Terms of reference



Reference: A1502607

Dr Peter Boxall AO
Chairman
Independent Pricing and Regulatory Tribunal
PO Box K35
HAYMARKET POST SHOP NSW 1240

- 9 FEB 2015

Dear Dr Boxall

Pursuant to section 9 of the *Independent Pricing and Regulatory Tribunal Act 1992*, I am referring the following matter to the Tribunal for investigation and report: Landholder benchmark compensation rates for gas exploration and production.

Under the NSW Gas Plan, the government has committed to ensuring landholders and communities share in the benefits of gas exploration and development.

To give landholders the support they need to negotiate appropriate compensation, the government will commission the Tribunal to benchmark compensation rates. Further detail is provided in the attached terms of reference to the Tribunal.

The terms of reference ask the Tribunal to develop an analytical framework for setting compensation benchmarks that can be updated annually.

The Tribunal is requested to conduct a public consultation process and provide a final report to the Minister for Resources and Energy by 30 November 2015.

Yours sincerely


MIKE BAIRD MP
Premier
End.

LANDHOLDER BENCHMARK COMPENSATION RATES FOR GAS EXPLORATION AND PRODUCTION

Under the NSW Gas Plan, the NSW Government has committed to landholders receiving independent expert advice on benchmark compensation rates for gas exploration and production from the Independent Pricing and Regulatory Tribunal (IPART).

These benchmarks are to guide landholders in their compensation agreements with industry.

To support landholders negotiating agreements with industry, IPART is to recommend appropriate compensation benchmarks for landholders. The NSW Government intends that landholders receive compensation that is at least as good as that received by other landholders in Australia who host gas development. The benchmark arrangements will influence the competitiveness of NSW as an investment destination for petroleum exploration and production projects. Agreements will be negotiated on a commercial basis.

IPART is requested to develop an analytical framework for setting compensation benchmarks that can be updated annually.

Conduct of review

In conducting this review IPART should have regard to:

- The economic benefits over the lifecycle stages of a project, considering the associated risks and probabilities of a project progressing.
- The structure of compensation arrangements (e.g. fixed, rental or other methodologies) taking into account the different phases of a project, the varying value of production systems in agricultural enterprises and the implications for encouraging exploration.
- Landholder compensation arrangements currently applied by industry in NSW and in other Australian states and territories and internationally, including identifying industry best practice.
- Similar arrangements in other industries (e.g. wind farms) across other Australian and international jurisdictions.
- Relevant legislation on gas/petroleum exploration and production, as well as measures announced as part of the NSW Gas Plan.
- Any other matters it considers relevant.

Consultation

IPART's review will include a public consultation process through which IPART will invite submissions from stakeholders on an issues paper and a draft report. Public hearing(s) will also be held as part of this process.

Timing

IPART is to publish a draft report by September 2015. A final report is to be provided to the Minister for Resources and Energy by 30 November 2015.

Table A.1 How we have met the requirements in our Terms of Reference

Issue/requirement	Response
Recommend appropriate compensation benchmarks for landholders.	This is the basis of our compensation model discussed in Chapters 4 and 5. Landholders can estimate compensation benchmarks specific to their circumstances.
IPART is to develop an analytical framework for setting compensation benchmarks that can be updated annually.	Our framework is set out in the compensation model. It can be updated or adapted as needed.
That landholders in NSW receive compensation that is at least as good as that received by other landholders in Australia who host gas development.	Our recommendation in Chapter 6 on reforms to the legislation provisions for landholder compensation for CSG is designed to underpin NSW landholders receiving fair compensation that is at least as good as elsewhere in Australia.
IPART should have regard to the economic benefits over the lifecycle stages of a project, considering the associated risks and probabilities of a project progressing.	We have considered this as part of our recommendation on benefit payments. Our recommendation allows gas companies flexibility in structuring incentive/benefit payments. These can be made in the production phase to account for the risks and probabilities of a project progressing.
The structure of compensation arrangements (eg, fixed, rental or other methodologies) taking into account the different phases of a project, the varying value of production systems in agricultural enterprises, and the implications for encouraging exploration.	Our compensation model incorporates landholders with different land values and an estimate either upfront or annual compensation payments depending on the preferences and negotiation between the landholder and gas company.
The landholder compensation arrangements currently applied by industry in NSW, other Australian states and territories and internationally, including identifying industry best practice.	We have reviewed the legislative provisions for compensation in NSW and other jurisdictions and taken this into account in recommending legislative reform. We have also discussed with gas companies their approach to compensation and identified best practice for example with respect to arrangements for neighbours.
Similar arrangements in other industries (eg, wind farms) across other Australian and international jurisdictions.	In designing the compensation model we have considered compensation arrangements for windfarms and telecommunications. However, the design of the model is specifically designed for CSG projects.
Relevant legislation on gas/petroleum exploration and production, as well as measures announced as part of the NSW Gas Plan.	In our report we have outlined how our decisions relate to other measures and initiatives including the Community Benefits Fund and the Walker Review of Land Access Arbitration.

B Submissions to our Issues Paper

We received 28 submissions to our Issues Paper released in April 2015 (Table B.1). In Table B.2 below, we summarise the comments that stakeholders made in these submissions, both to our targeted questions and other issues that were raised. We also provide our response to these comments.

Table B.1 Submissions received to our Issues Paper

Name/Organisation	Name/Organisation
AGL Limited	Lock the Gate Alliance
Australian Petroleum Production & Exploration Association	Mr Gerald McCalden
Australian Property Institute / Spatial Industries Business Association Australia	Mullaley Gas and Pipeline Accord Inc
Bellata Gurley Action Group Against Gas	NSW Famers Association
Ms Sarah Ciesiolka	NSW Government
Cotton Australia	Mr Anthony (Tony) Pickard
Mr Douglas Cush	Ms Marylou Potts
Mr Alistair Donaldson	People for the Plains
Envirosure Organisation	Northern Rivers Guardians Incorporated
Mr Michael Fibbens	Ms Kim Revell
Groundswell Gloucester Inc	Ms Janet Robertson
Hunter Valley Protection Alliance	Mr Christopher Robertson
Mr John Kelley	Santos Limited
Ms Kirsty Kelly	Mr Garry Smith

Table B.2 Summary of stakeholder submissions to our Issues Paper

Question/issue and stakeholder comments	IPART response
<p>1. Do you agree with our proposed principles of transparency, adaptability and practicability to guide our recommendations for this review? Are there other principles that we should apply in making our recommendations?</p> <p>Most stakeholders who commented on this question broadly supported these principles (for example, see submissions from the NSW Government (p 1), the Australian Petroleum Production and Exploration Association (APPEA) (p 2) and AGL (p 8)).</p> <p>The submission from the Australian Property Institute and the Spatial Industries Business Association Australia (API/SIBA) supported these principles and noted that these can be achieved through utilisation of the methodology at section 55 NSW Land Acquisition (Just Terms Compensation) Act 1991. Santos recommended that the principles should be simplicity, predictability, and commercially realistic (p 1).</p>	<p>We consider that the compensation model that we have developed and are seeking stakeholder comment on meets these principles. We have provided instructions to make the model easy to use.</p>
<p>2. Do you agree with the four key steps in our proposed approach for this review (identify impacts, estimate compensation for these impacts, estimate benefit payments and make recommendations)? If not, what are your concerns?</p> <p>While many stakeholders did not specifically comment on our overall approach, of those that did there was a general view that this approach would not work well and/or there were issues or disagreement with specific steps.</p> <p>The submission from AGL noted that it would be very difficult to follow these steps to develop benchmark compensation to apply to the whole CSG industry given the large number of site-specific variables. It noted that AGL provides a production bonus to landholders to share the benefits of gas production (p 2,4,8).</p> <p>The submission from M. Fibbens also noted that because of the variations in land values and CSG schemes, it will not be possible to estimate impacts for compensation that would apply to all properties in all localities (section 2.2).</p> <p>In its submission Santos noted that compensation should be a commercial arrangement negotiated by the landholder and gas company (p 3). Similarly, APPEA submitted that the first two steps of our approach describe an appropriate process for a landholder and gas company to follow. It also submitted that as the extent and nature of activities by both landholders and gas companies are highly variable and site-specific, ex ante quantitative advice or formulaic approaches are unlikely to provide useful guidance for landholders (p 2, 6-7).</p>	<p>After considering the information and advice we received through our consultations, we have developed:</p> <ul style="list-style-type: none"> ▼ a spreadsheet model that landholders can use to estimate compensation benchmarks using input information that is specific to their circumstances, and ▼ draft recommendations on additional measures to support landholders in negotiating appropriate land access and compensation agreements. <p>As discussed in Chapter 5, the model can be updated if circumstances change including moving from the exploration to production phase.</p> <p>Benefit payments are discussed below at Issue 12 & 13.</p>

Question/issue and stakeholder comments	IPART response
<p>NSW Farmers submitted that impacts (ie, step 1) are different in the exploration and production phases and that our compensation benchmarks should reflect this. It submitted it would be worth uncovering the specific changes between exploration and production (p 5). The submission from Ms. K Kelly noted that compensation framework should be adjusted to reflect new impacts that arise over time (p 1).</p> <p>Groundswell Gloucester noted there is no perfect solution to modelling of losses of a landholder, however a framework for computation by an independent body will assist in achieving fairness (p 2).</p> <p>3. Do you agree with our preliminary view on the relevant heads of compensation (value of land occupied, loss due to injurious affection and disturbance)? Are there other temporary impacts of CSG exploration and production that we should consider?</p> <p>Most stakeholders supported these heads of compensation. APPEA submitted that in broad terms these heads of compensation should be sufficient to ensure landholders receive appropriate compensation, however not all are easily quantifiable (p 2). Groundswell Gloucester also supported these heads of compensation (p 2).</p> <p>Mr M. Fibbens supported these heads of compensation and suggested an additional solatium type payment (eg, 10%) to be added due to the compulsory nature of action taken – as allowed for in s.85(8)(c) of the Queensland <i>Mineral Resource Act 1989</i> (section 2.3). Solatium was also considered relevant in the submissions from K Kelly, as people may feel they need to relocate their home due to health concerns (p 1). Similarly, Mr C. Robertson submitted that solatium should be included (p 27).</p> <p>The API/SIBA submission considered that the relevant heads of compensation should be those set out at section 55 NSW <i>Land Acquisition (Just Terms Compensation) Act 1991</i>. The same comment was made by the Hunter Valley Protection Alliance. It also suggested landholders should be given the option of having their property acquired where appropriate and that independent valuers be appointed to provide advice (p 5).</p> <p>In contrast, AGL considered that the heads of compensation that relate to the Just Terms Compensation Act are not necessarily appropriate for CSG projects. For example, it considered costs of relocation, solatium and severance are not relevant. It suggested that any recommendations used by IPART should be made in plain English as legalistic terms like severance are not understood in the community (p 6).</p> <p>The submission from Mr C Robertson referred to compensation for sleepless nights, family arguments and emotional stress (p 13).</p>	<p>As discussed in Chapter 4, we have used these heads of compensation in our compensation model. This includes instructions that explain what the heads of compensation mean.</p> <p>Solatium is compensation for non-financial disadvantage resulting from the necessity to relocate the principal residence (home). We have not included a specific payment for solatium in our model as this would normally not be required for CSG projects (as is the case in compulsory partial acquisitions). Landholders can negotiate for such a payment if they consider it relevant to their circumstances.</p> <p>While landholders may try to negotiate to have their property purchased, providing a legal option of having a property purchased is outside the scope of our review.</p> <p>During our review we heard from landholders who told us that negotiating a land access and compensation agreement was a stressful and time consuming process. Good conduct by the gas company can reduce these concerns for landholders. Our compensation model allows landholders to value the time they spend negotiating an agreement.</p>

Question/issue and stakeholder comments**4. Should we consider any 'special value' of land and loss of opportunity to make planned improvements on the land?**

Submissions provided broad support for these considerations, for example, Cotton Australia (p 4) NSW Farmers (p 7) and C Robertson (p 13).

Santos noted that these issues are normally covered in commercial negotiations (p 8). Similarly, APPEA agreed these should be considered, but will depend on individual circumstances and cannot be predetermined. These issues are normally covered in negotiations (p 3). AGL considered that it is reasonable to compensate landholders for these impacts but they can typically be avoided through flexibility in where to locate infrastructure (p 5). The submissions from Mr Fibbens (section 2.4) and the Hunter Valley Protection Alliance (p 5) noted that adoption of the *NSW Land Acquisition (Just Terms Compensation) Act 1991* would safeguard inclusion of these items.

5. Are there any permanent impacts on the market value of land arising from hosting gas exploration and production that we should consider?

Stakeholders had divided views on this issue. Mr C Robertson submitted that public perception of health issues and environmental risks of CSG means that there is a reluctance to purchase properties located near CSG (p 13). He also submitted that many impacts that IPART considers to be temporary are in fact permanent. For example, only surface infrastructure will be removed and wells and fracked underground rock strata are impossible to restore to their original condition (p 29). Cotton Australia noted that there is uncertainty surrounding the impact of CSG on groundwater and therefore land values (pp 4-5). Similarly, NSW Farmers submitted that IPART should assume there is some negative impact in the absence of clear evidence (p 8). The submission from Mr G Smith noted that land values are negatively affected through impacts on scenic heritage significance (p 2).

Santos submitted that there is no evidence of negative impacts on property values in Australia (p 8). APPEA provided several example studies that found no impact on market values due to CSG (p 3). AGL also considered that there is no evidence that CSG impacts land values (p 8).

The API/SIBA submission noted that in some circumstances gas exploration and production could have a positive impact on market value where wells are located away from arable land. This is because the income from the compensation payments adds to overall farm income (p 10).

IPART response

As discussed in Chapter 6 we are making a draft recommendation that the provisions for compensation in the *Petroleum (Onshore) Act 1991* (NSW) (the Act) be amended to align with those in the Queensland *Petroleum and Gas (Production and Safety) Act 2004* including recognising special value of land. While we consider it is important that legislation includes these items, we agree with AGL that often they can be avoided through the location of CSG infrastructure.

We acknowledge the comment from Mr Robertson that CSG wells left underground after they are decommissioned are there permanently (not temporarily). Well decommissioning standards are set in the NSW Government's Code of Practice for Coal Seam Gas (Well Integrity). The purpose of the code is to ensure that well operations are carried out safely, without risk to health and without detriment to the environment.

The issue for our review is whether the presence of decommissioned wells or other aspects of CSG activity permanently affects the value of land (eg, due to market stigma). In our view any permanent impacts on the market value of land is complex and site-specific.

We consider that a qualified independent valuer is best placed to provide advice on market values. In providing this advice a valuer would take into account market sales evidence.

This would be classified as 'injurious affection' in our compensation model. While the model is structured to provide a rental payment, this payment could be converted back to a capital value to take account of any permanent impacts on land value.

Question/issue and stakeholder comments	IPART response
<p>6. Do you agree with our preliminary view that NSW legislative provisions for landholder compensation for gas exploration and production should be broadened? If so, how?</p> <p>Most stakeholders supported legislative reform, for example.</p> <ul style="list-style-type: none"> ▼ The API/SIBA submission considered that the relevant heads of compensation are those set out at section 55 NSW <i>Land Acquisition (Just Terms Compensation) Act 1991</i>. <p>The submission from Mr Fibbens agreed and noted that NSW could either adopt the compensation provisions in the Queensland <i>Petroleum and Gas (Production and Safety) Act 2004</i>, or amend the Petroleum Onshore Act to stipulate that compensation should be payable under the compensation provisions of the NSW <i>Land Acquisition (Just Terms Compensation) Act 1991</i>. He noted that both acts would need to make it clear that compensation may take the form of upfront or annual payments, and that further compensation for variations to the project would have to be incorporated (section 2.6). The two options described by Mr Fibbens were also outlined by the submission from Hunter Valley Protection Alliance (p 7).</p> <ul style="list-style-type: none"> ▼ APPEA supported alignment between Queensland and NSW on the heads of compensation (Queensland is most comprehensive). If the heads are expanded, consideration should be given to how this would be given effect and should be prospective only (pp 4-5). <p>Santos submitted that legislative reform is unnecessary and may create further uncertainty for investors and stakeholders (p 8). Santos noted that the current legislation in NSW is broadly consistent with other states. It suggested there is no market failure that requires legislative change.</p> <p>AGL considered that the heads of compensation that relate to the Just Terms Compensation Act are not necessarily appropriate for CSG projects. For example, it considered costs of relocation, solatium and severance are not relevant.</p>	<p>We are making a draft recommendation that the provisions for compensation in the <i>Petroleum (Onshore) Act 1991</i> (NSW) (the Act) be amended to align with those in the Queensland <i>Petroleum and Gas (Production and Safety) Act 2004</i> including recognising special value of land. This is discussed further in Chapter 6.</p>
<p>7. Do you agree with our preliminary view that recommendations on compensation should be limited to landholders who host CSG activities and their neighbours who are directly affected? If not why?</p> <p>Stakeholders had different views on this issue.</p> <p>Cotton Australia agreed and submitted that landholders who are affected through reduced yields arising from dust, through noise and amenity impacts should receive compensation. It also submitted that compensation should be paid to farm workers residing on the property, share farmers and other parties holding agistment rights over the land (p 5). It raised issues of how to define surrounding landholders/ the impact radius. People for the Plains submitted that compensation should be available to neighbours within a certain distance of a project (eg, 2,000m). This would be best achieved through a written agreement (p 2).</p>	<p>Our draft recommendation is that compensation should be paid to neighbours where noise, light or other impacts exceed reasonable levels.</p> <p>Impacts on neighbours are already managed to reasonable levels through environmental and planning approval processes. However, these arrangements may also provide for impacts to exceed reasonable levels if the gas company enters into a written agreement with the affected landholder(s).</p> <p>We consider that best practice involves gas companies identifying neighbours who may be directly affected by a CSG project and working to find ways to minimise any impacts on them. In the event that gas companies negotiate written agreements</p>

Question/issue and stakeholder comments

NSW Farmers supported neighbours receiving compensation for noise, dust and loss of visual amenity (p 6). T Pickard submitted that there should be a separate agreement with neighbours that sets out compensation arrangements (pp 1-2). The submission from Ms K Kelly noted that compensation should not be restricted to landholders and directly affected neighbours (p 2).

The submission from Mr C Robertson noted that the whole community is impacted and compensation should be available to those affected (p 13). The Hunter Valley Protection Alliance submitted that neighbours affected should receive compensation and that 'neighbour' should be interpreted broadly (p 8).

The NSW Government submission questioned how IPART would calculate and distribute compensation for neighbours, and how it would relate to other mechanisms including the Community Benefits Fund. It considered there was a risk that this could discourage companies from investing in development (p 2).

Santos did not support widening compensation beyond landholders who directly host gas exploration and production. It suggested doing so would be administratively complex and the Community Benefits Fund should adequately compensate the broader community including neighbours. It also noted that compensating neighbours is unnecessary as there is a common law right to claim for damages caused by a project. Noise, dust, light and other impacts are covered under environmental license conditions. If a gas company were to breach these conditions then it would be liable under the relevant legislation and damages would be awarded by a court (pp 8-9).

APPEA considered that neighbours should not be compensated under the land access regime as issues of noise and dust etc are already regulated by government (p 5). AGL considered that it is appropriate for impacts on neighbouring landholders to be managed through the Planning Approval process, rather than the land access regime. All projects that have been granted Planning Approval must adhere to the strict conditions that ensure these impacts are limited to a reasonable level (including restrictions on noise, dust and operating hours) (p 6).

The API/SIBA submission stated that compensation should be limited to parties having an interest in a parcel of land impacted by gas exploration and production. Any extension of this principle would represent a novel approach to compensation (p 10).

Mr Fibbens submitted that ordinarily compensation is payable only where the landholder's rights are interfered with. He suggested that sharing royalty payments may address issues with loss of amenity in local areas (section 2.7).

IPART response

with neighbours for impacts that exceed reasonable levels, we consider that minimum compensation should be paid equivalent to an allowance to relocate neighbours for the period that impacts exceed reasonable levels.

The NSW Government is also introducing a Community Benefit Fund which is designed to provide benefits to communities in which the gas industry operates. This is discussed further in Chapter 6.

Question/issue and stakeholder comments	IPART response
<p>8. Are gross margin and market rental approaches appropriate for estimating compensation for the value of land occupied? Are there other approaches we should consider?</p> <p>Most stakeholders were unsupportive of these approaches.</p> <ul style="list-style-type: none"> ▼ Cotton Australia was unsupportive as it considers gross margins are highly conservative (p 6). Mr Fibbens submitted that these approaches are not appropriate for estimating compensation for the value of land occupied. He noted that land use classifications (related to proposed approach for gross margin estimates) are a planning tool and land values might fluctuate significantly across different localities. He provided evidence of sales transactions that show the per hectare value of land in local areas can vary significantly (Table 1 of submission). He submitted that gross margins are a planning tool for farmers and inappropriate for compensation for CSG as they (undervalue) hobby farms and lifestyle properties, ignore the residential function of properties, are highly sensitive to assumptions including income which change frequently, and produce values which are well below market values in more closely settled areas (section 2.8). ▼ The Hunter Valley Protection Alliance submitted that gross margins are a farm management tool and have no application in property valuation. This approach does not account for lifestyle properties. The only appropriate approaches are 'piecemeal' and 'before and after' approaches (p 9). ▼ The submission from Ms K Kelly noted that one size does not fit all and that an independent valuer should be appointed and a second opinion available (p 2). <p>NSW Farmers proposed a variation to our issues paper. It submits that the value of land occupied should include market value (rent) <u>plus</u> loss of productive value (p 6).</p> <p>APPEA and AGL provide some support for these approaches. APPEA submits that these approaches may be appropriate in some cases but should not be used across the board (p 5). AGL considers gross margin and market rental approaches may be used depending on the type of property (p 4).</p>	<p>We note stakeholder comments that these methods are inappropriate for determining compensation, would produce estimates that vary considerably, and may not produce estimates that reflect individual circumstances.</p> <p>In Chapter 4 we describe the approach we have taken in this draft report which is based on the 'piecemeal' valuation method.</p>
<p>9. Do you agree with our preliminary view that because severance is site-specific and highly variable, providing benchmark compensation would be of limited use to landholders? If not, how should we estimate and structure compensation for severance?</p> <p>Stakeholders mostly supported this view and many recommended that specialist advice be obtained.</p> <ul style="list-style-type: none"> ▼ Cotton Australia submitted that specialist advice should be obtained and that benchmark figures may not be the most suitable approach (p 6). ▼ Santos agreed with this statement, further illustrating the overall principle that each access agreement is commercially specific to the circumstance of both the proponent and the landholder (p 10). A similar comment was made by APPEA (p 6). 	<p>We consider that loss due to severance is a relevant issue for landholders. Like other potential impacts on landholders, it will be case-specific and we have included this in our compensation model. Landholders should seek professional advice from an independent valuer.</p>

Question/issue and stakeholder comments

- ▼ M Fibbens agreed that severance is highly variable and can be valued using the 'before and after' or 'piecemeal' method of valuation (section 2.9).
- ▼ The Hunter Valley Protection Alliance agreed with our view on severance (p 10).

AGL considered that severance is not particularly relevant to CSG projects as properties are rarely severed for extended periods by CSG activities (p 9).

10. Do you agree with non-market valuation and relocation cost approaches for estimating compensation for injurious affection? Are there other approaches that we should consider?

Stakeholders generally did not support these approaches and stated that specialist valuation advice is required.

- ▼ Cotton Australia submitted that specialist advice should be obtained and that benchmark figures may not be the most suitable approach (p 6).
- ▼ Mr Fibbens did not agree with using these approaches as he considers that it is possible to assess the value of these impacts through multi-variate techniques and a 'paired sales analysis' using property sales information. The results of this analysis can be used in 'before and after' or 'piecemeal' methods of valuation. A similar comment was made by the Hunter Valley Protection Alliance (p 10).
- ▼ Mr C Robertson submitted that independent valuation advice should be obtained on matters related to injurious affection (p 28).

APPEA submitted that these approaches may be appropriate in some cases but should not be used across the board (p 6).

11. Do you agree with our proposed approaches for estimating compensation, or passing through costs, for disturbance? Are there other approaches that we should consider?

APPEA supported this approach as it represents current industry practice (p 6). NSW Farmers supported compensation for disturbance but commented that an overall compensation benchmark would be inappropriate. Disturbance should be broken into distinct elements (p 8).

Mr Fibbens submitted that disturbance costs should include legal fees, valuation fees, survey costs, accounting costs, fees to farming advisers and landholder's time (section 2.11).

Santos did not support upfront payments to landholders as this may create tax implications for the landholder and may create equity issues with future landholders. The timing of compensation payments needs to be a commercial decision. It also noted problems in Queensland with creating a generic rate for landholder time (p 10).

IPART response

As discussed in Chapter 4 we have not used these approaches in this draft report.

Based on the piecemeal valuation method, the compensation model requires an estimate of the percentage reduction in the value of the residual land that arises due to severance and injurious affection. The model calculates the notional reduction in capital value of the land and provides an annual rental payment based on this value. This approach was suggested by Mr Fibbens in his submission.

Landholders can use different land value assumptions in the model and compare the outcomes to a compensation offer from a gas company. This could provide a sense check to any offer. We consider that landholders should seek professional advice from an independent valuer on loss due to injurious affection.

Our compensation model allows landholders to enter the time they spend engaging with an access agreement and the value of their time (per hour). It also includes passing through other disturbance items (like professional fees) at cost. We consider that the timing of compensation payments (upfront or periodic) is a matter between the gas company and landholder. The landholder may need to seek taxation advice.

Question/issue and stakeholder comments	IPART response
<p>12. Do you agree with our preliminary view that benefit payments should apply during the production phase for those landholders hosting gas development on their land? If not, why?</p> <p>Stakeholders had different views on benefit payments in terms of whether any benefit payment is appropriate and who should fund it.</p> <p>Cotton Australia supported benefit payments through a share of royalties but these should be paid when the gas company makes a financial return, which may be in exploration (p 7). Similarly, NSW Farmers supported benefit payments, and considered it should be paid to landholders at the outset of exploration (p 9). Mr C Robertson submitted that benefit payments should also apply in exploration (p 13).</p> <p>People for the Plains submitted that benefit payments should not be covered by royalties – taxpayers should not be footing the bill (p 3). The API/SIBA did not agree with the concept of benefit payments from royalties. It noted that benefit payments sourced from royalties would require a recasting of the historic property right milieu, a task which would be enormously difficult (p 6). The Hunter Valley Protection Alliance did not agree with benefit payments as compensation payments should be fair and reasonable (p 11).</p> <p>The NSW Government suggested that IPART’s benchmarks should only incorporate compensation, not a share of benefits. Benefit payments would likely be a commercial matter between parties and IPART should consider arrangements in other jurisdictions (p 3).</p> <p>Groundswell Gloucester questioned why landholders should receive a benefit payment above compensation. It noted that resources are owned by the Crown and CSG should be no different to other resource industries (p 2). It also noted that benefit payments conflict with IPART’s goals of impartial advice, and promoting environmental sustainability (p 5).</p> <p>AGL noted that it already has production bonus payments for its landholders (p 9). It noted that the current barriers to producing more natural gas in NSW are not related to the ability to sign mutually beneficial land access and compensation agreements, but rather concerns about CSG in the wider community. Therefore, AGL did not consider that diverting royalties to landholders through benefit payments would result in more gas production in NSW (p 6).</p> <p>Santos submitted it is unnecessary to legislate benefit payments but rather this should be a commercial decision negotiated between the landholder and gas company. Legislating payments from royalties may compromise the legal principle that the Crown owns mineral resources on behalf of all citizens. The model proposed by IPART increases the cost to a gas company and may affect the attractiveness of NSW as an investment destination. Santos noted that it already has a framework that shares the benefits with landholders (p 11).</p>	<p>Our draft decision is not to recommend benefit payments funded from royalty payments as outlined in our Issues Paper. This is discussed in Chapter 4. Our compensation model includes benefit/incentive payments.</p>

Question/issue and stakeholder comments**IPART response**

APPEA opposed the approach outlined in the issues paper and maintained that royalty payments should go to the community. Such an approach has not been used in other jurisdictions. It noted that landholders already receive benefit payments through fences, gates etc as well as production bonuses (pp 6-7).

Mr T Pickard submitted that, as Santos already has a landholder incentive fund, why not ensure that other companies do the same and save the NSW Government and taxpayers some money (p 3). He also submitted that affected neighbours should get a share of the fund (p 4).

13. Do you agree that the costs of benefit payments should be shared between the gas company and the NSW Government? If so how? If not, why?

Some stakeholders considered that the NSW Government should not fund benefit payments.

- ▼ The NSW Government submitted that our proposed model based on royalty payments does not assist landholders in negotiating compensation. It also submitted that the government should not fund benefit payments – this is a matter for commercial negotiation (p 3).
- ▼ Groundswell Gloucester submitted that if such payments are to be made they should not compound the inequity by reducing royalties available to the State, but should be paid by the miner (p 4).
- ▼ Ms K Kelly submitted that benefit payment should not be covered by the government, but paid to landholders and neighbours by gas companies. Government funds should not be used to promote the industry (p 3).

However, Mr C Robertson agreed that the government should share some of the cost of benefit payments because it issues the licence (p 13). APPEA submitted that if the government wants to provide benefit payments this should be made out of its royalty income (p 7). NSW Farmers recommended that in general royalty information should be made more transparent (p 5).

14. Should funds for benefit payments be pooled and divided among a group of landholders that have signed access agreements? If so, how?

Santos submitted that agreeing on a method of distributing benefit payments would be administratively complex (p 12). APPEA considered that this approach would be impractical as royalties are not calculated based on individual wells, but instead over a licence area. There will inevitably be inequities between landholders (p 7). The submission from Ms K Kelly suggested that fund should be shared based on fixed percentages based on the impact on each landholder (p 3).

As discussed above we are not recommending that benefit payments be funded by the NSW Government out of royalty payments.

We are not proposing a specific model of benefit payments and therefore the issue of how to divide incentive payments to landholders is a matter for individual gas companies.

Question/issue and stakeholder comments	IPART response
<p>15. Who will be liable in the event of contamination arising from CSG if a landholder is in receipt of compensation?</p> <p>Ms S Ciesiolka referred to advice from Meat and Livestock Australia which states landholders receiving compensation may be liable in the event of contamination (p 3). A similar comment was made in the submission from Mr A Saunders (p 1).</p>	<p>Section 107(1) of the Petroleum (Onshore) Act 1991 relevantly provides that the holder of the petroleum title (ie. the mining company) is liable to compensate any landholder injuriously affected, or likely to be so affected, by relevant mining operations. Further, land access agreements generally contain standard clauses which indemnify the landholder against any claims or direct loss arising from the work carried out by the gas company on the landholder's property. Landholders should always seek independent legal advice in relation to the terms of any agreement with a gas company.</p>
<p>16. Retrospective arrangements for compensation</p> <p>The submission from Mr T Pickard suggested that existing access agreements should be revisited and renegotiated to remove any inequality and disadvantage that a landholder received in the past (p 3). People for the Plains (p 2) and Ms K Revell (p 2) made similar comments. The submission from Mr J Kelley noted a one-off payment of less than \$2,000 for an easement on his property. He feels that this amount is well below what other landholders have received for similar projects and there should be an entitlement to ongoing payments (p 1).</p>	<p>In this review we have outlined a framework for estimating benchmark compensation to assist landholders. We have also recommended changes to legislative provisions for compensation but are not recommending that these changes be made retrospectively.</p>
<p>17. Compensation for other parties on the property</p> <p>In the submission from Cotton Australia (p 3) and during our consultation with stakeholders, an issue was raised about arrangements for compensation where a landholder has farm workers living on the property, share farmers or other parties holding agistment rights on the land. For example, a landholder may allow another person's horse to be kept, or agisted on the property for a fee.</p>	<p>We acknowledge that there may be complex issues surrounding payments to different parties using a property. We expect there would often be written agreements that govern these relationships. In principle, we consider that this issue could be negotiated between the relevant parties. It is outside the scope of our review to determine how this should be done and will depend on the individual circumstances.</p>
<p>18. Compensation for when things go wrong</p> <p>Several stakeholders considered that the scope of our review was limited because we have not considered compensation for when there is water contamination or other environmental incidents. Stakeholders also referred to subsurface impacts (eg, caused by fracking) that were not considered. For example:</p> <ul style="list-style-type: none"> ▼ Mr C Robertson submitted that compensation should include the risk that something goes wrong, eg, the well casing fails or stored water leaks and causes contamination (p 15). ▼ IPART does not include compensation for subsurface impacts and 'black swan' events (Bellata 	<p>Please refer to Chapter 3.</p>

Question/issue and stakeholder comments	IPART response
<p>Gurley Action Group Against Gas p 3).</p> <ul style="list-style-type: none"> ▼ Subsurface impacts were raised in the Mullaley Gas and Pipeline Accord submission. It submitted that IPART is not in a position to consider compensation for long term implications of CSG (p 1). ▼ Lock the Gate Alliance noted the limited scope of the Issues Paper as it does not refer to subsurface impacts or impacts on neighbours and the wider community (p 2). ▼ Failure to recognise subsurface impacts was raised by Sarah Ciesiolka (p 2) and C Robertson (p 35). ▼ The submission from Ms K Kelly noted that compensation should include gas leaks, spills, acid rain contaminated dust etc (p 2) ▼ People for the Plains noted that more consideration should be given to when things go wrong, for example, accidents, future scientific findings etc. There should be ongoing/indefinite monitoring of decommissioned wells (p 2) 	
<p>19. Some stakeholders do not want CSG</p> <p>Lock the Gate Alliance considered that the risks of the CSG industry are far-reaching and have not been properly assessed, and that the industry is unsafe, unnecessary and unwelcome. Most of the recommendations of the Chief Scientist have not yet been implemented by the NSW Government and the government does not seem to plan to implement some recommendations properly. For example, there is no legislative mechanism to retrain the areas where CSG can occur, and the NSW Government has not implemented recommendations on an insurance and rehabilitation mechanism. Lock the Gate Alliance considered that compensation benchmarks should be set once the legislative, regulatory frameworks are in place. Compensation benchmarks will be extremely divisive in the community (pp 1-2).</p> <p>The submission from Ms S Ciesiolka noted that no amount of money is worth the risks of CSG. She relied on uncontaminated water to irrigate crops (p 1). There is widespread community rejection of CSG in north-west NSW (p 2).</p> <p>The submission from Mr D Cush outlined the risks that CSG would pose to land that is subject to erosion. They are not interested in compensation (p 1). The submission from Mr J Robertson also noted that money cannot compensate for CSG (p 1).</p> <p>The submission from Mr B McQueen from the Northern Rivers Guardians says that no amount of compensation is appropriate for the unsafe CSG industry; CSG causes destruction of land, poisoning of water and ruination of human health (p 1).</p>	<p>Please refer to Chapter 3.</p>

Question/issue and stakeholder comments	IPART response
<p>20. Comments that the Chief Scientist’s recommendations should be fully implemented / the appropriate regulatory and legislative frameworks are not in place</p> <p>Some stakeholders considered that a discussion on compensation benchmarks should come after the appropriate regulatory framework is in place.</p> <p>The submission from Ms S Ciesiolka noted that it is nonsensical to establish compensation benchmarks without first having regulatory frameworks and protections in place for landholders. She noted the NSW Government is yet to fully consider and implement the Chief Scientist’s recommendations including the insurance and rehabilitation mechanism (p 2).</p> <p>Similar comments were made by the Bellata Gurley Action Group Against Gas (p 2), the Mullaey Gas and Pipeline Accord (p 2) and Mr A Donaldson (p 2).</p> <p>21. Importance of insurance and indemnities for landholders</p> <p>Hunter Valley Protection Alliance noted the risks after decommissioning and that CSG companies should be accountable to a fund/insurance policy (p 5). Groundswell Gloucester noted the importance of indemnities for farmers from future loss or prosecution over National Vendor Declaration (NVD)(p 2). Mr T Pickard also noted the importance of indemnities for landholders against contamination events. He questioned what recourse a neighbouring landholder has should a contamination event eventually affect his land (p 6).</p>	<p>Please refer to Chapter 3.</p> <p>Issues related to insurance and landholder indemnities are generally included in land access agreements. We recommend that landholders get professional advice about these aspects of their agreement.</p>

C Stakeholder consultation

In addition to the submissions we received to our Issues Paper we consulted with a number of stakeholders during the process of our review. Stakeholders we consulted with are listed in the table below.

Table C.1 Stakeholders consulted during our review

Stakeholder
AgForce Projects (Queensland rural producers industry body)
AGL Limited (gas company)
APPEA (oil and gas industry body)
Sean Boland (cotton farming)
Anthony Brennan (mixed farmer)
Simon Drury (feedlot owner, cropping)
Gasfields Commission Queensland
Ash Geldard (mixed farmer)
Michael Guest (Real Estate, Stock Agent)
Origin Energy (gas company)
Namoi Water (irrigated agriculture industry body)
NSW Department of Premier & Cabinet
NSW Department of Industry Resources and Energy
NSW Land & Water Commissioner Stakeholder Group
Queensland Department of Natural Resources and Mines
Santos (gas company)
Angie Smith (cotton farming)

D NSW Petroleum Titles

There are four types of petroleum titles in NSW:

- ▼ *Petroleum special prospecting authority* gives the holder the exclusive right to explore for petroleum using low-impact methods over the designated area.
- ▼ *Petroleum exploration licence (PEL)* gives the holder the exclusive right to explore for petroleum within the exploration licence area during the term of licence.
- ▼ *Petroleum assessment lease (PAL)* allows the holder to maintain a title over a potential project area without having to commit to further exploration (ie, between exploration and production phases).
- ▼ *Petroleum production lease (PPL)* gives the holder the exclusive right to extract petroleum within the production lease area during the term of the lease.⁶²

D.1 Petroleum special prospecting authority

A petroleum special prospecting authority gives the holder the exclusive right to conduct desktop surveys using existing research or other low-impact scientific investigations to determine the occurrence of petroleum over the designated area.

D.2 Petroleum exploration licence (PEL)

A petroleum exploration licence gives the holder the exclusive right to explore for petroleum (including conventional gas and CSG) within the exploration licence area, during the term of the licence.

The purpose of exploration is to locate areas where resources may be present and establish the quality and quantity of those resources. Next comes establishing the viability of extracting the resource.

Granting an exploration licence does not carry entitlement for production, nor does it guarantee a production lease will be granted within the exploration licence area.

⁶² <http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/applications-and-approvals/about-petroleum-titles> accessed 17 March 2015.

Local communities have the opportunity to comment on exploration licences through a public consultation process. Local communities have 28 days from the publication of the notice of application to comment on the granting of petroleum exploration licences.

D.3 Petroleum assessment lease (PAL)

A petroleum assessment lease caters for situations between exploration and production. The lease allows the holder to maintain a title over a potential project area, without having to commit to further exploration. The holder can, however, continue exploration to further assess the viability of commercial production.

D.4 Petroleum production lease (PPL)

A petroleum production lease gives the holder the exclusive right to extract petroleum within the production lease area during the term of the lease.

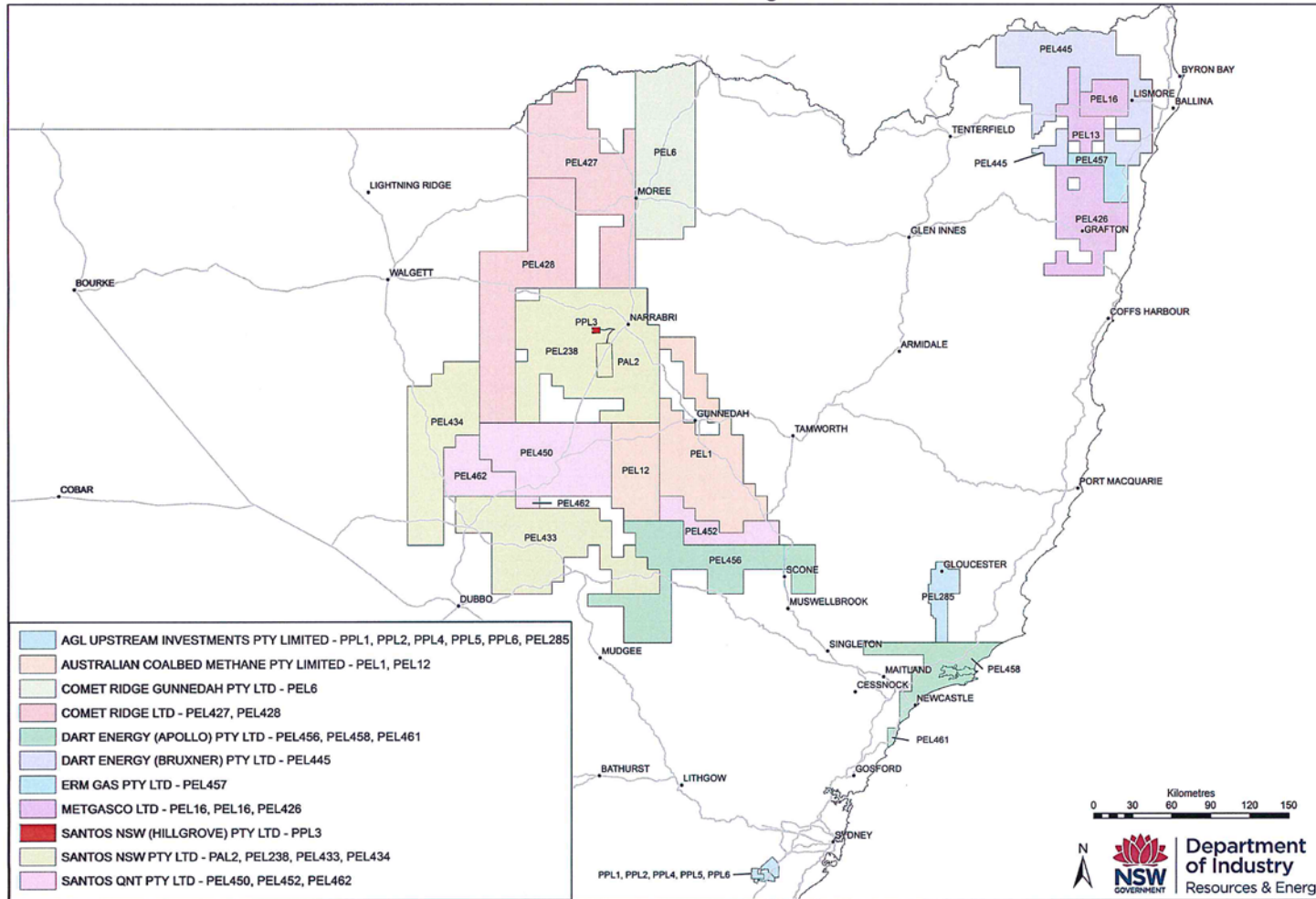
Before a CSG company can begin production, it must obtain Development Consent from the Department of Planning and Environment. The process involves the following steps:

- ▼ Where the project is located on Strategic Agricultural Land - the applicant will be required to go through the Gateway Process; an independent, scientific and upfront assessment of the potential impacts of a mining or CSG production proposal on strategic agricultural land.
- ▼ Where the project is not located on Strategic Agricultural Land, or has obtained a Gateway Certificate, the applicant will apply to the Director-General of Planning and Environment to issue Director-General requirements for the preparation of an Environmental Impact Statement (EIS).
- ▼ The Development Application and EIS are lodged and publicly exhibited for at least 30 days to allow the local community and other key stakeholders to lodge submissions.
- ▼ The Department of Planning & Environment will consult with the local council and relevant agencies to discuss possible conditions on the application.
- ▼ The Minister for Planning, or the Planning Assessment Commission under delegation from the Minister, determines whether or not to grant consent.

Once development approval is granted, the Minister for Industry, Resources and Energy grants a Petroleum Production Lease.⁶³

⁶³ NSW Trade & Investment - Resources & Energy, Coal Seam Gas Fact Sheet 7, *Land Access*, http://www.resourcesandenergy.nsw.gov.au/__data/assets/pdf_file/0003/516144/Land-Access-CSG-Fact-Sheet-7.pdf, accessed 16 April 2015.

Figure D.1 NSW Petroleum Titles (August 2015)



Data source: http://www.resourcesandenergy.nsw.gov.au/_data/assets/image/0008/537515/NSW-Petroleum-Titles-August.jpg

E Environmental protections

E.1 Environment protection licence

The Environment Protection Authority (EPA) is the lead environmental regulator for CSG. All exploration, assessment and production titles and activities, once approved, are required to hold an environment protection licence issued by the EPA. An environment protection licence contains legally enforceable conditions, which holders must comply with in order to prevent pollution, and safeguard the environment. This includes air, water, waste and noise requirements.

A licence may also include requirements to undertake monitoring for pollution. All pollution monitoring data that is required to be collected under a licence condition must be made available to the community on the licensees' website.

Licence holders are required to notify the EPA if there is an environmental incident or a breach of licence conditions. The EPA investigates and takes appropriate compliance action for all incidents and breaches. Significant penalties exist for companies that fail to provide notification of breaches.

The EPA regularly inspects industry sites to assess environmental performance, check compliance with licence conditions and legislative obligations, respond to environmental incidents and undertake detailed compliance audits if needed. This may require access across private lands.⁶⁴

E.2 Environmental assessment

Most exploration activities and all mining and petroleum projects require environmental assessment under the *Environmental Planning and Assessment Act 1979* (EP&A Act) before they can start.

For most exploration activities, the proponent must submit an application for approval to NSW Trade & Investment and prepare a Review of Environmental Factors (REF). A REF sets out how an exploration activity is likely to impact the environment, water resources and the community. Approval will not be given if the relevant approval agency considers that the environmental impacts of the project are unacceptable.

⁶⁴ <http://www.epa.nsw.gov.au/licensing/gas-industry-nsw.htm> accessed 18 September 2015.

For most large petroleum production projects, the proponent must submit an application for development consent with the Department of Planning & Environment and prepare an Environmental Impact Statement (EIS). The EIS is a comprehensive document that covers issues such as air quality, noise, transport, flora and fauna, surface and ground water management, methods of petroleum production, landscape management and rehabilitation. Extensive public consultation is also required, with community members encouraged to make submissions on the application.⁶⁵

E.3 Protections related to water

To address the impact of CSG development on water, the NSW Government:

- ▼ Banned the use of BTEX chemicals (Benzene, Toluene, Ethylbenzene and Xylene compounds) in CSG fracking fluids and banned the use of evaporation basins for the disposal of CSG produced water – this condition is included in environmental protection licenses.
- ▼ Introduced the NSW Aquifer Interference Policy whereby:
 - water licences are required for the water taken from water sources through CSG and other mining activities. This is to ensure that the amount of water taken from each water source does not exceed the extraction limit set in a water sharing plan.
- ▼ Introduced Codes of Practice regulating well integrity and hydraulic fracturing.

The NSW Office of Water assesses CSG and other mining projects to determine their potential impacts on water resources in terms of the potential risk of ground water movement between aquifers, impacts on the water table, water pressure levels and water quality changes in different types of ground water systems.⁶⁶

E.4 Strategic Regional Land Use Policy

In 2012, the NSW Government introduced the Strategic Regional Land Use Policy to better manage the potential conflicts arising from the proximity of mining and CSG activity to high quality agricultural land in some parts of the State.

Under the Policy, the NSW Government has introduced safeguards which will protect five million hectares of residential and strategic agricultural land across the State from the impacts of mining and CSG activity.

⁶⁵ <http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/applications-and-approvals/environmental-assessment/conditions-on-titles>, accessed 23 August 2015.

⁶⁶ <http://www.water.nsw.gov.au/Water-management/Law-and-policy/Key-policies/Aquifer-interference> accessed 18 February 2015.

The Gateway process (effective from 4 October 2013) adds an additional level of scrutiny to new State significant mining and CSG proposals on high quality agricultural land (also known as Biophysical Strategic Agricultural Land or BSAL) and the Upper Hunter equine and viticulture critical industry clusters (CICs).

The NSW Government has introduced CSG exclusion zones to restrict new CSG activities in residential areas. Currently, CSG exclusion zones apply to 2.7 million hectares of existing and future residential land across NSW and the equine and viticulture critical industry clusters in the Upper Hunter. The exclusion zones ban new CSG activity within a two kilometre buffer around existing and future residential areas.⁶⁷ New CSG activity is not permitted within the CICs in the Upper Hunter.⁶⁸

E.5 Biophysical Strategic Agricultural Land Mapping (BSAL)

BSAL is land with high quality soil and water resources capable of sustaining high levels of productivity.⁶⁹ Across NSW, a total of 2.8 million hectares of BSAL has been identified and mapped. Around 10% of the 2.8 million hectares of BSAL covers a known mining or CSG resource.

Any State significant mining or CSG proposal on BSAL is subject to the Gateway process, where an independent panel of scientific experts conduct scientific assessment of the land and water impacts of the proposal (see glossary of terms).⁷⁰

E.6 Insurance

In general, insurance provides cover for the payment of costs for clean-up action, and for claims for compensation and damages resulting from pollution in connection with the activity or work authorised or controlled by the license. Under NSW legislation, the holding of insurance is not mandatory, although conditions of a licence may require the licence holder to take out and maintain an insurance policy.

⁶⁷ Pipelines associated with CSG development are now also banned within the exclusion zones, but are permitted within the 2km buffer zones, subject to development approval. <http://www.planning.nsw.gov.au/en/Policy-and-Legislation/Mining-and-Resources/~media/BBD64B70C572473DA72B9EB1F054E8D9.ashx> accessed 18 September 2015.

⁶⁸ The department has identified where the equine and viticulture industries are concentrated in the Upper Hunter, and mapped these locations as “Critical Industry Clusters” (CICs). CICs are concentrations of highly productive industries within a region that are related to each other, contribute to the identity of that region and provide significant employment opportunities.

⁶⁹ BSAL plays a critical role sustaining the State’s \$12 billion agricultural industry.

⁷⁰ <http://www.planning.nsw.gov.au/en/Policy-and-Legislation/Mining-and-Resources/~media/A78D43D0C0C64AAE97B518FFC69CFF9A.ashx> accessed 18 September 2015.

- ▼ Part 9.4 of the *Protection of the Environment Operations Act 1997* relates to financial assurance which is used to secure or guarantee funding for, or towards the carrying out of, works or programs such as remediation work or pollution reduction programs. However, financial assurance is not a mandatory condition. The conditions of a licence may require the licence holder to provide financial assurances.
- ▼ Under the *Petroleum (Onshore) Act 1991* (NSW), an application for a petroleum title must be accompanied by evidence of the applicant's financial standing. This can often simply constitute a letter of an endorsement from a chartered accountant.

E.7 Security deposits

Under the *Petroleum (Onshore) Act 1991* (NSW) the current process in NSW includes the requirement that all titleholders, engaged in mineral and petroleum exploration, assessment and production activities, lodge a security deposit with the Government on issue of title. The security deposit is to cover the Government's full costs of rehabilitation of the land subject to the title and includes any dams or roads under the title.

In CSG activities, the rehabilitation work undertaken by titleholders during and at the end of activities is usually limited to plugging and abandonment of wells, and maintenance and removal of surface infrastructure associated with the extraction operations. The rehabilitation security deposit process does not apply to pollution events.

F Legislative provisions for compensation

We have compared legislative provisions for landholder compensation in Australia. Table F.1 sets out relevant sections of legislation. Some key differences are that, contrary to NSW:

- ▼ The legislation in Queensland, Victoria and Tasmania provides for a reduction in market value of land and loss of opportunity to make planned improvements on the land.
- ▼ The legislation in Victoria and Tasmania provides for loss of amenity including recreation and conservation values. In Victoria, the maximum amount of compensation that a Court or Tribunal may order to be paid for loss of amenity is \$10,000.

Table F.1 Summary of legislative provisions for compensation

Jurisdiction	Relevant sections of legislation
New South Wales <i>Petroleum (Onshore) Act 1991</i> Section 109 Measure of compensation	The Land and Environment Court is to assess the loss caused or likely to be caused: <ol style="list-style-type: none"> a) by damage to the surface of land, and damage to the crops, trees, grasses or other vegetation on land, or damage to buildings and improvements on land, being damage which has been caused by or which may arise from prospecting or petroleum mining operations, and b) by deprivation of the possession or of the use of the surface of land, and c) by severance of land from other land of the landholder, and d) by surface rights of way and easements, and e) by destruction or loss of, or injury to, or disturbance of, or interference with, stock on land. Section 69D (2A) An access arrangement must (if the landholder so requests) specify that the holder of the prospecting title is required to pay the reasonable legal costs of the landholder in obtaining initial advice about the making of the arrangement.

Jurisdiction	Relevant sections of legislation
<p>Queensland <i>Petroleum and Gas (Production and Safety) Act 2004</i> <i>Section 532 General liability to compensate</i></p>	<p>The holder of each petroleum authority is liable to compensate each owner or occupier of private land or public land in the area of, or access land for, the authority (an eligible claimant) for any compensatable effect the eligible claimant suffers that is caused by relevant authorised activities.</p> <ul style="list-style-type: none"> a) Compensatable effect means all or any of the following: <ul style="list-style-type: none"> i. deprivation of possession of land surface; ii. diminution of land value; iii. diminution of the use made or that may be made of the land or any improvement on it; iv. severance of any part of the land from other parts of the land or from other land that the eligible claimant owns; v. any cost, damage or loss arising from the carrying out of activities under the petroleum authority on the land; b) Accounting, legal or valuation costs reasonably incurred by the landholder to negotiate or prepare a Conduct and Compensation Agreement, other than costs involved to resolve disputes via independent alternative dispute resolution (ADR). c) Consequential damages the eligible claimant incurs because of a matter mentioned in paragraph a) or b).
<p>Victoria <i>Mineral Resources (Sustainable Development) Act 1990</i> <i>Section 85 What compensation is payable for</i></p>	<p>Compensation is payable by the licensee to the owner or occupier of private land that is land affected for any loss or damage that has been or will be sustained as a direct, natural and reasonable consequence of the approval of the work plan or the doing of work under the licence including:</p> <ul style="list-style-type: none"> a) deprivation of possession of the whole or any part of the surface of the land; b) damage to the surface of the land; c) damage to any improvements on the land; d) severance of the land from other land of the owner or occupier; e) loss of amenity, including recreation and conservation values; f) loss of opportunity to make any planned improvement on the land; g) any decrease in the market value of the owner or occupier's interest in the land; and h) loss of opportunity to use tailings disposed of with the consent of the Minister under section 14(2).
<p>South Australia^a <i>Petroleum and Geothermal Energy Act 2000</i> <i>Section 63 Right to compensation</i></p>	<ol style="list-style-type: none"> 1. The owner of land is entitled to compensation from a licensee who enters the land and carries out regulated activities under this Act. 2. The compensation payable to an owner of land must be directly related to the owner and will be to cover: <ul style="list-style-type: none"> a) deprivation or impairment of the use and enjoyment of the land; and b) damage to the land (not including damage that has been made good by the licensee); and c) damage to, or disturbance of, any business or other activity lawfully conducted on the land; and d) consequential loss suffered or incurred by the owner on account of the licensee entering the land and carrying out regulated activities under this Act. 3. The compensation is not to be related to the value or possible value of regulated resources contained in the land.

Jurisdiction	Relevant sections of legislation
Western Australia^b <i>Petroleum and Geothermal Energy Resources Act 1967^c</i>	(3a) The compensation may include an additional component to cover reasonable costs reasonably incurred by an owner of land in connection with any negotiation or dispute related to: <ol style="list-style-type: none"> a) the licensee gaining access to the land; and b) the activities to be carried out on the land; and c) the compensation to be paid under subsection 2.
<i>Section 17</i> <i>Compensation for owners and occupiers of private land</i>	1. A permittee, holder of a drilling reservation, lessee or licensee may agree with the owner and occupier respectively of any private land comprised in the permit, drilling reservation, lease or licence as to the amount of compensation to be paid for the right to occupy the land. ... the compensation to be made to the owner and occupier shall be compensation for being deprived of the possession of the surface or any part of the surface of the private land, and for damage to the surface of the whole or any part thereof, and to any improvements thereon, which may arise from the carrying on of operations thereon or thereunder, and for the severance of such land from other land of the owner or occupier, and for rights-of-way and for all consequential damages.
Tasmania^d <i>Mineral Resources Development Act 1995 (No. 116 of 1995)</i> <i>Section 3</i> <i>Interpretation</i>	Compensable loss means: <ol style="list-style-type: none"> a) damage to the surface of the land; or b) damage to crops, trees, grasses, fruit, vegetables or other vegetation on the land; or c) damage to buildings, structures or works on the land; or d) damage to any improvement on the land; or e) loss of opportunity to make any planned improvement on the land; or f) deprivation of possession or use of the whole or part of the surface of the land; or g) severance of the land from other land of the owner or occupier of that land; or h) destruction or loss of, or injury to, disturbance of, or interference with, stock; or i) loss of amenity, including recreation and conservation values; or j) any decrease in the market values of the owner's or occupier's interest in the land; or k) surface rights of way and easements.

^a CSG exploration is in its infancy in South Australia. (200–300 scf/t in Scott, 2002).

^b Western Australia currently has no known, economically significant, coal seam gas resources due to the State's geology and character of its coals. Source: Government of Western Australia, Department of Mines and Petroleum Response to Report: 'Regulation of Shale, Coal Seam and Tight Gas Activities in Western Australia' 31 October 2011.

^c The Act did not refer specifically to CSG, questionable that they apply to CSG activities.

^d At the time of writing, Tasmania has no known active coal seam gas operations. The last exploration licence granted to explore Tasmania's potential - to Pure Energy - expired in 2009. The exploration was unsuccessful.

G Another example of the compensation model

In this appendix, we provide another example of the compensation model. This example is based on a hypothetical landholder with the following characteristics:

- ▼ The landholder has a property of 50 hectares.
- ▼ They have been offered an access agreement with an estimated duration of 20 years. The offer includes an incentive fund when the project reaches the production phase (for simplicity, we assume there is only one access agreement that covers exploration and production phases).
- ▼ The gas company will need 7 hectares for well pads, hardstand and other infrastructure in the first year of the project, and 2.25 hectares from the second year onwards.
- ▼ The estimated value of the land is \$1,500 per hectare, and the estimated rental is 7% of the land value.
- ▼ A valuer has estimated that for the period that the CSG infrastructure is located on the property, impacts including loss of visual amenity, noise, dust and light would affect the value of the balance land by 30% in the first year and 20% in the second year onwards. The valuer estimates that a loss in the value of land due to severance is 10% each year.
- ▼ The landholder estimates they will spend 150 hours during the negotiation of the access agreement, and around 50 hours a year on an ongoing basis on work related to the access agreement. They estimate the value of their time at \$50 per hour.
- ▼ The landholder estimates that legal and professional fees will cost \$40,000 to establish the access agreement.
- ▼ The gas company estimates in the fifth year the landholder will be entitled to an incentive payment of \$10,000 each year in the production stage.
- ▼ The landholder plans to deposit them in a savings account earning 3.5% annual interest.
- ▼ The inflation rate is forecast to be 2.5% per annum.

G.1 INPUT worksheet

The above information is entered into the INPUT worksheet.

Figure G.1 Compensation model INPUT worksheet

INPUTS

PART A. Inputs for Compensation Payment

	RESET
1. Land access agreement details	
How long is your access agreement for?	20 years
2. Landholding details	
What is the total area of your land in hectares? If you have land area in a different unit, use the "CONVERSION" worksheet to convert into hectares.	50 hectares
What is the estimated value of your land per hectare? If you have land value in a different unit, use the "CONVERSION" worksheet to convert into \$/hectare.	\$1,500 per hectare
What is the rental value of land as a percentage of land value?	7% percent
3. Estimated impact on land and landholder	
(a) Directly impacted land	
In the first year of land access agreement	
What is the total area of land used by gas company?	7 hectare
From the second year of land access agreement	
What is the total area of land used by gas company?	2.25 hectare
(b) Residual land (your total land area excluding directly impacted land)	
In the first year of land access agreement	
What is an estimated reduction in the value of residual land due to severance?	10% percent
What is an estimated reduction in the value of residual land due to injurious affection?	30% percent
From the second year of land access agreement	
What is an estimated reduction in the value of residual land due to severance?	10% percent
What is an estimated reduction in the value of residual land due to injurious affection?	20% percent
4. Cost of landholder time and expert advice	
How many hours did you spend negotiating your access agreement?	150 hours in total
How many hours do you expect to spend each year on matters related to your access agreement?	50 hours per annum
Enter an estimate of the value of your time	\$50 per hour
How much did you spend on fees for professional advice (eg, legal, valuation, taxation and other fees) including GST?	\$40,000 per agreement
5. Other assumptions	
What rate of return would you expect to earn on financial investments per year? (You need this input only if you wish to calculate a lump-sum upfront payment)	3.5% percent per annum
Inflation rate	2.5% percent per annum

PART B. Inputs for Incentive Payment

What is your incentive payment based on?	Estimated annual incentive payment
In which year is the gas project expected to enter the production stage?	5 years
An estimate of annual incentive payments in the first year of production	\$10,000 \$ per annum

Data source: IPART.

G.2 RESULTS worksheet

Figure G.2 and Figure G.3 show the lump-sum and annual compensation payments and incentive payments resulting from the assumptions in this example. Relative to the example in Chapter 5, the value of land in this example is lower.

Figure G.2 Compensation model SUMMARY worksheet with lump-sum upfront payment

RESULTS

PART A. Compensation Payment

Payment Structure: Lump-sum Upfront Annual Payments

About Payment Structure: Please select an option to get an estimate of your compensation. Select "Lump-sum Upfront Payment" to get a single upfront payment. Select "Annual Payments" for a series of annual payments.

Beginning of Year	Lump-sum Upfront Payment
1	\$123,257

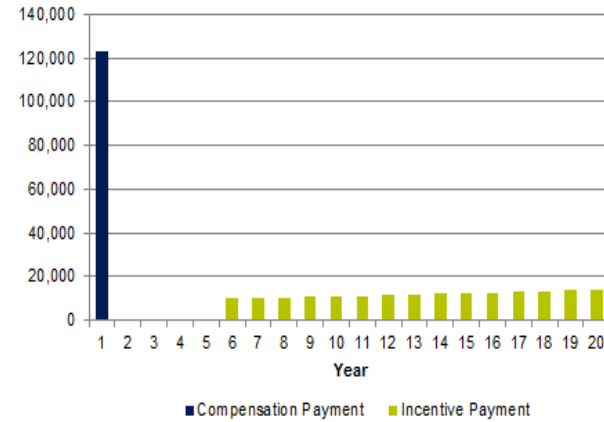
PART B. Incentive Payment

A schedule of your incentive payments is provided below.

Beginning of Year	Annual Incentive
1	
2	
3	
4	
5	
6	\$10,000
7	\$10,250
8	\$10,506
9	\$10,769
10	\$11,038
11	\$11,314
12	\$11,597
13	\$11,887
14	\$12,184
15	\$12,489
16	\$12,801
17	\$13,121
18	\$13,449
19	\$13,785
20	\$14,130

PART C. Payment Schedule

The graph below shows compensation payment schedule over your access agreement period.



Data source: IPART.

Figure G.3 Compensation model SUMMARY worksheet with annual payments

RESULTS

PART A. Compensation Payment

Payment Structure: Lump-sum Upfront Annual Payments

About Payment Structure: Please select an option to get an estimate of your compensation. Select "Lump-sum Upfront Payment" to get a single upfront payment. Select "Annual Payments" for a series of annual

Beginning of Year	Annual Payment
1	\$50,041
2	\$4,346
3	\$4,455
4	\$4,566
5	\$4,681
6	\$4,798
7	\$4,918
8	\$5,040
9	\$5,166
10	\$5,296
11	\$5,428
12	\$5,564
13	\$5,703
14	\$5,845
15	\$5,992
16	\$6,141
17	\$6,295
18	\$6,452
19	\$6,614
20	\$6,779

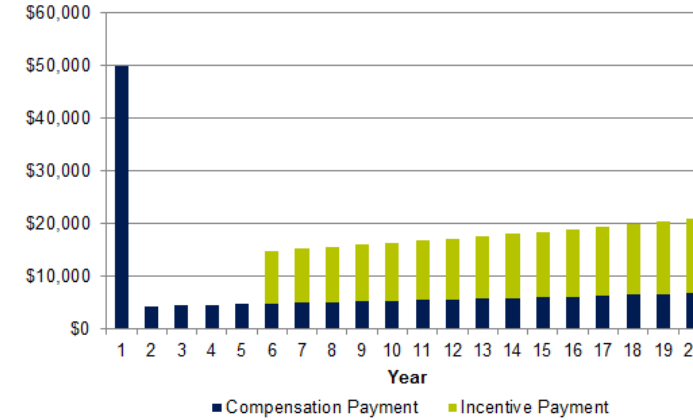
PART B. Incentive Payment

A schedule of your incentive payments is provided below.

Beginning of Year	Annual Payment
1	
2	
3	
4	
5	
6	\$10,000
7	\$10,250
8	\$10,506
9	\$10,769
10	\$11,038
11	\$11,314
12	\$11,597
13	\$11,887
14	\$12,184
15	\$12,489
16	\$12,801
17	\$13,121
18	\$13,449
19	\$13,785
20	\$14,130

PART C. Payment Schedule

The graph below shows compensation payment schedule over your access agreement period.



Data source: IPART.

H | Other resources for landholders

- ▼ **NSW Government, Petroleum Land Access Guideline**, available <http://www.resourcesandenergy.nsw.gov.au/miners-and-explorers/codes-and-guidelines/guidelines/petroleum-land-access>
- ▼ **NSW Government Community Liaison Officers**, provide factual information to the public about the exploration and production of natural gas from coal seams, and the regulations that govern the industry. Community Liaison Officers (CLOs) from NSW Department of Industry's Division of Resources and Energy are actively meeting interested groups and individuals who wish to better understand the issues relating to the industry.
- ▼ Officers are providing information on the strict regulatory framework now in place to protect the environment, water resources and the health & safety of communities. The topics also include landholder rights, industry compliance, well integrity standards and the Aquifer Interference Policy.
- ▼ To arrange a meeting, briefing or seek further information, email clo@industry.nsw.gov.au
- ▼ **Gasfields Commission Queensland, Land Access Checklist for Landholders**, available <http://www.gasfieldscommissionqld.org.au/resources/gasfields/landholder-land-access-checklist.pdf>
- ▼ **NSW Farmers Association, Land Access Guide and Checklist**, available <http://www.nswfarmers.org.au/our-services/mining-and-coal-seam-gas-communications-project/resources-for-landholders>